House of Commons
Energy and Climate Change Committee

Draft Energy Bill: Pre–legislative Scrutiny

First Report of Session 2012–13

Volume II

Oral and written evidence

Additional written evidence is contained in Volume III, available on the Committee website at www.parliament.uk/ecc

Ordered by the House of Commons
to be printed Tuesday 17 July 2012
The Energy and Climate Change Committee

The Energy and Climate Change Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Department of Energy and Climate Change and associated public bodies.

Current membership

Mr Tim Yeo MP (Conservative, South Suffolk) (Chair)
Dan Byles MP (Conservative, North Warwickshire)
Barry Gardiner MP (Labour, Brent North)
Ian Lavery MP (Labour, Wansbeck)
Dr Phillip Lee MP (Conservative, Bracknell)
Albert Owen MP (Labour, Ynys Môn)
Christopher Pincher MP (Conservative, Tamworth)
John Robertson MP (Labour, Glasgow North West)
Laura Sandys MP (Conservative, South Thanet)
Sir Robert Smith MP (Liberal Democrat, West Aberdeenshire and Kincardine)
Dr Alan Whitehead MP (Labour, Southampton Test)

The following members were also members of the committee during the parliament:

Gemma Doyle MP (Labour/Co-operative, West Dunbartonshire)
Tom Greatrex MP (Labour, Rutherglen and Hamilton West)

Powers

The Committee is one of the departmental select committees, the powers of which are set out in House of Commons Standing Orders, principally in SO No 152. These are available on the Internet via www.parliament.uk.

Publication

The Reports and evidence of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the internet at www.parliament.uk/parliament.uk/ecc. A list of Reports of the Committee in the present Parliament is at the back of this volume.

The Report of the Committee, the formal minutes relating to that report, oral evidence taken and some or all written evidence are available in a printed volume. Additional written evidence may be published on the internet only.

Committee staff

The current staff of the Committee are Sarah Hartwell-Naguib (Clerk), Jenny Bird (Senior Committee Specialist), Dr Stephen Allen (Committee Specialist), Luanne Middleton (Inquiry Manager), Áine Ni Bhreasáil (Committee Specialist), Dr Patsy Richards (Committee Specialist), Katie Phelan (Senior Committee Assistant), Jonathan Olivier Wright (Committee Assistant), Danielle Nash (Administrative Assistant), and Nick Davies (Media Officer).

Contacts

All correspondence should be addressed to the Clerk of the Energy and Climate Change Committee, House of Commons, 7 Millbank, London SW1P 3JA. The telephone number for general enquiries is 020 7219 2569; the Committee’s email address is ecc@parliament.uk
Witnesses

Tuesday 12 June 2012

Keith Anderson, Chief Corporate Officer, Scottish Power, Ian Marchant, Chief Executive, SSE, and Sara Vaughan, Director of Strategy and Regulation, E.ON UK

Vincent de Rivaz CBE, Chief Executive Officer, EDF Energy, John McElroy, Director of Policy and Public Affairs, RWE npower, and Sarwjit Sambhi, Managing Director of the Power Generation, Centrica

Ev 1

Tuesday 19 July 2012 (morning)

Dr David Kennedy, Chief Executive, Committee on Climate Change, Professor Catherine Mitchell, Professor of Energy Policy, University of Exeter, Professor David Newbery, Emeritus Professor of Economics, University of Cambridge, and Simon Skillings, Senior Associate, E3G

Ian Temperton, Head of Advisory, Climate Change Capital, Nick Gardiner, Senior Director, Energy and Infrastructure, BNP Paribas, on behalf of the Low Carbon Finance Group, Shaun Kingsbury, Partner Hudson Clean Energy Partners, on behalf of the Low Carbon Finance Group, Gaynor Hartnell, Chief Executive, Renewable Energy Association, and Gordon Edge, Director of Policy, Renewable UK

Ev 25

Tuesday 19 July 2012 (afternoon)

Asif Rehmanwala, Generation and Trading Director, Ecotricity, Ed Gill, Head of External Affairs, Good Energy, Andy Taylor, Energy Markets Group Director, InterGen, Gordon MacDougall, Chief Operating Officer, Renewable Energy Systems UK and Ireland Ltd, Dr Steve Riley, Chief Executive Officer and President, UK-Europe, International Power Plc, and Jonathan Smith, Head of Pricing and Risk Management, First Utility

Rhian Kelly, Director of Business Environment, CBI, Richard Hall, Head of Energy Regulation, Consumer Focus, Paul Steedman, Senior Campaigner, Friends of the Earth, Dustin Benton, Senior Policy Adviser, Green Alliance, and Nick Molho, Head of Energy Policy, Climate Change Team, WWF UK

Ev 45

Ev 54

Tuesday 26 July 2012 (morning)

Nick Winser, Executive Director, and Mark Ripley, Project Director, Electricity Market Reform, National Grid

Ev 64

Tuesday 26 July 2012 (afternoon)

Rt Hon Edward Davey MP, Secretary of State, Charles Hendry MP, Minister of State, Kathryn Wood, Bill Team Manager, Jonathan Brearley, Director, and Simon Virley, Director General, Energy Markets and Infrastructure, Department of Energy and Climate Change

Ev 79
**List of printed written evidence**

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Correspondence between the Chair and DECC</td>
<td>Ev 107, 108-111, 116-117</td>
</tr>
<tr>
<td>2</td>
<td>Correspondence between the Chair and House of Lords Delegated Powers and Regulatory Reform Committee</td>
<td>Ev 107-108</td>
</tr>
<tr>
<td>3</td>
<td>Correspondence between the Chair and HM Treasury</td>
<td>Ev 111-115</td>
</tr>
<tr>
<td>4</td>
<td>RES</td>
<td>Ev 117</td>
</tr>
<tr>
<td>5</td>
<td>Consumer Focus</td>
<td>Ev 123</td>
</tr>
<tr>
<td>6</td>
<td>E3G</td>
<td>Ev 127</td>
</tr>
<tr>
<td>7</td>
<td>Renewable UK</td>
<td>Ev 130</td>
</tr>
<tr>
<td>8</td>
<td>Friends of the Earth</td>
<td>Ev 137</td>
</tr>
<tr>
<td>9</td>
<td>SSE</td>
<td>Ev 151, 232, 238</td>
</tr>
<tr>
<td>10</td>
<td>National Grid</td>
<td>Ev 155, 158</td>
</tr>
<tr>
<td>11</td>
<td>EDF Energy</td>
<td>Ev 161, 165</td>
</tr>
<tr>
<td>12</td>
<td>Climate Change Capital</td>
<td>Ev 167</td>
</tr>
<tr>
<td>13</td>
<td>E.ON UK</td>
<td>Ev 168</td>
</tr>
<tr>
<td>14</td>
<td>Green Alliance</td>
<td>Ev 172, 241</td>
</tr>
<tr>
<td>15</td>
<td>Centrica</td>
<td>Ev 176</td>
</tr>
<tr>
<td>16</td>
<td>RWE npower</td>
<td>Ev 178, 184</td>
</tr>
<tr>
<td>17</td>
<td>WWF UK</td>
<td>Ev 187</td>
</tr>
<tr>
<td>18</td>
<td>InterGen</td>
<td>Ev 193</td>
</tr>
<tr>
<td>19</td>
<td>Renewable Energy Association</td>
<td>Ev 198, 203</td>
</tr>
<tr>
<td>20</td>
<td>CBI</td>
<td>Ev 206</td>
</tr>
<tr>
<td>21</td>
<td>Low Carbon Finance Group</td>
<td>Ev 211</td>
</tr>
<tr>
<td>22</td>
<td>Good Energy</td>
<td>Ev 217</td>
</tr>
<tr>
<td>23</td>
<td>Professor Catherine Mitchell and Bridget Woodman</td>
<td>Ev 221</td>
</tr>
<tr>
<td>24</td>
<td>Scottish Power</td>
<td>Ev 227</td>
</tr>
</tbody>
</table>
## List of additional written evidence

(published in Volume III on the Committee’s website www.parliament.uk/ecc)

<table>
<thead>
<tr>
<th>No.</th>
<th>Organization</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Campaign to Protect Rural England</td>
<td>Ev w1</td>
</tr>
<tr>
<td>2</td>
<td>Alex Henney</td>
<td>Ev w3</td>
</tr>
<tr>
<td>3</td>
<td>Office for Nuclear Regulation</td>
<td>Ev w8</td>
</tr>
<tr>
<td>4</td>
<td>EEF</td>
<td>Ev w11</td>
</tr>
<tr>
<td>5</td>
<td>Stag Energy</td>
<td>Ev w14</td>
</tr>
<tr>
<td>6</td>
<td>RSPB</td>
<td>Ev w26</td>
</tr>
<tr>
<td>7</td>
<td>Global Warming Foundation Policy</td>
<td>Ev w28</td>
</tr>
<tr>
<td>8</td>
<td>Statoil UK Limited</td>
<td>Ev w29</td>
</tr>
<tr>
<td>9</td>
<td>Carbon Capture and Storage Association</td>
<td>Ev w31,175</td>
</tr>
<tr>
<td>10</td>
<td>Chris March</td>
<td>Ev w33</td>
</tr>
<tr>
<td>11</td>
<td>Andrew ZP Smith</td>
<td>Ev w34</td>
</tr>
<tr>
<td>12</td>
<td>Greenpeace</td>
<td>Ev w37</td>
</tr>
<tr>
<td>13</td>
<td>Association for the Conservation of Energy</td>
<td>Ev w50</td>
</tr>
<tr>
<td>14</td>
<td>Co-Operatives UK</td>
<td>Ev w50</td>
</tr>
<tr>
<td>15</td>
<td>2Co Energy</td>
<td>Ev w52</td>
</tr>
<tr>
<td>16</td>
<td>Which?</td>
<td>Ev w54</td>
</tr>
<tr>
<td>17</td>
<td>Aquamarine Power</td>
<td>Ev w58</td>
</tr>
<tr>
<td>18</td>
<td>Nuclear Industry Association</td>
<td>Ev w61</td>
</tr>
<tr>
<td>19</td>
<td>Confederation of UK Coal Producers</td>
<td>Ev w62</td>
</tr>
<tr>
<td>20</td>
<td>Barrie Murray</td>
<td>Ev w64</td>
</tr>
<tr>
<td>21</td>
<td>Drax Power Ltd</td>
<td>Ev w66</td>
</tr>
<tr>
<td>22</td>
<td>Peter Jones, OBE, Ecolateral Ltd</td>
<td>Ev w69</td>
</tr>
<tr>
<td>23</td>
<td>Institute for Public Policy Research</td>
<td>Ev w71</td>
</tr>
<tr>
<td>24</td>
<td>Energy UK</td>
<td>Ev w74</td>
</tr>
<tr>
<td>25</td>
<td>Scottish Renewables</td>
<td>Ev w79</td>
</tr>
<tr>
<td>26</td>
<td>Somerset County Council, Sedgemoor District Council and West Somerset Council</td>
<td>Ev w84</td>
</tr>
<tr>
<td>27</td>
<td>ABB</td>
<td>Ev w86</td>
</tr>
<tr>
<td>28</td>
<td>Statkraft</td>
<td>Ev w89</td>
</tr>
<tr>
<td>29</td>
<td>Banks Group Ltd</td>
<td>Ev w94</td>
</tr>
<tr>
<td>30</td>
<td>Air Products</td>
<td>Ev w98</td>
</tr>
<tr>
<td>31</td>
<td>Combined Heat &amp; Power</td>
<td>Ev w101</td>
</tr>
<tr>
<td>32</td>
<td>Calor Gas Ltd</td>
<td>Ev w106</td>
</tr>
<tr>
<td>33</td>
<td>Tom Greatrex MP, Shadow Energy Minister</td>
<td>Ev w108</td>
</tr>
<tr>
<td>34</td>
<td>Oil &amp; Gas UK</td>
<td>Ev w110</td>
</tr>
<tr>
<td>35</td>
<td>DONG Energy</td>
<td>Ev w112</td>
</tr>
<tr>
<td>36</td>
<td>Ofgem</td>
<td>Ev w115</td>
</tr>
<tr>
<td>37</td>
<td>Electricity Storage Network</td>
<td>Ev w118</td>
</tr>
<tr>
<td>38</td>
<td>National Energy Action</td>
<td>Ev w120</td>
</tr>
<tr>
<td>39</td>
<td>Engineering the Future</td>
<td>Ev w126</td>
</tr>
<tr>
<td>No.</td>
<td>Organization Name</td>
<td>Reference</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>40</td>
<td>Dr David Toke</td>
<td>Ev w130</td>
</tr>
<tr>
<td>41</td>
<td>Seajacks</td>
<td>Ev w133</td>
</tr>
<tr>
<td>42</td>
<td>Andrew Mackay</td>
<td>Ev w134</td>
</tr>
<tr>
<td>43</td>
<td>Greater London Authority</td>
<td>Ev w137</td>
</tr>
<tr>
<td>44</td>
<td>Energy Technologies Institute</td>
<td>Ev w139</td>
</tr>
<tr>
<td>45</td>
<td>Energy Action Scotland</td>
<td>Ev w142</td>
</tr>
<tr>
<td>46</td>
<td>European Climate Foundation</td>
<td>Ev w143</td>
</tr>
<tr>
<td>47</td>
<td>Nuclear Free Local Authorities Steering Committee</td>
<td>Ev w148</td>
</tr>
<tr>
<td>48</td>
<td>Balfour Beatty plc</td>
<td>Ev w154</td>
</tr>
<tr>
<td>49</td>
<td>Nuclear Industry Safety Director’s Forum</td>
<td>Ev w159</td>
</tr>
<tr>
<td>50</td>
<td>REG Windpower Ltd</td>
<td>Ev w161</td>
</tr>
<tr>
<td>51</td>
<td>TUC Clean Coal Task Group</td>
<td>Ev w163</td>
</tr>
<tr>
<td>52</td>
<td>Climatechangematters Ltd</td>
<td>Ev w165</td>
</tr>
<tr>
<td>53</td>
<td>Wood Panel Industries Federation</td>
<td>Ev w166</td>
</tr>
<tr>
<td>54</td>
<td>Vestas</td>
<td>Ev w167</td>
</tr>
<tr>
<td>55</td>
<td>Prospect</td>
<td>Ev w170</td>
</tr>
<tr>
<td>56</td>
<td>British Ceramic Confederation</td>
<td>Ev w173</td>
</tr>
<tr>
<td>57</td>
<td>KTI Energy Limited</td>
<td>Ev w178</td>
</tr>
<tr>
<td>58</td>
<td>Department of Energy and Climate Change (DECC)</td>
<td>Ev w179</td>
</tr>
</tbody>
</table>
List of reports from the Committee during the current Parliament

The reference number of the Government’s response to each Report is printed in brackets after the HC printing number.

**Session 2010–12**

<table>
<thead>
<tr>
<th>First report</th>
<th>Emissions Performance Standards</th>
<th>HC 523 (807)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second report</td>
<td>UK Deepwater Drilling–Implications of the Gulf of Mexico Oil Spill</td>
<td>HC 450 (882)</td>
</tr>
<tr>
<td>Third report</td>
<td>The revised draft National Policy Statements on energy</td>
<td>HC 648</td>
</tr>
<tr>
<td>Fourth report</td>
<td>Electricity Market Reform</td>
<td>HC 742 (1448)</td>
</tr>
<tr>
<td>Fifth report</td>
<td>Shale Gas</td>
<td>HC 795 (1449)</td>
</tr>
<tr>
<td>Sixth report</td>
<td>Ofgem’s Retail Market Review</td>
<td>HC 1046 (1544)</td>
</tr>
<tr>
<td>Seventh report</td>
<td>A European Supergrid</td>
<td>HC 1040 (1684)</td>
</tr>
<tr>
<td>Eighth report</td>
<td>The UK’s Energy Supply: Security or Independence?</td>
<td>HC 1065 (1813)</td>
</tr>
<tr>
<td>Ninth report</td>
<td>Solar Power Feed-In Tariffs</td>
<td>HC 1605 (1815)</td>
</tr>
<tr>
<td>Tenth report</td>
<td>The EU Emissions Trading System</td>
<td>HC 1476</td>
</tr>
<tr>
<td>Eleventh report</td>
<td>The Future of Marine Renewables in the UK</td>
<td>HC 1624</td>
</tr>
<tr>
<td>Twelfth Report</td>
<td>Consumption-Based Emissions Reporting</td>
<td>HC 1646</td>
</tr>
<tr>
<td>First Special Report</td>
<td>Low carbon technologies in a green economy: Government Response to the Committee’s Fourth Report of Session 2009-10</td>
<td>HC 455</td>
</tr>
<tr>
<td>Second Special Report</td>
<td>Fuel Poverty: Government Response to the Committee’s Fifth Report of Session 2009-10</td>
<td>HC 541</td>
</tr>
<tr>
<td>Third Special Report</td>
<td>The future of Britain’s electricity networks: Government Response to the Committee’s Second Report of Session 2009–10</td>
<td>HC 629</td>
</tr>
</tbody>
</table>

**Session 2012-13**

| First Special Report         | The Future of Marine Renewables in the UK: Government Response to the Committee’s Eleventh Report of Session 2010-13 | HC 93 |
Oral evidence

Taken before the Energy and Climate Change Committee
on Tuesday 12 June 2012

Members present:

Mr Tim Yeo (Chair)
Mr Dan Byles
Mr Ian Lavery
Dr Phillip Lee
Mr Albert Owen
Mr Christopher Pincher

Mr John Robertson
Ms Laura Sandys
Sir Robert Smith
Dr Alan Whitehead

Examination of Witnesses

Witnesses: Keith Anderson, Chief Corporate Officer, Scottish Power, Ian Marchant, Chief Executive, SSE, and Sara Vaughan, Director of Strategy & Regulation, E.ON UK, gave evidence.

Q1 Chair: Right, good morning and thank you very much for coming in. You will be well aware there is a lot of interest in this subject. I appreciate it is important to you. It is important to us. We think it is important for the future. Unfortunately, the timetable means this Committee has to conduct its scrutiny in an unprecedentedly short time on a Bill that has some quite complex issues. We are, therefore, focusing on the sections of the Bill that I think are of most concern to you and to us and where I suspect there is also the greatest scope for modification of what is in the draft. Could I start by asking whether you think the Bill is actually needed or whether we could have got by with just making incremental changes to the existing arrangements? We have a new carbon price floor. We could make some legislative provision for an EPS. Would all that have been enough to deliver the aims of secure, clean and affordable electricity?

Keith Anderson: I think that it would have been, and my views on this have changed. Back in 2006, 2007, which is the genesis of this Bill, we were seeing rising electricity demand and increasing gas shortages; Russia had just cut off the Ukraine; we were seeing very poor performance from the nuclear power stations—they were actually in state ownership back in 2006. If you look now, we have seen four or five years of falling electricity demand, and most forecasts of demand for this year are about a 10GIGAWATTS lower than the forecast for this period six years ago. We have seen a revolution in unconventional gas, particularly in the US, meaning the US is now an exporter rather than an importer of gas. We have seen the old nuclear power stations being significantly turned around, so that life extension is now a credible option. We have seen great moves in technology and enhanced co-firing of biomass, which means that coal will be around for longer. I don’t think we need £110 billion of investment, which is stated in the preamble. I think it is more like £70 billion to £75 billion, and that the existing mechanisms that we have could well deliver that investment. I am not convinced that we need a Bill—I am convinced we don’t need this Bill, but that is maybe for later.

Ian Marchant: I think that it would have been, and my views on this have changed. Back in 2006, 2007, which is the genesis of this Bill, we were seeing rising electricity demand and increasing gas shortages; Russia had just cut off the Ukraine; we were seeing very poor performance from the nuclear power stations—they were actually in state ownership back in 2006. If you look now, we have seen four or five years of falling electricity demand, and most forecasts of demand for this year are about a 10GIGAWATTS lower than the forecast for this period six years ago. We have seen a revolution in unconventional gas, particularly in the US, meaning the US is now an exporter rather than an importer of gas. We have seen the old nuclear power stations being significantly turned around, so that life extension is now a credible option. We have seen great moves in technology and enhanced co-firing of biomass, which means that coal will be around for longer. I don’t think we need £110 billion of investment, which is stated in the preamble. I think it is more like £70 billion to £75 billion, and that the existing mechanisms that we have could well deliver that investment. I am not convinced that we need a Bill—I am convinced we don’t need this Bill, but that is maybe for later.

Sara Vaughan: Could I come in with a different view? I do think we need this Bill. I think if you look at the impact of the targets that we, as a country, have signed up to, if you look at the 2020 renewables target, if you look at the challenges under the Climate Change Act in terms of decarbonisation and you look at the impact of those on the system and, in particular, the impact that that greater quantity of intermittent renewables will have on the system and on the energy price, that takes you to a world which is a very different place where intervention is needed. Looking at what we have in place—the renewables obligation—I don’t believe that you can continue with the renewables obligation against that background, because it operates as a premium on top of the energy price. As the energy price falls under this scenario and when renewables don’t get the opportunity of gaining those peak prices, whenever the peak prices come up because, by definition, the peak prices when the wind is not blowing, not when the wind is blowing, then I think that in that world the risks are far greater for renewables. If you want to see continued investment in renewables you need a mechanism that goes above and beyond the current one that we have. Also, if you look at the situation in terms of the back-up plant and how you are going to keep that back-up plant on the system, certainly the modelling that we have done showed that you need the capacity mechanism and the certainty around a capacity mechanism to enable back-up plant to have the security to come on to the system. I think also now you have had that capacity mechanism out there as a possibility, what we are seeing is that people are not investing and I don’t believe that they will now invest until the capacity mechanism is on the system. So, my view is somewhat different.

Keith Anderson: I would agree with Sara. I think it is vital we get this new Bill. I think no matter which way you look at it, where we are in the energy sector in the UK, if we want to see the UK continue to have a good, strong, robust mixed-generation portfolio it will require significant investment over the next decade. I think the existing frameworks that are in place won’t bring forward the size and scale of investment that we require.
I think the existing frameworks won’t bring forward the investment in a mixed generation portfolio that we require as well. So, I think from that point of view the Bill is absolutely vital. What we need to do is to move it forward as quickly as possible, get it implemented as quickly as possible, get the mechanisms bedded down, because that is what will give investors confidence. Right now that is what people need most. We need clarity, transparency and confidence.

I think there’s a fantastic opportunity just now for the UK to go out and grab a huge slice of that investment potential, given the slowdown in other economies and the slowdown in other countries’ generation investment and energy investment. I think right now is the time for the UK to put in place a very clear, good, robust, long-term framework and that investment will flow into this market and the UK should be using that to help regenerate this economy, create jobs and create a generation portfolio that will last us for 30 or 40 years.

Q2 Chair: I am sure we would all like to see that investment coming forward and the UK getting a lion’s share of it. But does the Bill, as it stands in draft, make it more likely now that companies like yours will feel incentivised to invest or would it be better, for example, if there was a bigger emphasis on demand-side reduction in order to get to where we want to be in energy policy goals, or should there be a specific decarbonisation target such as that suggested by the Committee on Climate Change? Would that be helpful additions to the Bill? Really I want to find out if you think this is a Bill that is going to make investment more likely or less likely?

Keith Anderson: There is a lot of work still needed on the detail of the Bill but I think if we get the contracts for difference structured correctly and they give enough long-term certainty to investors, then you will see investment come forward. I think one of the biggest challenges for the UK and for the Government right now is some of the uncertainty about investing in this sector, partly created by the fact that we don’t have all of the answers around the contracts for difference and the energy market review but also key to that is what is going on just now with the banding review and the RO.

This country used to be seen as a fantastic energy market to invest in because everybody had absolute faith and trust that it was done on an evidence base. We have been through a banding review where there was a massive amount of work done in a consultation process. All evidence-based research that came up with recommendations for future investment through the RO banding and what we have seen now since October is an awful lot of noise being created politically and in the media and speculation about arguments between Government Departments and speculation that there will be political influence and an outcome of that consultation that is not evidence based.

I think that is what damages investor confidence. That damages confidence in looking forward to what comes out of this Energy Bill, because if we start to think that the reviews over the contracts for difference, the reviews over the strike prices won’t be evidence based, that detracts and damages our confidence to invest in this market.

Sara Vaughan: I do think we are seeing some conflicting tensions here as well because what we really want to see is the timetable moving forward and the Government getting on with it. We are already seeing some slippage because we expected the Bill to be introduced in May. It is now going to be introduced probably around the end of this year. Clearly we have got the scrutiny that this Committee is doing but this is going to lead to a delay in the secondary legislation as well and that does cause concerns for us. We want to get on with it but part of the price of getting on with it is the Bill that we have retains a lot of powers for Ministers. There’s not a lot of detail in what’s on the face of the Bill. A lot of that will appear in secondary legislation and to the extent that we don’t have the Parliamentary scrutiny and things being laid down in primary legislation, then that clearly creates greater uncertainty and greater risk for investments because things can be changed much, much more quickly if it can be done either by a decision of Ministers or in secondary legislation. It is really the horns of the dilemma, trying to get on with something but, at the same time, make sure that there’s enough detail in the Bill to give us confidence around that certainty point.

Ian Marchant: I would make three very simple points. I think that demand is yet again being ignored. There are warm words about demand being put there. There is no detail to that. It is a frightfully difficult area but I just don’t think the attention is being placed on demands as it should be, that is my first point. The second point: the CFD mechanism is investable but at what price? My fear is that consumers will end up paying a higher price because of the complexity and additional cost and risk that has been imposed on the industry through the CFD mechanism.

On the third bit, the capacity. I agree with my two colleagues that the biggest issue at the moment is the uncertainty: effectively, the Government has created a known unknown. They have said there will be a capacity mechanism but not what it will be, and once you’ve gone down that road you’ve got to get it certain quickly so that any investments can be decided, because boards, my board included, will say, “We will wait until we see what that mechanism is.” We have created a situation where we now need to get a capacity mechanism in. I believe a good capacity mechanism will be good for investment but it is still early days in that.

Q3 Sir Robert Smith: Can I just ask, just broad brush, where in the world is it more attractive at the moment for an energy utility company to invest than the UK?

Ian Marchant: As I only invest basically in the UK and Ireland, I am not the person to answer that question. I want to make sure that this market is investable.

Keith Anderson: I think the UK remains one of the most attractive markets to invest in. What I would cite to you is, if you take renewables and offshore wind, what’s going on in Germany and France right now: Germany have very, very quickly reintroduced an
accelerated tariff that is creating lots of investment interest in the German market right now and a lot of investment into port infrastructure and into manufacturing capacity.

France have just announced the results of their first offshore wind tender and they are driving that whole process incredibly hard through an industrialisation plan and inward investment into France, and that is now moving incredibly quickly. Those markets have got a lot of clarity, a lot of transparency and a lot of investment interest going into them. The thing for the UK is we need to get ourselves in the same position to make sure that investment flows into this country as well.

Sara Vaughan: From an E.ON perspective the UK is one of our key markets for investment, particularly in renewables and, therefore, it is very, very important for us that this framework is put in place in a robust manner and in relation to capacity—we have talked about that—we would equally like to invest in conventional sources of generation but we need to get the capacity mechanism right.

Q4 Dr Lee: This is also a broad-brush question. This is the biggest pile of paper that I have had so far as a member of the Select Committee, and that makes me suspicious. Complexity: I get suspicious, it should be simple, and it isn’t. I look at all these diagrams—it is almost comically complex. Would you prefer it if the Government built their nuclear power stations, built their wind farms and then privatised, and would you invest? Would you find that an easier investment than going through this complex process of trying to hide possibly state aid, subsidy, trying to hide the fact that it is being passed on to the consumer? Who is liable? Is the Treasury liable? Are the producers liable? Would you just prefer it if the Government set a target, “Right, we are going to build X, Y, Z so that we hit the capacity mechanism right.”

Ian Marchant: It is an exercise in job creation for lawyers.

Dr Lee: Yes, that is my point, yes.

Ian Marchant: And economists rather than engineers.

Dr Lee: Yes, absolutely, I agree.

Ian Marchant: I think the answer to your question is different between wind and nuclear. I think our industry is demonstrating we can invest in wind, be it offshore or onshore. We are doing 500MW, 600MW, 700MW projects now. We are developing Round 3 projects—they can happen. They are much more manageable investment decisions. You are talking about a few hundred million of capital being deployed at a time, and a period of construction of two to three years.

Nuclear is a completely different animal, you are talking billions of pounds of investment and seven to 10 years of development and construction time. The way I would answer your question is definitely not for offshore wind but I think for nuclear an honest, open discussion about whether the country needs it and what is the cheapest way of doing it—as opposed to disguising it through a very complex series of instruments, which then have negative connotations on the rest of the industry—is one we should be having.

Keith Anderson: The answer to your question would be no from me. I wouldn’t prefer that. I still think that delivering these investments, delivering the construction, the development, all of that process through the market is a more effective and efficient way of delivering it for the consumer as well.

Q5 Dr Lee: But it is more expensive for you to borrow the money than the Government, so immediately in all of this is a mark-up for the people who are financing it—they are making money out of it, aren’t they?

Keith Anderson: I think the whole construct of the Bill and the principle behind the Bill and moving to contracts for difference is that they will try and drive down that cost of capital because what you are doing is giving investors greater certainty in terms of being able to sell their output at a loan price and a loan value. I think that whatever you do with the energy sector, if, as a country, we continue to want—and I believe it is the right thing—a mixed generation portfolio, then you need to put mechanisms into the market to deliver that. If you just leave the market totally liberalised without any mechanisms then you will just drive investment to the cheapest form and the quickest form, which would likely be gas generation. Now, in the assumption that the UK still values—and I think it is the right thing—a mixed generation portfolio—gas, coal, nuclear, wind—then you need to have some form of mechanism to direct and incentivise that investment. But I still believe doing that through the market is the most effective, efficient way of delivering—

Q6 Dr Lee: But your point about the cost of capital is absolutely right—the state would have the cheapest cost of capital.

Sara Vaughan: I can’t disagree with the fact that the state would have the cheapest cost of capital but it has to be said back in 1990 the state decided that the State was no longer going to own the electricity industry and it was going to put it into private ownership. That ship has sailed and against that—

Q7 Dr Lee: I am not suggesting owning it, I am suggesting building it and selling it.

Sara Vaughan: But against that framework the point is to set up a market in which private investors have the confidence to invest. I set out in my first answer the reasons why I believe that this market needed reform. What we are trying to do with this Bill—or what the Government is trying to do with this Bill—is set up a framework in which the cost of capital is lower with a CFD than it would be with the renewables obligation. I know Ian does not agree but that is our view. It is also our view, as I said earlier, that over time as the market changes, as the electricity price gets lower and as the intermittent renewables are not able to take advantage of any of the higher prices, that that
becomes much riskier to invest in renewables as well. So, if you look at investment both in development and construction stage and you are looking at investment once the station is built and you are looking at the income going forward, to me the CFD is a better mechanism than continuing under the renewables obligation. I would be in favour of having a change in mechanism, as is proposed, but within a market-based framework.

Q8 John Robertson: Yes, I wonder if some of the answers are about who owns the company, whether it is a foreign-owned company or whether it is a UK-owned company. But I want to ask you questions about what are your views on the proposed methods for setting strike prices.

Ian Marchant: I think it is a mechanism designed to mean negotiations are conducted in a smoke-filled room on nuclear. There is a lack of transparency. The clause has three different mechanisms that allow the Secretary of State to do what he likes, so there is a discussion going on. My experience in the industry in the last 20-something years is there has been a lack of transparency about the cost structures of the nuclear industry over many years and we are facing the same. Keith talked about the RO banding, and that is a public consultation with evidence submitted in public and a debate about what the right price should be. We could debate whether there are conclusions but there is a clear transparent process. That is not going on on nuclear strike prices, so I am very concerned about that process.

Keith Anderson: I'll turn just briefly to your first comment about ownership. I think what I would say to you is an organisation like ours, where we are present in over 40 countries across the world, we have probably seen every conceivable mechanism that has ever been invented, so we are quite comfortable, generally speaking, with changes, whether it is ROs, CFDs, whether it is fixed-rate tariffs, feed-in tariffs, we can work with any of them and manage with any of them, so they don't really bother us from that perspective.

With regards strike prices the methodology that is being discussed and debated for looking at the strike prices, and the setting up of a committee and the feeding in again gives us a lot of confidence because what it directs and says is it is going to be evidence based. The strike prices are going to be set on an evidence base and a relatively open, transparent manner and I think that is a good thing. That is what we have seen in the past. That is what we'd like to see as an organisation because it means there's something there we can get involved in. We can debate; we can understand the answers and the conclusions.

What's bothering us just now is what's going on in the banding review because that is moved beyond evidence based, way beyond evidence based and that is when we start to get concerned. But we now no longer understand how the decision is being made under the banding review because it is gone way, way beyond all that consultation process. I think what's happening just now with regard to nuclear—what is also discussed and debated in the papers—is that if companies are wanting to move forward and make investment decisions now the Government have said that they will enter into bilateral conversations to try and get the companies that surety and that clarity. I think Ian is absolutely correct in one way, which is what we need to make sure is the detail of those conversations end up becoming public. The others in the industry end up being able to see what has been agreed, what form is that contract taking, how will that contract work in the future, so that if we are looking to bring forward investments of a similar nature we understand that process. I think it is perfectly okay for bilateral conversations to happen to make sure the country is still encouraging investment before the Bill and all the mechanisms are in place. But what we need to make sure is that those conversations then become transparent.

Q9 Albert Owen: But these bilateral discussions go on anyway, and what you are concerned about is that there is not enough on the face of the Bill. There is going to be an opportunity further on when the Bill is passed to have these discussions to strike a price. Is that what you are worried about? The Secretary of State said he is going to extend the grandfathering now to 30 years. There have been bilateral conversations between industry lobbyists and the Government on this, so it is not unique to nuclear.

Keith Anderson: Bilateral conversations are fine as long as—

Albert Owen: But I haven't seen the outcomes on this and I haven't seen the discussions that took place, so this happens anyway. It is naïve to think that it is only nuclear that have private discussions. It happens—

Keith Anderson: No, it is not only nuclear and one of the things we like about the ability to do that is because, for example, if we want to encourage the investment coming forward on the big new offshore wind projects the likelihood is we are going to be asking companies like ours to invest £100 million or £150 million in early stage development of those projects before we understand the strike price, before this Bill is complete and before we can write a contract for difference and that will require bilateral conversations.

Sara Vaughan: I don’t see that the ownership of the company—to come back to that original point that you made—is relevant to the position that we take. From an E.ON perspective we believe in competitive markets and it is important for us that this mechanism that is being put in place in the UK should continue to operate within a competitive market framework. To come to your specific point on the setting of strike prices, we are in favour of a method similar to that that has previously been used in respect of renewables, so an administered approach on a cost basis, looking at the costs of the technology and what's required. I would agree with Albert that there are always going to be some bilateral conversations that will take place. I think we would all say, looking at nuclear, that you couldn’t possibly hold an auction-type process to set a strike price for nuclear at this moment in time because it would be a very, very small auction with very few participants.
Q10 John Robertson: That is what the Government stay in it for. But would you not agree though that perhaps the sort of subsidies that renewables have had in the past were excessive?
Sara Vaughan: What we would say is that what we are doing as a company is that we are looking to improve the efficiency—
John Robertson: I understand that companies want to make as much money as they can. What I am saying is do you not feel that the actual subsidy itself is a bit over the top?
Ian Marchant: No, I don’t believe that.

Q11 John Robertson: But you would say that, wouldn’t you?
Ian Marchant: So, therefore, because I would say it, it means I am wrong. I mean the returns—
John Robertson: No, what I would—
Ian Marchant: The returns that we make on our investments and renewables are fair and reasonable. It is right that the Government goes through an evidence base gathering that involves bilateral discussions about whether those bandings should be reduced and we agree that for onshore wind they should come down from 1.0 to 0.9 and in the future come down further as the technology matures and the costs come down.
The point there is, I don’t get involved in bilateral discussions about how much I am going to invest. Government decides, that is the level, and then the decision. In nuclear they are all being conjoined into one discussion and I do not believe that the returns that are being made on renewables are excessive.

Q12 John Robertson: Can I ask a question about the CCS strike price? Do you think it is appropriate?
Ian Marchant: My own belief on CCS is we are at the demonstration stage and what is principally needed is capital support. We do not know that this technology will work. We need to demonstrate that it will work and a CFD is predating the fact it will work. I think we should be much more focusing CCS on capital support and that is the lowest cost to the State because I am not looking for a return on the capital I am not putting forward.
I have to put forward the capital into a risky project, the most risky project I’ll ever invest in, on a CFD mechanism that is a first of a kind. My shareholders will demand a high return. The State should not have to pay for that. It is much better to put capital support at this stage in that technology.
Keith Anderson: Let’s just come back briefly also on the returns on the RO perspective, which is the other thing you always need to bear in mind if you are comparing the UK to any of the other northern European countries is your planning consents take longer in the UK. Upfront development costs are more expensive in the UK. Land rentals are more expensive in the UK. Transmission costs are more expensive in the UK and they are all borne by the developer in upfront risk in those investments.
The returns we are making are sensible, they are reasonable. I agree with Ian and we are perfectly happy to look at that coming down in the future and we went through all of that process with the Department of Energy and the consultation review and that is what got us to 0.9.
Sara Vaughan: I would completely support what the other two have said. I think the returns are reasonable and I would just like to make the point that we don’t just sit there and take the returns. We are looking at improving the efficiency of our builds and of our processes and we would expect that over time the rates and the ROCs or the replacement would fall.

Q13 John Robertson: Okay, well that is one of our jobs to keep an eye on everybody and give you a hard time when you deserve it. Do you think there’s a place for the Committee on Climate Change in all this?
Ian Marchant: I am concerned about the governance of the energy industry going forward. We have a Bill that is more interventionist and gives the Secretary of State more discretion than I can remember. I think it probably gives him more discretion than he even had in the national industry days where his discretion was to appoint the central ownership to the generating world.
It gives him a lot of discretion and then the powers and duties seem to be muddled between Ofgem, the Secretary of State and the Grid. We have seen tri-part type regulation not work before in other sectors, so the solution seems that we have to have an expert panel advising I am not sure whom and then to say, “Should there be a role for the Climate Change Committee?” We could have five bodies all debating this and none of those five bodies build absolutely anything, we do. I do not think the governance is properly sorted out for the degree of intervention and state control that is being taken.

Q14 John Robertson: So, you wouldn’t mind us having a formal role then?
Ian Marchant: I think the Committee could do the country a service at looking at the whole governance issue from first principles, rather than adding more sticking plaster to what I think is potentially flawed.
Sara Vaughan: I think that there would be value in them having a role advising on the potential impacts of the strike prices on the ability to decarbonise the system. But I would agree with Ian’s point that you have to be very, very clear on the governance and exactly what that role is, whether it is purely an advisory role, whether it is an expert role, whether it is part of a decision-making role—all of that needs to be sorted.
Keith Anderson: I think that the targets have been set. I think that we have enough targets; we have had enough overview of what we need to do and what we need to deliver. What this Bill needs to remain focused on and the processes that come out of this Bill should be focused on is about delivering, creating the frameworks and getting on and delivering. I do not think we need anybody else involved in that process.

Q15 John Robertson: A bit more liquidity, do you think there is currently enough liquidity in the whole framework to provide that and what is the reference price for CFDs?
Ian Marchant: No, I don’t. I mean we are, as an industry, trying to solve the liquidity issue and a number of us have taken initiatives there. It is less bad than it was, say, back in September/October last year but I am not convinced that there is liquidity of the products that will be needed to settle different CFDs for different technologies because that is imposing additional burden on the wholesale market. We struggle to cope with the business-as-usual burden of making sure that we have price transparency and consumers are getting a good deal. I don’t believe that the market is currently liquid enough to support a CFD mechanism.

Q16 John Robertson: Would you be willing to make an additional commitment to improve the day-ahead and forward market liquidity?

Ian Marchant: I’ve committed to do 100% if the other guys get on and do their bit.

Sara Vaughan: We will.

John Robertson: Okay, there’s 24,000—I hope you do.

Sara Vaughan: Yes. Look, we are already putting 60% of our generation through the day-ahead market. I just pulled up a little chart that I happen to have with me that shows how the liquidity is increasing. We have put more volume through the N2EX day-ahead market than any other player this year. We are absolutely committed to that market. We were the first player to sign a gross bidding agreement with N2EX. We are glad that other players are now coming on board and signing those agreements. We all, as an industry, really need to get on with it.

John Robertson: Okay, that is the E.ON advertising over.

Keith Anderson: Before we all start advertising and trumping each other I think all I would say is I think you’ve heard enough. The industry is moving forward. The industry is working to try and drive more liquidity in the market and I think that will end up being delivered. I think the market will deal with that issue.

Q17 Albert Owen: Can I move on to clause 8 of the Bill and the management of the financial exposure of the proposed levy control framework—what are your views on that in general or specifically?

Keith Anderson: The principle of having a levy control framework is that it is absolutely sensible and it exists under the existing mechanisms as well and that is fine, so I have no issue with the principle of a levy control framework. I think what we need to watch and be careful with is the operation and the flexibility of that control framework because what you are likely to see, if you take offshore wind, is quite a lot of lumpy investment coming through the market. So, for example, we have set this industry targets to deliver Round 3 offshore wind projects and most of the developers are aiming at the same timeframe to have those built and developed, so you are quite likely to see quite a lot of investment come through in one or two years to kick start that part of the industry. What we need to make sure is that the levy control framework does not then curtail that and cap that, that there has to be flexibility from year to year to move—

Q18 Albert Owen: I think that as it is currently drafted it could do.

Keith Anderson: I could do and I think that is what we need to be careful of because I think the worst thing you could do to the offshore sector is to end up telling people to delay projects. I think that is the worst message you could send support with the supply chain.

Q19 Albert Owen: What sort of fine-tuning mechanism do you think should be used?

Keith Anderson: I think one of the things that need to be given consideration is: can you have flexibility within a year? Can you do the levy control framework over a number of years? How do you shift the levy control framework from technology to technology? I think there are various ways of solving it but we need to work—

Q20 Albert Owen: The technology value targets you would prefer.

Keith Anderson: I think we need to look at the detail and work through the detail of that and just make sure we understand how it works and I just think that—

Q21 Albert Owen: We are all trying to get through the details but we are really asking for opinions from you as representative of the industry.

Keith Anderson: Right now I would like to see that there is flexibility within a time band so that if you set a levy control framework over a four or five-year time band and then you could shift the investment within that.

Ian Marchant: I think the levy control framework seemed to just appear in this industry about 18 months ago without proper scrutiny or debate as to what it was trying to achieve, whether it was compatible with EU or UK law and how it was worked. I do not know whether it had Parliamentary scrutiny and yet it is now a fundamental driver of policy. I am quite concerned about the democratic process around this levy control framework.

We have statutory targets under the EU renewables and under Climate Change. We want to keep the lights on. What comes first, them or the levy control framework? We should have a value for money framework, absolutely and making sure that returns are not excessive, and the consumer is getting a good bill, paying the right price, absolutely; but is the levy control framework the right one? I am not sure. It seemed to have come out of Treasury as part of the last Comprehensive Spending Review and I am not sure that a two to three-year politically-driven framework is the right one to manage an industry where we are talking 20 and 30-year investments.

Sara Vaughan: Yes, a couple of things. I would agree with Ian’s point about, what is the more important? Is it the target that we are supposed to be meeting or is it the levy control framework and are you saying that we are allowed to almost bust the levy control framework as long as it is within the targets? I think we need a lot more clarity around that. If it is the levy control framework that is the key, then, to my mind, that would have been exactly the same under the RO. So you would have found yourself investing under
whatever mechanism but within the context of the levy control framework. We need some clarity about how that is going to apply to CFDs and to the lumpy investment, the point that Keith Anderson made. I think there is a lot of uncertainty around that.

Q22 Albert Owen: As the Chair said, we only have a few weeks to scrutinise this and it has been coming along and it has been changing. But this is the opportunity for you, with respect, to put forward your views as well so that you can help with the scrutiny of this.

Sara Vaughan: Yes.

Albert Owen: Two out of three of you have talked about the Government and the politics involved in this, but I have certainly sympathy for the Government when the industry isn’t speaking with one voice and as well as this is a general question I want to ask. As an industry, do you meet and have you put forward your views as well so that you can help with the scrutiny of this?

Sara Vaughan: I know you have commercial interests as a company.

Ian Marchant: We don’t agree as an industry.

Q23 Albert Owen: That might be useful because it is all right criticising different departments within Government, but if industry isn’t speaking with one voice as well—

Ian Marchant: I am probably at one end of the extreme of the industry and in the second session you will probably hear people at the other end of the extreme of the industry but, no, we don’t agree. We are competitive players.

Albert Owen: No, I fully understand that, but we are talking about frameworks and mechanisms for a long time before—

Ian Marchant: The levy control framework is something that we probably haven’t discussed as an industry because, as I say, there has been this creeping importance and that is something that we will—

Q24 Albert Owen: Can I put it to you that there are a lot of written submissions going in and it would be useful if you got this in and it would be helpful to us. Not talking about extremes at all but I am going to quote EDF, which has concerns about legal enforceability of the CFDs. Do you share those concerns?

Sara Vaughan: Is that against the background of the state aid question?

Albert Owen: Yes. They are concerned about the whole process of the contracts for difference, that there would be legal challenges.

Ian Marchant: So am I. Fundamentally, I think that CFD is the wrong way to solve this problem. There are a number of problems; firstly, the degree of Government control and discretion, which we have talked about. The second is the counterparty. It is a contract. It has to have a counterparty and it is not clear to me whether it is the state as based in the impact assessment—that is a very clear statement in the CFD impacts that the state is the counterparty, the Bill is basically some sort of statutory arrangement imposing obligations on suppliers—or whether it would be some sort of third party. We need to be absolutely clear who the counterparty is. You can’t have an enforceable contract against nothing. So you have control issues, you have counterparty issues and you have complexity issues. It is a contract. It will need to be marked to market. It will need to be hedged. It will need to be settled. It will impose costs on the suppliers, potentially the middle party, and if the generator is saying that they are not concerned about its enforceability, why are we doing it? As a supplier I certainly don’t want it. Then you have, is it compliant? Does it comply with state aids? To my mind this comes back to the counterparty. You can only deal with compliance when the counterparty. If it is the State, which will lower the cost of capital, then it is probably State aids. If it is not the State, it will not lower the cost of capital but it might get through State aids but why are we doing it in the first place? It is almost the unanswerable question. I just think that CFDs—particularly if EDF don’t like them, why are we doing it?

Keith Anderson: When we started the conversations going down the energy market review one of the things the industry did agree on—not that we agree on lots—the preference was to have the Government as the counterparty because if what we were doing was trying to drive this into a mechanism where we reduced cost of capital. If you have the Government as a counterparty sitting back on those contracts that gives the financial security anybody would want and anybody would desire. Now, what is coming out of all of the process going through the Bill is that the Government have a desire not to be the counterparty and, therefore, they are trying to come up with another model and another mechanism and that is creating some issues; questions around the enforceability of the contracts, as Ian explained. I do not think that makes Contracts for Difference wrong or that it means they do not work.

I think it just means we need to sit and sort out who is the counterparty and how to make sure the contracts are legally enforceable and come up with a model designed to do that and to deliver that. I think the issue that in some respects is a bigger concern to us is the accounting impact of making sure that the contracts don’t have to be marked to market. Our concern would be that if we end up having to write and hold a set of contracts, where we end up with huge volatility going through our profit and loss account because of mark to market value changes, that would be a big negative on us as an organisation. It would be a lot of risk and volatility. It would make our investors more nervous and that would be a big negative outcome.

Sara Vaughan: There are probably three points here. First of all, on the state aid point, that is a hurdle that needs to be gone through but if you look at—to take something we all know—the renewables obligation, the renewables obligation went through a state aid process, was declared to be state aid but was approved and we have all operated under it perfectly happily for the last however many years. Moving on, the Government chose to go with a contract for difference because it was a contract and because they believed that it reduced the cost of capital. I am happy with the concept of working under a contract. That has some advantages in terms of protection against political risk.
because, while Parliament can always change things being sovereign, once you are within a contractual rights framework then you have the ability to take action against whoever your counterparty is. That then brings me on to the third point, which is the question of the counterparty, which is a concern because there is uncertainty around who the counterparty is going to be; where we have the possibility that it could be the bunch of suppliers where the question then is, well, who do you sue in the case of any disputes between you? Who is the person that you are sort of facing up against in negotiation or potentially you have another model where you have a sort of fatter counterparty, single party, with other suppliers standing behind it and backing it up? I believe these issues are capable of being resolved.

Again, we operated under contracts for difference through the pool for 10 years or so. There is no magic in a contract for difference. We can all operate within them once we know what the rules are and, to come back to your previous point, we are making representations on what that should look like. The derivative point is a real worry and I would share the concerns already expressed on that. It is important that the contract, whatever it is, is not viewed as a derivative. We have had some good news on that in that if it is attached to a particular asset then it is less likely that it will be viewed as such. We have had a rather wishy-washy paragraph in the acres of consultation documents on that. I think we need some greater clarity on that point.

**Ian Marchant:** I hear my colleagues say that all these details could be worked out. It has been being worked on for a year and we can’t answer the simple question: who is the counterparty? If we can’t get to that fundamental question in a year, I worry that we don’t understand the fourth or fifth level questions.

**Chair:** I want to stay with the counterparty point, if I may.

Q25 **Sir Robert Smith:** If the Government were the counterparty, that was what the industry originally saw.---

**Ian Marchant:** It is what the impact assessment is based on. The £2.5 billion of cost saving compared to a premium feed-in tariff is based on the Government being the counterparty. As a minimum the Committee should ask DECC to redo the impact assessment on the basis of the counterparty arrangements that will apply, not the ones they thought would apply last summer. As a minimum they should be doing that.

Q26 **Sir Robert Smith:** Then it goes to the multiple counterparties or another body acting to at least bring that all together. Does the other body bringing it all together improve the situation at all?

**Sara Vaughan:** It depends on the nature—

**Keith Anderson:** Sorry, I think the attractivness of the Government being the counterparty was the credit rating impact. If you are talking about an agency that gets set up, what is its credit rating? What is its financial security? That creates an issue because that is what drives down our costs.

**Sara Vaughan:** Is it a public company?

**Ian Marchant:** That is the key. Is this body in the middle part of the public sector, in which case you need to ask the Treasury their views of that being on the State managing—or is it in the private sector where all the issues still apply?

**Sara Vaughan:** Yes.

Q27 **Sir Robert Smith:** So if it is staying in the private sector might it as well stay as the multiparty—

**Ian Marchant:** To my mind, the only way that you could get CFDs to work is to have a genuine multi-party, not-for-profit mutual running the CFD process, but I believe that it also needs to include the system operator role. I think if you put that agency into National Grid the conflicts of interest would be impossible for Grid to do a proper job for the system, because they have duties to their own shareholders and their own businesses. So I think you could set up an industry mutual but I think the State has to provide some element of financial backstop to make sure you don’t get credit leakage out of that individual entity into the private sector, otherwise you lose the cost of capital benefit. So it could be 60/40, 60% private owned and 40% public owned. There are ways of creating it, but they are not what are in the Bill. The Bill envisages National Grid acting as the agent and so we create a problem in Chapter 1 that we then try and solve in Chapters 2 through 8 in the Bill of all the consequences of the CFD.

**Sara Vaughan:** We have to be fair and we have to say that DECC has made it very clear that they were only able to put in the Bill what they had originally instructed parliamentary counsel to draft, which was on the basis of the original counterparty proposal, but that they have heard the concerns expressed by the industry and, therefore, they are looking at whether they can meet those through an alternative proposal. So I think we are all accepting that what we have on the face of the Bill is not necessarily where we are going to end up.

**Ian Marchant:** But the impact assessment is based on another version.

**Sara Vaughan:** That is true.

Q28 **Sir Robert Smith:** How much difference is the risk of capital given that it is spread across all the suppliers as opposed to—

**Ian Marchant:** If you take the industry as the three bits, the creditworthiness is strongest in the networks where we have an asset business and a regulatory company. Second-best in generation we would have assets. So the lender can see security against the asset. It is weakest in supply, which is exposed to the customer vagaries, bad debts, hedging and trading. The risk of the counterparty, we take the credit risk out from the generator and put it to the supplier. When you take it from an industry point of view, the cost of capital will go down. The impact assessment says take it from the generator and improve it by putting it through the State. If you take it from the generator to the supplier you are in a worse off position. That £2.5 billion benefit, I think, swings to a cost from an industry point of view.
Keith Anderson: I do not know the answer in terms of what its impact would be but somebody would have to give a look at that. I think there is definitely an impact because having the Government sitting at the back of it—if you can still do this through an agency that is partly Government-backed or underwritten by the Government then I think you can potentially still deliver the same answer.

Sara Vaughan: I would say it depends on the treatment of it because the principle should be that it is not on the supplier’s balance sheet, that it is being underpinned by all of us as consumers of electricity in the UK.

Q29 Dr Whitehead: Before we move off this general topic, I would like to seek some clarity about the levy control framework from you. While it is true the levy control framework came from nowhere, it nevertheless came from nowhere with substantial clarity in its own right, i.e. you have a certain amount of funding over the spending period. That is then longitudinally capped and it is also horizontally capped in each category each year with a 20% maximum headroom, I think, put into it. Presumably, a levy control framework would, in this context, move forward to the next spending round. Now, is it your view that, if the architecture of the levy control framework that we have at the moment were moved forward, that would then produce very substantial difficulties, as you suggested, for the lumpiness of investment coming forward and the way in which that might then move through the framework?

Ian Marchant: Yes, I think it would because we are seeing the impact of the levy control framework with the very prescriptive rules that appeared on policy making. If you take the banding review, it is already six months late. Back in October 2010 we were promised the banding review for December 2011. It is 12 June and we haven’t had it. So forget the outcome. The process is just taking too long. That is what delays investment, as much as the actual control framework. It is a very, very prescriptive framework. It is more prescriptive than the old EFLs, external finance limits, that were imposed on nationalised industries going back 22 years, but that was the mechanism the Government used to control. They were at company level. That was it. Companies then decided beneath that what they were going to invest in. They were very prescriptive and the more prescriptive the more problems you end up with.

Keith Anderson: The concern for us would be that once we start investing—if we take a large offshore wind farm and we start that investment process—we can get a contract at FID, final investment decision, and that is fine in principle. But, on a large offshore project where I am likely to have put at risk £100 million to £150 million to get it there and then I get to FID and I do not know if I am going to get a contract or not, that is an unacceptable risk. So there needs to be enough transparency of how that levy control works and where we are against it all the way through that investment process and we would want enough flexibility in the way it is moved to say, “By the time we get to FID bring forward your project and look for the contract”, you are not going to get told, “Wait 18 months because there is no money left”.

That would be absolutely unacceptable. The other slight complexity that needs to be worked through is what wholesale price do you use when you are measuring it against the levy control framework, because the value that goes against it will fluctuate with the wholesale price. As the wholesale price moves up and down you could see huge volatility in terms of where are you resting against the levy control framework and, again, that would create massive issues. Our recommendation would be to use some form of notioned price when doing that to give us a little bit more clarity and transparency as well.

Sara Vaughan: I would strongly support what Keith has just said. The Bill also talks about other targets that the system operator has to have regard to in relation to allocation. What technology is it? What is the capacity? What about the geographical location? That, again, raises the risk in relation to development, that you go ahead and you have developed your project, which is this technology in this place, and then that is not what the system operator happens to want at that point. How are they going to differentiate between bankable projects? How are they going to decide which project gets that CFD? All of that needs to be very, very clear, upfront, so that that, if you are starting to develop a project over there, that has a very good chance or that one over there has not.

Ian Marchant: We have lived through an example of an attempt almost to proxy this in the CCS demo where we had a competition that started in 2006 and we haven’t got a project at the feed study stage yet in the UK. So I don’t hold out much hope.

Q30 Dr Whitehead: You did the feed studies, both of you?

Sara Vaughan: Yes.

Ian Marchant: Yes, as it happens, but both of those projects didn’t go ahead for various reasons.

Q31 Dr Whitehead: You have said that industry does not agree on the number of things. On this particular point would you say there is general agreement that the levy control framework as it stands is potentially inimical to that period of investment and that, secondly, the variability of CFDs against the absolute level of levy cap could be a potential difficulty? Is that what you are saying and is that a point you agree with?

Ian Marchant: I am certainly hearing a fair degree of similar concerns about the levy control framework from the three of us. You need to ask the next three because, as I say, it is not something the industry has specifically debated. Maybe we will be soon, after today.

Q32 Chair: I think you should do it sooner rather than later. Given the difficulty we are having in getting a Treasury Minister to even answer our questions in front of this Committee, if there was a unanimous voice from the industry that would be extremely helpful, I think, in a number of respects. We have about three more topics I need to deal with in the next 10 minutes, so we are going to have to speed up a bit. Could I just touch on the choice of
CFD, in particular in relation to intermittent generators? Do you think that is the most appropriate form of support?

**Ian Marchant:** No. Premium feed-in tariff, which is effectively what the renewable obligation is. It is a tried and trusted method. It is delivering investment. It is simple, understandable and bankable. It allows me to make long-term decisions, develop supply chains. Please don’t change it.

**Keith Anderson:** I am going to say the exact opposite. It is perfectly all right as a mechanism for renewables. The RO has done what it has done. It has got us to where we are today. It has been fine. It has worked well. I think, given the size and scale of the investment, it has to come forward because we are talking about a huge ramp-up in investment activity and we are talking about asking people to start investing in offshore wind projects that are of a multiple of 10 or 20 times the physical size and the capital size of previous projects and I think the Contract for Difference mechanism provides more certainty and stability for investors. I think it is more likely to attract more investment into that sector and into that technology. For the certainty it gives in terms of a revenue stream and, therefore, it is probably more suitable long-term.

**Sara Vaughan:** I am with Keith rather than with Ian on this one and it is a point I made earlier about it operating at a premium over the power price. As you see the power price changing over time as more investment comes on to the system, the power price gets lower. You have the canabilisation effect, which means that the wind isn’t getting the benefit of the power price when the power price is higher. So the risks for investment in intermittent generation have increased and we see the CFD as offering a more certain and robust framework within which to invest in renewables looking forward to that future world.

**Q33 Chair:** Just looking at CFDs in relation to CCS, how can the Government make sure we get value for money if we are doing that?

**Ian Marchant:** CCS is a demonstration technology. The Government needs to go through a sensible procurement process to say, “What is the right project for the UK support”, and then effectively run it as open book. If it is my project, I don’t want to spend any more money with the OEMs than Government does. I am on exactly the same side of the table as Government in making sure that project comes in at the lowest possible cost. The reality is, however, for the first CCS project nobody knows what that cost will be. It will turn out to be what it is. So align the incentives between those who are delivering it and the State and you will get it at lowest cost.

**Keith Anderson:** The reality is the amount available from the Treasury for investment in large-scale projects is limited. If you can balance some of that off by using CFDs as well then fine. I think you could say the marine sector is in a similar state, where there is some capital funding going in to help projects but also what is being used to try and attract investment is a very, very attractive RO band in terms of generation and output. I do agree with Ian. It is still absolutely about demonstration and we need to prove it can work. Therefore, it does require some capital support. It is perfectly feasible and sensible to use a CFD to help incentivise it and to help drive it because I think it always quite good with demonstration and with R&D also to make those people involved in the R&D aware that part of the funding is reliant on it working and that is never a bad thing.

**Q34 Laura Sandys:** When you are presenting to your board, whether in the UK or abroad, investment profile into the UK energy sector what are, let’s say, your three concerns; your three key big questions that the board is going to ask you and you, under this existing framework, are going to have problems answering? Maybe they fall into policy and market risk but also cost of capital, i.e. investment profile.

**Keith Anderson:** Right now, today, I am looking to try and take papers forward to carry on investment in Round 3 offshore wind projects, projects that are likely to deliver in terms of generation output 2017–2018. So they’ll be on the cusp of probably falling into the new mechanism. Putting forward right now a paper to ask for £50 million of investment, the questions I will get asked is how does the mechanism work? The answer, right now, I do not know. What is the strike price? I do not know. What is the rate of return? I do not know. Do I know when the mechanism will be in place? I am not too sure.

**Laura Sandys:** That is an interim—

**Keith Anderson:** That is where we are today and one of the key messages we have been saying and will continue to push us is the faster we get through this process the better because then you will not stall investment. The risk is if we don’t hit the timetable that is laid out investment starts to slow down. It gets stalled and that will be incredibly damaging, particularly to that offshore sector and particularly to the confidence. It relates back to previous comments about trying to drive down cost. We as an industry are working out there going hell for leather trying to convince companies to come and invest in the United Kingdom; to build manufacturing plant; to invest in port infrastructure, vessels, cabling; a huge amount of investment to try and get into this country. They want to know are you confident you can build these projects? Are you confident that this mechanism will work? Are you confident? I need to be able to say yes, and if we miss the timelines I can’t say yes. So we need to hit those timelines.

**Q35 Sir Robert Smith:** And they need to be able to believe you from what they—

**Keith Anderson:** Yes.

**Ian Marchant:** I took an investment decision to my board last month, about £150 million on an onshore wind farm, and the three questions that they asked were, first, “Can you build it to time and budget?” Nothing around here can touch that but it is a key question any board will ask about any investment decision. The second is, “What is the mechanism? How can you give certainty of revenue?” All I could say then was, “We are doing it under the RO. We can get this built in time. We are going to come in under the RO. So I know I can get the first machines on
before 13 March.” So, yes, EMRs—tremendously uncertain but I can get through. I am glad I could get it through last month. The third question that the board will always ask is, “What does the market look like? Is there too much capacity? Too little capacity? Who else is building wind farms and things like that?” My next investment decision is a gas-fired power station and at the moment I can’t answer the second two questions. I can’t answer, “What mechanism is going to be there for capacity”, and I can’t answer, “What else are other people going to build”, because I can’t answer, “What is the mechanism?”

Sara Vaughan: I think we have probably a pretty good—

Q36 Laura Sandys: So we have this interim period where we have this problem where you don’t know what regime you are going to be moving in and it depends on the timescale of the investment materialising, but then, let’s say under the EMR, what are your three key concerns and problems when you are looking at going to your board and saying, “This is the new regime. This is the sort of investment I am looking at”? Where are the problems that you—

Ian Marchant: You go first, yes.

Sara Vaughan: If I was talking to my board—not my board, our board—about this, we would be looking at—

Laura Sandys: They think it is yours.

Sara Vaughan: Thank you. Can we meet our hurdle rate? Can we guarantee that we will get the revenue back from this plant that we are looking to put into it? The key question about that in this world would be about the robustness of the framework that we are putting in place through EMR. In the old world, if you like, you would be looking at the electricity price, the forward price and what you expect that to do. But in this world, because you would be looking at a contract for difference that is effectively providing you a hedge against the electricity price going low against where the carbon price is, then you would be looking at, “Okay, what certainty have I got around that mechanism, around the robustness of that mechanism, around the Government not turning around and saying, ‘Gosh, this is looking a little bit expensive’”.

Q37 Laura Sandys: But you are in the boardroom now and I am saying to you, do you feel confident about the political environment? Do you feel confident about the contract for difference?

Ian Marchant: Today, no. If the Bill is passed in the form we have, which I think is what you are trying—so imagine we have this role. I have to put aside all the problems it is causing in my supply business and say, “Can I invest on the back of a CFD?” Well, I am going to have two questions. Is it bankable? Is that contract robust and defendable? Because I don’t like CFDs, I can’t answer that question. You should ask people who are thinking about investing under that basis that question. The second thing is, which is Keith’s point, will I get this contract, because I have to either negotiate or take part in an auction and then wait for someone to decide. Yes, you have approved this but it is more like an acquisition where you are dependent upon a process going on and you don’t know until you get the phone call that the contracts is yours.

Sara Vaughan: But you would only be able to take your FID if you knew that you had the contract.

Keith Anderson: Sitting in front of a board in the new world the main question will be, “Do you know you are going to get a contract? Do you know you are going to get that contract and do you have that certainty?” The question that gets asked quite often when we invest in major contracts is about political risk and interference. We have never had to ask that question in the UK because, all of the reviews and all of the work, we have always understood how it has been done; an evidence-based, good, robust process.

The concern I have now is, given what is going on with the banding review, that question might well start getting asked.

Chair: Okay, that is helpful. Sorry, we have to move on.

Q38 Dr Whitehead: You mentioned a little while ago the general view there was about the capacity that was needed four years ago and now that has changed substantially.

Ian Marchant: Yes.

Dr Whitehead: The capacity that is required to be estimated is barely four years ahead. Do those two facts add up?

Ian Marchant: Let me give you the facts. In 2006 National Grid’s forecast of peak demand for 2012–13, the year we are in, was 68 gigawatts. Their forecast now is 57 to 59 gigawatts. That is a significant difference and if you then roll forward their projections for 2017–18, which is the last date that they have published those, they are for around the same level of capacity, maybe a little more, which is significantly less than Government has assumed in its impact assessment. The principal reason for that is demand destruction. We can have a debate about how much of that is because of the poor economy and will there be a bounce back, but I think a lot of the demand is gone for good because our analysis says that two-thirds of it, at least, is due to energy efficiency. It has gone.

We simply need less capacity from 2015 onwards than we thought we did five or six years ago. Therefore, we may be trying to solve a much bigger problem than the actual problem we face. I have changed my view. I thought a capacity mechanism was essential. I now think it is desirable but it is not essential. I thought intervention mechanisms to improve investment were essential. I now think they are not essential. The industry can deliver the scale of investment needed in the next decade. The real debate in my mind is what technology is the UK going to deploy in the period 2025 to 2030? Is it CCS? Is it offshore wind? Is it nuclear? It is not the next 5 to 10 years. It is later. So the world has changed, in my view.

Keith Anderson: Some of what Ian said I agree with. Things change and move. The demand projections change and move. The capacity projections change and move. But, to me, fundamentally what this Bill is about is putting in place a good, robust, long-term framework, which is, to me, what this industry always
likes, and it is about giving us a framework that continues to deliver for the UK what it has had over the last 40 years, which is a good, healthy, mixed-generation portfolio. Whether that is about £30 billion of investment, £150 billion of investment or £200 billion of investment, to some extent, is a little bit irrelevant. It requires being a mixed investment portfolio and right now I do not think—the way the market is set up and is structured—that is what it will deliver. So I think the Bill is essential from that point of view and that is why we want to see it carry on and we want to see it delivered.

Q39 Dr Whitehead: The annex to the Energy Bill states that DECC, although, as we have discussed, most of the detail of the capacity market is pretty vague, they have said they expect to choose “a capacity market that provides assurance that physical capacity is in place”. Does that rule out demand reduction?

Sara Vaughan: No, I don’t think it does and I think, if you look at the section of the Bill that deals with capacity, the way that it defines capacity also includes demand reduction. We see that as an important part of ensuring that you have the right balance and I think that, as part of the development of the capacity mechanism and capacity auction, demand reduction is very much going to be part of that. That does not mean that we should under-estimate the difficulty not only of ensuring that you have something that works in the right sort of timescales, because timescales of power stations and timescales of demand reduction are not the same, and also the ability to monitor and ensure that that demand reduction has happened and that it is happening on an ongoing basis. But, yes, we see that as very much part of it.

Ian Marchant: I would absolutely echo that and I think that the words are fine, but I don’t see the level of detail on how the capacity mechanisms will work with demand. As I see it, it is outward working generation and I think DECC should be asked to be clearer about how they can put demand pari passu with generation.

Q40 Dr Whitehead: I think there is one paragraph in the commentary that suggests that DECC may be working on some demand reduction ideas that might be ready for legislation.

Ian Marchant: There are quite a few “mights” in that sentence.

Dr Whitehead: Yes. Well, I am merely reporting on it.

Sara Vaughan: I think there is going to be another consultation, isn’t there, dealing with demand reduction specifically?

Dr Whitehead: Yes. Bearing in mind that obviously demand reduction is not physical capacity, what sort of ideas have you, as the industry, been putting forward on how demand reduction might play a role in a capacity market in the absence of anything coming forward?

Ian Marchant: Being able to bid in controllable electric heat. There is a simple example, the storage radiators that members of the Committee will be aware of. If you aggregate over many, many customers, you can get 10s to 100s of megawatts of load. The ability to turn that off at system peak should be valued in exactly the same way as the ability to turn an open-cycle gas turbine on at system peak because it has the same economic benefit to the system. So there is a domestic example. In the industrial world it is how do you properly bid in interruptible load and then enforce that it does get interrupted, because in the past in the UK people have just taken interruption as a way of getting a cheap price. What we are talking about is there is a service to the system and people who are prepared to offer it should get remunerated for it. You just need mechanisms and the biggest challenge is aggregation, because National Grid has a big button that has on it “200 gigawatts” or “500 megawatts”. They want to operate at scale. Demand tends to be in a few kilowatts to a few megawatts. You need an aggregation that demand can bid in, in the same way.

Chair: I am sorry, we are already over time. There is one more issue I want to raise.

Q41 Christopher Pincher: You have all been pretty clear in what you have said already; that you think the draft Bill gives significant scope for ministerial capriciousness and that can affect investor decisions. With respect to the EPS, do you think that giving the Secretary of State authority to exempt coal plant from the EPS on the grounds of security of supply without parliamentary scrutiny undermines the whole concept of an EPS or do you think that is a reasonable proposition?

Keith Anderson: I think it is a perfectly reasonable proposition. I think it is perfectly reasonable for the Secretary of State to be able to have the powers to fundamentally keep the lights on in this country, if that is what we have to do. If it got that bad and it got that close to an emergency, that is something you would want to see. I do not think it undermines the EPS. The EPS still sits there and will deliver what it is meant to deliver.

Ian Marchant: In the spirit of things, I fundamentally disagree. Either you have an emissions performance standard that bites or if you have doubts don’t bother to have it, because who decides how the lights are going out? You could decide in two years’ time, “The system looks a bit stressed. We’ll relax the EPS”. Either have it or don’t have it.

Sara Vaughan: What I would say is I do not think it is that likely to be used but it does provide that additional insurance, but the absolutely key thing is that it would only ever be used for genuine emergencies. Now, Ian’s point. “Well, does it get used when the system looks a little bit tight”, that then becomes a concern because, in my view, is that or is that not a genuine emergency? So I would bow to the side of, yes, have it in, but make the conditions around its use be so tight that it is only ever used in a real emergency.

Q42 Christopher Pincher: So, although in your previous responses you suggested that ministerial scope of operation is significant, this is an area where you think that Ministers have an absolute right of operation. What sort of controls—
Ian Marchant: No, I don’t agree.
Sara Vaughan: No, within very—
Christopher Pincher: Some of you. What sort of controls there ought to be around ministerial decision-making?
Sara Vaughan: I am not an engineer. I can’t start drafting them but within some very, very narrow constraints, such that you would really have to think that there is a present and imminent danger that the lights are going to go out, say.
Keith Anderson: That is something that would have to be managed in conjunction with the system operator. I am saying, yes, in the context of you have the system operator jumping up and down, shouting, saying, “We have a significant problem on the grid today/tomorrow.” I absolutely agree with Ian that if it started being used to say, “Oh, well, in 18 months we might have a little bit of a capacity shortfall; let’s get rid of the EPS”, that becomes a disaster. That becomes a waste of time. I am talking about having it there as an emergency power so if the system operator is jumping up and down saying, “Tomorrow at 5.00pm we have a significant risk of a blackout in that part of the country and we need to turn on the coal plant”, absolutely I think that—
Ian Marchant: Because the emission performance standard works over an annual, that could only happen in the last few weeks in March because any other time the coal plant could still run. It is choosing not to run later in the year. So it is a very, very odd set of circumstances that means it would be used. I would rather it not be there.
Q43 Christopher Pincher: Do you think the constraints are in the Bill to ensure that the Secretary of State can’t simply say—
Keith Anderson: I am not sure if all that detail is there.
Sara Vaughan: I think the question we all have to ask ourselves is: if it were not there would it happen anyway? If you have a Secretary of State who is faced with, “At 5 o’clock tomorrow the lights are going to go out”. “What is stopping them going out?” “Oh, we have got this EPS and therefore this plant can’t run”, I think it is going to happen anyway. So let’s make it legal.
Q44 Chair: Okay. I am sorry to cut you all short. If there other things that you were burning to get off your chest in answer to any of the questions when you have looked at the evidence by all means drop us a note about that.
Ian Marchant: We were going to come back on the Levy Control Framework
Chair: Sure, specifically. That would be good or indeed other issues as well if that is helpful to you. Thank you very much for your time this morning.

Examination of Witnesses

Witnesses: Vincent de Rivaz CBE, Chief Executive Officer, EDF Energy, John McElroy, Director of Policy and Public Affairs, RWE npower, and Sarwjit Sambhi, Managing Director of the Power Generation, Centrica, gave evidence.

Q45 Chair: Good morning. Thank you very much for coming in. Our apologies for overrunning on the first session. There is, as you will appreciate, a great deal of interest in this inquiry. Witnesses have things they want to say, we have questions we want to ask, and I will repeat what I said at the start of the session, that the Committee has been tasked with trying to conduct scrutiny of a complex Bill in an unprecedentedly short time by the Government. We have five weeks instead of the normal 12, and so we have to drive through at a pace which is rather faster than we would ideally wish, so forgive us if we deal with some very important issues either in shorthand or rather more briefly than we would have liked. Could I start with a general question about whether we need this Bill at all, or could we have made incremental changes to the existing arrangements? We have a carbon price floor now; we can legislate for the Emissions Performance Standard. Would those sorts of measures have been a simpler and easier way of delivering the Government’s objectives of secure, clean and affordable electricity?

Vincent de Rivaz: The answer is yes, Mr Chairman. Yes, we need this Bill. I may say in the first place that we take this pre-legislative scrutiny process very seriously. It is a key opportunity to make any necessary improvements to the Bill in a timely way. As I have said, the Bill is an important milestone in the delivery of all forms of low carbon investment. It sets out a package of reforms which, if taken together, sets our industry in the right direction to deliver affordable, secure and low carbon energy. The contracts for difference which sit at the centre of this Bill will be key to delivering investment to represent value for money and to protect customers. It is, to answer your point, simple, transparent and a proven instrument and through it both Government and the industry would be accountable to both shareholders and customers. The Bill is also clearly consistent with the European Union environmental competition and market legislation. It provides a fair framework for both consumers and low carbon investors, so globally I think subject to some fine tuning we believe the reform package is needed and will deliver the low carbon investment the UK is seeking. Indeed, the job of the Committee, which we take very seriously in this process, is now to work with stakeholders to deliver tangible improvements. I will mention which ones briefly. To take our own multi-billion final investment decision for our new nuclear project in a few months’ time we need three clear, concrete priorities for this Bill. First, moving to a tangible counterparty contractual model, which is clearly understood and precented. I will talk further about this tangible counterparty. The second point, ensuring that the early contract for difference which would be delivered
through the transitional arrangements is legally robust for the long term. Third, working to ensure the Government keeps to its original timetable of spring next year. I think the Committee’s report and you are right to say it is a very short timetable, should be able to recommend, and we are here to help, solutions for the issues that we are facing and very importantly to maintain the momentum that this draft Bill has created after all the process of consultation. It is momentum that we need to run up to our final investment decision and for us it is in a few months’ time.

**John McElroy:** If I can present a slightly different picture possibly, I have to say that if you go back to two years ago when we started on this journey, at that stage we were very much looking for something which was more incremental in nature. The big challenge was to get such things as Round 3 wind away, the first wave of nuclear away and issues around CCS as well. We are now in a situation where we have a very complex EMR with four elements and many levers and we are in a position where almost because we have said we are going to introduce a capacity mechanism we now have a hiatus in investment. We are at a point where we really need to move ahead and get this Bill finalised and there is a lot of work to do in terms of pinning down and sorting out clarity around what it is we are implementing and trying to refine and reflect that in the Bill before it finally comes in front of the House.

**Sarwjit Sambhi:** We think the Bill is needed. If you stuck with what we have today we have to remember that the RO expires in March 2017. It is not available to all low carbon technologies. It excludes CCS and nuclear. Without the Energy Bill we would not have a capacity payment. A capacity payment is needed for two reasons. One, we need gas-fired generation in the back end, second half of this decade and we also need gas-fired generation to take up the slack when wind is not blowing, predominantly in the next decade. So as far as we are concerned the Energy Bill as presented is something that is needed.

**Q46 Chair:** If the Bill is passed in its present form—and with the other documents that have already been published associated with the Bill—will that be sufficient to bring forward investment decisions or will there still be a hiatus while we wait for some of the secondary legislation to be passed as well?

**Vincent de Rivaz:** As far as we are concerned the draft Bill, subject to the tangible improvements I have mentioned and crucially on the counterparty issue, and subject to the timetable of the Royal Assent will allow us to make our final investment decision in time and I think the important thing is to focus on the key principles, accept that there are some details that will have to be presented to Parliament for the scrutiny part of the second legislation process, but we do not need to have in parallel the details to be able to discuss and to agree on the principles and to make the improvements which are needed.

**John McElroy:** I would have to say that given the powers conferred on the Secretary of State by the draft Bill as it stands are so wide-ranging, and largely that is because we don’t have the clarity around the CFD or the capacity mechanism that we need, I would suggest that as the Bill stands at the moment it will not provide the confidence that investors need. We need to do a lot of work between now and the Bill going through so that we understand the issues around counterparty risk, legal structure, dispute resolution in regard to CFDs and that we know what the capacity mechanism is, how it will work, how it will be triggered, and we need that before investors are going to be willing to push the button.

**Sarwjit Sambhi:** I think it depends on which technology we are investing in. We invest in offshore wind, gas-fired generation and nuclear. With offshore wind we continue to invest in the RO, given that the window is still available until March 2017. On gas-fired generation the current market environment makes it problematic in terms of going forward with an investment decision, therefore for us expediency on implementing capacity payments is important. On nuclear what is important is making progress on what’s termed the investment instrument or FID-enabling instruments and clearly the DECC commercial team is very much focused on arriving at an instrument that is investable.

**Q47 Sir Robert Smith:** Just one broad-brush thing: when your board is looking around the world, where does the UK rank in this model in terms of investor attraction?

**Vincent de Rivaz:** We should not underestimate the very positive impact that this electricity market reform is having when people from outside are looking to what is happening in Britain. This reform is not complex; this reform is comprehensive. This reform is addressing the challenges of the decades ahead of us and we have been for years, and I think with a large consensus, advocating for reform. This reform is coming, it is there, there is a draft Bill. It is changing in a way the business model paradigm for investors for large investment in low carbon technology for the good. It will introduce something for the customers that is extremely important—stability. It will introduce for the investors something very important—certainty. Both elements have very simple consequences. It reduces risk to see the prices going higher than they should go. We are in a context where £100 billion of investment has to be made. Maybe it is not exactly the same timetable as the one we were discussing two or three years ago, but does it matter? Who can imagine that these investments are not going to happen? If we want to avoid that, the consequence of this investment is the price of electricity going too high, we need this reform. If you want to have the investors ready to put that investment into long-term investment in this country we need this reform. So the answer to your question, this reform is perceived as a positive reform and in a sense a show of leadership from Britain to address the challenges of this first part of the 21st Century—security of supply, climate change and affordability.

**John McElroy:** If I can come in there, I would have to say that certainly RWE has found the UK one of the most attractive markets to invest in up to now and we have put very significant investment—

**Q48 Chair:** You have just started to pull out.
John McElroy: We are still investing in the UK in terms of CCGT plant, we have Pembroke commissioning at the moment. We will continue to invest in the RO while we can deliver projects ahead of 2017. I would have to say that there are issues about EMR and making certain that we can provide the clarity necessary because there are alternatives out there. The situation in terms of offshore wind in Germany has been mentioned and that would be a very attractive market, so we have to make certain that what is delivered in the UK maintains the attraction for investment but it is wider than that because it is also the issue of the supply chain and the jobs and everything else that goes with low carbon investment and we need to provide that confidence so that we don’t stop-start—we can maintain the momentum and we don’t see the drift to investment in other markets.

Sarwjit Sambhi: 80% of our investment is in the UK so obviously the UK is a critical market. For us it is the trade-off between investing in a power generation asset or investing in, say, oil and gas in the North Sea. Whichever way you look at it the UK is a very important market for us.

Q49 John Robertson: I want to talk about the strike price and the wholesale market liquidity. There are a number of questions here so if you could try and keep your answers as short as possible. What are your views on the proposed methods of setting strike prices?

John McElroy: I think we have built a lot of confidence in the price setting mechanism for the RO over the years, and the administrative process although there are, as I have mentioned, issues around the current banding review and the political interference. We have concerns in that regard in terms of how that might reflect on the strike price setting process on the CFD. What we want to see is very much an evidence-based strike price setting process and where there is plenty of opportunity for input from industry and other key stakeholders. We have some concerns around the fact that we now have the proposal that the system operator will be involved in setting the strike price and making recommendations to the Secretary of State. Equally we have a group of technical experts, interestingly no one from industry as far as we are aware are going to be on that technical experts’ group, but there is potential for conflict there and quite how the Secretary of State is going to resolve those conflicts we do not know. I think what we want to see is an open, transparent, evidence-based process that we can all have confidence in.

Vincent de Rivaz: I can confirm that for me the contracts for difference mechanism will necessarily by nature be transparent and open to scrutiny. The strike price will not be defined in a cosy way and through hidden decisions. It will be the result of negotiation and the result of negotiation will be absolutely open and transparent. The fact that today we cannot say, and I have heard many times, that the Bill does not provide all the details of the CFD, of course the Bill has to provide the principles. I think we have to be clear that the CFD is a better solution for the customers than a situation in which we take the power price and we add a premium on it. I can understand that some may prefer a solution which can create excess profits. We are in favour of a balanced deal because what is not balanced is not stable. We want a durable deal. It is a balanced deal principally because it will cut the risk for investors and they will be able to seek a return which is commensurate and reasonable with the risk and it will provide the certainty that if there were excess profits because of the situation of the power market these excess profits will be reattributed to consumers. That is the novelty of the CFD and is a better solution for the customers and therefore for the investors than a premium above the power prices. It is better for the investors as well because I do not think that a deal that is not fair has any chance to last. I think our model is that there should be no winners and losers. Customers may have to win from this reform, investors as well and policy makers to see their policy implemented. That is the important thing about these contracts for difference—fairness and transparency.

Sarwjit Sambhi: I think your question was more about the first phase of administrative process and then moving to auction. So I think as a principle starting with the administrative process is good. We have good experience with that on the RO and I think the long-term intention, once we have more participants in the industry, once we have more projects to offer going to competitive auctioning, is a good long-term goal as well.

Q50 John Robertson: Do you think particularly in your case the strike price for nuclear is sufficiently transparent?

Sarwjit Sambhi: We have to look at the first investment decision, which will be the joint venture that we have with EDF, Hinkley Point. That will be under the investment instrument. The team that is negotiating that is the DECC commercial team. They have laid out a—

Q51 John Robertson: That is not my question. My question is, is it transparent? It was said earlier in the other evidence session that they did not think it was. Sarwjit Sambhi: First of all, the negotiation has not really started. The first step has been to put in a letter of eligibility. That is very transparent. We had to be clear on why we think we are eligible. We have done that and the next step is being very transparent in how we arrive at a strike price.

Q52 John Robertson: Would you see publishing the established strike price as important?

Sarwjit Sambhi: I think transparency as to how the strike price has been developed. In the case of nuclear it is about the assumptions on what are the costs to build a nuclear plant, what is the risk allocation between the developer and the buyer of the CFD is important.

John McElroy: I would have to say that we haven’t been involved in detailed discussions with the FID enabling team around strike price but certainly in terms of Horizon we still have an interest because we are trying to sell Horizon. It is important that since it is going to be the EDF Centrica project which leads
on this that there is sufficient transparency around what is happening. We certainly would not want to see the Horizon project disadvantaged and we would like to see the terms and conditions that are offered, as it were. I think we do need to see openness in the process so that subsequent projects are not disadvantaged. 

Vincent de Rivaz: We will see this openness and we will have that transparency.

Q53 John Robertson: We will make sure of that in this Committee, that is for sure. The Climate Change Committee—do you think there is a place for that in this process?

John McElroy: The Climate Change Committee has a very important role as an adviser but I have to say does the Climate Change Committee have competence in terms of how the strike price should be set? I would suggest that that is not a particular area of expertise. Certainly they may have a role in considering what comes out of the strike price setting process and what the implications of that are but I don’t see at first hand what they can contribute to the strike price setting process itself.

Vincent de Rivaz: First of all, the Climate Change Committee has played and is playing and will continue to play a very important role to inform, to educate, to share that, and one of the elements of the strike price issue, the contracts for difference issue is to demonstrate that the strike price is justified and compared to other low carbon technology appears to be affordable and a good deal for the customers. The Climate Change Committee can have all the freedom to enter into the details of the negotiation and to set the framework about what are the costs of the technologies, and it does the job already and it will continue to be a reference point in terms of what are the costs of various alternatives. It will be very important as a framework, as a reference, but not as a key player in the negotiation. The negotiation will be between us as investors—and, in the case of Hinkley Point, us and our partners, Centrica—and the Government. It is with them that we will define the key attributes of the contract for difference—strike price, indexation formula, duration of the contract. It is with them that we will get what we need in terms of protection against change of law. Then this contract will be administered by the tangible counterparty.

Q54 Albert Owen: You mentioned the need for transparency and you assured us that there would be transparency for nuclear. Can I just remind you of what the draft Bill says with regard to the contracts for difference for nuclear, “Ministers will also take a decision on whether those strike prices are value for money and affordable and determine whether or not to award the CfD in light of that analysis.” What criteria should the Government set, given it wants this outcome? You said on behalf of the EDF, the customer, the value for the customer is important and for the consumer. So what criteria should they set when determining whether the contract for difference represents value for money?

Vincent de Rivaz: The Government will have to make its own decisions in taking into account what will be the relative costs. I am talking about nuclear but your question could apply to others. You should ask for transparency also for offshore wind farms, for instance.

Q55 Albert Owen: I am sure we are going to come to that. I want to deal with nuclear specifically if you don’t mind.

Vincent de Rivaz: I am saying that transparency should be applied to all alternatives. On the costs, we will have a process by which we can share with the Government the confidence that we have in the costs and in the timetable for construction. It is work in progress, of course, at the moment. We are not there yet but at the moment with the contract for difference, it is the cost element. The basics for the costs and the clarity of the costs will be a key issue for the Government and for others. They will have to consider the strike price and how it fits with the overall affordability agenda, for which the Government has a clear responsibility. We are both accountable. They are and we are, and at the end the priority will be: what is the return that the investor will get for their investment, and is this return commensurate with the nature of the risks they are willing to take? It is all about fairness and transparency and I think this is novel and it is positive. It creates an era of confidence that we need for investing and the confidence that the customers will not pay more than they should.

John McElroy: I would echo a lot of that. I think through the RO banding process we have seen a lot of these issues addressed—making certain that the returns to the investor are fair and reasonable and also making certain that ultimately the price to the consumer is fair and reasonable as well. The Government has to find that balance between delivering its carbon benefits, carbon reduction commitments, the affordability issue and the security of supply. All of that has to be factored in, but ultimately it comes down to the return to the investor and is it a reasonable price for the customer to pay?

Sarwjit Sambhi: I think that the test should be the total cost compared to other low carbon technologies at the highest level, and then specifically on nuclear and the construction costs, satisfying yourselves that a competitive process has been gone through to arrive at the final contractual costs and that there is transparency on that cost build-up. Then finally, an understanding of the cost of capital that is embedded in the total costs and ensuring yourselves that that reflects the risk that the developer is taking.

Vincent de Rivaz: The alternative of having an auction was not workable and the Government was wise to consider that if it had organised an auction it would be unworkable so the alternative to an auction with all the elements that people are seeking—transparency and competitiveness—will be through the process that we have described and the result will be as good as if there was an auction. An auction was simply impossible. We and Centrica are developing the Hinkley Point project. We are investing ahead of the decision hundreds of millions covering the generic design acceptance certificate from the safety authority to make the application for the consent to construct...
with the IPC, to prepare all our procurement documents and all our engineering tasks. It is not possible to imagine that several developers would do the same thing on the same site with the same project, so the auction is not an option. We have to find a substitute for it and I think through the transparency process we have described we will have it.

Q56 Albert Owen: Okay. You mentioned—if I can go on—that the contract for difference must be legally robust, and in the written evidence from EDF you have some concerns about that as it stands. What can the Government do and what can be achieved with the passage of this Bill that would convince you that we have a legally robust system of contracts for difference?

Vincent de Rivaz: The fact is that we have accepted, as we are all realists, that the full Bill will not be completed before we need to make our final investment decisions. So the contract we are going to negotiate and that we will have in our hands to make the decision before the consent has to be protected against any risk of its being delayed or any other problems. So we are discussing that and there are solutions and we cannot take—

Q57 Albert Owen: Sorry, I need to ask this question. Can you share that with us, because in your opening remarks you said you were very comfortable with the concept of contracts for difference? Yet in your written submission there are a lot of issues here that you are concerned about, the legality of it. This is very important for us to take forward for this draft Bill. What do you find objectionable here or that could be challenged quite easily, on the advice that you have been given?

Vincent de Rivaz: It is compatible to say that the contract for difference in its principles is a good solution, as I have said, while at the same time to be enough for making our final investment decision we need to have a legally robust arrangement when we have this contract. That is what we are working on and we will be very keen to see your Committee pushing in that direction and helping the Government to make—

Q58 Albert Owen: You can be assured of that but we do need something from you, from industry. The whole purpose of this session today is to have your written submission and for us to ask these questions and for you to try and answer them so that we can put pressure on the Government. Certainly the others will have an opinion but I was just asking about the nature of the legal uncertainties and I just wanted some clarification, but I am happy for your colleagues to answer from their perspective.

Sarwjit Sambhi: I think the issue that has been raised is around the payment model on CFDs so I think in general we are aligned on the concept of a Contract for Difference. It is the payment model that we are questioning. The one that was proposed by DECC, the statutory contract model, most of us have sought legal advice and most of the big UK law firms have consensus that the statutory contract model has difficulties in terms of legal—

Q59 Albert Owen: Are you talking about a joint venture here or are you talking about "we" as Centrica?

Sarwjit Sambhi: No, this is Centrica, and some of the other industry participants have seen the same legal advice, and that legal advice says that the statutory contract model is difficult in terms of legal enforcement and in terms of financing with other investors. We have proposed to DECC an alternative model, which is a much simpler bilateral model with a counterparty at the other end that is creditworthy and that is what we are asking for. DECC, in the draft Bill, have acknowledged that they are considering that alternative model. If you are asking if we go down that route what are the key requirements, it is a contract that is legally robust, meaning that there is sufficient change of law protection and that the counterparty at the other end is creditworthy.

Vincent de Rivaz: As has been said, there are two elements. On the counterparty issue I fully agree with what has just been said. We need to have a counterparty that has the power to raise money from all suppliers collectively. They are all going to pay the same amount of money per unit or proportion of the units they are going to ask for in order to honour the contract, so this has to be a tangible counterparty. To be clear the initial proposal was a virtual counterparty. It was not really existing, so I think it should not be too hard for your Committee to convince the Government to move to the alternative solution that we have just described. So that is a key element. In addition to that, there is a second element which is the fact that when we sign the contract for difference within the transitional arrangement framework we clearly need what I have called a robust legal framework so that we can be sure that there will be no prospect of change to the CFD, to the arrangements made, and if there is any event happening detrimental to the investors that we have some form of robust protection against these changes. Obviously when the Royal Assent will be there we will be in a much more comfortable situation, but why we are insisting on the fact that rather than to have the Royal Assent by the end of 2013 the Government should come back to its initial timetable, which was an early 2013 Royal Assent.

John McElroy: I think it is the nature of the statutory contract that is proposed with the multi-party model and it is new in concept. It is not something that we have experience with as an industry, so it raises the sort of questions that have been referred to. Normal contract law may not apply here, because this is a deemed contract on suppliers, I think even the alternative model, a single counterparty model, has its own issues and we have issues around the counterparty, the legal structure, the accounting issues, dispute resolution and there is a lot of work to do on any model to work these through and bottom them out and feel comfortable. I have to say at this stage there are issues both with the model which is embedded in the Bill and there are issues with what DECC is currently considering and we are not in a position where we can say which is the best of those options, but we need to work through them quickly and come to some conclusions.
Q60 Albert Owen: I realise the time factor, but I just wanted to ask while we have Centrica and EDF together here, are you waiting for this reform before making the final decision with Hinkley, in particular Centrica? Is that a condition, or are there other business considerations that you will need to take into account before making that final decision?

Vincent de Rivaz: It is very clear that we will not be able to make our final investment decision as we expect to make it at the end of the year without a contract for difference and without a robust legal framework for this contract through the transitional arrangements to be protected against the risks that an investor would want. It is difficult, and we raise issues, but we do focus on the solutions. We are not here to be negative against the overall Energy Bill at all.

Q61 Albert Owen: I am looking for clarity as well. Vincent de Rivaz: You have heard different noises from different people raising fundamental issues, and with the reform itself—

Q62 Albert Owen: Sorry, you have been very clear on your answer. The other side of that coin; if this reform would have gone through earlier, would you have made your decision earlier?

Vincent de Rivaz: I think at the moment things are moving in the right direction, on the right path. The momentum is there and has to be maintained. We are working in parallel to make our decisions on all sorts of other issues. As I have said, we have been working to prepare—we submitted it last year—a consent to construct application with the IPC. It is a huge task and we will not get the answer before the end of the year and we need it anyway to make our decisions. We are working parallel with the Office for Nuclear Regulation to get the final certification and it is done in parallel and we are aiming for the end of the year so we are putting in a lot of effort in order to converge for this at the end of the year but this reform is absolutely critical.

Q63 Chair: I appreciate that it is not directly relevant to the Bill but perhaps while you are here, in view of the elections in France on Sunday, would you just like to say whether you consider that with a new President you have held back?

Sarwjit Sambhi: We have been very clear in terms of what is required to make a positive FID decision. One is the business case which requires the investment instrument to be in place, the CFD. The second is all the permitting to be in place, both in terms of planning permission and the design approval and third, making sure that the project team is construction-ready.

Q64 Albert Owen: Sorry, Chair, can I go back to ask Centrica with regards to the EMR, is that the reason why you have held back?

Sarwjit Sambhi: We have been very clear in terms of what is going well is the reform of the planning system which has been put in place by the previous Government and amended by this Government is working. It is working. It is a huge task to apply, it is a 40,000-page application file with 40,000 pages of appendices, but what is going well is that the timetable is respected, there is a framework, and we are working on that. On the GDA which is very important, and on the nuclear side with the safety authority we are working with the same objective of the end of the year. So the issue is to have all the pieces of the jigsaw coming together at the moment of the final investment decision, and we are not passive, I can tell you—we are extremely active.

Q65 Albert Owen: That is all done. It is just this reform.

Sarwjit Sambhi: Well, no. We still do not have planning approval. We do not have final GDA approval. So there are other things other than the investment instrument.

Vincent de Rivaz: They are other things on which we are making progress, and they are all converging for the end of the year. We know the date when the IPC will decide the consent to construct. It is 21 December. By the way, it illustrates the fact that the reform of the planning system which has been put in place by the previous Government and amended by this Government is working. It is working. It is a huge task to apply, it is a 40,000-page application file with 40,000 pages of appendices, but what is going well is that the timetable is respected, there is a framework, and we are working on that. On the GDA which is very important, and on the nuclear side with the safety authority we are working with the same objective of the end of the year. So the issue is to have all the pieces of the jigsaw coming together at the moment of the final investment decision, and we are not passive, I can tell you—we are extremely active.

Q66 Sir Robert Smith: You have already raised the counterparty’s role and obviously when the Government first looked at this with its assessment of the assumptions in the Bill that it was going to come forward with the Government were going to take the risk as the counterparty and now they are not. What
difference has that made to the cost of capital for the project?

**Vincent de Rivaz**: The cost of capital issue is clearly in the nature of the contract. If we have certainty in the revenues, if we know because we have a fair deal that it would be durable, if this strike price and those revenues are calculated on the basis of our costs and on a fair return on the capital invested, clearly it is a business with a paradigm which is to reduce the risks on all fronts, and therefore the cost of capital. We have to be protected against change of law, clearly. Then the fact that the counterparty is not the Government, not a Government entity, is not the issue, provided that we have negotiated a contract with the Government and there is a protection against change of law. The practicalities of the counterparty are under discussion. If it is an entity or a subsidiary of the national grid we have no problem with that. It is the sense of the solution that we are working on. There are probably other solutions. This one should be workable and we have to work on the details of it and the Government, with your support, have to provide the details. We are very open to the fact that the initial proposal has to be modified. We have a few weeks to make it happen.

**John McElroy**: I would have to say clearly the original consultation and what was set out in that with regards to the Contract for Difference was quite important in the sense that the Government as the counterparty underwriting the contract in some way and the nature of the risks associated with these large low carbon projects, that we saw Government’s role in this as important in terms of reducing the cost of capital. Now that Government seems to be trying to push its involvement in these contracts away from itself, partly driven by State aid rules, partly driven by the State aid rules, inevitably that claimed cost of capital benefit is not there. I think it is very hard to say at the moment just quite what the outcome will be in terms of the cost of capital and whether it will be any better than it is under the current RO arrangements, for instance. We will have to wait and see.

**Q69 Sir Robert Smith**: You would share the view that a single counterparty is probably a necessary improvement on the Bill?

**John McElroy**: It comes back to a single counterparty and all the issues that go with that, so early days.

**Q68 Sir Robert Smith**: Can you see a multiple one working?

**John McElroy**: I think I have already said that there is still quite a long way to go through to work through the detail. I think there is a possibility that both could work but the devil is in the detail.

**Sarwjit Sambhi**: I think we are muddling up the payment model on CFDs with the cost of capital benefit of a CFD. The original impact assessment in terms of the cost of capital benefit arose from taking away the wholesale market power risk from the developer or investor. That, under the CFD arrangement, whether it is a statutory contract model or a bilateral, still stands. The issue we have with the statutory contract model is its legal enforceability.

**Q70 Sir Robert Smith**: The previous witnesses were all quite exercised about the banding review sending signals that might worry investors about slippage of timetables and decision-making not being evidence-based. Is that something that you would share about the current banding review?

**John McElroy**: I think we have seen a number of things with the changes to the feed-in tariffs arrangements and the delays around the banding review and clearly this links into the levy control framework as well. Clearly how the banding review plays out and what we see in the final numbers will I think give us some indication as to just how big a problem we have in that area.

**Sarwjit Sambhi**: I think the delay in the banding review has a big impact. I think it does inadvertently cause a hiatus in investment and in addition with people making up what might be in the banding review that creates further investment uncertainty.

**Vincent de Rivaz**: I think we have seen a number of technical issues that can be fixed. The important point is the CFD and protection in the long term against any change of law.
that your large scale investments come on line and they are not held back by the lack of regulatory framework? Are you in any discussions at the moment with DECC on any of these?

Sarwjit Sambhi: It depends on which technology, as I think Ian in the previous session mentioned. On offshore wind, we have the RO to do and providing the banding review comes out as soon as possible then we can invest in renewable technology as covered under the RO. On nuclear it is different. If the question is: what is required to make that positive FID decision in terms of the investment instrument under EMR so the CFD, then the questions to be asked are is it a robust contract, i.e. does it have change of law protection? Is the counterparty sitting on the other side is it a robust contract, i.e. does it have change of law protection? So that is what is required and that is what we are trying to arrive at through the negotiation with the DECC commercial team or the FID enabling team.

John McElroy: I will just make one comment in this area regarding the investment instruments. What surprises us to some extent around what is in the draft Bill is that the powers are significantly less restrictive around the investment instruments than those that effectively relate to the CFD and I think that is something that is worth noting.

Q72 Laura Sandys: What do you mean? You mean that this hiatus period is much more flexible?

John McElroy: It seems to have quite broad powers and to go beyond what we would expect to see in the CFD to offer comfort. I mean I think from our perspective I would—

Q73 Laura Sandys: So in some ways there is an opportunity here for a dash for investment?

John McElroy: I think there is a lot more that will drive investment decisions but I would echo what has been said on my left in the sense that any investor who is going to go ahead in this period will need certainty on the counterparty, on the legal structure, on the strike price, particularly on the terms and conditions. I think state aid clearance is quite an important issue with regards to this as well, that it comes back to the creditworthiness of the counterparty and the risk transferred between the developer and the counterparty as well.

Q74 Laura Sandys: Just taking up on this issue of state aid, there are divergent views within the industry about whether some who believe that it might fall under state aid and others that do not. In many ways the industry wants it both ways. On the one hand you are looking at wanting to have the state as the counterparty, because that reduces the cost of capital and creates a much more bankable investment. On the other hand we have the issue about state aid and I don’t know how you see these—

John McElroy: State aid is not straightforward. It is not a question of yes or no, it is also, is it allowable state aid as well? So it is complex in that regard.

Q75 Laura Sandys: One of our concerns is that it has not been properly tested enough by DECC, not necessarily by the industry, to come to any clarity on whether it will fall under state aid and I would urge our Committee to be—

John McElroy: We would like to see DECC testing this a lot earlier with the Commission and starting exploratory discussions. I don’t know how far they have reached on those but given that even on a good day it is going to take you six to nine months to get state aid clearance, and if there is any difficulty or concerns that may not be compatible it could take you up to two years. That becomes quite critical in the timescale and, therefore, DECC needs to start working on that now.

Sarwjit Sambhi: We start with the assumption that clearance will be required and therefore we are working both the DECC commercial team and the EMR team at DECC are focused into building into the timeline sufficient time to get state aid clearance.

Vincent de Rivaz: We need to get this clearance but we should not be the hostage of this issue with constant preoccupation about state aid to the point that it becomes a distraction. We have to be clear that everything that is proposed is fair, and there is no element in the proposal which could be seen as state aid. It is not because there is a contract for difference we provide to customers for a better deal which protects customers in the long term that it is a state aid. The fact that there is a contract for difference means that whoever makes excess profit would have to reattribute that to the customers. I think it is difficult to deduce from that that there is a state aid issue. The policy of the Government in Britain is consistent with the European policy, environmental policy, competition policy and so on. Indeed we have to clear up this issue but not to the point where we are say every morning there is such an issue that it delays it by a few months then we are creating a problem of our own making. I think we need to be very clear. I am convinced that the idea that there is a state aid issue, that there is a subsidy issue does not reflect the facts.

Q76 Sir Robert Smith: With the very fact that without the Bill these plants were not going to go ahead and with the Bill they are, the assumption must be that the Bill enables investment that would otherwise not happen. So it must be a positive for the investor?

Vincent de Rivaz: Yes, but a positive decision for investors does not mean state aid. Is the state going to abdicate its responsibility to provide secure, affordable, low carbon technology when it is needed? Being accountable does not mean giving undue aid to the investors. It is just to take responsibility to deliver the policy and if the framework of today does not work does not mean that a new framework is state aid or is implying subsidy. It is a matter of responsibility and accountability in the first place. We should not abdicate our responsibilities and we all need to be accountable.

Q77 Dr Whitehead: Do you think there is a potential role for demand reduction in EMR and particularly in the context of the proposals for capacity payments, capacity markets, and do you consider that the—shall
we say—effort that has so far been put into looking at how demand side measures might come into EMR has been sufficient?

Sarwjit Sambhi: Our assumption, and I think DECC’s assumption, is that demand side response will participate in the capacity market. The question is how well it will participate and that is a level of detail that DECC have not yet defined but I think everybody starts from the assumption that they will participate. I think it is a great opportunity to have innovation in the electricity market. I am in the previous session talked about the need to aggregate load and I can see a market develop for these aggregator services that could take very small loads in domestic households and really aggregate them up to something big, 200 megawatts, 300 megawatts. That is a chunky piece of capacity that could participate in the capacity market.

John McElroy: One of our concerns, really around EMR is the link between the supply and the demand side. To some extent that DECC has come rather late in the day to looking at how all of this is joined up and how the two sides interact. What is absolutely critical is, the price at the interface and having the right price signals that can encourage the demand side to respond. We are investing £11 billion, £12 billion in smart metering, which is all about facilitating demand side engagement, and potentially demand side response. We have to be careful about this. We haven’t really talked about how Ofgem interacts with EMR, but the cash-out review is very important in terms of the whole issue of how that interrelates with the capacity mechanism and what it does at the interface between the supply and the demand side. We are keen to see whatever comes out of this being economically efficient and delivering the best value for the consumer. There are a lot of issues around how you design the demand side participation in a capacity mechanism, ensuring that you actually get something which is economically efficient and gives value for money to consumers.

Q78 Dr Whitehead: As we believe, you find room in capacity market measures for demand side and demand regulation, demand reduction measures. Where does that leave the question of the estimate of what capacity will be, in order to determine how the capacity market is going to work in the first place? Doesn’t that appear to be rather a difficult question?

Sarwjit Sambhi: That is the question of how the levy control framework, and the role that might play, in terms of the investment that is needed, and indeed, some of the decisions that may be taken on capacity payments, or could be taken on capacity payments as a result of those investment decisions? Do you consider that the levy control framework as it stands, is likely to cause difficulties for obtaining investment decision, contractual difference and possibly what capacity payments might be required to facilitate those investment decisions?

John McElroy: Yes, I would have to say, I would echo some of the comments that were made. Large low carbon projects are pretty chunky by nature—despite when they are going to arrive—and they could arrive with two, three, or four in one year. Therefore, there is real concern for project developers. It would take maybe four plus years to get to a final investment decision, and are the funds going to be there, in terms of the levy, to allow those projects to go ahead. It is not just the issues within one single comprehensive spending review. Actually, if you are looking four or five years out that actually infers that you need to have some knowledge of what is in the next comprehensive
spending review as well. I think there is a real need to provide some clarity around how Government is going to manage the ceiling on the levies going forward. There is the model that, I think, Keith Anderson put forward, which was having some means to be able to bank and borrow between years within a spending review period. But, equally we have got to manage the cliff edge at the end of the comprehensive spending review period as well and make certain that we don’t put project developers off. Because the danger is that sort of risk and they will say, “Well, we’ll develop projects elsewhere.”

Sarwjit Sambhi: The concept of a levy control framework is well understood, in terms of the need to cap the total cost. The practical issue that many of us see is; how do you take out of the pot? If you are just taking out the top-up payment from the wholesale price, that is volatile, therefore, the size of the pot will be volatile as well.

Q81 Dr Whitehead: But the cap is not?

Vincent de Rivaz: It is really a matter for the Government to decide. Clearly the drafting of the Bill is a product of work across all Departments of the Government, including the Treasury, BIS and obviously DECC. It is for the Government to decide and we have no reason to believe that the reforms will be impeded by the levy cap. We have to be confident that the Government will be consistent in not making decisions that are counter to the main direction you want to follow.

Q82 Dr Whitehead: Forgive me, but is that not perhaps related to the fact that you may well clean up on CFDs and the letters of comfort that will come in early, which will then feed into the levy cap, and may well cause parts of that levy cap to be, as it were, pre-allocated prior to anybody else turning up to get their CFDs? That is good news for EDF, isn’t it, but perhaps rather bad news for others?

Vincent de Rivaz: I am not sure I understand what you mean there. Sorry.

Dr Whitehead: Well, if you have a letter of comfort prior to the CFDs within the levy cap—

Vincent de Rivaz: We are not asking for letters of comfort.

Sarwjit Sambhi: We could go back to the question that was asked earlier—how do we ensure that it is value for money? It is the comparison of, is the investment that is being enabled competitive in the world of low carbon generation. Have the costs that have been put forward, have they been arrived at in a competitive process and is there transparency on those costs? If you can tick every one of those boxes then it should have an early dip on the pot in the levy framework.

Q83 Dr Whitehead: But, bearing in mind the lumpiness of investment, if particular elements of investment coming on stream push against the walls of that levy cap, is there an easy solution to that?

Sarwjit Sambhi: Well remember it is not just about the levy control framework. It will also cover existing mechanisms, such as the RO. So, there will continue to be renewable projects that will get to the pot before something that gets an early CFD through the investment instrument.

Q84 Dr Whitehead: Presumably a levy cap would have to incorporate both continuing RO and the effects of CFD within the next spending round?

Sarwjit Sambhi: Yes, that is our assumption.

Q85 Dr Whitehead: When you say that is your assumption, you do not know?

Sarwjit Sambhi: That is our assumption. Well, I think how the levy control framework operates is not transparent to the industry.

Q86 Sir Robert Smith: Is that a bad thing?

John McElroy: I think, given the scale of the investments that we are talking about, we need a lot more transparency and predictability around that. I think it is important for us that whatever happens does not end up sort of picking winners or choosing technologies. I mean, ultimately, value to the consumer is important, and that is partly what the levy cap is there to protect. But, the last thing we want to see is it deterring people developing projects in the UK.

Q87 Dan Byles: We had a brief discussion with the previous panel about emission performance standards, and the Secretary of State’s power to exempt the generators matter in times of emergency. The consensus seemed to be that, as long as it was an emergency power, that wasn’t a problem. Would you agree?

Sarwjit Sambhi: There wasn’t consensus, I think Ian disagreed with that, and I agree with Ian that it is not necessary. If you have capacity payments in place where, coming back to Alan’s question, somebody is looking out for the required reserve margin that is required in the system, then you should not need to have the emergency measure. The 450 grams applies to a whole year. If it is just for a short period of time the generator can generate in excess of 450 for that period of time.

John McElroy: Yes, I mean, whilst I hear the comment, there are unforeseen circumstances which can lead to specific emergency conditions. I mean, the Secretary of State already has considerable powers, in terms of emergency provisions with regard to other environmental standards. But given—as the point that is being made—that the emissions performance standard is essentially an annual cap, I think to a large extent that should go towards mitigating this. People have run right all the way up to the line.

Q88 Dan Byles: Things have gone very badly wrong if you needed to do it, in effect?

John McElroy: But in extremis, in emergency, under well defined conditions, I don’t see that there is a particular problem.

Vincent de Rivaz: I think the concept is fine. I think we support the concept of an emissions performance standard.

Q89 Dan Byles: It also talks about him being able to exempt parts of EPS under other circumstances, in
particular around CCS. In fact, this has been quite controversial. The suggestion is that the Government can exempt projects that form part of the UK CCS programme on a case by case basis. For this purpose they define that as, “A generating station at which carbon capture and storage technology is, or is to be, or has been used in commercial electricity generation for the purposes of, or in connection with, a CCS demonstration project”. Some people suggested that seems very vague. I am curious to know what your thoughts are on that.

John McElroy: Okay, you could say it was very vague, but demonstration projects for CCS come in various sizes, various technologies. They are quite project specific. It is inevitable that the powers have to be reasonably vague at this stage. What would be more important is that you have set up the appropriate criteria, in terms of any relaxation of the EPS, such that there is fair play, and there isn’t abuse of the rules.

Q90 Dan Byles: Do you think the Bill should, for example, lay out a figure in relation to the proportion of emissions that would need to be captured before it might fall into that category?

Sarwjit Sambhi: Coming back to your own question, I think it is too vague. I think it does create an opportunity for mischief or just, for example, having a very small amount of carbon captured. Therefore, one way to mitigate that is having a minimum requirement.

Q91 Dan Byles: Do you think there is also a danger that a plant simply has to be part of a CCS demonstration programme, but it does not have to be part of a successful CCS demonstration programme. I mean, we could actually end up with, for example, new unabated coal-fired power stations that tried and failed with capture and storage but they’ve been exempt from EPS going forward.

Sarwjit Sambhi: Then I think the plant should close down.

John McElroy: I would have to say that, in terms of whatever is in the contract that the Government awards, in terms of the CCS competition, needs to make certain that the right outcomes are there.

Vincent de Rivaz: It was said earlier that this draft Bill is complex, and I said it was not so much complex but comprehensive. The emission performance standard is part of this holistic approach. I think the concept is right. Now, we have to be sensible in the way we apply it, for sure, but we have to be logical at the same time if we want to decarbonise generation. This emission performance standard is one of the tools to monitor that we achieve that, and that we need to reduce as much as possible the exemptions to this order.

Q92 Dan Byles: What about the grandfathering of plants under the EPS? There has been some criticism of grandfathering, gas plants, for example, out to 2045. Do you think that that is a sensible move that the Energy Bill is going to bring in?

Sarwjit Sambhi: I think without that grandfathering you won’t get the investment in new gas fire generation. But, I think that this general consensus will be needed at the back end of this decade. So, that time horizon covers the investment period for a new plant.

John McElroy: I would agree with that point entirely. The situation is that we introduced the EPS in 2014, and we are going to review it in 2015. Then the issue of grandfathering comes back up again. You know, there is a window of opportunity, shall we say, but we don’t quite know what is on the other side of the review. It will create some sort of hiatus two or three years down the line.

Q93 Dan Byles: Is there a danger that we could end up with more gas online as base load, than was originally intended, rather than a peaking point?

Sarwjit Sambhi: I think that depends on the success of the other instruments that are being put in place. You know, if CFDs provide an attractive return for the investor, then the UK should end up with a generation mix that it originally envisaged.

John McElroy: Gas has a key role in the transition to low carbon, and we do need some CCGTs in that early period. What happens in terms of its utilisation through life is another issue. You know, I would say for that reason we need the certainty around the emissions performance standard to make certain that we get that plant on the system.

Q94 Sir Robert Smith: Does the emissions trading agreement not working properly not send a signal?

John McElroy: I mean you could—we are going to have an emissions performance standard, and I have answered the questions in that context. I mean, quite honestly the ETS should cap emissions. All that the EPS essentially does here is limit the emissions in the UK and they will all go up elsewhere.

Vincent de Rivaz: By the way, your point is confirming the necessity of carbon price floor. The EPS scheme, does not deliver price. I think this was the right decision to introduce this current price floor.

Q95 Sir Robert Smith: The same argument applies. If you have a floor in one country, and when you are part of a single emission trading market, you are just subsidising your neighbours.

Vincent de Rivaz: The Government has, firstly, taken the right decision to say that CO2, has costs, which should be priced and the price that is at level, the people that have designed the emission trading scheme in the first place thought it should be, and delivering it for 20 years, to 2020 and 2030 is exactly where people having designed the scheme thought it would be. So, there is no initial cost. I will just finish. Secondly, the Government has taken at the same time, some specific decisions for some large users of electricity to compensate the impact in the short term. We have to hope that eventually the carbon price floor will be at the level it should be if the market mechanism was working. We believe that the market should be confident the market will deliver. At the moment, it does not. But there is constant solution with the floor. If the price are going up the floor will not apply. Without it, we have to be clear that—and we are operating coal-fired power plants, so we are
going to pay our share of it. There is no doubt about that. But, in a sense, we should not encourage the polluters to pollute. A very low carbon price is a sort of windfall profit for the polluters.

*John McElroy:* My view is that if we are going to anything around carbon and carbon price it should be done at European level and not at UK level. I think talking about windfalls for the lower carbon prices, when there are benefits for nuclear operators from carbon floor price, is a little bit rich.

*Vincent de Rivaz:* You mean you are promoting the current price of the floor at the European level?

*John McElroy:* I was saying that—

*Vincent de Rivaz:* Did you properly explain that? We need to be consistent.

*John McElroy:* What we are saying is that you should control carbon price at the European level through the cap on the EUETS, and that is the best way forward. But, I mean, I think the point is that given the structure of the CFD, the carbon floor price has very little bearing on investment in low carbon technology. It is purely a penalty on fossil plant and a higher cost for the consumer and revenue for the Exchequer. It does not actually deliver low carbon.

*Chair:* Thank you very much. To just make one point at the end, which we have made to the previous panel, the more the industry has points of agreement about how the Bill should be amended, the more likely those are to be accepted, in my view. It is relatively easy for ministers to refuse to modify their proposal if they can point to people who take different views. I don’t know, maybe it is difficult to do that. We are very grateful to you for your time, if there are any additional points you want to make to us, do feel free to write to us. This is going to go on for the next three weeks, these evidence sessions. But we appreciate the time you have given us this morning and we hope that we will be able to come up with a report that actually, at least, addresses some of the concerns which you have expressed.
Tuesday 19 June 2012

Members present:
Mr Tim Yeo (Chair)
Dan Byles
Dr Phillip Lee
Albert Owen
John Robertson
Laura Sandys
Sir Robert Smith
Dr Alan Whitehead

Examination of Witnesses

Witnesses: Dr David Kennedy, Chief Executive, Committee on Climate Change, Professor Catherine Mitchell, Professor of Energy Policy, University of Exeter, Professor David Newbery, Emeritus Professor of Economics, University of Cambridge, and Simon Skillings, Senior Associate, E3G, gave evidence.

Q96 Chair: Good morning. Thank you very much for coming in. You will be aware that there is a lot of interest in both this session and the work that the Committee is doing on the Bill generally. I apologise in advance for the fact that we are extremely tight for time. We have been required by the Government to complete this scrutiny in five weeks. Parliament is normally allowed 12 weeks, so we are working at two-and-a-half times the pace that we would normally do, which means, I am afraid, that our witness sessions are even more compressed than usual; we have an hour to get the best out of the four of you. Thank you for coming in. We will do what we can.

Could I start with a general question about whether you think the Bill is actually needed, or whether we couldn’t have done all this by incremental changes to the existing arrangements? Would that have perhaps been a simpler way of delivering the aims of greener, secure electricity at the most affordable price?

Professor Newbery: The answer is that the core of the Bill is the long-term contracts, and in the past we have had NFFO contracts, so one can imagine setting up a public sector investment bank that is willing to offer long-term contracts, in which case perhaps you didn’t need the rest of it, but we are where we are. The Bill allows these contracts in some form to be implemented.

Dr Kennedy: We think the Bill was needed, given that we recommended the need for electricity market reform in the first place. We have highlighted the importance of decarbonising the power sector in the context of meeting carbon budgets and the 2050 target. We presented an analysis back in 2009 that said that if we stick with the current arrangements we wouldn’t expect to decarbonise the power sector. We would expect to continue to invest predominantly in unabated gas-fired generation, which would be a bad thing, and that the way forward is to offer investors long-term contracts that give you security over your revenue, which says to investors, “If you can build me a plant, we will provide a market for it. We will give you stable revenue”. That is the best way to bring forward low-carbon investment at least cost to the consumer.

Professor Mitchell: I am 50:50. I think we need to have a new Energy Act that is about the future and taking the current energy system to the future. What we currently have in the Draft Energy bill is not about getting a smart, flexible, interconnected, whole system approach at all, and we do need to have that. But as it stands, unless there are fundamental changes to it, I would scrap it. I think for the other 50% there is quite a bit that we can do with what we had before, I think what we should do is scrap the CfD anyway; we should have a fixed feed-in tariff, which we could do from previous legislation; we should have an analogous mechanism that is for energy efficiency, which I think you can do from previous legislation. We do need to have somewhere legislation for decarbonisation, which the CCC calls for, but which is currently not in the Draft Bill. So, basically, I think it is a very bad idea to carry on with CfD as it currently is, but if we stick with what we have, we are still in the problem that we are not, as a country, getting ourselves organised to have the kind of interconnected, forward looking energy system that we need if we really want to get those opportunities for Britain.

Simon Skillings: I would agree with the premise that we need an Energy Bill if we are going to deliver the policy objectives in a remotely efficient and balanced way. I think the challenge that everyone faces is the “when” question. How long do we take to get it right? What is the penalty for letting it stagger on for a few years? Clearly there is a cost penalty. The longer it goes on, the more costly and the more difficult it is, and yet these are very complicated matters that will go on, the more costly and yet these are very complicated matters that will take time to sort out. I am of the view that the current draft is not perhaps very close to where we need to be to meet those objectives. So that is the challenge: how long do we spend getting it right against the penalty of delaying and increasing the cost of delivery?

Q97 Chair: There is a bit of diversity there. It is tempting to try to pursue it in more detail, but I think we have to move on quickly. Do you think that the proposals as they stand will reduce investor risk and therefore cut the cost of capital or not?

Dr Kennedy: I think they could do. Again, the principle that we should have long-term contracts that provide revenue security to investors is the right way forward. I think what is in the Bill is very high level and so I don’t think we can look at the Bill now and say this will bring down the cost of capital. It comes down to whether we can get a legally robust form of the contract, and then whether we get all the details right, and whether we can get the risk allocation right for investors. None of that is settled yet. That will be
the test of whether this is successful—whether it brings down the cost of capital and whether it brings forward the investments that we need. So there is still a lot to do. As for whether you deal with this in the primary legislation, I think some of it you do. As to whether some of it has to be dealt with through the implementing arrangements, I think that is the case as well.

Simon Skilling: It seems to me that again the answer “It may do” is right, but the idea that somehow or other a single instrument as set out in the Bill can reduce investment costs for all investors at all times, investing in all technologies, seems to me beyond preposterous. Different instruments will be appropriate at different times for different investors in different circumstances, and to try to constrain the instruments is, in my mind, lead to efficiency in bringing forward investment.

Professor Mitchell: I would say no, it won’t bring down the cost of capital because of the increased risk. You have increased risk for renewables from the proposed CfD mechanism and certainly from the fixed feed-in tariff. I don’t feel that nuclear is where my expertise is, but from what I understand the costs that are being discussed in terms of nuclear are getting higher and higher because of concerns about who the counter-party is and so forth, and that is leading to greater risk again. So I would say no.

Chair: We might return to some of these in a moment.

Q98 Sir Robert Smith: If we could, let’s just explore a bit more. There is a bit of a range of views on the Contract for Difference. I think, David Kennedy, you are reasonably keen on the Contract for Difference.

Dr Kennedy: We are keen on the principle of long-term contracts that provide revenue security. There are different contract forms. When we made the recommendation at the end of 2010, we said it could be Power Purchase Agreements. They are pretty standard around the world. They give you a secure revenue flow. You can design Contracts for Difference to be pretty much the same as a Power Purchase Agreement. You can design a Contract for Difference to be the same as a feed-in tariff, with a legal underpinning. It comes down again to how you design the Contract for Difference, rather than the principle of having them in the first place. I think that is where a lot of the uncertainty is, it is where a lot of the pushback is, because we haven’t seen any of the details. I am sympathetic to Catherine, who says we are going from a system that is well understood by investors to one where it is not well understood because it is not well laid out at the moment. The challenge then is to put in place the detail very quickly, to win back the confidence of the investors and to avoid a hiatus in investment. I think it is to play for. I think you can do that with a Contract for Difference. In the case of renewables, I would make it much like a feed-in tariff; in the case of nuclear, maybe not as much so, but again that remains to be done, and until it is done I don’t think we will have investor confidence.

Professor Newbery: Looking on the positive side, the Bill, as I understand it, does allow for some flexibility in the design of Contracts for Difference. I am looking at paragraph 54 of the preamble; the system operator is supposed to go ahead and design these, subject to your approval. If you tell them to get on with it and propose sensible-looking contracts for different technologies, some of this uncertainty might be resolved fairly soon.

Simon Skilling: I think it is possible to reconcile the drafting with a few amendments, which are perhaps minor in size but significant in effect, that can create a more general contract form that, for renewable investors, replicates a feed-in tariff. So we shouldn’t think that the Bill cannot be saved, but I would certainly concur that it has to be made more flexible in contract form.

Q99 Sir Robert Smith: Professor Mitchell?

Professor Mitchell: It is just the continuation of the last 20 years. That would be what it is. What I really feel about this Bill is that it is just playing catch-up in that the focus is supporting low carbon generation rather than promoting an efficient whole energy system. We started off with a mechanism 20 years ago, at the same time as Germany and the Netherlands. We have not been successful. We have changed it twice. We are having this Bill, which is a kind of a catch-up, just to start getting low-carbon capacity going, and that at best will not be successful and it may be a complete failure. Meanwhile other countries that have had successful mechanisms to support low carbon generation for the last 20 years are at the next stage of developing efficient whole systems—interconnected, flexible energy systems. So they are going to be doing that for the next 20 years, and we are just going to be playing catch-up again. I would say, yes, you can tweak it. I don’t know what you do with nuclear, but with the CfDs for renewables there are so many details that have not been worked out that it is almost impossible to say what the effect of it is going to be on renewables.

Q100 Sir Robert Smith: Do you agree with SSE that they could maybe keep open the option of a premium FiT?

Professor Mitchell: I don’t like premium FiTs because—and there is a lot of evidence about this from other countries—the incentive for generators is just to get a higher and higher electricity price so that they get paid more through the premium FiT, and so what happens is that all those extra bits that add on to the electricity price tend to be supported by those who want to be paid more through the premium FiT with a bigger payment. I much prefer fixed feed-in tariffs, which you can depress quickly. You can start off, as, for example, with PV, which was very expensive, but you can quickly reduce down the price paid to generators, so that you are only a few per cent. over the traditional electricity price.

Dr Kennedy: There will be an overlap between the renewables obligation and the electricity market reform, so they will both be in place for a period. I think what you will find if we get the electricity market reform right—and that means designing it to give renewables something equivalent to a feed-in tariff—is that people choose to go with the EMR and...
Q101 Sir Robert Smith: Do we need to extend the life of the renewables obligation to give a better overlap?

Professor Mitchell: It depends what it is you are putting in place, doesn’t it?

Dr Kennedy: That would have to be plan B, I think, but plan A is to get this set of arrangements right to make them such that they bring forward investment in renewables, and then you don’t need to extend the renewables obligation. I think if we get it wrong, if we delay with the legislation, if we delay with the implementing arrangements or if we don’t get the implementing arrangements right so that we have too much risk with the investor, you may then want to extend the renewables obligation. I think we need to do this quickly.

Professor Mitchell: More preference is to have a straightforward fixed feed-in tariff, but if you don’t want to have it open, as the German mechanism is, then you can just cap it—have percentages each year until you hit your 15% of energy supply as required through the EU Directive. So you can know that you are going to meet your legally required target, but at the same time you know that probably it is going to be a whole lot cheaper than the current CfD mechanism, because it does reduce risk and you are going to bring in far more new entrants as well.

Q102 Sir Robert Smith: The mechanism itself alters the cost of capital by giving an indication of the kind of returns that people can get from their investment and how long-term they are, but there seems to be a lot of concern by the industry that the actual counter-party they are contracting with is going to undermine any savings because of the risks of having multiple parties to the contract. Is that something any of you have a view on?

Professor Newbery: It does seem to depend on whether you have a credible counter-party and I cannot understand why, certainly for renewables where there is no state aid issue, that counter-party can’t be the Government, because the Government can borrow at the moment at unbelievably low real interest rates.

Dr Kennedy: Having worked at the World Bank on the kind of investments we hope to mobilise here, it is pretty standard that with a Power Purchase Agreement, for example, the Government would stand behind that one way or another through a guarantee or a partial risk guarantee or a support agreement, and that would be helpful here. Whether you can do it within the Act itself and have a statutory contract that doesn’t have the Government standing behind is one for the lawyers, which they are all working on at the moment.

Q103 Dr Lee: One question: if it is cheaper for the Government to borrow money at the moment on the markets, why are we persisting with all this complexity over FiTs and CfDs and all this other nonsense that is keeping lawyers busy? Why don’t we decide what our energy policy is, go and borrow the money, build the things and then sell them back to the market? Isn’t that cheap?

Professor Newbery: It is cheap. If you convince the Treasury, it would be a straightforward thing to do.

Q104 Dr Lee: It is cheaper. They are busy trying to run away from liability on social care at the moment, Professor, for the same reason. They are worried about their long-term liabilities with the CfDs. Why don’t they just go and borrow the money, decide what their energy policy is, build the things and sell them back to the market?

Professor Newbery: It makes sense. It also, with a proper public sector balance sheet where you have assets as well as liabilities, would be a sustainable economic policy for growth and it should be done.

Professor Mitchell: They are doing it because they want to support nuclear. If they didn’t have this desire to support nuclear come what may and try to get out of the Minister saying there will be no public subsidy and get around State Aid rules, life would be a lot easier. Because the Minister has said no public subsidy and they want to have nuclear, they have got themselves into this complete pickle. If one were to scrap CfD, say, “Okay, you can have nuclear but it is a mature technology and build it within the marketplace”, which of course won’t happen, then you could set about having a sensible energy policy whereby you brought forward your renewable energy. The subsidy they would have to be paid, that would be incredibly difficult to work out for nuclear, could go into energy efficiency to make our houses much more efficient and make the issues around affordability much better. That would be a very sensible policy.

Q105 Dr Lee: So why aren’t we doing this? I am a bit confused. We are all wading through documentation as fast as we can at the moment and I keep looking at it and saying, “Why don’t we just say 10% nuclear, 10% renewables, 10%—just do it and then sell them back as an ongoing concern?” Indeed, if it is more expensive to maintain those things, take the hit on what you are selling it for, in relation to how much it has cost, instead of jumping through a series of complicated hoops in an attempt to try to hoodwink people as to where the subsidy is going.

Professor Newbery: That is the whole point of public private initiatives and everything else. It is hoodwinking the public, getting it off the public-sector balance sheet, because the balance sheet isn’t a balance sheet because it doesn’t have the assets there. We have been in this mess for the last 20 years.

Q106 Chair: Is this problem really one of Treasury theology rather than anything else?

Professor Newbery: Yes.

Q107 Chair: Do you think it would be helpful for this Committee to hear from the Treasury Minister about this?

Professor Newbery: Yes.

Q108 John Robertson: We have heard that awarding CfDs at the point of final investment decision will
increase the risk for project developers who won’t be certain that a project will be able to get a contract. Do you agree with that, and, if you do, how do you think we could solve the problem?

Simon Skillings: It is to do with the fact that the CfD provides certainty over a difference. It doesn’t provide certainty over the base income. The investor still has to sell the power output to market and different people have different views as to how easy that is or is not. My view is we don’t know, and if we don’t know, a properly risk-managed Bill puts in place provisions that enable us to cope with a situation in which investors find it difficult. The easiest way to deal with that is to include provisions to allow suppliers to be charged on the basis of the output as well as a difference basis, so in other words you mimic a fixed FIT, which I think everyone else has said.

Professor Newbery: I detect that there is some concern that the Treasury might say, “Oh dear, we’re not meeting our fiscal requirements this year so you can’t have the money to pay for the FiTs”. If you think that that might happen two or three years down the line at the point at which you are about to get the contract, that can be very nervous. It does require a guarantee that there will be a certain amount of contracting, or finance available for that contracting, ahead of time. It comes back to the problems of doing annual budgeting for an industry with a 40-year time horizon.

Q109 John Robertson: Allowing for that, how would you try to prevent a boom-and-bust scenario? How could you protect the system from that?

Professor Newbery: The simplest way is just to say, “We are minded to contract for so many gigawatts of such and such technologies in the next few years.”

Dr Kennedy: It comes down to what the objective is of this whole thing. I think we know there is not a clear objective for the EMR, and to set one would provide some confidence about what we are trying to achieve. Investors could then look at that and make their plans. It is not only having an objective—and we might talk about that in more detail—but it is also knowing that the objective is funded, which takes you to the Levy Control Framework, where we have some visibility, as we know what that is out to 2015, but it is important to understand what that is going out beyond 2015 to 2020. We need to see a high-level number that is commensurate with the required power sector decarbonisation in 2020 sooner rather than later, and we need to see some flexibility in that number, given the huge range of uncertainties around the kind of support that might be required. At the moment you could not look at this as an investor and say, “I feel really confident. I am going to start developing projects”. That is not where we are at the moment.

Q110 John Robertson: If you introduce flexibility, does that not increase the problem?

Dr Kennedy: It depends what the flexibility is. The flexibility I have in mind is you agree a number for the Levy Control Framework, but in a low gas price world that number would increase so that you can still go forward with your low-carbon projects. If renewables costs don’t come down quite as quickly as you think, again you can increase the envelope, so that provides more confidence, not less. I think if you are stuck with one number, given the range of uncertainty, then you can’t take a view at the moment on the number of projects that will be funded.

Professor Mitchell: There is so much evidence out in the world about how to move to a low carbon economy and we, Britain, should be taking note of this. The evidence for these sorts of mechanisms is that they have to reduce risk. be very simple, and be inclusive, not exclusive, and so work not just for a few incumbents. If you keep to that, then pretty much you will be able to deliver low carbon generation, provided you just pay enough—not a great deal of money. The kind of complexity that EMR has got itself into is just completely against all the evidence that is out there of what a good policy is. I know this is not answering your question, but the key question that hits me when I read this draft Energy Bill is how has the decision-making process got us to the point where we have this unbelievably complex process where very large swathes of the energy community, with good will, have been trying to point out the difficulties of successfully implementing EMR, given that, as I say, the evidence is that if you reduce risk, keep it simple and make sure it is inclusive, things will work.

Simon Skillings: Picking up the point, I don’t think there is an investor who would put any faith in false certainty about the future. Everybody knows the world changes, and everybody knows that priorities change. The key missing element of the whole policy framework here is setting sensible objectives over time scales that investors believe in, and that is about giving a level of not just certainty but flexibility, which everybody accepts is needed. It is about saying that we need minimum levels of different technologies to help manage risks of delivery, but we don’t want to lock everything in, because we want to take the opportunities of technology innovation, and of reduced costs.

Q111 John Robertson: It seems there is consensus that the Government has to set out a level of deployment for each technology. Would that be a fair assessment?

Simon Skillings: What I would say is a minimum level of strategic technologies, but what you don’t want to do is pretend that you can fill up the entire need and say, “It should be that much of that, and that much of that,” because you would be locking in unsustainability. One of the lessons of long-term contracts is someone is out of the money. That always happens.

Q112 John Robertson: But if you did not do that, would there not be a problem with the levy cap itself?

Professor Mitchell: I don’t think that you should be deciding on a cap for each technology, giving this one 10% and that one 10%. I don’t think that. If you look at the small FiT, the appetite out there to invest is huge if you have a simple mechanism that everybody understands. I think the way forward much more is to
set the price and make it simple, and then you will have that technology come in. If you are worried about the cost of that, then you set a percentage for total renewables, for certain percentages each year going up to your 15% of energy by 2020, and then upwards, if it goes up further beyond that. The point about the success of these classic FIT mechanisms is that it is because there is not a cap, but on the other hand, it is perfectly possible for you to implement one if you wish to know the total cost per year.

Simon Skillings: Another very important point is that people often believe we know what the costs are going to be. People say, “Gas is cheaper than renewables,” or “Renewables are cheaper than gas,” which is nonsense. We don’t know what is going to happen in 10 or 20 years’ time. Therefore, what is critical is that we have a governance framework that enables the delivery agent to manage costs in an efficient way. Don’t constrain the delivery agent. One thing this Bill does that is so unfortunate is it gives the system operator no flexibility and no incentive. If you give them a strong incentive to deliver efficiently, if you align their business imperative with the public interest, then that is a strong incentive to deliver efficiently and give them the flexibility of instrument to do it; then you are helping to manage costs.

Q113 John Robertson: You made a point, Dr Kennedy, about the volatility of the market. Of course, that would be presuming that we were buying fossil fuels or the equivalent from abroad into the country. If we set up our own internal nuclear—one of the areas in renewables—would that not help to improve the situation in that volatility?

Dr Kennedy: Absolutely. It would do two things. It would put us on the low-carbon path and it would take us off relying on imported fossil fuels with volatile prices. Just to come back on what you asked, though, I think we can be confident. Our analysis says we can be confident about the low carbon objective, and that we should be aiming to decarbonise the power sector through a range of technologies without being too specific about whether it is 40% nuclear, 40% renewables, or a different balance. The principle is that we should be aiming to get to something like 50 grams of CO₂ per kilowatt hour, from 500 grams of CO₂ per kilowatt hour at the moment, as the carbon intensity of power generation applies across a whole range of scenarios for costs, for carbon prices and for gas prices. Locating that objective in the legislation and the implementing arrangements would very much help to improve confidence for investors.

Q114 John Robertson: A last question: should CfDs be allowed to bust the levy cap in order to achieve energy scrutiny and climate change objectives?

Dr Kennedy: I think from a legal perspective, yes, in the sense that we have the Climate Change Act, and we have carbon budgets under that Act. There is an obligation to meet those carbon budgets, and within the climate change legislation to put policies in place that will deliver the carbon budgets. The EMR is the key policy here, and if the funding implication of that policy goes beyond what has been agreed in the Levy Control Framework, you have a choice. You can either be consistent with the Climate Change Act, in which case you increase the funding envelope, or you can go against the Climate Change Act and say, “We are going to miss the carbon budget.”

Simon Skillings: Of course the important point is not whether but how. There needs to be transparency in how it happens, so that people can understand it and prepare and make the investments that correspond to that.

Q115 Chair: The example of what happened last year on solar is not exactly encouraging in this respect.

Professor Mitchell: I don’t necessarily agree with that. Solar was very expensive and so everybody jumped on the bandwagon, and you have loads of new companies going, loads of new people in businesses, all sorts of things happening, in a very short period of time. Now that price has been halved. The cost of that technology has also been halved, so people are making a lot of money again. That price needs to come down again, so that we get to a low cost. However, we needed that original high price to get through that whole process and start of an industry, which we have pretty much failed to do for our other renewables other than wind. If you think back to 1990, when we were trying to bring in new entrants and new ways of doing things and all the rest of it, it has to be said the small FIT has been one of the most successful policies in a very short period of time. That is not to say that you carry on giving such high profits to people, but the basic idea of keeping it simple and being inclusive to bring people in has worked, and now you just have to degrow down.

Q116 Chair: I think it depends on how you judge success. The vast majority of economic activities and jobs in relation to both solar and wind are located outside the UK, despite the fact we were buying rapidly growing consumption of those inside the UK. It was the transparency point I was thinking of really. I thought the way in which the quite justified and necessary decision to reduce the feed-in tariff for solar was taken did not seem particularly transparent. The figures were available to DECC last summer, and they could see this was rising at an unsustainable rate. They did nothing until the beginning of November, by which time a sudden decision, imposed almost retrospectively, seems to me to guarantee that future investors in these technologies will require a higher return.

Dr Kennedy: It has committed the country and the consumers to pay £700 million a year every year for the foreseeable future, and that is a problem in the context of a constrained Levy Control Framework; it might squeeze out investment in other things. I think it tells you two things. One is that you have to think sensibly about technology policy in advance, and the second is that you have to think long term about the Levy Control Framework and how to sensibly use a fixed envelope to get the biggest bang for your buck.

Professor Mitchell: I agree entirely with that, but on the other hand it does also show you how, if you keep policies simple and reduce risk for people, you will get investors in. I agree entirely on technology policy.
Q117 Dr Lee: This is the point. Yes, it was simple, but it was the wrong policy. Why on earth did we make a decision to go for solar when we are surrounded by water, for example? It is all very well saying, “Lots of people put them on their roofs.” We would have been better off giving the money to the Spanish, which incidentally is probably what we are going to have to do anyway for other reasons. It just defies belief that we don’t take a strategic view of this and say, “What can Britain do well?” instead of just trying to interfere in a market and then creating a distorted market where a bunch of cowboys come in and stick loads of solar panels on, and make a huge amount of money.

Professor Newbery: PV has peculiar properties. You can order them and in a couple of weeks get them flown in from China and screw them on the roof, and there isn’t any other technology quite like that. So this boom and bust is going to be absolutely concentrated in that sector.

Q118 Dan Byles: But the boom was in men with screwdrivers, perhaps. It wasn’t in producing solar panels or any sort of sustainable long-term—

Dr Lee: Or indeed generating energy at a realistic cost to consumers.

Professor Newbery: Absolutely. So you take a view on PV, and you can say maybe we should be using the foreign aid budget to subsidise its production or use in central Africa, or places where it really is sunny and where they have no grid electricity, but to do it in cloudy England doesn’t seem to make a lot of sense.

Simon Skillings: Picking up Catherine’s point, just because a technology policy may be bad doesn’t mean to say all technology policy is bad, so let’s learn the good lessons. We all accept we need to make some technology choices, and it can be done and it can be delivered in an effective way.

Q119 Laura Sandys: You covered the issue about having a decarbonisation objective. One of the things that we feel quite concerned about is what you have covered about nuclear, and whether this is a regime that is bankable, investable or will actually happen at all. How do you believe that this particular framework is going to be able to deliver on your objectives and on our statutory requirements if, as the investors have very clearly said to us, they will not fund under this regime, unless Government does the builds at least?

Dr Kennedy: We should be very clear. Going back to the objective, I have said it should be to get emissions down on the power systems to 50 grams over two decades. Within that there is a crucial role for nuclear, so we should be clear about that. If you don’t have nuclear in the mix it is very hard to decarbonise to 50 grams.

Q120 Laura Sandys: If this regime does not deliver nuclear or creates a major difficulty and certainly increased cost of delivering nuclear, where do you think it leaves us?

Dr Kennedy: This regime is about delivering nuclear and all of the other low-carbon technologies; we should be clear about that. It is not just about nuclear. It improves the prospects potentially for renewables as well. Again, it is all to play for. All of the concerns that have been raised can be addressed, potentially, and the challenge is to make sure that we do address them and bring forward the investment. If we can’t do that, then we have a problem. If we can’t do that, we won’t have nuclear, and if we don’t have nuclear, we will be investing much more in unabated gas-fired generation, which is bad from a carbon perspective and bad from a security of supply perspective. That is the challenge, but I think it is a challenge that can be addressed within the arrangements that are being proposed.

Simon Skillings: I think it highlights the fact that all these technologies are very different. I would argue there is a much greater strategic benefit from really driving forward with carbon capture and storage, which has another, different set of problems. As for having the flexibility within the Bill to accommodate this, you read in the Bill notions about turning to technology-neutral auctions as soon as possible. This is clearly pandering to an agenda of market efficiency that simply does not exist in this world, and will not exist for the foreseeable future that we are concerned with. These technologies are very different, and they have their own characteristics, and we must make some strategic choices, leave ourselves flexibility to adapt, and benefit from those that work and learn from those that don’t.

Q121 Laura Sandys: Do you believe that the Bill has clarity of objectives, or just lots of mechanisms?

The clarity of objectives could be, for example, decarbonisation targets. It could be issues on security of supply. There could be elements about fuel poverty, and there could also be other dimensions. We are trying to identify where those objectives are going to drive investors, and what I feel personally is that there are lots of different mechanisms that all seem to be designed around one issue, one problem—nuclear, say—but it is impacting a whole load of other technologies that don’t require that sort of mechanism.

Professor Mitchell: I agree. In my written evidence I have talked about the complementarity of technologies. The underlying argument is that all technologies are complementary to each other and climate change is such an important issue that we have to throw them all into the pot, and only in that way are we going to meet the challenge of climate change, and I fundamentally disagree with that. I don’t agree anyway that you need to have nuclear power, but nuclear power is not complementary to renewables. What this Bill is about is concentrating on one technology that is providing a relatively small amount of the energy that we require to decarbonise and it is undermining the other technologies that you need to get there, and that is if it works. If it doesn’t work—I
think it is unlikely that it is going to work as well as is hoped—then you have a problem. The Government has done its best, it has tried. It inherited EMR. It has tried to move forward. All these new issues have occurred over the last four years. Renewables all over the world are falling in price, huge amounts of investment is happening in renewable energy globally, there is increased LNG, there is lots more conventional gas around, we have had Fukushima, and we know about the increasing costs of nuclear. All these things have happened at the same time as there have been questions about the details and workability of EMR. It seems to me we should not just continue to plough on. We have to take account of what is going on around the world and start to think: is it sensible for the country and for decarbonisation that we do keep ploughing on? We should say, “Okay, hang on, let’s see what the situation is.”

Q122 Laura Sandys: Do you think you should have a role in the strike price?
Dr Kennedy: I wouldn’t want to tout for work here. I think you have hit the nail on the head and said this is a set of mechanisms in the legislation without a clear objective, and I think the way to address that is to put a clear objective on the face of the Bill. At the beginning of the Climate Change Act, we have, “This is about this is the long-term target”. I think in this piece of legislation you write, “This is about decarbonising the power sector to achieve legally binding carbon budgets”, and then you put a process in place to make sure that the governance arrangements following the legislation achieve the objective.

Q123 Laura Sandys: Do you think changing that hierarchy by having that objective would allow things to start to fit into place?
Dr Kennedy: I think it is having the objective and a process. The delivery plan has to be about—

Q124 Laura Sandys: Yes, but the process would be much clearer because the objective would be—
Dr Kennedy: Yes. I think the delivery plan would say, “Here is how the Government has done this; here is its carbon budgets; to get to 50 grams of CO₂ per kilowatt hour. Here is how the investments are compatible with the objective.” It would be natural that we would have a role scrutinising that, given that we have a statutory objective. It would be natural that we would have a role scrutinising that, given that we have a statutory objective to stuff we have already committed to. So, joining up is a sensible thing. I agree with David that there is some high-level stuff in the package, but I think there is more to do to go from that very high level, now we have a lot of good intentions. I think the Government wants it both ways at the moment. It wants to have a decarbonised power system and a second dash for gas at the same time. Those two things are incompatible and we need to be very clear around what we are trying to achieve.

Simon Skillings: What is important is that we have the debate you describe over time scales that are consistent with the way investors think. So, absolutely people know there are trade-offs that need to be thought about, but the way the Bill is written at the moment is that the clause says that the levy cap can trump everything over shorter time scales, and people don’t really understand how that happens, which creates great uncertainty. If that debate about the trade-offs in affordability, security and decarbonisation happens over perhaps the five to 10-year period, and then you say, “We believe it is sensible to head in that direction over that sort of time scale”—and we put in as a framework to do it as cost-effectively as we possibly can, that does create a balance. It is not at any cost, but it creates some transparency.

Dr Kennedy: A fourth carbon budget, which we legislated for last summer, will be reviewed in 2014, and a fifth carbon budget covering the period 2028 to 2032 will be set in 2015. So we will have all the debates around cost and affordability as we go through legislating for the fifth carbon budget. To join those up, and to make sure that the Levy Control Framework is adaptable to what is agreed in the context of carbon budgets, rather than the other way round—that we miss carbon budgets because it doesn’t have the support in the Levy Control Framework—is the right way forward.

Professor Mitchell: I do think there is a real gap, though, in that there is not anything about demand reduction or energy efficiency in the Bill. If the centre of the Bill, and the main thing that you are trying to

Q125 Dan Byles: Isn’t the danger of what you have just suggested that the emission reduction target would then be seen to trump issues of cost and security? It is almost a “decarbonisation at any cost” approach. No nation can say, “We are going to decarbonise and get 50 grams per kilowatt hour regardless of the cost”. Dr Kennedy: It depends. If you put “50 grams at any cost”, I think I would agree with you. If you put “this is about achieving the carbon budgets, where the carbon budgets are agreed, based on a full analysis of the cost and affordability implications”, that just joins up legislation that already exists. I don’t think you want a new piece of legislation that has a different objective to stuff we have already committed to. So, joining up is a sensible thing. I agree with David that there is some high-level stuff in the package, but I think there is more to do to go from that very high level, now we have a lot of good intentions. I think the Government wants it both ways at the moment. It wants to have a decarbonised power system and a second dash for gas at the same time. Those two things are incompatible and we need to be very clear around what we are trying to achieve.
do, is reduce that total amount of energy that we use, but also to have demand response and so forth, then you could meet your issues to do with affordability much more easily. I think you could also get away from the details of the Bill and say that this Energy Bill should be taking us to an energy future that is right for Britain, and about understanding what it is that we are trying to do with the energy system in order to take us to a sustainable, secure and affordable energy system. I think that we ought to be having that demand at the centre.

Q126 Sir Robert Smith: Simon Skillings, you have mentioned an enthusiasm for CCS. Is there anything in the Bill that is missing to unlock CCS, or is CCS still more about successful demonstration and capital projects?

Simon Skillings: I think it certainly is about successful demonstration. It is absolutely critical, I think, that we create a credible CCS option. The trouble with demonstration is the risks of demonstration are about kit working or not working. They are not about what the energy price is. So the instruments that are set out within the Energy Bill help an operational asset risk-manage its earnings. They don’t manage the risk of construction and performance that are associated with demonstration, so you need some very different fiscal instruments to help drive demonstration. This sort of links in with the emissions performance standard point: I don’t think there are many people who believe that a single carbon price by itself can drive all the investment, and importantly disinvestment, that is needed efficiently to meet our targets. We need other policies. We need technology targeted support, and we need an emissions performance standard. If you throw away that lever, you could end up in the situation where we have a hugely inefficient vehicle to drive this investment, which is a very, very, very high carbon price—and it will need to be very, very high. Germany has a big problem. It has exactly this problem. It has lots of coal on the system, and it doesn’t matter how much renewables it subsidises on the system; if the carbon price stays at low levels, the coal is going to be pumping it out. It can’t get rid of the carbon. This is where an emissions performance standard provides another tool, and we are going to face that situation with gas plant as we go through the 2020s.

Q127 Albert Owen: I have a number of questions on the emissions performance standard, but because of constraints on time, I will try to condense them. First of all, do you think the Government was right to extend the grandfathering provisions to 30 years? The second and third parts of that question are: do you think it will lead to a dash for gas, and is it compatible with reducing emissions by 80% of the 1990 level targets by 2050?

Simon Skillings: I will just augment the point I have already made. Clearly those that get built will not be subject to emissions performance standard regulations, and the Government of the time will therefore be left with only one option for reducing that generation—a very high carbon price. That could be very, very costly for consumers, so I think it risks being very, very costly. As to whether it is going to create a charge of investment, I suspect probably not because there are a lot of other risks that are lurking around, but it may create some increased investment, and that stores up risk for the future.

Dr Kennedy: I think people were surprised that we didn’t come out in stark opposition to this when it was announced. The reason we didn’t is because even in 2045 we envisage we will need some unabated gas-fired generation on the system, so for us an emissions performance standard that acknowledges that is okay. There is a real risk of a dash for gas, possibly aided by the capacity mechanism in the legislation, so whereas we envisage some investment in gas that goes alongside the unabated gas we have on the system—that generates falling load factors through the 2020s because we have low carbon coming on to the system—I think there is another world where the low carbon doesn’t come on.

Q128 Albert Owen: Do you think this is giving out mixed messages? You are saying that on the one hand we are going to move to nuclear, and then we have a real risk of a dash for gas, and is it compatible with the mood music, listen to what people are saying about onshore wind, and what different groups are saying against offshore wind and the problems we have had with CCS. There are questions over nuclear, and opposition to nuclear, and people who say that shale gas is a game-changer and we should have it. I think there is a real risk that we end up with much more gas-fired generation as part of the mix than is sensible for the future, but again the way to address that is to make sure we have a set of arrangements in place that bring forward the low carbon, in which case we will have less use for unabated gas. I think what we should not rule out, and it is different to an EPS, is limiting the running hours of unabated gas-fired generation as we get into the 2020s. That is something that should happen naturally, but if the market doesn’t drive that to happen, then I wouldn’t rule out that being a very sensible instrument. You have seen that with coal we have limited the running hours under the European legislation over the last few years. I think we should keep something similar for unabated gas as an option.

Professor Mitchell: I agree with the need for an emissions performance standard, but I was surprised that there was grandfathering in there. It seems like a very detailed thing at this level, and not necessarily the right thing.

Professor Newbery: The projections for the carbon price are indeed high. There is an EU dimension. If the EU as a whole and if the world as a whole is serious about climate change, then the carbon prices will have to be pretty high. If the carbon prices are pretty high, then the economics of running coal are very unattractive, and it is probably the same with gas, for more than the balancing that will be needed with the other technologies on the system. On the question about grandfathering, it is about reinforcing the message that is important that contracts are going to be worth the paper they are written on. If you say, “We will change our mind and say that you can’t run
this power plant for more than a few hours a year,” that tears up the contract.

Q129 Albert Owen: I fully understand that. Those that have coal and gas at the moment want certainty, but if they have a large portfolio and you have potential investment in nuclear and renewables, isn’t this just going to extend the investment by those companies into gas-fired over a period? Then we will have a dash for gas, as we have had before. Professor Mitchell, I know you and I don’t agree on nuclear, but when you say we keep ploughing on, this is exactly what we are doing. We keep ploughing on and thinking that gas is the answer—that gas is going to be cheap. The price goes up, and then we are back where we started. We need to look at nuclear again; we need to look at more renewables. I am concerned that there will be a dash for gas with this, because those companies that were in front of us last week were talking about certainty, yes, but the minute they get the opening for more gas, that is the simple answer; that is what they hang their investment on. That is the concern I have. That is why I have asked the question in that way.

Dr Kennedy: I think that we have a carrot-based approach under this legislation, and there is a lot to do to get the carrots right, and even if we do, it is not clear that the investment will be forthcoming at the kind of levels we need. So that takes you towards a stick approach, which the Government has avoided here, and that is something we should keep open.

Q130 Albert Owen: You ducked, Dr Kennedy, the question from Laura when she asked should you be advising on the strike price and should you be part of the advisory. It is a question I had further on, and we may not get to it, so I am going to take this opportunity now.

Dr Kennedy: Just very quickly on that, if we were scrutinising the delivery plan, which I think would be a sensible thing, given our duties under the Climate Change Act, you would be looking at all of the aspects of the delivery plan. For stuff where there is a price proposed for the Government, for example for onshore wind or maybe offshore wind, we could say that is price likely to bring forward investment. It won’t all be about price. There will be nuclear, where we would be looking whether there is enough quantity as well as price, and the two things are as important as each other—price and quantity. So we would look at both.

Q131 Albert Owen: On separating the strike price from an administrative role with the systems operator—Government and Ofgem—do you think you should have a role alongside them?

Dr Kennedy: Scrutinising the delivery plan that includes proposed prices, and other aspects as well, would be a natural role for us to have, given our duties under the Climate Change Act. It would just join those up with the EMR. Let’s remember, the origin of the EMR was to achieve carbon budgets. It seems to have been lost along the way, but to make that link very explicit is, I think, a sensible thing to do.
demand side. Firstly, it is different, and people are used to supply side, where they can go and touch it, measure it, feel it, monitor it, verify it, all this sort of stuff; and secondly, it is immature. We need mechanisms in place that make people do it so they don’t shy away from that difference and put in place some targets that help overcome that immaturity. It absolutely should be at the centre of the Bill.

Professor Newbery: I disagree. I think this Bill is overly complex as it is, and the idea that you keep laddering on extra requirements is absurd. We have an incredible range of demand-side policies already in existence. Maybe they need to be tidied up, maybe they need to be more carefully managed, but as for the idea that you will improve this by adding a whole bunch of extra unsubstantiated claims that all demand-side is necessarily cost-effective, some of the proposals, when you look at the impact assessment, suggest costs per tonne of carbon saved that are extremely high. Some of the building regulations have that characteristic. If we are intent on making this an affordable policy, then I think we need to be very careful about just assuming that demand-side responses would be automatically better.

Q136 Dan Byles: The supply-side responses that we are putting in place are going to significantly push up consumer bills. Will that in itself not lead to self-regulating demand reduction?

Professor Newbery: Some of the evidence you have already had is that two thirds of the fall in projected demands that National Grid made are the result of efficiency gains. So, yes, the fact that the cost of energy will feed through to reductions in demand will, one expects, have an effect.

Simon Skillings: Many of the same investment challenges affect the demand side and the supply side, and why we should differentiate between them I don’t understand. If it is effectively written in, it can be a one-way bet. You are not depending upon it working, but if it does work, the benefits are enormous.

Professor Mitchell: Some of these things are very expensive but, on the other hand, some of them are not, and therefore we should be looking at that option.

Q137 Dan Byles: David, do you have a view on that?

Dr Kennedy: I think there is an important opportunity on the demand side, both in terms of firm demand—reducing demand so you don’t have to invest in low-carbon power—and in terms of flexibility, which is important on an intermittent system. I think the challenge is to show what you get from the EMR over and above the full range of policies that we already have to incentivise energy efficiency on the electricity side, as opposed to the heat side that you mentioned.

Professor Mitchell: This is not part of this energy system that we should be moving towards. We should not be thinking of the demand side as sort of different from the energy system. Incorporating the demand side should be part of an efficient energy system. You should think of energy demand as infrastructure or management of the energy system. It should be part of an efficient system. We have talked about electricity market reform; this reform is to take us into this future energy system, and therefore we should be having demand as part of that system.

Q138 Dan Byles: In terms of demand-side response rather than demand-side reduction, there is a suggestion that that will somehow feature in the capacity mechanism, but I think that it is a little bit uncertain as to how that might feature. Do you have any thoughts on that?

Simon Skillings: It faces exactly the same hurdles. Incidentally, many of the things we have talked about—we haven’t touched on the capacity mechanism—and all the issues about objectives all apply. So the same obstacles apply to demand response. It is not like supply-side resources, and the system operator requiring some positive incentives to break out of where they currently are. Why should they do something that is different, that has a bit of risk associated with it, rather than just relying on tried and tested things they have always done?

Q139 Dan Byles: Is it feasible to develop a capacity mechanism that does everything we want it to do on the supply side and also to tackle demand-side response, or is that going to be too complicated?

Simon Skillings: No, it is eminently feasible. The important thing about the capacity mechanism is that capacity is unlikely to be the resource that we really need to deliver reliability in the future. There is a lot associated with that, so if we work out what the resource is and what the product is that we need to deliver reliability, and if we design the mechanism to do that, it can absolutely embrace the demand side.

Professor Mitchell: If it were the system operator that has to do that, having decided what they want, they can set that up as they wish, and that can include the demand side.

Professor Newbery: Let me just point out that we have been doing demand-side response. The system operator has been calling upon that since way back, and certainly in the 1990s.

Q140 Chair: We are running out of time. I have just one last question very briefly on the capacity market, which, as you said, we haven’t really addressed. Do you understand that the draft Bill plus the associated documents mean that capacity market auctions will be technology-specific?

Simon Skillings: I think they are technology-neutral, but they are buying firm capacity that obviously different technologies provide at different relative costs. So it is buying technology-neutral, but buying firm capacity.

Professor Newbery: More to the point, it is buying characteristics. Speed of response, and speed in coming on the system are dimensions that the system operator will require. Some pieces of technology can do that and others cannot, so it has technological implications, but the characteristics are the ones you need to balance the system effectively.

Dr Kennedy: Effectively it will be technology-specific, because it will be buying unabated gas-fired generation to balance the system.

Professor Newbery: It may not at all.
Professor Mitchell: It may not be technology neutral or technology specific depending on the decision of the system operator.

Professor Newbery: It may be from wind farms, because they have a very quick short-term response.

Dr Kennedy: Well, predominantly.

Professor Mitchell: I was just going to say that is not the case.

Q141 Chair: One of the pieces of evidence we have had suggests that a technology-neutral capacity auction in the US effectively excludes a demand-side response bid in that auction.

Professor Newbery: That is not true in NEPool. My impression is that two thirds of the capacity response was on the demand side. There was some question about whether it was genuine and solid and reliable as it was on the supply side, but the auctions elicited that response.

Professor Mitchell: I think that is the problem for you in pre-legislative scrutiny. It is difficult for you to scrutinise when you don’t know what the details are. Depending on the details of the capacity or flexibility mechanism, you can have demand-side in there.

Simon Skillings: Part of the problem is you have to design a capacity mechanism knowing what you want to encourage. So life-extendng existing supply-side assets is generally the cheapest thing to do, then demand-side, and then building new supply-side assets. You almost have to know where you are in that pecking order in how you design the capacity mechanism.

Chair: I am sorry we have to cut it short there. If there were further points you wanted to make in relation to the questions we have raised, by all means do write to us. As you acknowledge, we are driven by a tight timetable, addressing a draft Bill whose details are not all absolutely clear. Thank you very much.

Examination of Witnesses

Witnesses: Ian Temperton, Head of Advisory, Climate Change Capital, Nick Gardiner, Senior Director, Energy and Infrastructure, BNP Paribas, on behalf of the Low Carbon Finance Group, Shaun Kingsbury, Partner, Hudson Clean Energy Partners, on behalf of the Low Carbon Finance Group, Gaynor Hartnell, Chief Executive, Renewable Energy Association, and Gordon Edge, Director of Policy, Renewable UK, gave evidence.

Q142 Chair: Good morning and welcome to the Committee. I think most of you have heard a lot of the previous evidence. As you know, there is a great deal of interest in this. It is quite important. We have to do it at a rather hectic pace, and so forgive us if we are bit abrupt in some of the questions and cut you off. We need to complete this session in an hour. Can I ask a general question to begin with? Do you think the draft proposals as they stand will achieve the original aim of reducing risks for investors, thereby cutting the cost of capital?

Gaynor Hartnell: I would say not as it stands, no. There are many issues that do need to be resolved. One of the prime ones is making sure that these Contracts for Difference are bankable. All those counter-party issues have to be addressed. We need to have some sort of pre-accreditation or means by which the process of project development can be de-risked. Generators need to know that they can access the reference price for the electricity they sell. The allocation process for contracts has to be understandable, transparent, and fair, and that is an enormous challenge. There must be no unnecessary risk for the generators with the Contracts for Difference after they are awarded them as well. That is just a few things. That is not a comprehensive list, but as it stands, these things are not clear at all and do pose big problems.

Nick Gardiner: If I can just pick up on that, from the banking point of view, no, we don’t believe, as currently structured, this is something that we can take to our credit committees. Picking up on many of Gaynor’s points, there is a high level of complexity that surrounds what is being presented here, and therefore it is difficult to attract that investment. There are a number of areas to look at: payment model, route to market, access to the contracts, and a price-setting mechanism. I know this was touched on in the last session but there is also the issue of how this all fits together. We shouldn’t just be looking at the CFD; we should also be looking at things like the capacity market mechanism. So I think there is a concern about how the whole piece works, rather than just this particular Bill as presented.

Shaun Kingsbury: From our perspective, we have been working with DECC since the initial proposals started coming out for discussion. We spent a lot of time with them and we have been trying to work through the detail, and we are committed to engaging and making sure that this process work, but as we see it today, the level of complexity actually increases the risk. There is still some detail that needs to be worked out, and that may help us get more comfortable, but today just the total level of complexity means this is more risky. We want to make sure that the UK is well positioned, relative to other markets, to attract the capital that is necessary to hit the targets. So we want to work to make sure that that complexity is reduced, but today I would say no to your question.

Ian Temperton: Once you have a CFD, then you have less market risk as an investor in a project than you do today, and you have less regulatory risk than you do today, because you have a contract that gives you a degree of surety of price and, effectively, of the regulations under which you are substantially going to operate that plant over its life. Once you have one, and if you have one with a decent counter-party, then I think this does improve things. The angst created in the industry has been around the payment model or contracting model, or whatever you want to call it, and how you actually get one of these things, which I think echoes things that other people have said.
Gordon Edge: I would very much agree with what fan said: the development risk is at the moment unacceptable, but once you have one it may well be much better. Certainly when it comes to the allocation points, I think DECC’s current proposals are throwing in lots of additional risks that are unnecessary and add no benefit. For instance, the proposal to have a round every six months where people can come forward and apply for a CfD where you may not get one adds an additional risk to the development process, whereas a more open, “first come, first served” clarity, whereby if you are not there by a certain time, you are not going to get one, makes things better. Also, when it comes to delivery of the CfD, DECC are talking about penalties for not delivering by a certain time when, if you have committed the amount of capital we are talking about, there is more than enough incentive to deliver it as early as possible. Adding penalties merely adds further risk, and it doesn’t get you delivery any quicker. So, why would you do that? Extra risk, no benefit. We see quite a lot of areas where we can work with DECC to just work those risks away. We don’t think they have to be there.

Q143 Chair: In the light of all that, what do you think the effect of the draft Bill will be on renewable investment decisions?

Gaynor Hartnell: I think inevitably a hiatus while a lot of this is sorted out, which is something that the Government can ill afford, given that we have a very short time until autumn, when the Bill is meant to come to Parliament—and to have dealt with all these complications, then we need to have a sense that there is a plan B that will be there to support all these complications, then we need to have a sense that it can, but as currently structured, no, it can’t. We need all the things—all the reducing the complexity and making it simple, to pick up on Shaun’s point—certainly for international banks, and if it takes longer to sort out all of these issues—and we think it is a very short time until autumn, when the Bill is meant to come to Parliament—and to have dealt with all these complications, then we need to have a sense that there is a plan B that will be there to support investment beyond 2017.

Shaun Kingsbury: Obviously we need to keep up the pace of the legislative process, because if it slows down, then that uncertainty continues to creep. I think we can see the potential for a slowdown. I am not saying that it has happened so far, but if things continue to slow and more and more detail comes out that makes it more and more complex, then you will see people stopping development spend unless projects are big-build, and we will create a hole in that trajectory towards the 2020 goals.

Q144 Dr Lee: Just following on from that, essentially, is the draft Bill introducing complexity, confusion and therefore delay in investment?

Shaun Kingsbury: It has the risk of doing that at the moment. There are still some details to be worked on, so some of the questions we have may emerge through the detailed process that is still to come, but at the moment, when you add all the various pieces together, we think it is unnecessarily complex, and when you are considering making an investment, most of us are international investors and when we consider one market against the other, we do not want the UK to be disadvantaged. We do not want someone coming in to make an investment, either in the development process or in building assets, to say, “Look, I really understand what is going to happen in another market. I don’t yet understand what is going to happen in the UK and therefore I am going to prioritise investment in that market over the UK market.” It is not black and white—things do not typically stop completely—but there will be a gradual move away and a gradual slowing down in commitment of capital, and that is what we do not want.

Q145 Dr Lee: Moving from investment to other goals, I guess this is the problem with the Bill: it is quite difficult to work out which targets matter the most. Will the Contract for Difference approach, as opposed to types of FIT, meet the electricity market reform objectives of the low-carbon mix of generation?

Ian Temperton: Yes, potentially. Once you have one, it reduces your in danger risk, and it reduces your market risk. The two problems we have with it as an instrument, as a lot of us have said, is having a decent counter-party for it and knowing how people get one, but, sat in a position where you are a generator with one, then I think it has a possibility for improving things, yes, absolutely.

Gordon Edge: The key to this, I think, is the delivery plan and how National Grid manages the delivery plan. It is going to be a five-year plan that sets out prices and potentially volumes across all low-carbon technologies, so it is an incredibly important role for National Grid for managing, advising on how much of what gets built at what price, and how contracts are then awarded as a result. If they get that right, then perhaps we will be getting the outcomes that we need, but I think that role needs to be very carefully looked at, particularly the first delivery plan National Grid is going to start working on before the primary legislation is even in Parliament, let alone passed. So the powers will not be clear, and it is a necessity to keep confidential information within Chinese walls. All that needs to be very carefully managed if it is going to deliver on the plan effectively.

Nick Gardiner: The required level of investment is large, by any definition. Certainly the banks invested, financed under the RO scheme, recognising, though, that is a scale-up to what is needed to meet the low-carbon plan in our City quest. It is a systematic scale-up. So can the CfD meet that low-carbon plan? Yes, we believe it can, but as currently structured, no, it can’t. We need all the things—all the reducing the complexity and making it simple, to pick up on Shaun’s point—certainly for international banks, and there is a number of international banks financing in this market. We are competing; I am competing as regards investing here in the UK as opposed to investing in other markets across the EU and elsewhere. I am competing in terms of investing in renewable energy as opposed to investing in infrastructure, or indeed other areas as well. So that is all part of the challenges, but on your question of...
whether the CfD can be made to work with the carbon plan, yes, we believe it can.

Gaynor Hartnell: I just wanted to add to what Ian was saying. Yes, if the Contract for Difference works, this is a good objective to go for. The combination of achieving the reference price and having the CfD should give a generator a stable price, which should lower the cost of capital, so that is a worthy objective to be aiming for.

Q146 Dr Lee: Do you agree with the choice of the CfD, and do you think it is appropriate for the intermittent generators?

Gaynor Hartnell: The CfD, if it works properly and effectively, delivers a fixed feed-in tariff, but it has the advantage, if it works, of encouraging the generator to engage in the normal electricity market, so in other words, to respond to price signals in the electricity market. That is the objective. Clearly, a lot of things need to be done to make sure that objective is achieved, and it is very difficult for renewable generators to assess the implications of the CfD for their trading options and their strategies at the moment.

I would like to say to the Committee that there is a further piece of evidence or further point we want to make that has only come out since we submitted our original evidence, which is that non-intermittent generators are currently proposed to have the reference price of the year-ahead price for electricity. That may not be the best option for them. It may pose completely unacceptable kinds of burdens for posting collateral to enable them to trade electricity and deliver what the Government wants, so we would like to send in some further evidence to question that.

Gordon Edge: If I may, when we came into this process, we were very much of the opinion that the renewables obligation should be retained. The benefits of policy continuity should not be dismissed. Having said that, Government is clearly intent on its objective to come forward with the CfD, and it does have some advantages in terms of giving the kind of stable income level that Gaynor was talking about, and perhaps also it may have the systemic benefits of minimising the cost of doing all this, and will therefore be seen as a lower-risk instrument overall. If it costs less, then it is under less threat.

Q147 Dr Lee: Do you think the renewables obligation’s lifespan should be extended?

Gordon Edge: Well, as I said before, we believe that the option at the moment should be kept on the table, in case all these—

Dr Lee: Do you think it should be?

Gordon Edge: Only if we can’t get the CfD to work, and we are still working with Government to try to get those details to work.

Shaun Kingsbury: I think we should push on and get the CfD to work. We believe it can work. We believe it has some advantages over the renewables obligation, which has worked to date, but would probably not drive the level of investment that we need to see here in the UK. So we want to be clear: we have challenges with it and we see some problems with it. We can park some of them already, but we want to push on and keep to the framework and make it work.

Q148 Dr Lee: I asked this question to the previous panel: would you rather just get the thing built and then have it sold to you in the private sector? The Government would say, “Right, we are going to do this.” It is almost the best of two bad choices: “Do we go with the Contract for Difference or feed-in tariff or renewables obligation?” All of these are exercises in trying to put public money into the system to try to create an outcome. Why don’t we just decide what sort of outcomes we want and then sell them back to the market? Is that not a more straightforward mechanism than all of these complicated ones? You are going on about complexity all the time. Is that not just more, as I said, straightforward?

Shaun Kingsbury: I think one of the key areas of complexity for us is understanding the contractual framework. As long as we understand the contractual framework and we understand that our revenue is secure, there is an—

Q149 Dr Lee: But that is not my question. Of course I understand the contractual point—“Brilliant, employ lots of lawyers, make them lots of money”. My point is that why not just make it simple and say, “Right, we are going to build all these new capacities” or, “We are going to build these wind farms” or “We are going to build a Severn barrage” or whatever it is, and then sell it as an ongoing concern back to the private sector?

Shaun Kingsbury: Weeding it out.

Dr Lee: Yes. Is that not more efficient in terms of borrowing money, a cheaper way of doing it, and is it not contractually more straightforward, because then you say, “Right, this is an ongoing concern, buy it or don’t buy it”? You can change the carbon price to make it more attractive.

Gordon Edge: I think you are not giving enough emphasis to the role of the developer in this in bringing forward the project to a point where you can build it. I think the only way that your proposal would work is essentially Government being in the market to buy projects from developers who brought them forward, and then you are into the same kind of difficulties of how do you incentivise people to develop when there may be only a certain number of purchases available. The development risk is the bit that I think is missed so much in this whole process, and it adds risk where it doesn’t need to be. So yes, there would be benefits to building off the Government balance sheet, but we also need to bear in mind we are talking about somewhere in excess of £100 billion, and it is a very significant amount of money.

Dr Lee: Yes, but in today’s world this is peanuts.

Gaynor Hartnell: I can see the merits of what you are suggesting in theory, but as for the Government taking that route in renewables, I would foresee them getting it very wrong. What we have at the moment is—

Q150 Dr Lee: What, do we have it right over photovoltaics?
Gaynor Hartnell: Well, I can come back to that, and I am happy to talk about that, but I think what we have at the moment is possibly one of the worst situations—I think this is what you are alluding to—which is Government not stepping in and doing it, but looking like it is being very specific about exactly what it does want to achieve. I think it is very important that this reform does let the market play out in terms of which renewable technologies it brings forward.

Ian Temperton: I would say no is the answer to your question. I think across the whole decarbonisation agenda, on doing things cost-effectively, we and most people will believe that the rigours of the private sector will make sure that we spend less money decarbonising our energy system than we otherwise would, and that across the whole decarbonisation agenda, mobilising private capital is essential, because people don’t believe that Governments have the wherewithal to pay for it all themselves. So I think doing it in the private sector and making sure that the rigours of what investors bring to this is put on to those investment decisions is absolutely essential to making sure it is done efficiently.

Q151 Dr Lee: How much can you borrow? How much can you borrow on the public market as a private investor now? What is the interest rate? For something as risky and as complex as this, I would suggest it is quite a bit more than it would be if the Government borrowed it. Are you honestly telling me that there is 3% or 4%, which is probably the likely difference here, to be made by giving it to the private sector before selling it? Are you honestly saying that?

Gaynor Hartnell: That is logically what I am saying, yes, indeed.

Q152 Dr Lee: Yes, but you talk about risk of development. This is all about risk. You guys are trying to run away from it and trying to offload it on to the Government—sorry, those of you who are investors. On where the risk lies, it is obviously going to lie with the Government, because the private sector does not want to take that risk. So why not be honest about it? Build the thing, and then sell it, having taken the risk of development.

Nick Gardiner: I did not hear the debate last time, but there are inevitably, in renewable energy, as we said before, many thousands of projects, so you have that issue to deal with, Government have that issue. Also, as Gordon said, you have a very long development time, so it is not just Government stepping in and building it. There are, in renewables, as I know, having financed it for a number of years now, any number of years as a lifecycle to get to that point where Government is going to step in and build it, so I don’t see that Government is best placed. Is that the most efficient use of Government, to be doing years of work in getting that through planning, getting that through the various consents and so on? It just doesn’t seem to be an optimal use of Government time.

Gordon Edge: I think the best way for Government to help out here would be to massively increase the capital available to the Green Investment Bank and lend at appropriately low rates to successful projects, where the private sector and developers have the skills to deliver those effectively. That would bring in the Government balance sheet in terms of financing for those projects, but I don’t think they need to own them.

Gaynor Hartnell: May I come back on the PV question?

Chair: Sure.

Gaynor Hartnell: You were saying, “Well, Government has it wrong there”. Government had the handling of feed-in tariffs and the reduction in tariff levels wrong for sure. It could have been done an awful lot better. Right now, they may be poised to get certain things wrong again, because the point was made in the previous session that the cost of PV has come down dramatically. The cost of larger-scale PV is now competitive with offshore wind—indeed, cheaper—and its trajectory is very steeply sloping down. Now, that in theory is a technology the Government should want to have a great deal of, because offshore wind is the Government’s marginal technology, and in theory it wants anything it can have that is cheaper, and to limit the things that are more expensive than that, so PV’s status has moved to becoming a technology that should have a significant role in the future.

Gordon Edge: The difficulty with this argument is that it avoids the industrial benefits that can flow from certain technologies over others. We will not win globally in PV, but we can win globally with offshore wind and wave and tidal in the future, so I don’t think this framework in the Bill recognises that there may be ways we can be winners as opposed to this idea that we just take whatever meets our carbon objectives cost-effectively. We need to have that sense of where we can do better than the rest of the world.

Dan Byles: What do you mean by that?

Gordon Edge: Establish an industry that exports, provides jobs and investment and economic benefit for the UK, and offshore wind, wave and tidal are definitely ones where we can do that, whereas there are other technologies where we won’t.

Q153 Laura Sandy: In summary, that is an industrial policy, not an energy policy, and so in some ways maybe they need different mechanisms. Taking it on from my colleague, Dr Lee, Climate Change Capital said. The preferred contracting model approach will not work. It is over-complicated, has potentially unmanageable balance sheet implications for the supply industry and gives investors and projects with CfDs questionable legal recourse”. Would you agree with that? In particular, when we are looking at trying to introduce and attract new entrants into the sector, is this a model that is open and increases that level of competition, or is it something that needs a huge legal department and a sort of massive balance sheet that is going to be able to sustain the pressures?

Shaun Kingsbury: Let me deal with one point, and then maybe some of my colleagues can deal with
others. On the contractual side, that is an area where we have a lot of concerns. We like to see a counter-party on the other side of the Power Purchase Agreement. We will take development risk, we will take financing risk, we will take operational risk with these assets, but if we have to take counter-party risk, that makes us very uncomfortable with the revenue side, and as currently detailed in one of the two models, it is a synthetic counter-party. It is not something that we can easily get legal recourse to, and there are different views about whether the legality of it will stand up, but when you come to make that investment and deploy the millions of pounds necessary to build one of these large assets and you cannot see that counter-party, and it is not absolutely clear, then that is a decision we will probably defer. So that is one part of it. Maybe someone else can add—Laura Sandys: Can I just come back to you?

Shaun Kingsbury: Yes, sure.

**Q154 Laura Sandys:** From what you see, and I know there is a lot of detail that hasn’t come through, are you going to be making an investment?

Shaun Kingsbury: At the moment, with the information we have available—and that may change as more comes out—it is not currently investable.

**Q155 Laura Sandys:** So it is not currently investable?

Shaun Kingsbury: It is not. We have not stopped our development activities, because we believe some of this will be worked out, but with the information that we have today, I could not take it to my investment committee.

**Q156 Laura Sandys:** Could the Committee ask you to be specific—in writing, maybe—about the aspects that are making that uninvestable, the actual details?

Shaun Kingsbury: Sure. It is already in our submission, but we can provide further detail if you think it is not clear.

Ian Temperton: I was just going to say, yes, I did write that and I still think it is right. I think the pendulum has to change, and there needs to be a Government counter-party. That is what was originally envisaged, and that is what we all thought was going to be the case.

**Q157 Laura Sandys:** But then do we not run into state aid rules issues?

Ian Temperton: I am not the best state aid lawyer you have available to you, I hope, but maybe. I think that is one of the things that we are all concerned about. DECC has gone quite considerably out of its way to invent this payment model, which is different from anything any of us thought we were going to get when we first saw the proposals, and we are all quite fearful that the reason for that is that state aid and the Treasury balance sheet issues are what are driving them down this particular cul-de-sac. It would be a great shame.

**Q158 Laura Sandys:** So you have said this is not investable at the moment as well?

Ian Temperton: No, absolutely. I would agree with Shaun.

Laura Sandys: Absolutely?

Ian Temperton: Absolutely.

Gaynor Hartnell: I think there was an important point that Professor Newbery made this morning. This state aid question has been driven by nuclear, and it is great pity that renewables has been tied up in that.

Laura Sandys: Absolutely.
that that happens to de-risk the process. Obviously you can’t hold on to that allocation of a CfD or future allocation indefinitely, because you would have funding sterilised by, say, a project that was not going to reach fruition, so that is why we are suggesting, say, 18 months or two years to take it to the financial investment decision.

Q161 John Robertson: Would that not basically take up the CfDs available? We have seen it before; people have applied for planning permission all over the country to do wind farms and nobody builds anything. We have seen it with supermarkets; they buy up property to stop other people from building. Is that not the same thing that could happen? Gordon Edge: I think the problem is you are not going to get to financial investment decision. You need to do a lot of investment to get to that point, and if you do not have the certainty that you are going to get the support, you will not make that investment. So earlier on in the process, as Gaynor said, when you have planning permission, when you have a signed connection agreement, it is a serious project. You have already invested significant amounts of money, particularly if it is something like a large offshore wind farm; it is tens of millions to get you to that point, so it is not a fly-by-night thing, in which you just speculatively go in and reserve CfD, but you do need a definite sense of where the milestones are; if you have not met them, it will be taken away. I think we do need that sense, at an earlier point in the process, of “I have my CfD. I can now negotiate with the turbine suppliers and the other contractors to agree prices and make it happen.”

Gordon Edge: Yes is the short answer to that. We definitely see that as a greater risk now than we have seen in the past, particularly when the award is at this earlier point in the process, as opposed to the RO, where you get entry when you are finished—when you have completed the project. If there is this gateway earlier on, where people are going to be restricted in going through, I think that is a different risk.

Q162 John Robertson: Would the levy cap introduce a risk of the pulling of a number of CfDs? Gordon Edge: Yes is the short answer to that. We definitely see that as a greater risk now than we have seen in the past, particularly when the award is at this earlier point in the process, as opposed to the RO, where you get entry when you are finished—when you have completed the project. If there is this gateway earlier on, where people are going to be restricted in going through, I think that is a different risk.

Gaynor Hartnell: Well, I think there has to be flexibility about how the levy cap operates. The way things should work is that Government enters into a target—in the case of renewables, a legally binding target—and then it tries to meet that target cost-effectively as it can. It should not enter into a target, then say, “We have this much money”, and then say, “Well, how far can we go towards meeting that target with this amount of money we have set aside for it?” The decision-making process is in the wrong order there.

Q163 John Robertson: So what could be done to prevent this sort of boom and bust situation? Gaynor Hartnell: Well, I think the panel this morning were against the idea of the Government specifying a certain percentage of each type of renewable technology. The Government has already set an overall target for renewables, or agreed to the renewable energy directive target.

Q164 John Robertson: But does flexibility not increase cost in itself?

Gaynor Hartnell: Well, having a very tight control on the reins can increase the cost, because it increases the risk.

Ian Temperton: A Government ends up unfortunately making commercial judgments as to who gets these contracts and who doesn’t in a lot of these cases, because I think it is impossible just to allocate a final investment decision, for all the reasons that colleagues have said. I think if you look across various technologies, there are ways of having plans so that we don’t get massive amounts of over-supply. I think you can rely on the planning and the grid system to make sure we don’t get an enormous glut of onshore wind farms in the UK, personally, and I don’t think it would be at all harmful to tell the onshore industry that at a real risk they would always get a CfD, because I do not think that will cause a glut.

Q165 John Robertson: Do you think that nuclear coming along and maybe taking up a lot of the CfDs initially may cause a problem? Gordon Edge: It depends how they are budgeted. If there are separate budgets for all the different technologies—

John Robertson: Okay, so do you think they should be separated for each technology? Gordon Edge: I think at the least there should be a clear budget for renewables. As for whether there should be a budget for offshore wind or onshore wind, I think that is probably too much granularity, but there should certainly be a renewables budget.

Q166 John Robertson: The previous group didn’t like the idea of setting up distinct levels for each technology. Do you disagree with that? Do you think that the Government should say, “10% here, 20% there, 10% there”, depending on the technology?

Gaynor Hartnell: I think the panel this morning were against the idea of the Government specifying a certain percentage of each type of renewable technology. The Government has already set an overall target for renewables, or agreed to the renewable energy directive target.

Q167 John Robertson: But do you think that splitting it up would cause a problem? Shaun Kingsbury: I think it could cause a problem, and just to build on your point, I think you are exactly right when you specify both ends of the tariff bookcase, and if you say up-front to anyone with even an idea of a wind farm, “Please apply for a CfD”, you may get 20 or 30 GW of applications. This is what happened, for example, in Turkey. If you wait until the very end, then people will not invest the capital to get there because of the risk, and, as Ian said, I don’t believe that if we make these available we will have a huge amount more than we expect today coming through, because of all the other constraints that we have. But if you go with either one of those two extremes, you are going to get the problems that you suggested.

Q168 John Robertson: On the volatility of the market, how do you think that will affect the forward planning? Do you think you can plan years in
advance, or do you think it is going to be much more short term, in relation to which one you want to use?

Ian Temperton: One of the key issues is the supply chain, particularly with offshore. Uncharacteristically, I would be a bit more industrial-policy-like, and probably even think a little bit more about technology specifically, because individual projects competing will have implications, if we want a supply chain in the UK. Individual projects may be able to make those decisions, but if you want somebody to invest in the supply chain that might be amortised over a period of work—over 10 or 15 years or so—they need visibility of that work. So I would probably be in favour of a bit more of an industrial plan.

In the case of the people who are going to use up a lot of the levy control framework gap—the nuclears and the big offshore wind farms—Government kind of knows where they live, and it shouldn’t be impossible to plan for what they are going to need and what they are going to use up of the budget.

Q169 Dr Whitehead: Perhaps you could help me clarify some of these issues around how all that may happen. We don’t know the total envelope of the levy cap that may apply to all these decisions, in as much as it will be over the next spending round, not this one. Secondly, since the relationship of the strike price and the reference price is uncertain, whereas a levy cap would be certain, it is not clear to me how those two fall into the same cup, and thirdly, since we do have investment instruments at the heart of the Bill that appear to be methods by which one can book one’s CfD at an early stage, it appears logical that absolutely everybody would want to go for investment instruments in order to book their CfD place, but without the knowledge of what the levy cap is going to allow for early booking. Presumably an elementary gaining point would be that you want to try to book your place as certainly as possible, but by doing that, you may completely overflow the pot for anybody else, and logically therefore investment instruments would overwhelm the whole relationship between CfDs and the levy cap. Do I have that wrong, or is it a potential problem?

Shaun Kingsbury: It is a potential problem, yes.

Gordon Edge: In fact, it is even more complicated than that, in that the levy control framework will also be including all the RO projects. There is an uncertainty—because there is a choice between the CfD and the ROs—which one the developers will go for, and they have different implications for how much of the levy control pot will be used. So there are multiple uncertainties, and I don’t think DECC or Treasury have worked out in their own minds how they are going to account for that problem, as you say, of the differential, the uplift being an uncertain amount, and against a hard levy control pot.

Gaynor Hartnell: Can I just say one thing about booking a CfD? This isn’t a casual thing. You have to go and get planning permission and achieve it and a connection agreement. That is the investment possibly of hundreds of thousands of pounds, so it won’t be that easy. It is not as easy as, say, just bidding in for a NFFO contract, to go back to the previous Government’s policy, where all you needed to do was to have some time to fill in a form.

Q170 Dr Whitehead: But is it your understanding, Gaynor, that as far as investment instruments are concerned, essentially that looks like a promissory note, saying, “When you get your scheme under way, you will get CfDs when you want them”? Those have then already been pre-promised, so how does that fit in with the question of how you otherwise might get CfDs in terms of the planning process?

Gaynor Hartnell: It just means that you know that you have some of the risk in the project development stage taken away. You have invested a certain amount of money, sure, to get to the planning permission stage, but you haven’t gone all the way. If you go all the way and reach that point when you are about to make the final financial investment decision, say, “that is too much money”. People will not be interested in pursuing this if they have no idea whether they will be able to get a CfD. If the demand is such that there is greater demand than availability, which is a concern at the moment, there is no transparent process by which one project developer will be chosen to receive a CfD and another won’t. They will be batched in six-month rounds, as Gordon was suggesting, without anybody knowing what the process will be. It is very unsatisfactory.

Gordon Edge: There also won’t be transparency on what the strike price will be for the investment instrument, so it will be negotiated it maybe considerably greater than the administered price. There are lots of options for over-allocating the pot in ways that some people might find unfair.

Ian Temperton: On another control point, you are completely right, and it strikes me that the reason the levy control framework exists is because of the money that we all have to pay through central Government, and that is used as tax payment—tax through the populace, which is what Treasury cares about. That is why they have levy control frameworks—so that they can stop Departments taking away the tax-paying capacity of the populace through some other means that they are not in control of, and that seems fair enough. It does strike me that what the Treasury ought to care about is the total cost being paid for the electricity, which is what is set on a project-specific basis by the CfD, so I agree with you that it is not how it works today. It sort of strikes me that the principle of it is that people should only have to pay so much for essentials so they have some money left to pay taxes to the Treasury.

Shaun Kingsbury: If I just reply to this whole discussion, it is again evidence of the complexity and risk, and relatively speaking the complexity seems to be getting bigger, and the risk is therefore higher, potentially making the UK market less attractive, which we don’t want.

Q171 Laura Sandys: Just a one-word answer: do you think that DECC has the capacity to manage this complexity and to be the so-called arbiter of these contracts? How are they going to work through all of these processes?
**Shaun Kingsbury:** Two words: I don’t know. That is three, sorry. We don’t know yet. We have been working with them closely, trying to add detail.

**Laura Sandys:** You are obviously going to be employing lots of lawyers; there is going to be a whole load of professional expertise there on your side. Do you believe that the Department has the capacity to interface with all the questions that you are going to be asking and possibly any legal recourse?

**Shaun Kingsbury:** All I can say is they have been engaging directly with us. They have been listening to what we have been saying, and it has been a good process in terms of exchange of ideas.

**Nick Gardiner:** It is a difficult question to ask, and I agree with you, sure.

**Q172 Laura Sandys:** But do you think that DECC needs to change its role?

**Nick Gardiner:** Its role is changing. I have been engaging with DECC now for a number of years, and certainly the level of engagement has improved, in terms of the amount of time we get in front of DECC, and the complexity of what they are talking about. To give a very succinct answer to your question, “Are DECC at a level where they could do that now?” I suspect they are not, but it is difficult to be unequivocal about it. I suspect that given all the complexities—as you say, not least from the legal side—which it would entail, you would look for that, and you would have to think, but certainly the level of engagement from DECC that we have had to date has been very, very good, and they are increasingly engaging with us on the financing side.

**Q173 Chair:** On a related point, given that the issues like the cap are clearly Treasury-driven rather than DECC-driven, do you feel you have satisfactory interaction with the Treasury?

**Gaynor Hartnell:** I am not sure that they really appreciate the impact they are having, and it is a counter-productive impact, in terms of increasing risk and reducing investor confidence. All these things are not going to help targets to be achieved in a cost-effective manner.

**Nick Gardiner:** A similar answer to a previous question, I think: certainly we are beginning to have engagement now with the Treasury, and they are beginning to join the dots between the Treasury, DECC and others. So is it to a satisfactory level? I would suggest not. Is there a level of engagement? Yes, there is.

**Shaun Kingsbury:** This control issue has emerged as a risk over the last few years. I am not sure people who were developing projects several years ago were really thinking of it as a risk. It is an emerging risk. It is one that is, after conversations like this, moving towards the top of the list, so I think engagement directly with Treasury on that, and making sure they understand that and the effect it has, is probably something we should do more of.

**Gordon Edge:** I think the Treasury is never the most important that people don’t think that this is technical accounting and legal issues that hopefully the lawyers will get comfortable with. There is an accountability piece to this, which is we are expecting the utilities to set their tariffs for their customers under this regime on the basis that they forecast what they have to pay in difference payments to their competitors. Having viewed all the evidence from last week, it did not look to me like some of the utilities were desperately impressed with that idea. People who invest in these projects are going to have to look through this and say, “Do we think this payment structure is going to work in the face of what is always going to be a lot of regulatory rough and tumble in the energy sector?” So I think having a Government entity that makes an estimate as to what those different payments needs to be and requests that the supplier gather those as a levy from their energy consumers looks a lot more transparent and a lot more robust. Then people would get a lot more comfortable with it.

**Gaynor Hartnell:** I think that impact analysis was conducted on that basis, and if that is not the basis anymore, then one has to question whether that degree of saving will be achieved.

**Shaun Kingsbury:** We really need to see a counter-party that we can form a legally binding contract with on the revenue, and if we think we have it, but it is not clear, it is a real problem.

**Nick Gardiner:** Two boxes that banks have to tick for that is legal enforceability and creditworthiness.

**Q174 Sir Robert Smith:** Just on this counter-party problem, how much of a real problem is it? The analysis from DECC talked about the savings of cost of capital, on the feed-in tariff and the Contract for Difference. How much of that saving was because of the actual nature of the contract between them, and how much was about the fact that Government were a counter-party to the final analysis?

**Gaynor Hartnell:** I think that impact analysis was conducted on that basis, and if that is not the basis anymore, then one has to question whether that degree of saving will be achieved.

**Q175 Sir Robert Smith:** On the creditworthiness, given that it is all the suppliers, isn’t there really quite a reasonable creditworthiness?

**Nick Gardiner:** But you need the two to go hand in hand, so from a creditworthiness point of view I would agree with you, but I think there are question marks around the legal enforceability. We would need to be, on a finance side, very comfortable about both of those, and they do very much go hand in hand.

**Q176 Sir Robert Smith:** And can you see a legally enforceable solution?

**Ian Temperton:** A Government-backed entity that signed the contracts would be nice. There is also an accountability point, I think, because I think it is important that people don’t think that this is technical accounting and legal issues that hopefully the lawyers will get comfortable with. There is an accountability piece to this, which is we are expecting the utilities to set their tariffs for their customers under this regime on the basis that they forecast what they have to pay in difference payments to their competitors. Having viewed all the evidence from last week, it did not look to me like some of the utilities were desperately impressed with that idea. People who invest in these projects are going to have to look through this and say, “Do we think this payment structure is going to work in the face of what is always going to be a lot of regulatory rough and tumble in the energy sector?” So I think having a Government entity that makes an estimate as to what those different payments needs to be and requests that the supplier gather those as a levy from their energy consumers looks a lot more transparent and a lot more robust. Then people would get a lot more comfortable with it.
Q177 Sir Robert Smith: If the state aid rules prove insurmountable, is there a second-best solution?  
Gordon Edge: Well, the solution then would be to remove renewables and nuclear and take them apart, because the state aid problem applies to nuclear, not to the renewables.

Q178 Sir Robert Smith: Right, and do you think if you could isolate nuclear, there could be, given the circumstances—  
Shaun Kingsbury: We are a renewable energy investor, so we tend to focus on that.

Q179 Sir Robert Smith: So if the renewables could be sorted, would you be happy?  
Ian Temperton: I am sure DECC would say, if they were here, “The Government doesn’t explicitly stand behind the renewables obligation and we all invest in the renewables obligation”, so while it is not that simple, there is a mechanism for the flow of the cash flows through the industry that we have become used to, that we think is robust and that passes the sniff test of credit committees and investment committees and boards of directors. So if it was a counter-party with a pretty absolute right to levy the energy consumer, then subject to how those rights are enshrined, everybody might get comfortable with that.

Q180 Dr Whitehead: The White Paper, when it came out, envisaged that the Power Purchase Agreements would effectively no longer be needed once CfDs came in. Do you think that is right?  
Gaynor Hartnell: I have heard some larger project developers speculate that they may not need Power Purchase Agreements, but I think they may be changing their mind, or they may be concerned about the implications of the year-ahead reference price for non-intermittent generators, so I think the majority of project developers will certainly need a Power Purchase Agreement, those that are not directly trading, who aren’t signatories to the balancing and settlement codes.

Shaun Kingsbury: There is another issue, which is even if you have a CfD, it is getting your power to market and making sure you get the reference price, because if you get less than the reference price, your economics are going to be impacted significantly, so the questions are: how do you move the power; who is the counter-party; will people buy intermittent power from you; what price will they discount it; and what will the basis risk be against that reference price? Those are all challenges that could be taken away if you had a counter-party on a PPA and you signed a transaction with them.

Q181 Dr Whitehead: So is it your general conclusion, panel, that it may well be the case that in the absence of a continuing obligation after 2017, Power Purchase Agreements, particularly for intermittent generation, are fairly basic to what goes on?  
Ian Temperton: People wanting third-party finance will need Power Purchase Agreements. They will need to give their financiers a surety that their product is going to get into the market.

Shaun Kingsbury: That is a strong preference.  
Nick Gardiner: Absolutely. From a financing point of view, banks would require PPAs, yes.

Q182 Dr Whitehead: Who would provide those PPAs under those circumstances?  
Shaun Kingsbury: I think you have two options: the Government-backed entity, which could enter into the CfD for purchasing the power, or a counter-party that you would sign a bilateral agreement with—one of the big six, for example.  
Gaynor Hartnell: I think our concerns are that the Power Purchase Agreement may not deliver for the project developer or the generator the power at the reference price and therefore the combination of the PPA plus the CfD might not deliver the strike price, and that is one of the premises of the whole idea of CfDs—that that be achieved.

Q183 Dr Whitehead: Wouldn’t it be the case that if you did have a PPA offered, say by one of the big six, then almost inevitably that would be offered at a substantial discount?  
Gaynor Hartnell: Yes, I think we are agreeing there. Alan, so there is a discount. The combination of the two things doesn’t achieve the strike price that the Government is expecting or anticipating you need.

Q184 Dr Whitehead: Yes, so presumably unless you had a PPA issued as an issue of last resort from the Government, then it would probably be in the hands of—difficult to see who else might issue them—large integrated suppliers and generators.  
Gordon Edge: It is possible to imagine new aggregators coming into the market—potentially financial institutions and other companies with large balance sheets who want to take that kind of trading portfolio risk. The trouble is that was meant to happen under NETA and never did. We ended up with large, vertically integrated companies, and so even if we did feel confident that these companies would come along, there would be a timing issue as well. It will take some time for those kinds of entities to come forward and start trading at the kind of volume that would be required. So we see there is very much at the very least a transitional problem from where we are now, where the big six have been given an incentive through the renewables obligation to contract, to a position where under CfD, they have no obligation and incentive to do so, and therefore may not provide PPAs at a price that is bankable. I think that is the main thing. I think we worry more about the terms on offer, rather than about them necessarily being on offer at all.  
Gaynor Hartnell: There is one other possible route to market: you directly contract with, say, an onsite user of electricity. It may be through a private wires agreement or just a direct contract, and it is not clear to us that the EMR envisages that you would get a Contract for Difference on that basis if you are not contracting with the supplier. That is a worry, because that could be a significant source of good sites for renewable energy project development and also good capital for investing in the project.
Q185 Dr Whitehead: But if you couldn’t get a bankable price, or had only a marginal bankable price from the PPA that you have to have in order to continue without an obligation, wouldn’t that eventually put you out of business?

Gaynor Hartnell: I am not sure I quite heard the question, but if you have a large industrial user of electricity, so they are creditworthy, they have physical assets and they want to buy the power and they contract with you, that is another route to market, but I am not sure that it is one that is envisaged in these electricity market reform proposals.

Dr Whitehead: No, what I had in mind is this: let us say you are an independent generator post-2017, and you are seeking to sell your power. In order to do that, you have to have a PPA, but that PPA is likely to be barely bankable because of the discount that will be offered. Does that mean that you as an independent generator are in trouble as far as either your entry into the market or your continuation in the market is concerned?

Gordon Edge: The short answer is yes. I think this was one issue that DECC didn’t take seriously enough early enough—that there was a risk in offtake. They just saw this nirvana where everyone just sold through a liquid day-ahead market and they could achieve the reference price and it is topped up with CfD and everybody is fine. That may happen sometime in the future, but we have a real problem getting to that point from where we are now, so PPAs will be essential. Again, it is back to the bankers’ point: if they don’t have a PPA, they will not lend, so we very much welcome that DECC have recognised it and will be doing a call for evidence around this issue, but again, they have very little time to be bringing forward a workable solution if they do conclude that there is something that they can and should do.

Nick Gardiner: Just to develop that point just slightly further, in terms of would that be bankable, banks will look at what could be going on offer and will structure our finance accordingly, so almost certainly there will be less debt that would go into those types of projects, so hence there will be a higher equity requirement. Does that make the project sustainable from our point of view? It would certainly prejudice the economics of the project.

Shaun Kingsbury: In markets where there is more liquidity—for example, Scandinavia—you are looking at this concept of 2% or 3% versus the reference price, so significantly less discount that you would see, for example, in the UK market.

Q186 Dr Whitehead: But if you were about to be integrated, generator and supplier, you would not worry about a PPA, presumably, because you would be able to offset against your own background—

Shaun Kingsbury: Correct. It is the small independent generators that suffer most of the problem as a result.

Q187 Dr Whitehead: Do you see that as an insoluble problem for the future markets post-2017, particularly for the independent generator, or is that something that can be patched?

Gordon Edge: There are a number of possible solutions. A buyer of last resort has been kind of mentioned here. You might, through licence conditions, impose upon the big six a requirement to offer terms of some description. There are other options of incentivising them to buy low-carbon power. None of the options I have seen or thought of are perfect, but there are options to deal with it.

Shaun Kingsbury: No, I think it needs a piece of work with DECC internally, to do with improving liquidity. It is a liquidity issue, because if we have enough buyers and sellers, the market will work more efficiently and so the discount that you might see for intermittent power would be much less. We have seen it in other markets.

Ian Temperton: The independents will tell you the problems now as well. It is worth noting that. You have them this afternoon, I think. I think they will tell you that the availability of PPAs at the moment is pretty poor, and so one of the problems—we are only at the call for evidence stage on the issue—is that quite a lot of them are saying they are suffering in the here and now.

Chair: All right. I think we have probably reached the end of our time. Thank you very much indeed for coming in. We are very grateful to you and have obtained some useful evidence.
Tuesday 19 June 2012

Members present:
Mr Tim Yeo (Chair)
Dan Byles
Dr Phillip Lee
Albert Owen
John Robertson

Laura Sandys
Sir Robert Smith
Dr Alan Whitehead

Examination of Witnesses


Q188 Chair: Good afternoon. Welcome to this meeting of the Committee. Thank you for coming in. There is a lot of interest in our work on the Draft Energy Bill. Because we have been required to do it in considerably less than half the time that is normally allowed to a Select Committee doing pre-leg scrutiny of a Bill, I am afraid we are having to see larger groups in single sessions. You will have to forgive us if we are somewhat concis in our questioning and we appeal for concise answers. We only have one hour with you all and there is another panel following immediately afterwards. We will skip formal introductions if that is all right. You know who we are. We know who you are. Can I start with a question about the whole approach of Contracts for Difference? Do you think that they will meet the EMR objectives of achieving a lower carbon mix of generation in this country?

Gordon MacDougall: If I can go first, the answer is not necessarily. As currently presented, I do not think they will guarantee delivering that. One of the things we would want to correct is that it is often referred to as a “CfD FiT” and it is not FiT. It is not a Feed-in Tariff. A Feed-in Tariff would typically apply where you have certainty of price and in this instance it is not a FiT. It is a Contract for Difference and a contract without a known counterparty. For those reasons, I think we would see it as having detrimental effects on the market as we stand today but having the possibility to work for certain types of technologies, particularly nuclear which is what I think it is being designed for.

Ed Gill: I think if you are defining low carbon generation as nuclear and offshore wind then yes. The FIT CfD as proposed has limitations in that respect to fit small and medium-size generators, which you are going to become more reliant on to secure new investment and also to reach those targets.

Asif Rehmanwala: There are no clear benefits in terms of low carbon generation, in terms of renewables, which will be a big percentage of the energy industry in the UK and, therefore, we can’t say that will happen because there are no clear benefits.

Dr Riley: I will take a slightly different view. There was a lot of consultation on what the mechanism should be to replace the RO if that was the direction we wanted to go in and the CfD FiT was landed upon as the one that would encourage more investment in low carbon technology. If you think across the full suite of those technologies, for the more difficult ones, like nuclear and CCS, the CfD FiT does seem appropriate because it gives some longer-term security around the income for investors and it may attract a different set of new entrants for onshore wind or offshore wind, for example. But, again, it should give investors, particularly those who rely on non-recourse project finance, a bankable contract against which they can raise finance. That does, of course, depend on who the counterparty is and what the exact details are for setting the strike price and the reference price. I think that is one of the issues that we are faced with at the moment—among the complexity in the EMR proposals, there is still a lot of detail that we don’t know and it is somewhat early to tell, until we have been through that process, whether this is in fact going to deliver the objectives.

Andy Taylor: I would agree with those sentiments. I think it has the potential to deliver what is required so we have that bankability of long-term investment. We certainly need the counterparty issues to be resolved but it has the potential structure to give that longer-term, 15 to 20 years, certainty to investment. There is a lot to be addressed such as strike price, transparency and liquidity in the market to support the market reference price. There are a number of major issues that still need to be resolved.

Asif Rehmanwala: Given all those issues that need to be resolved, I do not feel it would be any better than the RO.

Jonathan Smith: We think that the CfD FiT is overly complex. The Premium FiT would have been a better process, we believe. It would not damage the wholesale market price signal and price discovery mechanism like the CfD FiT will, in our view. We think it passes significant risks from generators on to suppliers.

Q189 Chair: It has been suggested by SSE in particular, I think, that the option of a Premium FiT should be taken as part of the Bill.

Jonathan Smith: I would agree with that.

Ed Gill: We would agree with that. The Premium FiT brings advantages in terms of perhaps introducing genuine liquidity to the market rather than a more
artificial form of liquidity that you would see through a CfD in 25% auctioning. That obviously has benefits in terms of price discovery and making sure that taxpayer subsidy is kept to the correct amount, but also, in terms of competition in the market as well, helping small suppliers, too.

Asif Rehmanwala: We have talked about bankability and investment certainty. Premium FiT would allow that more than a CfD.

Q190 Chair: Would it be helpful to extend the RO?

Asif Rehmanwala: Yes, absolutely it would.

Ed Gill: The RO has advantages for the small—I say “small”, still being anything above 5 megawatts obviously—and medium-sized generators insofar as it gives you something with bargaining power. It gives you a ROC certificate at the end of the day and that has a value which makes suppliers want to buy generators off you, which gives you something additional to sell. So there are advantages to keep the RO going from that point of view.

Gordon MacDougall: I think retaining a workable solution is an imperative absent of a robust solution being offered and the RO being retained or a Premium FiT would both be good alternative solutions. One thing in terms of maintaining the RO, which seems to be lost, is that the RO was more than just a certificate system. It was a physical obligation on the suppliers to source the right kind of energy and that has been lost in all of this. I think that is a much more significant departure than many people seem to recognise because one of the big problems with a CfD is there is not sufficient liquidity in the market for independent generators to trade and, as such, they require a PPA. Without the obligation on the supply companies, there is no incentive for them whatsoever to offer sensible PPAs to make these projects bankable.

Ed Gill: The other problem with a CfD as well is it is very prescriptive in its outcomes in terms of the operational framework that came out a few weeks ago. It was quite clear that the Government sees CFDs leading to a just a market where Variable Power Purchase Agreements or Market Tracking Power Purchase Agreements become the norm in order to track the day-ahead price, the reference price. Not everyone wants a Variable PPA. For the small and medium-sized generators, smaller generators in the market where there is low level liquidity, there is a real value for Fixed Power Purchase Agreements, which fundamentally are at odds with the day-ahead reference price.

Andy Taylor: Absolutely. I think not just renewables but gas generation and further gas generation investment requires some commitment from large retailers to effectively tender or source some of the generation from independents. That is where you get true competition. That is where you get innovation coming in as well. So if the RO is removed and that obligation is removed, I would certainly like to see 25% or more of the retail demand offered out there to independent generators like us.

Asif Rehmanwala: The key points there have been made in terms of the generation and the renewable side of it, but I would also like to add a point in terms of the risk to suppliers. There is massive, massive risk to suppliers in terms of the collateral that you would have to put up for a CfD, which is absolutely massive. One of the Big 6 has come out and said that this risk would affect their credit rating. If that is the case for one of the Big 6, then that is exacerbated even more for a small supplier. We think it is vital that a 250,000 customer threshold is put in if CfDs were taken forward; otherwise there will be barriers to growth for small suppliers and barriers to entry, too. That is absolutely fundamental in terms of growing competition in the market.

Jonathan Smith: If I can just add one more point. The CfD FiT is indicative of a lot of features in electricity market reform, in that it is overly complex, and we believe there is a far simpler set of reforms that could have been put together to fix the wholesale market deficiencies at its core and which would be far less invasive in the market.

Q191 John Robertson: Does the levy cap introduce a risk that the pool of funding or number of CFDs allowed might run out before the end of this spending review period?

Gordon MacDougall: Yes, I think the Levy Control Framework is fundamentally incompatible with a CfD. Government can control the volume of contracts but what it can’t control is the price and, therefore, how do you balance that? What is the winning priority between long-term investment and short-term budget targets?

Asif Rehmanwala: To add to that, how can Government determine the correct level of deployment in a fair, cost-effective and transparent way? How can the Government do that?

Q192 John Robertson: Let me throw it back to you then. What would you do?

Ed Gill: If you have a Premium FiT, a Levy Control Framework is probably going to be more effective rather than a CfD. With a CfD you have no control over volumes and the difference between strike price or reference price. With a P-FiT at the very least you know what the top amount is going to be. There are lessons there that have been learned from the current Feed-in Tariff and the situation with that. It is just a far more straightforward, simple mechanism. To return to Jonathan’s point, the CfD is so complicated and overly-complicated it is just another thing that makes it harder to keep track of and control the costs on consumers’ bills.

Q193 John Robertson: Is there a risk that the early nuclear projects coming forward under the investment instrument might use up a great deal of the CFDs?

Andy Taylor: Yes, I think there is a risk of that. Given the information and transparency to date, we just suppose that. We are concerned about that. As with any further investment, there is a race behind the ball. The concern for us is that the investment instruments are almost something that will be entered into in haste and then we will be left with the ramifications of that further down the line. At this point in time there is a concern but, again, overall transparency needs to be
put in place. How is the strike price for nuclear going to be determined? We don’t know that yet.

Asif Rehmanwala: I was going to say, in terms of nuclear taking up that fund, I think that could happen regardless of whether you go down the FiT route or the way CfDs will work. I do not think it matters either way. It is going to happen.

Ed Gill: The wider point here, of course, it keeping track of the cost of investment going on consumers’ bills. You are talking about an instrument that Government has continued to press ahead with and implement based on an impact assessment that assumes the Government is still the counterparty. The International Energy Agency came out, I think a month or so ago and said that improved liquidity is vital to ensure that the CfD works properly and also delivers proper value to the taxpayer at the end of the day. The proposals for liquidity are 25% at best, and the Government is saying it is not going to be the counterparty any more. The entire rationale for the CfD is that it provides taxpayer value for money. So the original rationale for introducing something that was in parallel run with the Premium FiT falls away quite quickly.

Q194 John Robertson: Do you think there is a need for the Government to set out a level of deployment between each of the technologies so that it is set rather than wait and see who picks up the—

Andy Taylor: It would certainly help investors to have something in a broad framework. Undoubtedly there would have to be flexibility within that framework, particularly for investors who want to say, “Okay, what should we focus our pounds on in terms of developing? We are making a substantial financial commitment here. We need some kind of framework as to what the overall strategy going forward and the longer-term strategy needs to be”.

Q195 John Robertson: This is different from what we heard this morning when they basically said no to that. You are saying yes, so how should this be determined then?

Gordon MacDougall: I would agree that Government shouldn’t be setting volumes on any criteria other than cost. They have to focus on cost and deliverability of the sources of energy, not on picking a mix and then trying to dogmatically stick to that and deliver it no matter what the cost is.

Asif Rehmanwala: If the Government controls that then we will be in the same place as we have, for example, for the solar market.

Q196 John Robertson: That has worked really well.

Ed Gill: There is a danger there, isn’t there, for it to become inherently more political if you have targets that are too specific, but on the other side, as we have talked about already, there is the benefit of having a renewables targets or a renewables obligation in shape or form that provides clarity and clarity of direction for the market. It is a balance somewhere between the two at the end of the day.

Andy Taylor: At the moment, predominantly the market is gas generation. We are effectively late to the conversation about the gas strategy of the UK going forward. We are starting to have those dialogues now, but fundamentally gas will have a role to play for many years to come. Unless we have that open dialogue about gas, nuclear and renewables, it leaves investors, particularly external investors, slightly confused as to what direction we are heading.

Dr Riley: Going back to your original question, I think it is a step too far for the Government to be saying how much of each technology there should be. I think it is fine for a policy objective across a broad range of carbon technologies to form part of the base going forward. There is a big difference between the two.

Q197 John Robertson: If you do that how do you stop, as we have said earlier today, groups of people getting the CfDs and yet perhaps not doing the work?

Gordon MacDougall: I think that is an enormous issue and, again, you need to ensure that the contracts are awarded at a point where delivery is most certain. Back to your earlier point, it is a concern that nuclear, with such a long build period and such an uncertain cost, could dictate and use up so much of the funding. I think that is an area where Government has to work very hard to ensure that those projects that get built have the certainty of getting a contract, otherwise we won’t go through 10 years of development with the extensive costs behind that.

Q198 John Robertson: Renewable UK and Climate Change Capital said that awarding CfDs at final investment decision stage will be too late in the process. Would you agree with that and, if so, how should it be resolved?

Gordon MacDougall: I think that is possibly the right time to be awarding the contract but you must have certainty of getting a contract when you get to that point. The danger would be, if you use up budget when projects are not going to be delivered, you are constraining the market and you under-deliver. So I think that is possibly the right point but you need certainty of getting something. You need transparency.

Q199 John Robertson: How would you solve that then?

Gordon MacDougall: Again, that is one of the problems of the way the Levy Control Framework is being presented as potentially over a very short term. We much have a much longer term mechanism that recognises the long-term need and the long-term nature of renewable and other energy developments.

Q200 Dr Whitehead: Can I just seek some clarity on the investment instruments. There are a number of clauses in the Bill that seek to set those up. My understanding of that is that under those investment instruments somebody, maybe nuclear or possibly large offshore wind projects with a long lead-in period, might seek comfort in terms of, as it were, securing their allocation of CfDs through those
instruments in advance and, therefore, presumably, cashing that security at the point of which they deploy. Is it your understanding that most people would seek such instruments in order to try and get in first on CfD allocations? Would that be a strategy that one might adopt in order to secure CfD allocations over a period?

Asif Rehmanwala: If they feel there is a first mover advantage, absolutely they will do that.

Ed Gill: If the CfD is going to do its job, which is to attract investments, then they are going to do that at the end of the day. If it is going to be an attractive instrument then people are going to want to move in and people are going to want those things probably, yes.

Dr Riley: I don’t think that is a realistic scenario, to be honest. If we are thinking of the investment instruments ahead of the CfD mechanism being clearer to the investors, I would have thought that is, practically, going to be limited to very few projects. It is those with the really long development lead times such as your nuclear or CCS projects, for example, where there is another commercialisation programme for that technology in the future. I would have thought investors were going to think long and hard about boards getting comfort from the investments instruments with the knowledge that there is a CfD process just around the corner or a year or two down the line. I would have thought most would wait for the certainty of the CfD process to be clear—a longer term clear vision of what the UK market is really going to deliver for the investments rather than trying to do things on a project-by-project basis.

Asif Rehmanwala: In the absence of that, do you think people would be prepared to wait then?

Q201 Dr Whitehead: If the organisation who have that comfort already and have, as it were, allocated CfDs but not, by definition, allocated CfDs in a particular year according to the Levy Control Framework because at the point of the investment instrument comfort presumably the exact year of deployment is not certain, I imagine at that point they could cash their CfDs in whenever they deployed. Presumably that could be a problem for other people trying to make plans in that year but taking decisions rather closer to the year of deployment. Bearing in mind that these arrangements are potentially lumpy, i.e. a large amount of CfDs might come on stream in any one particular year, because of the size of a particular investment and according to the Levy Control Framework the total is controlled in any one year.

Gordon MacDougall: I think you are right that it could give a very uncertain investment horizon for most other organisations who do not have the certainty or the knowledge that they have a CfD in any given year. It would make things very difficult for them and I guess it could open itself up for gaming and any other misuse of that instrument, which would be a concern.

Ed Gill: I think the wider problem that you are touching on is that there is a need for clarity and transparency in the process by which these mechanisms work. There needs to be a clear and transparent process, which is also defensible as well in terms of any political behaviour between Departments. For example, you have seen in the press recently about the RO. I think that is absolutely vital to give people confidence in the process. That leads back to the problem—how do you overcome that potential lack of transparency given that you are using a very, very complex instrument, which naturally leads to vagaries and opaqueness as a result?

Q202 Dr Whitehead: Could I just briefly also clarify your particular point, Ed, concerning the volatility of CfD payments? Have you or has anybody done any work on the sort of range of payments one might reasonably expect to receive bearing in mind the variations on reference price over the period of time, what the strike price might look like and, therefore, what the sort of volatility range of CfDs in any one period might be and how, therefore, that might affect the possibility of the operation of a CfD cap, according to the Levy Control Framework, where that is an absolute numeric financial cap when the variability of the actual payments in a period of time looks at first sight to be rather large?

Ed Gill: We have not done any in-depth work on that particular matter but it is quite evident that there are concerns about having a large volume of cash linked to a day-ahead price going to your balance sheet. As a small supplier, that has impact in terms of credit and you also have to consider the collateral requirements that Steve mentioned. It is one of those areas that we think needs a lot more investigation. The most recent impact assessment that we have seen, and I think it is publicly available, is from July 2011, and there is no mention of small suppliers in there. There is no mention of the impact of the CfD on independent generators. That has only come about recently with the independent call for evidence. So it is a matter that certainly needs to be looked at a lot more, but I think the primary concern for us or the most basic concern is the large volume of cash for which we are responsible for handling. That is going to be of concern to us and to our creditors and that is going to therefore potentially impact on things like trading and that side of things.

Asif Rehmanwala: Yes, I agree. In terms of the volatility that you talk about, without having done the numbers, you have a volatility in terms of your operation as a vertically integrated energy company anyway and that will just be increased by the volatility that you will get between the strike price and the reference price and the timing difference between the end point in terms of paying generators and what sits on your balance sheet, as Ed said. So it is very difficult to quantify but it would be a large amount and that could be very untenable for small suppliers.

Jonathan Smith: I would echo those points. The CfD FiTs will increase the working capital requirements for small suppliers, which will hurt them more than the integrated utilities because the cost of working capital is much higher for smaller companies and the credit requirements to make a robust framework are new and over and above the requirements of the RO, which will hurt them a second time. It will introduce new market risks on the short-term CfD index price
and the year-ahead index price that are going to be developed, which are a new market risk that will have to be hedged, which will come at a bigger cost to independent suppliers as well.

Q203 Dr Lee: On the complex model of CfDs, do you think there was a particular form of energy generation that people had in their mind when they were drawing up this model?

Ed Gill: Yes, absolutely. I hate to bang on about it, but it is interesting looking back at the impact assessment that was released back in July and the underlying Cambridge Economics paper. It is quite explicit in what it says. It foresees the Government reaching its carbon emissions targets from nuclear and offshore wind.

Q204 Dr Lee: So you are in agreement that that is what is going on. It is a complex model, which is seemingly not being received that well for small and medium enterprises and certainly has not been received well by the investors that we have spoken to. Would it be better, do you think, if nuclear was taken out of this whole process and treated separately in a more strategic way by Government for maybe geopolitical reasons, so that we could then concentrate on a system that encouraged small and medium renewable businesses?

Asif Rehmanwala: We completely agree with that. If nuclear can be supported in that respect, then the market can continue in terms of its competition, which is fundamental.

Ed Gill: That creation of clarity would be welcome. I think, but there is a need to be clear on what cost and what funding nuclear would be receiving and that nuclear would be accountable for that, just as renewables are as well.

Gordon MacDougall: I categorically agree with that. I think the most difficult objective that has been set for EMR is to try and fit everything into one mechanism. They have very different features and they do not fit well together. The idea of trying to do it all as one to maybe avoid certain other issues and make that simpler has created a whole host of other problems and a whole host of other complexities. So I fully agree.

Jonathan Smith: There is a danger in some of this for me in that we have been in a consultation process for quite a long time around energy market reform and an Energy Bill and we seem now to be consulting on some of the elements that are in there and at the same time we are talking about fundamentally changing what we have been consulting on for the last two years. As a potential investor in the UK, it has given me the impression of even more uncertainty rather than of closing things off and giving me the opportunity to tell my shareholders that there is greater clarity coming in the UK and we can start to make some investments on the back of a framework that has been widely consulted on. I take the point behind the question but there does come a point in this where, having been out for fairly wide consultation and come up with a range of instruments to try and move the market forward, we need to try and deliver on some of those.

Andy Taylor: Certainly you can see some attractions in terms of the market for separating nuclear, but investors will say, “There is a ring-fenced treatment. What is next? Is offshore wind going to get ring-fenced at some point?” Again, it would introduce a further uncertainty. Certainly there are lots of challenges ahead to get this Bill through and make this Bill into something that is effective, but I would much rather have transparency of strike price for nuclear, costs of nuclear, timescales for introduction into market and what that means for other generation sources. I would rather have some awareness of that rather than assuming that something else is going on separately behind the scenes.

Q205 Albert Owen: How do you think that could be done? Would it mean two sections to a Bill, two separate Bills or what? You talk about transparency but we still have to legislate at the end of the day for the reform. So two different mechanisms? I am not really clear.

Andy Taylor: It might be attractive to take nuclear out of the equation, but I would rather have it included in the treatment of CfD FiT, so they had that transparency. I am not looking for two different—

Q206 Dr Lee: My point is that the CfD exists because of nuclear. That is my point. It would not be the model that you would choose if it wasn’t for nuclear. If it wasn’t for the fact that we were trying to perhaps be a bit economic with the language in terms of subsidy and state aid and everything else, it would not exist, would it?

Gordon MacDougall: I would agree with that. My view is the renewables obligation that we had for purely renewable energy was working well and delivering and was a solid mechanism. All the other concerns that people raise around cost or otherwise relate to the tools that were embedded within the RO to deal with that. There is bunding. There are various other ways that that could have been dealt with. I would agree that that is the case. I also sympathise with Steve’s point around the certainty and not having this 18-month process we have already been down, and not knowing what direction of travel we are going down. However, after 18 months, I would say that we are consulting on something that is quite well understood, and I take the view that after 18 months we are sitting here going, “What is this and how are we going to deal with it?” There are equally as many unanswered questions as questions answered 18 months in.

Dr Riley: In terms of whether the Feed-in Tariffs or the CfD are appropriate for the technologies, in other markets, Germany for example, Feed-in Tariffs work for onshore wind. I am not sure it is entirely driven by nuclear and offshore wind.

Q207 Dan Byles: I would just like to explore the role of Power Purchase Agreements. Will PPAAs still be required in this brave new world of ours?

Asif Rehmanwala: Yes, I can’t see it working without PPAAs. There are specific concerns in terms of PPAAs in
that suppliers might not have the incentive to sign up PPA s in the way that they are now and that will create a massive risk for the generators.

**Ed Gill:** To come back to my earlier point, I think a concern is that the CfD is quite prescriptive in what PPA s will be signed and the Department seems quite open in saying so. For us as a small supplier, in the absence of any real and meaningful liquidity in the wholesale markets, signing Fixed Power Purchase Agreements is a very good way of fixing our costs, which help us deliver stable bills for our customers at the end of the day. If a CfD removes, in particular through the use of a day-ahead price, that particular instrument then that makes life more difficult for us as a small supplier in some ways, but also it makes life more difficult for independent generators because if we have to strike a deal through a Variable PPA we have to manage that variation and that is a cost that we will then have to pass back in terms of a market discount to that independent generator.

Q208 Dan Byles: A fixed price PPA, from your point of view, would be better than a PPA linked to the day-ahead market?

**Ed Gill:** Yes, you can probably just modify the CfD if you use a long-term reference price. Anything from a year ahead or more would be better than the day-ahead price in our view. Ideally something like a three-year-ahead reference price would strike a good balance between, say, a Premium FiT and FiT CfD. That is one idea that we think has merit and should be considered.

**Asif Rehmanwala:** It has been talked about and the PPA would not hit the reference price generators. If that was the case then they will not be getting their strike price.

**Dan Byles:** Yes, that is something that people have raised with us.

**Asif Rehmanwala:** Yes. So that will be a key concern to a generator.

**Ed Gill:** Sorry, just briefly linking back to my opening remarks about whether a CfD enough to hit our renewable targets, if you are looking at seeing more small and medium-sized generation coming on stream to hit those targets but if those small and medium-sized generators are going to get the market discount, which is not going to be made up to the correct amount by the strike price because the reference price is wrong, that has an impact.

**Andy Taylor:** If you want independence in the market, and I think you do because of the competition that they bring, then for project finance we are going to need long-term PPAs, 20-year PPAs, and that is for gas and that is for renewables. We need to those PPAs in place. You are not going to get project finance without them.

Q209 Dan Byles: Is that likely to skew things more towards the larger companies though than smaller companies?

**Gordon MacDougall:** Under the new mechanism, yes. The need to put PPAs is not because it is a CfD we working with. It is because there is an underlying lack of liquidity in the market as we stand today. Twenty years post-privatisation in liberalised markets, we still have 91% of the supply within the Big 6 and 72% of the generation within the Big 6. So their vertical integration in that market, control and power, is why we need PPAs. It is not a liquid market.

**Ed Gill:** It comes all the way back to investment in generation for small players becoming more and more difficult, which I don’t think is a route we want to go down.

Q210 Dan Byles: Would a buyer of last resort mechanism be appropriate?

**Gordon MacDougall:** Yes, I think that would be very helpful. It would be a very good insurance policy against the market not being sufficiently liquid and not functioning well.

**Ed Gill:** It is an idea that I think has been considered, and returning to the impact assessment and the underlying analysis, it actually said that if there isn’t sufficient liquidity in the market, the Government should introduce a buyer of last resort. As a result, there is a slight risk of levelling down PPAs to whatever amount they might offer. I think we would probably prefer just to move away from day-ahead reference price. It seems a simple, more straightforward way to modify the CfD.

Q211 Dan Byles: How good a handle do you think DECC have of the subtleties in your discussions with them?

**Ed Gill:** Again, obviously we got the call for evidence now and they are aware that there is an issue. I think the ball is in their court, obviously.

**Jonathan Smith:** I think the PPAs will be needed for the same reasons that everyone has cited—liquidity is so poor in the wholesale market. The CfDs are going to be very gainable unless the liquidity is at least doubled and it does not seem that there are enough mandatory measures being pushed forward to encourage the doubling of liquidity that is required. Much more work needs to be done to improve liquidity and the mandatory auctions proposed by Ofgem won’t get us there.

**Andy Taylor:** We have the retail market review going on at the moment looking at options for liquidity. They need to go hand in hand. There needs to be an answer there, not just to suppliers’ concerns but generators’ concerns as well. I think the retail market review mandating portions of large utilities, supply tendered in the market, would help a lot. We are all very much aware of the lack of liquidity since NETA started and also the vertical integration since that point, but if you are going to have independence you need to get an answer to these things.

Q212 Dan Byles: Would there be a particular impact on independent gas generators?

**Andy Taylor:** Yes. Again, as I said, without a long-term PPA there is no bankability. Nobody is going to invest on a traded market that at the moment is concentrated on a day-ahead auction. As a gas generator, we don’t know what our returns are going to be until tomorrow happens. So that is just not a bankable solution. Effectively that squeezes independence out of this whole market.
Gordon MacDougall: I think that was one of the original mismatches of expectations. I think at the time of the original consultation Ofgem were doing a liquidity review and that was designed to bring immediate liquidity to the market. I think Ofgem were looking at something entirely separate and it was not about generation liquidity. It was about retail liquidity and these are very different. So the liquidity in the wholesale markets has not moved forward and there is nothing to fix that.

Ed Gill: I think you have touched on quite an important point there and there is very much a feeling that the Department have come to this problem of, “Okay, we have X amount of plant closing down in X number of years. We need to encourage investment and generation and we will think about the retail side of it afterwards”. However, they are inextricably linked. Now, there is always going to be a tendency to do that when you have a market dominated by six large vertically integrated players where you do not necessarily think of the two things separately but also interlinked—if you see what I mean, not wishing to contradict myself. There is the feeling that that is the case and it has not been a case of saying, “Okay, how is this going to impact on the retail side and indeed is this a good opportunity to improve liquidity in a genuine way and have 100% liquidity rather than just messing around with 25%?”

Q213 Dr Whitehead: Who do you think will provide PPAs in a post-2017 market?

Gordon MacDougall: Without some form of obligation on the utilities—and I think that is a very effective tool to motivate people to do it—I think that is one of our biggest concerns right now. As we stand there is no prospect of a healthy PPA market and any competition. Again, the discounts that would be applied would be excessive, which would have two impacts—either the strike price would have to be higher and increase the cost to customers or it would basically just have a serious impact on the commercial competitiveness of independence, which we believe would be very detrimental to the UK’s energy needs. We need independence. I think it is will be recognised that utilities alone can’t bring the investment needed but without that access to the market there is a big threat to the ability—

Andy Taylor: You definitely need some compulsion. We have 2½ gigawatts of capacity of high efficiency gas with 1½ gigawatts of that available for sale to any retailer and yet the Big 6 continue to self-supply and build their own with the capital cost there. So I think it is essential to have some compulsion.

Q214 Dr Whitehead: To the Big 6, who will be the suppliers of—

Andy Taylor: Yes, the large retailers. Some compulsion. As I say, 25% is the discussion and perhaps you might need more than that going beyond 2017.

Asif Rehmanwala: In terms of your question, Alan, I think there could be an even bigger detriment to the renewable market, especially—going back to the discussion we had earlier—fundamentally they not being a target as part of CIDs compared with RO. There is no target and there is no requirement to have a PPA with a renewable generator. If the renewable is intermittent what is the incentive for a PPA with a renewable generator? It is quite linked in that respect.

Jonathan Smith: I would make the point that if the liquidity intervention that was being proposed was a self-supply restriction, you would have six very large independent suppliers that would need to source power and they would compete for the PPAs on a market-based mechanism. It would solve the liquidity problem as well.

Q215 Laura Sandys: Some of the mechanisms that we are dealing with here seem to be a way that DECC is trying to sidestep problems around state aid. Certainly SSE and RWE believe that this is underlying some of the issues, the reluctance of the Government being the counterparty. To what extent do you agree with that? Also, do you feel that DECC is over-stating this and creating a structure that is anticipating problems where there might not be as many problems and do you think that DECC has engaged enough with Europe on this issue before developing a system that in many ways is expecting the worst rather than possibly a little bit more flexibility?

Gordon MacDougall: State aid is a very complex set of rules. It is not clear, I think, without almost testing them to see whether it would qualify and I think that is a difficulty. It could be challenged. I would look at it and say, “If you go down a CFD option with a nuclear plant would you be able to say with a straight face that there is no Government support towards nuclear?” If we take that we are primarily involved in renewable development, onshore wind, and we have many people who like to detract and invent scurrilous comments around the support mechanisms we have, would I then be in a position to say there is no support mechanism or do we have support? We have a Contract for Difference? I think that would be the test and I think that does make it very difficult.

Asif Rehmanwala: I agree with that. In terms of technology lifecycle, nuclear is a mature technology.

Q216 Albert Owen: Can I move on to capacity mechanisms and just ask a very broad question. The Government says it wants to ensure security of supply. Is there a real risk of the lights going out in the next decade or at the end of this decade, in your opinion?

Dr Riley: There is certainly oversupply in the market now. National Grid will publish their analysis; I think DECC will have their own. Each of the companies here will do their own analysis of when new build is going to enter the system and when plant will fall away. On our analysis, the reserve margin starts to get tight around 2017. I think on Grid’s analysis, it is around 2020. There will be different assumptions in there about the return of some of the mothballed plant and growth projections. “Risk of the lights going out” is probably a bit strong but there will be the need for new capacity before the end of this decade certainly.

Andy Taylor: Our view is similar to IP: 2016–17, particularly given the running hours and LCPD restriction in the coal plants. We should probably just put the mechanism in place so it is there as the insurance policy it is intended to be. Our view is you...
could have the auction in place. You define the products as early as possible, because some of those products might take seven years to deliver. If you are requiring development of a new fast-response CCGT, that is the criteria, that is the characteristic of the supply you want, then that could take seven years to develop. Start the auction process early and have the insurance policy available, rather than trying to guess exactly when that period of capacity shortfall is likely to be.

**Jonathan Smith:** We would argue something a little bit different. We think that if the wholesale market price is deep and liquid and vigorously competitive, you would have a price discovery mechanism and you would have supply that the price signal in the market would tell you when the time was right to invest in new peaking plant. If we have time before this capacity shortfall, why don’t we try and fix the hub of the wholesale market so that that price discovery mechanism can try and function? We should try and do that before giving up and putting a policy in place for insurance right now. I think there is time to try and fix the market first.

**Ed Gill:** We come at the capacity mechanism from a slightly unusual angle in that we obviously only contract with 100% renewable projects. I think one of the things that we have seen through the power portfolio that we manage is look at what are we doing before we get to the stage where we need the capacity mechanism in terms of technology, diversity and all the things that we are starting to see as the interplay between different renewable technologies coming through quite strongly. As you have seen more solar come on grid in the last year or so, you have seen how it works quite well with wind and hydro. They complement each other quite well. I think the broader point to make, which comes back to the earlier point I was saying, is there is a need to make sure that whatever we are doing, the CfD or the FiT or whatever we use, encourages a degree of geographical spread into the location of generation sites but also technological diversity as well. If you have that, then that can help reduce the need for things like gas-fired back-up and the need for a capacity mechanism, too. It is about taking a more decentralised approach at the end of the day as a way of encouraging investment in renewables.

**Asif Rehmanwala:** Yes, there was a capacity mechanism under the pool, as we know, before current trading arrangements. There was an argument that generators made supernormal profits under that capacity mechanism and there is a question mark as to whether this capacity mechanism now will lead to that or could there be investment in the market to ensure that there are not any brown-outs, as you suggested, without the capacity mechanism. The question is, will some of the bigger players be able to invest without the capacity mechanism and I think the answer is yes.

**Gordon MacDougall:** I would agree with Jonathan that at the moment there is time to fix the underlying market and then probably in the future we would need to the capacity mechanism.

Q217 **Albert Owen:** Is it your understanding from the draft Bill and the documents that have been produced with it that the auction will be technology specific? Is that your understanding?

**Andy Taylor:** Certainly my awareness was that it was open, with the characteristics of supply still to be defined. There are going to be peak periods. There is going to be intermittent coverage insurance. So you need a technology choice that they can deliver that. That is open. I don’t think it says explicitly which fuel it has to be or is it peaking capacity compared with base load. I don’t think that has been defined.

**Dr Riley:** My understanding again was that capacity mechanism was intended to be a market-wide capacity mechanism on the basis that, in capacity terms, with the exception of demand-side management perhaps, all the attributes of capacity are the same from the different generating technologies. So there is no need to differentiate between them. Back to your earlier question around would investment come with that capacity mechanism, I don’t think that is as clear cut as has been suggested. I think the capacity mechanism is needed in a world where there is a high degree of intermittency on the system and lower load factors; so a higher proportion of fixed costs for the infrastructure compared to variable costs. Then it is not unreasonable for some of the costs to be recovered through a capacity mechanism or a fixed payment.

Q218 **Albert Owen:** Do you think the capacity mechanism will influence interconnection?

**Jonathan Smith:** Absolutely. The capacity mechanism will reduce the price at which a generator would otherwise turn on to generate. So it reduces the wholesale power price in this country. It is a local policy and interconnected EU energy market, so that will create an arbitrage opportunity for players to try and capture the difference between the price between the UK and the higher price in Europe. You could view it as UK consumers ultimately subsidising EU power prices.

Q219 **Dr Whitehead:** Certainly in the context of interconnection and things such as storage demand side response, the capacity mechanism could have a role to play and bearing in mind that offtake; so DECC are, we understand, looking at how demand side measures might be incorporated into the Bill, is that an area where demand side measures might work?

**Asif Rehmanwala:** I think it could work. I don’t think it is, by any stretch of the imagination, defined very well at the moment. As far as I understand it, it works for dispatchable plant and storage and demand side response is not dispatchable. So they need to come up with a mechanism about what that would look like and how it would work before really knowing what the benefits of that would be. So capacity mechanism generally is for dispatchable plant.

**Ed Gill:** I think there is a point in that, if this is the most fundamental reform of the electricity market since it was privatised 20 years ago, then where is the wider strategic view of things like demand side response, smart grid, smart metering? We would argue there needs to be a lot more in there about how we ensure that barriers to more distributed generation are
removed as well. All of those things are not even on the radar of the EMR at the moment and they should be.

Q220 Dr Whitehead: Is there an inherent problem in having a de-capacity mechanism, you might say, in terms of longer-term demand reduction? Arguably, demand side response, if repeated often enough, looks a bit like demand side reduction.

Gordon MacDougall: You have to be careful how you make that work. Efficiency and lowering demand is very good but demand is usually there to serve a purpose and you want to ensure that your industry and everything else is continuing to flourish. What you would want to see is that demand being met by the lowest cost of low carbon energy.

Q221 Sir Robert Smith: As this is a new Session, I should remind the Committee of my entry in the Register of Members’ Interests to do with the oil and gas industry, in particular a shareholding in Shell. One thing we did hear on the capacity mechanism was that the very fact it might come in is undermining investment at the moment as people think, “Well, let’s wait and see what the capacity market has to offer before I make my investment”. Is that a sentiment any of you would share?

Dr Riley: I think it is the general sentiment around the whole of the energy market reform process; the longer it takes, it is just causing that hiatus in investment until there is more clarity on what the various mechanisms are going to be going forward.

Andy Taylor: We have been in the market for 15 years. We have seen various different changes and reviews and there is always uncertainty. I think capacity mechanism is one part of that but the fact that the price signals are not there on the market going forward means it is not a liquid market, which is the key reason for limited independent investment to date.

Q222 Sir Robert Smith: Looking again at the Contracts for Difference and its treatment, how serious is the concern that it could be treated as a derivative and, therefore, affect companies’ balance sheets? Is that still a serious concern?

Ed Gill: If the Government is not going to be the counterparty then it is a concern that needs to be looked at and given a lot of careful consideration, but that does not seem to have been considered by the Department and I think that links perhaps to the wider point I was making to Dan about the fact that the whole EMR approach has come from a very one-dimensional view and it needs to be more of a two or three-dimensional view. It is a matter that needs more investigation certainly.

Q223 Sir Robert Smith: Do you see a definitive solution?

Dr Riley: Not at this point, no.

Q224 Sir Robert Smith: Exemption for the smaller ones. Would that not affect the confidence in the market if you start to exempt people?

Asif Rehmanwala: We don’t think so. I mean there has been exemption on a number of other social obligations for up to 250,000 customers—Green Deal, Warm Front, Home Discount, CERT, ECO and a whole host of others. So we don’t see any reason why that would not be the case for CfDs.

Ed Gill: We would probably welcome consideration of an exemption. I think it is probably worth considering, but I think the wider problem here is we have reached a stage where instruments are being designed but we are having to exempt small suppliers. It is not an ideal situation.

Q225 Sir Robert Smith: You think the counterparty being sorted out by some sort of underpinning then also solves the problem?

Ed Gill: If the Government was the counterparty rather than suppliers then I think that would help resolve the issue, but I am not sure how feasible that is.

Q226 Sir Robert Smith: I think that goes back to the state aid.

Ed Gill: Yes.

Q227 Sir Robert Smith: The other concern is the posting of collateral. Does the fact that DECC are looking at shorter arrears periods going to make the posting of collateral less of a burden?

Asif Rehmanwala: It will make it less of a burden, yes. Will it take the burden away? No.

Ed Gill: We agree with that view.

Q228 Sir Robert Smith: Do you see any other solution?

Ed Gill: One that makes basic sense is to move to an alternate to the CfD, but obviously we have already made that point.

Jonathan Smith: The Premium Feed-in Tariff would not be classified as a derivative.

Sir Robert Smith: It wouldn’t be?

Jonathan Smith: I would imagine so.
Q229 Dr Whitehead: Bearing in mind what we have said this afternoon about the need for some form of continuing obligation and we have also gone into the problems of collateral and repayments and reference prices, isn’t the solution beginning to rather look like the idea that the renewable obligation continues?

Ed Gill: We think so.

Dr Whitehead: You might not call it a renewable obligation, but it will look a bit like a renewable obligation.

Ed Gill: I think it would probably be preferable. There are, of course, the politics around that in turns of the cost of the RO and, if we are looking towards greater ambition for renewables, how compatible those two things are. The RO has some real benefits over the CfD, aside from the complexity points, for small and medium-sized generators in terms of the benefit of ROC as an asset at the end of the day.

Asif Rehmanwala: And the fact that it has worked for so many years.

Gordon MacDougall: I think there are a number of features of the renewable obligation it would be nice to see returned. The fact that there is an obligation and the fact that the obligation was set to help steer the country towards its legally binding targets is very good. These kinds of features would be welcome.

Q230 Sir Robert Smith: What about the consumer, though?

Gordon MacDougall: Again, I think the renewable obligation is important, with all the levers available to Government, because it ensures that energy is delivered at the lowest cost. We are currently going through a banding review, which hopefully continues to be evidence-based and produces a banding that is appropriate and gets the lowest cost for the consumer.

Chair: Unfortunately, in the interests of time we have to move on to our next panel. Thank you all very much for coming in.

---

**Examination of Witnesses**

Witnesses: Rhian Kelly, Director of Business Environment, CBI, Richard Hall, Head of Energy Regulation, Consumer Focus, Paul Steedman, Senior Campaigner, Friends of the Earth, Dustin Benton, Senior Policy Adviser, Green Alliance, and Nick Molho, Head of Energy Policy, Climate Change Team, WWF UK, gave evidence.

Q231 Chair: Good afternoon and welcome to the Committee. Can I apologise in advance for the fact that because we are required to complete this scrutiny process in only 5 weeks, when 12 weeks is normally allowed, our sessions have had to be rather compressed and we are very severely time constrained. We need to wrap this up just after 6.00pm, so our questions may be a bit concise and I would appeal for equally concise answers where possible. Could I start by asking you whether you think the Bill is necessary or whether we could have arrived at where we want to be in terms of secure, clean and affordable energy simply by making incremental changes to our existing arrangements?

Paul Steedman: I think clearly we do need some significant reform from where we are and, therefore, the existence of a Bill to make some changes probably is the right thing, but is this the right Bill in terms of the measures that are before us? Probably not. We think there need to be some very significant changes, which will potentially produce some more simplicity rather than more complexity and give us a better chance of hitting the objectives. Not least, we think that the Bill is struggling tremendously because of the absence of any clear target or goal that sets out what it is for.

You have heard from other witnesses already about the need for being super clear about the purpose of this Bill and, in our view—and I think I can speak for Green Alliance and WWF as well on this one—that being about almost entirely decarbonising the electricity system by 2030. That is clearly what the Committee on Climate Change suggested is needed and is needed to hit our carbon goals in a cost-effective way. We think that should be on the face of the Bill, 50 grams per kilowatt hour by 2030. In terms of the vast range of other things that are in there, I can briefly skim across a summary of the other measures. The CfD mechanism is clearly overly complex, and is not going to work for smaller renewable players. We think a support mechanism for renewables in particular needs to have a number of qualities. It needs to be simple. It needs to have Government backing. It needs to be transparent and at the moment CfD is not going to do any of those things. On the issue of whether demand side plays into this, that is an area where clearly there is reform significantly needed because at the moment the demand side does not play a significant role and it must do. At the moment it is deeply disappointing that DECC’s projections and the whole basis of this Bill seem to assume a doubling of demand when in fact that is not necessary. Germany, for example, has set a target of reducing electricity demand by a quarter over the period 2050. That seems deeply unambitious from our side of things in terms of the Government assuming demand will double. Clearly there can be a number of measures that will deal with that in terms of the way that demand side can play in the capacity mechanism, the idea that there should be an equivalent mechanism from the Feed-in Tariff side of the picture. In a word, yes, we need very significant reform. Are these reforms it? Probably not.

Rhian Kelly: From CBI’s perspective, we do support the general direction of the Bill. We believe it will help ultimately to deliver a more diverse energy supply, which will be low-carbon, secure and affordable. We have consistently said since about 2009 that we thought the existing system would not deliver that and that incremental reform therefore is not the answer so therefore we are in full support of electricity market reform. We are worrying though...
that what we have on the face of the Bill at the moment will not attract the necessary investment and there is a real challenge then between driving this forwards as quickly as possible to get investor confidence but making sure that we, at the same time, pin down the necessary details. We think, in a sense, therefore this session and others is a good opportunity to discuss some of those details, keep up the momentum, but make sure that we put in place the right level of detail.

On Contracts for Difference, we think it is essential to get the design right to reduce the cost of capital. We are very worried that the current Contract for Difference design will not do that. On capacity mechanism, although we have never uniformly accepted the case for it, we know Government is going to ahead with it and so we need to get on with this as soon as possible in order to avoid an investment hiatus. Both of those, if you get them right, we think will reduce the cost of capital and therefore help us deliver the scale of investment to secure a diverse energy supply.

A final point I would say is that when we design this new reform we need to make sure that we manage the costs to those sections of the business community that use a lot of energy, so energy intensive industries. We need to make sure that for the most at risk energy intensive industries, their competitiveness is not further undermined by any additional cost that would be brought on by these reforms.

Dustin Benton: I would just add that we have a Bill with some mechanisms but we do not know what the Bill is intending to do. We are talking about diversity and we are talking about decarbonisation but we have no sense of what that means. The mechanisms in the Bill, depending on how they are used, could get us down to the sort of low carbon diverse energy system we would like or it could end up in a system that is very gas dependent and very risky, so that is why I think we need a pathway down to around 50 grams of CO2 by 2030. It is technology neutral, it enables competition towards 2030, it is sensible. In terms of addressing the price risk, I think the way we do that is through energy efficiency and to bring that to the Bill and that is why we have called for an efficiency Feed-in Tariff, which would give an incentive to anyone in the market to save energy and make some money because right now all the incentives are sell more energy, make more money.

Q232 Chair: We will come on to those points in a moment. If we are going to accept, and I think probably a lot of the Committee will be inclined to do so, the need to include a decarbonisation target in the Bill of some sort, and we have taken evidence from David Kennedy this morning, do you think it would also make sense to have a role for the Climate Change Committee in overseeing the decarbonisation of the electricity market generally?

Nick Molho: I think certainly, given their involvement in the carbon budgets in the first place, that would be very sensible and I would see that role mainly around overseeing the delivery plan and especially the volumes of low carbon contracts going forward to make sure those are consistent with a decarbonisation of the power sector by 2030.

Paul Steedman: I think, if they don’t, there is a significant risk to the overall ambition of the Climate Change Act and a low carbon budget. It is imperative that, particularly given the risk that the system operator may have some conflicts of interest in their role in bringing forward draft delivery plans and then implementing the system that there is an independent voice, which the Committee on Climate Change clearly is, saying whether or not delivery plans are likely to be consistent with carbon budgets. So absolutely, yes.

Rhian Kelly: From the perspective of the CBI, I do not think we need to have an additional target on the face of the Bill. I think we might want to have a reference objective but I do not think it is necessary to set the target in the place in the Bill. I think we already have targets through the Climate Change Act, through the carbon budget. We have the scrutiny of the Climate Change Committee and they will continue to do that scrutiny. I think we are at risk of missing the point by putting a target in the Bill. The point of the Bill is to attract the necessary levels of investment and that is what we ought to be making sure this Bill delivers.

Q233 Chair: Just on that point, raising the target was not defined as 50 grams per kilowatt hour, for example, but merely compliance with carbon budgets. Would that make more sense from your point of view?

Rhian Kelly: The assumption anyway is that this is a part of delivering the long-term carbon budget and this will have to form part of the trajectory if we are going to be achieving a low-carbon transition that is secure, affordable and decarbonised. We can put it in the Bill but the working assumption is that this is a piece of the framework to get us there.

Nick Molho: I think on that point, having at the very least a reference to meeting the aims of the fourth carbon budget in particular, in the Bill, is absolutely critical because if it was just a question of delivering the 80% emission reduction objective by 2050 then you could argue we already have the structure in place because we have the Climate Change Act. But that clearly has not brought in the levels of investment that we are looking for. What investors are looking for is a clear short-term picture up to 2030 as to the volumes of CIDs that would be awarded, so I think at the very least a reference to the fourth carbon budget is absolutely critical.

Q234 Laura Sandys: I think, Paul, you mentioned something about demand-side resources. There seem to be some mixed messages around demand-side reduction and demand-side response. I just wonder whether you would like to expand on that, and how you think we could be looking at demand reduction through the EMR. I know that some of you have looked and proposed issues that would be an energy-efficiency FIT. I wonder whether you had also looked at, in many ways not that mechanism, but a different mechanism such as a form of set-aside, which is a different mechanism from a different part of the economy or different Department that has possibly
more in relation to what we are trying to look at. I welcome your views.

**Dustin Benton:** Just to clarify the “set-aside” is that like an obligation? Would that work by obligating energy companies to say—

**Q235 Laura Sandys:** Not necessarily, but a payment mechanism. I mean in many ways it appears very difficult to put in a mechanism to not generate when it is a mechanism for generation, but there are parallels, such as set-aside, which is about passive non-production. I throw that to you.

**Dustin Benton:** I do not know enough about the set-aside proposal to say anything intelligent about that, but what I can say is that I think an efficiency Feed-in Tariff fits into the Bill and fits into the energy market quite well. That is because you can think of energy efficiency as delivering long-term demand reduction, as operating a bit like a base load power station does, so you get a megawatt of electricity that goes along and feeds into their system in the same way as if you reduce a megawatt hour of electricity that feeds in all the time. So the Contract for Difference mechanism, which I think seems to have been designed for nuclear, seems to mirror that quite well. If you were to enable demand reduction to be paid for in the same way that nuclear was, albeit at a much lower price, you could use that mechanism quite effectively and I think getting some sums in here is a useful way of identifying how big of a deal that is.

There is a refrigerator replacement programme that has been running in the United States and it costs £33 per megawatt hour of electricity saved. The cheapest low-carbon form of power we can find right now is onshore wind at about £83 per megawatt hour. What we need the Bill to be able to do is procure that £33 per megawatt hour of saved energy over the £83 megawatt hour of new low-carbon energy. That is what a Feed-in Tariff mechanism would do. So the system operator would set out a set of strike prices, a set of Feed-in Tariffs for different generation technologies and it would produce one for efficiency providers, for demand-side aggregators and say, “If you can save a megawatt hour of energy, you make this amount of money and then instead of buying that megawatt hour of energy from a low carbon supplier you get it from that, and it is much cheaper”. That can help address the affordability, it also means we have to build less stuff overall, so it helps with the financing.

**Richard Hall:** I think that would also assist in making sure we get maximum value out of our smart metering programme insofar as quite a significant proportion of the benefits of smart are perceived as being empowering consumers to change their consumption habits and providing some kind of financial recompense for that is going to be clearly, I think, quite significant in driving in behavioural change.

**Paul Steedman:** In terms of the funding, although the carbon floor price does not form part of this Bill it clearly is part of the wider EMR package and it seems clear to us that particularly as Warm Front and other direct state funding programmes for energy efficiency are wound down and withdrawn, the money from the carbon floor price, and indeed from auctioning the receipts of EU ETS permits could well be directed towards energy efficiency work. It seems to us a sensible source of funding for cutting demand both on the electricity and on the heating side.

**Nick Molho:** Just to add to that, the benefit of having something like an energy efficiency FiT in the Bill is not just to save on the amount of any low-carbon infrastructure you need to build, you also are reducing the amount of transmission and distribution infrastructure that needs to be built, and those are the type of infrastructure projects that often encounter various problems going through the planning system. Those benefits should also be taken into account.

**Richard Hall:** If I could highlight an additional thing here. I think this kind of approach could try to perhaps get over some of the issues we have around a reduction in the number of houses in which we are expecting to see insulation measures coming in, whereas the Government projections for Green Deal are 100,000 homes per month seeing insulation measures coming in, whereas the DECC statistics there are still over 100,000 homes per month seeing insulation measures coming in, whereas the Government projections for Green Deal are 100,000 homes per year and for ECO about 260,000 homes per year. At the moment, we are likely to see a downscaling, a downshifting of the number of homes seeing insulation measures and seeing efficiency measures. Using perhaps the proceeds of carbon taxation to try to take up some of that slack and invest in making our housing stock more energy efficient and helping the most vulnerable we think is probably quite a prudent idea.

**Rhian Kelly:** I absolutely think that energy efficiency is an important part of the decarbonisation story and we should be doing everything possible to make it happen. I mean in a sense it is a no-brainer, it is the low-hanging fruit so we ought to get on and do it, but I am not quite sure it is the right place to link it to this particular Bill. I think we already have in place a number of mechanisms that are aimed at energy efficiency and, in particular, in the business community, the energy efficiency landscape is pretty complicated and overlapping. So I am not totally convinced that adding something to this Bill on top of what we already have is the answer to the problem.

I think again what we need to be focusing all through this Bill is making sure we get the scale of investment into energy supply and at the same time we ought to be making sure that the carbon production commitment, the climate change levy, the climate change agreement, Green Deal for business, add up in their own right to ensure that we also are taking energy efficiency action alongside managing our supply.

**Dustin Benton:** I think that energy Feed-in Tariff is an opportunity for a business because it provides a means of getting paid to reduce your energy demands. All of the mechanisms that—

**Q236 Laura Sandys:** Can I just ask you, is that the responsibility of Government, but actually the consumer to pay for that, because the price of energy should be driving those efficiencies through the system, not necessarily an ongoing subsidy. When you start to then look at, let’s say technologies, as technologies drop in value, in price, let’s say solar,
you will end up with a smaller subsidy as time goes on. How do you manage that tapering when it comes to energy efficiency?

Dustin Benton: That is a good question and one you need to figure out as you go along. What I would say is that there is a short-term issue and that is that we— it has been economically rational to save energy for the last 40 years and we are not doing it. We do not act the way economic models suggest we do. So getting in an incentive, which is a great way of providing a mechanism to pay energy services companies that can use private sector—

Laura Sandys: So you have a psychological problem rather than a—

Dustin Benton: There is a psychological problem but you can make money out of it. Take a look at CERT and try to work out what the costs are to the electricity you look at and think, “Well, I have to do it, so I will”. You do not think, “There is a major market opportunity for me. If I do that well I can make a lot of money” and that is what a Feed-in Tariff gives it the ability to do. It also brings in new entrants because you can get people to come in who are not already in the energy market will be able to take up opportunities. I mean it is a big area of opportunity. Greg Barker announced a couple of weeks ago that DECC has done a study that says you can save 38% of electricity demand by 2030. There is a major opportunity there; we are just not taking it up.

Q237 John Robertson: Do you agree with the Government on the choice of CfD and do you think it is the most appropriate for intermittent generators?

Nick Molho: I think as it stands, we are very concerned by the suitability of these contracts four intermittent generators on the basis that they are not simple, they introduce an offtake risk, they are not Government-backed and there is considerable uncertainty about the predictability of how they will give to generators in terms of both long-term volume and price certainty. Those are key issues that need to be addressed to improve investment certainty and to accelerate the deployment and the cost reductions of renewable technologies.

Paul Steedman: I think we should be clear who it is that CfDs are working for. They are working on behalf of the nuclear industry and they probably work for large, vertically integrated companies. For everyone else, they add such a degree of complexity, as we have heard from witnesses all day, it beggars belief that that is the mechanism that is being introduced. In terms of the vision that I think lots of us share about a market that is much more liquid, that has a way higher number of players in it, and I think that includes people and organisations who are not necessarily traditional power companies with big bits of kit that might include, as it does in Germany and other places, local authorities, it might include consumer co-operatives, it might include non-traditional investors in this sector.

For those kinds of non-traditional players who we think can play an important role and provide additional sources of investment as well, potentially taking lower levels of return than big PLCs will require, CfDs just do not work. There are many more simple instruments that would do that job. The characteristics that I guess are clearly required, simplicity, Government backing, and for us the fixed Feed-in Tariff model that Catherine Mitchell referred to earlier today, which has been demonstrated well in other countries, not least Germany, offers a good example of a mechanism that delivers a price certainty, simplicity and straightforward Government backing.

Q238 John Robertson: That was the question I was going to ask you about, so you would say that the proposal disadvantage small skilled generators?

Dustin Benton: Clearly it does, and I think that this is part of the problem with the one size fits all mechanism. There are two attractions to CfDs. Firstly, if they were contracts with the Government, which they do not appear to be, then they seem like they are very low risk. The benefit of that is that you can then get in very low risk, low return investors, to take on projects once they have been built, and it brings some finance into the sector, which frankly the Big Six and the smaller players just cannot get together.

That is an attraction but that is not necessarily what we would be delivering through the existing proposals. But absolutely it does not address the small scale concerns. If you are a local community group who wants to put in a few wind turbines or a few solar panels, CfDs are too difficult.

Q239 John Robertson: Mr Hall, Consumer Focus, what about the consumer in all this?

Richard Hall: I think we have always held that a sensibly designed CfD scheme could work in consumers’ interests. We do not think this is a very sensible designed CfD scheme. Picking up on Dustin’s point, the initial impact assessments and the way that this policy was sold was based on the Government being the counterparty. I think that has clear implications in terms of keeping down the cost of capital. For example, at the moment the rolling yield on Government 10-year gilts is 1.64%. If you look at GB pound bonds issued by E.ON for 10 years, they are 6.4%, so the Government can borrow at quarter of the price that the private sector can. So the cost benefit assumptions in the DECC impact assessment appear to be quite deeply flawed. There are further issues that concern us. One is around counterparty risk, so if a supplier who is now effectively the counterparty to a CfD goes bust, who picks up those liabilities? I have a nasty suspicion we are going to look at a regime that involves those liabilities being essentially socialized over other suppliers, and that creates its own sort of systemic issues where, as a previous witness highlighted, about two thirds of our generation, the bulk of our supply, comes from the same companies. So we are effectively asking these companies to self-guarantee. You are saying that the person who stands behind your contract if it goes wrong is you, and that does not strike me as a particularly credible mechanism. I guess a final point, sorry, I know we are short on time, in terms of—

John Robertson: You have obviously been saving this up.
Richard Hall: Yes, today’s rant. In terms of the value for money here, picking up on a point, which I think Paul made, it is not entirely clear what the terms of reference for this Act are. What are we trying to achieve here? For us, one of the things that manifests itself in it is there seems to be a poor targeting of costs. We are trying to simultaneously stimulate every single type of renewable energy plus nuclear plus a separate capacity mechanism to make sure the gas-fired generation does not feel left out. This kind of sort of tapas approach of failing to choose an option on the menu, so trying to choose one of everything looks highly unlikely to offer consumers value for money.

Q240 John Robertson: The SSE has advocated keeping the option of a premium FiT open in the forthcoming Bill. What do you think about this idea and are there any benefits of it?

Rhian Kelly: The CBI have been very clear on balance and support Contract for Difference. I think one of the striking things about everything you said is the key to getting that right and making sure that they are made if you make sure they reduce the cost of capital, so we would prefer to have a Contract for Difference and keep the momentum on the existing Bill rather than rip it up and start again.

Nick Molho: Given the concerns that we have with the CfD in its current form, I think it would be (a) sensible for DECC to review the suitability of it for different forms of low carbon generation and in the meantime widening the enabling power in section 1(1) to allow to introduce a FIT other than a Fit CfD should that turn out to be the most suitable option, either for all forms of renewable technologies or some classes of renewable technologies. It is just a minor amendment in section 1(1) that is required to allow that.

Q241 John Robertson: Mr Steedman, Friends of the Earth propose a fixed FiT model; what are the benefits of that?

Paul Steedman: It has the benefit that just like the CfD, you have some degree of price certainty, but the issue around the price risk, which is still basically left open, which is particularly problematic for smaller independent generators under the CfD model, are handled because you have a guaranteed buyer. That seems to us particularly important for smaller players who may struggle and, as we have heard earlier today, to make the reference price and therefore make their money. So it is much more investable against. It is simpler as well. It is much more straightforward. Investors are much more familiar with it.

Q242 John Robertson: Simplicity seems to be a word that is creeping up a lot in these inquiries. Does the RO life need to be extended to 2017?

Paul Steedman: Clearly our preference would be to get this reform right and get it right quickly. That is the imperative thing in order to have certainty about the new regime, in order to ensure that costs are managed as fairly as possible for the consumers and to provide the greatest level of certainty for investors. If it proves necessary to extend it then, sure, I think we would probably rather that we get this right and get it right now.

Nick Molho: I think it could provide a short-term fix if that was required. But I think ultimately having the clear long-term certainty that the Bill is supposed to provide implemented as soon as possible is where we want to go.

Richard Hall: It will be interesting to experience once the Act goes live because we envisage this period of essentially I think 2014 to 2017 when there will be an overlap where essentially you have a choice of which to go into. If we see widespread opting into the RO rather than the CfD FiTs then I would suggest at that stage as a matter of emergency, you can treat that as the market saying, “We will not touch this with a barge pole, we need to extend the RO.”

Q243 Dr Whitehead: Two thoughts, it does appear that in the first instance the cut-off date of 31 March 2017 for the RO is predicated on the fact that nuclear power would be coming on-stream in 2018 and therefore the instruments needed to be unified. Since nuclear power is not coming on-stream in 2018 and the RO indeed in the Bill is continuing for 10 years with headroom intact but no new entrants and then effectively collapses to a Premium FiT after 10 years, are there mechanisms possibly within the Bill that you might consider could precisely perform the sort of function that Richard mentioned in terms of the possible emergency that might arise should people opt in the way that they might do in the period running up to 2017?

Dustin Benton: It is possible but I think the key thing is to make sure that we do not end up overpaying and part of that is through energy efficiency, but part of it is also saying what happens if the situation arises in the latter part of this decade where electricity is very expensive for other reasons. If you have a Premium FiT mechanism then the potential issue is that it is very expensive for the consumer and I am concerned about that as an environmentalist because the lesson of the last three years is that when prices rise people do not go and save energy as the rational response. They get angry at politicians and then the political consensus for the Energy Bill disappears. I think we need to be clear that we are not going to overpay. The best way of doing that would be through a mechanism like a fixed Feed-in Tariff or a CfD that worked. As for a Premium FiT or a renewables obligation, I prefer that to nothing but it would be a second option.

Nick Molho: With respect to the Premium FiT you can address this latter concern by introducing a cost cap mechanism—to a Premium FiT to ensure that if the wholesale electricity price goes above a particular level, then the subsidy is reduced accordingly to avoid over-rewarding generators. I think that is something that could help mitigate the concern.

In any case, going back to the original question on extending the RO, I think if it proves necessary to do extend to clarity on that needs to happen asap just as clarity as to when the new arrangements will kick in needs to be clarified as soon as possible.

Q244 Dr Whitehead: Early clarity rather than the emergency switch?
Nick Molho: I think early clarity is essential if you want to avoid a long-term hiatus.

Richard Hall: My understanding is that it is intended that there would be, if you like, a technical advisory panel who would give the Secretary of State advice on essentially what kinds of options it had on the strike prices, so if you want to bring forward certain volumes these kind of strike prices will give one volume, these will give another volume. It may be an idea to get that technical power reporting into this body. Can I suggest almost an Office for Budget Responsibility-type function for setting the prices for these instruments, so that essentially there is public scrutiny of the credibility of the recommendations coming forward, and if it looks like those are resulting in a mix that is not attractive to the market, which is not being delivered, action can be taken to remedy that.

Rhian Kelly: I think the importance here is making sure we design the Contract for Difference properly in the first place, so we are not then pushed into the position where we have to take drastic emergency measures. I think that is particularly important because what we need is confidence and a longevity in the system, so if we are then building in any emergency measures that they are not going to get that. I think the important thing is we get the design of the Contract for Difference right now so that everybody can see what is going to happen out to the future and there does not then need to be, as I said, emergency measures put in place just in case, because that would just increase uncertainty.

Q245 Dr Whitehead: We have heard a lot of evidence about the extent to which there appear to be difficulties in designing the actual CfD to work in any way like the theoretical CfD was supposed to. Is there a point at which you may say, well, investor certainty is better served by either going with a CfD that does not look like the original CfD at all or going with something else?

Rhian Kelly: I think two things; we thought that you had to have formed a system so we think the system as it is now will not deliver. But secondly the opportunity we have here is to make sure we get the design right so we need to look at what is on the table. But there are other ideas out there and we need to make sure that when we get to the actual Bill that is going through Parliament, rather than a draft Bill, that is the mechanism that everybody agrees will deliver the investment.

Dustin Benton: I would like to say CfDs are not an unknown quantity. We have CfDs in the financial world, Britain is very good at that. I do not think that CfDs are themselves the most difficult thing. It is that, for whatever reason, we have not yet taken the choice to enable the CfD to work. So on the counterparty issue I think that is a classic example of we have not taken the obvious decision, which I imagine, although I have not reviewed all of the evidence what everyone has said to you, that everyone has been saying. “Get the counterparty to be the Government, have that be clear” It is a de minimis requirement for the CfD to work. It is not so much that is that complex. It is very simple. It is just we have not yet done it.

Q246 Dr Whitehead: There must be a reason.

Dustin Benton: I could not possibly comment.

Dr Whitehead: The Treasury could, does it?

Dustin Benton: Perhaps they could. Is this the State aid question?

Dr Whitehead: Yes.

Dustin Benton: Yes, I think there is a credible risk that if a CfD is considered to be a subsidy for nuclear that the Commission may say, “Well, that is not acceptable and we will not go with that”. My solution would be to say, “Let’s not have one mechanism for all different technologies”. I mean the worst situation would be everything getting stalled. All of the other low carbon stuff that we need gets stalled because we are having an argument about it here. In a way that is sort of at risk of putting something that is potentially irrelevant in front of all of the other stuff we need. Solar costs are coming down enormously quickly, onshore wind costs are coming down very quickly. We have an industry that believes it can bring down offshore wind costs quickly, but if that gets blocked by a fight about nuclear there would be an enormous waste of everyone’s time and a huge missed opportunity.

Paul Steedman: This goes right to the heart of the problem. When the Committee last looked at EMR it identified rightly that the whole thing was being skewed around the needs of a one-size-fits-all regime in order to benefit nuclear, in order to be able to preserve the coalition fantasy that there will be no subsidy for new nuclear. We are still in that space and that means again that we end up with this horrifically complex instrument, rather than, for example, a simple Fixed Feed-in Tariff for renewables. Increasingly people, from Peter Atherton at Citigroup through to Dave Toke at the University of Birmingham, are saying that the kind of strike prices that are going to be needed to get any new nuclear away are of the order of £150 to £160 per megawatt hour and way in excess of that offshore wind or most of the other renewable technologies that we are talking about. So nuclear is becoming entirely uneconomic on its own terms and yet this whole Bill has been mired in complexity in order to try and funnel money towards new nuclear. It is a crazy situation. We could have a much simpler support mechanism, a much simpler Bill and meet our carbon targets through renewables, if that is what we focus on, providing support for demand reduction, demand side response and renewable energy.

Chair: We have another five group of questions that I want to get through. We have 25 minutes to do it so can I urge you, if you have made a point in answer to another question, do not feel the need to repeat the same point.

Q247 Dan Byles: Before we get to a CfD mechanism where the prices are set by the competitive process, we understand they are going to be set through the administrative or negotiation process, which has raised a number of concerns, particularly around the transparency of that process. Do you share those concerns?

Richard Hall: Yes, I certainly strongly share those concerns, in particular around the issue of investment
Q250 Dan Byles: Leaving aside nuclear, what they have laid out in the Bill as being the interim process is in your view sensible for other mature technologies?

Nick Molho: I think the principle is, I think in terms of 2017, which is the date listed in the operational framework for CfDs as the date from which competitive auctions could be introduced for renewable, whether that is the exact date from which you could introduce competitive auctions, really needs to be reviewed on the basis of empirical evidence. That might be...

Dan Byles: So that might need to be pushed back?

Nick Molho: Yes. In any case the principle of first of all having an administrative price setting before you move to a competitive auction is certainly a sensible one.

Paul Steedman: Certainly the idea of doing it in a technology-specific way is absolutely right because if we move straight away to technology-neutral price setting through an auction mechanism, or some other format, all we do is we take a snapshot of where different technologies are in terms of costs at any given moment in time and the experience from any number of technologies, not least oil and gas, is that it is through deployment and through the learning of deployment and the economies of scale we get from deployment that we drive costs down. One of the reasons that solar has been plummeting in cost quite so rapidly is because we have been seeing considerable deployment of those economies.

In terms of the consumer interest, the consumer interest may not be best served in the first instance by going to a technology-neutral auction where you expect immature technologies to compete against mature technologies when that clearly is not a level playing field. Clearly over time, as technologies mature, absolutely that is what everyone wants to see but as to the question of when that date comes, we will just have to wait and see as technologies mature.

Nick Molho: Just to complement that, I think you can see that very clearly in the offshore wind reduction report that was published by the Crown Estate last week and which is the most detailed body of evidence we have as to how the cost of offshore wind can go down. In three out of four scenarios, the analysis shows that the cost of offshore wind can reduce by about one third by 2020 and significantly more beyond that date. The only scenario where this does not happen is the slow growth scenario where the lack of long-term volume certainty given to the sector combined with slow build rates reduces the rate at which costs can be reduced.

Dan Byles: The irony is that in order to get the reduced costs we need to commit or sink a lot of higher cost in offshore wind between now and then.

Nick Molho: I would say that clarity as to minimum volumes of delivery is absolutely key if you want to see a greater investment in R&D, in standardisation of products, in economies of scale and in domestic supply chains, because these are all the key factors that would fundamentally reduce the costs of renewable technologies. You do need a minimum amount of volume clarity.

Paul Steedman: The technology costs for nuclear, as I said, look like they may be higher than for offshore
wind. Offshore wind costs are falling; nuclear’s mature technology not likely to go anywhere.

Q251 Dr Whitehead: Consumer Focus said in evidence to us that you did not like the carbon floor price. You must have discussed that obviously in the context of EMR, even though it is not in the Bill, in terms of its potential effects on consumers, but if it were to be retained you would want to essentially see it hypothecated. Is that right? How might it be hypothecated for the benefit of consumers if your initial objection is—

Richard Hall: The analysis we have been doing and the consumer polling we have been doing suggests, perhaps somewhat unsurprisingly, that consumers do not particularly like taxes. Not exactly a revelation for this Committee I am sure. However, their objection to carbon taxes does ameliorate somewhat if they can see some evidence that the proceeds of those taxes are being used to assist them. Setting aside our lack of happiness with the carbon floor price, we are keen to see if we can find ways to usefully use those funds both to mitigate consumers’ exposure to any potential increase in costs from supply side measures and also to ensure that we get consumer buy-in here. I mentioned earlier that the Government’s projections are that the Green Deal and ECO will hit a very significantly fewer number of homes than CERT currently does. The Energy Bill Revolution, which is an initiative which I think the majority of us at this table are signed up to, is proposing to use the proceeds of carbon taxation to try to lift households out of fuel poverty. The analysis which they have conducted suggests that using the proceeds of the Energy Bill of carbon taxation could lift about 87% of homes out of fuel poverty by 2027. The contrary position, if there is not a significant uplift in the amount we spend on insulating our homes, is that our fuel poverty situation is likely to get worse. The DECC figures currently suggest that about 4.75 million households are in fuel poverty in Great Britain. That was the 2010 figure. We have seen forecasts that predict that could be as high as 9.1 million households by 2016. If we are going to get a grip of fuel poverty issues and if we are going to come up with an Energy Act that is sustainable in a political sense, I think we need to have measures in there which will allow us to reduce consumers’ exposure to bills and to make their homes more efficient.

Q252 Dr Whitehead: Do members of the panel think that there are any similar kinds of principles involved with how the effect of CfDs need to be looked at in terms of effect on consumers. Which?, for example, suggested that the effect of CfDs may need to be effectively levied on bills on a unit basis rather than a bill basis. Is that a sensible idea in your view or do you think that the way CfDs may work will not have the sort of effect that some people are suggesting?

Paul Steedman: I think, whatever the instruments are that ultimately are used to support low carbon technologies and renewables, hopefully from our point of view, whoever pays for them it needs to be fair and so if they have to come off bills, levying them in a more progressive manner, which probably does relate to a per unit per consumption basis so that the more you use the more you are contributing, is probably the right way to go, absolutely. There is no hard evidence either way. I think, about whether through bill payments or whether through taxation is the most progressive way of paying for these measures, but it is clear that however they are paid for, they should be paid for in a way that is fair to the people on the lowest income. Dustin Benton: We may not have detailed evidence on how progressive things are but we do know what works. The Hills Review highlights that energy efficiency works. It is the cheapest way of addressing fuel poverty and so if we do want to address the problem of people paying higher bills over time, we need to target energy efficiency at those who are least well-off. So, you could do that through the Energy Bill Revolution, carbon floor price mechanisms, you could do it through energy efficiency feed-in tariffs. In the United States they have special feed-in—it is an obligation but the market system is quite different because there is a single provider so you can do it in a slightly different way, but there is an obligation for low income customers to be served first so they get the energy efficiency that is needed so that their bills go down and then you go out to other players and that is a way of addressing the problem.

Rhian Kelly: I was just going to come in in terms of the business users. We are worried that the CfDs and the overall package will add additional costs to particularly energy-intensive industries and the most at risk in terms of the fact that they compete internationally both in the EU where they do not have some of these unilateral costs and beyond the EU, we think there will need to be further support for the most at risk and that, when designing the CfD in more detail, we will need to build that into the way in which we design it so it is possible to find a way to insulate some of the most at risk energy-intensive industries from the additional costs.

Paul Steedman: The additional point I wanted to make was just in relation to not just who pays but who benefits and it seems to us that mechanisms like CfDs, because they are complex and therefore exclude non-traditional players like local authorities, like large scale community co-operatives and so on, make it less likely that those on the lowest incomes can directly benefit from low carbon electricity, installed perhaps through panels in social housing, through local authority investment in low carbon generation within the city, from which people might benefit from lower bills directly. A simpler mechanism like, for example, a Fixed Feed-in Tariff would probably enable more people, particularly on low incomes, to access the benefits of low carbon.

Q253 Chair: Just going back to an earlier answer from you, Mr Hall, the Treasury are dressing up, I think, some of their interdiscourse in this area, including the imposition of a cap, as a means of protecting the consumers. In practice, do you think it may have the perverse effect of undermining the efforts that are being made to minimise the costs of meeting carbon targets?
Richard Hall: I think certainly if investors lack confidence that the goalposts will not be moved with relative frequency, they may well seek a higher return on their investment if they are going to consider zero carbon assets in the UK, or they may defer investment until the situation becomes clearer. If investment is deferred then I suspect that if we do things later in slightly more of a panic than we already are that it is likely to have an increase in costs on customers.

Chair: Do you want to be more explicit, though? You say if there is a risk of moving the goalposts, is that risk effectively imposed by the existence of the cap?

Paul Steedman: Yes. I volunteer, yes, absolutely it is.

Q254 Chair: So this makes investment in this industry in the UK less attractive than it otherwise would be?

Nick Molho: That together with the risk of the cap changing regularly absolutely undermines the long-term volume certainty of the number of contracts that would be awarded and therefore all that increases investor risks and therefore the overall cost of capital. I think that is an area where getting evidence from the Treasury and not just from DECC would be highly useful, together with a clear understanding as to why the Treasury does not want to push for a more ambitious green investment bank.

Chair: I am making very strenuous efforts to persuade the Treasury.

Nick Molho: I am sure you are and I am supporting you in those efforts.

Q255 Chair: What does the CBI think about all this?

Rhian Kelly: We agree with some of what has been said really, that what we must ensure is that we do not increase the cost of capital. So if moving the cap around is going to do that then that is not going to be good from an investor perspective and then ultimately the cost of this and the way in which it may or may not fall on consumers, businesses and households.

Q256 Chair: Just going back to your previous answer about the at-risk energy-intensive industries, who are very effective at lobbying in their own interests—I think sometimes making the most of their arguments—I think the CBI have suggested there should be an analysis making comparisons with other European countries about what they are doing for their energy-intensive industries. Are there any other factors that you think should be considered?

Rhian Kelly: We have always said that it is the most at risk and it needs to be an evidence-based process. We have also said that we need to be thinking about the energy costs both here in the UK but comparing it with the EU costs, and on paper they do not look too dissimilar. One of the challenges though is that when you go to the countries, when you start talking to the industries and the companies set up there, the exemptions that they get are far greater than the exemptions that are applied in the UK. What we need to make sure is that we do not just do that analysis based on pure energy costs, but we do it on the basis also of the exemptions that are applied in other countries and then that is when we can make a decision here about how we might apply exemptions and to whom we might apply it.

Q257 Chair: Does that mean other countries are better at getting around the state aid rules than we are?

Rhian Kelly: I would not put it in quite that way.

Chair: How would you put it?

Rhian Kelly: I would say that they are experienced in this and they have been doing this for some time and we are now on catch up and with the carbon floor price, it brought the whole thing to the boil and we need to make sure that we do not recreate that situation through the main Contracts for Difference: that we are already building it into a scheme because the last thing we want is to have agreed the Contracts For Difference and then be in a situation where we have to, as we did last year, scramble to find a solution for exempting the most at-risk energy-intensive industries.

Q258 Chair: So Britain is a late starter in the European game of bending the rules?

Rhian Kelly: Again, your words, not mine.

Dustin Benton: I should just say, we cannot see a hand-out as being a solution to this problem. I am genuinely concerned that we do not push particularly electricity-intensive manufacturing out of the UK, but the solution is not simply to give them money off their bills. The solution is to help them to take the big investments, and they are often very big investments, in energy efficiency which can systematically reduce their costs and this should be relatively easy through a financing mechanism. I mean, a lot of these companies have big pots of cash that they are sitting on right now but are not willing to spend it because it seems like it might be risky or they can’t get over their internal hurdle rates. Understanding what the characteristics are to enable them to invest in less energy-intensive processes to do the same things will give us the opportunity to have that manufacturing at a lower cost without having to exempt them.

Q259 Dr Whitehead: We are running out of time but I just very briefly wanted to touch on Emissions Performance Standards. Now, they have been introduced in the Bill as 450 grams per kilowatt hour. Meanwhile, grandfathering of all new gas plants has been indicated up to 2045 at existing levels when they are introduced. How do you think that squares with possible targets in the Bill that we talked about earlier and do you think maybe that there might be scope for looking again at what EPS limits might look like over the next years?

Nick Molho: Absolutely. If you look at the Bill as a whole, we currently do not have a particular decarbonisation target in the Bill, we have a feed-in tariff proposal which is unlikely to provide the right level of support for renewable technologies, we have a capacity mechanism that might be incentivising gas new-build and we have an EPS that does not affect gas at all and is grandfathered until 2045. So, it is hard to see where the stick in all this package of measures is to ensure that we do reach a level of decarbonisation of around 50 grams by 2030.
I would add to that just a couple of points. The first one being that the argument has been made that the carbon floor price is there to prevent excessive build rates of unabated gas but, as Simon Skillings very rightly pointed out this morning, the carbon floor price would have to be pretty high to prevent those investments. Almost more importantly, the carbon floor price is the one element in this whole package that is subject to the greatest amount of political risk, as it is very much akin to a taxation measure. The EPS in its current form is clearly unsatisfactory and the case needs to be reopened. We suggested in our written evidence that the Emissions Performance Standard and the capacity mechanism should be looked at together as an integrated package of measures rather than two separate policies. From our perspective, having an EPS that has shorter grandfathering provisions and seeks to go down towards the 50 grams by 2030 limit would work if it was complemented with a capacity mechanism which, in the specific example of gas plants, recognised that the EPS would be tightening over time and therefore provided sufficient levels of revenues and sufficient predictability on these revenues to incentivise investments in peaking gas plants that would be operating at low load factor. It is a fundamental question of looking at both elements together rather than as separate pieces of policy.

Paul Steedman: It is certainly the case that, as it is currently positioned and particularly in the context where the likelihood of the amounts of new nuclear that the Government expects to come forward are just not going to come forward, what will fill that energy gap is going to be a new dash for gas. That is what is on the table in front of us at the moment. In terms of our ability to then meet carbon budgets that will severely compromise, probably just throw out entirely, our ability to do that. That is added to the loopholes that are present within the Bill in terms of new coal plant which hopefully will be able to demonstrate CCS and indeed the extraordinary provision that the Secretary of State can effectively override entirely the provision on EPS in relation to security of supply. It seems to us, for a measure that is supposed to give a clear steer in terms of certainty, the way the Bill has been constructed does entirely the opposite or at least the only thing it gives certainty to is a new dash for gas.

Rhian Kelly: Bearing in mind the time, I make two very quick points, one of which is that the DECC scenarios, and I believe the scenarios from the Climate Change Committee, would suggest that it is compatible to have some unabated gas in the system up and beyond 2045, a limited amount, and that is still compatible with the 2050 target. Secondly, one of the reasons inside the capacity mechanism we are suggesting that you ought to also allow existing plant to bid in is that we think that will mean that you will not get as many stranded assets and carbon lock-in and may limit, or may allow, existing plant to continue to run and therefore limit new build of gas.

Richard Hall: I think my position is very similar to David Kennedy’s this morning in that I am relatively relaxed about the grandfathering out to 2045 because I think there will still be a need for unabated gas for balancing the system out into the 2030s. In terms of the anxiety that this might mean that we bust our carbon mix, the mitigating facts against that are the projected carbon price which the carbon price floor in tandem with ETS is expected to get us to. I think DECC is projecting £70 per tonne by 2030 on a steadily increasing trajectory. So, although there would be an absence of a statutory preclusion on these older slightly dirtier plants from running, realistically, unless we are in a situation where the market price has spiked because of genuine security supply, I think they would probably end up being out of the money. I think the combination of a steady rise in carbon price is likely to mean that these plants would simply be used for balancing the system and not running as base load.

Dustin Benton: The big problem is we are reintroducing risk. Ian Marchant said it best, “This is a known unknown”. The message that is being sent by saying, “We are going to sign up to the fourth carbon budget and decarbonise the power sector out to 2030”, is a very different message that is being sent from saying, “Build the gas plant now and you can run it at base loading by 2045”. Those two messages at a very high level just look like they are conflicted. The Government needs to show a plausible story, which I agree could be shown but it needs to say, “This is the rough pathway that we are going towards and the EPS and our de-carbonisation objectives are going to be compatible”.

Nick Molho: It just goes back to the point I was trying to make at the beginning, which is that if you look at the capacity mechanism and the emissions performance standard together, you will be able to deliver an outcome that protects the environmental integrity of the Bill in helping to drive down emissions while ensuring that you are providing sufficient investment certainty to attract the required investment in peaking gas plants and obviously demand side response storage and interconnection which should also be part of the capacity mechanism package. It is about an integrated approach rather than having two separate and disconnected strands of policy.

Chair: Thank you all very much for coming in and for making a very useful contribution to our consideration of the Bill.
Tuesday 26 June 2012

Members present:
Mr Tim Yeo (Chair)
Barry Gardiner
Ian Lavery
Dr Phillip Lee
Albert Owen
John Robertson
Sir Robert Smith
Dr Alan Whitehead

Examination of Witnesses

Witnesses: Nick Winser, Executive Director, and Mark Ripley, Project Director, Electricity Market Reform, National Grid, gave evidence.

Q260 Chair: Good morning and thank you for coming in. As you know, there is a lot of interest in this Bill, and the Committee has been asked to complete its pre-legislative scrutiny in only five weeks, compared with the 12 weeks that Committees are normally allowed for this process. It is not entirely satisfactory for us, as it is quite a complex issue, but we are doing our best. Today is the last of our oral evidence sessions; we are seeing the Secretary of State and a Minister this afternoon. We have been unable to see a Treasury Minister despite two requests. That is the background.

We do not need introductions; obviously we have had evidence from you before, Mr Winser. Could I start with the issue about the counterparty? This has attracted a lot of attention, and the form proposed in the Bill is not quite what was suggested in the consultation a couple of years ago. Is it right to say that National Grid is unenthusiastic about the role that is proposed within the counterparty arrangements?

Nick Winser: So far, there has not been a role proposed for counterparty. I want to distinguish very clearly between a delivery body and a counterparty body. I am sure the Committee is very clear on it, but I have tried to make sure I am. In terms of our role as a delivery body, we think that is quite clear: we can help Government make decisions; and then we will contribute to the design; we are going to provide analysis to help with the design; we are going to provide analysis to help Government make decisions; and then we will go through looking at eligibility for contracts, and look at the operation of those contracts. We distinguish that quite clearly from a counterparty.

The early discussions on counterparty were clearly about a multi-party counterparty. We are very aware that, in evidence to this Committee and elsewhere, there have been some views expressed that a single counterparty would be better. We think it is very important to listen to developers on these things, and to try to understand exactly where those arguments are and what benefit that may bring. Ultimately, getting exactly the right arrangements around counterparty will minimise cost for customers. We are taking part in those discussions and, broadly, there seems to be a good debate going on at the moment about whether it is better to set up a thin counterparty body, which would be the single point for administering the contracts after they have been let. We are taking part in that debate, and we think it is a good and important debate.

Q261 Chair: We know there is a debate going on. I wanted to know what your views were. Do you think it would be better to have a single counterparty or not?

Nick Winser: We listened very carefully to the arguments, and I think some of those arguments certainly bear scrutiny at the moment. Personally, I think that the arguments do have sufficient weight; if we can see a sensible way of doing it, that is something that really should be considered, but that is ultimately a matter for DECC. We sit in the design team with them and try to help them to see things clearly and to contribute our worth in there. We contribute to these decisions, but they are ultimately matters for the design of the Bill and Government.

Q262 Chair: It is indeed a matter for DECC, but you are one of the influential advisers in this matter. Can I just pin you down in a slightly less weasely way, if I may say so? Would you advise DECC that the industry would benefit from a single counterparty that would reduce the cost of capital and therefore electricity bills for consumers?

Nick Winser: So far we are not in a position to see the pros and cons absolutely clearly enough to say definitely that that is a good thing to do. I think that good arguments have been made. We do need to think carefully through exactly what the implications of a counterparty would be, and until we see exactly the specification of it—forgive me for still seeming weasely—it would be wrong for us to give a very clear guide at this point in the design process.

Q263 Chair: Hang on; we are just about to pass legislation. We are not exactly at the early stages; it is rather important that we know exactly what your views are. Is it not the case that, if it were not for some Jesuitical, theological objection from the Treasury, the obvious answer would be for the Treasury to be the counterparty?

Nick Winser: I am certainly not here to answer for the Treasury on those matters.

Chair: Neither are they, unfortunately.

Nick Winser: It seems to me that the debate at the moment is between a multi-party counterparty to the contracts or a thin-balance-sheet sole counterparty, effectively, which would be set up in some convenient way. That is much the same, in a slightly different context, as the existing settlement role was set up back in 1989 with ELEXON.
Q264 Chair: A thin balance sheet does not necessarily mean a small balance sheet.
Nick Winser: In my mind it does. Mark, do you have some greater wisdom to add?
Mark Ripley: Yes, I think in large part the effectiveness of the arrangements rely on their enduring reliability and predictability. As we have said before in these sessions, ultimately this does get funded through the consumer route, through the supplier organisations. With the statutory contract model that was originally proposed, I think there was a degree of understanding within the industry that it would probably work. In terms of understandability to the investment community, though, it was a mix of public and private law, and therefore it was perhaps harder to invest against, or less obvious to invest against, than more traditional arrangements. Therefore, investors are saying putting in a thin counterparty to make it look and feel more like a private contractual arrangement is a better proposition. Given that it is of vital importance that the arrangements are investable to reduce the cost of capital, as you said, that is certainly something that is very worth pursuing.

Q265 Chair: Pursuing? We are very close to legislating. The way we are debating with you sounds as though we are at the early stages of the consultation process. What is proposed in the Bill as it stands is quite complicated—this multi-party contract model. It seems to us one that is open to a certain amount of difficulty in its administration, and it certainly does not seem to have won a lot of confidence on the part of the people who are going to be actually making the investments.
Nick Winser: Your point about where we are in the process is a very good one and I will try to respond to it. For me, it is a question of the statutory contract having been the first thought on this, and the thought that was defined. It seems to me that good arguments have been made about the benefits of a single counterparty. Why I am just holding back a little bit on this is that in assisting DECC we do need to think through all the implications of that and make sure that, as well as the benefits—which I think we can all understand, and which Mark spoke to just now—there is no collateral damage and some disbenefits coming in. I am just holding back a little bit. I do think it is important that we think through the whole idea very clearly, because these arrangements have to be enduring. I am not saying to you that I think there is an awful lot of further thought to be done, but I do think we have to go through all the implications of setting up a single counterparty, rather than just jump to it. There have certainly been some strong arguments made for it.

Q266 Sir Robert Smith: What disappointed a lot of investors was the initial simple model, where they thought they were having a contract with the Government underpinned by the credit of the state, albeit that credits of state are not as good as they used to be. Is the problem the legal structure, or the fact that the Government is no longer standing behind the contract?
Nick Winser: This comes back to the thin capitalisation issue a bit. I think that while people may have expressed views that they were looking for the state, essentially, to stand behind the contract, as I understand the debate, the central idea was always essentially that electricity consumers ultimately stood behind those contracts. Clearly, in principle that can give a very robust and bankable set of arrangements, because we see that currently in the market. That is how the market is currently devised. There are two different dimensions to this playing out: there is the issue of who stands behind the contract, which, for both the single counterparty and the multiple counterparty, in the central thinking has still been the electricity consumer. Having decided that having the future electricity consumer actually stand behind the contracts is the best way of making these arrangements bankable, there is then a second argument about whether it is best to have a single counterparty, and we have just talked that through.

Q267 Chair: Given that the single counterparty was in the White Paper, it is a bit staggering to say that we should now be having a debate about whether it is the right thing. What have we been doing for the last 18 months?
Nick Winser: There has clearly been a lot of discussion in the industry, and there has been the mobilisation of all the stakeholder teams to think about all this, and we have been part of that with DECC. We are where we are; this idea has cropped up and definitely bears some scrutiny at this point.
Chair: It has not “cropped up”; it was in the White Paper.
Nick Winser: There is a lot of hard work going on to look at that.

Q268 Chair: Isn’t the obvious interpretation that that is what DECC wanted, that is what you would be happy with, and it is the Treasury that has raised the objections?
Nick Winser: That is not the interpretation I would put on it.

Q269 Chair: Just for clarification for the Committee, exactly what are the disadvantages of the single counterparty?
Nick Winser: That is what we have to work through. You can imagine that, to think through that, there would need to be a lot of lawyers and accountants looking at exactly how those contracts would be accounted for, in particular, under a single counterparty role. Mark, are there others things as well?
Mark Ripley: There are many practical considerations that apply under either model. For example, disputes that might arise under the contract are matters that can be dealt with at an administrative level, or matters that might be reserved for Government because they affect policy. We need to work through whether that is easier or more difficult to manage with a counterparty rather than this central body. There are the financing arrangements, the credit arrangements and a lot of practical issues to work through to understand that.
there are not any pitfalls before we go down that route.

Nick said that that work is going on, and you have expressed some concern that it is a bit late in the day. These are not necessarily long pieces of work that need to be done. We are certainly doing work with DECC to understand how you might structure such an organisation. Whilst we would always rather be further on than where we are in projects like this, I am not uncomfortable about where we are in the process.

Chair: You might not be uncomfortable about it, but we certainly are. It is absolutely breathtaking that, 18 months or two years from when the consultation started, we are now saying we need to have some advice from lawyers. That is a ludicrous position to be in, whether it is your responsibility or not.

Q270 Albert Owen: Chair, could I just add to that? You might not be uncomfortable; we are. Certainly the potential investors that we have spoken to are very uncomfortable about legislation coming before the House and these fundamental issues either being changed or not in place at all. You must understand their perspective as well. Mr Ripley, you said earlier that they seem comfortable with it; that is not the impression they are giving to us.

Mark Ripley: You have had the benefit of the evidence that has been provided to the Committee. Certainly, from discussions that we have had with investors in generation companies, some clearly have a preference for a Government-backed contract. That is a matter of fact. Others are saying they can see how these arrangements could be workable and have a strong desire to make them workable.

Sir Robert Smith: Get them to write to us.

Chair: Who are these people?

Sir Robert Smith: Could you get the ones that think it is workable to write to us?

Chair: It has been a bit quiet on our front.

Q271 John Robertson: Why do you think they would tell us one thing and you something else? Is that plausible?

Nick Winser: We were not suggesting that.

Q272 John Robertson: That is what you said. When we told you what was said to us; you said, “That’s not what they’re telling us.”

Nick Winser: No.

Q273 John Robertson: That is exactly what was said. I am sure we can get it read back to you.

Nick Winser: Let me try to be clear about what is being said. As far as the debates that I have heard are concerned, and of course there is an expert group of people across the industry looking at all this, there have been a variety of views. There have certainly been very strong views expressed by some, which we think need to be considered carefully, that a single counterparty would be better. I think it is true to say that others are more ambivalent about it, so if we have that wrong, apologies, but that is what I have heard.

Q274 John Robertson: Can I ask you, then, whether it would be fair to say that the larger companies are the ones that are really ambivalent, and it is the smaller ones who would be more affected that are not?

Nick Winser: I cannot calibrate that immediately in my mind.

John Robertson: Because that is how it comes out to us.

Mark Ripley: I have certainly come across larger companies who have some concerns with the model as well.

Q275 John Robertson: I can believe that. I am getting a bit lost here on whether or not you are just trying to be nice to Government, and whether you are not exactly being open and honest with us here.

Nick Winser: No, we are trying to reflect on a variety of quite often nuanced views. Certainly, we are acknowledging that there have been strong arguments by some parties that we think should be taken seriously. Those views are that a single counterparty would be better. We are absolutely agreeing that we need to look through that. We understand that some of those arguments seem to be very valid. All we are saying is that, in terms of accommodating those, we need to make sure that all the other aspects of a single counterparty have been thought through, and we do not find that we have responded to what seemed to be very legitimate arguments—to me at least—but then found some other disadvantages. Most of all, it is important at this stage that we set up arrangements that are absolutely robust and will allow investments to flow into renewables, potentially nuclear, and CCS, which are so critical to the decarbonisation target.

Q276 Barry Gardiner: When you responded to the White Paper initially, and the White Paper contained the message that there would be a single counterparty, did you raise any query to that, or did you go along with that suggestion?

Nick Winser: I cannot remember our response to the White Paper exactly. Certainly in terms of counterparty, we obviously focused very much on whether there was a role that Government wanted us to do and what would go around those things.

Q277 Barry Gardiner: I am asking you specifically about the issue of a single rather than a multiple counterparty. Do you remember making a suggestion in your submission during the consultation period that actually a single counterparty might not be a good idea? If you did not make that suggestion, when did it enter your mind that actually a multiple counterparty might not be a good idea?

Nick Winser: As far as the development of this idea is concerned, the original idea—what was in my mind anyway—was that it was a multiple counterparty and ultimately raised funds from electricity consumers. That seemed to us at the time to be a sensible proposition.

Q278 Barry Gardiner: You said “multiple”. That was not what was in the White Paper.

Mark Ripley: I think we would have to revisit the response we put into the White Paper. I believe our response to the White Paper was largely in respect of
the capacity mechanism, which was what they sought
additional views on.

**Q279 Barry Gardiner:** Yes, but you read the White
Paper, Mr Ripley.

**Mark Ripley:** Yes, I did read the White Paper.

**Q280 Barry Gardiner:** In the White Paper it was
suggested that it would be a single counterparty. The
point I am making is that, in your response to that
White Paper, National Grid did not suggest that was a
bad idea in any way, shape or form. What I am trying
to get at is: when did you begin to take on board a
suggestion that actually a multiple counterparty might
be a good idea? It would be helpful if you could write
to the Committee specifically setting out: one, whether
in fact you did make any suggestion that it should not
be a single counterparty in response to Government at
that point; two, at what point in time you first publicly
embraced the idea that it might be other than a single
counterparty; and three, why.

**Nick Winser:** We are delighted to do that, and we will
pick up on this.

**Barry Gardiner:** Thank you.

**Q281 Dr Whitehead:** I appreciate you cannot in any
way speak for the Treasury, or put forward or convey
their views, but can I just very briefly ask you whether
in this whole 18-month period you have actually had
any meetings with Treasury or any discussions with
Treasury concerning the issue of whether Government
should back the counterparty arrangement or not?

**Nick Winser:** I would say no. We are not really
involved in that debate if it goes on. Let me explain
where we are involved; that may help the Committee.
We attend the expert group that has been set up to
devise the arrangements. Mark and I also sit on the
Delivery Board that is chaired by DECC, and we see
the emerging design coming forward, get the
opportunity to contribute on that and help with the
design. That really is the limit of our involvement. We
have not been closely involved in any debate about
whether this should be a Treasury-backed mechanism.
That is not frankly one for us to make the call on.

**Q282 Dr Whitehead:** Have you observed any such
communications taking place on the Delivery Board?

**Nick Winser:** That has not been the main topic of
conversation in the Delivery Board. The Delivery
Board is really looking at the timetable of delivery, so
it is about delivery; it is about when we need to get
something done to make sure we stay on path to get these
mechanisms in by 2014.

**Q283 Dr Whitehead:** Presumably in order to get
something done, you have to have an idea of what it
is you are doing.

**Nick Winser:** Yes. We have detailed planning charts,
which get to the dates by which we feel it is right to
have these mechanisms in place. The Delivery Board
has done high-level scrutiny of capacity-mechanism
designs. To give you a flavour, that is the sort of thing
we have done in there. The Delivery Board has only
been running for about four months.

**Mark Ripley:** Yes, maybe five or six meetings.

**Q284 Dr Whitehead:** However unworkable
something looked, you would try to work it. Is that
what you are saying?

**Nick Winser:** Clearly, we would comment on that,
because we know that we will have to operate it, but
ultimately we would comment on its operability and
of course, as part of this energy community, we would
comment if we thought in our view it was not going
to further the aims of getting the right investment in.

**Q285 Dr Whitehead:** Have you commented on the
arrangements as far as counterparties are concerned at
any stage?

**Nick Winser:** Not in the context of whether it should
be Treasury or not.

**Mark Ripley:** Not directly. We have looked at the
arguments put forward by generators and worked with
DECC to start to develop a counterparty model to try
to address those issues, but, as Nick says, it is in terms
of providing advice and a view on whether this will
work in practice. In other areas we do the same from
a system operator point of view: we understand the
technicalities of operating the system and we provide
that insight to DECC. So, in designing the interventions,
we hope to avoid going down routes that would be
difficult to operate in a practical sense.

**Q286 Chair:** Just to wrap up this topic, it is 18
months since the Government proposed there should
be a single counterparty. They have now come up with
something quite different. You have acknowledged
that there are at least arguments that deserve to be
heard in favour of it. How long do you think we
should wait before a decision is made, given that,
for example, EDF said to us last week that they need this
Bill to have Royal Assent by the end of the first
quarter next year? Are we going to spend the summer
debating the single counterparty, the alternatives, the
merits and so on? Don’t you feel we have got to the
point where the decision should be made—maybe this
afternoon by the Secretary of State when he comes to
our Committee?

**Nick Winser:** To follow my previous comments on
this, these are going to be enduring, long-term
relationships and arrangements, and it is very
important we get them right. Seeing the debate about
single counterparty, which we have seen in the
Delivery Board and through the expert groups, there
is some urgent work going on. As Mark says, that
does not seem to us to have a very long lead time to
Q287 Barry Gardiner: Do you regard the setting of the CfD strike prices as a part of energy policy making?

Nick Winser: Certainly in the early operation of this, we would see it as part of setting energy policy, and we would not expect, as operator and administrator of this, for National Grid as system operator to be setting those prices. I caveat that just slightly, because we all share an ambition that, as soon as these technologies come to maturity and can engage in single low-carbon auctions, there will not be the need to set those strike prices when you can get enough contestability in that low-carbon sector. At that point—

Q288 Barry Gardiner: Things will move on.

Nick Winser: Things will move on, and our role still will not be to set those prices, but we will essentially run the auction that discovers them.

Q289 Barry Gardiner: But DECC has proposed that, as the system operator, you will make recommendations for the CfD strike prices, haven’t they?

Nick Winser: There is a distinction we are drawing here between advice to Government, in which we do have a major role as being the centre point of providing lots of advice on how this should operate, but then very much deferring to Government to make those decisions that are energy policy. Obviously that raises the question about how customers can be content that that advice is absolutely even-handed. Things will move on.

Q290 Barry Gardiner: Mr Winser, sorry, but you are taking me off on a sidetrack from the essential question here in your discursive response. What I am seeking to get at here is: in response to my previous question, you said that you did not regard the setting of the CfD strike prices as primarily your job—that it was part of Government policy and Government should do that. Then I said, “Nonetheless, Government has charged you with giving them advice on that.” The first thing I want to know is why you are comfortable exposing that discrepancy, in your view, as to what you should be doing and what Government has asked you to do. You were very clear in your response on the first question not to take a stance that was setting yourself an independent view of Government, but said that this was something that was a consideration and it was an iterative process that you were discussing. Here you have quite candidly come out and said that you do not regard this as your job, despite the fact that Government has asked you to do it.

Nick Winser: I do not think the Government has asked us to set strike prices. I think the drafting says the Secretary of State or any—

Q291 Barry Gardiner: “Propose that the system operator will make recommendations for the CfD strike price”.

Q292 Barry Gardiner: So you won’t make a recommendation or you will make a recommendation? Are you just providing the stats upon which the Government and the panel will make the recommendation, or are you actually making a recommendation?

Mark Ripley: We would not be making a recommendation on what the strike price should be.

Q293 Barry Gardiner: But that is what the Government has asked you to do.

Mark Ripley: Our understanding is that we will be providing analysis and economic modelling, and the detail of how that is kicked off, in terms of scenarios that they would like us to do, is still to be defined. We will then provide information with Government about what different strike prices might achieve, in terms of deployment of low-carbon energy and how that might progress to carbon reduction targets. That could be worded as being a recommendation on what the different strike prices might achieve. The decision on which scenario of strike price to adopt we would see entirely as a matter for Government.

Q294 Barry Gardiner: Are you confident that National Grid has the capacity to take on the sort of analysis that is required here?

Nick Winser: We are confident of this. We obviously run the system day to day and do an awful lot of analysis around that. We also in recent years have developed a very substantial capability to look at future energy scenarios, which we have felt really was part of our current job, to inform discussion in the industry. We will want to enhance that capability and we are working very hard on that, but we already publish to the industry very long-range scenarios that we can build on, with additional input to give this advice.

Q295 Barry Gardiner: Fine. So you believe you have the capacity, and on the basis of that transparent analysis and data you will then make your recommendations, and Government will then set the strike price.

Nick Winser: We will give a series of scenarios, with what we think would be the implications of different strike prices, to go to Marks’s point.

Q296 Barry Gardiner: What happens if the panel of experts scrutinising your submissions disagrees with your recommendations?

Nick Winser: We will want to understand exactly why they disagree, take on board their comments, and provide further evidence and analysis, playing through
and making sure that they get comfortable that we have analysed the position correctly and robustly, and taken on board all their comments and concerns.

Q297 Barry Gardiner: So there will be a discussion between you.
Mark Ripley: Check and balance.
Nick Winser: Absolutely. I see them very much as being there to help make sure that we are doing an excellent, professional job.

Q298 Barry Gardiner: DECC has said that there might also be a role for the Committee on Climate Change, and also for Ofgem, in advising on prices. This is going to be quite a debate, isn’t it?
Nick Winser: Of course, the Committee on Climate Change works very closely with Government and DECC anyway to advise on the achievement of the targets, and indeed the setting of the targets themselves. Clearly, they will be involved anyway with Government. There is a question being debated about whether they sit in any of the framework exactly around EMR, but they will be in play anyway. Ofgem of course will have a role, we very much expect, in scrutinising our performance and how we do our job as the administrator and the delivery party for EMR, much as Ofgem today look at an awful lot of analysis we provide about future security of supply and today’s security of supply. They have some real expertise and they are clearly going to have expertise to contribute; there is a good debate about where exactly they fit into those arrangements, but certainly they have some value to add.

Q299 Barry Gardiner: Do you have any concerns whatsoever that having the Secretary of State, the panel of experts, the National Grid, Ofgem and the Committee on Climate Change all involved in this decision about strike prices—having this great debate that you have talked about—might be an overcomplicated structure?
Nick Winser: I know that given the way you have put the question, it is difficult not to say this—Barry Gardiner: It is a simple question, though, isn’t it?
Nick Winser: But I am going to say “no”, and let me try to explain that, because it was a very well-put question. In my mind, each of those bodies has a very clear, distinct role in what is going on.

Q300 Barry Gardiner: Just like the Bank of England, the Financial Services Authority and the Treasury did?
Nick Winser: I won’t comment on that, but just give me 30 seconds to play with this. In my mind there is a very good, distinct role for each party. Ours is to provide the mechanics of running scenarios that will be developed, and discussing with stakeholders and the expert group what sort of analysis we should play. We turn the handle of the analytical machine to make sure that everybody can see the various implications that come out of data. Ofgem oversee that, and it is very important that they oversee that we are doing a good and professional job. Government makes the decision, having looked at that array of different things.

Q301 Barry Gardiner: Mr Winser, I understand what you are saying. You are saying that it may be complex, but actually everybody has a distinct and disparate role within it.
Nick Winser: And I think it is very important that we make sure it is clear.

Q302 Barry Gardiner: Can I just ask you one further question, then, on the back of that? Do you think that an investment committee looking at that structure, taking even into account all that you have just said, is going to say, “Well, this looks like a good idea, putting our money into this investment, with this structure regulating the strike prices,” or are they going to say, “And what’s this guy supposed to be doing? What are these people supposed to be doing? Oh, to hell with it?”
Nick Winser: I believe this structure should give enough certainty to investors.

Q303 Barry Gardiner: It is not the certainty but the complexity I am asking about.
Nick Winser: I am casting my mind across other areas of investment, and all the complex things that any company of any size has to take account of. Most investment decisions are quite complex and have multiple actors in play. It is not immediately apparent to me that the complexity of what you have described means that those investments would not be able to go in. Obviously the Committee has taken direct feedback from those who would invest in these assets; that is not us, so I think the Committee really should weight its feelings on that to the direct feedback you have had from those who would make those investments. We can only stand back and comment from the sidelines.

Q304 Chair: Given that quite a lot of investment will be made before they know what contract they are going to get, because the timing of when the contract is sealed is after quite a lot of work has been done on the project, isn’t it quite important that, whatever system is set up, people can at least try to have some predictability on what kind of contract environment they are going to be working in to make that pre-investment? Obviously, if the contracts were awarded straight off before you made any investment, we would have a flood of contracts lying all over the place.
Nick Winser: I will let Mark take the detail, but in principle, back to my point about all investments, there is a pre-final investment decision phase to all big investments, and I would say there is always the need for companies to go through some of that on a speculative basis before they can get to a final investment decision.
Mark Ripley: I think this is a distinction between the strike-price-setting process and the access to that strike price as a product for an investor on an enduring basis. The technical expert group will provide a degree of quality control on the modelling we have done—is it robust? Are the conclusions credible?
Those will be a range of conclusions. Then, as we say, the Government will make a decision about which of those outcomes it sets as its policy. The Government is talking about setting a five-year delivery plan, where those prices would then be in the public domain with the terms of the contract and available for a period of five years until the next delivery plan. There is some detail still to be worked out about the point at which a project actually becomes eligible to sign a contract in its lifecycle—is that its final investment decision or is there some kind of pre-allocation process?—but in essence, the intention is that the investor will have visibility of the strike price for its technology and the terms of the CfD contract for quite an extensive period once it has been set for that five-year delivery plan.

Q305 Dr Whitehead: Do you think there is a role for demand reduction in EMR, and if so, what do you think it might be?

Nick Winser: Yes, we do. We think not only should there be a role for demand reduction, but we are very interested in how storage fits in and how interconnectors fit in. We do already use demand reduction very substantially in the balancing services that we currently procure under this thing called STOR, and we have bought demand reduction for those purposes for many years. Mark, do you want to talk about how that might exactly fit in?

Mark Ripley: Just to build on that, in terms of STOR, at any one time. Perhaps one third of our service is procured from the demand side. We have done a lot of work with demand providers and aggregators to enable us to bundle up a number of smaller demand-side players to create a significant service. However, it is worth bearing in mind that the services we have produced so far have been short term. They have been measured in hours, rather than days.

Q306 Dr Whitehead: So it is demand-side response we are talking about here?

Mark Ripley: Yes. Thinking ahead to a world where we have large amounts of wind generation, and where, for periods of time, the wind does not blow, there are not yet demand services that have come forward that are available for a number of days at a time. We see it as very important that the design of things like the capacity mechanism is such that it can accommodate the demand side in the future. We have certainly talked within the capacity mechanism expert group about setting up a pilot project that we would run to try to facilitate demand-side responses and encourage them into the market. It is very much a part of the future, but the services for long-term demand reduction are still at a fledgling stage.

Q307 Dr Whitehead: You have been looking at this. Does that mean that you are involved with, I presume, a working party of some description working on the questions of both demand reduction and demand-side response? The Bill states: “we are currently reviewing the potential for incentivising further demand reduction in the electricity sector. This work will report over the summer, in time to fit with legislative timetables, should it be required.” I would assume you are therefore involved in that work, are you?

Mark Ripley: That work is feeding into the capacity mechanism working groups with DECC; yes. As we said earlier, we are able to provide a perspective of the system operator—the practical limitations and things you can do—so we are able to explain and help understand things like how STOR works, how frequency response works and what demand does now to provide some background to the development of broader services in the future.

Q308 Dr Whitehead: We are still talking about demand-response though, aren’t we? What is in your mind, or in that of this working group you are involved in, on permanent demand reduction, as such?

Mark Ripley: We have been looking at it from the demand-response perspective in that group.

Q309 Dr Whitehead: So you are not looking at demand reduction.

Mark Ripley: We have had some briefings by DECC about demand reduction targets. We are not directly working on demand reduction at the moment.

Q310 Dr Whitehead: I note that you have predicted that peak demand is likely to be down to about 57 to 59 GW next year. That is about 10 GW down on your predictions six or seven years ago. Have you analysed why that is the case? Clearly, you must have analysed why you made those predictions. What is your view on why that is the case?

Mark Ripley: We have. This is probably an area where it might be helpful for us to write to you because I am grasping for figures from memory. We have done some analysis. Demand has come off and will remain low. Recessionary effects have played into that, and our assessment is that, as recessionary effects subside, you would not return back to your previous level of demand, because energy efficiency would reduce overall demand in that space. We have assumed some demand reduction, but as I say, if it would be helpful for the Committee we can provide further detail on that analysis.

Q311 Dr Whitehead: That would be very helpful, but have you added to that analysis, in terms of your discussions with what DECC is clearly undertaking and your analysis of reduction in capacity, whether there should, for example, be a feed-in tariff for energy efficiency perhaps coming forward into the Bill?

Mark Ripley: We have not had a direct discussion on the feed-in tariff for energy efficiency; we have looked more in the realms of how demand can provide capacity rather than feed-in tariffs. That is not something we have looked at in depth so far.

Q312 Dr Whitehead: Have you looked at how capacity mechanisms might enhance longer-term storage, as opposed to the STOR system—that is, development of longer-term, larger demand-response storage arrangements, a sort of son and daughter of Dinorwig?
Nick Winser: We think it is very important that the capacity mechanism either accommodates those sorts of resources or has a development path to do so, because the three that we have talked about—storage, interconnectors and demand side—are going to be incredibly important in that. They have very different characteristics to a piece of physical generation plant. We need to make sure the design adequately picks up those different attributes, and there may be the opportunity to incorporate them on day one, or there may be a journey where we, as Mark laid out, try to pilot some way of dealing with those resources. Let me say, though, it seems to us that it is very important that those resources get captured as effectively as they can.

Q313 Dr Whitehead: It being important, do you think there are specific items of legislation that need to be incorporated into this Bill in order to enable that to happen?

Nick Winser: At the moment the critical debate is about the exact design of the capacity mechanism. As that goes through the expert group, we will want to see how the design picks up those resources other than fossil fuel generation. One of the critical things as DECC settle on the design is to look at whether that design can accommodate all four types of resource. That is the first place we are going to look for that, because if that can be incorporated easily in the capacity mechanism, that is a good way of doing it, as well as in STOR, which is where the demand side has a significant opportunity to contribute. In STOR the delivery duration that we need is quite short, because STOR is to manage the short-term perturbations on the system. It plays very strongly in there; we want to see whether it can play strongly in the capacity mechanism.

Q314 Dr Whitehead: One of your non-regulated businesses is interconnectors.

Nick Winser: Yes.

Q315 Dr Whitehead: How do you relate what you are doing and what you wish to do on interconnectors with that process of demand-side response and demand-side reduction?

Nick Winser: There is a debate about the design of the capacity mechanism and whether interconnectors themselves, or the resource that is behind interconnector flow, can play into that mechanism. That comes to a very interesting debate about the capacity mechanism being there for, if you like, low-frequency events—events that do not happen very much, such as if you have a particularly cold snap with perhaps low wind conditions.

Part of the design of the capacity mechanism will be about how you get assurance in those infrequent events that the flows will be there. You can imagine, as you start to think about interconnectors, that it is interesting to try to think about how you would get assurance. That is not to say you cannot, but it is clearly different to getting assurance that a piece of physical plant that is in Great Britain would be there to contribute, and having the ability, potentially, to ensure that it is run and to ascertain that it will be there. The difference with interconnectors is that the interconnector itself might be there, but will they flow in our direction?

Obviously, more broadly, the market mechanisms between us and other member states should incentivise, and do incentivise, interconnectors to flow towards the country that needs them the most. We need to think about how it fits with the existing arrangements as well.

Q316 Dr Whitehead: What percentage of our capacity would you think ideally should be provided by interconnectors, in terms of the ambitions of this Bill and the relationship to demand-side response and demand reduction?

Nick Winser: I am not sure I see it in the context of the Bill. In our energy studies we look at levels of interconnection. Along with many other people, Pöyry published a study with a lot of interconnection in it. It is a very interesting thing. Some years ago the European Commission postulated that 10% looked an interesting number.

Q317 Dr Whitehead: Do you agree with that?

Nick Winser: We are currently a long way below that. When you think at the highest level about a single market, if you have not got adequate transport to move the product around a single market, it does not actually turn out to be a single market. Looking at 2030, 2040, and 2050, my own view is that getting up to that sort of 10% level to allow renewable resources to flow more easily across Europe seems to me to be a very valuable opportunity that we need to look at, so that when there are high wind conditions in Northern Europe, we allow interconnectors broadly to flow south, and when there is high solar in Southern Europe, we allow interconnectors to flow north.

Q318 Dr Whitehead: In terms of that magic number, we are about 7% off, aren’t we?

Nick Winser: Yes.

Q319 Dr Whitehead: Would you welcome a capacity mechanism being applied to the development of interconnectors?

Nick Winser: There is another debate going on about interconnectors, which comes into the frame. Ofgem are currently looking at what the right regulatory model is for interconnectors. Clearly, in the past the model has been that they have been built on a merchant basis. There has been comment that that could systematically under-build interconnectors; there is some sort of energy economics that sort of says that might happen. There are debates going on with Ofgem about the overall market arrangements, and whether some sort of hybrid regulated merchant model would be better at bringing forward interconnectors. This interacts with that debate as well.

Q320 Dr Whitehead: Bearing in mind that we are about to produce a piece of legislation in which capacity mechanisms will feature quite substantially—and clarity, as we have heard previously, will need to be sought on what is in
capacity mechanisms when capacity auctions will be held and so on—isn’t that a rather urgent consideration, rather than an interesting debate?

**Nick Winser:** As we see what the exact design is of the capacity mechanism coming forward, we will have to see how it fits with the emerging thinking on what is the best way to regulate interconnectors. At that point, we have to look at that and make sure either that it fits together immediately, or that we can see a path of development for the arrangements forward to ensure that, as best we can, the right level of interconnection gets built, either funded through a hybrid regulatory model or through the capacity mechanism. That is complicated, but it is where we are, and it is a sensible place to be to make sure those things are joined up well in the short term.

**Q321 Chair:** On this question of interconnectors, I draw attention to my entry in the Register of Interests as a Director and shareholder of Eurotunnel, which has announced that it is considering building an interconnector through the tunnel. Interconnectors, as Dr Whitehead mentions, are an unregulated part of your business. Do you have any difficulty in resolving conflicts of interest about whether to grant access from the proposed interconnector in which you have an unregulated financial interest to the grid?

**Nick Winser:** No, because we separate those considerations out completely in our business, and we are overseen very closely by Ofgem in making offers to any interconnector project on an absolutely non-discriminatory basis. Ofgem do a very thorough job of making sure that is all done in that way, and done properly.

**Q322 Chair:** Does that include making offers to yourself?

**Nick Winser:** Ourselves with partners—we normally develop interconnectors with partners, and we apply business separation rules, as we do in many parts of our business. We have to demonstrate compliance with those business separation rules to Ofgem, which ensures that all decisions are being made properly on a non-discriminatory basis, and in the best interests of customers.

**Q323 Dr Lee:** In listening to all these questions, I wonder whether you are the vicar at a wedding where, as the bride is coming down the aisle, they have not decided on the order of service, the flowers, or who is paying for it. Is that how it feels?

**Nick Winser:** It does not feel like that to us. We are very aware of the urgency of working through this and very strongly believe that delivering these two mechanisms in a working state in 2014 is very important, both for delivering the environmental targets and security of supply. As always in these processes—as when we did NETA and BETTA, and in place the arrangements back in 1989 in this industry—it feels frenetic. It feels like there is a lot to do, and we are working very long hours to try to do that responsibly and professionally. It feels like those processes did; we are very busy, and that is because we are very anxious to do a good job and get this done in time for 2014.

**Q324 Dr Lee:** Forgive me, but I do not find that terribly reassuring. I look at this and I think, “Is this just not some complex, glorified PFI?” Is there not a sense about all of this that it is an exercise in trying to incentivise private investment with Government subsidy? I cannot work out whether the goal is energy security, low carbon, or industrial activism; I cannot work out what the primary goals in these documents are. Be honest, if you can: would you design energy policy like this? I think it is like coalition politics. It is hiding nuclear subsidy. It is a dog’s breakfast, isn’t it?

**Nick Winser:** We think that this Bill has the right mechanisms at this time.

**Q325 Dr Lee:** At this time. In 20 years’ time, are my successors on this Committee going to look back and go, “God, they got that right. Didn’t they see the future? Wasn’t it a fantastic mechanism?”?

**Nick Winser:** I very much think so. We are extremely clear that, at this point, to hit the environmental targets—to get the investments into nuclear, renewable, and CCS—we will need, at the very least, some sort of regulatory framework. There are all sorts of good reasons for that around the types of technology and their place as either base load or intermittent. The centrepiece of the Bill is about giving more predictability to future returns when there are very substantial capital costs up front, which investors will need to have bankable arrangements around. It is absolutely in the right place.

**Q326 Dr Lee:** We are hearing completely the opposite with regards to what the investment community think. This is also an exercise in pushing the risk away—mitigating the risk. The single party/multi-party is all about: “We do not want that on our books. We are not going to cover that risk.” Would you invest in a situation where the sands are shifting so much?

**Nick Winser:** On risk, the development of these mechanisms should and does try to make sure that the right risks are placed on each party.

**Q327 Dr Lee:** What does that mean?

**Nick Winser:** For example, one of the things that is going on in the development of CFD is whether non-fossil types of generation resource should be exposed in their future returns to the cost of fossil fuel, because they are not using fossil fuel. That is one of the centrepieces of the CFD.

**Mark Ripley:** The CFD is an intervention for renewables.

**Q328 Dr Lee:** It is a subsidy, so it is not an intervention. Call it what it is.

**Mark Ripley:** Support, subsidy—support is the way I usually think of it. It provides protection for the renewable generator against the volatility in, for example, the gas price. If the gas price were to crash, and if they had a plain feed-in tariff, then their returns would crash, and that built-in risk needs to be priced into what they originally want. Conversely, if the gas price were to go very high, it provides protection for the consumer, in as much as there would then be a
clawback from the renewable generators to consumers.

In a world where it is very difficult to predict energy prices and fuel prices 15–20 years out, the CfD, for us, provides a good balance between certainty and predictability for the investor and for the consumer.

**Q329 Dr Lee:** It does depend on what this Energy Bill is for. Is it to deliver affordable energy to the consumer? Is it to deliver energy security? Is it to deliver low-carbon targets? What is the number one priority? If you throw into the mix placating Liberal Democrat policy on nuclear power going into the election, it becomes a complete blancmange; it does not make its mind up. If you were making your mind up about energy prices going forward or low carbon, you would be going nuclear hell for leather at the moment. I do not know anybody who thinks seriously about this that comes to any other conclusion, purely on low carbon. It might be that you think it is affordability to the customer, because nuclear is more expensive than gas, but let us decide what it is. At the moment it seems to be trying to set out to please everybody and ending up pleasing no one.

**Nick Winser:** Can I debate exactly your question? You asked whether it is about affordability, security of supply, or environmental targets.

**Q330 Dr Lee:** I think you should decide what it is.

**Nick Winser:** I would absolutely say that it has to be about all three. We know that those are absolutely connected at the moment, and if it was not about all three, then I would say to you that it should be. It absolutely is about all three of those things.

**Q331 Dr Lee:** If it is about affordability, it is gas. We should just be getting gas. I am not saying it should not be about affordability; but I do not quite know what the target is.

**Nick Winser:** That is why it needs to be about all three, because if it was just about affordability we would not hit legislative targets for environmental reductions. It is very clear to me that this is the right way to hit those legislative targets, to deliver security of supply, in the most affordable way for customers.

That is exactly what this Bill does, and exactly what the Bill should do.

**Q332 Dr Lee:** Just one final, final question: if it is about affordability, why is it better for private companies to be incentivised by taxpayers’ money to go and borrow money from the money markets than for the Government to just borrow the money? Tell me how that fits in with it being cheaper for the customer, because I cannot see that.

**Nick Winser:** We have a model of an energy market here that is about it being financed by private investment; that is a huge policy issue.

**Q333 Dr Lee:** Yes, it is a trend throughout Whitehall, which we are seeing the manifestations of this afternoon on the health service in South London. I would suggest that maybe we might have realised that it might not be the model that we should use for our energy infrastructure.

**Nick Winser:** It is interesting to look at the development of gas security of supply over the last decade in that context. Clearly we have seen a period of substantial decline of UK and continental shelf gas supply. Private investment has come in extremely effectively to invest billions to give security of supply on gas, through what is a very significant shift in the sources of gas. That has been very effective for customers. It is a model that has been tested and has done well.

**Q334 Albert Owen:** Can I come back to the capacity mechanism, and in particular the answers you gave to Dr Whitehead about the interconnection? How compatible do you think this capacity mechanism is with that, honestly? If we are talking about building up our own capacity here in the country, and having a mechanism for that, you say there needs to be interconnection and we need to increase that, but is that not a conflict in some way?

**Mark Ripley:** There is clearly a debate going on about the nature of the capacity mechanism; there are models ranging from what you might call a financial reliability option through to a very physical option. Interconnection is able to play in those markets with different degrees of ease, and the financial model is easier for interconnectors to play in, although with the financial model you do not have that certainty of being able to point at a physical plant and give reassurance to consumers that we have the hardware to keep the lights on.

What you do need to do in terms of interconnection, and this is part of the modelling work we are looking at and increasing our capability in, is, at times of system stress, what is your expected flow either into or out of the country via the various interconnection points? That helps you understand what you need in terms of capacity, because that is, if you like, a demand influence.

In terms of interconnection playing in the capacity mechanism, that is certainly going to be influenced by the design; in terms of what you need in terms of capacity, you have to have some assessment about energy flow in or out of the country at times of system stress.

**Nick Winser:** It could be that interconnection is very difficult to accommodate, and you need that to be picked up in a different way through some sort of hybrid regulatory approach to interconnection. The capacity mechanism would build off the back of that by needing to have an assumption about how much flow would come from interconnection in times of system stress. They need to fit together.

**Q335 Albert Owen:** How confident can we be that we will know the volume of required capacity in four years’ time?

**Nick Winser:** We have a long track record of making those forecasts and inputting those to Ofgem to look forward. There is bound to be uncertainty in play, but quite a few things are known. We know the volumes of LCPD opted-out plant, for example. We have already discussed the demand forecasts, which I admit vary from year to year as we look at the prospects for the economy as part of that modelling. We are
certainly able to come to quite sensible views that are much better than leaving it to play out, able to observe the market and able to think about what might be sensible interventions.

**Q336 Albert Owen:** Are you confident that you have got all your past predictions right? Isn’t there a huge gap now of about 10% over what you predicted would happen four years ago? That is external factors, I understand.

**Nick Winser:** Yes. I think probably if you dig into it, it would be fair to say to us that we did not predict the recession correctly.

**Q337 Albert Owen:** You would not be alone in that.

**Nick Winser:** We would not be alone in that, I think. It is an emerging view of the economy that is bound to go into here. That variability from year to year in the strength of the demand curve is an important input, but the other things going on are of a larger magnitude. The amount of generation that we know we will need to close, as other people before the Committee will have said, is very significant in context. It is not that the uncertainty around the demand curve is so large that we cannot take any view of what the likely security of supply needs will be in the future.

**Q338 Albert Owen:** Should the Bill define a standard of reliability for you to meet, as the system operator?

**Nick Winser:** We think it is straightforward: to run the capacity mechanism, one would have to define what output we are trying to have, and that would be in the form of defining a security of supply standard. We think that will need to be developed as part of this work.

**Mark Ripley:** That will be helpful, because historically we have based our capacity assumption against what you might call a traditional backdrop of generation, where the ability of the operator to dispatch it is entirely within the operator’s control, whereas if you move to a world where you have a significant number of wind generators, as you know, that is dependent on weather.

Part of the analysis that we would do, and talked about earlier in terms of making recommendations, is in saying what we believe would be that deployment of low carbon. If that is, for example, very deep deployment of wind, that gets you to one answer with regard to what you need in terms of capacity, compared with having a very deep deployment in nuclear, which is more within the control of its operators.

Moving from a world where you could talk about a gross margin figure, some kind of standard against which you can judge different backdrops of generation would be helpful.

**Nick Winser:** We quite often stumble across this in discussions with stakeholders; some objective way of discussing future security of supply will be useful to everybody.

**Q339 Albert Owen:** We have the standard of reliability. Do we then need an auction? If you are predicting it and it is all standardised, why do we need the auction process?

**Nick Winser:** The auction would then be a piece of that that was used if it seemed that there was not, if you like, naturally enough generation coming forward to meet that security of supply, and then the capacity mechanism kicks in with an auction to give additional funding to get the top-up that is needed to bring us back into the security supply standard.

**Q340 Albert Owen:** You can understand the frustration of this Committee, because some of the witnesses we have had, including you, are saying, “We need a debate around that,” and we have had 18 months to have that debate. In your written evidence to us—you are aware that the Government Ministers will take into account what you tell them—you write: “The policy decision on the capacity auction volume of payments would be done by the Government. We anticipate”—that is you—“that we will present DECC with a number of modelling scenarios via the delivery plan to allow Ministers to make an informed decision.” We have got the Minister coming in this afternoon; shouldn’t we be asking him, “When do you expect to receive this from the systems operator?”

**Nick Winser:** That is probably not very well written, when you read it out.

**Q341 Albert Owen:** I did read it verbatim and I took my time.

**Nick Winser:** It covers two very different points. It says that the debate is going on; that delivery scenario is reference to the enduring, not the design. That is reference to us coming forward with a delivery plan of an enduring nature; that is perhaps the debate with Mr Gardiner. That is us coming forward with scenarios in a plan as part of the enduring operation. Perhaps those two sentences sat slightly too close together.

**Q342 Albert Owen:** When could Ministers expect you to come up with these options for them to take decisions?

**Nick Winser:** The delivery plan we will start to work on soon.

**Mark Ripley:** There is a slightly hybrid approach at the outset, because Ofgem has duties under the previous Energy Bill to do a capacity assessment, and we are working with them to produce that. I think that is due to be published in the autumn of this year, which will give a view four years out. That will feed into the analysis we are doing about low carbon for strike prices. We would do an assessment of the likely deployment of low carbon against different strike prices, and with that an assessment of what you would need in terms of capacity and an assessment of what we believe would be there. That suite of information goes to Government to make policy decisions. This would look at least four years out.

**Q343 Albert Owen:** Is that not available now?

**Mark Ripley:** We have assessments of capacity adequacy now, yes.
Q344 Albert Owen: If we asked the Ministers this afternoon the very same question, they will say, “Yes, we have seen these models, and we will be making an appropriate decision soon.”

Nick Winser: These are models that will be established as part of the operation. We do similar work now, which informs Ofgem Security Supply Statement that comes out in the autumn, but it is not the same. It is just a straightforward security supply adequacy statement, which is made each year.

Q345 Albert Owen: I have one final point to make. I agree with you, Mr Winser, when you say that there is not a conflict between getting security of supply and getting the capacity up to speed for the future, and the main tenets of the Bill. But when it comes to the lowest cost for the consumer, I do not see an awful lot in that Bill, or the Government saying, “That will be the outcome.” Will, in your opinion, the price of electricity in future be cheaper than it is now, after all these mechanisms are put in place?

Nick Winser: I think these mechanisms will deliver the environmental goals and a satisfactory level of security of supply at the most affordable cost for customers, yes.

Q346 Albert Owen: Do you think electricity will be cheaper in the future? That is what the Minister is telling us, on the Floor of the House.

Sir Robert Smith: Are they not saying that it will be cheaper than it would be if we did not do anything?

Albert Owen: That is right, okay. That is the question and I will ask it.

Nick Winser: I always think it is a complex way to put the point.

Sir Robert Smith: Hear, hear.

Nick Winser: I do think technically it is right. I think there are such possible variations in the other prices of energy globally—coal and more particularly gas—that the thing that you can say about these measures is that they will provide the most affordable way of hitting the environmental and security targets in an acceptable way.

Q347 Albert Owen: To go back to what you were saying, we need a debate on this, don’t we? We need an honest debate on this and to connect with the public, and we are not doing it at this moment in time. Perhaps this Bill was an opportunity to have that debate, or certainly something in the Bill that says that one of the goals alongside environmental targets, and alongside security supply, is the lowest possible outcome. Is that the way you see it?

Nick Winser: In our whole role in these arrangements, and more broadly, we have very much embraced the need for as much transparency as possible about the trade-offs that are being made and the likely consequences, so I very much support that.

Q348 Chair: Are there any lessons we should learn from your experience of the capacity markets in America, where you have got substantial businesses? I think DECC have looked at quite carefully at those markets in trying to propose what they are here.

Nick Winser: We have looked closely at them. There are all sorts of lessons, both positive and negative, coming out of those. We have, for example, seen substantial demand come forward as a resource in some of those auctions. Mark, you have probably looked more closely at that.

Mark Ripley: We have looked at it, but I think some of the capacity mechanisms in America have not been designed for this particular issue. In the past, we have had capacity payments in GB, which has effectively been a twin price model for energy, which is the problem we are looking at now is how you make sure you have got sufficient plant on the bars, when it would probably be built to be mid-merit, because you want your low carbon to run in the first instance. While there are lessons to be learned in the US, it is not a direct comparison of what you are trying to achieve. One of the things that we have discovered in the US is that demand side—which Nick has just mentioned—has been talked of in quite warm terms, but when you look at the detail, it is, again, for quite short periods of time, measured in single figures of hours. We are looking at what is going on in the US, but looking at it with the lens of what we are trying to achieve over here, which is to ensure we have enough plant on the bars, it is quite likely to be plant that will be essentially mid-merit, rather than base load, in the first instance.

Q349 Chair: Finally, I have a quick follow-up on Mr Owen’s question about whether prices would go up more than they otherwise would have done if these measures were not proposed. Forgive me if I was not attending, but am I right in assuming that the more successful we are at producing renewables, the less actual use of base load power there will be, and therefore the cost per unit for the consumer of maintaining that base load actually rises if we are successful at deploying renewables?

Nick Winser: That is why we think it is very important to look at not only generation in the capacity market but, if we can, other resources. Yes, essentially you are spelling out one of the reasons why, outside of CfD, you need to have a capacity mechanism, because you drive down the utilisation of the fossil plant, with the low carbon resources that we see coming forward at the moment. That is one of the rationales for the capacity mechanism. We will be very keen not just to see that being met by fossil plants. Looking at storage, interconnection, and demand-side resources should help to mitigate that.

Q350 Sir Robert Smith: I should declare my interest in the Register of Members’ Interests to do with the oil and gas industry, in particular a shareholding in Shell. I wondered if you could outline, for the record, what different business units there are in National Grid. We have already heard you have an interconnection unit and you have North American assets.

Nick Winser: We have Grain LNG, electricity transmission, gas transmission, gas distribution, metering—did I miss anything?

Mark Ripley: Interconnectors and offshore business.
**Nick Winser:** A business that looks at offshore transmission built.

**Mark Ripley:** National Grid Carbon in GB.

**Q351 Sir Robert Smith:** Looking at all those different businesses, do you see any conflicts of interest arising from your role with CIDs and the capacity mechanism, and what might be in the interests of your business as opposed to in the interests of the country?

**Nick Winser:** We are very mindful that people have raised potential conflicts of interest. Those are, by and large, covered off already by business separation requirements, which Ofgem have asked us to meet and that we report on routinely to Ofgem. For example, on gas transmission and gas distribution, with independent distribution networks also out there, there is a potential conflict of interest there.

We have to submit to Ofgem a detailed statement on how we organise our business and how we restrict, in particular, data flows, and how we have independent management, such that that potential conflict of interest does not confer advantage to our businesses. It is an example of many lines that we draw through our business. We then account to Ofgem for our management separation and data control, and that is something that we have to take very seriously.

**Q352 Sir Robert Smith:** Other countries have gone the whole way and used an independent system operator—separate, without any conflicts of interest. What is the reason for not doing that in this country?

**Nick Winser:** This exists pre-EMR, so let me take it at that level as well. There are very substantial benefits to customers from managing the TO and the SO tightly together. I use that word advisedly. We manage it tightly together, because when we look at the generation that is likely to come on the system in the SO, it is absolutely critical that we take account of the configuration of that generation on a day-to-day, minute-by-minute basis, and maximise availability of the critical transmission assets—the physical lines out on the system.

There is a lot of money in play with this for customers, and we have made very strong representations many times over the years that that integrated approach to managing the SO and the TO is important; it remains important. The adding of EMR does not change that; we need to ensure we do not undo those benefits for customers, because they have been worth hundreds of millions of pounds.

The Government has reached for National Grid, or the system operator, to administer this, in part because it saw other synergies and other benefits for customers in managing all this together. We need to make sure we capture those, but also absolutely make sure that it does not raise further issues about conflict of interest. For example, we would expect the information that we get for EMR to only be used for EMR. We would expect, and are very likely to have, a data restriction on keeping that information just for purposes of EMR. There are all sorts of requirements on us in this area; it is part of our business, and we are used to managing it.

**Q353 Sir Robert Smith:** Does the different model in Scotland produce extra costs for managing the Scottish grid?

**Nick Winser:** We think it is very difficult to drive the same efficiency without an integrated SO/TO, and we have commented on that in the past. Clearly the arrangements that were put in place at BETTA do give many benefits: we had to come up with the charging arrangements, a single point of application for connection, and managing the systems together, so lots of good work has been done.

We would still argue quite strongly that managing the SO and the TO in an integrated way is very important. Most of those benefits historically have played out in England and Wales, because one of the profound transport constraints on electricity is something called flow south, which runs across the Midlands, and we have to maximise that because generation tends to flow north to south.

**Q354 Sir Robert Smith:** You seriously do not think that with the advent of EMR your role has become even more likely to lead to conflicts, because the signals you are going to be trying to send to the market will make a big difference to your transmission in gas?

**Nick Winser:** The potential conflict it raises, which people have raised explicitly with you, and which I absolutely acknowledge, is: could National Grid, through those auctions, pick the wrong generation because it suits some purpose of National Grid? Our operation of those auctions will be intensively scrutinised by DECC and Ofgem, and the data going into it intensively scrutinised, because we will ensure great transparency through the expert panel.

I find it difficult to believe, given the scrutiny and the openness of the arrangements for scrutiny by DECC and Ofgem, and looking at the output, that there is any way—even if we wanted to, which I struggle to understand why we would—that would be the case. Furthermore, everything that we build on the electricity transmission system is already separately regulated, and Ofgem, as you know, is looking at the last five years as we speak and is about to make initial proposals on what it feels about that.

In these reviews and on an ongoing basis, Ofgem look at everything we invest in. If Ofgem felt that we had invested in assets that we should not have done, they have the liberty to completely disallow those investments and give us no return whatsoever on multi-million-pound investments.

Those two things together should give a very high level of comfort to everybody, but we are open to what else needs to be added to the picture. However, we do not want to see the existing benefits of operating the existing TO and SO together unpicked as a piece of collateral damage.

**Q355 Sir Robert Smith:** One of the other things is that in advising on the CIDs, you might have a propensity, instinctively as a business, to want to see your gas transmission benefiting from gas generation.

**Nick Winser:** As I say, all those decisions will be very, very open to external scrutiny. Another little example of this is that every day in the balancing mechanism,
in the control room, we pick generation to come on the system. When these arrangements were set up in 1989, stakeholders worried whether we would always do that objectively and cleanly. There is an annual audit to ensure we have absolutely followed the exact rules and picked whatever was going to be cheapest for customers. That has gone on every year for 22 years, and always provides certainty to stakeholders that we are doing everything in the best interests of customers.

Q356 Dr Whitehead: Since your whole raison d’être is capacity, isn’t there an overwhelming bias in favour of deciding on measures that increase and maintain capacity, rather than those that de-capacitate the system?

Nick Winser: Increase the amount of generation, do you mean?

Q357 Dr Whitehead: Yes. Both capacity and used capacity.

Nick Winser: We obviously fulfil the system operator role, and part of our job, to acknowledge your question, is to worry 24 hours a day, every day, about security of supply; it is in our DNA. I just wanted to say that to acknowledge your question. The answer to it is the answer about defining a security of supply standard. We need to define something that is absolutely objectively a measure of security of supply that we can, in a mechanistic way, push data through and come up with an answer that says, very transparently to stakeholders and to Government, “This is the picture four years out, this is the picture six years out, and this is how much plant would be needed to meet the defined security of supply standard.” That, if you like, checks any natural conservatism that I think you would hope we have in operating these important systems.

Q358 Chair: Very briefly and lastly, you would be disappointed, I am sure, if I did not raise with you in front of the Committee my concerns about my constituency and the impact of your new transmission lines. When these arrangements were set up in 1989, stakeholders worried whether we would always do our best, and we have a very strong incentive to do our best, and to put forward a completely objective view of everybody’s feelings about this and what the data say. The Planning Inspectorate can even say, “We do not accept this application, because you have not gone through the process properly”; that is a potential thing that can happen. We would have to go back to pre-application consultation.

If the Planning Inspectorate believes that we have done a good job of taking all views on board, and have done a professional job of trying to weigh those up in putting forward our proposal, it will allow formal deliberation on that application. The Planning Inspectorate will then take a view, with statutory consultees, as to whether we have balanced those things, and ultimately make a recommendation to the Secretary of State. The Secretary of State will have to take a view on whether we have proposed an appropriate balance between those things. We are working very hard to try to do that sensitively and professionally, and we understand there are very strong views out there, and we are doing our best and, I hope, doing a good job.

Q359 Chair: Do you think that the publication of the Parsons Brinckerhoff study at the start of this year, which produced conclusions that some people might interpret as being different from your earlier claims about the relative cost of undergrounding as opposed to overhead pylons, has altered the debate about whether lines should be overhead pylons or undergrounded?

Nick Winser: I do not think it has changed the debate. I do not think it said anything different from what we had said. It played out as we had always said. To be brief, we had always talked about ratios, as you know, Chairman. That is a way of giving a sense to people about the decision we had made. We had always caveat that very clearly with “it depends how much power you have got to push through it; it depends on the landscape you are going through; it depends on many different things”. We are completely technology-neutral in all of this.

What the Parsons Brinckerhoff report did was play out all the detail—and I think it did a good job—around trying to explain, in all those different ways, what the balance of visual amenity versus cost was. We felt it very much supported, albeit in much greater depth, the sorts of numbers we had said. The fact that, at high capacities, the Parsons Brinckerhoff report played out numbers that show a very substantially higher cost for undergrounding than using overhead lines very much played to one of the things that we had put into that debate.

Ultimately, it may be that is a price that society—electricity consumers—feel is worth paying for visual amenity, and we can only do our best in this to listen to views, to look at landscape, to look at environmentally designated areas, and to put forward proposals for others to judge, in two stages, whether we have got that balance right. Our objective is to try to do that professionally and to give those decision-makers the best possible opportunity to strike the right balance for society, individuals, and communities.
Q360 Chair: Finally, do you think it would be helpful if the Bill incorporated wider environmental sustainability criteria? I am not just talking about greenhouse gas emission targets, but wider environmental criteria. Would that be helpful?
Nick Winser: Coming back to the previous point, I think it is very important that this Bill proceeds in its current form. The EMR provisions in particular need to be delivered by 2014 if we are to hit the carbon targets and, looking at the security of supply outlook, if we are to give Government options, in our advice, about whether a capacity mechanism needs to be used. My own feeling on your question is that it is important to get that bit of the job done; I think that is pressing, and we need to work urgently on it. It is through those provisions hitting on very important environmental developments. Whether there is scope in a further piece of legislation for a broader assessment of sustainability, I would have to think about that; I am not sure.

Q361 John Robertson: Why do you think it is that practically every company we have talked to totally disagrees with what you have just said?
Nick Winser: I do not know. I was just trying to give you my views.

Q362 John Robertson: Okay, but surely you have an idea of what has been said to this Committee, and most of them want to throw it out of the window or start again.
Nick Winser: I think these provisions are really important to hit the targets—both environmental and security of supply targets—at lowest cost.

Q363 John Robertson: I understand that; that is not what I am saying. What I am asking you is why you think these companies put forward reasons for not wanting to continue. Is it just purely financial to them, or do they just not care, or are they wrong?
Nick Winser: Having seen their comments, I had not categorised them in my mind as them just not wanting to proceed with this Bill. We had a debate about this earlier, so I apologise if I have got this wrong, but I was of the feeling that a lot of the likely investors in these low-carbon technologies thought the Bill should proceed in some form. They may well have a variety of views on amending the form of it.

Q364 John Robertson: That is true as well—there are some that would want to not have it at all. Others basically want it, yes, but want to go back and start again, and that is not just a few.
Nick Winser: I can only give you my best view, and my best view is that these provisions are our best option to get to the variety of targets as affordably for customers as possible. I will absolutely take the opportunity of picking up with other energy companies, which I already do, and testing out your point, because I think it is very important to listen to other companies.

Q365 John Robertson: I would suggest you particularly speak to SSE.
Nick Winser: Yes, I would have to admit to not having had a detailed debate with SSE recently on this, although they are represented in all of the expert groups where Mark and his team are working. I have not chatted to Ian directly on that, so I cannot really give you a rationale for why we are in different places.

Q366 Chair: Thank you very much for your time. We have overrun significantly on our estimate of how long this session would last, but we are grateful to you. I think that reflects the level of interest from the Committee in what you have been saying and the very important role that National Grid has in the proposed arrangements, so we appreciate that.
Nick Winser: Thank you very much for your attention.
Tuesday 26 June 2012

Members present:
Mr Tim Yeo (Chair)
Barry Gardiner
Dr Phillip Lee
Albert Owen

John Robertson
Sir Robert Smith
Dr Alan Whitehead

Examination of Witnesses

Witnesses: Rt Hon Edward Davey MP, Secretary of State, Charles Hendry MP, Minister of State, Kathryn Wood, Bill Team Manager, Jonathan Brearley, Director, and Simon Virley, Director General, Energy Markets and Infrastructure, Department of Energy and Climate Change, gave evidence.

Q367 Chair: Welcome to the Committee for your first session, Secretary of State. We are very pleased to see you. You will be aware there is very considerable interest in our scrutiny of your draft Bill, although we regret we have only been given five weeks to do it. I appreciate that is not entirely your responsibility and we are doing our best. Your Minister is a regular witness and a welcome one, so we are glad to see him. We have met your officials as well.

Can I begin by saying we have appreciated the cooperation we have had from both the Minister and officials in the past, which has been helpful to us both privately and publicly? It stands in very sharp contrast to the attitude displayed by the Treasury, from whom we are having difficulty obtaining answers to what we regard as very important questions about the Bill when they are really understandably the people who should be giving the answers. I am told by them, and by implication, possibly explicitly, by you, that you are able to answer all those questions as well. We will explore some of them during the afternoon.

Could I begin by asking whether you feel that the Bill, in its present form, makes potential investors in the UK energy industry likely to bring forward or delay their investments?

Mr Davey: I think it will bring forward those investments. It is a radical, pro-growth Bill, and it is designed to encourage investment in low-carbon electricity generation. We have certainly seen a lot of interest from investors who have not previously been interested in, for example, renewables in the United Kingdom.

Q368 Chair: It is acknowledged in the year since the White Paper was published that some of the proposals—including some quite central proposals for reforms—do not seem to be fully worked through. That certainly includes CfDs. Will that still not make people think there is an element of uncertainty?

Mr Davey: We have increasingly put a lot more information into the public domain. When we published the draft Bill in May with all the supporting documentation, we found a real welcome from industry about the details. They have of course been privy to a lot of our discussions prior to publication, so quite a lot of details did not come as a surprise. One of the things I am really grateful to you and your Committee for is that pre-legislative scrutiny gives a chance not just for parliamentarians to engage further, but for stakeholders and industry to engage further, so we can explain ourselves more, in case there are any misunderstandings. We can hopefully bring even greater clarity where people are not quite sure where we are going. I think this is a useful process; I do believe a lot of people are welcoming the direction of travel. Reading some of the witnesses who have appeared before you, I get the impression—certainly from industry—that they like this direction of travel.

Q369 Chair: We will look at the merits of the issues, such as CfDs, in due course, but why do you think there has been a delay in finalising these proposals?

Mr Davey: I think we are on timetable, as set out in the White Paper. We are on timetable thanks to your willingness to do speedy pre-legislative scrutiny. We want to respond to that, and we are very keen to hear what you have to say. We hope to publish our Bill in the autumn.

Q370 Chair: Do you accept that at the moment quite a number of the people looking at possible investment are saying there is still an awful lot of detail on how these reforms will work in practice that has not yet been published?

Mr Davey: Of course there is some more detail to be published—the final Bill, of course. We have a draft operational framework, which we will finalise in the autumn. We know how we are going to set strike prices, but we want to show what those draft strike prices will be in a year’s time and then finalise them at the end of next year. All that sort of information is what investors want. Let us be clear. This is not just a reform for next year or the year after; this is reform for decades to come. One of the points I am keen to get over to people focusing on this is about the phases of electricity market reform. When I was commenting on the draft document I was very keen to have a table—I think it is in page 19 of the documents in front of you—which sets out four stages of electricity market reform going to the late 2020s and beyond. That encapsulates the fact that this is a radical reform. Yes, I am sure investors and industry are hungry to have absolutely every detail, but we are undertaking such radical reform, and we are keeping pace with what we expected to be publishing. That has been welcomed.

Q371 Chair: What is your expectation about the speed with which this Bill is going to pass through its parliamentary stages?
Mr Davey: That will partly be down to business managers giving us the right slots and so on, but we expect it to be introduced later this year and to go through, I hope, getting a lot of agreement. I cannot say when Royal Assent will be given. It is a carryover Bill in the Queen’s Speech but we may be able to finish it during this session. I cannot absolutely predict that, of course.

Q372 Chair: Even though there are still calls for evidence out there about some of the measures?
Mr Davey: Indeed. We expect Royal Assent by the end of next year. Although there is work still ongoing, we think that can feed into this Bill process.

Q373 Chair: Royal Assent by the end of calendar 2013?
Mr Davey: Yes, at the latest.

Q374 Chair: I am not surprised that you say that, but given that a lot of the investment that we hope is going to follow the passage of the Bill is in infrastructure and assets, which need to be on stream quite quickly in this decade if we are going to get to where we said we want to be in 2020, are you worried about the tightness of this timetable?
Mr Davey: No, not particularly. You have to remember that first of all the Renewables Obligation Certificate process continues until 2017. There will be people, once we announce our response to the consultation, who will want to invest on the back of that. Within the Bill we also have the final-investment-decision enabling clauses, so if people want to invest ahead of Royal Assent there is a process we have put in the Bill to answer that very question. I think we will see everyone from offshore wind investors to CCS to new nuclear interested in the FID enabling if they are keen to go down the Contract for Difference route, and ahead of Royal Assent.

Q375 Chair: Given, as you acknowledge, that there are significant areas where further detail has to be published and secondary legislation and so on—perhaps a template CfD contract—is it your plan to publish those in draft form for further comment before they are brought before the House for approval?
Mr Davey: The secondary legislation?

Q376 Chair: Yes.
Mr Davey: Where we can, we would like to be able to do that, but because of the timetables that might not be possible. Clearly, we want to give the House as much time in all aspects of this legislation. The fact we have got pre-legislative scrutiny assists that.

Charles Hendry: Much of that secondary legislation would be subject to consultation in its own right. Bringing forward the pace for consultation would therefore give people in and outside Parliament every opportunity to ensure it is in the structure they would think is most appropriate.

Mr Davey: Where we can, we will do the secondary legislation in parallel with the Bill. We want to try to speed up the process because we want to ensure investors get as much certainty as quickly as possible.

Q377 Chair: Given that the Bill has three broad aims—security, affordability, lower carbon—do you think in its present form it makes it more likely that we will be able to meet the fourth carbon budget?

Mr Davey: Yes. One of the whole objectives for doing this is to decarbonise electricity generation. I do not think we would have put a draft Bill like this before Parliament with the structure we have, Contracts for Difference and so on, if decarbonisation was not right at the top of our agenda. It is critical to the carbon budget; it is also critical beyond the fourth carbon budget report we published all the way to our 2050 obligations. It is a fundamental part of meeting our climate change obligations.

Q378 Chair: What does that do to affordability?

Mr Davey: Because, as you rightly said, we have three objectives—energy security, decarbonisation and doing this at the least cost—the design of this is to try to ensure we can bring that for that investment in low carbon and for energy security at the least possible cost. When you have the billions of pounds of investment we all know is needed in our energy infrastructure, that will inevitably need to be paid for, but we want to make sure that can be done without putting a heavy burden on business and consumers.

Q379 Albert Owen: First of all, can I clarify what the Chair was saying about the Treasury Ministers not coming before this Committee? You would have no objection as a Department if they were to come, would you?

Mr Davey: No, but I should say that as a Minister of the Crown I can speak on behalf of the entire Government. That is why I have intimated to the Chair that if there are questions you want to put to the Treasury I am happy to take them.

Q380 Albert Owen: It was not to catch you out; it is just that one of the answers we were given from Treasury Ministers was that it was not part of the protocol of pre-legislation. Well, there isn’t really any protocol. I thought it would be advantageous, if there are some issues with the Treasury or another Department, that there would not be an objection from the lead Department. That is the question I am asking.

Mr Davey: No. There may be a protocol—I am not aware of it—but there would be no objection. Equally, I have no objection to fielding the questions that would go to the Treasury, because we work very closely.

Q381 Albert Owen: I will hold back on some other questions. We have tried to get the Treasury Ministers. That is the point we were making. A lot of the witnesses we have already spoken to have said this draft Bill is all mechanisms and no objectives, in many ways. Would you like to outline the Department’s objectives for this Bill?

Mr Davey: I do not want to repeat myself too much. In response to the Chairman—
Q382 Albert Owen: No, he listed them himself; I want to hear them from you.
Mr Davey: Yes, he did, he was absolutely accurate.

Q383 Albert Owen: There we are; perhaps you should swap places.
Mr Davey: I congratulate him for noticing our clear objectives. They are to get energy security, to keep the lights on; they are to decarbonise, to ensure we stop polluting; and they are to do that at the least cost, because affordability has to be a consideration.

Q384 Albert Owen: Why do you think some of the witnesses are saying what they are saying? You have read that they are saying it is all about mechanisms and it is complicated and these types of things: the objectives are not that clear.
Mr Davey: I just stated the objectives. They are absolutely what this Bill is about and I will not repeat them again.

Q385 Albert Owen: Why don’t you think they share that clarity?
Mr Davey: I don’t know, but in electricity market reform it is about substance. It is about delivering on those objectives. We have to make major reform. Let us remember, the current market is not working; it is not delivering investment in low-carbon technology. Many people believe it is biased towards gas. Therefore, if we are going to help bring on low-carbon investment, because of the high capital cost of low-carbon investment, we have to take these reforms. People are right: some of them are technical and some people find difficulty understanding them. Hopefully over this process we can help that by explaining them at meetings like this. But I think they are absolutely necessary. These are the nuts and bolts of climate change action.

Q386 Albert Owen: You have said that decarbonisation is one of the main objectives of the draft Bill. Why was it not therefore an explicit decarbonisation objective of 50 grams per kilowatt hour by 2030, as has been recommended by the Committee on Climate Change, if it is such an objective?
Mr Davey: Let me refer you to paragraph 34—I think it is page 20 in this document, which contains the draft Bill. We made it very clear—I made it very clear—that we are open-minded about the role of targets. In this case it would be an intermediate target for electricity decarbonisation. We of course have an overall target, to reduce climate emissions; that is in the Climate Change Act and the carbon budgets and that is the outcome we all want. There are different methods towards that outcome. Clearly electricity decarbonisation is going to play a critical role in that. There are arguments both ways. I am open-minded and interested to hear what the Committee says in its report.

The arguments against having an explicit intermediate target for something like electricity decarbonisation is you might get to the point where, to meet your carbon emission reduction targets, it would be more sensible to do something in another sector, say transport. You would thus be meeting your carbon emission reduction targets in a less efficient way. The argument for intermediate targets, just to be clear—I am genuinely open-minded on this one—is that you could well corral and mobilise investment in low-carbon technologies. There are arguments both ways, and I would be interested to hear what colleagues say.

Q387 Albert Owen: You have clear objectives on decarbonising, we hear that, and you mentioned things that are slightly outside the Bill but are very important with regards to transport and other things. Specifically on this Bill and reform of the electricity market, the Government has already committed to reducing emissions through carbon budgets. Would the decarbonising target not give investors the confidence that they need, and give them more confidence?
Mr Davey: I hope the carbon budgets give people confidence. They are legal obligations. Everything we do in my Department is geared to delivering on those carbon emission reductions. We work across Whitehall, with the Treasury, the Department for Transport and others, so the whole Government is focused on delivering those carbon emission reductions. I can only repeat myself.

Q388 Albert Owen: I am repeating what our witnesses have been telling us as well: it is not my opinion against yours. They are saying that to get the confidence they need, they really need to have fixed targets. That seems to be slightly absent. You are saying you are open-minded: they want firm targets.
Mr Davey: Let us remember, the whole of electricity market reform is geared to investors in low-carbon technology. If you are an investor in low-carbon technology or a generator wanting to use low-carbon technology we believe this is the legislation that you need and that you would want. That is critical to decarbonising. The analysis in the White Paper—the analysis we have done since modelling this—suggests that our proposals get us where we need to be. Whether or not there should be an intermediate target beneath the carbon emission reduction target is something that, I repeat, I am open-minded about, but there are arguments against. You have given the argument for, which I accept—about mobilising investment—but I repeat there are arguments against. You could—in intermediate targets often do this—end up wasting money getting to your main objective, which is carbon emission reduction.

Q389 Albert Owen: Still on this and targets for decarbonising, you say “get us to where we need to be”. Again, in the Bill the target for decarbonisation seems to have slipped from “by 2030”, as recommended by the Committee on Climate Change, to “by the 2030s”. That is the sort of issue that investors and potential investors are raising with us, that there is this slippage and it is not quite clear. That is the reason I am raising this issue: they want greater clarity. Are we aiming for 2030, as recommended by the Committee on Climate Change, or is it the
introduction of this Bill and the slippage that is going to go beyond that?

Mr Davey: Our core objectives are to meet our carbon budgets and the targets that are set out in there as we go to 2050. Those are our legal obligations. There are arguments to put forward additional targets on top of those to push forward action in one sector more than another. You could end up in a suboptimal world where you make it more difficult for yourself to reduce carbon emissions. It is a genuine debate, and I would be keen to hear what the investors have said in giving evidence to the Committee, and what the Committee concludes.

Q390 Albert Owen: The point I was making is what the Committee on Climate Change, which Parliament has set up, has said, more than just the investors, Secretary of State. In the Bill it has now slipped to the 2030s: which is it? Are we taking the recommendation from the Committee on Climate Change for 2030 as the cut-off date, or is there slippage to the 2030s?

Mr Davey: In some of our modelling we have shown we could get to 50 grams per kilowatt hour by 2030; we have shown that these measures could do that. The mid-range—I turn to Jonathan Brearley on this—is about 70 grams per kilowatt hour, but some of the modelling using this market reform would get us to 50 by 2030.

Jonathan Brearley: We model between 50 and 100 grams per kilowatt hour, which was the original CCC recommendation. What we are saying is that these measures could do that. The mid-range—I turn to Jonathan Brearley on this—is about 70 grams per kilowatt hour, but some of the modelling using this market reform would get us to 50 by 2030.

Mr Davey: You acknowledged earlier on—which you are slightly contradicting now—that has not been worked out. You acknowledged earlier on—which you are slightly contradicting now—that has not been worked out.

Mr Davey: We could spend a lot of time legislating on our objectives, but we have had quite a lot of that set out both in Acts of Parliament like the Climate Change Act, which has set clear objectives, and in policy. This is, if you like, a workmanlike, businesslike Bill; this is about getting it done; this is about the means. We are very clear on the ends: the Chairman was very clear he knows what our ends are. This is about the means to get those ends. I could restate the policy objectives as well, but what we really need to do—because there has been quite a lot of debate and discussion about the ends—is get on with it and do it.

Q394 Albert Owen: We agree with that. That is why we are doing this work as quickly as possible. Again, our witnesses are not as confident as you are making yourself out to be. They are saying they expected something 18 months ago when the White Paper came out, and we had discussions and scrutiny of the principle of market reform, and yet things have changed and we are having to have these debates again now. That is one of the concerns I think you should take on board and I am sure it will be reflected in our report when we come to make it.

Mr Davey: Sorry, I am not sure which debates we are having again. Obviously I took over—

Q395 Albert Owen: You did.

Mr Davey:—the Department in February, so there may be some debates I am not aware of. Having read the White Paper and the work that has gone from there, we seem to be on track with the timetable set out in the White Paper.

Q396 Albert Owen: I will explain in a little more detail. We had witnesses this morning from the National Grid who are your system operators. They were saying, “We are going to have debates with DECC about very important issues that have not as of yet been clarified.” They are saying that they are working models, they are part of a delivery plan with you and sitting down with you. There is a lot of work. You acknowledged earlier on—which you are slightly contradicting now—that has not been worked out.

Mr Davey: Let me bring in Charles Hendry in a second. Listen: you don’t publish a draft piece of legislation and have absolutely every detail—

Q397 Albert Owen: But I have scrutinised other legislation, as have you. After 18 months of a White Paper appearing, with respect, we have not had a draft coming to us in such a shabby form—these are my words, okay—after such a long period of time, and even with this Committee having an inquiry into it and the Government responding.

Mr Davey: I will bring in Charles, but I would obviously contest that this is in a shabby form; I think it is very good and well-written documentation. The points that it sounds to me National Grid were talking about were on the delivery plan. The delivery plan is not mentioned in the Bill because it does not need to be: it is a process of how you implement the legislation that is in the Bill. Without reading or being
present to hear what National Grid said, they are right to say we need to engage with them over that sort of planning. That is completely in line with—

Q398 Albert Owen: I accept that every technical detail cannot be in the Bill, but the broad principles of the capacity mechanism and capacity market are what we were discussing this morning, and there is not much clarity even on that. We have been talking to potential investors who want that clarity now, and they are not getting it.

Mr Davey: I will bring in Charles in a second, but on that particular point, we made very clear—at my insistence—in these documents that if you are wanting to invest and you are not sure what the future capacity market is going to be because we have not given you all the details yet, and you are worried that you might miss out on some payments, if you invest now you will be considered as a new investment in a future capacity market auction. So it deals with that criticism, which I have heard, listened to and responded to, that there was a possibility of investment hiatus. The real cause of the investment hiatus, if I may say, is the fact that the last Government were not pushing hard enough with a proper, clear energy strategy. We are. And there has been a recession, and growth has not been as quick as many people expected, which has caused concern on investment.

Q399 Albert Owen: Sorry, I am cutting across. This is not second reading or the debate. We can go past what previous Governments have done. That is a matter for debate; there was a recession under the last Government as well. What we are talking about here is this Government, and this Government making announcements, publishing White Papers and bringing draft Bills. We are scrutinising that. We need to concentrate on that. I don’t know if the Minister wants to come in.

Charles Hendry: Let me make a couple of points, if I may. First of all, I do not think it needs an Act of Parliament to say we want security of supply. It does not need an Act of Parliament to say we want affordable prices. Those are fundamental building blocks of energy policy and they run through everything we are trying to do. What we have sought to do in the course of the last two years, from pretty much a standing start, is to reinvent a new electricity market: the most dramatic changes to this market for 20 to 30 years. It is something other countries have not been doing, and therefore we are doing some very pioneering work. We were faced with the option of either waiting until every single detail of that was in place and then coming forward with the legislation or doing it in a more iterative process by saying, “These are the principles, then let us agree on the principles and move forward to the detail.” People say they want the detail of the capacity mechanism; that is not going to be needed for some time yet. The capacity problem we face is at the end of this decade into the 2020s. We do not envisage that being a tool that needs to be used for a couple of years at least. Nevertheless we are putting the details in place gradually so that when it is needed it will be there. We are quite right to be moving forward in that way.

The other thing to emphasise is that we do have different objectives from the energy companies. Our objectives are to deliver the best deal and security of supply for consumers in a low-carbon way. If you are an energy company with a legal obligation to make the best return for your shareholders then your commitment to doing that in the cheapest way possible is not so absolute. So it is not surprising that when we look at their objectives, their current generation mix, their future investment plans and which technologies they may use, they are bound to have ones that reflect their corporate interests. But we have looked more broadly at the national interest to see how we deliver the security at a price consumers can pay.

Q400 Albert Owen: Final question to the Secretary of State: should the Committee on Climate Change have a role in assessing the impact of the strike price and achieving the climate change goals you have outlined?

Mr Davey: The Committee on Climate Change is quite rightly free to comment on all aspects of Government policy, and I am keen that they do. I do not think we need to add them into the Bill; they are more than capable of commenting and we encourage that.

Q401 Albert Owen: Whether it is in the Bill or not, should they be part of assessing the strike price? That is the very simple question. CCC themselves and others: should they be part of that?

Mr Davey: We have a process for going to the strike price, which will include consultation. They can respond to that consultation.

Q402 Albert Owen: You would not give them a formal role.

Mr Davey: No, I do not think we need to. They are set up as an independent body; they can respond to the consultation. I don’t think there is a need to bring them in. Arguably we could be criticised in doing that for somehow wanting to go on to their independence.

Q403 Albert Owen: You may be praised for giving equal weighting to the Committee on Climate Change’s objectives, and that has been taken as seriously as the future investors or anybody else; they have been given a permanent role.

Mr Davey: They have a permanent role in the formation of energy and climate change policy through the Climate Change Act of 2008.

Q404 Albert Owen: So it is your intention to keep them as an adviser, rather than bringing them in?

Mr Davey: They are not just an adviser to Government; they are an adviser to the country, and to Parliament.

Q405 Chair: Just for clarification, one of the issues which National Grid said this morning was still open to debate was the counterparty, and whether it should
be a single counterparty or the current proposal. We will come back to CDIs in a moment. Could I just pick up on one of your answers about the current exclusion of an explicit decarbonisation objective from the Bill? The point you made of fixing the 50 gram per kilowatt hour target had some disadvantages. Even the Committee on Climate Change would accept that there are some disadvantages of putting that in the Bill. There does not seem to be quite the same objection to putting a commitment to achieving the carbon budgets in the Bill, because that allows flexibility as to whether we might make a bigger push on surface transport in the 2020s and therefore not need to go quite so far with electricity generation. The advantage of having a decarbonisation objective even broadly defined as meeting carbon budgets—particularly the fifth carbon budget, which will take us beyond 2030—is that it does make clear to the investment community that this is an absolute priority for the Government, such that its exclusion from this Bill might look a bit surprising given that we have made explicit decarbonisation objectives in other legislation.

Mr Davey: The problem with that proposal is that the legislation is already there. The carbon budgets from the Climate Change Act are already legislated for. A parliamentary counsel might have a slight worry at the fact that we want to repeat legislation that is already there. We are bound by that. I can repeat: part of the driver for this policy is to meet those legal obligations under the Climate Change Act.

Q406 Dr Lee: The message loud and clear from everyone we have had so far is that the document is too complex. Complexity equals risk, and the investors are all saying “I am not going to touch this; I am going to go and invest elsewhere”. That essentially distils what we are getting. Is that complexity—if you accept it is complex—present because too many people have been involved in its genesis?

Mr Davey: First of all, I would want to question the assumption that what we are putting forward is not going to attract investors.

Q407 Dr Lee: Forgive me; that is all we have been getting.

Mr Davey: Obviously we have heard from investors who appreciate this proposal. For example, I was talking to a major energy infrastructure investor who has invested billions in other countries around the world. He has not come to the UK to invest because our Renewables Obligation process, he thinks, contains risks. Because we are going down the Contracts for Difference route he is now looking at investing in the UK market for the first time. Maybe it depends which investor you talk to, but I can be absolutely clear to the Committee: we have had some serious investors who have not previously invested in the UK market being attracted because of the reforms we are making. I would say two things on your point about complexity. First of all, there is an awful lot of complexity in electricity markets now, and there has been going back. Talk to people who were around at electricity privatisation about how the pool operated and the rules for the pool; they were extremely complicated. The reforms made under the last Government were quite complicated and did not come before Parliament. They were mainly dealt with through the regulatory system. There is a lot of complexity in electricity markets; I think that complexity is inherent, to a certain extent. If you look at the Contracts for Difference, which people sometimes say is where the complexity is, first of all, we are not the first country to use Contracts for Difference. They have been shown to work in Denmark. Actually, the more you look at them the more intuitive they are and the greater sense they make. They are innovative, good for investment and good for keeping the cost down for consumers and taxpayers. Rather than adding to costs, which was what you were trying to suggest, I think they will reduce costs.

Q408 Dr Lee: In terms of objectives, you have those three: I am not going to repeat them. I would suggest we need to concentrate on one as our chosen primary goal. I get the sense that you are trying to please everybody and ending up not pleasing many people in the process. In terms of affordability, I do not quite understand how incentivising a private company with Government money to go into the markets to borrow money is a more efficient way than saying Government borrow the money, build it and sell it into the market. I would be interested to know why you think the way you have chosen to do it is a more efficient way of raising money, because at the moment the Bill seems to be an absolute bonanza for bankers and lawyers.

Mr Davey: I would disagree with that; if you are suggesting an alternative model of direct Government procurement, history suggests that is not always the most efficient way of doing it, both in this country and abroad. I am very keen to ensure we have the private sector leading this. We have a private electricity market, and, from talking to people in the industry and investors, they believe this can deliver in an efficient way. Indeed, to pick up Jonathan’s point, some of them do not like it because they believe it will reduce windfall profits the previous system gave them.

Q409 Dr Lee: Just finally, with regards to the Bill, is there some sort of overriding energy policy for the Government in which we look at our defence policy, our foreign policy, all in the round, and we say this policy fits in with our foreign policy, our defence policy, our access to food and all the other challenges this country will have over the coming decades? Or is this Bill being created in isolation by DECC, i.e. we have these low-carbon targets, we want to diversify and decarbonise electricity? Or is it part of some big picture, some sort of big strategic vision Whitehall has?

Mr Davey: First of all, this is a proposal that has been consulted on not just externally but internally. A lot of Government Departments gave their views, helped create this and strongly support it.
Q410 Dr Lee: Does the Foreign Office?

Mr Davey: The Foreign Office has been one of the greatest champions in Whitehall for climate change reduction. It is fair to say that the Foreign Office does not spend as much time on these sorts of domestic reforms, but they do support the objectives.

Q411 Dr Lee: Forgive me; this is not a domestic issue. Secretary of State.

Mr Davey: Climate change is not a domestic issue. I completely agree with you, but this is a reform of the UK energy market we are talking about here, which I would suggest—

Q412 Dr Lee: With profound international implications.

Mr Davey: I hope it does have profound international implications, because we believe in quite a lot of these areas that we are world leading. We believe, because of the approach we have taken, lessons will be learnt by other countries. I would not want to be arrogant about this, but we believe because this is world leading it will set the standard. I think you will see more countries who wish to pursue the objectives we have. I believe you can pursue more than one objective at the same time. This could lead to some very profound and very beneficial effects around the world.

Charles Hendry: Can I go further? I do not think you can just focus on one objective. To do that, you have to make a decision that affordability or security of supply is less important than low carbon. That is not the position we are in; we need to pursue a range of different objectives. What we are intending to get to in the 2020s is: you get competition between the different technologies, and therefore the C/Ds at that point essentially auction to bring in the low-carbon technology that can deliver the capacity you need at the lowest price. That gets us back to the market principle, but therefore to go to a situation where the Government was procuring it you end up with political decisions being made where the market can decide on what will be the best way of making that happen.

Q413 John Robertson: Ministers, we are here to help you. I know sometimes it might appear that we are not. We want a Bill that is fit for purpose, and therefore we are trying to assist you when we deal with pre-legislative scrutiny.

Mr Davey: I have no doubt about that.

Q414 John Robertson: Well, I don’t know; you have your opinion; I have a feeling you are there to put obstacles. Let me put a few things to what you have said. The Bill will encourage investment: that really sounds great. You have said you have talked to investors, and yet you said earlier you are looking forward to hearing from investors and to hear what they have to say. What we have heard is, basically, the Bill is too complicated; it is not fit for purpose, and other than the one of the big six who to be honest could have written the Bill given the way he made his contribution, four of them, while agreeing with the road you are going down, still have reserved rights, as we say, to put up some opinions; one of them said they thought the Bill was a waste of time. When you get to the smaller energy companies, they think you should go away and start again. Now, I don’t necessarily think you should go down that road, but I think it is important that you listen to these people. I don’t think you have spoken to them. We have talked to quite a number of investors, banking investors at that, and to be honest not one of them says at this present moment in time they would invest into energy in the UK. You might not believe me, but that is what they are telling me. If they are telling me that, I cannot believe they are not telling you the same thing. Where are we here? Are you really wanting to listen or have you not really made your mind up?

Mr Davey: We want to listen; that is why we have pre-legislative scrutiny. This is a genuine, real process. We want to hear what your Committee says and listen to the evidence given to your Committee. Of course we have been speaking to investors and the industry. I have to say, I have a whole range of quotes here that have been given to your Committee from industry that are supportive of our approach. Let me take one issue, which the Chair referred to earlier, where there is some concern in industry. I am very happy to take that head on. That is with respect to the payment system. Maybe you want to ask me more questions, but I think it is appropriate to answer your question because we are aware that there are concerns. Some people believe the payment system and the debate around it is a real problem. Let me make it absolutely clear: we want to attract investment. We know we have to attract investment. If we have to look at the payment system again to ensure people are happy with that payment system, we will look at that again. However, I think the payment system we have in the Bill, where there are multiparty counterparties, works. It is quite similar to the Renewables Obligation system we have at the moment. Others have talked about having a single-party counterparty, and we are looking at that in detail. It clearly has some advantages. You are right, Mr Robertson, that there are some people worried about the payment system, and inevitably a payment system is quite critical to investors because they want to know that they are going to get—

Q415 John Robertson: To be fair, I never mentioned the payment system.

Mr Davey: No, but you were saying that people did not want to invest. The one argument I have heard where people are saying they are worried about investment is the payment system. I am saying to you that we are very aware of that and we are engaged with that.

John Robertson: We will get into that detail.

Charles Hendry: Can I come back on the point of your question here as well? Of course we need the big six and the independents, but they cannot do it on their own. We need over £100 billion of investment in the low-carbon sector in the course of the decade. That means bringing in new players and therefore finding a structure that is going to attract some of the
private equity firms, sovereign wealth funds, to come in as partners in that development is an important part of this process too. I am certain absolutely from the discussions we have had with them that this is more likely to make them invest than they were before.

**Q416 John Robertson**: Minister, I have no doubt what you say is true to you, but if we are talking to the same people then we are getting different feedback from them. I suggest that you give us the names of the people you talk to and we give you the names of the people we talk to. I would not mind betting that a lot of them are the same people. If that is the case, are they too frightened to tell you the story? They certainly are not going to be frightened of us; they are more likely to tell us as it is. Maybe you seriously have to talk to the Chair and work these things out, because our information is completely different from what you are saying. I am not saying that is not what you were told; all I am saying is they probably told you what you wanted to hear.

**Mr Davey**: Let me be clear, I find when talking to industry or investors they are not shy about criticising our proposals, but I am telling you the main criticism I have heard is around the payments model. You were not specific, Mr Robertson, about the issues they were raising. If there is an issue they have been raising with you—

**Q417 John Robertson**: You are going to get them later on as we go into the questions.

**Mr Davey**: I look forward to them.

**Chair**: We are just about to do a bit more on the payments.

**Q418 Sir Robert Smith**: I had better remind the Committee of my entry in the Register of Members’ Interests to do with the oil and gas industry, and in particular shareholding in Shell. Can we look a bit more at the payment system? In the original impact assessment, you worked out that the CfD would reduce the cost of capital by £2.5 billion. That analysis was based at a time when you were giving a clear signal that the counterparty would be Government backed. How much of that £2.5 billion was because of the risk of capital because of the Government backing, and how much was because of the payment mechanism?

**Mr Davey**: I think I am right in saying this, and I might hand over to Jonathan Brearley in a second, but the modelling done to get that £2.5 billion was not taking into account the payment system. It is very difficult to model payment systems. What it was looking at was the difference between the costs of capital, primarily, of a premium Feed-in Tariff versus a Contract for Difference. Because you have greater earlier certainty and greater stability for your revenues if you are an investor, we believe that reduces the cost of capital. That is why Contracts for Difference is a better model for investors.

**Q419 Sir Robert Smith**: But at the time you were also saying that the price risk is borne by the Government balance sheet, which surely must make the cost of capital—

**Mr Davey**: Under Contracts for Difference the Government does take more risk, but let me just check on that modelling point with Mr Brearley.

**Jonathan Brearley**: It is true; in the impact assessment the drafting was a little bit unfortunate. But in the calculations we did—so when we say, “How do we compare a premium Feed-in Tariff versus the CfD?”—what we did when we tested the modelling was we had one revenue stream based on the wholesale price, and therefore over time, particularly if you are making an investment decision today for something built seven years down the line, it has huge variability because the wholesale price is driven by the long term gas price. We would all agree that none of us can predict the long term gas price, whereas the CfD says, by and large, you will get a stable revenue stream. Therefore there is much less risk in a stable revenue stream than one that is dependent on this variation. Therefore we think that lowers the cost of capital. There was nothing in that assessment and the way we modelled it that tested different forms of contract structure or payment models.

**Q420 Sir Robert Smith**: So the debate on contract structure and payments is more to do now with how the market is reacting to that change of design, and the concerns being expressed to us with the multiparty model are the legal enforceability and the accounting impact. Quite a few of them see this as something that will appear on their balance sheets and therefore reduce their ability to borrow and invest.

**Mr Davey**: Whichever payment model you go to, there are accounting and balance sheet implications. You are right to say, as I was saying to Mr Robertson, that people have expressed concern about the multiparty counterparty model. We would argue, and our analysis suggests, it is quite similar to the Renewables Obligation model we have at the moment, because that puts obligations on multiparty, on all the suppliers.

**Q421 Sir Robert Smith**: Not the same volume.

**Mr Davey**: It is still about collecting the money, because they collect the money from the customers. Those contracts work now; the payments flow. No-one has questioned that in the past; no-one has not invested in renewables through Renewable Obligation Certificates because of the payment system. However, although we think our payment system we published in the draft Bill has a lot of attractions to it, because it is a payment system, and we are talking about a payment system here, we want to make sure it works so that investors and industry are happy with it. We want to take those concerns. Yes, we have to protect the interests of consumers and taxpayers ultimately, but that means also getting in investment in this infrastructure. I would be interested to hear what your Committee says about the payment system. We are very much engaged in looking at that issue.
Q422 Sir Robert Smith: If we are going down the single-party model, do you see that as being a public body, or another private organisation?

Mr Davey: There are different options for that. That is part of what we are looking at, whether it should be a private or public body. There are of course different implications from different models. One thing I do want to make clear, because I know this has been a matter of debate, is some people believe you could have a single-party model where the Government is backing the system. I don’t think we need to do that.

Q423 Sir Robert Smith: But the Government believed that when it started out on this process.

Mr Davey: I don’t believe that was the case, actually. It follows from what I have said when I was describing multiparty counterparty model: we have always said that it was the contracts between suppliers and the customers that assured the flow of money. In a single-party counterparty model that also flows.

Q424 Sir Robert Smith: The impact assessment talked about the price risk being borne by the Government’s balance sheets.

Jonathan Brearley: I don’t think the description in the impact assessment was quite right, as I said. When you look at the description in the White Paper, what we always envisaged would happen was the payments would always flow from suppliers through to generators to make the CfD whole. I don’t think anyone really thought we would be talking about tax money or Treasury money being used to pay out these contracts.

Q425 Dr Whitehead: “A Contract for Difference, unlike a premium FIT, insulates generators and consumers from both short term volatility and the impacts of long term price trends because the price risk is borne by Central Government balance sheets.” That is paragraph 100 of the impact assessment. That is not badly written, is it?

Mr Davey: I think Mr Brearley is saying it was badly written.

Q426 Chair: I think what he is trying to say is that investors were entitled to rely on this as an indication of what the Government’s plans were. The Treasury then had a second read of it and decided they did not like it very much.

Mr Davey: I do not believe that was the process. I have a feeling that Simon Virley may want to come in on this point.

Simon Virley: The point is we want to get something investable. We think we can find a way that provides a sound basis for investment. If you have an obligation backed by statute to raise money from consumers, that is a sound tax base, if you like, to raise that money and pass it through to generators of low-carbon investment. So we think there are workable models. As the Secretary of State has already made clear, the difference in terms of the impact assessment, in terms of the cost of capital reduction, is about the stability of the return you get under a CfD. We do not think the issue is about the exact design, although we recognise the concerns. The stability of the return is what lowered the cost of capital and gave rise to the saving you were referring to.

Q427 Chair: If you are a private company about to commit a couple of billion quid of investments, you are going to be concerned about the details. It may be that there is another workable model, but no-one could conceivably argue that it is as investable as a model where the counterparty is the Government. No-one could argue that.

Mr Davey: Let me disagree with you, Chair. It is extremely common, and it has been the case for decades, that the fundability of investment in energy has been based on suppliers’ ability to get payments from customers, be they household or business customers. That is what happens under the Renewables Obligation Certificates now. There is nothing new in what we are putting forward. The Government does not back and underwrite Renewables Obligations Certificates now, so I would press you back very hard on this. I do not think the model that has actually been put forward by many in the industry for a single-party counterparty model without Government backing is at all problematic.

Q428 Chair: What is new is that the impact assessment, published less than a year ago, apparently no longer holds good. Therefore, will you publish a fresh impact assessment with a new estimate of what the cost of capital would be, now that you have pulled one of the crucial bricks out of the wall?

Mr Davey: I don’t believe we have, and I will just again ask Jonathan Brearley to clarify this. My understanding is the impact assessment that was done and the figures that were provided in the White Paper were not based on Government backing to the counterparty payment model.

Jonathan Brearley: It is worth saying we will publish an impact assessment alongside the introduction of the Bill, and a number of assumptions change, but the underlying assumption that led us to that conclusion was, as the Secretary of State has said, based around the payment flows and not around the contract instructions. I would not imagine those numbers would change.

Q429 Sir Robert Smith: Could you give us that in detail now, because we are considering in the next couple of weeks what to—?

Jonathan Brearley: We are happy to share the impact assessment that was alongside the draft Bill and talk you through that, although clearly we will have to, over the summer, look at what changes are made and at how our assumptions around energy prices change. I am very happy to provide more detail, if it is helpful, on how we model those numbers and how we came to those conclusions.

Simon Virley: We have obviously put a considerable amount of detail in the draft Bill documentation, in terms of tables and bill impacts.

Q430 Sir Robert Smith: I just think if the line from the Department is that the previous impact assessment
was badly written and misrepresented the White Paper, then—

Mr Davey: Well, let me be clear: there was a phrase read out by Mr Whitehead that I think we are saying could have been better written.

Q431 Chair: It meant one thing that you are saying you do not mean any more.

Mr Davey: The point I am saying is that the numbers from the impact assessment would not have been different if the wording had been, shall we say, more fortunate.

Q432 Sir Robert Smith: But you can understand how, in the mind of an investor who is taking maybe not a highly-detailed interest, they read that the Government is thinking along the lines of being the counterparty and being on their balance sheet, and then they find it is not; it just shows a shift.

Mr Davey: We have spoken to investors who have asked these questions. When we have given them the answers we have given you they have not walked away or blinked. They have actually supported our model. I have to push back very hard. There is a debate, and I acknowledge that; I was introducing into the debate of this Committee the debate between multiparty and single party. I think the point you are making is not at all central to many investors’ considerations.

Jonathan Brearley: It is worth noting that both the models we are proposing give more guarantees to investors than the Renewables Obligation does today and most other premium Feed-in Tariffs do.

Q433 Chair: I do think it would be interesting for us—because obviously the investors will say slightly different things—to know which investors say they prefer the multiparty model to the single-party model, which was the one they thought had been proposed last year. There are investors who will say yes, you could make this work, what you are proposing now, but we genuinely did not come across anybody who said, “We think it is much better than what was proposed before”.

Mr Davey: There are three models that have been around in this discussion, for absolute clarity: there is the multiparty counterparty model; there is the single-party model, which is reliant on the payment flows between suppliers and their customers; and there is what I think some of the Committee and I believe some people who have given evidence to you are suggesting, another model where there is a single party where the Government is backing that contract.

Q434 Chair: Unfortunately, some of us were stupid enough to rely on what the Government had published in its own impact assessment.

Mr Davey: All I am saying is that there are three models that people are talking about, and what I am saying very clearly is that we are looking at the single-party counterparty model, not the Government-backed one, and we think that certainly has some attractions to it.
for Difference is signed at final investment decision, so there is earlier certainty so that people can go ahead with construction. But as I understand it, payments from the Contract for Difference do not happen until they start generating. Is that correct?

Jonathan Brearley: That’s correct.

Q440 Barry Gardiner: How do you assess your headroom in the system? Are you running behind the auction figures?

Mr Davey: At the moment, we have a 20% headroom above the levy control framework cap, as you are aware. As we think about levy control frameworks going forward, which we will do in due course, we will have to make another estimate for that.

Q441 Barry Gardiner: Projects sometimes fail.

Mr Davey: Indeed, and sometimes more projects happen than you expect. That certainly was the case with Feed-in Tariffs.

Q442 Barry Gardiner: Indeed, and failing projects will be using up headroom and therefore will delay other projects from coming on stream, won’t they?

Mr Davey: If you are talking about the older model and Non-Fossil Fuel Obligations—

Barry Gardiner: No—

Mr Davey: Hold on, let me just explain my point. There was a problem with the old model under Non-Fossil Fuel Obligations, where people had won an auction and then did not proceed. There was no penalty for those people who did not proceed. Under our auctions, when we get to phase two of electricity market reform and will be having auctions of Contracts for Difference, if people win an auction and then do not proceed, there will be penalties.

Q443 Barry Gardiner: Nonetheless, they will have prevented other projects from coming on stream, will they not, which was my point?

Mr Davey: We will not have the problem that we particularly saw with wind under the Non-Fossil Fuel Obligation, because we believe the penalty system will encourage people either to sell on or to proceed. They will have to take account of the penalties.

Q444 Barry Gardiner: If they proceed, then the project has not failed, has it? So they will not be paying the penalty. What you are saying is that you are trying to make sure that the projects do not fail because there is a penalty for failure, but you have already accepted that projects do fail. All I am trying to do is to follow through the logic of that position, which is to say that given that you are, as it were, booking space in the headroom that you have with the levy, and given that there is only a certain amount of headroom space, failing projects will be blocking space for other projects to come through. Is that not correct?

Mr Davey: One of the main reasons why projects failed under the auctions and the Non-Fossil Fuel Obligation was because the finance and the final investment plan were not in place. With the structure we are putting in place for Contracts for Difference they are signed at the final investment decision stage, so the likelihood of failure, which is often to do with finance and bankability, is much reduced. Of course there is always a possibility of failure, but if you are trying to learn lessons from the past, I think we have learnt them.

Q445 Barry Gardiner: What you are saying to me is that you are trying to minimise the risk of any project failure and that you will sign the contract at final investment decision but payments will obviously not be made until later on when generation capacity is on stream.

Mr Davey: Investors do not invest money to get towards a final investment decision wanting to fail, particularly if they know that there are penalties in the process. We are not doing the projects. There are lots of financial incentives for investors and companies to get it right.

Q446 Barry Gardiner: Does a levy cap introduce a risk that the pool of CfDs might run out before the end of the spending review period?

Mr Davey: No, I do not believe that will be the case.

Q447 Barry Gardiner: Why not?

Mr Davey: The Levy Control Framework, which I very much welcome, is about affordability, but it is derived from what we need in terms of decarbonisation. When we set the Levy Control Framework we are operating now, and when we look in the future, it is very important that all our objectives are taken account of. We have to decarbonise.

Q448 Barry Gardiner: What is the point of the levy cap if you do not think there is any chance of spending more than you needed anyway?

Mr Davey: I think it is very, very important to have the levy cap because it is very important that we consider affordability as we do our plans. We want to give a signal to investors, first of all, that we expect them to be competitive, that there is not a blank cheque. I am sure you would not, Mr Gardiner, want us to put a blank cheque; it is very important that there is a Levy Control Framework, but as—

Barry Gardiner: What I am trying to do is assess the risks that are being run.

Mr Davey: —we develop that Levy Control Framework we are putting in place our energy security and decarbonisation objectives.

Q449 Barry Gardiner: Yes, but you have put in place a levy cap. That cap has to be there in order to limit the number of CfDs that are available within the spending review period, is that not right?

Mr Davey: It depends on the price different CfDs go for in the auction.

Simon Virley: The levy cap is only set currently for the current spending review period 2014–2015. So even if we had some early projects coming under CfDs, that would only be a small element of the overall spend under the levy cap, which is dominated of course by the Renewables Obligation spend. We obviously are in discussions with the Treasury about what happens next in terms of the future
arrangements, which will obviously have to reflect the fact that CfDs—

Q450 Barry Gardiner: But we have just heard from the Secretary of State that of course the levy cap is a very sensible way of proceeding—I am not saying that there should be a blank cheque—and therefore we are talking about it in principle not just in terms of this first phase.

Mr Davey: What I think Simon is showing there is we have a Levy Control Framework at the moment and it is working in bringing forward investment in the Renewables Obligation. So I think in many ways what you are suggesting is that we have been incredibly successful. We brought forward all this investment in renewables through our system and we had run out; we had hit our targets. A problem of success is a problem I would like to have.

Q451 Barry Gardiner: So you are saying that the cap is not a stringent one.

Mr Davey: The cap is a very important part of our planning, but as you have indicated, there is headroom. We have had to use some of that headroom in this spending review.

Q452 Barry Gardiner: Headroom is different, Secretary of State. Headroom is how much space you have left under the cap. What I am talking about is how tight the cap is, right?

Mr Davey: Headroom is over the cap.

Q453 Barry Gardiner: Well, you are 20% over, but headroom is from the projects that you have got also up to the limit of your cap. What I am trying to get at here is that there is no point in setting a cap unless that cap is imposing a constraint. Would you accept that?

Mr Davey: It imposes a real discipline and it sends a very clear signal.

Q454 Barry Gardiner: Indeed, and that discipline is about the number of CfDs that are available.

Mr Davey: We have legal obligations. Those legal obligations are to hit our renewable energies target and to meet our carbon budgets. Those are built in, as much as we possibly can because obviously we have a lot potentially over a long period, to the Levy Control Framework, so these things are integrated.

Jonathan Brearley: I think it is worth just saying two things. One is that the reason you have headroom is to manage the uncertainties you have described. So with the Renewables Obligation, that is why you have headroom: because some projects may not go forward in the way you expect and, indeed, some projects may over-deliver. Equally, when you get to a situation which, in a sense, we would love to have, which is renewables over-delivering versus the target, then you would have to have a discussion with Treasury about how you respond to that. This is all about bringing discipline into our processes and asking yourself some very simple questions: am I doing this most cost effectively? Am I getting the right sorts of project coming forward? It does not have to be the number of CfDs.

Q455 Barry Gardiner: Indeed, and I understand that. What I am trying to explore with you—but you are not wanting to engage in the debate, it seems—are the stresses that are implicit in the structure that you have created. I absolutely agree with you it might be nirvana to find that we had all these investors queuing up to get the CfDs. Pace all that the Committee has heard from investors, it might be a very nice place to be. Let us now engage in this thought experiment that I am trying to engage you on and say if we are there, if those CfDs are used up, what is the impact of that going to be on investors? Developers would have put a lot of time and money in getting projects off the ground to get to that final investment decision point and yet they know, because there is the cap, because there is a limit on the CfDs that may be available, that there is a potential risk that they get to the point of FID and they cannot get a contract.

Mr Davey: There are two points. First of all, because they are getting certainty in the process of investment much earlier than they get under the Renewables Obligation, at the point of final investment decision I think some of the problems that you are suggesting in your thought experiment will not occur.

Q456 Barry Gardiner: You yourself said, Secretary of State, that nobody is going to get to the point of final investment decision, no company is going to invest all that it has got to do to get to final investment decision, and then allow the project to fail, and you have tried to minimise and mitigate the effects of that. So FID is a huge investment for a company to get to that point: potentially millions, potentially billions of pounds. My point to you is that surely, if there is a risk that they make that investment and then find that they cannot get a CfD at that point, that is quite serious and it is going to affect their investment appetite.

Mr Davey: I will bring Charles in here in a second, but one of the things I think has not been discussed enough in this debate is the role of the delivery plan. The delivery plan that the systems operator will inform and the panel of technical experts will also comment on will set out the future expectations of needs for investment and infrastructure for the next five years. I think that sort of transparency will help investors and deal with the sorts of problems you are talking about. Maybe Charles and Simon want to add to that.

Charles Hendry: First of all, I think this is a significant improvement on where we are at the moment. If you are investing in renewables under the RO, you do not know what rate of renewable support you are going to get until you are ready to connect, and then whatever the prevailing rate is at the time is the level of support you are going to get. Under this, you make your final investment decision, which will be several years earlier, but then you are going to be given clarity about what that is going to be at that point.
Also, you need to look at the scale of these projects. This is not somebody building a conservatory and getting planning consent for it and thinking, “Shall I or shall I not build it?” This is something where people will have spent millions of pounds, of groundworks, of planning applications and all of the work that needs to be done before they can take a project forward. At that point they have made a very substantial commitment of their own that this is something that they want to see happen and the agreement on the strike price, the agreement on the CfD, is the final element which goes into their final investment decision. So this, I think, enables them to bring forward those decisions in a more timely way than they can do now.

Q457 Barry Gardiner: Do you not accept that there is an increased risk for an investor that they could put in that investment but get to the point where, because there is a levy cap that limits the number of CfDs that are available, there may not be a possibility of concluding a contract and therefore that investment has been in vain? That adds a significant extra element to your investment decision right at the beginning of that process, not at the point where you are concluding it at FID, with that possibility that you make that investment up front but then there is not the space within the levy cap.

Mr Davey: What we are saying, Mr Gardiner, is the reverse is the case from the point you are trying to make: because of earlier certainty you are going to reduce the risk. I would also add, although it is not the case in this country, investors in other markets have seen, with feed-in tariffs under the Renewables Obligation-type model, sometimes governments have not stood by them. So for global investors there is deemed to be an increased risk in those models, but in Contracts for Difference, because they are a contract, that risk is again reduced. So in terms of risk profile, if you were to compare Contracts for Difference with the Renewables Obligation, the risk profile is reduced under our proposals.

Q458 Barry Gardiner: We disagree on that one, but there we go. Would you accept that the person who is allocating contracts is going to have to make certain qualitative judgments about which projects will receive funding and, in effect, that is giving you as Secretary of State or the Department as the body in control of this really central planning powers that were not even available when we had a nationalised energy system?

Mr Davey: No, I do not accept that. Let us go back to the two first phases of electricity market reform. In the first phase, the way Contracts for Difference and the strike price will work is quite similar in many ways to the way Renewables Obligation Certificates work. Then in the second stage, after 2017, the prices are going to be set in the market. There is going to be a competition for who gets the Contracts for Difference.

Q459 Barry Gardiner: I was not talking about price, Secretary of State. What I was asking about was whether the person who is allocating the contracts will be making qualitative judgments about the projects that receive funding.

Mr Davey: No, I do not believe they will. I have talked about the delivery plan and certainly in the run up to 2020 the judgment we will have to make is which CfDs we auction for which technologies, but it will be technology decisions we are making, not project ones.

Q460 Barry Gardiner: You have put silos in place for each of the different strands, but within that there will be, one hopes and you certainly expect, as you have told the Committee, a plethora of projects coming forward. But you have now told the Committee that in making the allocation between those projects within the silo you do not believe that your Department or you will be taking a qualitative decision as between projects. Do you really want to stand by that?

Mr Davey: I absolutely do. Under the Renewables Obligation, which is administered price-setting, we do not choose between projects. There are planning decisions at the local level, of course, but we do not choose between projects. We set the overall framework and for the first phase of electricity market reform when we are setting the Contracts for Difference they will be administered price-setting, effectively, and they are completely analogous to the current ROCs. In phase two, the market is going to decide. So, no, I completely stand by what I said.

Barry Gardiner: Okay, good.

Q461 Dr Whitehead: Some people of course are going to get an enormous amount of assurance and certainty at a very early stage, much earlier than financial investment decision, about their Contract for Difference, aren’t they?

Mr Davey: There is the process, which I talked about earlier, for final-investment-decision enabling with the investment instruments that are set out in the Bill, yes.

Q462 Dr Whitehead: So someone who has an investment instrument will have certainty about the fact that they will get CfDs in the fullness of time.

Mr Davey: It goes back to the point the Chairman was making about timing and wanting to make sure we were enabling investment to come forward. Whether it is somebody wanting to invest in nuclear or in offshore wind or in CCS, we want to make sure that they are able to proceed before Royal Assent and before the first Contracts for Difference are offered.

Q463 Dr Whitehead: Would you penalise them if they did not take their Contracts for Difference in the right year?

Mr Davey: It is likely that within the different terms of a Contract for Difference, if it was an investment instrument but quite near a Contract for Difference, we could put such a condition term in. We could do that, yes.

Q464 Dr Whitehead: Does that not suggest to you, however, that certain people would, effectively, bag
Q465 Dr Whitehead: No, I am just saying an effect would be that, wouldn’t it?
Mr Davey: I will bring in my colleagues—

Q466 Dr Whitehead: There would be no chunk of CfDs coming into the CfD pool at a certain point, having previously been assured that it will happen, because the investment instrument has been granted.

Mr Davey: If we can decide that we want to go ahead with an investment instrument we will be taking into account all our other objectives, whether it is the decarbonisation objectives or the Levy Control Framework.

Q467 Dr Whitehead: How can you do that if you do not know what the number of CfDs is going to be in a year when the investment decision arrives in that particular year having been made previously to those other decisions?

Mr Davey: All these investments are part of our strategy to incentivise low carbon investment. I know there was a point that was made in proceedings of your Committee where people were suggesting that, for example, if a nuclear project got an investment instrument that would somehow crowd out Contracts for Difference in the preceding years. I think that is highly unlikely, not least because, say a Contract for Difference was signed with a nuclear operator in 2013, 2014, the payments to that nuclear operator would not come until 2019 at the earliest. So the vast majority of Contracts for Difference in this decade are going to go for renewables.

Q468 Dr Whitehead: The point I was alluding to is whether it is 2017, 2018, 2019, 2020, in one particular year whoever had an investment instrument in their pocket, as it were—be they nuclear, large wind, CCS, whatever—would effectively cash in that CfD in that particular year in a way unpredictable against what else was being decided in that particular year.

Mr Davey: It would not be unpredictable because—

Q469 Dr Whitehead: Alternatively, it would be predictable to the extent that other people would not get a decision made in that particular year because someone else had bagged the CfDs.

Mr Davey: There will be a huge amount of transparency and, in this case, people would know years beforehand. Simon, do you want to add anything?

Simon Virley: Just to say the entire purpose of a CfD investment is to do exactly that: to bring forward these investment decisions for early-stage projects. So long as they meet the criteria and it is proved value for money and affordable, then we would welcome that. So if we can reach deals, whether it is nuclear, CCS or renewable deals under the CfD framework within the terms that we set out, then obviously that would be welcome.

Q470 Dr Whitehead: But we don’t know what the levy cap is going to be at the time when the CfDs arrive, having been already agreed in the previous cycle of the levy cap and, as you said yourself—forgive me—we do not know what the levy cap is going to be after 2015.

Simon Virley: But we have work underway with the Treasury to assess what that levy cap will have to look like and how it will operate under the new framework with CfDs rather than the Renewables Obligation.

Jonathan Brearley: Can I just say that any system is going to have to take account that some forms of energy take a lot longer to build than others and so, in essence, when you are asking someone to make an investment decision on something that they cannot get revenue from at all for seven or eight years you are going to have to provide them with a degree of certainty earlier than someone who can build in two or three years. What we are trying to do with this system is to manage those uncertainties, but just to make sure when we do that that we are using the consumers’ money in the best possible way, because this is a large amount of money that is being sent through the system.

Q471 John Robertson: I sometimes wonder if we are going to go down the road we did with wind farms—of people taking out licences to build wind farms that never happened, or the property being bought for supermarkets and the supermarkets never being built. Are we not heading down the same road with CfDs?

Mr Davey: I tried to answer that when Mr Gardiner raised that point, because you are right there were some of those problems with the Non-Fossil Fuel Obligation and the auctions we saw there. But we have learnt from that and that is why in our system of auctions there will be penalties, and also we have earlier closure in terms of final investment decisions.

Q472 John Robertson: Okay. What would happen if there was a choice to be made between sticking with the levy cap and meeting our 2020 carbon reduction target? Which would get priority?

Mr Davey: Let’s be clear: we have legal obligations. The renewable energy target is a legal obligation. Our carbon budgets are legal obligations. The Government has to meet those.

Charles Hendry: Can I also look at the other side of that equation, which is that most of the plant we are looking to build does not come into play until the very end of this decade into the 2020s. The earliest date for new nuclear plant is 2019, commercial-scale carbon capture and storage is into the 2020s, a lot of the major renewables and offshore marine technologies will be in the 2020s and many of the earlier renewables up until 2017 can be funded under the RO in any case.

Q473 John Robertson: Yes, I understand what you are saying, but I just wanted to clarify which was, shall we say, the choice—whether it was going to be carbon reduction. It would appear to be that carbon reduction takes precedence.
Mr Davey: Let’s be clear: when we set the Levy Control Framework for this period, and no doubt even working for future cost control mechanisms to make sure we also hit our target of affordability, we bake in our legal obligations as well. I was trying to give a straight answer to your question, but I am also saying that we try to create the financial envelope and the financial discipline taking into account those legal obligations at the same time.

Q474 John Robertson: Okay. What about the 2020 renewables target; where does that come in terms of importance?
Mr Davey: I said a few minutes ago that that is a legal obligation that we must meet.

Q475 John Robertson: You might find it difficult to meet all your legal obligations at the same time. You may have to make a decision.
Mr Davey: The two legal obligations that I have been talking about, the carbon budgets and the renewable energy targets, are linked together very closely, and the carbon budgets were set on the understanding that we would be meeting our renewable energy target.
Simon Virley: It is worth just adding that of course we have the levy cap at the moment and we are on track to meet the first interim target under the EU Renewable Energy Directive, so the two things are consistent.

Q476 John Robertson: Let’s hope you don’t have to make that decision. Both RO and the CfD will be in operation between 2014 and 2017 and the levy cap will apply to both. How will you decide how the funding is distributed between the two schemes?
Mr Davey: Developers will largely have a choice between whether they go for a Renewables Obligation Certificate approach—

Q477 John Robertson: So you are not going to say X amount of money for one, X amount of money for the other, or all for one, none for the other?
Mr Davey: As I understand it, it all comes under the same envelope.

Q478 John Robertson: Okay. If the levy cap is fixed but the top-up payments under CfD are volatile because of dependency on the wholesale price, is it possible for these two things to be compatible?
Mr Davey: That is our modelling and we believe it is. We believe it represents good value for the consumer, because if the wholesale price goes above the strike price there are payments back, which is one of the fairly unique aspects of a Contracts for Difference system, and that should give people reassurance.

Q479 John Robertson: Is the levy cap based on a five-year spending period? If it is, is it really compatible with investment decisions that need to take on maybe 20 or 30 years’ worth of investment?
Mr Davey: Let’s be clear: we have a levy cap until 2015. As Simon suggested, we need to think about the cost control mechanisms going forward and we will be doing that with the Treasury.

Q480 John Robertson: I remember the Secretary of State once standing up in Parliament and having a go at the then Labour Government for not having looked into the future about what they were going to do in relation to nuclear build with all the excess costs. Are you sure you have taken into consideration all the excess costs that may happen?
Mr Davey: Many of those we are legally obliged to and I am delighted we are. It may be, for example, decommissioning costs; we have to ensure that in any agreement the developer is making the necessary contributions to the fund, so that is one example of how the framework requires the system to look forward.

Q481 John Robertson: Have you considered how you might be able to give investors confidence that the funding will be available beyond 2015, given that the levy cap has not yet been set, or the date for that matter?
Mr Davey: This whole process we are going through is a detailed process—I think you will agree, even if you do not like aspects of it, Mr Robertson—and if people think we are doing this and then are going to pull stumps at 2015 they are wrong.

Q482 John Robertson: It is not a question of what I like or don’t like. It is a case of people telling us you can drive a horse and cart right through the whole thing and that it is just not fit for purpose. I have great concerns that we may go down the road of spending a lot of taxpayers’ money only to find that all these people were right.
Charles Hendry: Our starting point is that the current system is not fit for purpose. We have to get twice as much investment each year of this decade as in the last decade to keep the lights on. The old system was not bringing forward the new investment and it certainly was not bringing it forward in a low carbon way, so we have to reform the market to make that happen. I would not be overly concerned that there are some people out there who have a model which this is not the best one for, because if you have made a decision—let us take SSE—that you do not want to be part of nuclear because you are too small a player, then understandably you want a system which focusses all the resources on to renewables and nothing on to nuclear. Understandably, because that is their business model, those are the conclusions they are bound to come to. But what we have to do is take a much more holistic view and say that we have to get this investment. The only way we can protect the longer term interests of the consumers is to get a massive rebuilding of our electricity infrastructure and if we do not there will not be enough supply to meet demand and the prices will go through the roof.

Q483 John Robertson: I would say that you have not taken the holistic view. You have taken the view of large companies, only one of which does not agree with you or with the basic set-up, but you have taken no soundings from other companies below that. As a matter of fact, they went out of their way to tell us that they had not been consulted.
Mr Davey: I would be interested to know who it was.
John Robertson: It will all be in the evidence, so you can read it for yourself.
Mr Davey: The amount of consultation that the Department—
John Robertson: You have talked to groups where one person represents a group. You have not talked to individual companies.
Mr Davey: I am sorry, but we absolutely have. We have talked to a lot of companies of different sizes and there are a lot of interests to take on board, but ultimately the interests that we have to represent are the interests of the taxpayer and the consumer. We listen to industry. Charles has given an example where there is one large company who has criticised it and he has explained why that might be, but let’s take the issue of smaller companies. I have been concerned to make sure that the market is as competitive as possible. We have the work that Ofgem is doing to make sure there is greater liquidity, particularly in the forward markets, which is what independent generators need. We will be publishing a call for evidence about the operation of the market for Power Purchase Agreements and we would not be doing that if we were not concerned to make sure our proposals spoke to the need to have independent generators and smaller companies entering the market. We want that. Part of the whole purpose of this is to make sure we have as competitive a market as possible. As a former Minister for Competition, I believe in the power of competition very strongly and, whether it is this policy or other policies, one of my real personal objectives—and the Department and the Treasury share it—is to make sure competition is at the heart of what we do, because we know that is the best way of driving efficiency.

Q484 John Robertson: Does competition come before value for the taxpayer?
Mr Davey: Competition delivers value for the taxpayer.
Q485 Chair: Just in relation to one of your answers to Mr Robertson a minute or two ago, it is quite significant, and I think I interpreted the answer correctly. He asked about what happens if you have to choose between sticking within the levy cap and meeting our, as you point out, legally binding targets for renewables—carbon reductions and carbon budgets and so on. You are saying that if, to meet our legal obligations, you might be forced to make a choice there. We would be much encouraged by your answers that complying with the legal obligations we have made will take precedence over staying within the levy cap.

Q486 Dr Whitehead: Were you always clear from the work leading up to the White Paper and beyond that CfDs and capacity payments were to have a state aid clearance issue attached to them?
Mr Davey: I think quite a lot of this will have a state aid clearance procedure, but we are designing the system for our objectives of decarbonisation and so on and we are designing it, despite some of the comments the Committee has made, to attract investment. Those are our key objectives for the design. We believe that our approach is strongly aligned with EU objectives. The EU wants us to invest in renewable energy. The EU is very keen on diversity; it is very keen on decarbonisation. We share those objectives, so designing a system that meets those objectives we think will find favour.

Q487 Dr Whitehead: Yes, but were you aware from the White Paper and beyond that there might be a state aid issue as far as CfDs and capacity payments were concerned?
Mr Davey: As far as I am aware we were, but I was not there at the time.
Simon Virley: Yes, indeed, we were and obviously the RO is approved state aid and the Commission wants to ensure that whatever measures we bring forward
are consistent with the single energy market and competition across Europe.

Q488 Dr Whitehead: Knowing that, CfDs for renewables would not need to be notified because they had already been exempted, effectively.

Mr Davey: I am not sure if that is the case.

Simon Virley: No, that is not correct. You would have to resubmit any new scheme to the European Commission to make sure that they were satisfied that it was consistent with the treaty obligations.

Q489 Dr Whitehead: Yes, but the guidance document on state aid states that, as far as renewables are concerned, state aid is regarded as not an issue because they are relevant to the building of a lower carbon market within the EU. Is that not right?

Simon Virley: That is not quite right, because there is an issue about proportionality. There have been issues even under renewables where the Commission have challenged back and said that some of the tariffs, in their view, are disproportionate. So even where there is in principle support, there is still then the question of practical application.

Q490 Dr Whitehead: Yes, but you would accept that there would be in principle support. There is in principle support, indeed, as we know CfDs are in place in various other EU countries relating to renewables and have not had problems with state aid.

Simon Virley: There is in principle support. The point I am making is you still have to submit the details of the scheme and that is still subject to—

Q491 Dr Whitehead: But that appears to be entirely within the guidelines set out for state aid within the EU. Is that right?

Simon Virley: The framework of CfDs does operate, as you say, in other European countries, but the details of exactly what tariffs are being offered will still be vetted closely by the European Commission.

Q492 Dr Whitehead: Shall I read you out bits from the guide? Would that be helpful?

Simon Virley: If you so wish.

Q493 Dr Whitehead: My question is: is the clearance that clearly is now being required for CfDs unnecessarily involving renewable CfDs because it is rolled up with support for nuclear?

Mr Davey: I am not sure there is any evidence for that. There are many aspects of our electricity market reform proposals that would have to have EU clearance. We welcome that because we want to give investors certainty, and if there was any risk that they were not compliant with the EU state aid rules that would undermine that certainty. So I do not think we have any problem going through that process. I know we do not have any problem going through that process.

Q494 Dr Whitehead: I did not ask that. I said, as we have established, it appears that renewable CfDs, subject to notification, would be within the guidelines of EU state aid. CfDs are being discussed, so I understand, between your Department and the EU currently, particularly because the policy rolls up renewable CfDs and nuclear CfDs, which are outside the guidance.

Mr Davey: I am certainly not aware that we are having to go through a state aid clearance procedure simply because of nuclear. I think there are many aspects of our reform that would require us to go through state aid clearance.

Jonathan Brearley: We are obviously going to notify the Commission and they may take different views on different technologies as well as the mechanism, but I do not see the fact that we are notifying for nuclear necessarily holding up any decision on renewables. As Simon has said, whatever we do, we would have to go to the Commission and (a) ask them to look at the scheme and (b) make sure they believe that the scheme and its rates are proportionate.

Q495 Dr Whitehead: What elements of the capacity market would require clearance, since I gather that has been notified as well?

Simon Virley: Yes, the capacity market also requires clearance because the Commission again wants to ensure that any payments are proportionate and wants to ensure that there are no adverse implications for the single energy market across Europe. A number of countries obviously in Europe already have capacity mechanisms and some countries, like France, are taking forward work, as we are, to address security of supply issues that they face. So again, we do have to notify the capacity mechanism in a similar way.

Jonathan Brearley: Can I be clear? We are very much in favour of the state aid rules system. This country under successive governments has supported that. We want a single energy market. We want competitive market forces to operate in Europe and we are very happy to show we comply and we want them to make sure other member states have to comply. If we do not support these, if we do not make sure we comply, I have to say it would be against our country’s economic interests.

Q496 Dr Whitehead: With respect, though, there is a difference between notifying the EU that something appears to be within the guidelines and applying to the EU for state aid clearance, is there not? And both of these devices appear to be in the position of applying to the EU for state aid clearance.

Mr Davey: I was trying to suggest early on that it is really important that we can show investors that there is state aid clearance, because I think that will be one of the things that will give people more certainty in these reforms. We have had a discussion in this Committee today. We think these reforms are very good for investment. We believe everything we are doing, whether it is state aid or whether it is design of Contracts for Difference and so on, is all geared to try to give investors that stability and predictability that they seek.

Q497 Dr Whitehead: Was the reason the Treasury decided not to act as the counterparty for CfDs
because they were concerned about the fact that that would be counted as state aid and therefore would need to be applied for?

Mr Davey: I am not aware of that.

Jonathan Brearley: I do not think it is necessarily critical in terms of the overall application that we make. There is a series of quite technical issues that the Commission will go through when considering our application and they will think both about whether it is aid or not and then, as you mentioned, whether it is approvable or not. There is a whole set of factors there that go far beyond whether Treasury is the counterparty and involve detailed design of how you run the contracting system, how that relates to different organisations and how you divert money.

Q498 Dr Whitehead: So if we have a single counterparty or a virtual counterparty or a joint counterparty, that would still be pretty much involved in an application for state aid as far as CfDs are concerned.

Jonathan Brearley: I do not think under any mechanism of this sort you would not be able to apply to the Commission—and by “apply” I mean notifying the Commission of what you are doing and asking them to make a judgment.

Q499 Dr Whitehead: Apply or notify?

Jonathan Brearley: I consider them both to be the same thing. In essence, we would have to go to the Commission and say, “This is what we are doing. Do you consider this (a) to be aid and (b), if you consider it to be aid, do you consider it to be approvable?” That is therefore what we are intending to do.

Q500 Dr Whitehead: How long do you think that process will take?

Jonathan Brearley: In some sense that will depend on the discussions we have with the Commission, but we have talked to all investors who are looking to invest early and we are confident that between the process we run with the Commission and their investment decisions we will be able to make the timetable work. It is very hard to predict, as you know, how long the Commission will take, because obviously they need to make a judgment about the level of detail they want to investigate the issue and therefore how long they want to take over it. It is not really for us to pre-judge their timetable.

Q501 Dr Whitehead: So we don’t know?

Jonathan Brearley: We have an idea, but no, I don’t think it is up to us to try to control how much time the Commission takes.

Mr Davey: In my last job in BIS we had a number of cases we had to take to the European Commission for state aid clearance. You could never be sure about the time they were going to take. You obviously tried to do whatever you could to speed them up, because you often had deadlines, but this is not unusual.

Q502 Dr Whitehead: What might be unusual in this case is that we are seeking to give people, as we have said, comfort for investment decisions and trying to make sure that they know as early as possible whether they are going to have CfDs and what have you. Presumably, timing could be quite important in that respect, except of course that investment instruments are according to date not within state aid. Is that right?

Mr Davey: I am not sure if that is the case; we have certainly not said that. Investment instruments like capacity markets are up for state aid clearance. You state, Dr Whitehead, that there are deadlines for investors and so on that we need to meet, and you are right. I hope I have made it clear we want to press ahead with this. We are not trying to drag our feet despite sometimes being criticised on that basis, but on state aid clearance timetables there is always a deadline that you need to meet for very, very good purposes. I remember in the Postal Services Bill we needed to get state aid clearance for what we were doing to the Royal Mail Pension Plan and there was a very significant deadline there. We had to work very hard to make sure the Commission understood that and were able to meet it. When there are deadlines in this area we would take similar action to make sure we worked with the Commission, because they are our partners in getting this cleared, but we would obviously make it clear what our preferred timetable was.

Q503 Dr Whitehead: Can I be absolutely clear? You have indicated, the Department has indicated, certainly that there are no ongoing discussions with the Commission about investment instruments being liable for state aid, and certainly the Department has implied that that appears not to be, therefore, something that would be applicable for state aid. I am grateful for clarification, but it certainly would be in exactly the same way as CfDs would be.

Jonathan Brearley: I think, given that when you offer an investment instrument you are offering some comfort over a CfD, then yes, it would follow the same rules as any other state aid would.

Q504 Dr Whitehead: So investment instruments will also be liable to the timetable, which we are not sure about, as far as state aid is concerned.

Jonathan Brearley: Yes, but I think you have to remember that those people making any of those early big investments will obviously be sophisticated enough to factor into their calculation any state aid risk at the time they make their final investment decision. What we have said very clearly to anybody coming forward is while the state aid process is going on any agreement needs to be subject to decisions in that process.

Mr Davey: There is no special exemption from the state aid process. They cannot have one; we are not seeking to give them one.

Q505 Dr Whitehead: So if they do not give you state approval what happens?

Mr Davey: Of course we believe we are designing these to be compliant.

Q506 Dr Whitehead: Yes, but presumably an application means an application could not succeed.
Does that down EMR or are there plan Bs, other alternatives?

Mr Davey: No, it would not down EMR, but you are seeking, to me, to get into the realm of speculation. Our approach all along is to try to make sure we are using all the devices, whether it is market competition, negotiation, to ensure that the taxpayer and the consumer pay as little as possible. I believe that, because that is our focus, I think people in the Commission will look at what we are trying to do and, I hope, find it compliant. But I don’t want to give a running commentary on those negotiations, nor should I.

Q507 Dr Whitehead: So we hope they will work?

Mr Davey: We believe they will.

Q508 Sir Robert Smith: Do you see Contracts for Difference delivering on the renewables without the obligation that has been there up until now to use renewables?

Mr Davey: Yes we do. We think Contracts for Difference are an excellent device for renewables investors. Let’s face it, where they were introduced— the example people point to is in Denmark—they were used primarily for renewables, and we have tested the model in the UK context and they work well for different types of renewables, whether it is intermittent wind or elsewhere. So we believe these are a device which is very suitable for investment in all forms of low carbon technology.

Q509 Sir Robert Smith: When you were looking at the White Paper you did not then envisage that Power Purchase Agreements would be needed, but I think you now recognise that they could well be part of the mix. What has changed?

Mr Davey: We do not legislate for Power Purchase Agreements; at least we have not in the past, as I understand it. They are long-term contracts between the developer of independent generation and a counterparty who will purchase their power, and that this contract is important to securing finance. There has been concern currently, before we get to our reforms, that people are finding it difficult to get Power Purchase Agreements. That is one of the reasons why we said we would publish this document, that we would be issuing a call for evidence to try to understand those problems in the Power Purchase Agreements market. We will be issuing that call for evidence in the next few weeks and during that process we will try to understand the current problems, the current system and see if there are any concerns for PPAs going forward under the Contract for Difference regime. I think that is a very clear signal to those investors who use these instruments that we want to take on board their concerns.

Q510 Sir Robert Smith: Do you share the concern that, without them then, the smaller independents would be driven out of the market and there would be more vertical integration?

Mr Davey: We want there to be many players. We want a competitive market. I spoke earlier about the work Ofgem is doing; very, very important to make sure there is more liquidity in the UK forward markets. It is why we are doing the call for evidence. But be clear, I am going to say in quite a strong way we need to see the market working so that these players can get involved and, if necessary, if we find that we need to legislate, we will.

Q511 Sir Robert Smith: Do you think a buyer of last resort will be needed in the mechanism to underpin—

Mr Davey: You are slightly ahead of the game. We are going to do the call for evidence. We will do the work. All I am saying today is, if we feel we need to take legislative action, we would not hesitate if that is what was required.

Simon Virley: The issues that exist on PPAs exist now and are somewhat separable from the question of which instrument you use going forward. There are issues with the PPA market as it currently exists. We do think that by providing a stable stream of revenues obviously the PPA market will develop in a different way under a CfD regime and what the call for evidence is doing is saying are there other barriers that we need to remove to address any problems that might exist going forward.

Q512 Sir Robert Smith: The smaller scale, the community projects: do you think the CfDs are maybe too complex for community projects to take on and another mechanism might be necessary?

Mr Davey: Depending on the size, some of the smallest projects will get Feed-In Tariffs under the microgeneration regime, so the smaller community projects, I think below five megawatts, would not be in the Contract for Difference regime.

Jonathan Brearley: As today, in a sense, when you have, in essence, a ROC traded on the wholesale price you would expect intermediaries and aggregators to help communities build projects and essentially give them a different kind of revenue stream. However, the efficiencies that are created by CfDs and the value of having a consistent framework means that we think it is important that we have the same framework for different types of generation and, as we have today, we would expect intermediaries and suppliers to be able to help small schemes get away.

Q513 Chair: You will be aware this Committee is quite concerned with demand-side measures. Would you like to tell us how demand reduction is featuring in your EMR proposals?

Mr Davey: I strongly agree with the Committee that demand-side is a really, really important part of the whole energy policy debate, the whole decarbonisation debate. Of course, there are two types of demand-side measures: demand response, particularly when there are peak issues, and demand reduction. Already in our proposals we see a role for demand response, particularly in the capacity market and we are doing a lot of work on that and will be setting forward more of our thinking on that. I think that is a really important part of the proposals. On demand reduction, where you are permanently reducing demand, I think there is a lot of work we
should be doing and are doing on that. Indeed, again in the documentation, I think it is on page 21, we talk about the work we are doing. Let us be clear, though, on demand-side reduction there are a number of approaches you can take to this that governments have taken in the past and the question is which works the most effectively. There is everything from product standards to home insulation, the Green Deal sort of work we are doing, the work you can do with businesses, whether it is through policies like the CRC, whether it is through even capital projects to help people invest in energy efficiency, or you can try to bake it in to your energy market. I know a lot of people are keen to see it baked in. One organisation is talking about Feed-In Tariffs for energy efficiency, Contracts for Difference for energy efficiency. I think at this stage we need to look at all the different options to try to get demand reduction and we are going to be working very hard on that. Simon’s team is leading it. Simon, I don’t know if you want to say a little bit more about the work that is going on at the moment in this area.

Simon Virley: We are doing work to assess the potential for electricity demand reduction and then to assess what is the best way to unlock that. As the Secretary of State has indicated, you could come at this through a number of different routes of which market mechanisms within EMR is but one route. There are other ways to get at it, so obviously we will be looking at what is the best value for money way of unlocking that potential.

Q514 Chair: The work that you are doing: page 21 in fact refers to a report which may appear this summer. Mr Davey: Yes. We have not got a specific date for publishing it, but all I can say to you, Chair, is there is a lot of work going on.

Q515 Chair: Are you considering a FIT for energy efficiency? Mr Davey: As I said in my remarks, I know that is one idea putting around it, but I think if I said we are considering it that would probably set the hares going. Let us do the work. We are going to do it in a strategic way. All I want to emphasise is the commitment, both my personal commitment and the commitment of the Department and the Government, to do as much as we possibly can on energy efficiency and, particularly, business energy efficiency. Coming to the Department new, I have been very impressed by a lot of the energy efficiency policies that the Department and my predecessor developed, but I do think there is some more work we can do on business energy efficiency and resource efficiency. That is one of the reasons why I am committed to doing this work, to link it into the Bill if that proves to be the right route to go down.

Q516 Chair: You will be aware that some of the witnesses that we have heard from have drawn attention to the relatively weak element in the Bill dealing with demand at present. On demand-side response, you say you want to see this play a fair and equivalent role alongside generation and we would certainly agree with that. How do you expect to be able to ensure that happens?

Mr Davey: Some of the work that is ongoing is examining the issues. One of the issues we have to consider is one imagines that the capacity auction will be auctioning availability of capacity for four or five years in advance. Demand-side response might be quite difficult to plan that far ahead, so we might need to look at, for example, a secondary auction model, but this is very much work underway. I have put a lot of emphasis on it myself and we will be sharing some of that with your Committee. I am sorry we have not got it all worked out today for you, but we do believe this is a really important part of the reforms.

Jonathan Brearley: I think it is worth just adding that when we make that design there are some technical issues there, as the Secretary of State has said, around the timing of contracts, but the principle in the capacity auctions will be fair and equal treatment of demand-side versus generation.

Q517 Chair: We had some exchanges with National Grid this morning. One of the concerns I think several members felt was that the core business of National Grid is transmission and supply, and the more capacity there is the more profit their shareholders make. If, as the system operator, they have quite an influential role in a number of areas, doesn’t that make it rather harder for us to be confident that demand-side response and perhaps also storage will be given sufficient priority in the future?

Mr Davey: I am going to let my colleagues respond to that, but my initial response to you would be I think National Grid have an interest in the development of smart grids and I think it is smart grids that are increasingly going to support demand-side, demand-response policies. So I think you might see the model you described, the business model of National Grid, changing.

Simon Virley: Obviously one of the objectives that we would be setting for the system operator would be to deliver the reforms in the cheapest possible way and obviously within that framework then if demand-side measures could provide cheap and available capacity then obviously that would take precedence in any auction.

Jonathan Brearley: The issue of conflicts of interest is something that we are alive to, National Grid are alive to and we should bear in mind that they already carry out a series of system services and manage a series of conflicts within their business just like other networks’ businesses do, for example British Telecom. We are running a review now to take evidence as to the scale of that and then to think about the sorts of responses you might make, and provisions to do so are part of the Bill.

Q518 Dr Lee: A question on demand: it goes back to my point about whether there is joined-up government across Departments. This afternoon the Chancellor has announced scrapping of the fuel duty. How does that fit in with reducing demand? The winter fuel allowance: how does perpetuating that at £2 billion to
£2.5 billion a year feature within enhancing energy efficiency?

**Mr Davey:** Well, we do need, you are right, to look at a lot of these policies across Government and I believe we do. It is the Government’s legal obligation to meet our climate change targets and to meet our carbon budgets and we work with other Departments to deliver that. Clearly our main policies are on the energy side, decarbonising electricity generation. You tempt me to comment on issues that are the purview of the Secretary of State for Transport and the Secretary of State for Work and Pensions and I tend to find if I do that I get myself into trouble. So, tempting though it would be to have a long discussion about that, I probably shouldn’t.

**Q519 Dr Lee:** Forgive me, £2.5 billion of the Exchequer is going into measures that are not enhancing energy efficiency, are not changing the behaviour of individuals in terms of how they travel from A to B. God forbid I would say this; there is a sense the Treasury has a different agenda across all of this. Their interference with regards to this Bill seems to be there and they will not come to us to give us evidence, and that also suggests that they do not really want to be publicly speaking about it. I guess what I am trying to say is that, with all the best intentions, if the Treasury are not on board, to what extent can you make an impact upon demand in Britain for energy?

**Jonathan Brearley:** I am afraid I do not agree with your underlying assumption. I do not believe the Treasury aren’t on board. We are collectively bound by carbon budgets, for example, and despite what you read in some places and some commentary I have found working with the Chancellor actually very productive, and I always point people to things he says. If you read what he said in his Budget speech, he was very positive about investment in renewables, for example. You are focused on demand, and I understand that, but to give you an example about how we work across Government, the Green Deal, for example, is involving close work with the DCLG and they are very much signed up to helping us reduce demand through the Green Deal.

**Q520 Dr Lee:** I do not seek to personalise it; I think the Treasury fears liability. The way we are talking about single-party/multi-party; this is about the Treasury not wanting to be liable for whatever excess costs. Going back to the original point, it will affect how much you borrow money at if the Government is not the last resort, the person who is backing it. I am actually on your side here, Secretary of State. I am just saying that there is a fear I have that, actually, when push comes to shove, “The Sun” says reduce fuel duty; we’ll go with the Sun,” not as in solar, because it is politically expedient to do so. The problem with this whole area is that, at the moment, it is not politically expedient to go green. It is a pity but it does seem so.

**Mr Davey:** I think the evidence shows that it is the right thing to go green. In a period when this Government wants to generate growth, as I said in my earlier remarks in terms of the Queen’s Speech, this Bill has more to contribute to growth than probably any other Bill. We are talking about an investment that we believe will be brought forward by this Bill; we are talking about a quarter of a million jobs. You caricature the Treasury, but I think we should all be worried about liabilities and consumer and business bills for energy. I have been very clear; I think the Levy Control Framework is the right thing; working with the Treasury in close partnership is the right thing, because we want to do this in the least cost way. I think we will take the public with us if we do that; we will take business with us if we do that. Certainly in my first few months as Secretary of State, I have made it very clear that I am worried about consumer bills. I did not say earlier, but I would not talk about business energy efficiency, wanting to do more than that, if I was not worried about the costs on business. We should all be worried about that, but I do not believe worrying about the costs on business and consumers is contrary to a green agenda. I actually think they all go together. While there are people who say those are against each other, I think they go together.

**Q521 Dr Lee:** I do not think we are disagreeing. The point I am trying to make is that the short-term view is that it does not go together. The long-term view is it does. I do not need to be persuaded of that. That is why I sit on this Committee; it is why I stood to sit on this Committee. Politically at the moment, the short-term view is where we are getting growth from. I think people look and say, “Okay, if we give £500 million away on fuel duty that will go back into the economy and stimulate growth.” That is the judgment that the Treasury has made this afternoon, “and also we’ll take some voters with us because they will get cheaper petrol at the pumps,” but that does not fit into a long-term green agenda and you know it does not. We all know it does not. That is the frustration I find with this: you are balancing, not you personally, short-term political expediency with longer-term view.

**Mr Davey:** We have a coalition agreement to see environmental taxes increase. It is important that that coalition agreement is met. We need to ensure that, across Government, we meet that coalition agreement.

**Q522 Chair:** Does your happy partnership with the Treasury, keeping it completely depersonalised, extend to the discussions taking place about the cut in RO for onshore wind?

**Mr Davey:** Again, you are tempting me ahead of an announcement.

**Chair:** If you want to get rid of the temptation, give in to it.

**Mr Davey:** You know, from your experience, that we are discussing the consultation findings before we make the response to that, I want to make the response as soon as possible. I know people are impatient for it and hope to get it out before the summer recess. We will get it out before the summer recess. I have made it very clear on more than one occasion that I believe we need to go where the evidence takes us. It is really
important: it speaks to the point being made by Dr Lee. We need to do that. That is important, because investors and business want to make sure that this country is a country where decisions are made in terms of the evidence and the long-term interest, and not because of political pressures. On these issues and others, we need to send that signal very clearly.

**Charles Hendry:** It might also, Chairman, be useful to put it into context. The RO Banding Review is not just about one element; it is about 29 different mechanisms. We have had 4,000 responses to the consultation compared to 200 from the last consultation on the RO Banding Review. There is a very significant amount of detail in a whole range of different areas.

**Q523 Chair:** Of those 4,000 responses, one that seems to have reached the public prints rather more prominently than others is the alleged view of the Treasury about a bigger cut in RO for onshore wind.

**Mr Davey:** Your most important word in that sentence was ‘alleged’.

**Q524 Chair:** Fine. Given that we are talking about evidence and rational responses, it is my experience that businesses, particularly those making long-term decisions, are very focused on the evidence and the need to make a rationale response to the evidence. Why do you think investors have decided not to invest in Kent now?

**Mr Davey:** I saw their press release, which set out why they felt they could not proceed with it at this point. It was to do with the fact that, as I understand it, they have not won the orders that they had hoped for.

**Charles Hendry:** They have also announced that they are closing their facility in China, so this is not simply about the UK market. They were at pains to point out that this was not a criticism of the UK market. We remain very firmly of the view that this is the place to develop offshore wind.

**Mr Davey:** There are a lot of companies that want to come and be part of a really extensive supply chain here.

**Q525 Dr Whitehead:** Could I turn briefly to the capacity mechanism and capacity markets? The plan is to assess what capacity is needed four years ahead. The National Grid estimates for demand for 2012-13 are 10% below their estimates for 2006. It will not be an easy job, will it, to make a four-year-ahead estimate of capacity in order to undertake the process of putting capacity payments into process?

**Mr Davey:** I think a four-year period seems a lot easier than some of the time periods we have to deal with elsewhere. You are right to say that things can change and the big thing that has changed in recent years is the economic recession and the financial crisis. That clearly has affected things. Actually, it is suggested that the capacity constraints that people feared for the middle of this decade are much, much less likely to happen, as Charles was saying earlier. I think our central forecast, at the moment—obviously we want to do more detailed work on it—is that we do not expect capacity constraints until the end of this decade or potentially even early next decade.

**Jonathan Brearley:** It is worth just understanding why we came up with four years. You have to balance the uncertainties going forward with the need to set the framework early enough so that people can invest and build. Four years gives someone a reasonable chance of building different kinds of plant to meet any potential capacity gap.

**Charles Hendry:** It can be done more quickly. It does not have to be a new build plant. There is a whole range of other ways: we have got mothballed plant, which can be brought back into use extremely quickly if there was an unexpected growth in demand; we have got a plant that may not go through, an old coal plant, which may, under the LCPD or the IED, decide to go for a modest number of operating hours after 2020; there is the use of interconnectors. There is a whole range in which one can meet the imbalance between supply and demand. Many of those would not take four years to put in place.

**Dr Whitehead:** Indeed, you have deftly anticipated my next question.

**Charles Hendry:** I always seem to.

**Q526 Dr Whitehead:** It is only to be expected, I know. It is a question of whether we should be looking at the type of capacity, as well as the fact that we make an estimate of total capacity, and how we might do that, in terms of the various options that may be available to us, within the capacity market arrangements that we have presently put down on paper.

**Charles Hendry:** The principle of the capacity market is it will find the cheapest way of filling the gap. It is quite possible the demand-side response could be part of that process, as a way of taking demand out of the system. Equally, the National Grid themselves are doing some of the pioneering work on looking at interconnectors. I have been talking to Iceland, Norway and others about taking forward those technologies. This is not a one-dimensional approach; this is a way of finding the cheapest way, by auction, of filling a gap.

**Q527 Dr Whitehead:** I was going to congratulate you on signing up with Norway on the early stages of an interconnector to and from Norway, which I think is a very positive move, as far as security of supply is concerned in particular, but how compatible are such moves, particularly, say, a substantial increase in interconnection, with what we basically have in mind as far as capacity components are concerned?

**Charles Hendry:** We have also done a memorandum of understanding with Iceland, and so we are looking at a range of different potential partners. It is extremely compatible, because we have countries that have an enormous amount of low-carbon electricity generation that they cannot use in their own domestic grids. Therefore, finding a way of harnessing the resources where they are strongest is, I think, a good
way of meeting our low-carbon objectives. It is a good way of doing it at a more affordable price for consumers. Part of the challenge now is how we develop a more interconnected energy world. In energy terms, we are no longer an island. I would not tell that to some of my colleagues perhaps.

Dr Whitehead: We are European in fact.

Charles Hendry: In energy terms, we are now so closely interconnected, and that is something that is simply going to go forward. I think this is a very exciting part of the way forward.

Q528 Dr Whitehead: Is there not an issue that, having said all this about capacity payments, however we work them out in the capacity market, we are getting into a situation—and certainly some people have suggested this to us—that having heard about the outline of the capacity market and capacity payments, but not knowing yet the detail, they are therefore unlikely to invest until such time as they do. There therefore may be an investment hiatus, because people are waiting to see what the capacity market looks like. Isn’t there a strong case now for, having said it, getting on with it very urgently in order to prevent that from happening?

Charles Hendry: On the interconnectors, we have just completed a call for evidence about the case for energy trading and electricity trading, seeing how that might tie into the mix, because certainly the Irish Government is keen to explore that further as well. We see no capacity challenge in the course of the next few years. The demand destruction that we have seen over recent years has taken that down, as you were saying, Dr Whitehead, to levels that were lower than expected. Even if one sees that starting to rise up again, then we have seen some additional investment in new plant. We can see what is coming out of commission, so there is no complacency whatsoever about the need to replace that. Our estimate of the capacity gap when it starts to become a bit narrower—i.e. we would like a 5% capacity margin—when it drops below that, it would be around the turn of the decade into the early 2020s. That would be our working assumption at the moment.

Mr Davey: The investment hiatus point you make, I touched on this earlier. We have said very clearly in the overview document that is accompanying the draft Bill that, if someone wants to invest now, they should do, even though they know a capacity market auction. We have tried to give a very clear signal that would count as new capacity in any future capacity auction. We have tried to give a very clear signal that there need not be this investment hiatus in relation to the capacity market. I do not know whether Simon or Jonathan want to add to that.

Simon Virley: We will be publishing further details of the capacity mechanism in the autumn, so people will have further details on which to plan when they have seen that.

Q529 Dr Whitehead: I assume that maybe some further workings will come out at the time when you publish the details. You suggest in principle that the market will have a limited impact on bills and, if anything, may reduce bills in the longer term. Could you add a little about how that will happen? How will it reduce bills?

Jonathan Brearley: When you have a system that is under stress, so when you have a market that is very tight, you end up with very spiky prices at the point when you have that tightness. What the capacity market does is it produces a little bit extra capacity that we need, whether from that demand-side response or indeed conventional generation. That smooths out the pricing and, therefore, over time, we think it could possibly save consumers money. Our view overall is that we think the capacity mechanism impact on bills is fairly marginal either way, but you can see in worlds where you have huge system stress, having a capacity mechanism there to avoid it could save consumers money.

Q530 Dr Whitehead: I am sure you will agree, however, that the question of tightness and looseness in the market can be subject to gaming.

Jonathan Brearley: Our point is, if you have a market where suddenly supply is not adequate to meet demand, then yes you absolutely have opportunities for gaming. In a world where you have a capacity market, it is much harder for someone to use market power to drive up prices.

Q531 Dr Whitehead: Are you intending to put forward any measures to ensure that gaming does not take place?

Jonathan Brearley: When we design the auctions, it will be done in such a way to maximise competition and to minimise any possibilities for gaming.

Q532 Dr Lee: Just following on from that, how resilient is this interconnected world that we envisage to unilateral decisions like Germany saying no nuclear, the Iranian regime collapsing or those sorts of incidents? You can foresee the possibility of some of them. How resilient are we in those circumstances?

Mr Davey: One of the aims of this, as I explained, is to improve our nuclear security, to make ourselves more resilient and to have more diversity. One of the advantages of the low-carbon transition, with renewables, new nuclear, and carbon capture and storage, is it makes you more resilient. This is very much in the direction that it seems you want to go.

Q533 Dr Lee: Moving on to the Emissions Performance Standard, Friends of the Earth has said to us that the only thing that this Bill gives us as a certainty is a new “dash for gas”. How can the Government ensure that the measures in the draft Bill will not cause such a scenario?

Mr Davey: This is not a dash for gas. Let’s be clear about the Emissions Performance Standard. This is an important part of the framework, but it is very much a backstop. We have many, many tools that are in this reform to drive decarbonisation, whether it is the Contracts for Difference, whether it is the carbon price floor. All those are there, but the EPS is playing a role; it is playing a role already very clearly with coal.
There were some concerns being raised when we said what we did about grandfathering the EPS for 2045 that this was somehow a dash for gas. I do not believe that is the case; I know it is not the case. We do need to have some more gas coming forward, and that is why we are going to have a gas strategy in the autumn. We think that was important, both for energy security and climate change objectives. We see coal being replaced by gas. Also, and people pay no attention to this but I believe they should, we are free to review the Emissions Performance Standard for future investments. There is a process of a three yearly review. We are reviewing the current 450 grams per kilowatt hour in 2015.

Q534 Dr Lee: Why 2045? Why 30 years? It is quite a long time; is that because, in discussions, they were saying that is the only way we will get them to invest? Is that an investment requirement?

Charles Hendry: Essentially it is the operating life of a plant. If people are going to be investing in the hundreds of millions it takes to build a new gas plant today, then they need to understand what return they are going to be getting on that process. One of the challenges we face here is there is quite a lot of consented gas plant, which is simply not being built. As much as anything that is the fact that the spread prices are pretty low at the moment, and therefore people are burning coal rather than gas. If we want that new plant to come forward, then there has to be an understanding of when they might be required to retrofit CCS technology, bearing in mind that CCS technology has not yet been perfected. The view was that, if we need gas to fill the challenge that we have in the shorter term, then we have to give a long-term picture for the investors.

Q535 Dr Lee: Shale gas is the buzz phrase at the moment. It is the game-changer if you believe The Spectator, etc. How do we prevent gas becoming the long-term picture for the investors? Is it not the only way we will get them to invest? Is it not? Is there not an argument here that base load, is it not? Is there not an argument here that base load perhaps should be treated slightly differently in terms of the Government’s subsidy, in that you say, “Right, okay. We’re going to commit to a 30% or 40% base load, and it is going to be broken down into an interconnector from Norway, via hydro-nuclear and the Severn Barrage,” which is my own personal favourite? I wonder if that is not the better way of doing things. Thereby, you factor in, you actually fix in the system, a base load that you know is going to be there. Comments?

Charles Hendry: We do need some more large-scale gas plants coming through into this process. If you look at the challenge we face, where we have a quarter, a fifth, of our current electricity generation plant closing down in the course of the next decade, we need some significant investment in that timescale. Nuclear cannot do it in the course of the next five years. CCS cannot do it. Some of the major renewables cannot do it. Therefore, we need some gas to be coming forward into the mix, into the process. This is looking at a balance. Some of this will be base-load generation. Gas does have the great advantage of dispatchability. Nuclear cannot be switched up and down; renewables cannot be switched up and down, apart from biomass. Therefore, to have a generation technology that can be increased when you need more demand has a flexibility that is an added benefit.

Jonathan Brearley: It is worth adding that we will have the Carbon Price Floor, which will be introducing carbon price into the system, which will change the relative economics of different clients.

Q536 Dr Lee: Do you think that the Government might not be left with any option other than to have a high carbon price to control the proportion of gas generation?

Jonathan Brearley: You need to bear in mind that, alongside that, we are bringing a lot of low marginal cost plant through CfDs. Once they are built, their marginal costs are very small and it is likely that they would be on the system first, simply because their marginal cost is very low. One would expect that, as CfDs roll out more high-capital low-marginal-cost plants, when they are on the system they will bid into the system first. Therefore, gas’s role will change but, as the Minister has said, we think that gas will still have a role to play in all parts of the market, for some time to come.

Q537 Dr Lee: This length of grandfathering of 30 years, how is that consistent with reducing emissions by 80% from 1990 through to 2050?

Charles Hendry: It comes back to the point the Secretary of State was making that this is something that is reviewed. It is not therefore saying that every single gas plant that is built over the next 15–20 years is guaranteed to have a 30-year exemption, or even out to 2045. This is a case that there is a three-year rolling programme; when we feel that we have a volume of gas on there that would threaten our ability to meet those carbon requirements, we can actually then change for future plants the emission standards.

Q538 Dr Lee: One final question in terms of base load: the way in which you describe some forms of energy—nuclear, renewables, marine, etc—once you have committed, they are on. By definition, it is base load, is it not? Is there not an argument here that base load perhaps should be treated slightly differently in terms of the Government’s subsidy, in that you say, “Right, okay. We’re going to commit to a 30% or 40% base load, and it is going to be broken down into an interconnector from Norway, via hydro-nuclear and the Severn Barrage,” which is my own personal favourite? I wonder if that is not the better way of doing things. Thereby, you factor in, you actually fix in the system, a base load that you know is going to be there. Comments?

Charles Hendry: Clearly there is a range of different ways of providing base load. The market reform proposals will provide support for technologies like that. The capacity mechanism, where we started on this, is actually something that needs to represent flexibility. There is no point nuclear bidding for a capacity mechanism in support, because it cannot up its output. It only makes sense to run nuclear plant for a full 24 hours a day. A different part of this landscape will work for different areas. Add into that as well gas with CCS, and the work that we are taking forward in CCS and the tremendous amount of interest we are seeing in the new competition for that. We want gas with CCS to be a long-term low-carbon source of generation as well.
Q539 Sir Robert Smith: I guess my point—and this is the final question—is whether there is any merit in taking nuclear merit out of this whole thing, i.e. you say there may be decommissioning costs, but there is a hint in the Bill that it muddies the waters for all the other renewables. I wonder whether maybe you take nuclear out and say, “Right, we’ve got to deal with it differently.” It seems as if, from what we are hearing, the investors are not terribly enthusiastic about going nuclear at the moment. It seems as if you are almost going to be forced into doing that and treating it in a different way. Why not take it out? There is this sense that CfDs have been constructed to hide subsidy for political reasons.

Charles Hendry: I think CfDs are still a better way for renewable investment, particularly for renewables in many ways, because you look at the tremendous price fluctuations and output fluctuations that we get. If one can smooth that over through a Contract for Difference, it gives a much more predictable rate of return that is beneficial. It also means, from a consumer’s perspective, that first of all it brings down the cost of capital. Secondly, it gets away from simply paying a top-up to whatever the wholesale price is. When the wholesale price is high, the Renewable Obligation pays a top-up on top of that. That is not a good deal for consumers. We are moving to a system that will actually make it easier to balance and will deliver it in a more affordable way. The final point of that is that the objective here should be a market structure delivered through CfDs. In the 2020s, we want to be seeing nuclear competing with coal and gas, with carbon capture alongside renewables, for which is going to be the cheapest way of delivering low-carbon electricity. One can only do that if you have a standardised approach between them.

Mr Davey: The point I would bring to your attention is that all low-carbon technologies, whether renewables, nuclear or CCS, have a cost structure with high upfront capital costs. CfDs are designed to reduce the cost of capital, so they are suitable across the suite of low-carbon technologies.

Q540 Sir Robert Smith: Can I just pursue that a bit further? When it comes to nuclear, the Government is going to be negotiating directly with project developers. How is it equipping itself to get the best value for money, and what criteria will be used to try to ensure that there is the best value for money?

Mr Davey: Well, my predecessor set out how we would go about implementing the coalition agreement on no public subsidy for new nuclear in his statement to the House in October 2010. That is, I guess, our most public description of that. What I do not want to do, and you would not expect me to do, is to be involved in a negotiation. We cannot, through a process, give weekly reports on how those negotiations are going. We will be held to account for the outcome of those negotiations and there will be real transparency about the agreement that is reached.

Q541 Sir Robert Smith: How will that transparency manifest itself? Will there be transparency in the outcome or, having had the negotiations where you do not want to show your hand, will there then be transparency about what took place in the negotiations, once the deal is struck?

Mr Davey: The outcome is the key thing. People will want to know what the strike price is; they will want to know the various terms of the Contract for Difference. They will want to know whether that is value for money and how it squares up against the statement that my predecessor made in October 2010.

Q542 Sir Robert Smith: Without being party to the information on which the decision is made, how can people make that assessment?

Mr Davey: I have said that we will be publishing an awful lot about this, with all the key elements. There is always going to be something that is in commercial confidence, which we will not be allowed to share, but, in terms of the price, the duration of the contract and those sorts of things, they will be in the public domain.

Q543 Sir Robert Smith: Will the panel of technical experts maybe have a role in scrutinising the process to give assurance about its transparency?

Mr Davey: We do not currently believe they should have a role.

Jonathan Brearley: There is a timing issue there about when the panel of technical experts would be in place. As the Secretary of State has said, you are ultimately talking about these first enabling projects, which are a range of different technologies, being something that is subject to a commercial negotiation. Therefore, some of the information that is shared there, such as the underlying cost information, is something that companies will want to keep confidential, just like an offshore wind developer today does not need to share their costs with us directly; they simply take the rates they are given under the RO.

Q544 Sir Robert Smith: Some of the investors that have been talking to us have suggested that the Contract for Difference is not enough to give them certainty, because the ratio of upfront capital to long-term return is such that, with the risks of a construction problem or something like that upsetting their investment, they were looking for some kind of cover on the construction risk.

Mr Davey: I think you are trying to draw us into negotiations. I am sorry; I am not sure if we can really respond to that directly.

Q545 Chair: Just on nuclear, when Vincent de Rivaz from EDF was here last week, he said that he wanted this Bill to be passed with Royal Assent by the first quarter of next year. I think that we would accept your view that that is a pretty challenging timetable; in other words, it won’t be achieved. Where are we going to be if, round about then, he says, “I am frightfully sorry; I don’t think we are going to be going ahead with our nuclear investment in the UK”? Mr Davey: We have obviously spoken to EDF about how we saw the parliamentary process going, since before I became Secretary of State. The timetable has
not changed. I remember one of my first meetings was with him to talk about how we were seeing the parliamentary timetable. We have kept to the words I gave him at that meeting. There has been pretty clear sight for the time tables. EDF is very much aware of them. I very much doubt it will be the parliamentary process that would be the problem for EDF. There might be other reasons; I hope there are not.

Charles Hendry: We clearly would like that investment. We think it is a very important part of the energy landscape, but there are two other consortia as well. Horizon is currently for sale, where we are seeing significant interest from people who want to take that forward. I am certainly optimistic that we will deliver a new owner there. There is a third, NuGen, up in the northeast at Sellafield, looking at a project there with a different consortium. There are other players in this process as well. It is a really important part of the process that there is not just one company that we are relying on, or one consortium.

Q546 Chair: Two large companies decided to withdraw from the process three months ago, and we have not yet identified a firm replacement for those. It seems certainly within the realms of debate that, because of the very high upfront costs for nuclear and the very long period before any return is generated, it may be quite hard to design a CfD, with a strike price, the lengths of the contracts and so on, that really makes it possible for a purely private-sector company—I am not sure that EDF qualifies as that description, but purports to be. Certainly, we have never financed entirely privately in this country a nuclear power station. We are seeking to do something that has not been done before. Just supposing that the measures put forward in good faith in the Bill do not deliver that. Does the Government envisage the possibility of some other form of support for nuclear? I know we have this form of words in the coalition agreement, but in practice, a lot of us believe that a nuclear element in the UK energy mix is essential, and therefore, we should be prepared to pay for it. If it were removed, as Dr Lee suggested, would that not sometimes be in the neighbouring constituency to my own. I am a tremendous enthusiast for that, but my excitement is tempered by facts and circumstances. Although I agree with you that we are certainly in a better position than we were five years ago for nuclear, it still seems to me that some other factors have, rather unhelpfully, moved in the opposite direction at the same time. Therefore, I am concerned to make sure that we do not pass a Bill that makes it harder to ensure that nuclear is part of our energy mix in the future. We have one very final question.

Q547 Albert Owen: Just on nuclear, I am a tremendous enthusiast and have been for a long time for a fleet of new nuclear, but doesn’t it worry you that EDF came before this Committee and said they want everything finished by spring of next year, because they want to make a final investment decision? That is what they said openly to us. When you are telling us today, Secretary of State, that the Bill might not meet Royal Assent until the end of 2013, don’t we need to be doing things a little bit quicker to encourage not just EDF but the likes of EDF, and their partners, Centrica, who are looking to make these final investment decisions?

Mr Davey: As I said to the Chairman a few minutes ago, the parliamentary timetable that we are going through is not news to EDF.
them something to use. We have listened to those investors who want to go early, including new nuclear, and responded in the Bill. I think they have welcomed that.

Q549 Albert Owen: That is not what he said to us. Just one final thing: you mentioned the coalition agreement. I do not want to get party-political, but you raised it.

Mr Davey: The Chair did.

Q550 Albert Owen: No, you did raise it first. If you check the record, you did make reference to it. My point is what concerned me is, when we had the debate—and my position has always been clear on this—the deputy leader of your party actually said he does not think new nuclear will go ahead, because the coalition agreement says that there would be no public subsidy. He believes that these Contracts for Difference are a public subsidy. How do you react to that? It is very important that, on the floor of the House, the deputy leader of your party is making those comments.

Mr Davey: I have worked with Simon over many years, and I think he has been a real champion for the environment. I know about his concerns over nuclear power.

Albert Owen: And some of us who are pro-nuclear as well.

Mr Davey: He has not exactly made a secret about those. On your specific point about whether Contracts for Difference are some sort of subsidy, I do not believe it is the case. I would disagree with Simon on that point.

Charles Hendry: If you look at the vote in Parliament on the regulatory justification, it was 520 to 20. That is an incredibly strong signal. I do not want to make a party-political point, but it would have been a slightly bigger margin if three members of the Shadow Cabinet had not inadvertently voted the wrong way.

Albert Owen: You know where I was on that.

Charles Hendry: Yes.

Albert Owen: Just for the record, you do know where I was on that.

Charles Hendry: I know where most of the Labour Party was and it was very positive.

Q551 Dr Whitehead: This is, I promise you, absolutely the last question—well no, sorry, the penultimate question from me. Have you carried out any analysis of the effect on cost of EMR on fuel poverty, bearing in mind there will be a number of levies, proto-levies and expenditures rolled up in EMR? How that will affect fuel poverty and plans as far as combating it is concerned?

Mr Davey: In the White Paper, we did some analysis. That needs to be updated, and when we publish the final Bill and the impact assessment, we will update those figures. Some analysis has been done but it does need to be updated. Bear in mind two things: Electricity Market Reform is about making these changes at the least possible cost to consumers. Therefore, that is obviously in the interest of tackling fuel poverty. Also, we tackle fuel poverty with many other instruments as well. I personally, the Department and the Government are committed to tackling fuel poverty.

Q552 Dr Whitehead: The suggestion that we have received from a number of consumer groups is that it is likely, indeed as levies tend to at the moment, that the impact of EMR may well be on the basis of the overall bill, as opposed to unit cost. That is, it will be regressive, inasmuch as a lump sum will be placed per bill to cope with the costs, for example of CFDs, etc. Would you favour putting in the Bill a suggestion that any such levies and costs ought to be placed on a unit-cost basis, rather than a bill basis, i.e. the more electricity you use, the more you pay?

Mr Davey: Are you talking about changing the tariff system?

Dr Whitehead: No, changing how levies and associated costs fall on electricity bills or gas bills.

Mr Davey: Well, I am not sure if we are going to be able to change the accepted way that they operate. As I said, we have some very clear plans to tackle fuel poverty and we envisage making sure that, through this process, we keep those levy costs down as much as possible. That is part of our plans.

Q553 Dr Whitehead: My point is that, at the moment, levy costs fall on a flat rate per household, whereas you could introduce for future levies a unit-cost basis, which would not, therefore, be a flat rate per household. For example, on fuel-poverty homes a flat rate is much more punitive than it is for homes not in fuel poverty.

Mr Davey: As I understand our policy, the objective is to minimise the cost. By minimising the cost, because the cost of energy is proportionally more to a poorer household, you are in many ways helping the poorer households the most.

Jonathan Brearley: What we do with our levies is we allocate those out to suppliers, who then recover the money from consumers. I think we do envisage—or certainly a serious possibility for us is—doing that by unit of electricity rather than by number of customers, which I think we would then address your concern. What we do not do is then regulate what suppliers do with that afterwards.

Dr Whitehead: Yes, that was the answer I was hoping you would give.

Jonathan Brearley: It is possible, but we will need to look at that as part of finalising the details of the CIDs.

Q554 Chair: Well, such is the enthusiasm of this Committee for scrutiny that we have been in session for more than five hours today, but we very much appreciate the time you have given us this afternoon. We have overrun a bit, and it has been very helpful indeed. There certainly will be some quite strong points we want to make, but I think the objectives are ones that we all share. We are genuine in our efforts to try to make this Bill better, more workable and more effective.

Mr Davey: Can I, on behalf of the Department, thank you for the work you are doing as a Committee? I think this pre-legislative scrutiny process is really
important, and this Bill particularly lends itself to that. I am grateful you are doing it at such speed; five hours in a day is some going. I know you only have five weeks to do it. We are very grateful for your doing it and we look forward to reading your report.

Chair: Thank you.
Written evidence

Letter from the Chair of the Committee to Rt Hon Chris Huhne MP, Secretary of State, Department of Energy and Climate Change

My Committee heard from Charles Hendry today that, while he could not pre-judge the content of the Queen’s speech, the Government remains committed to early introduction of the Energy Bill in the next Session of Parliament. This is somewhat difficult to reconcile with the official-level message we received that there is a possibility that the introduction of the Bill to Parliament will be pushed back to Autumn 2012. The suggestion of a revised timetable had led the Committee to further consider whether it would be willing to conduct pre-legislative scrutiny of the Energy Bill.

While we appreciate that there will be competing priorities for the Government’s legislative programme in the second Session, the Committee would be concerned about any delay to the introduction of the Bill and the implications that this would have for the timescale for implementing reforms. As you noted in your letter of November 2011, if the first low carbon projects are to come on stream by 2014, legislation will need to be introduced as soon as possible.

The Committee would welcome the opportunity to scrutinise a full draft Bill but would not want to do so at the expense of introducing the Bill early in the Session in line with the existing timescale for implementation. If at all possible we would prefer the Bill to be introduced in May 2012 as planned, rather than delay it by six months for the sake of pre-legislative scrutiny.

If you are able to keep the Committee informed, in confidence, of when the Bill will be introduced and the likelihood of a full draft Bill being published, it would assist us greatly with planning our future programme.

31 January 2012

Letter from the Chair of the Committee to Rt Hon Edward Davey MP, Secretary of State, Department of Energy and Climate Change

The Committee noted with interest the publication of the draft Energy Bill on Tuesday. Indeed, we have already announced our intention to conduct a pre-legislative scrutiny inquiry.

We appreciate that the Committee needs to report at the start of the summer recess so that you can reflect on its conclusions and recommendations during preparations for introducing a real Bill to parliament in the Autumn. To do so in five sitting weeks, well below the 12 sitting weeks that a Joint Committee conducting a similar task would, by convention, be granted, is a very tall order.

I extend the Committee’s thanks to Jonathan Brearley and the rest of the team that came over to brief the Committee informally on 22 May. It was a very helpful session, although it also revealed that there is still a great deal of further information and analysis underway, relevant to our examination of the draft Bill—for example on an alternative payment/settlement model for Contracts for Difference.

Your officials stressed that they would be willing to share information with the Committee as it becomes available, but we remain concerned that the lack full information and analysis may inhibit the extent and depth of the Committee’s investigation.

Nevertheless, the Committee will endeavour to conduct a detailed examination of the draft Bill, within this extremely challenging timescale.

It may be useful to note that, given the timescale, we intend to focus solely on Part 1 of the Bill. Although we may receive evidence on the other parts of the Bill, which we will make available to you, it is unlikely that we will have time to address this in oral evidence.

24 May 2012

Letter from the Chair of the Committee to Baroness Thomas of Winchester, Delegated Powers and Regulatory Reform Committee, Delegated Legislation Office, House of Lords

My Committee is currently conducting a pre-legislative scrutiny inquiry into the draft Energy Bill, published by the Department of Energy and Climate Change on 22 May, with a view to agreeing a report by the time Parliament rises for the summer recess.

The draft Bill contains considerable delegated powers, and DECC has also provided the Committee with a Delegated Powers Memorandum, a copy of which is enclosed.

I appreciate that your Committee does not normally consider draft Bills, but I wondered whether you may be able to offer any comments in this case—given a Delegated Powers Memorandum has already been prepared.
In particular, we would identify the following areas where your Committee’s view would be extremely helpful:

— The huge number of order making powers in the draft and the processes for Parliamentary approval of regulations does not seem to us as robust as in the case of some other recent legislation and varies across the Bill, not always for very convincing reasons.

— The Parliamentary procedures relating to licence modifications.

— The draft contains a number of Henry VIII powers not all of which are linked to affirmative procedures.

— The process in clause 15 seems unusual.

— Clause 39(5) refers to the possibility of a hybrid instrument.

I know this is a busy time of year for us all in Parliament, but any effort by your team would presumably not be wasted, as the real Bill will come your way in the autumn. It would certainly be very helpful to my Committee to have your Committee’s expert opinion.

31 May 2012

Letter to the Chair of the Committee from Baroness Thomas of Winchester, Chair of the House of Lords Delegated Powers and Regulatory Reform Committee

Thank you for your letter of 31 May seeking input from the Delegated Powers Committee to your Committee’s pre-legislative scrutiny of the Draft Energy Bill.

Your request comes at a particularly busy time for my Committee as we are currently dealing with the new Session’s heftier bills. I discussed your letter with the Committee yesterday morning and although they were very sympathetic to the idea of helping your Committee, we reluctantly had to agree that we have no spare capacity at the moment for giving the Draft Energy Bill proper scrutiny. However, one of the Committee’s Counsel, Peter Milledge, has offered to answer informally any questions your Committee’s legal adviser may have about particular delegated powers in the Bill, which I hope you might find helpful.

I wish you well with your pre-legislative scrutiny exercise, and my Committee will undertake scrutiny of the Bill once introduced in the usual way.

14 June 2012

Letter to the Chair of the Committee from the Rt Hon Edward Davey MP, Secretary of State for Energy and Climate Change

Thank you for your letter of 24 May. Firstly, I would like to express my sincere gratitude to the Energy and Climate Change Committee for agreeing to undertake pre-legislative scrutiny (PLS) on the draft Energy Bill. This is an exceptionally important piece of legislation and I am convinced it will benefit greatly from being thoroughly scrutinised by the expertise of the Committee.

I fully appreciate that this is a considerable examination that we have asked the Committee to undertake, and am grateful for your assurances that the Committee’s report will be published around the time Parliament rises for summer recess. Working to such a timeframe will provide us with the invaluable opportunity to revise and improve the legislation in time to introduce it to parliament in autumn 2012. As you have recognised, this is of real importance if we are to provide industry and investors with the momentum and confidence that they are calling for to invest in the UK.

I acknowledge, and am extremely grateful for, the considerable amount of hard work that the Committee will be delivering over the next few weeks in order to make this timeframe a possibility. Under the circumstances, I understand your decision to focus solely on the first seven chapters of the draft Bill, but also welcome your commitment to publish written evidence received on the Bill’s remaining parts.

I am pleased the briefing from my officials on 22 May was of use to the Committee. I understand additional material has since been sent through to your clerks, to provide further clarity on some of the points raised. If there are any other aspects of the Bill on which it would be helpful for my officials to provide additional details, then please do not hesitate to ask.

16 June 2012
Letter from the Chair of the Committee to Rt. Hon Edward Davey MP, Secretary of State for Energy and Climate Change, Department of Energy and Climate Change

The Committee is looking forward to hearing oral evidence from you on the draft Energy Bill on 26 June. There are some detailed questions on legal aspects which it would be helpful if you answer, ideally in advance of the session next week.

State Aid
1. What is DECC’s assessment of whether the CFD and Capacity Market Schemes amount to state aid?
2. In particular, what design elements of each are likely to be acceptable to the European Commission, and which would be unacceptable?
3. What discussions has DECC had with the European Commission on this issue to date?
4. Whether the Commission has given any indication of whether arrangements may be regarded as being analogous to those in the PreussenElektra case and as such not amounting to a state aid?
5. How any aid identified might be made compatible with the state aid rules?
6. Have discussions with the Commission considered how the state aid rules might apply in the event that the CFD and Capacity Market Schemes are amended to provide that the Secretary of State or a government owned body should be the counter-party in the case of CFDs or play a role in administering the Capacity Market arrangements?
7. Has there been any discussion with the Commission in relation to the application of the state aid rules to the proposals for Investment Instruments and if not, what is the rationale for this?
8. Has there been any discussion with the Commission in respect of the transitional arrangements for the Renewables Obligation?
9. Have these discussions included whether the transitional arrangements will not require notification on the basis of the PreussenElektra case and what would be the implication for this of the possible role for the Secretary of State or a government owned body as the Purchasing Authority or Administrator of the levy?

Delegated Powers
10. An unusual form of the negative procedure applies to licence modifications under clauses 10 and 17. Could DECC explain why this procedure has been chosen to apply in these instances?
11. Can you provide examples of the use of the powers in section 32 Energy Act 2010 and section 89 Energy Act 2008?
12. Clause 15 provides for a draft to be laid between introduction and Royal Assent and there is a de facto obligation on the Secretary of State to comply with these provisions if he wishes to make an order post Royal Assent. But the terms of clause 15 could be changed at any time until Royal Assent, potentially rendering void the SoS’s attempts to comply with them. Would a more suitable and conventional approach be for provisions providing for the laying of a draft instrument to take effect on Royal Assent (rather than two months thereafter as presently provided) and for the instrument to then enter into force after Parliamentary scrutiny under enacted provisions?
13. Clauses 27 and 32 provide for the modification of licence conditions without the use of any Parliamentary procedure. Has DECC considered whether this is appropriate for all licence modifications and code changes or whether the modification of standard conditions should be subject to Parliamentary scrutiny?

20 June 2012

Letter to the Chair of the Committee from Rt Hon Edward Davey MP, Secretary of State for Energy and Climate Change

Thank you for your letter of 20 June. I am pleased to have the opportunity to answer the Committee’s questions on state aid and delegated powers, and hope this information will be useful in advance of the evidence session I am attending next week. I have responded to your questions below.

State Aid

The purpose of EMR is to secure new investment in low carbon generation, while maintaining energy security and diversity and minimising costs to the consumer. Our view is that these objectives are clearly of common European interest. The Government is also a strong supporter of the internal market for energy and robust competition rules, both of which benefit consumers and promote growth.

As a result we will ensure that EMR policy is consistent with the state aid rules, and are in discussion with the European Commission. In common with other policy areas, these discussions cover whether or not state aid may be present, and if there is state aid, whether it is approvable under the Treaty. The Renewables
Obligation is an approved state aid scheme, and we will ensure that any changes to the scheme, including transitional arrangements, are made consistently with the Treaty.

In order to maintain an effective working relationship with the Commission, we do not comment on the specifics of discussions and cases, beyond at this stage noting that because of the purpose of the reform we consider that, if state aid exists, it should be approvable under the Treaty.

Assessment of whether CFD and Capacity Market schemes amount to state aid (Q.1)

This is one of the issues under discussion with the European Commission, and it is too soon for DECC to provide an assessment of the likely content of any formal Commission decision relating to the existence of state aid.

As alluded to in your other questions, some caselaw exists under which payment flows may not amount to state resources, and therefore no state aid may be present, but the eventual assessment may depend on the detail of policy design.

Potential investors will look for as much legal certainty as possible, including on state aid. As a result, our approach is to design a robust policy which delivers the necessary objectives and which is compatible with our EU Treaty obligations, and approvable if it finally contains state aid.

Acceptability of design elements to the European Commission (Q.2)

We have designed the policy to be compatible with our EU Treaty obligations, and it follows that we do not expect any design elements to be unacceptable.

The purpose of the discussions with the European Commission is to seek their view as the detail of the policy is developed.

How identified aid would be compatible with state aid rules (Q.5)

Where the tests for the existence of state aid are met, the Treaty requires that the Commission assesses that state aid. In doing so, they consider the objectives pursued by that state aid against the potential distortions of trade and competition that the state aid may create. The EMR is designed to secure new investment in low carbon generation, while maintaining energy security and diversity. EMR will minimise costs to the consumer, and the specific instruments under EMR are designed to minimise distortions of competition. So long as the balance of assessment is positive, any aid should be compatible with the Treaty.

Discussions with European Commission (Qs 3, 4, 6, 7, 8 & 9)

As set out above, to maintain an effective working relationship with the Commission, we do not comment on the specifics of discussions and cases.

We believe that they are considering the full range of issues related to the EMR in a diligent way, including the application of caselaw on the question of the existence of state aid.

If the Government makes a formal notification of its arrangements, we expect the Commission to make a decision as soon as possible consistent with the proper exercise of its responsibilities. Such Commission decisions are published and include an explanation of how the decision has been reached.

Delegated Powers

Clause 15 and alternative provisions providing for the laying of a draft instrument (Q.12)

The purpose of clause 15 is to create a mechanism for the Secretary of State to provide early commitments to developers, to help enable final investment decisions to be taken pre-enactment. You are correct to point out that the value of any such commitment could be undermined by amendment to clause 15. However, any approach to giving investors certainty regarding what might be available to them once the legislation is enacted will rightly always be subject to the will of Parliament.

Your proposal would unfortunately not allow a similar degree of early assurance to be given to a developer. This is because the timing of any such assurance would need to be at the earliest just after Royal Assent.

You may also wish to note that what you suggest (in effect turning a CfD under clause 15 into a statutory instrument) would create an instrument that is legally different from CfDs issued under the main regime. We have not had the opportunity to consider what the consequences of this alternative approach would be.

Licence modification powers (Qs 10, 11 & 13)

Licence and code modifications are not ordinary forms of secondary legislation. They tend to be technical and complex and they are not drafted in the same way as statutory instruments, because they modify documents of a different nature. As a general rule, therefore, Parliamentary scrutiny has not generally been considered as necessary or appropriate. It is notable that where Ofgem modifies licences and codes there is no requirement
for Parliamentary scrutiny. The department is not aware of any examples of Parliamentary scrutiny being used for modification powers conferred before 2008. More recently, however, and by exception, the department has proposed Parliamentary scrutiny.

The department approaches the question of whether to propose Parliamentary scrutiny by considering licence and code modification powers on a case-by-case basis, taking particular account of the purpose for which the power is to be used, the scope of the power and the probable impact of its use.

Where parliamentary scrutiny is considered proposed by the department, the procedure first adopted in sections 42 and 89 the Energy Act 2008 is usually used; that procedure has been adopted for modifications under clauses 10 and 17 of the draft Bill.

The procedure is analogous to the negative resolution procedure, in that Parliament has 40 days to disapprove the proposed measure. Modifications are not laid in the form of statutory instruments, and are not scrutinised by the Joint Committee on Statutory Instruments; that is appropriate, given the technicality and complexity of the measures and the form of the drafting, as discussed above. But modifications are scrutinised by the Secondary Legislation Scrutiny Committee of the House of Lords (known, prior to the current Session, as the Merits of Statutory Instruments Committee), which considers the policy merits of the modifications.

There are no examples of the use of the procedure in section 32 of the Energy Act 2010 because the relevant licence modification powers have not been exercised. But the procedure in section 89 of the Energy Act 2008 has been used. Draft licence modifications relating to smart meters were laid before the House in February 2009. They were considered by the Merits of Statutory Instruments Committee of the House of Lords but were not drawn to the special attention of that House—see the Committee’s Eighth report of the 2008–09 Session. Further modifications will be laid soon, and the department intends to lay further modifications using that power over the next few years. The department is content that the procedure is working effectively, which is why it has been adopted, where appropriate, in the draft Bill.

The department takes the view that the licence modifications that may be made under clauses 27 and 32 do not require Parliamentary scrutiny owing to the particular technicality of those measures and the nature of their impact.

The department does not consider that the determining factor for whether Parliamentary scrutiny is appropriate should be whether the modifications are to standard conditions or to other licence conditions or codes. Licence and code modifications usually come as packages of measures and the purpose and effect of the package as a whole should be assessed. There is also a danger that distinct processes applicable to modification of different types of condition might create incentives to select a drafting method that avoided scrutiny in order to, say, accelerate matters, rather than choosing the best method overall. The department would not consider that to be a good development.

25 June 2012

Letter from Chloe Smith MP, Economic Secretary, HM Treasury, to the Chair of the Energy and Climate Change Committee

I am writing in response to your letter of 6 June inviting me to an evidence session on 26 June alongside Edward Davey to discuss aspects of the draft Energy Bill.

Firstly, let me reassure you that HM Treasury firmly supports action in this area. We work with spending departments on a wide range of issues, and that includes work with the Department of Energy and Climate Change. I welcome the Committee’s interest in the draft Energy Bill, which will, when made law, form a vital framework for Britain’s long term energy generation and supply.

However, I do not feel it would be proper for a Treasury minister to discuss legislation publicly at a departmental select committee in advance of it being introduced to Parliament. In practical terms this would establish a precedent that could lead to the Treasury making multiple appearances, undermining our role in Government as spending arbiter. Moreover, the draft Bill is agreed by collective Government decision, and will be introduced by the lead department to Parliament. As such, DECC will represent the views of Government to the Committee in the planned evidence session, including on the questions you raise around financial and fiscal issues. The appearance of ministers from other departments, whether from the Treasury or otherwise, would have nothing to add to or subtract from that position.

On that basis I must at this time respectfully decline the invitation to attend the Committee.

I am copying this letter to Edward Davey.

14 June 2012
Letter from the Chair of the Committee to Chloe Smith MP, Economic Secretary to the Treasury, HM Treasury

Thank you for your letter of 14 June. The Committee is very disappointed to hear that you are unwilling to give oral evidence on the draft Energy Bill.

We are somewhat perplexed by your assertion that it would be improper for a Treasury Minister to discuss in Committee legislation that is led by another government department. HMT’s levy control framework, and the Government decision not to underwrite CFDs, both have a dramatic implications for whether or not the legislation can deliver the objectives agreed for it by collective Government decision. This Committee has been asked to examine the draft Bill, on an incredibly tight timeframe, and your refusal to give oral evidence will seriously inhibit the effectiveness of our inquiry.

I understand the argument of not setting a precedent has been used many times before (indeed Erskine May cites an example from the 2001–02 Session), but has not prevented HMT offering a Minister for evidence in the past (for example your evidence to our joint inquiry with the Environmental Audit Committee on Solar PV FiTs).

The evidence we have heard so far indicates to us that there are key questions which a Treasury Minister will be best placed to answer. Today, Professor David Newbery CBE told us that because Treasury rhetoric has a direct influence on the shape of energy policy, the Committee should hear from a Treasury Minister. Gaynor Hartnell, Chief Executive of the Renewable Energy Association told us that HMT did not realise the counter-productive impact it was having on delivery of energy policy in the most cost effective way. Other witnesses said that the impact of the levy-control framework on CFDs was moving to the top of the list of risks considered by investors.

I would also like to highlight the following comments made by Ian Marchant’s (Chief Executive of SSE) in oral evidence on 12 July:

“We have statutory targets under the EU renewables and under Climate Change. We want to keep the lights on. What comes first, them or the levy control framework? We should have a value for money framework, absolutely and making sure that returns are not excessive, and the consumer is getting a good bill, paying the right price, absolutely; but is the levy control framework the right one? I am not sure. It seemed to have come out of Treasury as part of the last Comprehensive Spending Review and I am not sure that a two to three-year politically-driven framework is the right one to manage an industry where we are talking 20 and 30-year investments.”

Keith Anderson (Chief Corporate Officer, Scottish Power) told us:

“This country used to be seen as a fantastic energy market to invest in because everybody had absolute faith and trust that it was done on an evidence base. We have been through a banding review [for the Renewables Obligation] where there was a massive amount of work done in a consultation process. All evidence-based research that came up with recommendations for future investment through the RO banding and what we have seen now since October is an awful lot of noise being created politically and in the media and speculation about arguments between Government Departments and speculation that there will be political influence and an outcome of that consultation that is not evidence based.

I think that is what damages investor confidence. That damages confidence in looking forward to what comes out of this Energy Bill, because if we start to think that the reviews over the contracts for difference, the reviews over the strike prices won’t be evidence based, that detracts and damages our confidence to invest in this market.”

The Committee remains very keen to hear oral evidence from you. If the 26 June at 2pm is not convenient, I am sure the Committee would be willing to find another time, given the importance it places on hearing from you.

I am copying this letter to the Secretary of State for Energy and Climate Change.

20 June 2012

1 Q21
2 Q2
Letter from the Chair of the Committee to Chloe Smith MP, Economic Secretary to the Treasury, HM Treasury

In the absence of a response to my letter of 20 June, and given the proximity of the oral evidence session we have planned for next week and the very tight timescale for the Committee’s inquiry, I am enclosing a list of questions, to which it would be helpful to have your written response.

If you are able to provide this by 29 June, it would be very helpful.

I am copying this letter to the Secretary of State for Energy and Climate Change.

22 June 2012

Questions to HMT for Written Response by 29 June

The impact of Treasury decisions on energy and climate change policies

1. How much interaction has the Treasury had with the investment community to understand the impacts of its policies on investments that are needed to meet our long-term climate change and energy security objectives? Can you provide a list of any meetings the Treasury has had with investors or financial analysts on this topic?

Levy control framework

The 2010 spending Review set an overall cap for DECC’s tax and spending through policies that entail levy-funded spending. This cap is managed through the Treasury’s control framework. Witnesses have raised concerns that the introduction of the levy is creating new risks for investors because there is now uncertainty about how much funding will be available under the proposed Contracts for Difference mechanism.

RenewableUK said:

“If there is a rationing via cost control measures, it will be too late in the development process for companies to be able to first enter a CfD only at the time of financial close/final investment decision (FID). In the period between receiving consent and FID, developers will spend substantial amounts maturing large offshore wind projects, gathering geotechnical information and entering into contracts for long lead time items. It will be a substantial risk for developers to move ahead with the uncertainty of receiving a CfD only at FID and may actually prevent further development of projects.”

2. What analysis has Treasury carried out on the impact of the levy cap on investment decisions in new generating capacity?

3. Would you accept that the introduction of the levy cap has created new risks and undermined certainty for investors?

4. Would you accept that the introduction of the levy cap has created a new risk and undermined certainty for developers?

5. Would you accept that the new risks introduced by the presence of the levy cap will increase the cost of capital and may therefore undermine the whole purpose of the electricity market reform package?

The Impact Assessment that accompanied the White Paper suggested that financing costs were expected to be lower by £2.5 billion over the period to 2030 as a whole under a FiT CfD than a Premium FiT. However, we have heard that the new risks will increase the cost of capital, potentially undermining these expected savings.

6. What assessment has the Treasury carried out on the impact of the interaction of the CfD and levy cap on the perceived financial benefits of a CfD model?

There is some uncertainty about whether the levy cap or legally binding targets (such as the 2020 renewables target or carbon reduction targets set out in the Climate Change Act 2008) would take precedence.

Ian Marchant (SSE) said:

“We have statutory targets under the EU renewables and under Climate Change. We want to keep the lights on. What comes first, them or the levy control framework? We should have a value for money framework, absolutely and making sure that returns are not excessive, and the consumer is getting a good bill, paying the right price, absolutely; but is the levy control framework the right one? I am not sure. It seemed to have come out of Treasury as part of the last Comprehensive Spending Review and I am not sure that a two to three-year politically-driven framework is the right one to manage an industry where we are talking 20 and 30-year investments.”
7. What would happen if there was a choice between sticking to the levy cap and meeting the 2020 renewables target? Which would be given priority?

8. What would happen if there was a choice between sticking to the levy cap and meeting our target to reduce greenhouse gas emissions by at least 34% between 1990 and 2020? Which would be given priority?

9. Is a levy cap based on a five-year spending period really compatible with investment decisions that need certainty on a 20–30 year timescale?

The top-up payment paid under the CfD will be the strike price minus the wholesale price of electricity. Since the wholesale price is volatile, the top-up payment will also be volatile. It is therefore impossible to predict exactly how much will be paid out under the mechanism.

10. Is it possible for a volatile top-up payment to be compatible with a fixed levy cap?

Climate Change Capital said:

“In our view none of the allocation mechanisms proposed either work or absolve DECC from needing to make qualitative judgements as to who they will award CfDs to. [...] In the (highly likely) event that the number of consented projects exceeds the available approved levy spend, then this means that the allocation body will need to make qualitative judgements as to which projects will achieve financing and hence should be awarded CfDs. We simply do not see any way around this”.

11. Would you accept that the implication of rationing CfDs under the levy cap is that whoever is allocating contracts will have to make qualitative judgements about which projects will receive financing. Therefore we are in effect returning to central planning for the UK energy system?

CfD payment model

The White Paper suggested that the Government would act as the counterparty for Contracts for Difference. However, the Draft Bill makes it clear that this will not be the case and proposes an alternative “multiparty contract” model. Witnesses have questioned whether this model will be legally enforceable and have suggested that the creditworthiness of the counterparty will less than if the Government were the counterparty.

Volker Beckers (CEO RWE npower) said:

“When we started last year on the consultation on what is actually needed, there was an expectation that the CfD would be backed by Government. To put it in layman-speak, who is ultimately signing the cheque? The expectation was it would be the Treasury. Now, we are miles away from that very point. A different path is now being pursued by Government and we need to see what ultimately the detail of that looks like. But I think moving away from a triple A guaranteed contract, which was honoured by Government, to a statutory contract using different instruments, is a big shift in this process over the last six to nine months”.

12. Government has decided not to be the counterparty for CfDs. What was the rationale for this decision?

13. What involvement did the Treasury have in the decision that Government would not be the counterparty for CfDs?

The rationale for introducing CfDs was to reduce wholesale price risk and thereby to bring down the cost of capital for investors and ultimately to reduce costs to consumers. Witnesses have told us that the proposed multiparty contract model introduces new risks (in particular relating to legal enforceability and creditworthiness of the counterparty).

14. Would you accept that the proposed multiparty contract model introduces new risks for investors, which therefore increases the cost of capital, and ultimately, costs to consumers? Furthermore, would you accept that this therefore undermines the original purpose of the electricity market reforms (to reduce the cost of capital by removing risks to investors)?

15. Has the Government made any assessment of the effect of the Government not acting as counterparty on the Impact Assessment’s estimate of the benefits of CfDs (ie the £2.5 billion saving compared with the premium-Fit model)?

Impact of the RO banding review on investor confidence

Witnesses told us that the delay in the RO banding review is undermining investor confidence in the UK.

Keith Anderson (Scottish Power) said:

“This country used to be seen as a fantastic energy market to invest in because everybody had absolute faith and trust that it was done on an evidence base. We have been through a banding review [for the Renewables Obligation] where there was a massive amount of work done in a consultation process. All evidence-based research that came up with recommendations for future investment through the RO banding and what we have seen now since October is an awful lot of noise being created politically and in the media and speculation about arguments between Government
Departments and speculation that there will be political influence and an outcome of that consultation that is not evidence based.

I think that is what damages investor confidence. That damages confidence in looking forward to what comes out of this Energy Bill, because if we start to think that the reviews over the contracts for difference, the reviews over the strike prices won’t be evidence based, that detracts and damages our confidence to invest in this market”.

16. Recent stories in the press have suggested that there have been disagreements at cabinet level over renewable energy policy.3 Does the Treasury acknowledge that there is a perception among stakeholders that the UK is moving away from an evidence-based approach to energy policy and that this is undermining investor confidence?

17. Is the Treasury committed to retaining an evidence-based approach to energy policy?

18. Will the Treasury accept the evidence base that has been provided for the RO banding review?

19. When can we expect a decision on the RO banding review?

Letter from Chloe Smith MP, Economic Secretary, HM Treasury, to the Chair of the Committee

Thank you for your follow up letter of 22 June enclosing questions on the draft Energy Bill.

I was pleased to note that Wednesday’s Committee evidence session with Edward Davey and Charles Hendry touched on a number of the points you raise regarding the levy control framework, the Electricity Market Reform and the upcoming Renewables Obligation banding review.

As I set out in my previous letter, DECC and Treasury have a comprehensive and constructive relationship on energy and climate change issues, and my officials were in contact with DECC to provide briefing and support for the evidence session. I would though repeat the fact that DECC are the lead department on energy, including for this draft Bill, and they are, and will continue to be, best placed to set out the Government’s position, with support from other Government departments as appropriate.

Further to that point, I would also note that DECC ministers will follow up in writing, providing you with additional supplementary information on the Government’s position on the Bill and wider issues. I trust this will be helpful to you and the Committee in setting out the Government view on the issues you raise, which are, as I stressed before, a vital part of this Government’s strategy to provide a stable and cost-effective energy sector for the UK and for British consumers, while achieving our carbon goals.

I am copying this to Edward Davey and Charles Hendry.

28 June 2012

Letter from the Chair of the Committee to Chloe Smith MP, Economic Secretary to the Treasury, HM Treasury

Thank you for replying to my letter of 22 June, although I am very disappointed at your refusal to offer a direct response to the Committee’s questions. The Committee fully appreciates that DECC is the lead department on energy policy, but it remains legitimate for us to scrutinise all the factors that affect that policy, including the Treasury’s influence. That is why the Committee has set out specific questions on which it would be helpful to have a Treasury perspective.

The Committee is conducting its pre-legislative inquiry, to an extremely challenging timetable (which was not of its own making), to meet the objective shared by Government and the Committee: achieving the most effective legislation possible later in the year. Your refusal to engage with the Committee’s inquiry is impeding fulfilment of this objective.

I noted with interest that in yesterday’s lobby briefing, a Downing Street Spokesperson stated that “The Prime Minister and the Chancellor and all Cabinet ministers comply with the wishes of select committees”.

I hope that you will keep to the spirit of this statement as assist the Committee by offering a written reply as soon as possible.

I am copying this letter to the Secretary of State for Energy and Climate Change.

29 June 2012

3 See, for example, “Row erupts over George Osborne’s plan for 25% cuts in onshore wind farms subsidy” The Independent, 20 June 2012; “Wind energy subsidies may be cut”, The Telegraph, 19 June 2012; “Subsidies for onshore wind farms to be axed by 2020”, The Telegraph, 16 June 2012
Letter to the Chair of the Committee from Charles Hendry MP, Minister of State, Department of Energy and Climate Change

Thank you for your letter to the Economic Secretary to the Treasury, Chloe Smith, of 22 June on the draft Energy Bill. As the lead Minister for the Energy Bill, it is appropriate for me to respond to the questions you raised, and set out the Government’s position on the Bill.

As Chloe emphasised in her response, DECC and the Treasury work closely on the Government’s energy and climate change agenda, and Treasury officials provided briefing and support ahead of the evidence session.

In your letter you sought information regarding meetings that the Treasury have had with Energy Companies. Information regarding meetings held between Treasury ministers and stakeholders is all published here:

http://www.hm-treasury.gov.uk/minister_hospitality.htm

I would now like to respond to the more specific issues that you raised in your letter.

LEVY CONTROL FRAMEWORK (LCF)

The purpose of the Levy Control Framework is to deliver the Government’s energy and climate change goals as cost-effectively as possible, minimising impacts on consumer bills. Investors are supportive of the general principle of the LCF, recognising that we are operating within financial constraints. The publication of the cap provides investors with clarity and certainty around the scale of future funding.

The key to making this work is ensuring that there are robust and transparent operational arrangements in place to manage the budget, and with flexibility within the framework to respond to changing circumstances.

We have legally binding targets for renewable energy and carbon emissions and are committed to meeting them. The policies within the LCF are designed to enable Government to achieve its targets, and the overall cap is set—and will continue to be consistently set with that aim. The spending through the policies in the LCF needs to be monitored so that we achieve these targets while managing pressures on consumer bills.

While we aim to manage these policies to stay within the LCF limits, the control framework does provide some flexibility around these limits.

Regarding the compatibility between the five year spending period and the need for long term certainty, the publication of the LCF provides investors with clarity about the level of funding available for future investment in low-carbon generation. We are committed to maintaining support levels for those existing investments where we have said we would and not to make retrospective changes for these investments.

RATIONING CFDS UNDER THE LEVY CAP

Applying such a financial constraint is a key means by which the Government will both ensure that the CfD scheme provides value for money for the consumer, and the impact on consumer bills is managed. It is consequently an entirely legitimate role for government to exercise its judgement in regard to where to set such support levels or the financial constraints which apply to policies.

It is also the case that there is a need to be seen to be operating within appropriate financial constraints to ensure that EMR is seen as sustainable and credible by the markets (including rating agencies).

The agent allocating contracts will, in principle, have limited discretion over whom should be issued contracts. The precise allocation arrangements will depend on the affordability within the LCF. As with any budgeting decision legal obligations will need to be fully taken into account.

ELECTRICITY MARKET REFORM COUNTERPARTY MODEL

Within the EMR framework, we are keen to see payments flowing from suppliers to generators, with appropriate arms length involvement from HM Government, rather than direct intervention in running and owning contracts.

We understand some stakeholders have said that Government signing contracts would reduce credit risk, but given that payments ultimately flow from suppliers to generators, the credit risk in the scheme should reflect the robust financial health of the UK electricity market and form a solid base for investment.

The Government aims to provide investors with a system with a level of certainty equivalent to a contract with a counterparty that has a strong credit rating, not that Government would be the counterparty. Our intention was not for Government to be signing contracts but for a credit worthy investable system.

ELECTRICITY MARKET REFORM COUNTERPARTY MODEL: COST OF CAPITAL AND IMPACT ASSESSMENT

The Government is aware of the importance of creating an investable CFD structure. We accept that there are concerns with the model we outlined, and we have worked closely with industry to explore those concerns.

Whilst the Government’s current analysis is that the model set out in the draft Energy Bill is capable of providing a sufficient level of certainty, we know stakeholders have concerns regarding complexity and
unfamiliarity. That is why we are also assessing an alternative which is broadly similar to a conventional bilateral contract would be more preferable. I have sent you a paper which outlines the Government’s thinking on this, and it is published here:


The Impact Assessment, and our modelling, is based on there being a credible counterparty that would reduce risk. We think the model proposed in the draft Bill provides that—and that the single counterparty model could also provide that. Both would be supported by a robust legal framework established by Government in legislation.

The Impact Assessment would not therefore need re-working, in order to analyse an alternative payment model, because the choice of counterparty doesn’t impact on its underpinning assumptions—which for the counterparty would be the same in either scenario. However, we will of course produce an updated Impact Assessment when we introduce the Bill.

RENEWABLE ENERGY POLICY: RENEWABLES OBLIGATION

I recognise that the recent media speculation is very unsettling on developers and investors. Whilst I can’t pre-empt the final banding review decision, I want you to know that the Government remains committed to setting bands based on sound evidence.

As I said recently to the Global Offshore Wind conference, I am absolutely determined that the UK will retain its reputation as one of the best places in the world to invest in renewables. I would like to assure you that we will be transparent, open, and we will follow the evidence.

RENEWABLES OBLIGATION BANDING REVIEW

We received a large volume of responses to the consultation (around 4,000) with a substantial amount of new evidence and information. We want to ensure that our final Banding Review levels fully reflect all the evidence we have received and that’s why the Government response has yet to be published. We have been analysing this evidence carefully to ensure that we come out with a balanced package that both represents value for money for consumers as well as encouraging investment and economic growth. The Government will publish support levels for renewable electricity technologies for the period 2013 to 2017 shortly.

I would like to express my gratitude to you once more for undertaking pre-legislative scrutiny in such a short period of time, and I look forward to the publication of your report.

29 June 2012
(received by the Committee on 4 July)

Written evidence submitted by RES

1. INTRODUCTION

1.1 RES is an independent renewable energy generator and operator with interests in onshore and offshore wind, biomass and building integrated renewable energy projects. RES has been in the UK renewable energy market since its inception over 30 years ago, and have expanded from the UK to countries such as the US, Canada, France, Sweden, Turkey, Australia and South Africa. We currently have a 250MW operational wind portfolio in the UK with a further 1GW under development. We have now reached a critical mass to expand the operational portfolio towards a 1GW over the next 10 years subject to a suitable investment environment.

1.2 In presenting this evidence RES also presents on behalf of Fred Olsen Renewables and Infinis. Combined the three companies have an operational portfolio of 750MW onshore wind, 370 MW landfill gas and a development pipeline of over 2GW in the UK. Between them they have developed 20% of UK wind energy and are responsible for 20% of the current onshore wind pipeline.

2. SUMMARY OF SUBMISSION

2.1 The objectives of the draft Energy Bill are worthy, but as the Bill is currently constructed it will fail to achieve them. This is because:

(a) The “Feed-in-tariff with Contracts for Difference” is not actually a Feed-in-Tariff, in that generators cannot “feed-in” their generation at a set tariff to a defined counterparty. Instead they need to sell their electricity in the open market, which will be impossible without a Power Purchase Agreement from a credit worthy supplier. The only organisations in the UK at the moment capable of providing these at scale are the big six utilities;

(b) The withdrawal of any obligation on electricity suppliers to source a proportion of electricity from renewables means that there will no longer be an incentive to offer a viable “Power Purchase Agreement”(PPA) for renewable energy produced by independent generators (the least risky, default investment is for suppliers to build gas power stations (CCGTs) and pass on the escalating cost of fuel to the consumer);
3. Government Objectives

3.1 In its July 2011 White Paper on Electricity Market reform the Government set out the objectives for the reform package (para 11 EMR White Paper):

(a) Provide a more efficient and stable framework for investors ensuring that the cost of capital required to for new low-carbon generation capacity is lower. This varies by technology but the overall effect of the cost of capital reductions from electricity market reform will be a potential saving of £2.5 billion over the period to 2030;

(b) Encourage investment in proven low carbon technologies, but also allow new technologies such as CCS to get off the ground and allow them to become cost-effective and compete without support. This is vital to our ability to adjust to different scenarios for fossil-fuel prices;

(c) Boost competition as it will provide the framework for independent generators and new investors to invest in low carbon generation. The ability of new entrants to come to the market will also be support by action from OFGEM to improve liquidity;

(d) Lead to competition within and between different low carbon generation technologies for their appropriate role in the energy mix, as we move to technology-specific auctions for contracts towards the end of the decade, and technology-neutral auctions further in the future;

(e) Introduce an appropriate policy framework in the electricity sector to contribute toward delivery of the fourth carbon budget; and

(f) To achieve aims at least cost to the consumer.

3.2 Central to these objectives is lowering the cost to the consumer (objective 6) and delivering the objectives set out the fourth carbon budget (objective 5). The Government has set out to achieve this by reducing the risk in the market in such a way that the cost of capital is reduced (objective 1) and providing a framework for independent generators and new investors to invest (object 3) which will ultimately allow the move to competitive price discovery (objective 4).

4. The Need for Independent Generators (Objective 3)

4.1 Independent generators and investors are needed to deliver Government’s aspirations for low-carbon generation and a competitive electricity market. This is because:

(a) As the Government has recognised the incumbent “big suppliers” alone cannot deliver the investment required. The UK needs to invest £75 billion in renewable generation by 2020, one part of the larger £200 billion investment requirement for the whole energy infrastructure. Incumbents have constraints on their balance sheets along with a range of opportunities across many markets; they have no specific commitment to low-carbon generation in the UK and their appetite to invest is susceptible to pressures from their home markets.

(b) Independent generators and financial institutions are required to make up the shortfall. Independents and financial institutions are expected to provide between a third and a half of the investment required. Both independents and financial institutions have similar investment requirements—
typically they look at projects as stand-alone companies with a defined set of cashflows where each project must be able to operate as a viable independent business.

(c) Independent generators promote innovation, competition and efficiency. Increasing the role of independents will also support the broader objectives of the Government and are vital to bringing about competition in the wholesale market.

(d) A vibrant onshore wind sector builds broader industry confidence and innovation. Onshore wind is the barometer for the broader renewables industry. It has delivered over 4 GW of capacity in the UK, has the longest history, and provides confidence and continuity to investors in offshore and the wider renewable energy supply chain.

4.2 As it stands the draft Energy Bill is structured in a way that jeopardises the ability of independent generators to carry on investing within the current market environment. Furthermore, the reforms that have been proposed to attract new entrants and to create a competitive market environment (that will enable independent generators to carry on investing) will not be implemented in time, and there is little reason to expect that these reforms will be successful in achieving their desired objectives.

5. A CfD-Fit is not a FiT. There are Key Differences that Undermine its Stability (Objective 1)

5.1 In the opening summary of the Energy Bill the Government describes the key element of the reform bill as “the introduction of new long-term contracts (Feed-in-tariff with Contracts for Difference, CfD-FIT) to provide stable financial incentives to invest in all forms of low-carbon electricity generation.” However, the proposed structure fundamentally differs from the typical feed-in-tariff (FiT) structure that has worked effectively in other markets to provide stability, to reduce the cost of capital, and to allow renewable investments to be made at least cost. Specifically, these differences include:

(a) Separation of Income Streams. Standard FiT structures entail a single payment for each MWh generated. The Government’s proposals separate these into two income streams one for electricity and one for the top-up payment—but the electricity revenue stream depends on securing a market buyer, and the top-up payment depends on selling the electricity.

(b) Route to market for electricity. The CfD-FIT contract provides a flow of revenue according to the difference between the “CfD Strike price” and the “market reference price” as defined in 14.5 of the Bill. However, the Bill makes no provision for ensuring that the “market reference price” can be realised creating a fundamental uncertainty surrounding the way in which an independent generator can secure an essential route-to-market for their electricity.

(c) Power Purchase Agreements (PPAs). Securing a route-to-market is a particular issue for small-medium sized generators that do not have the size and sophistication to operate trading desks, and for those requiring a secure and long-term route-to-market to finance their projects. The majority of independent renewable generators will require third party finance to deliver their projects; a condition of this finance is that there has to be a secure a viable and cost effective route-to-market through a long-term contract (a Power Purchase Agreement).

(d) Basis Risk. Basis risk describes the risk that the market reference price will not be achieved by the generator, and that they will therefore be unable to realise the full value of the CfD-FIT. The ability of independent generators to realise the market reference price will be determined entirely by the PPA terms and associated charges. This would not be required under a standard FiT which has a single payment flow and a single counter party.

(e) Additional Costs. By introducing a CfD-FIT the Government also introduces a new set of credit and collateral impacts that previously were not an issue for independent generators. Whilst the precise extent of these costs will be clarified when the accounting treatment for these contracts has been resolved, there will be significant implications that would not exist under a standard FiT. These costs will be exacerbated by a lack of liquidity in the market.

(f) Lack of a defined counterparty. We are not aware of any renewable support package that does not have a defined counter-party in the FiT contract. The absence of this, and the failure of the Government to live up to the expectation that “the price risk is borne by Government balance sheets”, (para. 100 of the White Paper RIA) leads to higher risk premiums than would otherwise be the case until confidence builds in the new structures.

5.2 We are aware of three instances where CfD-FIT has been implemented. There is no evidence that they have been successfully applied to incentivise small-medium size independent renewable generators, and this is direct as a result of their inherent complexity:

(a) In Denmark, they were introduced for large offshore windfarms only; the smaller onshore windfarms continue to operate under a premium FiT.

(b) In Germany, the new structures introduced at the start of the year have recognised the additional complexity associated with the CfD-FIT and the German Government provided an additional payment to cover the extra management costs. Furthermore, they allow generators to opt back into their standard FiT if they prefer on a month-by-month basis.
(c) When the credit-rating organisation Fitch assessed the structure to determine the implications for two 300MW+ portfolios of onshore wind projects, they stressed that if the portfolios chose to use the CfD-FiT route then the financial strength of the PPA providers would be central in determining the portfolio's credit rating.

(d) The Netherlands, has had the longest direct experience trying to apply a CfD-FiT to small generators and has been demonstrably unsuccessful. Since 2008 a thousand MWs of onshore wind has been granted a contract under this scheme, however, by the end of 2010 only 84MWs had actually been built. Delivery has suffered as a result of the CfD structure.

5.3 Whilst these differences are not insurmountable, they present unique challenges that need to be recognised by the Government and addressed in a timely and effective way to mitigate the risk of undermining the market. These challenges will impact the majority of independent renewable generators but are particularly acute for small-medium size independent generators and projects that rely on project finance.

6. Threat to the Government’s Objectives—Achieving Least Cost to Consumer (Objective 1)

6.1 A central objective of the Government and the reason for embarking on this extensive reform package, is to deliver the low carbon objectives at least cost. However, under the current EMR proposals, the obligation that has driven much of the renewable investment to-date has been removed. As a direct result of this there is less incentive for suppliers to offer viable PPA terms and the supplier’s interested are no longer aligned with the Government’s targets for delivering low carbon generation.

6.2 These two factors threaten the objective of delivering low carbon investment at least cost to the consumer. In the absence of an obligation and alignment of supplier and government objectives, suppliers will offer PPA terms based on the value they can extract rather than the cost of the service they provide. PPA terms will deteriorate and this will increase the cost to the consumer.

6.3 This trend of deteriorating PPA terms due to the removal of the obligation and the lack of clear targets will be exacerbated by the regulatory uncertainty inherent in the scale and complexity of current policy changes (EMR, review of balancing costs, European Target Model, and retail market review), higher value investment opportunities (inside and outside of the UK) and increasing financial pressure in many of the supplier’s home markets. These combine to create a strong disincentive to offer attractive terms to the small and medium size renewable generators in the UK.

6.4 This situation arises due to the lack of competition for PPAs between the existing suppliers and the absence of new entrants to the market capable of establishing a position among the incumbents. This creates a dearth of effective competition and PPAs terms will be driven by the commercial ability to extract excessive gains rather than strong competition minimising costs.

6.5 Analysis provided by the consultancy group Poyry suggests that 93.9% of total energy supply is through large integrated utilities. Of the remaining 6.1% supplied by independent suppliers, more than half was from large generators that are oversupplied in generation and unlikely to offer PPAs. As a result only 2.6% of total supply is linked to independent suppliers that may be interested in offering a PPA, and the majority of these independent suppliers do not have a size to offer PPAs to a larger renewable projects. There is not sufficient for the strong competition necessary to drive effective PPAs and support a vibrant independent market.

6.6 If PPAs terms are driven by an oligopolies ability to extract excessive gains rather than proper competition forcing the setting of PPA terms according to cost then independent generators will be unable to make the returns set by the Government. As a result, if the Government is going to incentivise the deployment of low-carbon generation from independent generators as planned in the White Paper, then this decline in PPA terms will need to be recognised in the strike price, and this will increase the cost to consumers.

7. Threat to the Government’s Objectives—Delivery of the Fourth Carbon Budget (Objective 5)

7.1 The alternative to the Government not increasing the strike price is that the independent renewable generators will be unable to play their full role in the market.

7.2 Under the CfD-FiT the financial rewards to investors will be tightly defined and any upsides—for example from the continued increase in gas prices—will be removed. When setting the strike price, the Government will take a view of the cost for selling electricity into the market, along with the cost of building the site and the operating costs. These will be combined to set a strike price that gives an investor an acceptable return. If the cost of selling electricity into the market however, is significantly higher for an independent generator that is dependent on a PPA, then those generators will be unable to achieve the defined levels of return.

7.3 As a result these independent generators will unable to play their full role in the market, there will be less investment, the Government is less likely to deliver the Fourth Carbon Budget and there will be fewer opportunities to attract low cost-of-capital investment funds into the market.

7.4 A principle that is intended in theory to ensure least cost to the consumer, in practice is likely to prove a “false economy”. If independent generators cannot invest against the CfD-FiT then low-cost-of-capital investment funds will not have a channel to invest through and the Government will have no choice other than
increase its dependence on high-cost gas imports or to raise the CfD-Fit’s strike price, both would increase the cost to the consumer.

7.5 The threat to the delivery of the Fourth Carbon Budget is magnified by the current transition arrangements. These transition arrangements generate a “cliff-edge” for independent generators around the time of the next election and concurrent with the closure of ageing coal plant (those which have not be fitted with flue gas desulphurisation equipment) in 2015. After 2015 it is unlikely that independent generators will be able to invest without a viable route to market.

7.6 This cliff-edge is created in 2015 despite RO eligibility running out two years later in 2017, due to the requirements for accredited for the RO. In order to be accredited, the generator has to be operational and exporting electricity. To be certain of reaching this point, they need to have started financial close approximately two years beforehand to allow time to construct the plant.

7.7 After 2015 any plant that reaches financial close will be unable to export electricity before the closure of the RO mechanism and will therefore be locked into the CfD structure. For any project that is starting financial close and looking for non-recourse finance (typical of the independent generators in the electricity sector) then there has to be certainty on the contractual structures that will govern the projects cashflows over the life of the project (or at least the tenor of the debt).

7.8 By 2015, it is therefore crucial the CfD contracts are seen to be robust by investors, that the dispute resolution procedures are effective, that the market reference price is reliable and that a secure PPA provides a viable route-to-market for the electricity. Uncertainty around any of these key issues will increase the perception of risk and the associated cost of capital. The absence of any of these key issues will make the project unfinanciable.

7.9 This timetable however, assumes that the Government is able to meet the extremely ambitious programme schedule that it has set for itself. There is a fundamental question about whether or not it is plausible that the structures will be in place to achieve a first CfD contract by April 2014. To put this in context BETTA, a market reform significantly narrower in scope and of lesser complexity, took four years to deliver. Under the Government’s current overview of the EMR market design “go-live” is now less than two years away. This delivery programme is not credible and will not permit completion with the necessary rigour and scrutiny. This delivery programme will threaten to significantly undermine investor confidence and could result in major disruption to the effective functioning of the wholesale electricity market.

7.10 This “cliff-edge” created will drive investors and financiers away from the UK market to more stable and regulatory certain markets. Once this confidence has gone, it will have knock on effects on the confidence of financial investors, investments in the supply chain and investments in other renewables.

8. The Government’s Preferred “Solutions” will not Fix the Problems

8.1 In the draft Energy Bill the Government has acknowledged the need for a route-to-market for independent generators and has committed to understanding the issues that generators face by exploring options for
addressing the problem through a “call for evidence”, which the Government will respond to before the Energy Bill is presented to the house in the Autumn.

8.2 When presenting the White Paper in 2011, the Government argued that independent generators would be able to sell directly into the market without a PPA and would therefore be released from the oligopolistic nature of electricity supply. Alongside the financial community, we have made it clear that it would not be possible to finance against this and that a PPA would be required.

8.3 The Government also stated that it would look to OFGEM’s liquidity reforms to improve market liquidity and provide a route to market. OFGEM however have made it clear that the purpose of their reform package is to improve the supply side of the market, and was not intended to foster the conditions necessary for a competitive PPA market.

8.4 The current position of the Government is given in Annex B (pg 81—85) to the draft Energy Bill where the Government is clear that whilst they now accept that a PPA is required; “the Government does not agree that the proposed change in support mechanism presents a fundamental and insurmountable barrier to the development of a viable PPA market under the CfD. In time a competitive market should provide bankable routes to market for independent generation project” (Annex B, pg 83 Para.6). Yet, the Government (and OFGEM) have no plan that will foster this competitive market within the next three years. This means that the competitive market will not actually be functioning before the 2015 “cliff-edge” arrives.

8.5 In the following paragraph (Annex B, pg 83 para. 7) the Government states that it “believes suppliers and independent aggregators will continue to offer PPAs as there will be commercial opportunities for doing so”: This is wholly missing the point, as the question is not whether or not PPAs will be offered, but it is whether the PPAs will be viable or not, either because the level of discount enforced by the supplier is too high or because the terms are not financeable as they do not provide a sufficient secure route to market and pass too much risk onto the generator.

8.6 The Government then go on to suggest that PPA terms could improve due to a number of reasons:

(a) Possibilities for cash-out reform (para 7). This is negated by OFGEM’s actual plans, as OFGEM have stated that the one option that would minimise the costs, a centralised renewables balancing market, has been ruled out. Rather than incentivise PPAs increased balancing risk, it is likely to have the opposite impact.

(b) Simplification of risk management under the CfD (para 8). This is contradicted by the evidence: there is no simplification of risk under the CfD structure as it actually introduces new risks of basis risk, increased regulatory risks, and increased costs of collateralisation.

(c) Reduction in risk compared to fixed price or floor-price PPAs (Para 9). While there is a financial benefit, from not needing a floor-priced PPA to finance against, this will only be passed onto generators if there is sufficient competition in the PPA market.

(d) Energy only PPAs could be more attractive because there is no longer the risk of monetising the ROC (para 9). As generators, prior to the introduction of the EMR, there was not a risk of monetising the ROC. The risk of monetising the ROC has been created by the announcement of the EMR and the prospect of removing targets from the utilities.

(e) DECC also provide other reasons that include the supplier being short of electricity (ie greater supply requirement than generating capacity), alignment to market share and portfolio benefits (para 7). These are all very weak incentives (and it is debatable whether they actual provide an incentive) to enter into a long-term PPA. Certainly they are unlikely to have any bearing on the viability or otherwise of a PPA to a small-medium size generator.

8.7 Over the last ten years, twenty suppliers which previously had offered competition to the “Big Six” have exited the market, seven of these have been bought out by larger players and the rest have gone into administration. DECC has suggested that there are new entrants into the PPA market, however their appetite for PPAs is insufficient to solve the problem, and the evidence of historical experience suggests that such aggregators and independent suppliers struggle to operate effectively given the market structure.

8.8 In a similar way, if there is not an effective route-to-market available by mid 2015, the market for independent renewable generators will come to a halt, with independents being unable to progress projects under either the old RO structure or the new CfD Structure.

9. Viable Solutions to the Problems Created by CfD

9.1 There are solutions to make the FIT-CfD workable, which have been suggested to DECC. None of these have yet to be embraced, however. These solutions include:

(a) Regulatory backstop. A PPA provider of last resort provided by a central body provides minimum PPA terms to ensure that generators have a viable route-to-market as a backstop should market failure occur as expected.

(b) “Green” Financial Incentive. Currently the Government has proposed allocating the cost of the CfD to all suppliers according to customer base. This could be adjusted to allocate the cost of CfD support according to their share of low carbon generation. This would align the utilities objectives with the
Government’s objectives of low carbon delivery, incentivise PPA competition and a fair representation of the costs involved.

10. **The Lack of a Competitive PPA Market will Preclude the Viable Implementation of the Government’s Stated Goal of Competitive Price Setting ie Auctions (Objective 4)**

10.1 If the route-to-market is not resolved and independent generators remain dependent on the large vertically integrated suppliers for their PPAs to sell power then this will fundamentally undermine any process of competitive price setting (ie auctions).

10.2 If independent generators are competing the large vertically integrated suppliers in a competitive auction for the right to build new generating capacity, and at the same time are dependent on those suppliers for a PPA to sell their electricity, then this creates a situation where independent generators may be unable to compete effectively as their route-to-market is not set competitively to be cost reflective. In the extreme it would be possible for a utility to offer lower PPA terms to improve their chances of success in an auction.

10.3 In Annex B of the supporting documents to the draft Energy Bill (pg 10, para. 6) the Government re-iterates the criteria that needs to be in place to achieve competitive price discovery that were originally in the White Paper. These include:

(a) having confidence that there are enough potential participants in the auction or tender for there to be competitive tension;

(b) knowing that the development capacity of the potential participants exceeds volume the volume of new development sought in a given time period or tendering round; and

(c) knowing that the projects or technologies eligible for the tender of auction are comparable, so that the strike price is a meaningful way to discriminate between them.”

10.4 These are core principles (which should be brought into the Bill itself) but remain insufficient. Two further criteria are needed:

(a) There must be effective competition between auction participants such that the ability of one group to participate in an auction cannot be adversely affected by the actions of another group of participants.

(b) Auctions must be shown to work in the interest of a long term and sustainable industry.

10.5 Auctions are only an effective method of price discovery for homogenous goods where the key uncertainty is price. The Government is proposing to implement auctions at the end of the development process. Fundamentally this will jeopardise the long term sustainability of the renewable industry. It will incentivise the competing away of sunk development costs giving a short-term headline gain of apparently lower prices. However, these projects will not attract sufficient returns to reward the high risk development process and will discourage any further development taking place. This is the case for onshore wind; it will be even more extreme for higher development cost technologies such as offshore wind and nuclear. Combining a very high project delivery risk as a project progresses through the planning and consenting process, with auction risk will create a high risk market where new development cannot be sustained.

June 2012

**Written evidence submitted by Consumer Focus**

**INTRODUCTION**

Consumer Focus is a statutory consumer group established by the 2007 Consumers, Estate Agents and Redress Act. We have specific duties to represent the interests of energy consumers in mainland Great Britain.

We consider that the Energy Bill needs to capture a range of fundamental principles.

Firstly it needs to concentrate on delivering low carbon, secure energy supplies at the lowest cost to consumers. In its current form it will not do that; its emphasis on setting technology specific prices through an administered process is likely to push up consumer costs unnecessarily. We would like to see prices set through a competitive, technology neutral process.

Secondly, it should necessitate the clear articulation of the trade-offs that Government wishes to make between competing policy imperatives. The balance between, and priority given to, affordability, sustainability and security of supply objectives should be set out more clearly.

Thirdly, the forms of cost recovery should be considered. Bill based levies are a regressive means of paying for infrastructure because, in general, the poorest in society spend a higher proportion of their income on energy than the richest. Further thought needs to be given to how industrial stimulus for immature technologies is funded—in its current form all EMR measures appear to be bill based. Although we do not support the carbon floor price, we think that the proceeds of carbon taxation could usefully be used to support an ambitious national energy efficiency programme, with a particular focus on vulnerable consumers.
There need to be transparent mechanisms to monitor the impact of the mechanisms on consumer bills, both in total and differentially, and to manage costs down. We are particularly concerned that any investment instruments signed off in advance of the Bill being enacted are subject to adequate scrutiny to ensure they offer value for money.

Fifthly, the package should not be blind to the contribution that demand side measures can make. It would be a tragedy for consumers if following the predicted £110 billion of spending on EMR by 2020 we still saw millions of households in fuel poverty and consumers in inadequately insulated homes. Demand side reduction and demand side response should be able to compete under the package.

In the following sections we raise a number of specific points on the drafting of the Bill.

CHAPTER 1: CONTRACTS FOR DIFFERENCE

Part 1, Chapter 1, Clause 1(3)

1. The counterparty to the CFD has changed significantly since DECC initially consulted upon it in December 2010. At that time, it said that “Feed-in tariffs are long-term contracts between government (or an entity on behalf of government) and a low-carbon generator […].” The draft Energy Bill states that the counterparties to the CFD will actually be electricity generators and all electricity suppliers.

2. It should be borne in mind that there are significant overlaps between those two counterparty categories. For example, the “Big 6” energy companies produce around two third of electricity in Great Britain in addition to supplying nearly every home. It therefore appears that in many cases the same companies will be counterparties on both sides of the CFD. A system of “self-guaranteeing” may create systemic risks, particularly if any bad debts are socialised over other suppliers. We consider that it would be useful if the ECCC could seek clarification on how any failure to pay by supplier counterparties would be treated.

3. The cost of debt and financing is driven by a range of things including the perceived risk of default. The UK Government is triple AAA rated, and will have significantly lower borrowing costs than major energy suppliers.

4. It would therefore appear that shifting the counterparty risk from Government to suppliers could have the effect of increasing the cost of capital to fund low carbon investments, and by extension, increasing consumer costs.

5. In a parliamentary question answered on 18 April the Secretary of State was asked “what assessment he has made of the potential effects on the cost of capital reduction for renewable energy projects following the introduction of contract for difference under electricity market reform of the Government not acting as the counterparty for the contracts with electricity generators”. His response suggested that this had not yet been assessed; “[…]the assessment of the costs of capital impacts was based on removing the volatility in the revenue streams from plant supported by the contract for difference rather than the nature of the counterparty,[…](emphasis added)”. Reviewing the Impact Assessment published alongside the draft Energy Bill, it appears to us that the effect of shifting the counterparty from Government to suppliers has still not been assessed by DECC.

6. We consider that understanding counterparty risks and costs is fundamental to understanding the effectiveness (and costs) of the EMR package to consumers. We urge the ECCC to seek evidence on this point from DECC.

Part 1, Chapter 1, Clauses 5(2) and (1)(1)

7. Clause 5(2) sets out that the CFD regulations could include provision for administrative or competitive price setting, or for some combination of the two. In Figure 1 of the summary to the Bill an indicative timetable for the move from administered to competitive prices. It suggests that: until 2017 all CFDs for all technologies would have individually set administrative strike prices; from 2017 to 2020s there would be competitive, technology specific auctions; in the 2020s there would be competitive, technology neutral auctions; and that from the late 2020s all technologies will be able to compete without intervention.

8. We remain concerned that an administered price approach represents an extremely poor way of delivering value for money for consumers. While we see the benefit in protecting zero carbon generation from high carbon generation, we see little benefit in protecting zero carbon generation from other zero carbon generation. Energy policy is traditionally seen as having three key public policy aims, affordability, security of supply and decarbonisation, and none of these is better facilitated from such protectionism:

— Decarbonisation is not facilitated, because the protection these assets are seeking is from other zero carbon assets;
— Security of supply is not facilitated, because the value of scarcity and generation flexibility is separately valued by the capacity mechanism and the electricity imbalance arrangements; and
— Affordability is actively damaged, because a conscious decision is being made to go for higher cost options where lower cost options are available.

9. It increasingly appears to us that the driver for technology specific administered prices is driven by industrial policy aims—the desire to stimulate green jobs in as yet immature technologies—rather than for decarbonisation, security of supply or affordability reasons.

10. There is an inverse relationship between consumer exposure to energy bills and to direct taxes. In simple terms, the proportion of income spent on energy decreases as you move from low income to high income deciles while the proportion of income spent on taxes increases as you move from low income to high income deciles. Funding research and development policy for nascent energy technologies through bills rather than taxes may therefore be seen as unfair; disproportionately loading costs on the poorest in society. Given that 4.75 million households are already in fuel poverty, we question whether it is reasonable to expect energy bill payers to meet the costs of research and development for new technologies where it has not been proven that they are necessary in order to meet carbon targets or ensure security of supply. We do not believe that industrial policy should be paid for through energy bills.

11. Choosing an administered, technology specific, rather than a competitive, technology neutral, approach is also likely to create issues of market power. This is because it constrains the Government’s ability to credibly shop around (most notably in the case of nuclear, where the pool of potential developers is likely to be highly illiquid) and exacerbates problems of information asymmetry between the two sides of the negotiation (because the lack of competition for the contract reduces incentives on the developer to keep its costs down).

12. We would like to see a move to a competitive, technology neutral, procurement process for CFD FITs take place as soon as possible, and remain unconvinced that this could not happen on day one. We would like to see the Energy Bill contain a clearer expectation—preferably an (imminent) prescriptive deadline—for the phasing out of administered prices and replacement with a competitive price-setting regime.

13. We would also like to see constraints on the amount of R&D funding that can be paid for through bills in order to reduce the amount of exposure bill payers face to higher cost zero carbon technologies where lower cost zero carbon technologies exist. We suggest that this would most naturally sit in the regulations about contracts for difference referred to in Clause 1(1). We think that this clause should also be amended to introduce a focus of keeping down costs, and would suggest replacing “The Secretary of State may make regulations about contracts for difference for the purpose of encouraging low carbon electricity generation” with (emphasis added) “The Secretary of State may make regulations about contracts for difference for the purpose of encouraging low carbon electricity generation at minimum cost to consumers”.

14. For further detail on our views on how the CFD FIT regime could be made to work at lowest cost to consumers, please see our March 2011 response to DECC’s consultation on Electricity Market Reform.8

*Part 1, Chapter 1, Clause 12(2)(b)*

15. Clause 12 sets out the matters that the Secretary of State must have regard to when making CFD instruments in four areas: security of supply; costs; climate change and implementing renewable energy.

16. We consider that the cost sub-clause (b) has been drafted in a manner that makes it considerably weaker than the other three matters. Sub-clauses (c) and (d) both contain statutory targets while sub clause (a) refers to a comparatively black-and-white matter; whether the lights stay on.

17. Sub clause (b) on cost neither refers to statutory targets—though they exist in the area of fuel poverty—nor is it framed in a manner that is particularly conducive to an easy assessment of what success looks like.

18. We consider that if it is appropriate to embed climate change and renewable targets in the decision making framework that it would clearly also be appropriate to embed fuel poverty targets in the decision making framework. The absence of such inclusion may give a strong sense that affordability is a lesser concern of the Energy Bill than either security of supply or decarbonisation.

19. An alternative approach would be to rephrase this sub-clause to make clear that it is imperative that the Secretary of State must keep costs down. We would suggest tightening from “the likely cost to consumers of electricity in Great Britain” to “minimising the cost to consumers of electricity in Great Britain”.

*Chapter 2: Investment Instruments*

*Part 1, Chapter 2, Clause 15(2)*

1. This clause sets out the information that the Secretary of State must lay before Parliament when considering issuing an investment instrument giving comfort to a developer in the period between the introduction of the Bill and the enactment of the Act.


2. Statements by Ministers imply that a number of high materiality projects may seek such instruments, most notably the Hinkley Point C nuclear project. Media reports currently suggest that two new nuclear reactors at Hinkley Point C may cost in the order of £14 billion to construct—a larger sum than the hosting cost of the London Olympics.

3. Given the materiality of consumer liabilities that may emerge under these commitments we would like to see a strengthening of the reporting provisions contained within this clause. In particular, we think that any draft instrument laid before Parliament should be accompanied by a detailed cost/benefit analysis of the value of the agreement including a statement of other options considered, i.e. whether alternative projects or technologies could have provided zero carbon energy at lower cost.

4. While we note that sub-clause 15(5) precludes disclosure of sensitive commercial information it is important that this does not operate in a way that frustrates consumer interests. Disclosure of costs should help price discovery; for example by allowing other developers to speak up if they could deliver zero carbon production more cheaply. It is in the best interests of consumers that Parliamentarians are aware of any cheaper alternative options before any sizeable investment instrument is signed off—and this is best facilitated by maximum possible transparency on their contents. We do not consider that the counterparty should have to give their consent for the terms of the deal to be disclosed—indeed, we suspect it would be impossible for Parliamentarians to judge the pros or cons of any instrument without this.

Part 1, Chapter 2, Clause 15(2)(d)(ii)

5. This clause largely replicates the (previously discussed) Part 1, Chapter 1, Clause 12(2)(b) criteria for the matters that must be considered when entering a financial commitment and, in our view, contains the same weaknesses—that the affordability sub-clause is woollier than the security of supply or carbon sub-clauses and may therefore make affordability concerns secondary to those other concerns.

6. We consider that if it is appropriate to embed climate change targets in the decision making framework governed by this clause that it would clearly also be appropriate to embed fuel poverty targets in it.

7. An alternative approach would be to rephrase this sub-clause to make clear that it is imperative that the Secretary of State must keep costs down. We would suggest tightening from “the likely cost to consumers of electricity in Great Britain” to “minimising the cost to consumers of electricity in Great Britain”.

Chapter 3: Capacity Market

Part 1, Chapter 3, Clause 21(4)

8. This clause sets out the content of the electricity capacity regulations. We suggest that it needs the inclusion of a mechanism to compensate consumers in the event that capacity is not delivered. Ultimately capacity providers are being paid by consumers to provide a service—firm supply. If this does not happen, affected consumers should be entitled to expect that any fines or penalties resulting from the capacity providers failure to deliver against its contract should be returned to them in compensation.

Chapter 7: Emissions Performance Standard

1. We strongly welcome explicitly including the emissions cap within the legislation itself (in Chapter 7, clause 36(2)) rather than deflecting this to Regulations or a subsequent instrument. We strongly support a grandfathered, prospective only, EPS in order to insulate investors against the risk—and therefore consumers against the cost—of retrospective rule changes prompting plant closures.

2. We note that the summary of the Bill states (in the box following paragraph 73) that it includes “powers to bring additional plant into the regime, specifically where an existing plant replaces a boiler or where a “gasification” plant is associated with two or more generating stations”. Looking at Chapter 7, we cannot see where these powers are: it would be useful if this could be clarified. We have some anxieties about the risk of unintended consequences if the regime does capture existing plants that are upgrading their boilers; is there a risk that this would deter improvements to the efficiency of generating plants rather than encouraging them in some cases?

9 In a Lords debate on 29 May 2012 Lord Marland stated that “We are on the cusp of commissioning a new station in this country, at Hinkley Point. By December 2012, despite all the difficulties that we have encountered with Fukushima and things like that, the planning process will be before the Secretary of State for him to opine on.”

10 Source: “Soaring costs threaten to blow nuclear plans apart”, The Times, 7 May 2012.

11 For the avoidance of doubt, we neither support nor oppose new nuclear developments in principle. We use Hinkley Point as an example because of its materiality, not its technology.


CHAPTER 4, 5, 6 & 8: CONFLICTS OF INTEREST, CONTINGENCY ARRANGEMENTS, RENEWABLES OBLIGATION TRANSITIONAL ARRANGEMENTS, & STRATEGY AND POLICY STATEMENT

1. We have no comments on the drafting\textsuperscript{12} of chapters 4, 5, 6 or 8 of the draft Bill at this time.

Recommendations

— That DECC should provide revised estimates of the impact on cost of capital of the CFD FIT model taking into account that suppliers, rather than Government, will now be the counterparty.

— That Government adopt a competitive, technology neutral, rather than an administered, technology specific, approach to setting CFD prices.

— If Government initially pursues an administered approach to setting CFD prices that the legislation should hard code an (imminent) deadline for migrating to a competitive process rather than leaving this open ended in Chapter 1, Clause 5.

— That the method of cost recovery should be considered further, in particular where this relates to stimulating higher cost zero carbon technologies where lower cost zero carbon technologies are available.

— That demand reduction and response should be able to participate in the mechanisms established under EMR.

— That, notwithstanding our preference that the carbon floor price be scrapped, if it is to remain in place consideration should be given to spending the proceeds of carbon taxation on an ambitious plan to improve consumer energy efficiency, with a particular focus on helping vulnerable consumers and those living in hard to treat homes.

— That Chapter 1, Clause 12(2)(b) and Chapter 2, Clause 15(2)(d)(ii) setting out the factors that the Secretary of State must consider when developing regulations for CFDs and investment instruments should include a requirement to consider the effect that this will have on statutory fuel poverty targets, or tighten the language in those clauses from a requirement to consider “the likely cost to consumers of electricity in Great Britain” to “minimising the cost to consumers of electricity in Great Britain”.

— Given their potential materiality, and in order to ensure Parliamentary accountability, there should be a requirement for any investment instruments laid before the house to:

(a) be accompanied by a full cost/benefit analysis, including a statement of other options considered, ie whether alternative projects or technologies could have provided zero carbon energy at lower cost; and

(b) include full details of the key commercial terms of the transaction, in order to allow an opportunity for potential competitors who could offer consumers better terms to step forward.

— The electricity capacity regulations should include a mechanism for compensating consumers affected by supply shortfalls (ie who have paid for secure capacity, but have not received it).

— Clarify the treatment of existing plants undergoing equipment upgrades under the EPS: in what circumstances will they become subject to the emissions threshold; and what impact will this have on security of supply.

June 2012

Written evidence submitted by E3G

Overview

It is widely accepted that the UK Government will not be able to deliver its energy policy objectives without electricity market reform. In particular, the current market framework is unlikely to attract the levels of investment needed to decarbonise the power system and maintain security of supply. Moreover, where investment can be attracted, it is likely to incur high financing costs as a result of the significant inherent risks and this, therefore, would apply further upward pressure on electricity prices. Electricity market reform should therefore remain a high priority policy initiative.

Proposals for electricity market reform were originally designed with the intention of attracting a wider range of investors and reducing financing costs through mechanisms to transfer financial risks from investors to consumers (or taxpayers). However, the manifestation of these proposals in the Draft Energy Bill appears extremely unlikely to fulfil this objective and it may even lead to deterioration in investment conditions. There is, therefore, an extremely high probability that this draft legislation will lead to policy failure and significant amendment is required to avoid this situation.

\textsuperscript{12} It should also be recognised that some aspects of the policy covered by these chapter headings could be tackled by non-legislative routes. For example there may be a number of ways to manage any potential conflicts of interest that the System Operator may have without needing to go so far as full business separation of its role. For fuller details of possible approaches, please see our response to the joint DECC/Ofgem consultation on synergies and conflicts in National Grid managing EMR instruments. http://www.consumerfocus.org.uk/files/2009/06/Consumer-Focus-response-to-consultation-on-synergies-and-conflicts.pdf
The Problem

The draft legislation appears to be based upon the following logic:

1. Define short term restrictions on amount of support available
2. Fix instruments that can be used to deploy support
3. Instruct System Operator to deliver what is possible within these constraints

This logic is flawed in that:

1. It infers a clear hierarchy in the policy objectives of affordability, security and decarbonisation;
2. Involves over-prescriptive and inflexible legislation;
3. Provides no clear long term signals to investors;
4. Will lead to in-efficient and costly deployment of support; and
5. Creates a high risk of policy failure.

A more appropriate logic would be:

1. Define longer term security and decarbonisation outcomes based on reasonable expectations of affordability
2. Provide for flexibility in the instruments that can be used to deploy support - in particular, embracing the potential for demand side resources
3. Financially incentivise System Operator to deliver outcomes at least cost using the range of available instruments

This approach would have many advantages, including:

1. A more transparent and explicit debate about the trade-offs between affordability, security and decarbonisation;
2. Clear signals for investors to make longer term investment decisions;
3. A regulatory framework that drives efficient deployment of support and helps manage short term cost risks for suppliers and their customers;
4. A more appropriate balance between the contents of primary and secondary regulation; and
5. Low risk of policy failure.

The draft Energy Bill can be adapted to incorporate this policy logic although a major reworking is required. The following sections highlight the important changes that are required and explain why they would be beneficial.
**Defining Outcomes**

**Recommended change**

Insert new paragraph (3) in Chapter 8, Section 40 that states that:

- The outcomes must include those that should be delivered by the System Operator over the forthcoming delivery plan period,
- The Secretary of State must obtain confirmation from the Committee for Climate Change that these outcomes are consistent with delivery of currently approved carbon budgets,
- The Secretary of State must confirm the minimum reliability standard that is acceptable.

These outcomes should include overall emission reductions for the power sector, minimum levels of deployment for key technologies and a reliability standard (expressed either in terms of risk of enforced disconnection due to generation shortage or a deemed consumer value of lost load). It will provide a clear framework for the System Operator to develop a draft low carbon contracting delivery plan and to calculate the resources required to maintain security of supply. It will also provide clarity over longer term policy trajectory for investors and assurance for Parliament that Government policy is in line with statutory obligations.

New clause (d) in paragraph (2), Section 8:

Emissions reductions for the power sector required to meet the carbon budgets set out in the Climate Change Act 2008.

**Rationale**

- It is worth explicitly mentioning the possibility of targets for power sector emissions reductions since this is likely to be the key driver for letting contracts.

**Flexibility in Instruments**

**Recommended change**

New section 1, sub-section 1 in Chapter 1:

- The Secretary of State may make regulations about contracts for the purpose of encouraging low carbon electricity resources

This avoids restricting the form of the contract. For example, it may emerge that the CfD form is ineffective in attracting investment for renewable generation and a payment for output (fixed feed-in-tariff) is more appropriate. Also, the use of the term ‘resources’ allows for demand side investments to be considered alongside generation. Attracting demand side investment may require very different contract structures.

Major re-working and simplification of remainder of Chapter 1 in line with new section 1. For example, sections 4, 5, and 6 would be removed completely.

New section 20, sub-section 1 in Chapter 3

- The Secretary of State may by regulations make provision for the purpose of securing the resources that will deliver the required reliability standard for electricity consumers in Great Britain

This avoids restricting the mechanisms to the procurement of firm capacity since this may be an inefficient way to deliver reliability in a power system with significant volumes of intermittent and inflexible generation. In particular, the term ‘resources’ allows for the procurement of energy and flexibility capabilities from both supply and demand side sources.

Major re-working and simplification of remainder of Chapter 3 in line with new section 1.

Allows for more appropriate balance of detail between primary and secondary legislation. For example, sub-section 3 of section 20 in Chapter 3 would state: ‘In subsection (1) “resources” means having the capability to deliver changes in energy consumption or production in such a way that minimises the overall costs of delivering reliability’
Demand Side Resources

**Recommended change**

Introduce new section to Chapter 1 stating that:

‘Within 6 months of the Energy Bill receiving Royal Assent, the Secretary of State must lay before Parliament proposals for minimum volumes of demand reduction that the System Operator must procure during the first delivery period’. It may also be appropriate to establish a similar section in Chapter 3 relating to minimum volumes of demand response.

**Rationale**

Demand reduction will be critical if Government policy objectives are to be achieved and stimulating new markets in customer facing products and services should lie at the heart of the EMR proposals. Current markets for electricity efficiency are diffuse and immature and the overall levels of efficiency delivered can be difficult to quantify. Therefore, a positive incentive is required to ensure that the Government, Regulator and System Operator apply the necessary focus to establish these new markets such that they can become self-sustaining. In particular, demand side resources have the potential to minimise the costs associated with implementing the delivery plan and, once initial implementation barriers have been overcome and with appropriate incentivisation in place (see below), it is expected that demand side resources will become an increasingly important component of System Operator actions.

Incentivisation Framework

**Recommended change**

New sections 7: Functions of the Authority:

- The contract regulations may make provision conferring functions on the Gas and Electricity Markets Authority for the purpose establishing new regulations for the financial incentivisation of the System Operator in the implementation of the delivery plan and the stabilisation of short term cost exposures for suppliers and their customers.
- The Gas and Electricity Markets Authority must establish such a mechanism ahead of the publication of the first draft delivery plan.

**Rationale**

Much of the draft energy bill is devoted to managing concerns arising from requiring a privately owned, profit making entity to fulfil functions of critical importance for the public good without any alignment between the business objectives and required outcomes. This position is unsustainable. Implementation of an appropriate profit incentivisation framework has multiple advantages:

- Establishes a more sustainable institutional framework.
- Reduces the need for primary legislation to cater for a change in delivery institutions.
- Is likely to lead to lower cost and more efficient delivery of support.
- Will stabilise short term financial risks for Suppliers and their customers by ensuring a more appropriate sharing of cost risk between System Operator and Suppliers. Indeed, it is possible that the costs of delivering EMR support can be largely fixed at the start of the delivery plan period.

However, such incentivisation requires that the System Operator has flexibility in the form of instrument used such that it is incentivised to innovate to identify the most appropriate approach to adopt.

June 2012

Written evidence submitted by RenewableUK

**Key Points**

- **Timing**—it is critically important to keep to the published timeline in order to ensure reform is effectively implemented, giving industry the certainty needed to make much-needed investments.
- **Simplicity**—Given the complexity of EMR package generally, Government should err on the side of simple mechanisms and policy instruments whenever possible in order to have reform in place as soon as possible.
- **Certainty**—Where possible, the Bill should set out the detailed solution to be legislated. While much is yet to be decided and will be implemented in secondary legislation, where there is clarity it should be written into the Bill in order to increase confidence in the outcome.
— Coherence—it is vital that the new arrangements work “end-to-end” not only within the EMR package but also with relevant other initiatives from Europe, Ofgem or elsewhere. The electricity policy landscape is currently full of moving parts and they all need to fit together coherently.

— Transparency—it is important that the renewable and finance industries are kept up-to-date with developments and given as much insight/information as possible to avoid destabilising speculation.

OVERVIEW

1. RenewableUK, the leading trade association in the renewable power industry with 650 company members right across the value chain in the wind, wave and tidal stream sectors, appreciates the important role the Energy and Climate Change Committee is fulfilling by examining in detail the draft Energy Bill released last month. The industries we represent will be providing the majority of the renewable electricity that will be required to meet targets for 2020, and bring the best opportunities in the renewables sector to provide thousands of jobs in the UK and stabilise consumer prices.

2. We are committed to continuing to work to assist in shaping a workable and useful solution to Electricity Market Reform (EMR), but it is critically important there is a system that works for our members. As the Government has stated, the consequences of getting EMR wrong could be missed renewables and carbon reduction targets, lower security of supply, and foregone jobs and growth.

3. Fundamental to the success of EMR is the need to maintain confidence in the sector, including alleviating the concerns of the supply chain, development and investment sectors as they are vital to securing necessary cost reductions. In our view, instilling confidence means that when possible—given the inherent complexity of the electricity market—simple solutions should be given priority over overly complex solutions that introduce risk for little or no benefit.

4. There have been reoccurring examples of Government proposing overly complex policy that runs counter to its intent of reducing risks to renewable energy development. Government’s proposals are justly ambitious considering the challenges the UK faces with its energy market, but given the ambitious goals, the default position should be to keep the framework as simple as possible. Government must recognise that the UK is competing in a global market for equipment, skills and capital at a time when several major countries are also seeking to embark on ambitious plans for low carbon growth. By making policy clearly understandable, transparent and simple, the UK becomes more likely to attract the new investment that will keep costs down, secure energy security and keep the lights on. In general, complexity equals risk, and risk equals cost. As one of Government’s key objectives is affordability, DECC should work through the system from start to finish in order to simplify where at all possible, to aid comprehensibility of the policy and reduce cost.

5. It is also important that DECC work through the EMR package to ensure coherence both internally and with the many other reforms that are under way in other parts of the electricity sector. These reforms include, inter alia, Project TransmiT (transmission price reform), implementation of the EU’s third electricity liberalisation package, Ofgem’s Retail Market Review (on wholesale market liquidity) and the upcoming Significant Code Review on Cash-out. With so many “moving parts” in the policy landscape, the potential for unintended consequences is high. DECC needs to audit the whole landscape in order to minimise this potential, as well as providing a more understandable environment for investors.

6. At the same time, transparency and due process must be a cornerstone of market reform. Too little has been done to send the right signals to investors, giving them the confidence and knowledge needed to secure the billions of pounds needed in the UK’s renewable energy infrastructure. Without clarity and transparency of process, we face significant risk that investment and resources will be committed elsewhere, to the detriment of the UK. We would welcome greater transparency and engagement by DECC with the industry, but also would be keen to see more detail and clarity included within the Energy Bill itself, where possible and appropriate.

7. Currently the strategy appears to leave much of the specific policy out, with decisions on the detail made at a later date and implemented in secondary legislation. In general, the powers being taken by the Secretary of State are not limited in time, and so can be used to intervene at any point. This is understandable given the short timescales and the fact that many decisions are still to be taken; we do not expect the Bill itself to deliver all the detail in the primary legislation. However, the general nature of the powers being taken leaves open questions about what will be in secondary legislation and how open to change this will be. This is a matter of concern for investors committing significant resources to development funding to get to a point where a CfD could be issued. As it stands now, it is far from certain how much advance notice would be given, putting at risk development investment—this could have substantial negative effects on the technologies that are delivering now and gathering momentum. It would be important for developers to know that they will be able to move forward with the project given that they can meet the strike price. Ultimately, it is the equity investor that will shoulder the burden of getting projects to fly initially and right now the perception of risk may deter investment if volume and price can be changed at a whim.

8. Such open-ended powers are not appropriate in all cases. Previous legislation, such as that for NETA and Connect and Manage, provided powers which were time limited once enacted. This provides for necessary changes in the short term but ensures regulatory certainty, as future intervention would require further
9. Where there is clarity on the way forward, therefore, we would seek for this to be written into the primary legislation, so that confidence can be bolstered. The longer that uncertainty persists, the more likely it is that we will get higher prices and less stable energy supplies, and miss the mandatory 2020 renewable targets.

10. In general, we are disappointed in the pace of this reform—DECC published the EMR White Paper in July 2011, and the draft Bill in May 2012, with many of the key decisions yet to be made. Engagement by DECC on its developing thinking has been limited in this time. While we welcome signs of more openness, including the establishment of the three Expert Groups on the Capacity Mechanism, Institutional Arrangements and CfD Terms, and the impending Call for Evidence on PPAs for independent generators, time is extremely tight to resolve all the outstanding issues by autumn, when the full Bill is due to be laid before Parliament. We believe that Government should do all it can to underpin investor confidence through ensuring that if the timetable should slip, there are insurance options open that would avoid a hiatus in build around 2017.

11. The main focus of the Bill is EMR, and we address our concerns about the reform under four headings: Delivery Plan; CfD Operation; Northern Ireland and Devolved Administrations; and Process and Timing. We also comment on some of the other provisions of the Bill at the end of this submission.

**Delivery Plan**

*Engagement with National Grid*

12. We have real concerns over the way in which Government ultimately decides to minimise possible conflicts of interest arising from National Grid acting as delivery agent of EMR. We look forward to the results of the Ofgem/DECC consultation conducted earlier this year, but will take this opportunity to reiterate the importance of there being strong ring-fencing, at the very least, combined with complete transparency into the decision-making process taking place at National Grid.

13. More engagement as to National Grid’s plans to offer analysis and recommendations to DECC as well as the process it foresees for administering the CfD and capacity mechanism is needed. Only a short time exists between now and when National Grid will be offering recommendations and beginning to administer EMR. So far there has been too little engagement coming from National Grid.

**Data Collection**

14. We note that in DECC’s current timeline, National Grid will be starting the process of gathering data with which to advise Government on the Delivery Plan this summer. Much of this data will be highly sensitive and commercially valuable. At this point National Grid will certainly not have any legal standing as the Delivery Body, and the process may start before any details have been established around its role, possible ring-fencing and how the data will be used and stored. Given the lack of legal framework, we believe assurances on confidentiality and data handling are a prerequisite of providing information to a private company that has subsidiaries that could be direct competitors to other market participants.

15. As a first step in the process to set strike prices, it is important that data first collected two years ago by Arup to inform the Renewables Obligation Rebanding Review is refreshed. Preferably, the original data should be replaced by a new, more comprehensive analysis. As the timetable is already very tight this would need to be conducted very soon to avoid the same mistakes that happened during the Arup review. We recommend Government and National Grid outline the process and timetable for collecting data as soon as possible to avoid past problems such as giving an inadequate amount of time for companies to respond and a lack of assurance commercial data would be kept confidential.

**Managing Budget**

16. Returning to the theme of implementing the simplest policy when possible we urge Government to move forward with the “Control by Price Setting” budget model. It is most similar to the current system in place and would be most welcome to investors struggling to make sense of the proposed reform.

17. Questions remain concerning what happens if there are more projects seeking contracts than contracts available from National Grid. If, as has been suggested in the past, developers will be able to bid in lower than the administered strike price, details of the process will need to be set out quickly. However, we would discourage any such de facto “optional auctioning” in the period of administered pricing; any form of auctioning should only be introduced when the conditions detailed elsewhere in the Bill are met and the technology in question is no longer available to meet the UK’s 2020 targets. Maximum achievement of the 2020 targets will be facilitated if CfDs in the first delivery period are awarded purely on “will-secure” tests on a fist-come first-served basis, rather than through price competition.
18. Clarity is needed around the appropriate accounting for CfDs required in order that the credit and balance sheet implications are fully understood. This accounting is crucial in the resource constrained environment governed by the Levy Control Framework. At present it is unclear how CfDs will be valued for Levy Control purposes, given that the amounts paid out under them will vary with the wholesale price for power. This problem is compounded by the issue that during the period 2014–17, where there is a choice between the RO and CfDs, the budget available has to cover both—how much capacity can be built will depend on which system developers choose for their projects, with different implications for their draw on the budget. The industry will need early clarity on how the budget will be managed in this highly uncertain situation.

19. If there is a rationing via cost control measures, it will be too late in the development process for companies to be able to first enter a CfD only at the time of financial close/final investment decision (FID). In the period between receiving consent and FID, developers will spend substantial amounts maturing large offshore wind projects, gathering geotechnical information and entering into contracts for long lead time items. It will be a substantial risk for developers to move ahead with the uncertainty of receiving a CfD only at FID and may actually prevent further development of projects. Hence developers would need an earlier confirmation regarding the ability to enter into CfD already from time of consent. More work is needed with respect to firming up the commitments for developers in a CfD between consent and FID.

20. Rationing could have substantial negative effects on the technologies that are being delivered and gaining momentum. It is crucial for developers to know that they will be able to move forward with the project given that they can meet the strike price.

21. Government should also provide some more certainty for technologies that are earlier in their technological development cycle, and thus higher cost, that there will be a sufficient volume of contracts available to them at an appropriate price into the 2020s. The emerging wave and tidal stream technologies will still be at a higher cost level than other renewable technologies at the time that DECC intends auctions to be in operation. Without reassurance that there is sufficient market into the 2020s, investments in technology development will be deterred and an industrial opportunity missed.

**Allocation of Contracts under the Volume Cap(s)**

22. Additional clarity is needed for the process by which National Grid decides who receives contracts and who does not, as it will likely be receiving more applicants than contracts available. Further certainty is needed to ensure the process is not like an auction, which would have harmful impacts on the market, and instead a fair and transparent process. The process by which National Grid exercises any judgement around contract allocation should be made under transparent rules and criteria. To be absolutely clear, we would strongly prefer the process whereby projects are awarded CfDs to be as mechanistic as possible, with very little (if any) leeway for discretion. Discretion adds risk and uncertainty to a process that, for offshore wind at least, could be very costly if a contract is not awarded.

23. Allocation every six months is another example of Government unnecessarily increasing risks and the likelihood of delay. By having allocation rounds every six months, instead of a system of awarding contracts to projects that meet requirements on a “first come, first served” basis, delays become likely as investors will be discouraged from investing in an environment where the outcome is uncertain. If conditions are met, then CfDs should be awarded as applications are received. Otherwise, if a developer misses the one-month allocation window every six months by a day and then is turned down in the subsequent allocation round, that could mean a year-long delay. This could significantly deter the needed development of renewable power generation.

24. Furthermore, the six-month application cycle will put unnecessary peaking/troughing strain on the resource planning of the legal and advisory firms who are important service providers in bringing projects to financial close, as well as resource utilisation of commercial departments in supplier companies. This will result in a human resource bottleneck on the project development process, further jeopardising achievement of the 2020 targets.

25. The implications of delays in the development process need to be considered in the context of a scarcity of contracts. There will be limits on the resource available to support renewables, so the available contracts may be “used up” by the time a delayed project progresses and becomes eligible for support. Large scale project developers need confidence that support will be available in order to undertake considerable development expenses. Otherwise it is likely that the large scale projects we need to achieve targets will find it even more difficult to get off the ground.

**Auctions**

26. The stated intent of Government is to reduce risks and increase investment in much-needed power systems. However, introducing auctions discourages investment because there is less certainty to investors that their projects will receive a contract, and at what price. This will discourage investment in development and slow down the rate at which renewable projects come forward, which plays a crucial role in keeping energy costs under control—a predictable and consistent flow of projects encourages investment by the supply chain in more economical technological and process solutions.
27. RenewableUK understands Government’s desire to move toward a system where support mechanisms are no longer needed, but we continue to believe that auctions are the wrong way to manage this transition. We and other stakeholders have consistently urged against auctions because of their negative consequences and continue to urge Government to reconsider these proposals.

28. If Government persists in moving to auctions then there must be a strong focus on making sure that the criteria set out for a meaningful process to be run are actually met before auctions are introduced. These criteria relate to there being enough participants and capacity of a comparable type and cost to result in competitive tension. Only the renewable technologies could credibly meet these criteria in the foreseeable future and hence the disincentive on development described above would only apply to renewables. Given that these are the technologies that are delivering now and gathering momentum, it seems perverse to place unnecessary and specific obstructions in their way. However, it is entirely possible that the prospect of auctions discourages development to the point that the criteria for competitive auctions are not met. The other key risk of auctions is the “winner’s curse”—developers bid low in order to secure contracts, but then find that they have bid too low to make a sufficient return on investment. This is the experience of the UK under the Non-Fossil Fuel Obligation (NFFO) system in the 1990s, and similar situations have resulted abroad.

29. We are also unclear about what driver there will be around the volume to be auctioned for delivery post-2020. If Government is intent on setting a technology-neutral decarbonisation objective for 2030, then how that is translated into volume in technology-specific auctions will be crucial. For those technologies that could result in significant industries for the UK, such as offshore wind and the marine technologies, this is particularly important, given that long-term confidence in the level of demand will drive investment in manufacturing capacity.

Administrative Price Setting

30. With Government aiming to have the first FiT CfD signed in 2014 it is critical that the current timeline of having draft Strike Prices published as early as April 2013, and no later than June 2013, is kept. This would allow the first set of Strike Prices to be published in the third quarter of 2013—one year in advance of Strike Price becoming live—as opposed to the current goal of the fourth quarter of 2013. Members strongly believe that publishing the prices one year in advance is crucial in order to adequately prepare for the transition between the RO and FIT CFD during 2014–17.

31. Strike prices published mid-2013 are important to give an indication of the direction of travel post-2017. For example, without clarity on this in the short term, it will be difficult to attract investment in early marine arrays funded through the Marine Energy Array Demonstrator (MEAD) and Marine Renewables Commercialisation Fund (MRCF) programmes. These early arrays only make sense if they are part of larger projects which will be built out post-2017.

32. Further clarification is needed to address what would trigger an emergency review of Strike Prices. We support the Government’s aim to control costs, but certainty is the upmost concern of investors that will make meeting 2020 targets possible.

Investment Instruments

33. We appreciate the Government’s intention to smooth the transition from the RO to CfDs and avoid a hiatus in build through the use of Investment Instruments. We are generally supportive of these instruments having some role, considering the period of time until CfDs are in place, but we have some concerns. Given that there are limited funds available under the Levy Control Framework, those awarded these instruments may be perceived to have unfairly secured too large a portion of the available resource. The instruments would also have to clear state aid hurdles, and may require Parliamentary scrutiny of each individual deal before they could be implemented.

CfD Operation

Counterparty and Associated Liabilities

34. Decisions being made regarding the institutional design of the counterparty are paramount. Since both Treasury and National Grid have said no to undertaking the role of counterparty, more needs to be done to convince investors that codified arrangements or another option are in place and viable. We are pleased DECC has recognised the necessity of a defined dispute resolution process, but would like further details of how it would work. Financiers will still need to be educated on the detail and reassured regarding the enforceability of the contract.

35. We have serious concerns that the currently proposed model, the “synthetic counterparty”, is not legally enforceable and have been unable to be convinced otherwise. Financiers have also been unconvincing, leading us to be inclined to favour the alternative model, which involves a legally established counterparty that can write bilateral contracts with generators. However, the alternative model potentially faces serious state aid questions, but given that the first model appears unworkable we hope to engage with Government with a view to making the alternative model a reality, though at the moment there is not much detail with which to judge this option.
Accounting Treatment

36. Whether or not CfDs are defined as a derivative and have to be reflected at fair value in company accounts is a key issue. While DECC has sought advice from accounting firms, there are as yet no firm conclusions. This needs to be resolved before we go too far down the CfD route. The design of the CfD must ensure that it is ultimately treated as a production cost, in the same way that the RO is, to avoid further pressures on off-taker company balance sheets and credit ratings. Government also needs to address how CfDs would be treated under EU financial regulation including the European Market Infrastructure Regulation (EMIR) and the proposed revision of the Markets in Financial Instruments Directive (MiFID) which could impose requirements on counterparties to post collateral and mandate central clearing.

Offtake Risks/Power Purchase Agreements

37. The issue around Power Purchase Agreements (PPAs) raises serious questions about the proposed timetable as it is a tight deadline to have a solution ready by autumn. It is critical independent generators are able to sell power in a bankable manner. Otherwise, independent generators would struggle to bring forward the projects needed to meet targets. There is still concern as to how generators will go about selling power and whether there will be some mechanism such as a buyer of last resort in place for projects that do not win a contract.

Detailed Terms

38. Penalties for Late Commissioning—After a CfD has been awarded there is already an incentive for investors to complete the plant as soon as possible, having committed capital to the project: in order to generate revenue they must generate electricity. It is thus puzzling why Government has suggested there should be penalties to incentivise compliance with a CfD award.Penalties when there is already an incentive to construct plants would only discourage development, which is exactly what the Government has correctly said it wants to avoid. This is a case of a policy choice which increases risk while having no beneficial effect.

39. 15-year Contracts—Fifteen years seems to be too short a time considering banks are willing to lend for 17 years and new investors such as pension funds are expressing a strong interest in financing renewable projects, but would require longer periods of certainty in exchange for lower return. Such investors are more concerned about certainty than rate of return. DECC suggests a CfD length of 15 years as representing an effective balance between enabling a range of projects to secure debt finance and achieve required returns to equity, while minimising costs of consumer support. Investors will aim to have achieved a return on their investment within the period of the contract, and the shorter the contract the higher the cost to customers (although customers will be funding projects for shorter periods). We would prefer an approach where contract length is related to the economic life of the plant—say 20 years for renewables, consistent with the approach taken for the existing RO. A longer term contract would be a more affordable option for consumers as well. It should also be recognised that this length of contract has been successful at attracting new sources of capital into the Offshore Transmission Operator (OFTO) tender process, providing flexibility over raising both debt and equity finance.

Wholesale Market Liquidity and Operation

40. Reference Prices—By using an hourly day ahead auction price to determine the reference price for variable power there will be unpredictable price adjustments inherent in the system. A serious risk is that the GB hub for day ahead trading, which DECC intends to be the reference price, is speculative as its existence has not been fully worked out.

Northern Ireland and Devolved Administrations

Northern Ireland

42. There are real differences between Northern Ireland and Great Britain such as National Grid having no operation in Northern Ireland. We seek assurance that the differences between the two markets are recognised and that they will be appropriately accommodated.

43. The Northern Ireland Government has said a CfD will not be implemented until 2016, with the NIRO ending in 2017. There is no question this would lead to a hiatus in development given the RO’s enter-on-completion nature and the CfD’s sign-at-start-of-build concept. There would be no overlap of the two systems in NI with this timetable.
44. Other complications include the difference in legal environments requiring a separate contract with separate criteria, a different strike price taking into account difference between SEM and BETTA, and the non-existence of the Balancing and Settlement Code (BSC) intended to manage the FiT CfD counterparty agreement.

45. Unlike Great Britain there is a long queue for grid access in Northern Ireland. With “Connect and Manage” in Great Britain, developers are assured of timely connections, but in Northern Ireland there is no such guarantee, raising questions of if/when there is little FiT CfD volume left by the time generators are able to connect.

**Scotland**

46. It is important that the Scottish Government retains its executive power to set the RO in Scotland. The Scottish Government has expressed its support of moving toward a coherent UK energy market and is working closely with DECC to make that a success. However, this is contingent upon the Scottish Government having a statutory role with EMR including CfDs, Ofgem and National Grid as the EMR delivery agent. If Scotland does not see the level of progress needed, the Devolved Government will likely seek the power to extend the RO in Scotland to ensure the avoidance of any unnecessary hiatus in development. We would much prefer that EMR be implemented in a UK-wide manner without differences between Scotland and the rest of the country, and would urge all parties to avoid that outcome.

**PROCESS AND TIMING**

**Transparency**

47. There has been concern that the EMR process has not been transparent enough and that until recently there are few signs of change. We strongly urge DECC to share more information on the process as ignorance leads to speculation and uncertainty that can have harmful effects on the market. A recent example of this has been the material, or rather the lack thereof, coming out of the Institutional Framework and Capacity Market expert groups organised by DECC.

**Engagement**

48. RenewableUK would like to see increased engagement between it and its members and DECC because the stakes of getting EMR wrong are too high. We have been and are committed to making the policy a success, and hope that progress with engagement is made. For instance, we have been informed of the intention to form a trade association working group that would assist DECC with EMR formulation early this year, but at the time of writing we still have not received details of the group’s makeup, function or first meeting date. We sincerely hope that DECC recognises the importance of the wind, wave and tidal industries and calls upon the vast reach and expertise of our members.

**Risks to the Stated Timetable**

49. Since the EMR White Paper was published in July 2011, progress has chronically lagged behind its stated timetables, and in the latest timetable Royal Assent has been pushed back by three months. Added to this there is the need to develop secondary legislation to give effect to the EMR after Royal Assent, and thus we see real challenges in meeting the timetable outlined. At this point, there is no “slack” in the plan with significant risks to the timetable still remaining. This is making the current timetable a big challenge. If the challenging timetable drifts further it would cause a hiatus in development. Therefore, RenewableUK believes Government should leave room for a “Plan B” such as extending the RO for one or more years, due to the risk of further delay.

50. **RO to CfD Transition**—The 2017 deadline of shifting from the RO to the CfD is quickly approaching, given the realities of the UK project development process. For developers requiring project finance, as a minimum three years is needed to know that the CfD arrangements will work at financial close and prior to the start of construction. Delays impact project development, financing and supply chain decisions, which negatively affect the pace of reaching low carbon ambitions and cementing the UK as a leader in renewable energy.

51. The Energy and Climate Change Select Committee report on Marine Renewables stated as a clear recommendation that clarity of the CfD FiT for marine energy is needed by 2013. Financing for marine renewables is weakened as it identifies major investors for arrays to be deployed in 2015. Offshore wind faces similar funding obstacles as it moves toward Round Three deployment.

52. **Institutional Framework**—The ambition of having a final delivery plan published by late 2013 is welcomed, but it should be recognised that it will be a difficult undertaking. From our vantage point, National Grid as EMR delivery agent has had only limited stakeholder engagement with industry and as DECC has said it is only beginning to look at the creation of an independent expert panel to analyse the data being presented by National Grid. National Grid’s responsibility to effectively make recommendations to Government requires a serious amount of work, which is not impossible, but challenging given National Grid lacks expertise in the area of costs. An additional concern is raised when DECC has said in Annex A: Institutional Framework:
Government, the System Operator and Ofgem paragraph 23 that it is still unsure of the timing for putting together the Institutional Framework and would have a better sense sometime later this year. Absolute clarity is needed very soon.

53. State Aid Approval—RenewableUK understands the Government’s hands are tied in regards to receiving State Aid Approval from the European Commission, but it would be negligent for RenewableUK not to express concern on this issue. Indications out of Brussels demonstrate that this may be the number one chance for delay. This and other risks lead us to believe the possibility of a “Plan B” must at the very least be left open. In addition to primary legislation being delayed there may be cause for concern that secondary legislation, which is anticipated to contain a lot of the detail may be delayed because of the same concerns.

Keeping a “Plan B” Option Open

54. As we have continued to state RenewableUK is committed to EMR being a success as we recognise and agree with the urgency set out by Government. However, we as the largest representative of the UK’s renewable sector must ensure that steady progress is made to ensure the confidence needed to make necessary investments in the renewables needed to meet targets. A hiatus is very much possible if EMR is delayed any further and that is why we urge Government to leave open the possibility that the RO could be extended to 2018 or even beyond if there are any further delays in EMR’s adoption and implementation.

Non-EMR Aspects of the Bill

55. We welcome the intention set out in clause 105 to enable offshore renewable developers to carry out, during the commissioning phase of their projects, certain transmission functions where they have provided their own transmission connection to the project (the “generator build” option) prior to transfer to the selected OFTO. This has become a major concern for the industry in the transition to the enduring OFTO regime. The proposal will provide investors with the assurance that they will not be in breach of the licence condition for undertaking commissioning tests prior to handing the offshore transmission assets over to a third party via the OFTO tender process.

June 2012

Written evidence submitted by Friends of the Earth

The Energy Bill is one of the most important opportunities in decades to achieve a sustainable, low-carbon, secure and affordable energy system, but the draft Bill published on 22 May 2012 falls disastrously short of meeting this challenge. The Committee’s scrutiny is therefore of the highest importance.

The Committee faces an uphill battle, not only due to the compressed nature of the timescale, but because the draft Bill and accompanying documents are so desperately light on detail, with much promised later in the year or in secondary legislation. Friends of the Earth believes that the Committee will want to ask how ministers expect such landmark legislation to be properly and democratically scrutinised, when so little detail is available—and to examine what signals this sends to investors looking for policy certainty.

We set out our views on various aspects of the Electricity Market Reform (EMR) components of the draft Bill below. In summary, we believe the critical questions requiring scrutiny are:

— How can the draft Bill be fully scrutinised and its impacts assessed when much of the vital detail is not yet available?
— Why has the Government not written the CCC’s 2030 50g electricity decarbonisation target into the bill, when not meeting it either means higher economy-wide decarbonisation costs or that carbon budgets are missed?
— It is now more than a year since Contracts for Difference were named as the Government’s preferred option: why is there no further clarity over the detail of CfDs?
— Does the suggested strike price for nuclear of over £150/MWh—considerably more expensive than offshore wind—represent good value for billpayers?
— Why has a fixed feed-in-tariff, which would give more certainty to investors, not been considered by DECC.
— Are the proposals for grandfathering emissions under the EPS compatible with meeting our carbon budgets and avoiding a second dash for gas?
— How can we ensure that a failure to deliver new nuclear capacity does not lead by default to an overwhelming reliance on gas?
— What is the most likely scale of the supposed energy gap and, if smaller than often implied by government, how should this shift the focus of the Bill?
— How can the Bill overall, and the Capacity Market specifically, be better shaped to drive innovation in electricity generation, distribution, storage and demand reduction technology?
The below submission takes the above questions and looks at them in greater detail.

1. A BILL WITH AN ILL-DEFINED PURPOSE: THE NEED FOR A CLEAR DECARBONISATION OBJECTIVE

The draft Bill fails to set out clearly what it aims to achieve and by when. We welcome the Government’s statement in the Foreword to the Bill that “we must decarbonise Britain’s electricity generation, to meet our carbon budgets”, and that the purpose of the Bill’s reforms is to help deliver this, alongside the other critical goals of a secure and reliable electricity supply, and minimising costs to the economy and consumers.

However, the Bill then has a major omission—it does not set an appropriate decarbonisation goal. This goal is critical for giving investors certainty, and ensuring carbon budgets are met cost-effectively.

We note that the ECC committee’s previous report recommended that “the EMR package must deliver 50g CO2e/kWh carbon intensity by 2030”. This is the clear and repeated recommendation of the Committee on Climate Change (CCC). When you questioned the then Secretary of State in March 2011, he replied that it would be covered in the Government’s formal response to the fourth Carbon Budget report. However, this response did not mention the electricity target at all.

The CCC says that its overall 2030 target is an essential milestone on the pathway to the UK’s 2050 target: “any less ambitious target for 2030 would endanger the feasibility of the path to 2050”. We note also that the CCC’s analysis is itself based on delivering only a greater than 60% chance of exceeding an increase in average global temperatures of 2 degrees—these are extremely poor odds for a temperature rise Governments have said must be avoided. Reducing the risk to acceptable levels would require tougher carbon budgets.

The electricity sector decarbonisation target is a crucial element for meeting the overall 2030 and 2050 targets and budgets cost-effectively. Even for the fourth Carbon Budget period 2023–27, MARKAL’s modelling for DECC says “In order to minimise welfare loss associated with the long term low carbon transition, the 4th budget period would be characterised by extremely rapid decarbonisation of grid electricity”. The CCC say: “The costs of reducing carbon-intensity in the power sector are generally lower than doing so in other sectors, and the least-cost path towards 2050 is therefore likely to involve early decarbonisation of electricity supply”.

Yet the 2012 draft Energy Bill says instead that “the 2011 Carbon Plan suggests that the most cost-effective paths to deliver the 2030 target require the electricity sector to be largely decarbonised during the 2030s”. (our emphasis added), and the underlying modelling assumes a target of 100g/kWh even though the document explicitly acknowledges the CCC’s 50g recommendation: “100gCO2/kWh in 2030 is an indicative target level consistent with modelling for the EMR Consultation and subsequent White Paper and with the previous recommendation for the power sector from the Committee on Climate Change (CCC). The CCC had advised in June 2010 that to meet the UK’s 2050 target required decarbonising to around 100g/kWh in 2030 (they later reduced that to 50g/kWh)”. Elsewhere, the document argues that without EMR, emissions would hit 165g/kWh, “over three times the level advised by the CCC”.

However, the Carbon Plan analysis shows that the 50g pathway has far lower cumulative emissions than the 100g scenario it is compared against: a reduction of 40MtCO2 in the period 2023–27 alone, and a greater investment in renewables and CCS. The Government’s “cost-effectiveness” claims refer to meeting the target of 80% lower emissions in 2050, but from a climate change perspective it is cumulative emissions over the period from 2012–50 that matter, not simply emissions in the final year. The MARKAL analysis for DECC highlights the importance of this—giving the example of an early abatement scenario emitting 2500 MtCO2 less than one that follows the baseline to 2030 and then abates rapidly, even though they both reach the same 2050 end-point.

Not meeting the 50g/kWh 2030 electricity target would mean that greater action would be required in other sectors such as housing, transport and industry if the economy-wide carbon budgets were to be met. It would also mean the household and transport sector’s transition away from oil and gas to electricity would have higher emissions (as these will be increasingly dependent on electricity). The Government itself cites the CCC as saying that the economy-wide targets is “achieved most cost-effectively” by meeting the 50g 2030 target. The CCC also sets out a series of risks of doing less than its “medium scenario” (which includes the 50g target), including “It could therefore necessitate scrapping of high-carbon assets...and would leave a need for very challenging and expensive emissions reductions beyond 2030”.

The 2030 50g CO2/kWh electricity target is necessary on both climate change and cost-effectiveness grounds.

However, the Government has so far not based its EMR package on the 50g target. Instead its July 2011 response to your report says “we have used an indicative...goal of 100g”, and that “the power sector does need to decarbonise in the 2030s” (ie, not “by” 2030). This remains unchanged, almost a year later, in the draft Energy Bill.

If the Government does not set the clear aim of 50g on the face of the Bill and instead pursues decarbonisation of the UK’s electricity sector “during” the 2030s, then it is effectively saying one of two things:
— Either, other sectors will need to do far more, which the CCC and MARKAL say would be more expensive;
— Or, the UK will emit far more carbon than the CCC says is acceptable for meeting its climate change obligations.

The Government has conceded that “In terms of decarbonisation it will be important to ensure that the policy and its delivery are consistent with meeting our longer-term targets, in particular a trajectory for electricity sector decarbonisation which is consistent with our carbon budgets. We are considering how best to ensure this, including whether, how and when further targets might be necessary (our emphasis added)”.

The Committee is therefore well-placed to request that the Government should amend the Energy Bill to include the CCC’s 2030 50g/kWh electricity target as the decarbonisation goal of its EMR strategy.

It is proposed that National Grid, the System Operator, will provide the evidence and analysis needed to draft EMR “delivery plans” that will be finalised by Government. The Bill should therefore also be amended to place an obligation on the System Operator that their plans must be consistent with the delivery of this 50gCO2/kWh target. Furthermore, the Government has already stated that it “supports a role for the Committee on Climate Change as early in the process as appropriate to ensure that decarbonisation is properly considered”.

The Bill should therefore be amended to give the Committee on Climate Change a formal role to provide advice on whether draft and final delivery plans are indeed consistent with meeting a 2030 50g/kWh target.

We therefore firmly recommend that a target of 50g/kWh by 2030 be written into the Bill as its main objective and urge the Committee to press this issue most robustly with government ministers and representatives during its forthcoming evidence sessions.

2. A Lop-Sided Bill: the Virtual Absence of Demand Reduction, Demand Management and Energy Efficiency

In its report previous report on EMR xviii the ECC Committee strongly stated that: “Demand reduction ought to be a primary focus of the Government’s decarbonisation agenda, as the most cost-effective and environmentally effective method of climate change mitigation. Demand reduction should be placed at the heart of EMR and the Government’s climate change policy”.

We agree entirely. A fundamental shift in policy priorities is required so that we first seek to minimise demand then calculate the generation capacity that is required to supply it.

Energy policy in the UK been traditionally dominated by supply side concerns being taken first, with consideration of how we can reduce the total amount of demand being reduced to an afterthought.xix The Energy Bill repeats this mistake stating that it seeks to ensure there is enough capacity to meet demand. The proposed Capacity Market will forecast future demand and ensure that the capacity is there to meet it. Demand side response will be considered as a way of meeting the need. But reducing the overall level of demand—effectively replacing baseload generation—does not feature in the Draft Bill.

2.1 Demand management not demand reduction

Demand side response (DSR) and demand reduction are not the same thing. Both are essential but demand reduction is a permanent decrease in energy use whereas DSR is a temporary reduction or the movement of demand to another time to address a supply constraint.

Notes accompanying the Draft Billxx (figure 1) identify four stages of DECC’s EMR “vision” in which Stage 3, 2020s, features: “Demand side response, and additional storage and interconnection will play an increasingly large role in managing supply and demand”. There is however nothing in the actual legislation to ensure this happens. Without a targeted approach to setting up the Capacity Market it will be likely to fail to bring forward DSR, storage and interconnectors. Further, there is a risk that their supposed inclusion in the Capacity Market will allow Government to justify not taking the necessary policy steps elsewhere to support these essential elements of the future electricity system.

The Capacity Market is the only part of the Bill that addresses demand in any way yet it is, as DECC states, effectively an “insurance policy” against supply shortages, which could have a downward pressure on price spikes. And yet much of the capacity—including any demand response it brings forward—would not be needed were a proactive demand reduction approach to be pursued.

Far from being a central criteria, the ability of the chosen mechanism to integrate DSR, storage and interconnection is one of 11 qualitative criteria, stating that it is merely “desirable” that a capacity mechanism provides for demand side response, interconnection and storage to play a balancing role. This falls somewhat short of putting demand reduction at the centre of the whole EMR agenda.

The Impact Assessment goes on to say that it is “uncertain” how interconnection would be handled in the Capacity Market and that “storage may be able to bid into capacity auctions but may not be the most cost-effective way of providing capacity”.

---

---
In a report on DSR in forward capacity markets in the US, the Regulatory Assistance Project notes that two capacity markets covering Eastern and North Eastern states designed along very similar lines to that proposed by DECC have been able to bring forward demand side capacity. The report states that “early experience in the United States (US) suggests that these markets have the potential to play a supporting role in delivering capacity from low-carbon, demand-side resources, including energy efficiency”. But it goes on to say “However, auction results to date also suggest that these markets encourage the construction or continued operation of high-emitting supply-side resources to meet reliability targets”.

Having legislated for a Capacity Market, Government will be tempted to put pressure on the system operator to err on the side of caution in auctioning for more capacity than is needed rather than focussing on innovation to increase storage and actually reduce demand.

Indeed, it is unlikely that the existence of a Capacity Market alone will provide sufficient incentive for investment in innovative storage and DSR technologies to be developed to the point that they can deliver capacity with complete certainty and be bid into a Capacity Market auction at a cost that can compete with established fossil fuel supply technologies. Getting technologies to this point requires significant R&D, early deployment support and preference within the Capacity Market.

In fact the structure of the Capacity Market is already biased against DSR innovation with supply side measures being able to receive income from the sale of their electricity generation in addition to receiving regular capacity payments. These double benefits may be unavailable to DSR measures which may simply move demand in time (to a non-peak period), or the financial savings from the temporary reduction of demand (ie not paying for electricity that would have otherwise been consumed) may accrue to a third party such as a building owner. In addition, some distributed generation peaking supply could be very high carbon (for instance, larger back-up fossil fuel generators for major buildings).

The implications for carbon emissions and decarbonisation objectives of failing to bring forward sufficient non-fossil fuel generation capacity and DSR have not been adequately considered or guarded against in the Bill. We therefore recommend that significant improvements will be required to the Bill, and supporting policies, to deliver investment in innovation in storage and DSR technologies with the aim of decarbonisation (ie giving priority to low-carbon sources of energy).

The Regulatory Assistance Project notes that in the US; “construction and continued operation of high carbon-emitting, supply side resources dominate the mix of capacity clearing these auctions, and therefore these resources are receiving the bulk of market incentives (capacity payments)”.

They propose a number of options to address this including: premium capacity payments to low-carbon resources, selecting auction winners based on level of carbon emissions as well as bid price, phasing out capacity payments to existing, high emitting resources, allowing a longer price commitment or establishing fixed-capacity floor prices for low-carbon resources.

Similar preferences could be made to DSR technologies.

2.2 Lack of evidence for the chosen mechanism

DECC’s consultation on the issue of which capacity mechanism to choose was inconclusive with 35% supporting a Capacity Carket, 25% preferring a Strategic Reserve, 25% didn’t express a preference and 20% didn’t think any kind of capacity mechanism was needed.

Having conducted a quantitative modelled cost/benefit analysis of each option the Impact Assessment states that:

“...it is important to note that the net cost of the policies detailed below is largely a product of the modelling and in reality may not be representative of the costs of either of the design options”.

“...we do not believe that the net costs … are representative of the likely impact of implementing either a Capacity Market or a Strategic Reserve”.

“The modelling results for the two options are therefore not necessarily demonstrative of the likely difference in costs between the two types of mechanism”.

A Capacity Market supposedly gives lower cost to consumers but the Impact Assessment states: “these figures are to be treated with caution, and impacts could be higher as a result of inefficient design resulting in overpayment for capacity or an inaccurate prediction of the capacity requirement resulting in unnecessary over-procurement”.

Numerous qualitative points are also examined in favour or against each mechanism (with the Capacity Market judged to more easily integrate DSR etc). However the conclusion states that “the optimal choice of capacity mechanism design is not clear cut and there is no mechanism that perfectly meets all criteria”.

Despite all this uncertainty, DECC has decided to put in place the legislative framework for a Capacity Market even though the evidence is far from conclusive and when it does not know if and when it will be used or how it will work.
2.3 Inadequate wider efforts on demand reduction

In the Draft Bill, DECC cites the forthcoming launch of the Green Deal and a review of potential for incentivising further demand reductions in the electricity sector which will be included in legislation "should it be required" as evidence of support for Demand Reduction proper. It is extraordinary that DECC has not managed to advance its thinking further than this and that further measures could be brought forward later in the process without the opportunity for proper scrutiny.

Reliance on the Green Deal as evidence of a wider Government commitment to demand reduction is increasingly inadequate. Not only is the Green Deal not an economy wide energy efficiency measure, but as the Committee on Climate Change has warned it will fall far short of delivering sufficient energy efficiency measures to UK homes.

In addition, the UK is currently failing to support the very significant opportunity to address demand reduction and energy saving across the whole economy presented by the draft European Energy Efficiency Directive.

A key part of the Electricity Market Reform agenda, though not requiring legislation in the Energy Bill, is the Carbon Floor Price. The HMT revenue that will be generated from this measure should be used to boost the resources available for household energy efficiency and especially to tackle fuel poverty.

The importance of smart grids is not addressed in the legislation but this is an essential precondition for allowing innovative demand response solutions to be developed.

2.4 Incorporating demand reduction as a priority

Chapter 3 of the Draft Bill sets out the legislation for the Capacity Mechanism. In light of points made above Friends of the Earth has a number of specific concerns about the drafting of the current measures:

Section 20 (3) sets out that "providing capacity" can be defined to include "reducing demand for electricity" and that the regulations may bring further definition.

However simply including demand reduction as a possibility and waiting for the Capacity Market to bring forward DSR is inadequate. DECC should include clauses to give the Secretary of State a power and duty to require a minimum proportion of DSR to be accepted in the auction. Giving the system operator a pro-active duty to seek out and prefer DSR, low-carbon generation capacity and storage capacity should also be considered.

There is currently no guarantee that capacity supply bidding into the auction will be low carbon or that this capacity will be dispatched first when it is required by the system operator. A merit order for DSR, interconnection, storage and low-carbon generation to be taken before fossil fuel capacity should be established in the legislation. This will provide an additional incentive for investment in those capacity sources.

Section 21 (2) sets out that electricity suppliers will make capacity payments or receive incentives payments. Given the level of uncertainty around the design of the Capacity Mechanism restricting this to suppliers at this point may be unwise as it could be decided that, for example, the system operator should make payments and receive penalties.

Section 21 (4) (j) says that regulations may make provision for "circumstances in which a capacity agreement may be terminated or varied" The implications of this clause should be further considered. It appears to give the Secretary of State in secondary legislation the power to make retrospective changes to contracts issued following a capacity auction. Could this power have unintended consequences in deterring certain types of capacity from entering the auction or doing so at a higher price because of increased perceived risk?

21 (4) sets out a substantial number possible provisions that may be set out in the regulations. This should include the provisions for a merit order for the auction to be established on grounds of carbon emissions, DSR, storage or interconnectors

We strongly urge the ECC Committee to question ministers and DECC officials concerning the uncertainty surrounding the evidence for the capacity mechanism, its design and potential impact on the decarbonisation objective and the absence of measures in the Bill to build an energy market that truly prioritises demand reduction.

3. A Bill that Fails Real Clean British Energy: CfDs will not Bring Forward UK Renewables

The UK has abundant resources of on- and offshore wind, wave, tidal, geothermal, solar and other renewable or "non-fuel" sources of energy . Exploiting them offers massive benefits: a recent report by Innovas and the Renewable Energy Association found that the renewables industry, currently worth £12.5 billion, supports 110,000 jobs in the renewable energy supply chain and that this could grow to 400,000 by 2020.

Friends of the Earth’s modelling using DECC’s 2050 Pathways calculator shows that a move to at least 75% renewables by 2030 is feasible and consistent with carbon budgets, without the need for building new nuclear capacity.
Bringing forward the investment in these technologies—and creating jobs and potentially leading the world in some key aspects of renewable electricity generation—requires policies that give potential investors clarity, simplicity, and predictability over the long term: the draft Bill provides none of these.

On the mechanism that the Bill proposes—Contracts for Difference (CfDs)—there is little certainty. The Committee may wish to question how there is so little clarity over the detail of the operation of CfDs more than one year after the consultation put them forward as the Government’s preferred option. A huge amount of uncertainty remains for the industry; little of the necessary detail is available to investors or the supply chain, and little will apparently be available to the Committee, or indeed to MPs scrutinising the final Bill. The Government suggests that “The draft CfD Operational Framework sets out further detail on the operation of the CfD, for discussion with industry and other interested parties. This detail will largely be implemented through secondary legislation and changes to codes and licences, and will be confirmed in the autumn.” xxvii

Issues including strike prices and any volume commitments or restrictions for particular technologies are all unknown. Strike prices, whose level are critical in understanding the costs and implications of CfDs, are not expected to be announced until late 2013 (ie after the probable passage of the Bill).

Crucially, there is a complete absence of clarity regarding the counterparty to the contracts (ie with whom generators sign CfDs). In order to reduce the cost of capital and bring forward investment, CfD contracts must have a creditworthy counterparty. It is clear that, under this model, the Government as counterparty would provide the greatest degree of reassurance and lower capital costs. Yet HM Treasury’s determination to avoid new on-balance sheet liabilities has left DECC searching for a way of avoiding making the Government the counterparty. Almost inevitably, whatever arrangement is eventually concluded, without Government backing CfDs will do little to reduce the cost of capital sufficiently.

It is important to note that while the current Spending Review and its budget limitations are short term (ie to 2015), the reforms likely to be brought forward by the Bill have a long life (ie to 2030, with implications for a lot longer). Whatever the chosen mechanism, applying today’s spending restrictions to tomorrow’s energy investments—and especially ruling out Government intervention to lower the costs of capital—will not only increase the cost of the investments but will also likely prejudice against capital intensive (but operating cost light) renewables.

Another significant issue that remains essentially unaddressed is that of off-take risk. With the removal of the obligation on suppliers to purchase, currently provided by the Renewables Obligation, generators using less controllable technologies such as wind (and particularly independent generators without the option of self-supply) may struggle to sell.

Independent generators, can partly hedge these risks through signing a Power Purchase Agreement (PPA) with suppliers, but are increasingly reporting that the uncertainty surrounding CfDs is making PPAs hard to come by, and increasing fears that they will only be available at a significantly discounted rate. If this is the case, then significant quantities of investment may be lost.

An underlying critical problem inherent in CfDs is that they provide additional barriers to those who cannot engage in such trading arrangements (ie smaller companies and new entrants in generation markets who do not have trading desks and sophisticated hedging instruments) and risks denying communities and companies who are interested in generating their own renewable energy new forms of finance.13 EMR should seek to implement support mechanisms that broaden the investment pool and diversity in the market place, rather than shutting out new entrants.

So rather than removing the existing, rightly criticised complexity of the current Renewable Obligation, the Government’s CfD proposals threaten greater complexity. One has to question whether the CfD mechanism is fit for purpose. The Committee’s previous report on EMR, at the time of the initial consultation, noted that: “Different kinds of low-carbon generation are at very different stages of technological maturity, with very different operational and financing requirements. Feed-In Tariffs should recognise the unique characteristics of different low-carbon technologies. Proper discussion of these possibilities is a serious omission from the consultation.” xxviii

We agree. The CfD model is theoretically strong in providing revenue certainty, and controlling the risks of over-rewarding generators; a Premium Feed in Tariff (FIT), the other option explored by the Government in their White Paper, is less good in these regards and not dissimilar to the RO. The Impact Assessments to the original EMR consultation and to the White Paper show that a Premium FIT is more expensive for consumers, and fares worse in a cost benefit analysis than a CfD.

But the great mystery is how and why the Fixed FIT model discussed in passing and then dismissed at the consultation stage has been so readily ignored. At the time, we said:

“It is surprising that the consultation document ranks the Fixed FIT as the least attractive option [out of Premium, Fixed and CfD FIT models], especially given the great success that countries including Germany, which deployed 1,493 MW of wind xxix and 17.5 GW xxx of solar in 2010 alone, have had with this model.”

The proposals in the draft Bill will do little to change this situation. They do nothing fundamentally to alter the existing BETTA trading arrangements, which drive vertical integration and market concentration. It is
unclear how effective Ofgem’s separate proposals to increase liquidity will be in encouraging new entrants to the market.

As discussed above, the proposals for Contracts for Difference, may work for large, vertically integrated companies who can inherently manage offtake and balancing risks internally, but they do little to address the needs of smaller, independent generators or indeed potential new market entrants from other sectors, such as retail or finance.

A simple, fixed FIT—tried and tested in Germany—offers much wider scope for bringing in new players, potentially accessing a much wider pool of investment capital (essential, given the strained balance sheets of many of the major utilities).

The Impact Assessment on the initial consultation noted that a Fixed FIT “significantly reduces barriers to entry resulting from revenue risk as it removes price, offtake and balancing risk. This is particularly significant for independent renewables developers. It also therefore largely removes the incentives for vertical integration. In the long term this may mean that more fossil-fuel electricity is traded on the market which will improve liquidity”, while the impact of CfDs on barriers to entry and liquidity is likely to be “somewhat less.”\textsuperscript{xlviii}

The German experience demonstrates how successful a Fixed FIT can be to bring forward investment in renewable energy from new players, including non-traditional generators, such as local authorities, farmers and individuals. Over 50% of German renewable capacity is owned by citizens, in contrast to only 13% by the major utilities.\textsuperscript{xL}

We therefore suggest the Committee may want to examine in greater detail how the Bill could be improved to help new entrants—especially communities and non-traditional energy businesses—play a larger role in the UK market, decentralising its ownership of energy assets as well as supply.

5. A BILL FOR FOSSIL FUELS: THE NEED TO CLOSE THE DOOR ON A NEW DASH FOR GAS AND LOOPHOLES FOR COAL

The draft Bill is an open invitation for high emitting fossil fuels like coal and gas to play a much larger role in our future energy system, even though the Government have conceded that increasing reliance on gas would have “energy security and affordability implications as we would be more exposed to price volatility as well as less able to meet our climate change objectives.”\textsuperscript{xxxviii}

Friends of the Earth believes that the announcement in March 2012 of the proposal to grandfather permitted emissions under the Emissions Performance Standard (EPS) to 2045 effectively launched a second dash for gas. Even before this, the risks of more gas-fired power plant capacity than the Government forecast coming on stream had been highlighted by Friends of the Earth and Bloomberg New Energy Finance\textsuperscript{xxxvi}. Probable new capacity added by 2016 is estimated at more than twice Government forecasts.

In its report last year on EMR, the Committee indicated that it shares these concerns: “the Government’s proposals to grandfather an Emissions Performance Standard … risk encouraging a “dash for gas” which could lock the UK into high carbon emissions for years to come”.\textsuperscript{xL} Concerns about a second dash for gas have recently also been expressed by the Committee on Climate Change: “The Committee on Climate Change has recommended that the aim should be to reduce power sector emissions to 50 gCO2/kWh by 2030 … Within this, there is a potentially important role for gas CCS, if this can be shown to be viable. But the role for unabated gas fired power generation should be limited to balancing the system in 2030, by which time the share of unabated gas generation in the total should be no more than 10%, compared to 40% today. A second dash for gas, resulting in a higher share of unabated gas in 2030, would neither be economically sensible nor compatible with our legislated carbon budgets”.\textsuperscript{xL}

Friends of the Earth believes that an EPS should be designed to play its part in ensuring that the power sector is decarbonised by 2030. This should permit some grandfathering of emissions, maybe to the early 2020s, followed by a rapid decline in permitted emissions in line with decarbonisation by 2030. This is commensurate with the Committee’s recommendation that “if the Government is to introduce an Emissions Performance Standard, it should be used to provide an early indication of the desired emissions intensity trajectory for the power sector, in line with recommendations from the Committee on Climate Change”.\textsuperscript{xL}

However such an approach is not considered in the Government’s Impact Assessment (IA) of the grandfathering of the EPS. This dismisses grandfathering to 2018 (an early EMR review point) as introducing regulatory risk and investor uncertainty because developers would only have clarity over permitted emissions for a short period. However there is no modelling of changes to the EPS level beyond 2018, and indeed the IA states that “the impact of the EPS possibly declining in future for new plant is not discussed here”.\textsuperscript{xL}

Setting indicative future EPS levels now would reduce regulatory risk and investor uncertainty.

A further concern is that, apart from 2018, the only other date considered for grandfathering is 2045. It is cleart that reviews will take place every three years,\textsuperscript{xL} so why were other grandfathering periods—say to 2024—not considered?

Additional problems could arise if, as now seems very possible, new nuclear capacity is not built as the Government forecasts and so nuclear power does not provide the share of electricity generation forecast
We believe that the second dash for gas is underpinned by the potential for reserves of shale gas under the UK. Reports that these estimates could soon rise significantly will only accentuate this.\textsuperscript{\textregistered} However it is vital to note also comments from the Committee on Climate Change that even a “shale gas world” with much reduced gas prices (deemed unlikely by forecasters including Deutsche Bank and Pöyry)\textsuperscript{\textregistered} does not change the primacy of early power sector decarbonisation for achieving the UK’s legally-binding carbon emissions targets.\textsuperscript{\textregistered}

It is also not just gas. There is an EPS exemption for coal plants taking part in the Carbon Capture and Storage (CCS) demonstration programme. The CCS needs do not cover the entirety of the plant, or indeed be immediately operational; the exemption apparently applies where new coal plant fits (or indeed intends to fit) CCS which “is or is to be … used in commercial electricity generation”. That is to say, that large new coal plants will be exempted, even if they do not ultimately capture the carbon.

We are also extremely concerned that in Clause 39 of the draft Bill, the Government seems to be making provisions in the EPS chapter subject to exceptions. Annex D to the Bill gives the Secretary of State unbounded “power to make exceptions to maintain energy security”.

We note that detailed design of a Capacity Mechanism is still proceeding. However a recent analysis of the Government’s Capacity Market proposal to date concludes “the lead option for delivering reliability in the GB market is unlikely to represent a cost-effective approach as the proportions of variable renewables on the system continue to increase. In particular, it demonstrates that capacity-only oriented payment approaches will not be appropriate going forward”.\textsuperscript{\textregistered}

Friends of the Earth believes that:

— The carbon intensity of any additional supply-side capacity must be considered within the context of the need to decarbonise the power sector by 2030, thus reinforcing the need for a clear decarbonisation objective in the Bill;

— As we state in Section 2, rather than demand-side response, interconnectors and storage playing a “fair and equivalent role to generation” in a Capacity Mechanism, they should be the first option. The Government should learn from the experiences of the north-eastern states of the US and elsewhere, where demand response plays an important role in forward capacity auctions;\textsuperscript{\textregistered} and

— The Government should ensure that, if new plant is to be treated differently in the Capacity Market, this does not accelerate a dash for gas.

We therefore strongly urge the ECC Committee to pay close attention to the potential for a lengthy carbon legacy to the Bill if it—and the already announced EPS—trigger a new dash for gas, its grandfathering arrangements and loopholes which may allow the return of coal.

6. A BILL DESPERATELY TRYING TO PROP UP A DYING INDUSTRY: A BLANK CHEQUE FOR NEW NUCLEAR

As the ECC Committee Chair noted upon the publication of its previous report on EMR, “Ministers believe that new nuclear could play a key role in keeping the lights on and meeting our climate change targets—but they don’t want to own up to supporting it. This is understandable given the promise they made not to subsidise nuclear, but it would be deeply irresponsible to skew the whole process of electricity market reform simply to save face”.\textsuperscript{\textregistered}

Although, there has been tinkering with the details of Contracts for Difference, the draft Bill remains essentially constructed around the demands of the nuclear industry. The CfD mechanism attracting widespread opprobrium from renewable generators large and small, while being warmly welcomed by nuclear operator EDF. Not only does the Carbon Price Floor, which apparently “supports the mechanisms in the Bill”, deliver an unwarranted windfall gain for existing nuclear plants in the region of £3.4 billion\textsuperscript{\textregistered} but the draft Bill also devotes its entire second chapter to “Investment Instruments”\textsuperscript{\textregistered} designed to provide “comfort” to low-carbon generators before the introduction of the full CfD regime from 2014.

Given that renewable generators will be able to access the existing Renewables Obligation until 2017, this “comfort” is clearly designed to meet the requirements of the nuclear industry. Along with the proposed CfDs, such Investment Instruments are clearly a means of delivering a de facto subsidy to new build nuclear, in clear contravention of the Coalition Agreement.\textsuperscript{\textregistered}

The claim that because one subsidises a variety of technologies via the same mechanism (although in practice it increasingly looks like a variety of mechanisms, since the Government intends to create different reference prices for baseload and intermittent or variable generation, technology-specific strike prices, etc) it is therefore not a subsidy for any of the technologies that benefit, appears to be doublespeak of the highest order.

The Government remains publicly bullish about the prospects for new nuclear in the UK, as a leading means of securing low-carbon, low-cost electricity\textsuperscript{\textregistered}. Yet recent developments in the market (as well as experience
elsewhere) suggest that it is increasingly doubtful that nuclear new build will take place in the UK; and if it does so, it will only do so at a very significant cost to energy billpayers. Of the Big Six companies, three have pulled out of nuclear new-build consortia since the publication of the EMR consultation, and uncertainty surrounds the likelihood of new buyers being found for RWE and E.On’s “Horizon” venture.

Only one partnership, EDF and Centrica, appears in any position to build in the short term, with potential construction dates already appearing to slip back.39 Even EDF and Centrica’s prospects look increasingly remote, with credit agencies placing their ratings at risk if they proceed in the current climate.40 If the Government is determined to overcome these obstacles to get even a single new build nuclear plant away, it is likely to come at an exceptionally high cost.

In addition to a variety of other implicit subsidies, including through the Carbon Price Floor and capped liabilities, the Government looks likely to have to provide an extremely high CfD strike price (and/or shoulder construction risks in other ways) to make nuclear viable. David Toke, Senior Lecturer in Energy Policy at the University of Birmingham, has suggested that a strike price of over £150/MWh will be required41 while Peter Atherton, Citigroup’s head of European utility sector research, has put the figure at £166/MWh.42 This would make nuclear considerably more expensive than offshore wind, currently priced at around £135/MWh.43 The Committee may wish to consider whether this represents good value for bill-payers, especially for a technology that has received decades of subsidy, and which is prone to construction delays and cost over-runs and carries high legacy costs.44

Furthermore, the Government has repeatedly said that it wishes to let the market determine the future electricity generation mix, but its modelling largely assumes a significant role for nuclear (Core MARKAL assumes 33GW of nuclear in 2050)45. It is deeply unclear what, if anything, the Government hopes or intends will come on stream if nuclear is not forthcoming. We believe that there is a significant risk, given how poorly designed and lacking in detail many of the EMR instruments are for renewables and demand reduction, that new gas generation, with its attendant risks for the climate, security of supply and the stability and affordability of bills, will replace intended new nuclear capacity.

We therefore urge the ECC Committee to scrutinise closely the government’s nuclear intentions versus the reality. If the decarbonisation objective of the Bill is linked—as it properly should be—to innovation, jobs and potential for cost reduction than moribund nuclear.

7. A BILL FOR OPENNESS? THE NEED FOR TRANSPARENCY AND TO RESOLVE CONFLICTS OF INTEREST

As a separate point, but linked to all of the above; given the significant quantities of bill-payer money that will be required to fund the incentives proposed, it is crucial that there is full transparency over the prices, terms and conditions of any contractual arrangements (including any “Investment Instruments” agreed prior to the start of the full EMR regime).

Not only should the contractual terms contained in CfDs be published, but so should the evidence base for setting any administered prices. The draft and finalised delivery plans should be open to public scrutiny, and to the advice of the CCC.

Finally, it is of concern that the arrangements for dealing with potential conflicts of interest (between the multiple roles of National Grid, as the System Operator, owner of transmission networks, and administrator of contractual arrangements) are still being considered. The Select Committee may want to probe further into the thinking of DECC and Ofgem on this matter, to satisfy themselves that any conflicts of interest will be dealt with appropriately.

8. ENERGY BILLS AND THE IMPACT OF EMR

Increased cost in the wholesale price of gas has been the driver behind recent hikes in consumer energy bills. Ofgem report that over the past year the average UK bill rose by £150, with £100 of this due to the increased cost of gas46 and British Gas has already warned of a further bill rise due to gas prices this year (ie in Autumn 2012).47

This continues a trend which has persisted over the past decade—Ofgem reports that “Higher gas prices have been the main driver of increasing energy bills over the last eight years”. According to the Committee on Climate Change, 46% of the UK’s electricity is now fuelled by gas and from 2004 to 2010 the cost of natural gas increased by 90% and coal by 71% in real terms.48

The UK is now a net importer of gas and consumers are therefore subject to the volatile and rising cost of gas on the global market.49 The 2011 bill increases due to the gas price were in themselves more than double the total impact of support for green policies on bills—see table below. The proportion of a bill comprised of social and environmental costs has fallen by 2% since 2010.50

[Table: Data and proportions]
Nonetheless it is currently planned that the incentives to secure the estimated £110 billion of investment needed to replace and transform the UK’s energy infrastructure will fall primarily on household and business energy bills. It is therefore imperative that this money is spent wisely. This means giving precedence to demand reduction as explored above, as well as ensuring support is targeted at emergent technologies, such as renewables, where support can be reduced as the cost comes down.

Support should be levied on Energy Bills by consumption, rather than as a flat charge. This would add an incentive to reduce energy use and benefit low use consumers (who tend to be lower-income households).

Importantly, consumers should have the opportunity to share in the benefits as well as the cost of the transition to renewable energy. The feed-in tariff for small-scale electricity provides some opportunity for this. However, this is being increasingly limited to home-owners with access to capital as the recent review of the scheme has tilted it away from supporting community-led schemes towards a focus on the domestic scale. Yet there is a much greater potential for communities to benefit from renewable energy at a range of scales if a support mechanism is designed that is accessible to those outside the traditional energy sector.

According to the Renewable Energy Association, despite its small size Denmark is one of the major global players in wind energy, yet 80% of its capacity—around 20% of total Danish power demand—is owned by individuals and co-operatives. Similarly in Germany one third to one half of capacity is owned by farmers, individuals and local communities. In the UK, despite the exceptional resource, there are very few examples of community-owned wind.

The Government should revisit the findings of the report by the Centre for Sustainable Energy with Garrad Hassan for the DTI (2005) on community scale wind deployment. This report identified, among other factors, the complexity of policy mechanisms as the main barrier to local ownership:

“Local ownership is a feature of Denmark and Germany, partly as a by-product of a simple and relatively low-risk mechanism for supporting wind power which has created low entry costs and enabled a preponderance of smaller wind farms (cf the UK where the opposite is true)… the UK support mechanisms for renewable have created market conditions with very high entry costs, leaving the main development activity to “outside” commercial interests, particularly “big” utilities, rather than locally-owned initiatives”.

The ECC Committee will therefore wish to question evidence givers closely on the relative impact on bills of different EMR policies and measures and, in particular, on how the UK can avoid exposure to high and volatile global gas prices and spread better the benefits of new energy assets to communities and households as a means of offsetting the consumer cost.

9. Economic Growth and the Opportunities of EMR

The global low carbon sector is estimated to be worth €3.3 trillion. With the UK now back in recession this provides a key opportunity for economic growth. The UK low carbon sector experienced growth of 4.7% between 2009–10 and 2010–11 (while the rest of the economy was largely stagnant). A report for the REA found that for Renewable Energy this growth was even greater—with an overall increase in market value from 2009–10 to 2010–11 of 11%—outstripping economic growth over the same period (1.4%) by a factor of eight. It also found that investment in renewable energy would also assist the UK’s balance of trade by lessening the deficit caused by an ever-increasing reliance on fossil fuel energy imports. Meeting the 2020 renewable energy targets alone would displace fossil fuels with a cumulative value of £60 billion to 2020. While North Sea reserves of fossil fuels continue to decline, a valuation of the UK’s offshore energy resources found that using just a third of offshore renewable capacity would make it a net energy exporter.

However, to realise these potential benefits and to do so while minimizing the cost to consumers requires investors to have certainty. A clear decarbonisation objective as well as renewable energy targets for 2030 would give the long-term vision to investors about the future direction of Government policy.
Certainty is also needed in support mechanisms—investors need clear knowledge of the support they will give, likely volumes and how they will operate. It is worrying that much of this detail—on which investment decisions will in theory be based—is set to take place outside this scrutiny process and Primary Legislation. As we have already shown, many of the operating details are to take place in secondary legislation, while the “strike prices” for contracts are not due to be consulted on until 2013, following which they will be part of National Grid’s first delivery plan from 2013–18. Under these circumstances it is crucial that the Legislation sets out clear Governance for the delivery plans that mandates them to deliver clear objectives—in line with carbon and renewable energy targets—and that this process is transparent.

A focus on renewable energy would also decrease energy price volatility caused by the increased reliance on imported gas. Both the CBI and the Foreign Secretary have recently noted the potential for economic problems as a result of this reliance for British Businesses. Rhian Kelly of the CBI said recently; “Tensions in the Middle East retain the potential to trigger a sharp rise in oil prices. And as we learned last year, the UK is particularly vulnerable to this kind of price shock, which could erode confidence and spending power”. Similarly, the Foreign Secretary wrote in a recent leaked letter to the Prime Minister that “There is also growing concern, including among UK multinationals, about the systematic risk to growth arising from energy, food, water and climate insecurity … It will manifest itself primarily through high and increasingly volatile input prices, driven by rising demand from the growing middle class in emerging economies”. The impact of volatile global fossil fuel prices on high levels of inflation has been recognised by the Bank of England.

We therefore urge the ECC committee to explore with evidence givers—especially government ministers and representatives—the short- and long-term impact on the UK’s economy and security of the Bill. Our great concern is that, as well as endangering carbon targets, the current draft will lead de facto to a greater reliance on fossil fuels, under-investment in new, clean technologies and therefore future high importation costs and energy insecurity.

10. Conclusions

When the Committee published its last report on EMR, the Chair remarked that “the Government must go back to the drawing board and come up with a more straightforward and coherent set of plans to reform the electricity market. Radical reform of the wholesale energy market is needed to stop the Big Six from stitching it up, but at the moment Ministers are only tinkering at the margins”. Friends of the Earth is deeply disappointed that very little has changed or progressed in over a year. The draft Bill continues to do little, if anything, to reform the trading arrangements at the heart of the market, which privilege a small number of large vertically-integrated companies, who have left us with an electricity system dependent on polluting fossil fuels, and in desperate need of significant new investment.

The Bill needs radical revision to deliver an almost entirely decarbonised electricity system (50g/kWh) by 2030, based on significant demand reduction and management, and a support mechanism for renewables which provides predictability, government backing, and simplicity, whilst promoting diversity of ownership and scale. This could deliver secure energy at stable prices, a flourishing green economy and keep us on course to stay within our carbon budgets.

The alternative—doubling demand, exceptionally high levels of subsidy for new nuclear (in the increasingly unlikely event that any are built), a new dash for gas, loopholes for coal, a renewables industry beset by doubt, and a system largely owned and operated for the benefit of Big Six shareholders—is unlikely to meet any of the Government’s three expressed objectives on carbon, security and affordability, but without significant change is where the Energy Bill is likely to take us.

June 2012

References

5 Letter from Chris Huhne to Adair Turner, 24 May 2011.
6 Committee on Climate Change, 2010. 4th, p11. December.


http://www.publications.parliament.uk/pa/cm201012/cmselect/cmenergy/742/7420.htm

Demanding less: why we need a new politics of energy, Rebecca Willis and Nick Eyre, Green Alliance, October 2011.


Planning our electric future: technical update, DECC, December 2011.


EWEA Wind in Power 2010 European statistics.

Renewable Energy Focus 18 January 2011 “Solar PV installations reached 17.5 GW in 2010”.

For example, the Impact Assessment refers to “a CFD backed by Government” and argues that “CPS and CfD are complementary as the higher electricity prices resulting from CPS reduce the revenues that flow from government to generators when the CfD is settled. As with the premium payment scheme CPS essentially reduces the size of extra support that is channelled through government under a CfD. There are therefore important considerations for public finances as the flows from government to generators would be lower with CPS”, DECC Impact Assessment Electricity Market Reform—options for ensuring electricity security of supply and promoting investment in low-carbon generation p86.


Information from German Renewable Energies Agency Information Platform.


Friends of the Earth press release 14 March 2012 “Government must say no to more gas plants that will drive up energy bills”.


The Committee on Climate Change 24 May 2012 statement on unabated gas-fired generation.
xliv DECC July 2011 “Planning our electric future” para 2.4.17
xlvii Comments made by CCC chief executive David Kennedy at the SMi “Shale Gas Environmental Summit” 23 May 2012 about modelling to be published with the CCC’s annual progress report on 29 June.
xlviii M Gottstein & SA Skillings “Beyond Capacity Markets—delivering capability resources to Europe’s decarbonised power system”.
xlix See for example the EMR consultation response from the D3 Group.
xlx Energy & Climate Change Select Committee 16 May 2011 “Coalition should be up-front about nuclear subsidy”
xlxi WWF press release 14 February 2011 “Energy bills to rise as nuclear gets £3.43bn for doing nothing”.
xliii HM Government May 2012 Draft Energy Bill.
lix For example Charles Hendry’s 10 May 2012 speech to the Nuclear Institute Annual Dinner.
xlii http://www.telegraph.co.uk/comment/9118831/Why-nuclear-is-in-meltdown.html
xlv David Toke blog 5 May 2012 What strike price for nuclear?
Written evidence submitted by SSE

1. SUMMARY

1.1 SSE is supportive of the underlying objectives of the Energy Bill, but has the following fundamental concerns with how the low carbon Contract for Difference (CfD) will function and its legality:

— **Compliance**—The CfD wraps up subsidy for nuclear and renewables in a one size fits all package. Subsidising nuclear (a mature technology) will almost certainly result in the package being blocked or delayed by the European Commission under state aid rules. This uncertainty is deterring renewable investors and will have a direct impact on supply chain development and its associated economic benefits in the UK.

— **Counterparty**—A major issue is who the counterparty to the contracts will be, ie who should underwrite the liability of the contracts and make necessary payments. Energy suppliers will now have to manage these volatile and unpredictable liabilities on consumers’ behalf, adding an additional barrier for new entrants into the retail market and severely reducing existing players’ ability to finance necessary investments.

1.2 Notwithstanding the above concerns, there are two immediate aspects of the Bill which Government need to address immediately:

— **Cost benefit analysis**—The Government’s Impact Assessment has not been updated since the White Paper, yet since then, the Government has decided that it will no longer be the counterparty. It is therefore out of date and flawed. Urgent expert analysis is now needed to conduct an independently audited remodelling of the Impact Assessment to ensure evidence based policy making and to prevent later judicial review. Given that the Impact Assessment is used as the basis for favouring the CfD over more popular other options, such as the Premium Feed-in-Tariff (FiT), this is of urgent importance.

— **Consumer transparency**—The Bill introduces a completely opaque negotiation process for early project support, through Investment Instruments or the Final Investment Decision (FID) enabling process. These long-term contracts, underwritten by the consumer, will be agreed by the Secretary of State without any level of public scrutiny of what is being paid for, how much is being paid or why it is being paid at a particular level.

1.3 With CfD design and implementation issues looking increasingly difficult to resolve, and whilst uncertainty remains over the cost benefit analysis, legislative options for the Premium FIT must be kept open.

1.4 SSE is supportive on the other aspects of EMR included in the Energy Bill, notably the capacity mechanism and the Emissions Performance Standard (EPS). The capacity mechanism will be necessary to ensure the required flexible thermal plant gets built as well as ensuring electricity storage and demand side response contributions to security of supply are valued. The development of the mechanism appears to be moving in the right direction towards achieving its aims, and should be introduced as early as is possible to give investors early sight and assurance.

1.5 In light of these views and to ensure that EMR delivers the most appropriate market which can meet the Government’s objectives, SSE would urge the Committee to recommend that:

(1) The legislative options are kept open for the Premium FiT for when/if the CfD is deemed unworkable

(2) The Impact Assessment is updated urgently to ensure there is a robust evidence base for policy decisions proposed in the Bill

(3) There is continued progress on developing the capacity mechanism to introduce it as early as possible

2. INTRODUCTION

2.1 SSE, formerly Scottish and Southern Energy, is a UK owned and based company with almost 20,000 employees. It is the largest generator of renewable electricity in the UK and the second largest generator overall. SSE has an annual investment programme of between £1.5–1.7 billion up to 2015 with over three quarters focused on renewable energy and the infrastructure to support it. SSE also supplies over 9 million gas and electricity customers and operates networks in northern Scotland and southern England.

2.2 The context for Electricity Market Reform (EMR) is that the UK has to attract the necessary investment in order to decarbonise the power sector by 2030 and avoid a potential “capacity crunch” later this decade. This investment needs to be brought forward at an affordable cost for consumers.

2.3 SSE supports the intentions behind the EMR package contained within the Energy Bill. However, given the scale of the investment challenge, it is vital that the reforms create an attractive market which can secure the infrastructure investment the UK needs.
3. THE LOW CARBON CFD

(Part 1, Chapter 1: Clauses 1–13)

3.0.1 The Renewables Obligation (RO) is a support mechanism that renewable investors understand and which has delivered significant investment. The CfD replaces the existing Renewables Obligation, which has encouraged substantial investment in renewable energy since its introduction in 2002. The success of the RO can be seen in the fact that the UK leads the world in offshore wind deployment and Scotland met its ambitious renewables target for 2011.

3.0.2 European renewables support is converging towards support mechanisms that expose projects to market pressures, while giving them a clear and transparent subsidy on top of the market price. The RO and the Premium Fit both have these characteristics. A paper outlining the benefits of a Premium Fit is included in the annex.

3.0.3 The Government has, however, departed from these well-understood mechanisms and decided to introduce a CfD. Whilst a CfD is a well-understood financial instrument, the mechanism currently proposed under EMR is severely flawed and has a number of unintended consequences:

3.1 Compliance—State Aid

3.1.1 Under European Law, any state assistance that distorts competition in a market is classed as State Aid and is illegal. While the Commission can approve exemptions for emerging technologies (eg renewables), the rules do not permit subsidising mature technologies (eg nuclear), whose costs will not reduce over time.

3.1.2 The issue for renewables developers is that the CfD, as a one size fits all mechanism, would be ruled upon as a package. If the European Commission viewed it as State Aid, the whole low carbon generation support mechanism would be delayed and probably blocked due to the nuclear component. This creates significant uncertainty and would deter renewables investment until clearance is received by 2015 at the earliest.

3.2 Counterparty: Changes to the payment model

3.2.1 A major issue for the CfD is who the counterparty to the contracts will be, ie who should underwrite the liability of the contracts. The original intention was that the contract counterparty would be the Government, with the rationale being that having a contract backed by a AAA rated counterparty would give investors greater confidence, reducing the cost of capital for developers.

3.2.2 However, the Government has now backed away from being the counterparty because having subsidy for nuclear on the Government’s balance sheet would make the CfD certain to fail the State Aid test above. The Government’s solution, which could still fail State Aid clearance, is that suppliers will jointly be the counterparties. Suppliers will then collect money from consumers to pay the contracted generators.

3.2.3 These changes to the counterparty and to the payment model have created a number of unintended and unforeseen problems which, if left unresolved, will make the CfD impossible to deliver.

3.3 Counterparty: Problems with the payment model

3.3.1 SSE believes that the payment model will make the CfD unworkable for the following reasons:

— Impact on supplier credit rating—The RO is classified in accounting terms as being an "operating cost", while the CfD is likely to be classified as a "contract". This means it could be classed as a "derivative" and would have balance sheet liability implications for the counterparties.

Analysis from PwC found that the variable liability of multiple billions of pounds could lead to a downgrading of credit ratings across the suppliers. This would mean that any investment suppliers make, not just low carbon, would have an additional cost of capital. Clearly this would counteract any cost of capital reduction savings expected under EMR.

— Miscalculation of subsidy collection—Suppliers will have to collect money in advance from consumers to pay these contracts. Suppliers may get this wrong and over or under collect, with huge financial implications for them and consumers. This is a large threat for all suppliers and a huge additional barrier to new retail market entrants. The aforementioned analysis from PwC quantifies the significant new risks which suppliers and consumers will face under this new payment model.

— Increase in project cost of capital—Without having a AAA backed contract investors will not view the CfD with the expected confidence. This will mean that the envisioned cost of capital reductions for developers will not be realised. If there is no overall reduction in the cost of capital this undermines the stated objectives of EmR.


16 For a copy of the PWC analysis please contact SSE.
3.3.2 Even if these fundamental flaws with the current CfD design proposals could be resolved, the following problems with the mechanism would remain:

3.4 Cost benefit analysis

3.4.1 The Government’s CfD Impact Assessment has not been updated since the White Paper, yet since then, the decision on who would be the counterparty has changed, and a number of previously unforeseen costs and risks now have to be taken into account when analysing the CfDs impacts. Therefore, as it stands, the Assessment is out of date and cannot be used as evidence to underpin the legislative options set out in the Energy Bill.

3.4.2 Urgent expert analysis is now needed to conduct an independently audited remodelling of the Impact Assessment to ensure that there is a correct factual basis for decision-making and to prevent later judicial review. Given that the outdated Impact Assessment is used as the basis for favouring the CfD over alternative mechanisms which are preferred by many generators and investors, such as the Premium FiT, this is of urgent importance.

3.4.3 Whilst this analysis is taking place, and so much uncertainty around the details of the CfD still remain, legislative options for the Premium FiT must be kept open. Not doing so risks further delaying the EMR process if the CfD is found to be unworkable.

3.5 Incompatibility with renewables

3.5.1 While the CfD could work for large baseload generators, the mechanism has serious fundamental issues for renewables generators, particularly small and medium independent generators.

3.5.2 A particular difficulty arises over determining the “reference’ price” for the CfD. For a generator with a stable and predictable output like nuclear, the CfD acts as a guaranteed price of electricity, removing price risk. But trying to set a reference price for intermittent renewable generators is more difficult due to each site being unique and the fact that when renewables are generating the electricity price tends to be low (due to lots of renewables running) and when they are not generating the electricity price is high (due to the resulting supply shortage forcing more expensive plants to generate). This will result in renewable generators receiving market prices below the expected reference price, meaning renewable generators will not reach their expected strike price.

3.5.3 In addition, many small and medium independent renewable generators secure Power Purchase Agreements (PPAs) (benchmark contracts setting the price and volume of electricity sold from a generator to a supplier) in order to attract the necessary third party finance to develop projects. It is uncertain how these will work in the CfD model, and independent generators are particularly concerned about the impact of this on financing their projects.

3.6 State control

3.6.1 The whole package and the levels of Government intervention are huge. The Government is effectively taking the power to decide what power station should receive what subsidy, when it should receive it and what volumes of capacity should receive payments. This type of state intervention is completely out of kilter with the direction of energy policy in Europe, where functioning integrated markets are being encouraged. This level of state control increases regulatory and political risk for investors.

4. Pre Legislative Investment Instruments

(Part 1, Chapter 2: Clauses 14–19)

4.1 The Bill introduces a completely opaque negotiation process for early project support, through Investment Instruments or the FID Enabling Process, for certain technologies. Government will negotiate a long-term contract with a developer, underwritten by the consumer, without any level of public scrutiny on what is being paid for, how much is being paid or why it is being paid at a particular level. In addition there will be no public scrutiny of the contract terms eg length, penalties, get-out clauses etc.

4.2 Consumers will therefore be liable to pay for contracts, potentially for up to 40 years, which they have no visibility of, and no input into.

4.3 In SSE’s view all technologies should receive a standard contract (which is available for the public to view) and each technology should have a strike price set. If a developer can accept those terms then it will build a project, and if not then it won’t. This would create an open and transparent framework.

4.4 The Investment Instrument process, as outlined currently, also appears to breach State Aid rules as, following a direct negotiation between DECC and a developer, it will provide a subsidy through a contract signed by the Secretary of State for Energy and Climate Change. If an Investment Instrument is provided to a nuclear developer it is very difficult to see how it would not be challenged by the European Commission.
4.5 In addition the Bill as drafted does not allow for Parliamentary scrutiny of the investment instruments which the Government provides. It simply states that the Secretary of State must lay a draft instrument before Parliament. Given the potential impacts on consumers and the Government’s chequered history in negotiating large contracts with the private sector, it is vital that any investment instrument is available for full Parliamentary scrutiny.

5. ALTERNATIVE FINANCING MECHANISMS

“This approach [a CFD] is not appropriate for all kinds of low-carbon generation. Different kinds of low-carbon generation are at very different stages of technological maturity, with very different operational and financing requirements. Feed-In Tariffs should recognise the unique characteristics of different low-carbon technologies.”

Energy and Climate Change Committee (May 2011)\(^{17}\)

5.1 As was acknowledged in the Committee’s report on EMR last year, the CFD is not an appropriate mechanism to support different technologies in a one size fits all package. Renewables, nuclear and CCS are in different phases of their development curves and Government should not look to include all three in a single support mechanism as this will lead to a sub optimal outcome for all three.

5.2 If the Government finally concludes that the CFD is unworkable, it will be left with the option of maintaining the RO or moving to the Premium FiT which it has always said is its “fall back option”.\(^ {18}\) The Premium FiT is similar to the RO in that it adds a simple premium to the wholesale price and developers would be able to predict and access a clear level of support. This creates a clear bankable income stream and still maintains market disciplines on generators.

5.3 Contrary to the perception that reverting from a CfD in the Energy Bill would cause additional uncertainty and delay, introducing a Premium FiT would actually be simpler to introduce by:

1. Introducing minor changes into existing primary legislation around the RO;
2. Evolving the RO into a Premium FiT over an appropriate period of time (already proposed by DECC as part of the transitional arrangements to happen by 2027); or
3. Extending the existing small scale FiT to > 5MW

5.4 Additionally, introducing a Premium FiT would prevent any hiatus in investment because any uncertainty between now and 2017 (when the RO is due to close) would be removed as the financial support mechanism would be fully understood by developers. More detail on the benefits of the Premium FiT over a CFD is included in the Annex. Also included in the annex is a paper highlighting why new nuclear does not require a CFD.

5. OTHER PARTS OF EMR

5.1 Capacity Mechanism (Part 1, Chapter 3: Clauses 20–30)

5.1.1 Thermal power has an important role to play in the future, primarily as a flexible way of meeting demand and as “back up” plant. In the short term plant are needed to fill the gap left by old plant being retired or prevented from running by regulations. In the longer term, CCS will be needed if it is to play a significant role in energy as well as capacity provision.

5.1.2 The current poor economics of gas plant would mean that without an intervention, insufficient new plant would be developed to replace capacity which is retiring, and ensure the necessary balancing of the electricity system of the future. The fundamental problem is that the current market structure does not value security of supply, but only rewards the sale of electricity. With thermal plants expected to run less as more renewables come on the system, they cannot earn enough return on “energy alone”. In order to have the necessary plant to be able to run when the UK needs it, “capacity” needs to be valued alongside “energy”.

5.1.3 SSE views the introduction of a capacity mechanism as critical to ensuring that there is sufficient investment in firm capacity needed to maintain security of supply at times of high demand or low supply. If the capacity mechanism is not brought forward it would have significant implications in this area. A capacity mechanism should be brought forward as soon as is possible to give investors early sight of the mechanism and assurance.

5.1.4 SSE views that a “market wide” capacity mechanism, where all available generation capacity is given a fixed level of support, is the most cost effective mechanism to maintain security of supply. Additionally Government should look at the possibilities of valuing electricity storage and demand side response under the capacity mechanism.


5.1.5 SSE views that the measures included in the Bill are appropriate and will continue to work with Government and relevant stakeholders to ensure that the most appropriate mechanism is delivered to ensure security of supply at the lowest cost to the consumer.

5.2 EMISSIONS PERFORMANCE STANDARD

(Part 1, Chapter 7: Clauses 36–39)

5.2.1 In SSE’s view the EPS is welcome and enshrines in legislation that unabated coal power stations cannot be built, while allowing necessary gas stations to be developed. Including legislation in the Bill to “grandfather” the emission level from when new plant is consented is an important principle, as investors will not build if they feel that a plant could become a “stranded asset”. Grandfathering levels must therefore allow investors in gas plant an appropriate period to recoup their expenditure, or this will further weaken the economics of new gas plant and threaten security of supply.

5.2.2 The decision to “grandfather” does not however mean that gas plant on the system will generate unabated, as any output will be subject to paying for the carbon it emits under the EU Emissions Trading Scheme (coupled with the Carbon Price Floor). This means it will be economically constrained to generate only at times of supply shortage.

Annex 1: Is the Government’s preference for a CfD still valid  See Ev 232 onwards
Annex 2: The Economics of Nuclear Power Generation  See Ev 238
June 2012

Written evidence submitted by National Grid

EXECUTIVE SUMMARY

— Our view: National Grid fully supports Electricity Market Reform (EMR) and welcome pre-legislative scrutiny by the Energy & Climate Change Committee. We are working with the Department of Energy and Climate Change (DECC) and industry groups to design the main mechanisms of EMR. We are clear it is important for EMR to be delivered in line with the policy and legislative timeline published by government in December 2012. In order to assist in the decarbonisation of other sectors, early large scale investment in low-carbon, electricity generation infrastructure will be a priority. EMR has the potential to ensure that the necessary investment in appropriate, low-carbon technologies is made in an affordable, secure and sustainable manner. National Grid welcomes the opportunity to play a major role in advising and administering EMR and is committed to working in a transparent manner with political stakeholders in the UK Parliament, the Scottish Parliament and the Senned.

— Responsibilities: There are clear and distinct roles set out in the draft Energy Bill to ensure the effective delivery of EMR. Government is responsible for policy decisions. National Grid in its role as Delivery Body will provide evidence and analysis to inform decisions by Government. Ofgem as the independent energy regulator will continue to regulate the System Operator (SO) and the generation, distribution and supply companies.

— Conflicts of interests: On the issue of potential conflict of interests, we are clear that any actual or perceived conflicts can be managed without the intervention proposed under the draft Bill. We are used to managing conflicts of interest and separation of our businesses is something we manage on a daily basis in our current operations. In practice, we are clear that any actual or potential conflicts can be mitigated by current regulatory arrangements and increased transparency in our system planning and EMR processes.

— Contingency measures: The draft Bill includes clauses on contingency measures in Chapter 5, describing powers to move the EMR delivery role to another body. While National Grid understands and accepts that Government wants flexibility to deal with issues that may arise through the EMR process, it is our view that the scope of the powers is wider than necessary.

— Feed in Tariff/Contracts for Difference: National Grid is working alongside the DECC Electricity Market Reform team to assist in developing the design of the Feed in Tariff with Contracts for Difference (FIT CfD) and the Capacity Market.

— Capacity Market: The Capacity Market will be administered by National Grid as the SO. We support a capacity mechanism design that delivers investment in physical generation at lowest cost to the consumer and which does not introduce unnecessary complexity into the existing electricity trading arrangements. It is important that the capacity auction delivers secure capacity at least cost to the consumer.

— Other: National Grid is supportive of the principles of a carbon floor price, feed-in tariffs and an emissions performance standard.

The evidence provided below represents our initial views on the deliverability of the policies laid out in the draft energy bill published on 22 May 2012. We will continue to work with the DECC to further assist with
the development of these measures during the remaining development phase and throughout the delivery of the market reforms.

**About National Grid**

National Grid plays a vital role at the centre of the energy industry. National Grid owns and operates the high voltage electricity transmission system in England and Wales and as National Electricity Transmission System Operator (SO) operates the Scottish high voltage transmission system. National Grid also owns and operates the gas transmission system throughout Great Britain and through the low pressure gas distribution business, distributes gas in the heart of England to approximately eleven million offices, schools and homes. In addition, National Grid owns and operates significant electricity and gas assets in the US, operating in the states of New England and New York.

In the UK, National Grid’s primary duties under the Electricity and Gas Acts are to develop and maintain efficient networks and also to facilitate competition in the generation and supply of electricity and the supply of gas. Activities include the residual balancing in close to real time of the electricity and gas markets. Through its subsidiaries, National Grid also own and maintain around 18 million domestic and commercial meters, the electricity interconnector between England and France, and a Liquefied Natural Gas (LNG) importation terminal at the Isle of Grain. In addition, the wholly owned subsidiary, National Grid Carbon Limited, has advanced the transportation and storage elements of the Carbon Capture and Storage (CCS) supply chain.

**Institutional Framework**

**SO Delivery function**

1. There are clear and distinct roles set out in the draft Energy Bill to ensure the effective delivery of EMR. Government is responsible for policy decisions. National Grid in its role as Delivery Body will provide evidence and analysis to inform decisions by Government. Ofgem, as the independent energy regulator, will continue to regulate National Grid Electricity Transmission (NGET) in its role as the System Operator and the generation, distribution and supply companies. We support this distinction of responsibilities in delivery of the EMR policies.

**Delivery Plan**

2. In order to successfully deliver EMR policies a series of decisions will need to be taken by Government. We are clear it is important for EMR to be delivered in line with the policy and legislative timeline published by government in December 2012. We believe that these decisions must be made in an open and transparent manner and we fully support the view that Government will need to provide clarity and certainty to the industry on their decisions and the process by which decisions will be made.

3. We anticipate that from 2013 the Government will publish a five year delivery plan giving clarity and direction on the decisions taken to help achieve its long term objectives. The five year delivery plan will contain the information that was used to enable policy decisions.

4. National Grid, in its role as Delivery Body, will report every year to the Government on the delivery mechanisms in place. This annual delivery report will help give the Government insight into progress being made towards reaching its targets. The Government will use this information to produce an annual update to its five year delivery plan.

**Conflicts of Interest and Contingency Measures**

5. We are clear that transparency is important as is ensuring that any perceived or real conflicts of interests are effectively addressed and managed. We welcome scrutiny by the Committee and look forward to engaging with Parliament openly through all stages of the legislative process on this area and other issues. We continue to be committed to openness and increased transparency as EMR policy continues to evolve and in the future via our proposed role as Delivery Body. This will be the most effective way of managing any potential conflicts (whether real or perceived) whilst retaining the benefit of the synergies of an integrated TSO role and EMR delivery function. However, it is unclear precisely what the draft Bill is seeking to address in Chapter 4, “Conflicts of Interest”. Within the Institutional Frameworks document, Annex A paragraph 59 published alongside the draft Bill, DECC concluded that there is insufficient evidence to justify the granting of powers to impose ownership unbundling and so DECC is not seeking such powers in the draft Energy Bill. However, significant powers are nonetheless included which go a long way towards such unbundling.

6. National Grid is already subject to a set of regulatory requirements which are adequate in their present form to manage conflicts of interest. These apply to perceived potential conflicts of interests between NGET and other National Grid companies. They also apply to perceived potential conflicts between NGET as TO and NGET in its role as SO. We are used to managing conflicts of interest and separation of our businesses is something we manage on a daily basis in our current operations. In practice, we are clear that any actual or potential conflicts can be mitigated by current regulatory arrangements together with increased transparency in our system planning and EMR processes as SO without the intervention proposed under the Bill.
7. In respect of perceived potential conflicts between NGET as TO and NGET in its role as SO we agree that confidential information received in its role as EMR Delivery Body needs to be protected appropriately. We would expect that amendments made to NGET’s licence to reflect our Delivery Body role would include an appropriate condition focussed only on this function. Measures further than the proper control of data, under the scrutiny of Ofgem, put at risk very considerable benefits to customers from the integrated operation of the electricity system as supported by the implementation of the requirements of the EU Third Package in domestic legislation. Currently the SO and TO functions in National Grid are able to freely and actively optimise the costs to customers in the real time operation of the system, particularly in the management of transmission constraints and ancillary services. An unnecessary separation of functions should be avoided.

8. The draft Bill also includes clauses on contingency measures in Chapter 5, describing powers to move the EMR delivery role to another body. Whilst National Grid understands and accepts that the Government want this flexibility, the scope of the powers is wider than necessary.

**Feed in Tariff with Contracts for Difference (FiT CfD)**

*Approach to administrative price setting and the desire to move to competitive arrangements*

9. The objective of the FiT CfD is to provide greater certainty of returns for developers of low carbon generation and encourage investment, whilst ensuring this is delivered at least cost to the consumer. The Government has indicated that they believe the best way to do this is through competitive price setting and we support this approach. However, it is acknowledged that the current market conditions will not facilitate this and as such the proposal is that strike prices for all low carbon technology will be set administratively during the first few years of EMR. We are supportive of this approach. We believe that administrative price setting for the period out to 2017 based on a similar approach to that used for the renewable obligation banding review will provide a stable foundation on which to attract investment and encourage a range of technologies to emerge, ultimately facilitating a technology neutral competitive approach.

*Payment Model*

10. The structure of the payment model for the CfDs may have an impact on the success of the scheme as a whole. As well as legal, financial and accounting issues that must be understood, there are various and differing interests that need to be taken into account including those of generators, suppliers, investors and ourselves. We believe that DECC is right to take time to consider the views of the industry as a whole before reaching a firm position on the correct model.

*Contracted Volume*

11. To support delivery of low carbon electricity, DECC is developing an approach to support CfD payments based on the metered output of a generator as opposed to payment on declared availability. A number of industry parties have expressed concern over this approach suggesting that generators holding a CfD might sell energy at a negative price to ensure they run and therefore continue to collect their CfD payment. The impact being that they insulate themselves from the prevailing electricity market conditions but resulting in an increased cost to the consumer.

The draft Energy Bill overview document proposes a mechanism that pays on declared availability when the market reference price goes negative, this removes the incentive on generators to continue to generate and sell their energy at a negative price.

We believe that paying on metered output best meets the Governments low carbon objectives and the proposals laid out in the Energy Bill overview document is worth further consideration by industry.

*Routes to market for low carbon generation*

12. A number of industry participants have expressed concern about the move from the Renewable Obligation (RO) to the CfD regime and the impact of this on the future availability of Power Purchase Agreements (PPAs). Under the RO suppliers are incentivised to source renewable electricity as part of their portfolio, the CfD regime removes this incentive and industry has indicated that this may influence supplier attitudes towards structuring PPAs. We are aware that Government believes that suppliers and independent aggregators will continue to offer PPAs, but recognise that it may take time for the market to develop and as such Government is keen to explore this further. Government plans to run a number of workshops for further discussion of the issues and will issue a call for evidence in June 2012.

13. We are keen to ensure that the routes to market created through EMR are appropriate to deliver the right mix of generation. We are supportive of the call for evidence and will continue to support the process through our involvement in this consultation.
**Capacity Market**

**Capacity adequacy assessment**

14. The analysis to determine the generation capacity is sensitive to the input assumptions made. The work we have done with Ofgem to support their submission to Government under the requirements of the December 2012 Energy Bill is against a range of generating plant and demand scenarios. This analysis is based on our Gone Green scenario. Gone Green is a scenario published as part of National Grid’s “Future Energy Scenarios” and takes into account known existing generation closure rates and where new generation is already under construction. A number of sensitivities have also been looked at as part of this analysis. These range from lower demand due to the use of weather corrected data to a potential increase in demand in the event of economic growth. Our analysis shows that the two generation adequacy measures (loss of load expectation and expected energy un-served) increase over the next four years. If generation adequacy were to be maintained at current levels, additional generation would therefore be required.

**Capacity Market design**

15. The Capacity Market will be administered by National Grid as the SO, the total amount of capacity needed to ensure security of supply will be contracted through a competitive auction. Successful capacity providers in the auction will enter into capacity agreements committing them to provide electricity when needed. Failure to provide capacity will result in a penalty. The Government has indicated that it expects to choose a capacity market that provides assurance that physical capacity is in place. We support a capacity mechanism design that delivers investment in physical generation at lowest cost to the consumer and which does not introduce unnecessary complexity into the existing electricity trading arrangements.

16. DECC is currently considering the design options for payment under the capacity auction and are considering the merits of both “pay as bid” and “pay as cleared” models. We believe that it is important that the capacity auction delivers secure capacity at least cost to the consumer. The range of technologies that we expect to participate in the auction requires different levels of reward to reflect their relative costs.

**Capacity auction volume and payment**

17. The volume of capacity to procure in the Capacity Market auction needs to take account of (a) the expected reliability of supply delivered and (b) the cost to the consumer for this level of reliability. This is a policy decision for Government. We anticipate that we will present the DECC with a number of modelled scenarios (via the Delivery Plan) to allow ministers make an informed decision.

**Treatment of flexible generation and balancing services**

18. We are working with the DECC, Ofgem, the Expert Industry group and other stakeholders to address the interaction between procurement of balancing services and the chosen Capacity Mechanism design. We believe that the interaction, though significant, can be managed in both the hybrid and administrative Capacity Market. It will be important to ensure that consumers do not pay more than is necessary for balancing services. Also, the Capacity Market penalty regime must not act as a barrier to provision of such services. Finally, the System Operator should continue to be incentivised to reduce the costs of balancing the system.

*June 2012*

---

**Supplementary written evidence submitted by National Grid**

**Executive Summary**

— This paper provides supplementary evidence to the Committee’s pre-legislative scrutiny on Electricity Market Reform (EMR), specifically in relation to National Grid’s forecasting of peak demand, and the Contracts for Difference Counterparty.

— National Grid did not comment on the Contracts for Difference counterparty model following the publication of the EMR White Paper in 2011 because at the time National Grid had not been asked to fulfil the role of Delivery Body. In the EMR White Paper, DECC indicated that the outline designs for the counterparty were proposals, and committed to further work to develop the detailed design of the mechanisms. In October 2011, National Grid responded to the specific DECC consultation questions exploring possible models for the capacity mechanism.

— Since National Grid has been asked to fulfil the role of Delivery Body we have been working with DECC both bilaterally and within the industry expert groups to explore the single and multiple counterparty model further.
— In relation to the question of whether National Grid had analysed why its current demand forecasts are approximately 10GW lower than their predictions seven to eight years ago, the information provided in this paper provides further details behind this work. In summary the 2005–06 forecast was produced at a time when demand had been growing steadily, with GDP growth predicted of ~2.6% p.a. and a relatively flat fuel price forecast. However, since this time the UK has experienced significant economic challenges including increased fuel prices and a double dip recession. The net effect being a 5.3GW fall in demand from 2005–06 predictions.

**Contracts for Difference Counterparty**

This section provides further details around the history of National Grid’s view of the Contracts for Difference counterparty.

**Whether National Grid told DECC that a single counter-party would not be a good idea in its response to the White Paper?**

At the time of the publication of the White Paper in July 2011, National Grid had not been asked to fulfil the role of EMR delivery body. Since National Grid has been asked to fulfil the role of Delivery Body we have been working with DECC both bilaterally and within the industry expert groups to explore the single and multiple counterparty model further.

**At what point in time National Grid first publically embraced the idea that there should be multiple counter-party?**

In December 2011 the Government published its Technical Update to the White Paper which included the decision to appoint the System Operator as delivery body for the Feed in Tariff with Contracts for Difference and the Capacity Mechanism.

National Grid believes that a multi-counterparty model is capable of working, because there are parallels with the way in which the balancing settlement and code currently functions and have said so in industry meetings during the course of 2012. However, we are aware that investors have expressed concerns with the multi-party model and given the importance of attracting investment we have been working with DECC to develop both models further.

**And Why?**

National Grid believes that a multi-counterparty model is capable of working as there are parallels with the way in which the balancing settlement code currently functions. In our view the single counterparty model is also capable of working and for both models the arrangements are underpinned by consumers funding the Contracts for Difference through their energy bills.

The structure of the payments model for the Contracts for Difference may have an impact on the success of the scheme as a whole. As well as legal, financial and accounting issues that must be understood, there are various and differing interests that need to be taken into account including those of generators, suppliers and investors. It is extremely important that the counterparty model attracts investors to deliver EMR’s objectives of security of supply and decarbonisation of the electricity system at least cost to consumers. National Grid therefore believes that DECC is right to take time to consider the views of the industry as a whole, and understand the full implications of choosing one of the models available to them, before reaching a firm position on the correct model.

**Forecasting Peak Demand**

National Grid’s prediction for peak electricity transmission demand has decreased for 2013 to about 57–59 GW, down by about approximately 8GW from its predictions seven to eight years ago.

National Grid has undertaken some analysis which indicates that as the recession effects subside, demand will not increase to its former levels because energy efficiency measures will have begun to take effect, and so they will start to reverse the impact of any post-recession recovery.

**Spring 2005 forecast**

The 2005–06 forecast was produced at the time when demand had been growing steadily, with GDP growth predicted of ~2.6% p.a. and a relatively flat fuel price forecast, thus electricity demand was forecast to grow by 2.6GW between 2005 and 2011 (from 61.5GW to 64.1GW).

However, since the 2005 forecast, the UK has experienced fuel price increases and a double-dip recession. In addition, during this period consumers have become more energy-efficient. This has been supported by Government initiatives and incentives, which when combined with the closure of some industries has resulted in demand destruction, i.e. demand unlikely to return. The net effect of all this is an observed 5.3GW fall in peak demand since 2005–06.
When you add our 2005–06 forecasted growth of 2.6GW to the actual observed 5.3GW fall, between 2005 and 2011, it provides an over forecast of almost 8GW.

**Transmission Actual Peak Demand and Spring 2005 forecast**

The following table shows the actual peak demand observed since 2003–04, and the forecast produced in 2005, which looks seven years out in accordance with our seven year statement license obligation. The table also shows our assessment of the main causes of reduction, when compared to that forecast. Our latest 2012–13 forecast is 56.7 GW.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual (GW)</td>
<td>60.5</td>
<td>60.7</td>
<td>61.4**</td>
<td>60.9</td>
<td>60.7</td>
<td>58.4</td>
<td>57.5</td>
<td>58.1</td>
<td>56.1</td>
</tr>
<tr>
<td>Spring 05 Forecast for fall in demand</td>
<td>61.5</td>
<td>62.1</td>
<td>62.6</td>
<td>63.2</td>
<td>63.6</td>
<td>63.8</td>
<td>64.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reason</td>
<td>Fuel price effects</td>
<td>Recession</td>
<td>Slight economic recovery</td>
<td>Double dip recession</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Unrestricted Peak excluding station demand and exports
** Small revision to 2005–06 actual Average Cold Spell

Please note that all of the numbers within the table have been weather corrected to an Average Cold Spell (ACS)²⁰

**Future peak demand**

This section provides further detail to explore why outturn demand levels were materially lower than our 2005 forecast.

**Spring 2005 forecast**

Peak demand was forecast to grow steadily from 2005/06, following historical trends of an average of ~0.5GW p.a. This was supported by economic growth predictions averaging 2.6% pa and electricity prices remaining broadly flat over the period. The driving force behind this growth in demand was, therefore, the economy.

**Outturn between 2005–06 to 2011–12**

Transmission electricity demand actually fell by ~5GW between 2005–06 and 2011–12. Between 2005–06 and 2007–08, demand fell by 0.7GW which we attribute to fuel price increases which led to consumers becoming more energy efficient and some industries become uncompetitive due to rising fuel costs. This was then followed by economic recession in 2008 which lasted for 18 months and when combined with addition increases in prices contributed to further demand reductions of 3.2GW by 2009–10. There was a slight demand recovery in 2010–11 supported by economic growth but then the UK entered a double-dip recession last winter contributing to another fall in demand to give an actual peak demand of 56.1GW in 2011–12.

1. **Fuel Prices**

Wholesale electricity base load prices increased from an average of £26/MWh in 2004–05 to £47/MWh in 2005–06 (effectively as a result of wholesale gas price increases). The effect for domestic households on fuel price changes usually lags by around a year, so this wholesale increase would have impacted on household bills in 2006–07. The trajectory of domestic power prices over the period is shown in the following chart.

---

²⁰ Seven Year Statement: The aim of the statement is to assist existing and prospective new users of the NETS in assessing opportunities available to them for making new or further use of the NETS in the competitive electricity market in Great Britain. The statement contains information on demand, generation, plant margins, system performance / capabilities and other related information.

²⁰ Average Cold Spell (ACS): A particular combination of weather elements which give rise to a level of peak demand within a financial year (1 April to 31 March) which has a 50% chance of being exceeded as a result of weather variation alone.
Energy and Climate Change Committee: Evidence  Ev 161

2. Energy Efficiency

Energy efficiency has played an increasingly important role in the domestic sector. Between 2005–06 to 2011–12, there has been a reduction of ~7TWh from appliances efficiency, lighting efficiency and insulation for electrically heated homes. This equates to an average of 1.4GW reduction.

July 2012

Written evidence submitted by EDF Energy

Executive Summary

— EDF Energy sees the publication of the draft Energy Bill as an important milestone on the path to delivering the investment framework that is required to ensure secure, affordable and low carbon energy supplies for the UK.

— It is imperative that Royal Assent is achieved as early as possible in 2013 to reduce investor uncertainty. We therefore welcome pre-legislative scrutiny of the draft Energy Bill by the Energy and Climate Change Committee as a means of supporting the Bill’s smooth progress through Parliament.

— We take very seriously the pre-legislative scrutiny process as a fundamental means of getting the legislation right and ensuring it is in time. We expect the Committee’s work to make any necessary improvements in a timely way. We believe this process should not be just about raising concerns but about finding solutions.

— The Energy Bill does not need to give precise answers about the parameters of Contracts for Difference (CfDs), such as strike price and indexation. The requirement for secondary legislation should not be a reason for delaying the Bill’s progress.

— We are making continued progress on preparations to invest in our first new nuclear project at Hinkley Point C, with the continued full support of our shareholders. Timely implementation of Electricity Market Reform (EMR) is vital to create the necessary investment framework both for this project and for the other low carbon investments that the UK needs.

— EDF Energy and our co-investor Centrica have recently started discussions with DECC on Final Investment Decision (FID) Enabling to support our project at Hinkley Point C. It is important that this process is conducted in a timely manner and results in a legally binding agreement.

— These transitional arrangements are a fundamental requirement but they are subject to Royal Assent of the Bill. To ensure they are effective in the event that Royal Assent is later than FID, assurances will be required to protect further investment in the project.

— We do not believe the FID enabling process should create a State aid issue, since the principle of the transitional arrangements is to make early investment possible, for which there is a strong case. It is simply a practical arrangement with, we believe, no bias and therefore no State aid implications.

— Following consideration of the CfD legal framework and the proposed payment model outlined in the draft CfD operational framework, we believe that use of a “single counterparty” contractual payment model will be essential. This alternative payment model will provide the robust legal and commercial investment environment required by investors, and encourage the “financeability” of low carbon projects.
EDF Energy’s Response

1. EDF Energy is one of the UK’s largest energy companies with activities throughout the energy chain. We provide 50% of the UK’s low carbon generation. Our interests include nuclear, coal and gas-fired electricity generation, renewables, and energy supply to end users. We have over five million electricity and gas customer accounts in the UK, including both residential and business users.

2. EDF Energy is committed to delivering affordable, secure, and diverse low carbon supplies based on a diverse energy mix, including nuclear and renewables. We plan to invest in four new nuclear plants in the UK, starting with two at Hinkley Point in Somerset. With our co-investor Centrica, we are making continued progress on this project, including on site preparations, with a view to taking the Final Investment Decision (FID) at the end of 2012. Our shareholders remain committed to this project going ahead, subject to the right business case and to the legal framework being in place.

3. We are also involved in a number of onshore and offshore wind projects. For example, we have recently formed a 50–50 joint venture with Eneco to hold the exclusive development rights to the Navitus Bay Offshore Wind Project. This is part of the Crown Estate Round 3 Offshore Wind Programme and could deliver between 900MW and 1200MW of capacity.

4. Our low carbon investments will make a major contribution to delivering the secure energy supplies that our economy demands, will help to secure UK competitiveness and will create thousands of skilled jobs, in engineering, construction, and manufacturing industries.

5. We have made our application to the Infrastructure Planning Commission (now replaced by the Planning Inspectorate) for a Development Consent Order for Hinkley Point C. In order for us to be able to take the final investment decision at the end of this year, it is critical that, among other things, the Government continues to make steady, tangible progress with implementing its EMR proposals. In particular, this includes the arrangements for enabling investment decisions for early projects. This will require making good progress with the new legislation, and it is vital that steps are taken to achieve Royal Assent of the Energy Bill as soon as possible. We would expect the Energy Bill, at the minimum, to have cleared the Commons stages by the end of this year, with a view to achieving Royal Assent around the end of the session in spring 2013, rather than winter 2013 as currently indicated by DECC.

6. We fully support robust pre-legislative scrutiny of the draft Energy Bill by the Energy and Climate Change Committee. In recommending what needs to be changed, the scrutiny will provide the momentum required to progress the Bill through Parliament in a timely manner and make early Royal Assent a realistic outcome.

7. Publication of the draft Energy Bill reflects the Government’s continued momentum on Electricity Market Reform (EMR). Reform of the existing electricity market arrangements is necessary to ensure the market is capable of delivering the reliable diverse energy mix required to deliver the UK’s energy policy objectives. We believe that the Government’s proposals will provide the investment framework that is crucial for the low carbon investment that the country needs, and will keep costs down for consumers. We note there has been a positive reaction to the draft Energy Bill from a number of diverse industry stakeholders, including the Committee on Climate Change, CBI, and RenewableUK.

8. The planned Contracts for Difference (CfDs) will be a key component of ensuring value for money for consumers by shielding them from the damaging impacts of high and volatile fossil fuel prices. By reducing risk to investors, they will lead to a lower cost of capital and a reduction in bills compared with alternative mechanisms. In this respect it is a major improvement for customers over the Renewables Obligation. We also believe that CfDs, in conjunction with the carbon price floor, are capable of working for all low carbon technologies (including renewables, nuclear and fossil fuels with carbon capture and storage). They will give all such projects the stable and reliable revenue they need to justify the large upfront investment required. It is important that investors are allowed to make a reasonable return with an acceptable sharing of risk so that the final outcome represents a fair deal for both consumers and investors. We believe that the Government’s plans will help us, and other investors, deliver the investments that we need to maintain secure, affordable and low carbon energy supplies.

9. The CfD payment model constitutes the detailed legal framework within which each individual CfD will be negotiated and operate. We agree with the Government’s statement that the payment model must be “credible and durable” and provide the “certainty and stability … crucial for investors”, while also helping to drive “financeability” of low carbon generation projects. Indeed, the Government and investors have a commonality of interest in ensuring that the payment model enables investment and future financing. It should also provide the Government with its required level of accountability, and promote the growth of a competitive market by reducing barriers to entry.

10. EDF Energy welcomes the fact that the Government has publicly acknowledged industry’s concerns around its proposed payment model. We are keen to continue to engage on the topic with DECC to ensure that the payment model is made as robust as possible. We consider that the development and implementation of an
alternative “single counterparty” contractual payment model would be able to meet the objectives of both the Government and investors. Such a structure is legally enforceable by investors under private law principles, and is simple and predictable. We believe it is well understood in the market and has previously been employed successfully (under the Electricity Act 1989). It also removes the additional element of uncertainty that comes from the use of licence and code provisions. Similar to any other payment model, there are other legal issues which will need to be considered further, including balance sheet concerns, accountability, competition and financial regulatory requirements. However, we believe that these concerns can be effectively addressed in the alternative model.

11. Legal advice that we have seen indicates, for the reasons summarised below, that the Government’s current proposed payment model would not create a sufficiently robust legal and commercial investment environment to promote the required wider industry “buy-in” (with possible consequential adverse impacts on the Government’s policy aims).

(a) Legal enforceability—The CfD is currently envisaged to be an “instrument” which will be “issued” (ie imposed by operation of law), although it is intended subsequently to be governed by normal commercial contractual principles. These concepts are difficult to reconcile and it is not possible conclusively to state that the CfD would be legally enforceable under either private law or public law principles. It may be subject to both, giving rise to significant risk that it could be enforced under neither. Investors and financiers will require clarity and certainty on the legal principles underpinning CfDs before placing any reliance upon their terms, as a CfD which is unenforceable will not provide investors with certainty that they can recover payment from the supplier counterparties.

(b) Structure—We are concerned that the novel and bespoke structure of the Government’s proposed payment model will not be attractive to investors, financiers or other stakeholders because of its complexity and lack of precedent. For example, it is not currently clear how the courts would interpret the proposed arrangements, or how an effective dispute resolution mechanism could be put in place with the large number of parties involved. This is a point already acknowledged by the Government.

(c) Certainty of terms—The reliance by the Government’s proposed payment model on modification of licence and code provisions adds an additional element of investor uncertainty. This is due to the number of parties which can object to proposed modifications and/or propose alternative modifications to licences and codes, as well as the wide regulatory remit provided to Ofgem (particularly its EU legislated powers as National Regulatory Authority). We are not convinced that the Government will be able to constrain Ofgem’s powers in a manner which remains consistent with European obligations.

12. The content of the detailed CfD terms to be offered by the Government will also, of course, play an important role in promoting investor certainty for what are very long-term projects. In particular, it is important that there is further clarity on both the length of the CfD for nuclear new build and the Government’s proposal to escalate the CfD strike price solely in line with the Consumer Price Index (CPI). A failure to use project-specific inflation indices during the construction phase will not accurately reflect the inflation exposure faced by multi-year construction projects. We believe it is more efficient if investors are able to cover the real costs that they face, including from risks, such as curtailment from National Grid, which are difficult for developers to manage and price given that they are outside their control.

13. While we understand the Government’s concern in ensuring the delivery of low carbon projects, we do not believe that this is best approached through the use of penalties for late delivery. This will see the developer effectively penalised twice and will serve only to increase the risk (and cost of capital) for developers, with possible consequential increased costs to consumers. We also believe that some aspects of the proposals for contract allocation for renewable projects, including the use of six-monthly contract rounds and the transition to competitive auctions, require further consideration. This is to ensure that they will work practically and minimise the risks of project delays and excessive costs for developers on aborted projects. Without long-term certainty on such areas, it will be difficult for investors to progress meaningful negotiations and make investment decisions.

14. It is also vital that legally effective arrangements are put in place to protect against the consequences of the proposed CfD mechanisms/law not remaining in force for the life of the project, and against any adverse amendments to CfDs being unilaterally imposed on investors. We do not believe that the Government’s proposed legislative “grandfathering” approach provides the necessary legal certainty, with the Government therefore needing to engage with investors on alternative avenues of protection (such as a contractual “grandfathering” agreement directly with the Government) which are to be made available outside the CfD itself.

15. EDF Energy, and our co-investor Centrica, have recently started discussions with DECC on FID Enabling to support our first new nuclear project at Hinkley Point C. It is important that this process is conducted in a timely manner because such arrangements will be essential for investor certainty and early decision making. The Government’s negotiating team must have a strong mandate from the top and sufficient resources for the task, and its work must be joined up across Government at all times. We welcome the inclusion of provisions in the draft Energy Bill which would enable the Government to issue “investment instruments” for eligible
projects (including Hinkley Point C) prior to Royal Assent. However, the “investment instruments” will not become legally binding unless Royal Assent is given to the provisions in their current form and the additional changes to code and licence provisions necessary to fully implement the Government’s proposed payment model are put in place. If Royal Assent is not achieved until winter 2013, as currently indicated by DECC, then we are extremely concerned that we will be left significantly exposed during the period between FID and the date on which the investment instrument becomes legally binding. In order to minimise investor uncertainty, steps will need to be taken by the Government to provide assurance that any additional investment made following FID will be properly protected.

16. We do not believe that the FID Enabling process, designed to reassure investors to proceed with significant investment, should require any State aid approval. The EU has set itself the goal to reduce greenhouse gas emissions to 80%-95% below 1990 levels by 2050, and has stated that each country is responsible for its own energy choices. In fact, the European Commission’s “Energy Roadmap 2050” concluded that “nuclear energy will be needed to provide a significant contribution in the energy transformation process in those Member States where it is pursued” and that “it remains a key source of low carbon electricity generation”\(^2\). While any need for State aid clearance for the EMR proposals should clearly be taken forward as a matter of priority, we do not believe the FID enabling process should create a State aid issue. The principle of the arrangements is to make early investment possible, for which there is a strong case. It is simply a practical arrangement with, we believe, no bias and therefore no State aid implications.

17. EDF Energy welcomes the Government’s decision to develop a capacity market. Although we believe that the country is unlikely to face a capacity shortage until the early 2020s, we are concerned about the risks related to the closure dates of fossil plants, some of which are unprofitable or only marginally profitable and which will be impacted by the Industrial Emissions Directive from 2016. For this reason, we believe that there may be merit in the early introduction of the capacity market, possibly earlier than the Government’s proposal for the first auctions in 2015 for capacity provided in 2019. If there is adequate capacity, then early auctions will establish the market and demonstrate this by revealing a low value for capacity.

18. While we are aware that the Government is still assessing the options over the form of the capacity market, we believe that it is important that physical security of supply is achieved through physically backed capacity, as opposed to reliability markets with no physical backing (ie financial options). It is also important that any penalties for non-availability are not linked to the energy price, because we believe this would distort wholesale energy market behaviour. We believe that any penalties should be linked to the size of capacity payment as this will provide an incentive for capacity to be available when required, and encourage capacity providers to participate in the market.

19. EDF Energy notes that National Grid, as the System Operator, will have the ability to offer low carbon and capacity contracts and will be responsible for administering the CId regime and capacity market. We agree with the Government that National Grid has the appropriate skills and resources to fulfil the role of the delivery body as envisaged by the Government. We believe that the industry can work together to deliver acceptable solutions to resolve any potential conflicts of interest (eg through the ring fencing of any conflicting areas of its business and scrutiny from Ofgem).

20. EDF Energy recognises that the introduction of an Emissions Performance Standard (EPS) is a coherent part of the reform package to which the Government is committed. We believe that an EPS could be a useful instrument in the future as a form of regulatory backstop to ensure emissions from operational fossil plant are abated. However, we are concerned that applying an EPS solely to new coal plant, as indicated by the Government’s recent announcement of a level of 450g/kWh, (together with grandfathering out to 2045) should not imply the unconditional acceptability of new unabated gas plant. Favouring one fossil fuel over another will not deliver the level of decarbonisation required to meet the UK’s climate change objectives, and it will also pose a significant risk to the country’s security of supply as a result of a lack of diversity. We therefore agree with the Committee on Climate Change’s recent recommendation to the Secretary of State for Energy and Climate Change that a clear decarbonisation objective for EMR should be set, alongside a corresponding process to achieve this\(^2\).

21. EDF Energy recognises the importance of having a strong and independent regulator to ensure high safety standards that will support an enduring nuclear industry. We believe that making the Office for Nuclear Regulation an independent statutory body outside the Health and Safety Executive, and providing it with sufficient organisational and financial flexibility to meets its needs, will reinforce confidence in the industry. We therefore welcome the Government’s inclusion of provisions in the draft Energy Bill to achieve this.

22. EDF Energy welcomes the Government’s proposal to establish a new statutory “Strategy and Policy Statement”, and the intention to clarify the roles and responsibilities of the Government and Ofgem, which we believe will help provide greater regulatory certainty to investors. We also believe the provision in the draft Energy Bill that removes the prohibition on UK offshore developers testing and commissioning infrastructure to export power is a sensible amendment. This will be important for Round 3 Offshore Wind projects, such as our Nantwich Bay joint venture, as it means that the “generator build” option for transmission assets will still be possible.


23. Despite some of the concerns highlighted above, we welcome the Government’s progress on EMR and look forward to further engaging with the Energy and Climate Change Committee and DECC to ensure that the new investment framework is as robust as possible, and achieves a successful outcome that benefits both investors and consumers.

June 2012

Supplementary written evidence submitted by EDF Energy

1. EDF Energy very much welcomed the opportunity to provide oral evidence to the Committee on 12 June, where, along with our original written submission, we were able to make our key points. In this addendum, we address some of the other main themes that were raised across all the sessions.

2. We support the Government’s approach of determining the level of the strike price through an administrative price setting process until the conditions are in place to move to competitive forms of price discovery. We would like to reiterate that EDF Energy is committed to ensuring that the terms agreed for the investment instrument for Hinkley Point C are transparent. We strongly agree that the strike price should be based on delivering a fair deal for both investors and customers, is affordable and provides value for money. The strike price will be the outcome of commercial negotiations between EDF Energy and our co-investor Centrica, and the Government. We are confident that the strike price agreed will reveal the competitiveness of nuclear new build compared to other forms of low carbon generation.

3. EDF Energy does not believe that the Levy Control Framework creates new risks to investment or undermines investor certainty. We understand that the Levy Control Framework is intended to serve as a Government budgetary management tool, and is not a piece of legislation. It should therefore not become a distraction in making the Government’s proposed EMR measures work. The Government is aware of its statutory obligation to meet EU and UK climate change targets, including the 2020 renewables target and the 80% reduction in greenhouse gas emissions by 2050. It will be important for the Government to assess the costs of delivering these targets, and make suitable budgetary provisions taking into consideration its accounting policies. This analysis should also include forecasts of revenues that generators will repay to customers under the terms of the contracts.

4. EDF Energy believes that all suppliers should be included in the settlement of CfD obligations. We note that small suppliers are exempt from a number of environmental and social obligations. However, the CfD difference payment obligations (as well as any collateral requirements) will be allocated among all licensed electricity suppliers on the basis of their respective market shares. As the CfD payments will be proportionally distributed, they will not create an adverse impact on suppliers with a smaller number of customers. We do not believe that the administrative costs of dealing with these payments will be greater than those faced in settling payments for energy and system services.

5. We are concerned that if some suppliers are further exempt from the Government’s energy policy obligations then this could introduce significant distortion into the retail market (eg dampen incentives for some suppliers to increase their customer base beyond the threshold). Any exemption would simply reduce the pool of customers from which the CfD payments could be recovered, and would have a regressive impact on consumers. Unlike environmental and social obligations, CfDs are a two-way mechanism. When the electricity market price is lower than the strike price, suppliers will have to pay the difference to generators but, conversely, when the electricity market price is higher than the strike price, generators will return money to suppliers, who should in turn pay it back to consumers. If some suppliers are exempt from the mechanism, then they or their customers would not be able to benefit from this.

6. EDF Energy agrees that adequate market liquidity will be essential to the success of the EMR. We support market driven initiatives that can make a positive contribution to enhancing and deepening liquidity in the GB wholesale electricity market. In particular, we are keen to see the development of forward trades in the current auction-based exchange.

7. The effective operation of CfDs requires a liquid wholesale market to provide a reliable and transparent reference price. It is important to ensure that any measures taken to enhance market liquidity in the near term are consistent with ensuring that the right liquidity signals are brought into the market to provide a robust and accessible reference price.

8. We note that the Government is now minded to make the reference price for intermittent plant CfDs the hourly day-ahead “GB Zone Price”. It is proposed that this will be based on the orders of the two GB power exchanges (APX and N2EX), and that we agree that this could be a credible and enduring index. Contracts settled at the day-ahead stage will benefit intermittent or non-firm generation sources because of their limited ability to predict specific output levels over longer time horizons. The ability to trade the reference price on an hourly basis, in line with their forecast output, should provide greater revenue certainty to such generators.

9. With regard to baseload generation, we agree that the market reference price for baseload CfDs should be based on a year-ahead contract. Under current market practice, this would be best achieved by using an average of Summer and Winter baseload contracts quoted daily in the preceding year. However, we agree with the need to review the CfD reference price in the light of market developments to ensure it remains an accurate and
liquid representation of the price at which a baseload generator can sell its physical output. There will be a strong incentive for such generation to participate in the forward trading of electricity as generators will seek to hedge their physical output in an efficient way. We believe it is very likely that the development of the CfD mechanism will encourage the development of physical trades using the reference index price, in parallel with trading against the index. This is common in other commodity markets and potentially provides a good basis for enhancing market liquidity.

10. EDF Energy is aware that some small generators are concerned that the change in support mechanism for renewables may affect the incentives of suppliers to purchase power from them under electricity Power Purchase Agreements (PPAs). However, we do not believe that the move to CfDs will create any additional barriers to the development of a viable PPA market, and welcome the Government’s forthcoming call for evidence on this subject.

11. Many of the concerns raised by some small generators exist currently under the Renewables Obligation (RO), and are not the creation of EMR. We believe that these concerns mostly relate to the intermittent and less predictable nature of wind power. As the level of intermittent generation on the system increases, we would expect wholesale electricity market prices to become more variable. We would expect prices at times of higher wind output to be lower than they would be otherwise. A higher penetration of wind generation capacity is also likely to increase imbalance risks and associated costs for all market participants. We believe that these factors will be reflected in the commercial terms on which off-takers (ie suppliers) are willing to provide PPAs. This could perhaps explain the reported decline in the PPA market for such products (both in terms of the number of off-takers willing to provide PPAs and the terms on which they are offered).

12. Under a CfD mechanism, and unlike the RO, renewable generators will have the advantage of not having to take fossil price risk. It is commonly suggested that the cessation of the RO will remove the incentive for energy suppliers to contract with renewable generators. However, the current RO does not create an obligation on suppliers to buy renewable energy. This is because suppliers have the alternative option of paying the buy-out fee as a means of complying with the RO. We are also not aware of any evidence to suggest that suppliers place any greater value on a contract directly for renewable power over and above the prevailing market price for electricity and the value of the Renewables Obligation Certificate (ROC). We believe that decisions on the power purchase price are already taken on a market basis by suppliers. Simply put, suppliers will purchase renewable power either because there is a demand for it by customers or because there is an economic incentive to do so. This will be the case under either the RO or a CfD model.

13. As stated above, the proposed reference price for intermittent generation, such as wind, will be a day-ahead price. A CfD with a day-ahead reference price will protect wind generators from the reduction in the value of their output that will arise in the future because market prices will tend to be depressed at windy times. Additionally, generators and suppliers will still be exposed to some basis risk (ie the risk of not achieving the reference price) between the day-ahead price and actual physical output because the wind generation forecast at the day-ahead stage will have some residual error. Suppliers or aggregators with a large trading and generation portfolio are likely to be able to manage such imbalance risk more effectively than small generators, and so this gives such suppliers or aggregators a strong incentive to contract with wind generators for the physical output of the plant.

14. EDF Energy supports the inclusion of demand side management (DSM) in the capacity market. DSM is a mechanism that does not necessarily reduce total consumption, but provides a market signal to meet demand cost effectively and manage short term load peaks by shifting consumption. If DSM is to participate in the capacity market (most likely through the use of aggregators), then it is important that any demand management can be achieved at a specific time on the instruction of the System Operator. We believe that it is important to make the distinction between DSM and energy efficiency. The underlying rationale of the latter is to reduce total demand for energy, and this should be pursued through policy mechanisms outside EMR. These include the Green Deal and initiatives that introduce energy efficiency standards for buildings and products.

15. EDF Energy welcomes DECC’s recent call for evidence on the role of gas in the electricity market, which will inform its forthcoming strategy for gas generation. We believe that the Government’s clarification of its strategy, along with further details of the frameworks relating to EMR, will give investors a better idea of the role of gas in the energy mix in the future. We also believe that the current emphasis should be on the effective delivery of the EMR mechanisms rather than the introduction of further policy measures.

16. We believe that gas fired generation will play an important role as part of the trajectory towards a decarbonised power sector in the 2030s. It will play a key role in providing the reliable and flexible generation required to balance the increasing amount of intermittent renewable generation envisaged for the electricity system. However, while we recognise that some new gas build may be needed to meet any potential supply shortfall (for example as a result of the Industrial Emissions Directive), it is clear that a second “dash for gas” (following the trend of the 1990s) will significantly reduce the degree of decarbonisation of the power sector that could be achieved by the 2030s.

July 2012
Written evidence submitted by Climate Change Capital

1. Climate Change Capital is an investment manager and advisor in the clean energy markets. We make it our task to intermediate investment into the opportunities created by the drive to a low carbon economy and the prevention of dangerous climate change.

2. We are very active as an advisor and investment manager in the UK energy market and we are a regular commentator on developments in UK Energy Policy. As such below are our comments on the current draft Energy Bill which we hope you will find useful in developing your recommendations on it.

3. We will focus on the proposal for the Contract for Difference (CfD) which is the key instrument for promoting large-scale investment in low-carbon power stations.

4. From an investor’s perspective, particularly one embarking on a large, capital intensive investment such as a nuclear power station, Round Three offshore wind zone, or CCS project, the CfD has a number of advantages in terms of delivering certainty for that specific investment. These advantages primarily derive from the fact that the project itself has a specific, legally enforceable contract with a government-backed entity, which gives the specific project certainty of payment amounts, terms and conditions irrespective of the inevitable changes in the market and policy environment during the lifetime of the investment.

5. This is in many ways superior in terms of investment certainty than the current arrangements for support of say renewable energy, where an investment decision made today needs to take into account views on the future of the power and Renewable Obligation Certificate markets and the policies that surround them over the coming 20 years or so. The key advantage of the CfD is that a project should not have to look much beyond the contract, in order to assess its returns.

6. Achieving the full benefits of the CfD approach will however require government to be ready, willing and able to participate in project specific negotiations with the developers and investors associated with such projects. The proposals as presented at the moment show worrying signs that DECC has not yet come to terms with the reality of this, and that other internal government constraints may prevent them from realising the full benefits of the new approach. There are three specific areas where this is most apparent and most concerning.

(a) Contracting Model: The preferred Contracting Model approach will not work. It is over-complicated, has potentially unmanageable balance sheet implications for the supply industry and gives investors in projects with CfDs questionable legal recourse (in the view of most legal commentators we have interacted with). If the CfD is to work, the counterparty needs to be a government-backed entity with which the project has a commercial contract and which has the capacity to pass the net costs of the CfDs through to the consumer through some sort of levy. This is similar to the Alternative Model proposed by DECC. A move to a form of the Alternative Model is imperative to the success of the Bill;

(b) Allocation Mechanism: In our view none of the allocation mechanisms proposed either work or absolve DECC from needing to make qualitative judgements as to who they will award CfDs to. We are all aware that the capital intensity of the move to a low carbon energy system will strain the financial resources of all the players involved and hence we would expect that (whatever the financial structure or source of finance used) the task of securing finance for the major investment projects will be long and difficult. That process simply will not start in earnest until companies have secured a CfD. No finance provider or Board of Directors will take an investment proposal seriously that cannot state what its revenues will be. In the (highly likely) event that the number of consented projects exceeds the available approved levy spend, then this means that the allocation body will need to make qualitative judgements as to which projects will achieve financing and hence should be awarded CfDs. We simply do not see any way around this;

(c) Reference Price and Route to Market: Fundamentally the CfD requires a Reference Price which represents the market price against which the difference in the contract for difference can be calculated. To get the full benefit of the CfD price project owners will need to be confident that they can achieve the Reference Price in the market either themselves or via a Power Purchase Agreement (PPA). This is no different to the situation today where projects are paid with reference to a certain price in the market. However as the UK does not have a compulsory power pool the reference prices available come from the reporting of a sub-set of the trading which does occur. This means the reference prices used are subject to change and PPAs usually allow for a change of the appropriate reference if it ceases to exist or becomes unrepresentative of the market. DECC is proposing the use of a Reference Price which is about to be introduced to the market and hence has no history. This all illustrates the difficulty of setting a Reference Price over long periods of time. In our view, in the current market framework, DECC will simply need to negotiate an acceptable Reference Price in each CfD along with appropriate terms for renegotiating it if the chosen reference becomes invalid. This reflects current commercial practice in the market, but again requires DECC to be prepared to engage in specific commercial conversations about the CfD, potentially on an ongoing basis as market circumstances change.
7. The separate and new DECC Call for Evidence on route-to-market issues is welcome. We are of the view that the debate about the CfD Reference Price has brought the route-to-market issue into sharp relief, but is not the sole creator of the issues highlighted by independent generators seeking PPAs.

8. The above three specific and important areas illustrate the absolute principle, in our view, of the CfD, which is that it is a project-specific commercial contract which is negotiated with government (in some form) and which has its costs and benefits socialised across the consumer base at the behest of government.

9. Without a more obvious preparedness to operate on this principle then the benefits of the CfD approach are very likely to be lost.

We trust you find this helpful in your deliberations.

June 2012

Written evidence submitted by E.ON

1. E.ON welcomes the draft Energy Bill as an important step toward delivering reform of the electricity market and providing a framework that will incentivise investment.

2. The priority has to be to ensure that the objectives of electricity market reform, which are to incentivise sufficient new low carbon generation investment while maintaining security of supply, are achieved at least cost to customers. This reinforces the need to provide a stable, predictable, framework with clear, long term policy goals which avoids unnecessary risks for companies which will increase costs.

3. The cost of making the transition to a low carbon energy future makes successful delivery of energy efficiency policies like the Green Deal and the Energy Company Obligation even more important. This will directly reduce fuel bills for customers and reduce the amount of generating capacity which needs to be built.

4. We also welcome the provisions in the draft Bill setting up the Office of Nuclear Regulation as an independent statutory body and the increased flexibility for offshore wind developers to operate transmission assets during the commissioning phase.

Electricity Market Reform

5. While E.ON would prefer to limit Government intervention in energy markets in order to allow investment to be driven by competition and the price of carbon, we recognise that, in the particular circumstances of the UK, the electricity market needs to provide a framework which will incentivise sufficient investment in both new low carbon generation and the more flexible capacity which will be needed to maintain security of supply, at a price which minimises costs for our customers. The current market design does not achieve that.

6. The primary drivers are the UK’s obligations under the EU Renewables Directive, which would require about 30% of UK generation to be met from renewable sources by 2020, and the Climate Change Act 2008 which requires the electricity system to be significantly decarbonised by 2030 if the UK’s ghg targets for 2050 are to be met at least cost. These both require the construction of a large volume of high capital cost, low carbon plant to meet our carbon and renewable targets and sufficient flexible generation or demand side response to maintain security of supply for customers.

7. These requirements are particularly challenging for the UK because:

- a large volume of existing coal, nuclear and oil plant will close or be subject to limited running over the coming decade, leading to a need to replace this capacity quickly and at a significantly higher rate than over the last ten years;
- wind generation will account for a growing proportion of the market which makes returns for other conventional plant on the system increasingly unpredictable and reliant on higher prices over shorter periods of operation;
- the UK has limited interconnection with other countries so that its ability to export or import power when needed or economic is limited. This is particularly relevant to the capacity market and to the UK’s ability to manage the effects of variable wind generation; and
- the existing players in the market do not collectively have the financial capability to fund all of the required investment, leading to the need to attract new sources of funding, in a global energy market where there are a range of competing investment opportunities.

The Energy Bill

8. The proposed Energy Bill largely delivers its objectives by giving the Secretary of State powers which will enable him to specify the detailed design of electricity market reform through secondary legislation and changes to licences. While we can understand this approach (and indeed there is little alternative at present as much of the design work has yet to be completed), it does mean that relatively little of the basic design is enshrined in primary law. This is potentially a source of additional investment risk as it will be open to the current or future Secretaries of State to make subsequent adjustments to the framework with relatively low
levels of Parliamentary scrutiny, as the secondary legislation is subject to the negative resolution procedure. Government should consider whether it can be more specific about its objectives and high level design parameters on the face of the Bill.

9. The other concern we have is around timing. We had hoped that the final Bill would have been introduced in May, but this is not now likely until November 2012. DECC’s timeline published with the Bill indicates that Royal Assent is not expected until the fourth quarter of 2013, which is surprising as it would mean that the Bill would need to be carried-over to the next Parliamentary session. We hope that the Bill will become law during the current session and that this pre-legislative scrutiny will help facilitate the passage of the Bill when it is introduced.

10. There is a risk that the secondary legislation needed to deliver the specific design will also be delayed. This is of particular concern in respect of the introduction of a capacity market, and could lead to prolonged investment uncertainty in respect of new gas-fired plant needed to maintain security of supply. Delay in implementation of the capacity mechanism could also lead to additional closure or mothballing of existing plant which may be uneconomic in current market conditions, but which would lead to a greater new build requirement in the future and therefore higher prices for consumers. It will therefore be important to ensure that the proposed Parliamentary and EMR development timetable is met.

11. The following paragraphs cover our initial views on the provisions of the Bill relevant to each aspect of electricity market reform and the other areas covered by the Bill.

**Contracts for Difference**

12. We support in principle the proposals for contracts for difference set out in clauses 1 to 13. We regard the CfD as the most effective means of incentivising new low carbon generation at reasonable cost to customers, and of attracting new sources of external funding. We broadly support the proposed approach to defining the strike price for individual technologies and recognition that more bespoke arrangements will be required for the fewer number of nuclear and CCS projects. However, there are a large number of issues to be resolved in policy terms before we could regard the CfD as a robust basis for investment:-

— *Is the CfD bankable?:* it is essential that any contract issued provides investors with the assurance that the terms of the contract and the income derived from it will be met over the life of the contract. We are not yet in a position to form a view on this. As DECC point out, the Government is considering adopting an alternative model to its proposed statutory contract approach, so we do not yet have clarity on the intended structure. We agree that the statutory contract approach has limited legal precedent and that, as a result, issues like dispute resolution and how costs are recovered in the event of default, are so far unresolved. Also because it is a statutory instrument rather than a commercial contract, it may be more open to regulatory intervention through changes in secondary legislation after the instrument is signed. It may be possible to address these issues but there is not enough detail in the Bill or policy documents to form a view. It may be that an approach based on a more conventional bilateral approach would provide investors with more confidence but, at the time of writing, we have not seen a detailed exposition of this alternative approach.

— *Retrospective change:* Government states that neither the Secretary of State nor the System Operator has any power to amend instruments which have already been issued so the proposed CfD instrument is as robust as a commercial bilateral contract. However, the regulations will specify the basis on which the contracts can be amended and could, in principle, allow Government to make unilateral changes. Whilst we recognise that some changes may be required at some stage in the future to deal with issues such as a qualifying change in law or an update to the most relevant market reference price, the Government should consider how more certainty could be provided to investors on the face of the Bill.

— *Reference price:* for the CfD to be bankable, parties to the contract must be able to achieve the reference price in the contract in selling or buying output from the plant. This means that the source of the reference price needs to be sufficiently liquid to create a predictably derived price. We support the proposal to specify the Hourly Day Ahead Auction Price for the “GB Zone” as the reference price for intermittent CfDs which we expect to be highly liquid. However the price source for baseload contracts in relation to the year ahead market is undetermined. DECC believes that the Mandatory Auction proposed by Ofgem is a strong candidate for the reference price source for the baseload CfD. We believe that it would be a mistake to base the price on a regulatory intervention (which may not be implemented) which may no longer be relevant by the date nuclear plant comes on line from 2020 onwards. We see no reason why the same reference price could not be adopted for nuclear as for intermittent plant, which would provide some uniformity in contract design and ensure generators can achieve the reference price through access to a liquid market.

23 National Grid is establishing a “GB Hub” which will pool the bids and offers from the APX and N2Ex power exchanges and, as part of the wider North West Europe coupling arrangements, calculate a single “GB Zone Price” for each hour.
— **Administered strike price:** the Government has proposed that for renewable projects commissioning up to and including 2020, the CfD strike price will be set based on an administered approach, which enables the Government to set a strike price on the basis of its assessment of the estimated cost of different technologies using evidence from existing projects. This approach has been successfully used in RO Banding reviews. The Government has also indicated that it would like to move, when and if the conditions are right, to an approach where the strike price is defined on the basis of auctions from competing projects and this would be covered by clause 5(2)(b). However, clause 5(2)(c) suggests that the Government might adopt an approach, where, within an administered system, developers would be able to offer a lower strike price than the administered price the Government had published, implicitly creating an auction. This suggests that such projects might be given priority which would lead to other projects incurring substantial abortive costs. We do not support this and believe that the Bill needs to exclude this option. Derivation of the strike price needs to be either administered or competitive for any particular technology. This is perhaps another example of where the “enabling” nature of this legislation and the lack of specific design provision is a source of unnecessary uncertainty.

— **Contract length:** DECC suggests a CfD length of 15 years, as representing an effective balance between enabling a range of projects to secure debt finance and achieve required returns to equity, and minimising costs of consumer support. Investors will aim to have achieved a return on their investment within the period of the contract and the shorter the contract the higher the cost to customers (although customers will be funding projects for shorter periods). We would prefer an approach where contract length is related to the economic life of the plant—say 20 years for renewables, consistent with the period of support provided under the existing Renewables Obligation. It should also be recognised that this length of contract has been successful in attracting new sources of capital into the OFTO tender process for the transmission connection, enabling debt and equity finance to be raised on a flexible basis.

— **State aid:** the Commission may regard CfDs as a notifiable state aid. It is important that Government notify their proposed CfD policy as soon as they have determined the high level design as it may take at least 18 months to secure approval from the Commission and investors may not regard the CfDs as bankable until state aid issues have been resolved.

— **Accounting treatment:** whether or not CfDs (and possibly the capacity agreements under the capacity mechanism) are defined as a derivative and have to be reflected at fair value in company accounts is a key issue. While DECC has sought advice from accounting firms, there are as yet no firm conclusions. This needs to be resolved by DECC in discussion with the major accounting firms before we go too far down the CfD route. If CfDs have to be reflected at fair value through a “mark to market” approach, this would create large shifts from year to year in the reported profits of parties to the contract. The design of the CfD must ensure that the costs of funding CfDs are treated as a production cost, in the same way as RO costs, to avoid adverse impacts on company balance sheets. Government also needs to address how CfDs would be treated under EU financial regulation including EMIR24 and the proposed revision of MiFID25 which, if CfDs are treated as a derivative, could impose requirements on counterparties to post collateral and mandate central clearing.

**Capacity Markets**

13. We support in principle the proposals for introduction of a capacity market set out in clauses 20 to 30. The Government’s choice of a market-wide capacity mechanism is, of the options considered, the type of design most likely to ensure that all capacity, with the exception of CfD supported plant, has the right incentives to contribute to maintaining security of supply. Design of the capacity market is much less advanced so there is as yet little to comment on. There are, however, a number of points we would like to make at this stage:

— **When does it start?:** we would prefer the Government to set a commencement date for the capacity auction now and to include this on the face of the Bill. Companies need time to prepare for bidding new or existing plant into an auction and prolonged uncertainty will add to industry costs and may limit the number of available bids, when an auction is initiated. Otherwise Ministers should aim to set the date as soon as is practical. It should not be left to the final delivery plan scheduled for late 2013.

---

24 European Market Infrastructure Regulation
25 Markets in Financial Instruments Directive
Investment Instruments

14. We recognise the need for the transitional arrangements for projects which need to make financial commitments before the legislation is in place as set out in clauses 14 to 19, and broadly support the proposed approach of the Secretary of State having a duty to issue instruments which had previously been laid before Parliament. We are, however, puzzled by the provision in clause 15(6) which states that the Secretary of State does not have a duty to issue the instrument if he believes it is notifiable as a state aid. As this seems likely, it is unclear how much reliance investors could place on such an instrument and it would be helpful if DECC could explain its approach here. This reinforces the need to secure state aid clearance.

Institutional Framework and Financial Controls

15. We have previously commented to the Committee on the Government’s choice of the system operator as the delivery agent for both the capacity market and for CfDs and the need to ensure separation of its EMR and other transmission related activities to avoid conflicts of interest. We support the provisions to ensure an effective institutional framework set out in clauses 31 to 34, both through separation measures (including creating separate licensed entities) and through provision to enable the transfer of these activities to another organisation in particular circumstances.

16. A key issue to be addressed is the relationship between DECC’s delivery plan, due to be finalised by the end of 2013, and the system of Treasury financial controls currently reflected in the Control Framework for DECC Levy-funded Spending which caps the level of expenditure DECC can commit through its interventions in the market. We note that the Government will have powers under clause 8 to limit the extent to which the system operator can issue CfDs and a number of options are under consideration.

17. The key requirement here is to devise a system in which companies developing projects in response to the CfD framework and the available strike price can be confident that their project will be rewarded when they get to the point of making a final investment decision. This means that the delivery plan needs to be consistent as far as possible with the allowed budget under the Treasury control framework and vice versa. As the net cost of CfDs will vary substantially from year to year with the wholesale market price, we also need to avoid a system where the available budget varies wildly from year to year. A stable accounting approach is therefore essential.

18. We would also recommend a system where projects, when they have reached a given state of development, can receive an advance commitment that they will be given a CfD on given terms. The potential for speculative investors signing contracts who may never build a project also needs to be taken into account. It may also be sensible to reserve a proportion of the available budget for individual classes of low carbon technology to ensure that unexpected expenditure on one technology does not lead to unexpected restrictions on another, but these issues require further discussion with the industry and within Government.

The Renewables Obligation: Transitional Arrangements

19. The arrangements in clause 35 reflect the Government’s intended approach to stabilise support for renewable generation supported by the RO after the RO regime is no longer available to new generation through a transition to a certificate purchase scheme at a fixed price during the period from 2027 to 2037. We support this proposal provided the fixed price is in line with investor expectations. The long term value of a Renewable Obligation Certificate (ROC) is the combination of the RO Buy-Out price plus 10% headroom, indexed to RPI, which should be explicitly referenced in the Bill.
Emissions Performance Standard

20. We do not see the need for an emissions performance standard as set out in clauses 36 to 39 which is a superfluous intervention capable of adding to investment risks, given concerns that the EPS for plant might be adjusted unexpectedly during its economic life incurring substantial additional costs, and costs to consumers. Decarbonisation of the power market will be driven by the system of CfDs not by the EPS. Nevertheless, we recognise that this was a commitment in the coalition agreement and that the Government has drafted the legislation in a way which is designed to provide greater certainty for potential investors. It is helpful that the level of the EPS is set out on the face of the Bill and the circumstances in which it would be applied to refurbishment of existing plant have been clarified.

Energy Strategy and Policy Statement

21. The draft Bill proposes, in clauses 40 to 47, an Energy Strategy and Policy Statement which will set out the Government’s strategic priorities for energy policy, describe the roles and responsibilities of Government, Ofgem, and potentially other relevant bodies, and define policy outcomes that Government considers Ofgem to have a particularly important role in delivering. We welcome clarification of the Government’s strategic priorities, and the respective roles of Government and other public bodies. We also welcome the intention to set these at a high level and the intention to ensure the statement is capable of enduring for the life of a Parliament.

22. One reservation we have about the statement is its potential effect on the role of Ofgem and its relationship with Government. In general the proposed approach would appear to diminish Ofgem’s role as an independent economic regulator and increase the level of political influence over its functions. This could in principle lead to the regulator acting less predictably or factoring in considerations which we would not normally expect.

23. There is also a risk, once Government has specified the policy outcomes that the Government wants Ofgem to achieve, that this will conflict with Ofgem’s own view of how it should meet its principal statutory objective of protecting the interests of consumers, both present and future, wherever appropriate by promoting effective competition. Where there is such a conflict, we would expect Ofgem to pursue its own interpretation of its principal objective. It will therefore be important to ensure there is agreement at the beginning that the outcomes the Government wants to achieve are indeed in the interests of customers, and that regulated companies understand how these policy outcomes will be reflected in how Ofgem regulates the market.

Office of Nuclear Regulation

24. We welcome the intention in clauses 48 to 81 to set up the Office of Nuclear Regulation as an independent statutory entity which we believe will enhance the status of nuclear safety regulation in the UK and improve the transparency and accountability of the process, which will improve public confidence in nuclear safety. At present we have no detailed comments on the specific provisions in the Bill.

Offshore Transmission Systems

25. We welcome the intention set out in clause 105 to enable offshore renewable developers to carry out, during the transmission phase, certain transmission functions where they have provided their own transmission connection to the project prior to transfer to the selected Offshore Transmission Operator. This had become a major concern for the industry during the commissioning phase of offshore wind farms. The proposal will provide developers with the assurance that they will not be in breach of the prohibition on participating in the transmission of electricity without a licence in the 1989 Electricity Act, in respect of undertaking commissioning tests prior to handing the offshore transmission assets over to a transmission licensee following the OFTO tender process.

June 2012

Written evidence submitted by Green Alliance

In response to your call for evidence, we would like to comment on a number of important omissions from the draft Energy Bill, and identify ways that these omissions can be addressed. Without significant change, the Energy Bill will fail to deliver its aim of a low carbon, secure and affordable electricity system.

1. Need for a Specific Carbon Target

The draft Energy Bill describes policy mechanisms which could be used to decarbonise the power sector in line with advice from the Committee on Climate Change’ but which could equally lock the power sector into high carbon emissions for the next 30 years. The lack of long-term certainty over the aims of the bill undermines its ability to drive decarbonisation at least cost.
In order to ensure that the Bill does not accidentally deliver carbon lock-in, and therefore increase the cost of decarbonisation, it needs to specify the overall carbon intensity of the power sector in 2030. Setting a trajectory to 50gCO₂/kWh by 2030 is technology neutral, supports our legally binding carbon budgets, and is compatible with the government’s long term aim of allowing low carbon power sources to compete against each other. More importantly, it will reduce the cost of decarbonisation by addressing a critical flaw in the bill: the lack of a bankable long-term indication of the amount of low carbon generation required.

Most low-carbon generation has high capital costs, and in addition requires significant capital to be sunk into the manufacturing plants needed to build low-carbon power plants. Because these investments may take a decade or more to break even, investors face several risks: a risk that their technology may not be cost-competitive by 2030; that electricity demand may be lower than expected, lowering the overall size of the market; and the risk that governments may change their low-carbon aims, thereby enabling high-carbon power to compete with low-carbon power. The first two risks are appropriate for market actors to bear, but the risk of changes to government policy are not manageable by the private sector.

The need to mitigate this risk has been recognised in the development of both the renewables obligation and the Feed-in Tariff (FIT) with Contracts for Difference (CfD). In the renewables obligation (RO), the volume of renewables required is set by parliament, and money is levied to support any generator able to help meet the target. This volume guarantee is supported by the EU renewable energy directive’s 2020 targets, and any risk that the quantity of renewables obligation certificates would fall to a level which raised volume risk were addressed in 2009 by introducing a headroom mechanism. Residual policy risk arises from the prospect of retroactive changes to RO support rates such as those proposed by Spain in 2010. In order to mitigate this risk, and reduce the cost of capital, CfDs (in theory if not yet in practice) propose to legally protect agreed support rates for a specified period of time. This means that once a developer has signed a CfD, he or she faces no policy risk. However, there is no indication of the quantity of CfDs available, meaning that investments in manufacturing plants, the supply chain, and R&D—all major contributors to potential cost reduction—are at risk if the government decides to reduce the number of CfDs available in the future. As a result, although CfDs provide an improvement compared to the RO once a CfD is agreed, overall they are a major step backwards compared to the RO because they give no indication or security to manufacturers or developers about the future availability of CfDs. This lack of forward visibility has the potential to completely undermine the aims of EMR.

Need to provide certainty over the future role of gas

Without a specific carbon objective, it will be unclear to investors whether government will continue to issue a sufficient volume of CfDs for low carbon plant and force existing and future gas CCGT to operate as peaking plant or fit CCS, especially if the costs of low carbon generation are higher than anticipated. This is a real concern, especially in light of the proposal to grandfather the EPS at 450gCO₂/kWh out to 2045. Our calculations suggest that in order to have average power sector emissions of 50gCO₂/kWh in 2030, no more than about 6GW of unabated CCGT could operate at baseload, assuming all other power sources were zero carbon. In reality, the need to use unabated plant for balancing, and the likelihood that at least some CCS will operate in 2030 further reduces the prospect for unabated gas to run at baseload. Reasonable assumptions about CCGT plant lifetime suggest that between 10 and 20GW of plant currently on the system will continue to operate in 2030. If a substantial fraction of consented gas plant is built, significantly more than 30GW of unabated CCGT could be operational in 2030. If these plants ran as baseload, emissions would be closer to 200gCO₂/kWh, undermining the ability of low-carbon electricity to cheaply assist in the decarbonisation of heat and transport.

Uncertainty over the future role of gas also undermines the investment case for the very small number of new CCGTs which may be required in the medium term. If CCGT investors believe that government will stick to its carbon budgets, they need to plan for their plants to be profitable at very low load factors in the late 2020s. The signal sent by the recent grandfathering proposal appears to contradict this, introducing policy risk. A natural consequence will be for investors to demand a risk premium through the proposed capacity mechanism in order to build, putting government into the invidious position of having to pay (via CfDs) for back-ups compared to the RO because they give no indication or security to manufacturers or developers about the future availability of CfDs. This lack of forward visibility has the potential to completely undermine the aims of EMR.

There is a better approach which would protect energy consumers from having to pay over the odds for decarbonisation. Government should legislate a carbon trajectory to 50gCO₂/kWh by 2030, clarifying the long-term trajectory for the power sector and thereby reducing policy risk and associated risk premium. The Committee on Climate Change should assess the ability of draft delivery plans to meet this long-term trajectory to ensure confidence in the support mechanism. Government should then set EPS grandfathering rights for gas plants which decrease over time in a way that is consistent with the overall power sector emissions trajectory, and commit to a capacity mechanism which ensures that the full range of technologies which can aid in balancing—including unabated gas, but also interconnectors, storage, and demand response—can compete to ensure that system reliability is maintained at moderate cost.
2. Need to Enable Demand Reduction to Reduce Overall Cost

Minimising cost will be vital to maintaining political support for the decarbonisation of the power sector. Per unit electricity prices are likely to increase in the short to medium term, reflecting increased wholesale gas prices and increased use of existing gas plants as these replace coal fired generation expected to close by 2015. Increased use of renewables will help to mitigate price rises in the medium term, but there is a significant risk of higher prices in the short-term. This is especially challenging as overall energy demand is expected to increasingly shift toward electricity.

The only scalable solution to constrain costs in the short term is to reduce demand for electricity. Existing policies are unlikely to exploit the full, economic potential to reduce electricity demand. The Green Deal, for example, will mainly cover heat in domestic sector, and product standards, which make up the bulk of cost savings in the Government’s analysis of future bills, will only reduce costs for consumers who are both able to pay for new appliances and who choose to do so. Although rising prices do provide an incentive to reduce demand, peer reviewed evidence suggests that this is a weak incentive: a 10% increase in electricity prices only decreases demand by around 1%, meaning that prices would have to double to stimulate the 16% reduction that government assumes will arise to keep overall bill impacts at the level suggested in the Electricity Market Reform White Paper.

As rising gas prices over the past three years demonstrate, in the absence of a mechanism to incentivise and finance demand reduction, consumers are much more likely to respond to rising prices by withdrawing political support for the energy bill than by reducing their demand.

Maximising demand reduction

This can be avoided by amending the Bill to make a feed-in tariff available to energy aggregators that can demonstrably reduce demand for electricity. Doing so would not require radical overhaul of the draft legislation; is more compatible with a liberalised electricity market than an efficiency obligation because it creates competition between demand and supply side services and enables new entrants to enter the market; is able to fully reflect the value of demand reduction including wider benefits (eg avoided network reinforcements); and would systematically reduce the cost of electricity.

Robust evidence from California, Vermont, and Texas shows that efficiency programmes with a similar structure to a feed-in tariff are 2.5 to 3 times less expensive per unit of electricity avoided than building new supply to meet demand. Because an efficiency feed-in tariff would be funded from the same levy-controlled source as renewables, CCS, and nuclear, it would displace some of the need for much more expensive low carbon supply to meet demand. Because an efficiency feed-in tariff could be introduced at a set price initially and over time move to an auction process, similar to the supply side.

Any mechanism for demand reduction will require robust monitoring and verification systems to ensure that demand reduction is real. Mechanisms such as the International Performance Measuring and Verification Protocol, which is based on experience from the USA, could be adopted to ensure the services procured meet reliability and additionality criteria. As has been done in the US market, FiT payments would need to be conditional on proving additionality, with claw back provisions for efficiency providers which are unable to demonstrate this.

Although well-established abroad, an efficiency market is a new development for the UK, and would need proactive support to develop initially. To address this issue, we suggest that the Bill introduces an efficiency FiT, and puts a duty on the administrator of the FiT scheme, National Grid, to proactively procure demand reduction instead of supply where it is cheaper to do so over the lifetime of the efficiency measures. This should be factored into the RIIO framework, such that National Grid’s performance in maximising demand reduction has a direct impact on its regulated return.

Maximising demand response

Demand response (DSR) can also significantly reduce the cost of electricity at peak times. The prospect of a capacity market which enables demand response to compete equally with new peaking supply is to be welcomed. However, we have concerns over the proposed timings and some aspects of the proposed design of the capacity mechanism. On timings, leaving the implementation of the capacity mechanism until there are signs of system stress may result in a high proportion of the capacity payments going to existing fossil supply side options, as they are already available and many are already used to participating in STOR. In addition existing power stations may be able to bid at very low prices as they only need to cover their marginal costs. The inclusion of existing fossil power stations in the capacity mechanism may therefore reduce the amount of DSR that can enter the market if no distinction is made between new and existing assets. Although this may address short-term resource adequacy issues, it’s not clear that the present structure will incentivise innovative technologies like demand response, especially as the mechanism may only provide very short-term signals.

Experience from the USA demonstrates this risk: in the PJM market much of the capacity payments initially went to existing fossil power stations and a “clean first” priority system had to be introduced to ensure that DSR was able to compete fairly. As with demand reduction, given the immature nature of the demand response
market, it is likely to be necessary to proactively seek out demand response to ensure that the maximum economic level of DSR is developed.

More broadly, the capacity mechanism needs to be designed to deliver resources capable of flexing rapidly to accommodate the large proportion of variable renewables likely by 2030. This is important as the capacity payments will be funded through energy bills and should therefore support least-cost delivery of a coherent energy system.

The Bill therefore should not simply enable the detailed design of the capacity mechanism but should trigger an early adoption of the new mechanism for the demand side. National Grid should be given an explicit remit in the Bill to seek out DSR opportunities and prioritise them over supply side options. As with demand reduction, National Grid’s performance in contracting with DSR should be factored into the regulated return it makes.

3. Need to Ensure FIT With CfDs Effectively Reduce Risk

In order for the Feed-in Tariff with Contracts for Difference regime to effectively reduce risk to developers, and therefore lower the cost of low-carbon support, it needs to have three characteristics: first, it must be simple and transparent enough to be able to garner both public support—critical to policy stability—and to inspire the confidence of international investment committees. Second, in order for long-term contracts to fulfil their main aim—guaranteeing that support levels will not change—they need to be drawn up with a credible, credit-worthy counterparty. Finally, because FIT CfDs require generators to sell electricity in the market in order to receive the FiT payment, FIT CfDs need to operate within a market in which offtake and basis risk are low.

It is not clear that the proposals for FiT CfDs in the energy bill have these characteristics. The desire to disguise subsidy for new nuclear power—irrespective of whether this is an appropriate aim for energy policy as a whole—risks driving a one-size fits all approach to FiT CfD design which disadvantages both renewables and CCS.

This poses several problems: first, smaller generators may continue to face offtake and basis risk,\(^i\) disadvantage them compared to nuclear. This has partly been addressed by changing the CfD for intermittent generators to one with day-ahead indexation, but cannot be fully resolved without wider reform to the wholesale market to address offtake risk.\(^j\) A related problem arises from trying to use one-size-fits-all CfDs to fund CCS demonstration, which because it is a very early stage technology, faces a very different risk profile compared to nuclear.

Second, there is a risk that implementation of a one-size-fits-all FiT CfD is delayed by state aid concerns, putting 2020 renewables and carbon budgets at risk if renewable and CCS projects are also delayed. This could be addressed by falling back on the Renewables Obligation or transforming this into a premium FiT. However, this poses serious risks of over-rewarding low-carbon generators if electricity prices rise due to higher gas prices, potentially undermining public support. Even if the FiT CfD does not face state aid challenges, rewarding nuclear operators with CfDs that provide a strike price higher than average wholesale prices is likely to reduce public support for decarbonisation.\(^k\)

Finally, for all technologies, the desire by government to avoid acting as the counterparty to CfDs seriously risks undermining the entire purpose of electricity market reform. In order for contracts to be credible, investors need to know that there is an opportunity for recourse if market rules or support levels change.

In order to address these flaws, the Bill should:

1. Retain CfDs to mitigate the risk of over rewarding low-carbon generators, but ensure that they will actually work by designing CfDs to operate differently for renewables, CCS, and nuclear. This would mitigate the risk that a delay in one CfD mechanism delays other technologies. It would also allow CfDs to have very different designs, at least initially, to ensure that they can adequately cover the different risks that different technologies face. Separating out CfDs would also enable them to be simplified as a single instrument would then not have to cover such a wide range of risks and policy objectives.

2. Take powers to act as a buyer of last resort to address the offtake risk that renewable generators may face if they are unable to sell their electricity at a price comparable with the reference price.\(^l\) Addressing offtake risk effectively will help to address some of the basis risk that independent generators face.

3. Clarify that government will act as the counterparty to CfDs.

June 2012

References

\(^{i}\) There is limited scope to reduce carbon emissions in other sectors beyond that currently envisaged and the analysis undertaken by the CCC suggests strongly that early power sector decarbonisation is the most cost effective way to meet our 2050 carbon targets.
High demand from east Asia is likely to keep global LNG prices high for the next decade, even with a significant increase in shale gas development, as the lead times on shale gas are long. US shale gas exports are likely to flow to east Asia as prices are 2 to 2.5 times higher than European prices or to be used domestically to substitute for coal as part of a US political strategy to increase energy independence at low cost. For further information supporting this analysis, see Ofgem’s overview of gas supply risks, available from http://www.carbonbrief.org/blog/2012/05/crunch-coming-for-uk-gas-says-ofgem-CEO: for shale gas price impacts, see Poyry’s analysis, available from http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=23&refer=About%20Us/PwringEnergyDeb.


These are often referred to as “standard offer” programmes in the USA. Texas, which has a partly liberalised market, has run a set of incentives very similar to a feed-in tariff since 2006.

For further information on how an efficiency FiT might work, see D Benton, Decarbonisation on the cheap: how an energy efficiency feed-in tariff can cut energy costs, Green Alliance (October 2011)


Due to their intermittent nature, most renewable generators tend to sell electricity below the average market price. Intermittent renewables find it harder to accurately predict output and therefore face higher balancing charges. Wind generators also suffer as they tend to be on the wrong side of market (ie want to sell when the price is low and buy when the price is high). Over time as the level of wind penetration increases, this effect will become worse and wind generators’ access to peak electricity prices will decline. As the amount generators are paid under the CfD would be linked to the average wholesale price, this would mean renewable generators would lose out compared to generators which tend to sell output at an amount closer to the average price (eg nuclear).

Offtake and basis risk are related for independent generators: if offtake risk is high, independent generators may have to enter into discounted PPAs to ensure their electricity is sold, but in doing so, may not be able to achieve the CfD reference price, introducing basis risk.

Although support for nuclear power is higher in the UK than elsewhere in Europe, the public is significantly more supportive of renewables than nuclear. See http://www.guardian.co.uk/environment/2012/apr/19/wind-power-poll-uk-public-favour and http://www.guardian.co.uk/environment/blog/2011/dec/14/british-public-support-renewable-energy for more details.

A number of renewable developers have been unable to get Power Purchase Agreements (PPAs) or have faced increasing discounts in the rates they could secure. The discounting of PPAs may get worse if cash out is sharpened.

Written evidence submitted by Centrica

I. Centrica is a leading UK energy company that secures gas and electricity to supply over half of Britain’s homes. From owning no power generation assets in 2000, we are now a major player in the UK power market with significant existing assets and investment options including:

(a) Seven gas-fired power stations including Langage, one of the most modern and efficient CCGTs on the system.
(b) A leading position in offshore wind with 280MW generating capacity, a further 270MW in construction. We also own the rights to develop over 4GW of Round 3 offshore wind in the Irish sea in a joint venture with Dong Energy.
(c) Through our joint venture with EDF Energy we have a 20% stake in the former British Energy nuclear fleet, and we also have the option to participate in the nuclear new build programme with EDF.
(d) We are currently exploring opportunities to develop two 80MW biomass plants.
2. Centrica is the parent company of British Gas, the UK’s largest energy supplier with around 16 million customer contacts in the domestic sector and around one million in the non-domestic sector.

3. We strongly support the Government’s proposals to reform the electricity market in order to secure supplies and deliver greater low carbon investment. We therefore welcome the draft Energy Bill as an important next step in delivering this major programme of reform. As a major investor in UK energy infrastructure, and as a leading energy supplier to British households, we have a shared objective with Government to ensure optimal arrangements that deliver sufficient investment at least cost. We believe the framework proposed in the draft Energy Bill has the potential to do this, and we support its direction and the principles behind the proposals it contains.

4. We welcome the Government’s decision to enable pre-legislative scrutiny, and are pleased to have the opportunity to provide a submission to the Select Committee. We believe there are some areas where the draft Bill has the potential to be strengthened, and this is the focus for our response.

**Contracts for Difference (CfD)**

5. We believe the provisions laid out within the Draft Bill and accompanying policy documents demonstrate that the CfD framework is workable and is appropriate for the full range of eligible technologies, with variations depending on the specific requirements of those technologies.

6. We have concerns regarding the payment model proposals from DECC. The proposals outlined in the draft operational framework and draft Bill lack legal precedent and are not sufficiently robust to provide investors with the required reassurance to invest. We believe a private law contract with a single counterparty would overcome this risk while still addressing many of the Government’s State Aid and balance sheet considerations. We therefore welcome the Government’s recognition of industry’s strong concerns and support the opportunity to engage through pre-legislative scrutiny.

7. We support the proposals in the draft Energy Bill to include provision to set the “strike price” for the CfDs both through administrative and competitive processes. As technologies mature and the UK moves away from technology specific targets it is appropriate to introduce increasing degrees of competitive tension in order to achieve lowest cost for customers. However, for many technologies that is not yet appropriate, so we support the initial intention to use an administered approach.

8. As developers progress projects they will need to have some degree of confidence at the point of final investment decision whether or not a CfD will be available. It is not feasible for projects to stay “on hold” until there are sufficient volumes or types of CfDs available as this jeopardises the supply chain contracts that will have been secured and puts significant costs onto the development. Therefore, transparent objectives and clear processes regarding the volumes, levels and technology types of CfDs available within a given period will be essential.

**Capacity Mechanisms**

9. We support the Government’s decision to introduce a capacity market in order to ensure security of supply. However, we are concerned that there appears to have been only modest progress in providing more detail and shape as to the capacity mechanism design.

**Emissions Performance Standards (EPS)**

10. We support the approach taken in the draft Energy Bill. An EPS that prevents investment in new efficient gas-fired power generation risks impacting security of supply in two ways. First, new efficient gas plants may be necessary in the short- to medium-term, as older plants close and before new nuclear, CCS and sufficient renewable generation can fill the gap. Second, in the longer-term, as more intermittent generation is on the system, flexible capacity will need to be available to “back-up” this plant and ensure security of supply when needed. Currently gas-fired power generation is best placed to provide this “back-up”. An unnecessarily restrictive EPS, or an EPS that is easily open to changes affecting existing plant, carries significant risk of investments not being made in case they are stranded.

*June 2012*
Written evidence submitted by RWE

1. RWE\textsuperscript{26} welcomes the opportunity to submit our views on the draft Energy Bill and associated policy updates on Electricity Market Reform to the ECC Select Committee.

2. We, and the wider industry sector, have long been pushing for greater clarity on the detailed design of the EMR proposals. We welcome the publication of the EMR Policy Overview document, which is another step in the process towards achieving the necessary design detail and ultimately implementation.

3. However, we are disappointed with the progress that has been made to date and while we appreciate Government’s desire to meet their legislative timetable, we would observe that high level policy decisions on the key elements of the EMR—the Contract for Difference and the Capacity Mechanism—are still outstanding.

4. We are concerned about the lack of coherence between the different elements of the EMR package and the increasing complexity of the individual EMR proposals. There are also issues around how the CfD and the capacity mechanism will interact with the underlying electricity market and the implications of these proposals for the retail supply and wholesale market liquidity, which need to be considered more thoroughly. We believe that the government and the regulator are attempting to pull too many levers in its reform of the electricity market and it is this that has slowed down progress on delivering the reform. In addition, we believe that it is not the government or the regulator, but the individual companies who have the democratic mandate to make these decisions. The lack of progress on finalising the key elements of the EMR—the Contract for Difference and the Capacity Mechanism—are still outstanding.

5. We, and the wider industry sector, have long been pushing for greater clarity on the detailed design of the EMR proposals. We welcome the publication of the EMR Policy Overview document, which is another step in the process towards achieving the necessary design detail and ultimately implementation.

6. It is important that EMR package does not undermine the value of existing investments and further consideration needs to be given how the most recent investments will, in particular, be treated under (an increasingly bigger) CfD support regime which sets the price for low carbon generation and the a capacity market which sets volume in the market.

7. Uncertainty around the EMR and other regulatory interventions is now the most significant barrier to future investment in generation. There is considerable uncertainty about the scale and extent of the intervention through the EMR package and there is a clear risk that parties will not invest until the details of the scheme have been determined. While, in principle, it is perfectly possible to design a CfD which can provide adequate and stable returns to investors in low carbon technologies, the devil is in the detail and even now after the publication of the draft Energy Bill and associated documents, there are many issues which Government needs to resolve before investors can be satisfied that the mechanism is bankable. The lack of progress on finalising designing the capacity mechanism also provides little confidence that a workable scheme consistent with competitive markets can be designed and delivered in the timescale required.

8. At a high level, our overarching concerns with regard to the draft Energy Bill are

- The draft Bill confers broad and disproportionate powers on the Secretary of State, which given (or because of) the lack of detail on the EMR package, does little to provide the clarity that is required for future investments, while simultaneously injecting new uncertainty into the market for existing operators.\textsuperscript{27}

- The draft Bill gives extensive enduring powers to the Secretary of State to change, amend or modify industry agreements, which contrary to the intent of the EMR package, introduces significant regulatory risk and uncertainty for investors, particularly as the Strategy and Policy Statement is explicitly expected to endure for the life of a Parliament, and therefore would change with each Government change. In similar circumstances, Government has directed that a scheme is introduced with all the required licence and code changes and then left the industry to manage the consequences. This is not the case in the draft Energy Bill, which will allow future energy market interventions by the Secretary of State, long after the new mechanisms are established, without the appropriate Parliamentary scrutiny or consultation. Furthermore, the extensive powers conferred on the Secretary of State by the Bill clearly impacts on the independence of Ofgem and are potentially contrary to Article 35 of the Electricity Directive 2009/72/EC. In addition, we are concerned by the growing trend to introduce new licence conditions directly through new legislation rather than through the regulator. This circumvents the potential for licensees to challenge proposals through the intended appeals procedure of the Competition Commission.

\textsuperscript{26} This response is made on behalf of RWE companies operating in the UK, which is comprised of RWE npower, RWE npower renewables and RWE Supply & Trading.

\textsuperscript{27} While past reform programmes may have given vague and broad powers to the Secretary of State, the approach to this in the draft Energy Bill is different in that given that neither does it leave the implementation to a separate project programme (as per NETA) nor does it have sufficient detail in the Bill to pre-empt the likely approach in areas that are still not clear.
We strongly believe that the final legislation needs to demonstrate a clear mandated route for suppliers to recover the costs both of the obligation to support low carbon generation and of holding capacity via the customer bill, both to ensure that suppliers are able to recoup the costs and to ensure consistent pass through to consumers. It is not appropriate for suppliers to be liable for payment of the low carbon support or capacity mechanism without a legal obligation for all customers to pay in proportion to their electricity consumption. The absence of such a clear path could potentially undermine the impact of the proposals, whilst making the proposed reforms even more complicated to put into practice.

9. We believe that a key focus of the pre-legislative scrutiny process (and ultimately the Energy and Climate Change Select Committee report to the Government) should be on:

- Clarifying and, where necessary, both tightening the scope of the regulations and narrowing the powers conferred on the Secretary of State to minimise the risk of political intervention;
- Where non-specific powers to alter industry agreements are required to implement the EMR package, seek to ensure that the Secretary of State’s powers are time limited to avoid the risk of recurring change and that the enduring arrangements are placed under the control of the industry to the extent necessary to manage the various schemes;
- Tightening up the drafting of the Bill to avoid any unintended consequences;
- Assessing the ability of the government’s legislative package to deliver a coherent and bankable framework for investment.

Narrowing the powers conferred on the Secretary of State and the scope of the regulations

10. For example, the CfD contract must establish a sound basis for investment in the GB electricity market. As currently drafted, the Energy Bill allows for a wide degree of discretion by the Secretary of State with the possibility of enduring intervention in the energy market regulatory regime. We are of the firm belief that the CfD contract should enable parties to economically and efficiently manage risks and that it should clearly set out the means by which key parameters can be changed under the terms of the contract as well as the dispute resolution process (perhaps with reference to arbitration or experts). However, there should be no scope for intervention once a contract has been allocated to the relevant generator.

11. We had previously understood that the intention of the Government is for all suppliers to be subject to the obligations relating to the CfD and the capacity mechanism, but note that the draft Energy Bill and the draft CfD Operational Framework appear to allow for small suppliers and generators to be treated differently from other suppliers and generators. We are disturbed by the general trend for some suppliers to be treated in a discriminatory way in relation to such obligations and cannot find any objective justification on cost or other grounds for this. We believe that distortions in the framework of this nature ultimately lead to higher industry operating costs or higher risks for certain participants or both, ultimately to the detriment of consumers.

Time limiting of Secretary of State’s powers to change, amend or modify industry agreements

12. In both Chapters 1 and 3, the Secretary of State has powers to change, amend or modify industry agreements including Codes and Licences. In other circumstances (eg the provisions for connect and manage in the Electricity Act 2008—see Appendix for example of this time limited power), these powers have been time limited so that once exercised they cannot then be used to effect recurring change. Under the draft Bill there are no such time limits. Therefore, the powers seem to provide an enduring opportunity for the Secretary of State to issue changes to the various arrangements indicated in the Bill. Indeed there are places where this seems to be the intent. For example, in the notes Page 207, paragraph 76 states that:

“Subsection (2) allows the Secretary of State to make provision for the national system operator to run capacity auctions, the circumstances in which a capacity auction is to run, the intervals at which auctions are to take place and the process by which auctions are to be run. For example the Secretary of State may specify the process by which bids into the capacity auction are assessed and how it will be decided which bids are successful. Subsection (2)(c) enables the Secretary of State to make provision for the amount of capacity in relation to which a determination may be made, for example to set out how he will decide on the total amount of capacity required from a particular capacity auction. Subsection (2)(f) allows the Secretary of State to make provision in regulations about the manner in which any function that he has in relation to capacity auction must be exercised.”

13. This is just one example of this. Consequently, the proposed arrangements would appear to create significant risk of persistent and repeated regulatory or political intervention to meet Ministerial or Government objectives which does not create the certainty and enduring solutions required for investment. It would seem appropriate, as a minimum, to seek to ensure that the Secretary of State’s powers are time limited and that the enduring arrangements are placed under the control of the industry to the extent necessary to manage the various schemes.
14. The loose drafting of the draft Bill raises a number of specific concerns about the policy intent, including for example:

- Clause 24(3) seems to impose broad regulations outside of the capacity agreement which can determine the future operation of generating plant without compensation, stating “requirements which may be imposed by virtue of subsection (1) include, in particular, requirements-(b) relating to restrictions on the use of generating plant.”

- Clause 25(c) raises competition concerns, giving powers for the Secretary of State “to require capacity providers and electricity suppliers to share information about the operation of capacity agreements with each other or with any other person so specified”.

- Clause 27 seems to give the Secretary of State powers to do anything to anyone’s licence as long as he consults with them.

15. This drafting, linked with some of the broad powers which the Secretary of State is capable of assuming, has the potential for conflict with other areas and with other legislation relating to the energy sector (eg the Climate Change Act), as well as other essential elements of national policy (eg National Policy Statements) and will require detailed scrutiny.

PART 1: CHAPTERS 1 AND 2—CONTRACT FOR DIFFERENCE AND INVESTMENT INSTRUMENTS

16. We welcome proposals to support low carbon generation as part of the Electricity Market Reform process. We also welcome measures to enable investment decisions for early projects via the Final Investment Decision (FID) Enabling Project and the proposal to issue Investment Instruments.

17. However, we are extremely concerned that the CfD currently being developed by DECC is materially different in a number of respects to the CfD described in the original December 2010 EMR consultation.

18. The CfD proposals are becoming increasingly complex in their design and implementation. The current design imposes new risks on both developers (eg the risk of no CfD being available through the allocation process at the end of the development process) and on suppliers (balance sheet impacts, risk of CfD payment forecasting error in tariff setting etc).

19. The detailed CfD design is not sufficiently developed to draft clear and precise primary legislation. Key issues such as counterparty and legal structure remain to be resolved. We are increasingly concerned that CfD contracts will not be available in 2014.

20. We now think the risk of delivery is so great that Government should retain the ability to extend the Renewables Obligation beyond 2017 to reduce the risk of investment hiatus (which is already occurring).

21. The CfD must provide a suitable environment for investment, building on the success of the Renewables Obligation and to reduce the investment hiatus.

22. The details of the draft CfD operational framework must be tested both with potential developers and investors for bankability over the coming months and prior to the publication of the final CfD operational framework and the introduction of the “real” Energy Bill.

23. The counterparty, legal structure and dispute resolution process are all key to whether the CfD will provide investment in low carbon generation. We welcome Government’s acknowledgement of the fundamental concerns raised by industry in relation to DECC’s current payment model; and their apparent willingness to address these. However we do not yet have sufficient information about the alternative payment model to be able to assess it fully.

24. We note that under section 34, there is the ability to change the delivery body at any time where DECC considers that this furthers the objectives. Depending on the final scope of the proposals, the implications of this for CfD counterparties may need to be considered.

25. We strongly believe that the final legislation needs to demonstrate a clear path for the obligation to support low carbon generation all the way to the individual customer bill. The absence of such a clear path could have the potential to undermine the impact of the proposals, whilst making the proposed reforms even more complicated to put into practice. It is not appropriate for suppliers to be liable for payment of the low carbon support without a legal obligation for all customers to pay in proportion to their electricity consumption.

26. We are concerned at the impact of the accounting treatment of the CfD on both generators and suppliers. Should the contracts be classified as a financial instrument then the accounting treatment will create a significant burden on balance sheets.

27. We are concerned about the potential implications of the CfD institutional arrangements. In particular there is still insufficient detail on the role of the EMR delivery body and the Expert panel to understand the level of discretion they will have in performing their roles.

28. We are concerned that the draft CfD operational framework indicates that small suppliers or small generators may be treated differently from other suppliers and generators. It is essential that all customers are
treated on an equal basis and it is equally important that all suppliers and generators be treated on a non-discriminatory basis.

29. We have concerns with a number of the details of the current proposals:
   — The CfD was originally depicted as a means to deliver cheaper project costs by allocating risk more efficiently, yet the proposed allocation methodology introduces significant new development and construction risks. The level of development risk exposure under the RO will continue (failed planning application and revision of the subsidy levels prior to successful allocation), however developers now face the prospect of allocations for a specific period being over-subscribed.
   — The creation of Commissioning Date Windows introduces a new construction risk. Project developers already have a very strong incentive to complete projects on time to allow them to start repaying the costs incurred during construction. The introduction of Grace Periods in the RO recognises that factors beyond their control, such as grid or aviation issues, can delay projects significantly. Any further penalty for construction delays will only add to the risks and costs of the projects which will ultimately be passed on to the consumer.
   — Any shortening of the period of support (from the existing 20 years in the RO) will potentially increase the cost to consumers and restrict the financing options available to generators.
   — We do not think that the baseline CfD reference price should be linked to Ofgem’s current mandatory auction proposals. The case for mandatory auctions has not been made by Ofgem and even if implemented, the proposed mandatory auction won’t necessarily produce a reliable reference price. The price produced will be a function of the auction rules rather than a competitively delivered price.
   — The drafting of the powers to provide investment instruments are significantly less restrictive than CfDs in terms of what they can offer. For example, clause 19(3) allows the Secretary of State to make regulations in relation to investment instruments which “(a) may make different provision for different cases or circumstances or different purposes; (b) may include incidental, supplementary, consequential or transitional provision”. The width of these powers is in itself extremely concerning and it is also the reason why it is almost impossible to make any worthwhile comment.

30. We are concerned that the proposals are still not sufficiently developed to allow the State Aid clearance process to commence. Notification of the measures will certainly be necessary in order for the Commission to confirm compliance with the Treaty. Full State Aid clearance may take more than 2 years to achieve and so delay to the start of the clearance process may threaten Government’s already challenging timetable for full implementation by 2014. In addition, the Bill creates numerous additional obligations on companies which will also have to be notified to the Commission as ‘Public Service Obligations’ under Article 3 of the Electricity Directive 2009/72/EC.

PART I: Chapter 3—CAPACITY MECHANISMS

31. We remain unconvinced that a case has been made for introducing a capacity mechanism. In particular we do not believe it is possible to define a separate homogenous “capacity” (MW) product when, in the end, what customers actually need is “energy” (MWh). There is no point subsidising capacity that is not actually producing when needed for whatever reason. The current market design already strongly encourages companies to balance supply and demand of energy. It also rewards companies who offer the necessary additional balancing and flexibility services to the system operator (ie spare capacity). The proposals being made to change the existing arrangements will result in less efficient outcomes and higher bills to consumers (our modelling estimates the incremental cost of a market-wide mechanism as £7.5 billion28). However, given the government’s plans to introduce one, we require clarity on the design and implementation date of the capacity mechanism as soon as possible to enable investment decisions to be taken. We also wish to ensure that the efficient features of the current market design are retained as far as possible.

32. The market has delivered new investment over the last 20 years in response to price signals and, in recent years, there have been significant commitments to new CCGTs and renewables by many of the major players and new investors. Any new capacity mechanism framework should not undermine the value of recent investments appropriately made in response to efficient market signals if Government wishes to sustain the investor confidence that will be required to deliver future generation investments in the UK.

33. Uncertainty around the EMR, in particular the capacity mechanism, and other regulatory interventions is now the most significant barrier to future investment in generation. There is considerable uncertainty about the scale and extent of the intervention through the EMR package and there is a clear risk that parties will not invest until the details of the scheme have been determined. The lack of progress on designing the capacity mechanism, as evidenced in the draft Energy Bill and associated documentation, provides little confidence that a workable scheme consistent with competitive markets can be designed and delivered within any realistic timescale.

34. The decision on the timing of the first capacity auction is an option exercisable by the Secretary of State. This uncertainty over the timing of the first capacity auction does not give investors the necessary visibility of the future operation of the market against which to plan investment.

35. Furthermore, there is scope for political intervention in the amount of capacity that is procured resulting in further insecurity. Ministers will decide how much capacity is required, presumably based on the “reliability standard” mentioned in the annex of the EMR Policy Overview, but the reliability standard is subject to cost, “so if, for example, the costs of achieving the standard were perceived to be disproportionately high, Ministers would retain the option of procuring less capacity in a particular year to ensure that consumers are protected from excessively high costs”. Either you need the capacity or you don’t? (Paragraph 32).

36. The interactions between the proposed capacity mechanism and both the existing Short Term Operating Reserve (STOR) market and other proposed regulatory reforms such as Ofgem’s Significant Code Review (SCR) on cash out reform and the potential for smart meters to allow the demand side to make a greater contribution to matching supply and demand are crucial. The timing of the introduction of the latter, and the lack of progress on considering the interactions with the former, raise further questions.

— As DECC note (clause 74), the interaction with Ofgem’s Significant Code Review on cash out reform will be critical and we don’t know the direction of travel for this yet as it doesn’t start until the summer and is expected to take 18 months to complete the review with a possible implementation date of 2015.

— The annex does not adequately consider the interactions with STOR and the market signalling the flexibility required from plant: these will be difficult areas to balance with a capacity mechanism.

37. The proposed market reforms need to avoid any disincentives for plant to operate efficiently and to be available at times of system stress. Excluding plant in receipt of an administratively set FiT CfD from the capacity market could create different incentives on plant operating in the same market.

38. DECC suggest that the costs of the capacity mechanism could be charged back to suppliers based on their peak load, as this would provide incentives to reduce this. Presumably this will have to be an estimate as the settlement process takes 14 months for final figures to be produced. And in any case, this is what the existing market design already does, in that market participants generally look to recover their fixed costs at peak periods.

39. As currently drafted, Chapter 3 of the draft Energy Bill does little to foster the confidence of those who have recently made investments in fossil plant and introduces further uncertainty for future investment. For example in clause 20(4), the provision that may be made in electricity capacity regulations includes, but is not limited to, the provisions described in sections 21 to 26; and in clause 23, electricity capacity regulations may make provision conferring functions on the Authority for any purpose related to provision that is made by, or may be made under, this Chapter.

40. We are keen to ensure that the final legislation demonstrates a clear path for suppliers to recover the costs of holding capacity via the customer bill. There seems to be provision for suppliers to make payments to holders of capacity agreements, and vice versa, but no mechanism for suppliers to recover those costs [clause 21(2)(b)(c)].

41. Finally, it is vital that the legislation sets out a clear mechanism for the supply side to contribute to security of supply. Otherwise, the £12 billion that the country will be investing in smart meters will be substantially a lost opportunity.

PART I: CHAPTER 4—CONFLICTS OF INTEREST

42. The fact that powers exist under the draft Energy Bill to facilitate System Operator/Transmission Owner business separation is a welcome development. However, progress is required to understand the role of the System Operator under EMR and to determine whether the powers will be utilised. Ofgem itself concludes that as the role of the SO as EMR delivery body is not yet fully defined it is not yet possible to identify fully the synergies and conflicts and all appropriate mitigations

43. The key sentiment that emerges from the DECC/Ofgem consultation on conflicts of interest is an underlying concern from market participants that National Grid will be in a position to obtain privileged information, be able to act on this information to the detriment of individual parties, to further its own interests under incentive schemes and to influence the evolution of the GB electricity market without adequate supervision.

ANNEX A TO THE EMR POLICY OVERVIEW: INSTITUTIONAL FRAMEWORK

44. Annex A Institutional Framework concentrates exclusively on the Government, System Operator and Ofgem role (together with the Panel of Technical Experts) in preparing the annual Delivery Plan. It is clear that the Delivery Plan process as envisaged under Annex A will have a key role to play in directing the evolution of the electricity market over the medium term. Given the potential scope for ministers and DECC to change the delivery plan, this introduces considerable regulatory risk under EMR.
45. The key concerns emerging from this document are:
— The role of industry and its relationship with the various EMR institutions is poorly defined;
— The way that industry will interact with the System Operator, particularly with respect to the setting of CfD strike prices and the capacity mechanism is unclear. DECC clearly envisage that the work will be completed by the System Operator potentially without industry consultation;
— The Panel of Technical Experts overseeing the strike price setting process carries the risk of regulatory conflict. It is unclear whether the decisions of the System Operator or the Technical Experts carry greater weight;
— Ministers clearly have a key role to adopt or reject the various strike prices, though it is unclear what happens if they reject;
— The role of quotas under the spending review is uncertain;
— Ofgem appears to have a subordinate role in ensuring that the System Operator follows the terms of its licence (and presumably this applies to other licensees) in the EMR framework; and
— It is not clear what happens if industry participants submit evidence that is misleading, conflicting or potentially wrong.

PART 1: CHAPTER 6—The Renewables Obligation—Transitional Arrangements

46. We welcome the government’s intent in the Bill to provide confidence regarding future RO incomes in the final years of the scheme. We also support the proposals enabling the fixing of the price of RO certificates issued between 2027 and 2037.

47. However, to provide the certainty required for continued investment under the RO, government must confirm the formula that will be used to calculate the fixed ROC value.

48. The draft Energy Bill creates powers for this formula to be developed and modified. However, the drafting fails to address the current ambiguity regarding how the fixed ROC price will be calculated. The fact that once set this can be modified, other than for inflation [clause 35(1) 32AB (2)(c)] and specific technologies can be included/excluded [clause 35(1) 32AB (2)(d) and (g)] undermines any comfort government is trying to give to developers about to be financed under the RO.

49. The draft Energy Bill represents a step backward from December’s Technical Update which provided some clarification on fixed ROCs.

PART 1: CHAPTER 7—Emissions Performance Standards

50. RWE remains sceptical about the value of introducing an Emissions Performance Standard (EPS). It introduces further uncertainty into investment decisions and it duplicates policy already enacted.

51. However, we welcome the application of the EPS to new plant only, the enshrining in primary legislation of the EPS level and the grandfathering for power stations consented under the 450g/kWh-based level until 2045 [clause 36(2)]. It is crucial that these elements, which help to reduce the regulatory risk associated with the introduction of the EPS, are retained as the Electricity Bill moves through the legislative process.

52. We also welcome the provisions to exclude emissions associated with the supply of heat to customers from combined heat and power (CHP) plants and for the exclusion of biomass. This removes any perverse incentives for new Good Quality CHP plant to maximise its electrical efficiency potentially to the detriment of overall plant efficiency (ie electricity and heat), which would have acted as a further deterrent to investment in new high efficient gas CHP.

53. While the intent of the draft Energy Bill appears to allow for the modification of the EPS limit where any main boiler of a fossil-fuel generation station is replaced or an additional boiler is installed, Schedule 3 also sets out that in the case of alterations, the limit could be modified (Schedule 3(4)—Regulations under section 36(5)b may modify the emissions limit duty in relation to fossil fuel plant in cases where the generating station is altered). This creates some ambiguity in the draft Bill.

54. The proposed three yearly review from 2015, as outlined in the EMR White Paper and reaffirmed in Annex D to the EMR Policy Overview, increases risks for investors in new highly efficient CCGT plant needed for flexibility as the proportion of intermittent renewable energy increases. The process and criteria for review of the EPS level and grandfathering arrangements will be key—our view is that any revised EPS level/standard must be proven to be met through best available techniques and that this should be set at the European level (through a process akin to the BAT Reference Review for setting emission limit values).

PART 4: PROVISIONS RELATING TO OFFSHORE TRANSMISSION

55. We welcome the further clarity that the Bill brings in relation to the operation of offshore transmission assets during the commissioning phase.

56. It is unclear to us exactly when the completion notice is sent and when the one year exemption period is deemed to begin.
57. We are concerned that 1 year will not be sufficient time to carry out commissioning and testing activities.

58. We would appreciate further clarity/reassurance in relation to these issues.

June 2012

APPENDIX

EXAMPLE OF TIME LIMITED POWERS FOR SECRETARY OF STATE IN ELECTRICITY ACT 2008

84 Power to amend licence conditions etc: transmission systems

(1) The Secretary of State may modify:
   (a) a condition of a particular licence under section 6(1)(a) to (d) of the Electricity Act 1989 (generation, transmission, distribution and supply licences);
   (b) the standard conditions incorporated in licences under those provisions by virtue of section 8A of that Act;
   (c) a document maintained in accordance with the conditions of licences under section 6(1)(a) to (d) of that Act, or an agreement that gives effect to a document so maintained.

(2) The Secretary of State may exercise the power conferred by subsection (1) for the purpose only of facilitating:
   (a) access to a transmission system in Great Britain or offshore waters;
   (b) efficient use of a transmission system in Great Britain or offshore waters.

(3) The power conferred by subsection (1):
   (a) may be exercised to make different provision in relation to different classes of customer;
   (b) may be exercised generally, only in relation to specified cases or subject to exceptions (including provision for a case to be excepted only so long as specified conditions are satisfied);
   (c) may be exercised differently in different cases or circumstances;
   (d) includes a power to make incidental, supplementary, consequential or transitional modifications.

(4) The power conferred by subsection (1) may not be exercised after the end of the period of two years beginning with the day on which that subsection comes into force.

Supplementary written evidence submitted by RWE NPower

We welcome the publication of the EMR Policy Overview document, which is another step in the process towards achieving the necessary design detail and ultimately implementation. However, we are disappointed in the progress made to date and while we appreciate Government’s desire to meet their legislative timetable, we would observe that high level policy decisions on the key elements of the EMR—the Contract for Difference and the Capacity Mechanism—are outstanding.

We are particularly concerned that the draft Bill confers broad and disproportionate powers on the Secretary of State, which given (or because of) the lack of detail on the EMR package, does little to provide the clarity that is required for future investments, while simultaneously injecting new uncertainty into the market for existing operators.

In this regard, we have taken further advice and outline below our concerns in more detail.

— Powers are for very broad purposes and are not defined by reference to specific objectives eg in s1(1) the regulations are simply “about” contracts for difference, not for example “to introduce a system of contracts for difference”; and the Secretary of State may make regulations “for the purpose of encouraging low carbon electricity generation”. Low carbon electricity generation is defined by reference to the Climate Change Act 2008 (s1(7)). With this being the sole purpose specified in the language, it is not clear where the limits of the Secretary of State’s powers to make regulations in respect of CFD’s would extend to.

The Bill should provide greater detail for the purposes for which EMR is being implemented. For example, we note that comparison with the powers granted under other legislation (eg the Electricity Act 1989 and Renewable Obligation Orders) shows that it would be preferable to include further provisions in respect of the purposes for which the CFD would be made. For example, while the Energy Act 2011 provides the Secretary of State with powers to implement the Green Deal, it includes greater detail on what the purpose of the scheme is. Similarly, under the Electricity Act 1989, although the Secretary of State retains discretion to make powers “as he sees fit”, these are curtailed by the purposes set out in s29(1) (a–c).
Lack of Parameters for Implementation of a Capacity Mechanism

The discretion afforded the Secretary of State in section 20(1) contains no parameters regulating when or if regulation of a capacity market would be appropriate. The Energy Bill should be, at the very least, more prescriptive about the manner in which the Secretary of State can exercise the powers to implement a capacity mechanism in order to ensure that the competitive framework of the market is not impacted. The legislative provisions are not detailed or prescriptive and provide broad discretion to the Secretary of State regarding the content of any regulations and design of any future capacity market. While comparisons with other sectors might not be perfectly analogous, some sectors do provide examples of procurement or incentivisation of capacity in markets eg the health sector reforms, the waste sector and the rail sector. Procurement and incentivisation in such markets is typically subject to transparent processes that maintain the fair and competitive nature of the market.
For example, the Secretary of State for Health’s powers to require the commissioning of certain health services under the Health and Social Care Act 2012) parameters have been included for consideration before regulations are made, including consideration of:

(a) A requirement for the service;
(b) The costs of providing the service;
(c) The number of people able to provide the service; and
(d) The financial implications to other providers of capacity of making any such regulations.

If the capacity market provisions are to remain, consideration should be given to practical, economic or capacity parameters that should be considered or achieved prior to introduction either of regulations or of any requirement for capacity agreements.

REGULATORY UNCERTAINTY OF RO TRANSITIONAL PROVISIONS

The RO transitional provisions appear to reduce certainty for the industry as to the value to be received for ROCs in comparison with the existing position, which is undesirable and should be remedied. This is a retrograde step from the Technical Update which had confirmed details of how head room and the buyout price would be set. The draft Bill provides the Secretary of State with wide reaching powers that fail to describe the process set out in the Technical Update and provides the Secretary of State with powers to modify ROC values at any future date.

While the RO Transitional provisions sit within draft primary legislation and could ordinarily be expected to provide enabling arrangements, with detail to be incorporated in secondary legislation. However, the underlying arrangements are already in place via secondary legislation (the Renewables Obligation Order 2009), and therefore it is reasonable to expect that the Bill itself could make all the necessary changes to the ROO to fully establish a transitional arrangement—it should not be necessary to implement further secondary legislation to achieve this.

In this context, it is a significant omission to exclude from the drafting a clear mechanism by which future ROC values will be calculated. Such a mechanism is necessary exclude from the drafting a clear mechanism by which future fixed ROC values will be calculated. Such a mechanism is necessary to ensure that appropriate certainty is provided in relation to fixed ROC values up to 2037. This is reasonable to expect, given the degree of certainty currently provided under the ROO—the current proposals therefore appear to represent a reduction in certainty from that position, particularly given the express capacity to adjust values from time to time and the capability to adjust the technologies to which the arrangements apply (see sections 35(1) 32AB(2)(c), (f) and (g)).

AVOIDING MARKET DISTORTIONS: EQUIVALENT TREATMENT OF SUPPLIERS

As noted in our initial submission to the ECC Select Committee PLS call for evidence on the draft Energy Bill, the inclusion in section 21(3) in relation to the capacity mechanism of a power for the Secretary of State to limit the scope of the meaning of “electricity supplier” is also a cause for concern, given the Explanatory Notes explain that the purpose is to enable certain suppliers (such as small suppliers) to be excluded from the obligations in relation to the capacity mechanism. We are disturbed by the general trend for some suppliers to be treated in a discriminatory way in relation to such obligations and cannot find any objective justification on cost or other grounds for this. In fact, to the contrary, we believe that there will clearly be greater distortion of the market if only some suppliers are expected to fund capacity. The level of discrimination in favour of small suppliers currently, through various obligations not being imposed on them, cannot be objectively justified. The benefit vastly exceeds the economies of scale that exist for larger suppliers. So any discrimination in favour of small suppliers would be unfair and we believe, because it could not be objectively justified, illegal.

MINIMISING THE COST OF DELIVERY

In order to minimise the cost of delivery and avoid compromising the quality of service to consumers, we believe that there needs to be sufficient lead time between crystallizing and implementing the EMR arrangements. The draft Bill should include a requirement on the Secretary of State to give due consideration to ensure this.

July 2012
Written evidence submitted by WWF-UK

**SUMMARY AND KEY RECOMMENDATIONS**

1. Recent reports from the International Energy Agency (IEA) and the United Nations Environment Programme have highlighted the urgency with which substantial investment in low-carbon infrastructure needs to be made if the world is serious about preventing the worst impacts of climate change. In its World Energy Outlook 2011, the IEA made it very clear that in the absence of rapid investment in zero carbon technologies such as renewables, the infrastructure we will have in place by 2017 will produce all the carbon dioxide that we can afford to see emitted if the world is to limit global average temperature rises to within 2°C.

“If stringent new action is not forthcoming by 2017, the energy-related infrastructure then in place will generate all the CO₂ emissions allowed in the 450 Scenario up to 2035, leaving no room for additional power plants, factories and other infrastructure unless they are zero-carbon, which would be extremely costly. Delaying action is a false economy; for every $1 of investment avoided in the power sector before 2020 an additional $4.3 would need to be spent after 2020 to compensate for the increased emissions.”

2. The Energy Bill is therefore a major opportunity to put the UK firmly on track to a near-decarbonisation of the power sector by 2030, as recommended on several occasions by the Committee on Climate Change. WWF-UK therefore welcomes the Government’s decision to intervene in the market to provide greater investment certainty for low-carbon technologies.

3. WWF-UK is strongly of the view that an increased deployment of renewable energy technologies coupled with a greater focus on improving energy efficiency and increasing the UK’s interconnection with European grids are the most viable options to deliver a successful and cost-effective decarbonisation of the UK’s power sector by 2030. This is becoming increasingly clear following recent developments in the nuclear market—referred to in more detail below—and the repeated delays to the UK’s Carbon Capture and Storage (CCS) programme, which make it extremely unlikely that either technology will be able to provide significant amounts of low-carbon capacity by 2030.

4. WWF-UK’s Positive Energy report, based on analysis by energy consultants Garrad Hassan, shows that if the UK’s renewable sector is allowed to grow at a steady rate over the next two decades, renewables could provide well over 60% (and potentially up to 88%) of the UK’s electricity demand by 2030 and be the key technological driver for delivering a near-decarbonised power sector for the UK. Garrad Hassan’s analysis also showed that energy efficiency measures could reduce the required capital investment in renewables, gas power stations, CCS and interconnection infrastructure by up to £40 billion by 2030.

**Recommendations**

5. Whilst WWF-UK welcomes the publication of the Bill, we have the following key concerns on the current draft of the Bill and its related package:

   — **There is no firm decarbonisation target in the Bill:** a clear decarbonisation target for 2030 is required to provide a clear sense of direction in the Energy Act as well as improve investment certainty for the low-carbon power sector. In our view, a decarbonisation target of 50gCO₂/kWh by 2030 should be inserted in the Bill, in line with the CCC’s recommendations. This should be accompanied by a clear oversight role for the CCC to ensure that satisfactory progress is being made towards meeting decarbonisation objectives.

   — **There are no clear enabling powers for energy efficiency incentives:** energy efficiency has a key role to play in reducing emissions cost effectively and reducing the overall amount of low-carbon infrastructure that needs to get built. WWF-UK suggests that enabling powers for energy efficiency incentive measures should be incorporated in the Energy Bill. This would allow the Secretary of State to make secondary regulations to incentivise further energy efficiency measures once DECC has completed its energy demand strategy review to which WWF-UK is actively contributing.

---

22 See in particular the CCC's Fourth Carbon Budget report: http://www.theccc.org.uk/reports/fourth-carbon-budget
23 WWF-UK would urge the Committee to review the conclusions of the upcoming Crown Estate Offshore Wind Cost Reduction project, being released on 13 June 2012.
24 Please see paragraphs 15 and 16 for further details.
25 Positive Energy: How renewable electricity could transform the UK by 2030, WWF-UK, October 2011: www.wwf.org.uk/positiveenergy. The underlying technical analysis carried out by Garrad Hassan is also available on the same page.
— **There is considerable uncertainty as to whether the Contract for Difference Feed-in Tariff (FiT CfD) proposal is suitable to incentivise renewables:** We would urge the Committee as part of its enquiry to scrutinise the suitability of the FiT CfD for supporting large and small scale renewable projects, especially with respect to the areas highlighted below35. WWF also strongly suggests that Chapter 1 of the Energy Bill should be worded so as to allow the Secretary of State to introduce a feed-in tariff other than a FiT CfD. This would allow for flexibility should further analysis show that a FiT CfD is not the most suitable option for some or all classes of renewable technologies.

— **Addressing the risk of delay due to EU State Aid Rules:** Given the likelihood that the EMR package will come under scrutiny from the European Commission due to its financial support for new nuclear plants and given the urgency with which the UK needs to decarbonise its power sector, the Energy Bill and secondary regulations should be designed in a way that will allow the support measures being provided to other low-carbon technologies such as renewables and carbon capture and storage (CCS) to progress irrespective of complications arising on the nuclear part of the package.

— **The Emissions Performance Standard (EPS) proposal, which sets a carbon intensity level of 450gCO2/kWh grandfathered until 2045 and which does not apply to CCS demonstration plant, does not constitute an effective policy to prevent another dash for gas or high emissions from coal plants:**

   **The impact of the EPS proposal on gas plant:** Whilst WWF understands the rationale for the capacity mechanism, namely to provide a sufficient level of revenues and sufficient predictability of revenues to investors in peaking gas plants (and other system security options)36, this approach needs to be balanced with an effective policy designed to prevent another dash for gas which would be incompatible with a decarbonisation target of 50gCO2/kWh by 2030.

   WWF suggests that the EPS and the capacity mechanism need to be looked at as an integrated package of measures, the combined aim of which should be to ensure that the (i) UK has sufficient flexible peaking capacity to meet demand in 2030 and (ii) has sufficient safeguards in place to ensure that the generation mix in 2030 will comply with a carbon intensity target of 50gCO2/kWh.

   **The impact of the EPS proposal on new coal plant:** WWF is also concerned that by exempting CCS demonstration plants from the EPS proposal, new coal plants such as the proposed 1.8GW project at Hunterston could get to go-ahead by only fitting CCS to a minor fraction of the plant’s overall capacity, which would result in emission levels significantly in excess of the 450g limit for the whole life of the plant38. Emission levels could be even worse if the CCS infrastructure fitted to a new coal plant turns out to not be technically viable and would result in a new unabated coal plant having been allowed on to the system.

   To avoid taxpayer support through the CCS demonstration programme supporting projects which are incompatible with the CCC’s recommendation to decarbonise the UK’s power sector by 2030, we would urge for the CCS exemption to be removed and for the CCS demonstration programme to be focused on CCS retrofit on existing coal plants such as Longannet, new and existing gas plants such as Peterhead and on heavy industrial emitters.

   As stated in a previous joint position paper with the RSPB39, WWF believes that CCS demonstration projects on new coal gasification plants should aim to capture at least 90% of the plant’s emissions given that CCS needs to be fully integrated in the design of the plants and that a future retrofit to increase the carbon capture coverage could be technically difficult to achieve.

---

35 See paragraph 18 for further details.
36 Please note that we are firmly of the view that system security mechanisms should be designed so as to incentivise a wide range of system security options beyond just gas plant, such as demand-side response, interconnection and storage. Please see paragraph 26 for further details.
37 For further detail, please see paragraphs 23 to 25.
38 Please see paragraph 27 for more detail.
— There is no clear role for supporting greater levels of interconnection in the Energy Bill: As made clear in the Committee’s own enquiry on a European Supergrid, “there is a strong case for working quickly to achieve much more interconnection” between the UK grid and the rest of Europe to reduce the costs of maintaining security of supply in a high renewables system. We are concerned by the lack of thought that has been given to date as to how greater levels of interconnection with Europe could best be encouraged as part of the overall reform of the electricity market and believe that incentives to increase interconnection levels should form a key part of the security of supply package alongside demand-side response, storage and gas back-up plants.

— Ensuring compliance with future European legislation: The Energy Bill and associated secondary regulations should be designed in a way that ensures compatibility with future European legislation. This includes legislation regarding the harmonisation of European market rules as well as a possible 2030 renewables and energy efficiency package, to which the European Commission has started giving some initial consideration.

6. WWF-UK, together with Consumer Focus, Scottish and Southern Electric (SSE) and the University of Exeter, is currently carrying out a series of workshops on Electricity Market Reform with several organisations from across the energy sector. The group will publically issue its recommendations to improve the EMR legislative package on the week of 25 June and will submit these recommendations to assist the Committee in the preparation of its report.

Detailed Comments on the Energy Bill

A firm decarbonisation target is required in the Bill

7. Whilst we note that the Energy Bill refers to the Secretary of State needing to “have regard” to its carbon budget duties under the Climate Change Act41, we are concerned by the lack of a clear decarbonisation target for the UK power sector.

8. We believe that the repeated recommendations by the CCC for a decarbonisation of the power sector of 50gCO2/AWh by 2030 should be formally enshrined in legislation, as this will be key in helping provide much needed certainty to potential investors in the UK’s clean energy sector. This should be accompanied by a clear oversight role for the CCC and we would encourage Government to develop its proposals on the role of the CCC as soon as possible.

9. We note that Section 8 of the Bill provides the Secretary of State with the right to make orders specifying the maximum costs, which should be incurred when issuing CfDs and particular targets that the System Operator should take into account when issuing CfDs. Whilst WWF fully appreciates the importance of having a cost control mechanism in the Act, we believe that to support investment certainty in the low-carbon—and especially renewables—sector, the wording of section 8 and section 12 (general considerations) should take into account (as opposed to simply “having regard to”) the importance of meeting the legally binding 2020 renewables target to which the UK is committed to and the decarbonisation target which we argue should be introduced in the Bill.

The Bill should provide enabling powers for energy efficiency measures

10. WWF disagrees with the Government’s repeated assertion through the EMR consultation and in the introduction of the Energy Bill that “electricity demand will double by 2050”. Whilst electricity demand is likely to rise to some extent over the next 20 years, this increase can be limited if sufficiently ambitious energy efficiency measures are introduced and implemented in the UK.

11. The electricity demand scenarios developed by Garrad Hassan for WWF-UK’s Positive Energy report42 found for instance that, even when taking into account the anticipated electrification of parts of the heating and transport sectors out to 2030, overall electricity demand in 2030 would either increase to 425TWh (based on the CCC’s medium abatement scenario in the Fourth Carbon Budget) or be similar to the UK’s pre-recession level of electricity demand of 340TWh (under the most ambitious scenario based on analysis from the UK Energy Research Centre). The UK Energy Research Centre’s analysis referred to above found that energy efficiency measures could reduce the costs of decarbonising the UK’s power sector by up to £70 billion by 2050.43

41 See section 12 of the Bill.
42 Positive Energy: How renewable electricity can transform the UK by 2030, WWF-UK, October 2011: www.wfw.org.uk/positiveenergy, Chapter 1. The underlying technical analysis carried out by Garrad Hassan is also available on the same page.
12. Whilst we note that the Government will provide further information on its strategy on energy demand in the summer, we are concerned by the complete absence of enabling powers in the Energy Bill to allow the Secretary of State to introduce incentive mechanisms to boost energy efficiency as part of the EMR package. For instance, there have been suggestions that energy efficiency FITs could be a way of boosting energy efficiency under the EMR but section 1(1) of the Bill only provides enabling powers to introduce Contract for Differences “for the purpose of encouraging low-carbon electricity generation”.

13. An enabling power for an energy efficiency incentive mechanism (to be later defined by DECC) should be provided in the Bill to ensure that once concrete proposals have been put forward and chosen by DECC, these can be swiftly implemented in secondary legislation. WWF-UK is also in the process of commissioning research with several other partners with a view to providing specific proposals to DECC in early autumn on energy efficiency incentive mechanisms that could be incorporated as part of the EMR package.

14. Whilst this is not an issue that can be directly addressed in the Energy Bill, we believe that the carbon floor price being introduced by the Finance Act 2011 (as part of the EMR package) would be more justifiable if a substantial proportion of the revenues it will generate could be used to support energy efficiency measures, especially towards low-income households. The Committee has previously raised concerns on the effectiveness of the carbon floor price\(^4^4\) and we would urge the Committee to recommend in its report that the use of a substantial part of the carbon floor price revenues should at the very least be focussed on supporting energy efficiency measures.

The current FiT proposals need to provide more certainty for renewables

15. Putting aside WWF’s environmental concerns on nuclear power, recent developments in the UK’s nuclear market suggest that it is extremely unlikely that much nuclear capacity will be built in the UK over the next 20 years. As recently reported in a special issue on nuclear power published by The Economist\(^4^5\), the economic viability of new nuclear projects is becoming an increasing concern and there are now serious doubts as to whether new nuclear power is indeed the least cost low-carbon options as suggested by DECC. This has been well exemplified of late by the recent withdrawal by RWE and E.ON from the UK’s nuclear market, the EPR reactors currently being built in France and Finland being 4 to 5 years late and at least twice over budget and by recent reports that the costs of building new nuclear plants in the UK could now be in the region of £7 billion\(^4^6\). The repeated delays to the UK’s CCS demonstration programme have also had an impact on the levels of CCS plants that can realistically be expected to run in the UK by 2030\(^4^7\).

16. With the risk of under-delivery of CCS and nuclear technology in mind as well as the urgency to deliver a near-decarbonised power sector by 2030, we would urge the Committee to ensure that the support package being introduced by the Energy Bill and accompanying secondary regulations provides long-term investment certainty for the renewables sector. A well adapted package for renewables will be key if the UK is to deliver a near-decarbonised power sector by 2030. Concretely, this will require: (i) support mechanisms under the EMR that are tailored to the technological characteristics and stages of maturity of renewable technologies and (ii) a clear sense of ambition for renewables beyond 2020 given that 2030 is only one investment cycle away.

17. As recently stated in a joint NGO letter to Ed Davey, we believe that the financial support mechanisms being introduced to support energy renewables need to be simple, predictable, transparent and backed by Government, whilst encouraging variety of ownership and scale.

18. We note that DECC has taken the view that Contract for Difference Feed-in Tariffs (FIT CIDs) are the most cost-effective way of subsidising low-carbon generation and Chapter 1 of the Energy Bill only provides enabling powers for the Secretary of State to introduce FIT CIDs. We note however that substantial concerns have been made by key players in the renewables industry as to the suitability of the proposed CID in its current form in incentivising investment in renewable energy. Whilst we are currently reviewing the latest information having been published by Government on the operational framework of the FIT CIDs, we would urge ECC to carefully review the concerns made by various parts of the renewables industry on the FIT CIDs as currently proposed, which seem mainly focused on the following issues:

---


\(^{4^6}\) http://www.reuters.com/article/2012/05/08/nuclear-britain-edf-idUSL5E8G8FQ620120508 . Recent analysis from Tom Burke puts the costs of a 30 year CID for new nuclear power stations at £155/MWh: http://tomburke.co.uk/2012/05/26/hinkley-and-sizewell-will-cost-us-155-billion-over-30-years-under-the-cfd/


---

— **Offtake Risk:** The FIT CfD in its current form introduces an “offtake risk” for renewable generators who will have to incur substantial development and planning costs before they know whether they have been awarded a contract through auction. Our current understanding from the CfD operational framework in Annex B is that this issue will not apply to new nuclear projects, as those will initially be given the go-ahead on a project by project basis under the transitional FID Enabling Process and DECC has openly admitted in the CfD Operational Framework document that it may not be possible to introduce a competitive element for nuclear projects given the various constraints to competition facing that sector.

— **Size and Operation of Low-carbon Levy Framework:** There is currently a lot of uncertainty as to the size, design and operation of the low-carbon levy framework. In particular, investors are still unclear as to the envelope that will be available for low-carbon projects and how much scope for investment there will be in the renewables sector once the first nuclear projects have been given the go-ahead (especially as the first nuclear projects—the costs of which appear to be continually increasing—will be given the go-ahead under transitional arrangements preceding EMR implementation);

— **Duration of CfDs:** There is some uncertainty as to the duration of CfDs for renewable projects. Annex B to the EMR package suggests that DECC is minded to provide a term of 15 years to all renewable projects. Whilst a term of 15 years may be appropriate for more mature forms of renewables such as onshore wind and biomass, it is far from clear that this would be suitable for less mature forms of renewables such as offshore wind, wave and tidal projects. We also note that whilst a suggested length for CfDs for renewables has been indicated in Annex B, the duration of CfDs for new nuclear projects has not yet been chosen. Clarity in this regard will be important to ensure that a genuine level playing field is being provided between low-carbon technologies.

— **Change in strike prices for Round 3 offshore wind projects:** Whilst the design of the cost control mechanism has not yet been decided, the current proposals on CfD allocations suggests that for offshore wind Round 3 projects, which will only get to final investment decision stage later in the decade, there is a risk that strike prices could be modified from the time at which developers enter the planning process and the time at which developers are ready to enter into a CfD. This is because as the decade goes on, the cost ceiling for their technology class could be reached sooner than expected, prompting a possible decrease in strike prices. Given the encouraging conclusions from the Crown Estate Offshore Wind Cost Reduction Project that the costs of offshore wind in the UK could fall substantially out to 2020 and beyond under stable investment conditions, it is absolutely key that the EMR package provides clear forward visibility as to future strike prices.

— **Balance sheet and credit rating risks:** Following the Government’s decision not to underwrite the FIT CfDs, there is a risk that electricity suppliers will be facing much greater liabilities on their balance sheets as counterparties to the FIT CfDs, which could have detrimental impacts on their credit rating. This is an issue that will apply to all CfDs regardless of the technology being incentivised and which risks resulting in higher levelised costs of electricity being then passed on to consumers.

### Summary of Key Recommendations to the Committee on FiT CfDs

19. Given the importance of providing continued investment certainty to the renewables sector beyond 2020, we urge the Committee to carefully review the CfD proposals and the detailed documentation & secondary regulations that will follow to ensure that the FiT proposals being finally introduced are genuinely suitable for the wide range of renewable technologies that need to be incentivised in the UK. The oversight role of the Committee should therefore extend to the secondary regulations which will contain a lot of the detail that will have a material impact on investment decisions.

20. In the meantime, section 1 of the Bill should be amended so as to allow the Secretary of State to introduce a feed-in tariff other than a FIT CfD. This would allow for flexibility should further analysis show that a FIT CfD is not the most suitable option for some or all classes of renewable technologies.

The current EPS proposal is ineffective at preventing another dash for gas and will allow high emission levels from new coal plants.

The EPS and gas power stations

21. WWF understands that gas power has a role to play in the transition to a low-carbon power sector and in providing flexible peaking capacity. WWF also appreciates the rationale for introducing arrangements (such as a capacity mechanism) that provide sufficient investment certainty to ensure that the UK has a sufficient
fleet of gas power stations to provide the required flexible peaking capacity by 2030. However, the need for investment certainty in peaking gas plants must be balanced with the need for clear safeguards to ensure that a new dash for gas—which would be completely inconsistent with the aim of meeting the 4th carbon budget—does not take place. In fact, the CCC recently clarified that "the role for unabated gas fired power generation should be limited to balancing the system in 2030, by which time the share of unabated gas generation in the total should be no more than 10%, compared to 40% today."\(^\text{53}\) (emphasis added)

22. We are very concerned that the current drafting of the Energy Bill, which provides both for the introduction of a capacity mechanism and an emissions performance of 450gCO₂/kWh grandfathered until the end of 2044, is very unbalanced and could result in a new dash for gas.

23. We believe that the EPS and the capacity mechanism need to be looked at together as an integrated package of measures, the combined aim of which should be to ensure that the (i) UK has sufficient flexible peaking capacity to meet demand in 2030 and (ii) has sufficient safeguards in place to ensure that the generation mix in place by 2030 will comply with a carbon intensity target of 50gCO₂/kWh.

24. As it stands, the emissions performance standard provisions in Chapter 7 of the Bill are set at a level which does not affect gas power stations (that have a carbon intensity ranging from 370gCO₂/kWh to 440gCO₂/kWh) and will not impose any restrictions (either in terms of limited running hours or CCS retrofit) on new gas power stations that come through the planning system in the coming years until 2045. An EPS with such extensive grandfathering provisions will be ineffective in preventing a dash for unabated gas power stations.

25. We believe that a much more sensible way forward would be for the EPS to be designed in a way that it has shorter grandfathering provisions, with its level gradually reducing over time in line with the objective of decarbonising the power sector down to 50gCO₂/kWh by 2030. In conjunction with a more challenging EPS regime, the capacity mechanism could then be designed to ensure that it provides predictable and sufficient revenues to gas power stations to provide sufficient investment certainty for investors in peaking plants operating at low load factors.

26. Whilst the points above have focussed on the role of peaking gas plants, WWF-UK believes that system security under the EMR needs to be incentivised through a wide range of options beyond just gas plants including demand side response, greater interconnection and storage solutions. A system security package which relies on a wide basket of options beyond just gas plants will be much more likely to maintain security of supply in a cost-effective manner\(^\text{54}\).

The CCS exemption and the impact on new coal plants

27. WWF is also concerned that by exempting CCS demonstration plants from the EPS proposal, new coal plants such as the proposed 1.8GW project at Hunterston could get to go-ahead by only fitting CCS to a minor fraction of the plant’s overall capacity, which would result in emission levels significantly in excess of the 450g limit for the whole life of the plant\(^\text{55}\). Recent research from Element Energy commissioned by WWF Scotland, Friends of the Earth Scotland and RSPB Scotland estimated that the carbon intensity of the proposed plant at Hunterston with demonstration CCS (on 300 MW of the plant’s capacity) would deliver a carbon intensity of around 650gCO₂/kWh, far in excess of the Government’s proposed 450g limit. The implications of the CCS exemption from a climate perspective could be even worse if the demonstration of CCS on such a new coal plant was to fail and result in a new unabated coal plant having been allowed on the system.

28. To avoid taxpayer support through the CCS demonstration programme supporting projects which are incompatible with the CCC’s recommendation to decarbonise the UK’s power sector by 2030, we would urge for the CCS exemption to be removed and for the CCS demonstration programme to be focused on CCS retrofit on existing coal plants such as Longannet, new and existing gas plants such as Peterhead and on heavy industrial emitters. As stated in a previous joint position paper with the RSPB\(^\text{56}\), WWF believes that CCS demonstration projects on new coal gasification plants should aim to capture at least 90% of the plant’s intensity of around 650gCO₂/kWh, compared to 40% today.

Other issues

29. Transparency: Sections 15 & 16 (“Investment Instruments”) of the Bill require the Secretary of State to lay the terms of letters of comfort agreed with developers before Parliament, following which these contracts will become binding upon the enactment of the Act. Given that these contracts will be developed prior to the EMR contract allocation criteria having been finalised, we believe that Parliament should, in the interest of

\(^{54}\) The Committee on Climate Change made clear in its Renewable Energy Review that the challenge of dealing with intermittency should not be over-estimated. The analysis provided to the CCC from Poyry suggests that “even for renewable shares of up to 65% in 2030 and 80% in 2050, the cost is only up to 1p/kWh of additional intermittent generation”: http://www.theccc.org.uk/reports/renewable-energy-review
\(^{56}\) WWF-UK and RSPB, Climate Value for Money: Funding CCS demonstration projects in the UK power sector, September 2010: http://assets.wwf.org.uk/downloads/wwf_rspb_ccs_value_for_money.pdf
transparency for consumers, have the right to scrutinise and make recommendations on the terms of these contracts.

30. **Demand-side response:** We welcome the fact that demand-side response will play a role in the capacity mechanism. The recent European Climate Foundation’s *Power Perspectives 2030* report\(^{57}\) found that around 10% of electricity demand in the EU would be shiftable within a day by 2030 and that this could help reduce the cost of managing the intermittency of some forms of renewables by reducing the amount of required investment in grids by 10% and in gas back-up generation capacity by 35% by 2030. Demand-side response can therefore play a key role in reducing the costs of maintaining security of supply. However, it is currently not clear how demand-side response will be incentivised under the current capacity mechanism proposals. We also note that the capacity mechanism drafting at section 20 of the Bill is confusing as it refers to “reducing demand” rather than “shifting demand” which is what demand side response is about.

*May 2012*

---

**Written evidence submitted by InterGen UK**

1. **Key Comments on Energy Bill**

1.1 InterGen welcomes and shares Government’s view of the importance of reliable and flexible gas fired electricity generation in the short to medium term and of the role of fossil generation with CCS, including gas, in the longer term.

1.2 InterGen strongly supports the Government’s view that a Capacity Mechanism is required in order to ensure that the UK has sufficient flexible generation.

1.3 In order to ensure that the Capacity Mechanism delivers sufficient flexible generation at the right time and at the lowest cost, InterGen considers that the mechanism must:

1.3.1 be established to deliver such generation in 2015–16 to alleviate the risks of country-wide black outs;

1.3.2 be bankable so as to encourage independent generation and hence competition in the market to ensure consumers get value for money;

1.3.3 provide contracts that are meaningful in length to fit with maintenance cycles (for existing plant) and bank funding agreements (for new plants), otherwise the Capacity Market will not be incentivising plants to remain open or be built;

1.3.4 be supported by a credit worthy counterparty;

1.3.5 have onerous penalty structures as this could mean that independent generators in particular cannot secure funding for their projects (as high penalties could put funders off at worst; increase the cost of borrowing and hence electricity at best); and

1.3.6 prohibit double dipping by parties in various subsidy/incentive regimes.

1.4 The independent generation sector accounts for around 30% of UK power production and is a key source of competition to the vertically integrated companies (VIs). But InterGen and other independent generators need routes to market to sell their power. In particular, Power Purchase Agreements (PPAs) or tolling agreements (whereby a counterparty provides the gas and then receives the electricity in return for a fee) are required to secure and underpin funding for projects. The market for PPAs/tolling agreements for gas fired generation is currently very challenging with large power companies focusing on own build. Additionally, market liquidity in the near term remains poor and the Government must address/force firms to sell longer term products in the market so as to improve liquidity further out. InterGen notes that the Energy Bill recognises this and requests that Government takes appropriate action to address issues in the near term to reduce risk for investors and funders and hence lower consumer costs.

2. **About InterGen**

2.1 InterGen is owned by Ontario Teachers Pension Fund (one of the world’s largest pension fund investors in infrastructure projects) and China Huaneng Group (the world’s second largest power generator). Both of these companies are entities which the UK recognises as being highly attractive to bring much needed foreign investment to the UK and to its energy sector.

2.2 InterGen is one of the UK’s largest independent generators, operating a portfolio of high efficiency gas-fired power stations (totalling 2,490MW; an investment of some £2.1 billion in today’s money) and actively trades in the prompt and forward wholesale power, carbon and gas markets.

2.3 InterGen is planning to add 1.8GW of carbon capture ready gas-fired generation to the UK during this decade, reducing the UK’s carbon emissions significantly and providing essential generation flexibility.

---

representing a further £1.4 billion of investment. InterGen’s planned investments will create around 1,200 direct jobs over a three year period and then long term skilled jobs thereafter.

2.4 This investment hinges on the gas fired generation sector being attractive for our owners. Principally, they seek adequate stable long term returns commensurate with an appropriate degree of risk.

2.5 InterGen’s existing and planned gas fired power stations are vital to the long term sustainability of the UK’s security of supply.

3. The Need for a Capacity Mechanism

3.1 Renewable subsidies and Vertical Integration have reduced market revenues for flexible generators

3.1.1 The Renewables Obligation continues to be successful in introducing renewables generation via a subsidy and the proposed FIT-CfD is expected to continue this trend.

3.1.2 The unchecked return to vertical integration has been a successful strategy for the Big 6 to stabilise their revenues across sectors. However it has resulted in low wholesale market liquidity and low pricing transparency, a reduction in the number of independents operating in the market and obscuring future market price signals—in particular, there is no forward market signal of the narrowing generation-demand margin in 2016.

3.1.3 InterGen’s concerns centre on flexible, dependable generation by which we mean plants that can start, stop and ramp output as required, matching changes in demand and unpredictable generation from intermittent wind generation. The combination of subsidised renewables and VI impacts has reduced the returns available for unsubsidised flexible, dependable generators in the market. Market revenues have already reduced to the extent that both existing generation and the construction of new plants are uneconomic.

3.2 Dependable, flexible Combined Cycle Gas Turbine (CCGT) plant is uneconomic in today’s market and a Capacity Mechanism is needed.

3.2.1 The market needs flexible, dependable generation such as that offered by CCGTs. This generation must be economic for existing environmentally acceptable generation to remain in operation and for new plants to be built when needed.

3.2.2 The chart below shows the results of an InterGen analysis of available gross profits in the forward energy market for 2012 delivery. The market gross profits contribute only 30% of those needed for an existing CCGT plant to be economic and 25% of those required for a new CCGT. InterGen expects that the forecast price rises from tightening of the generation-demand margin as older plants retire will likely be offset by rapid load factor decline as increased low carbon generation (which generally will always run when available, unless wholesale prices are very negative) penetrates the market and displaces flexible generators.

3.2.3 Historical CCGT annual load factors have ranged between a high of 72% (2008) and a low of 50% (2011) but InterGen expects these to decline rapidly in line with the figure below from Oxera’s analysis for the Independent Generators Group in March last year.
3.2.4 InterGen expects that the balance of capacity margin tightening from retirements and these severely reducing load factors will hold flexible plant market returns below economic levels for both existing or new plants for the foreseeable future (which is unsustainable for any length of time).

3.2.5 Without intervention to counterbalance subsidised renewable penetration, large numbers of existing flexible, dependable generators will remain uneconomic and therefore become unavailable over time. In addition, new plants will not be constructed.

3.2.6 InterGen therefore concurs with Government that a capacity mechanism is needed to maintain security of supply: the right Capacity Mechanism will ensure the lights stay on when the wind does not blow.

3.3 CCGT is the lowest cost form of flexible generation

3.3.1 Supporting an economic return for CCGTs and keeping them in operation via the introduction of a Capacity Mechanism is the lowest cost way of maintaining flexible, dependable generation.

3.3.2 Mott Macdonald’s June 2010 update for DECC reviews the cost of new build and lifetime levelised generation cost for various technologies. The report indicates that for 2013 nth of a kind (NOAK—excluding first of a kind cost premia) new build, a new CCGT has much the lowest capital costs. At an exchange rate of USD1.55 per GBP, capital costs are £650/kW for CCGT vs £1,300/kW for onshore wind, £1,800/kW for new coal and £2,900/kW for new nuclear or offshore wind.

3.3.3 On levelised generation cost, CCGT and onshore wind are the cost leaders at £85/MWh.

3.3.4 Mott Macdonald did not take into account that for every intermittent wind turbine, a nearly equivalent amount flexible, dependable generation needs to be in place. Nor does it include the additional costs for the transmission system.

3.3.5 If the cost of this flexible generation and grid costs are added to the cost of wind (valid given that subsidised wind is rendering flexible, dependable generation uneconomic) then CCGT levelised generation cost is half that of onshore wind.

3.3.6 Hence in supporting CCGT plants, the Capacity Mechanism will be supporting least cost generation.

4. The Capacity Mechanism Must Support Flexible Capacity

4.1 The Capacity Mechanism must specifically support flexible capacity. Whilst base load capacity will be required to cover minimum overnight demand, if the majority of the peak capacity requirement were met with new or existing base load only inflexible generation, this would simply make a new and difficult problem. Thus the Capacity Mechanism must be designed from the outset to incentivise only flexible, dependable capacity.
4.2 The need for flexible capacity

4.2.1 The overwhelming technical issue in UK generation is to cover the variability of intermittent wind generation—this is more frequent than is generally assumed. From Stuart Young’s analysis using NGER data on transmission connected wind generation:

4.2.1.1 The average frequency and duration of a low wind event of 20MW or less between November 2008 and December 2010 was once every 6.4 days for a period of 4.9 hours.

4.2.1.2 At each of the four highest peak demands of 2010 wind output was low being respectively 4.7%, 5.5%, 2.6% and 2.5% of capacity at peak demand—a capacity credit range of 2%-6%.

4.2.2 Looking forward, there are several factors which should improve the contribution of wind to generation at times of peak demand:

4.2.2.1 2009 and 2010 had below-average wind levels.

4.2.2.2 Offshore wind is expected to have a higher load factor and substantial offshore wind growth is expected over the coming years.

4.2.2.3 Diversity of windfarm locations.

4.2.3 However, there is a limit to the contribution which wind can make to peak demand. This was analysed by Chris Dent of Durham University for National Grid’s 2010 event on wind forecasting. His analysis showed that as intermittent generation capacity increases its proportion of installed capacity, the level of wind capacity credit to Average Cold Spell (“ACS”) demand must be reduced to keep the loss of load probability constant. He concluded that a reasonable long term estimate of the contribution of wind to ACS demand might be 10%.

4.2.4 A separate analysis of flexibility required was carried out by Oxera for the Independent Generators Group in March last year. Oxera concluded that:

4.2.5 “Increased wind penetration is ... likely to exacerbate the total peak-to-trough demand net wind over the duration of a typical day. The analysis in this report suggests that the maximum simulated daily range of demand-net-wind levels could increase by 40% compared with 2009.”

Figure 1 - Supply and demand for hourly flexibility

4.2.6 When projecting forward the level of flexibility available from the market, Oxera predicted that without intervention, the required level of hourly flexibility would exceed that of the available plant by 2020 as shown in the chart above.

4.3 Meeting the requirement for flexibility

4.3.1 Some of the requirements can of course be met through STOR contracts with very flexible plant (OCGT). However, STOR is a marginal mechanism and could not supply the full 27GW forecast flexibility.
4.3.2 It is clear from the above that the Capacity Mechanism must, from the outset, specify a flexibility requirement for participation so that there is an unequivocal incentive for new generators to be flexible and for existing generators to increase their flexibility. It should not be a mechanism for capacity that is inflexible as this will not achieve the needed flexibility.

5. Timing of the Capacity Mechanism

5.1 Government has proposed in the Energy Bill that the Capacity Mechanism auction process be introduced as early as 2014 to deliver capacity in 2015–16. The latter is the earliest date under the Government’s “Stress Case” as set out in the “Planning our electric future: Technical update”, DECC, December 2010. InterGen considers that:

5.1.1 A 2014 capacity auction will enable only existing plant or plant under construction to secure capacity payments for 2015–16. CCGT’s have a four year construction period (based on a one year period to undertake tendering and contract negotiation for a new CCGT and a three year build programme, assuming no lead times). It takes around three years to get consent for a new CCGT. Consequently, the earliest that an unconsented CCGT could be operable from today is seven years from now, around 2019;

5.1.2 InterGen considers that the auction should be introduced in 2013 and not 2014 to encourage investment in new build if projections of capacity show there to be a shortfall;

5.1.3 InterGen considers that the assessment of when plant is to be contracted under the mechanism should not be based on future generation need projections only. Yes, they are critical, but consideration should also be given to the supply chain for new plants and the cost of new plants to ensure that consumers get value for money. For example, new CCGT project builds and their related capital costs will rise significantly when other European countries push forward with their own CCGT plans. This will result in lead times increasing and capital costs rising—which could mean that consumers receive a poor deal; and

5.1.4 The potential for a pre-auction screening process should be undertaken. Development costs for new CCGTs are significant and incurring such costs only to find that a project is unsuccessful at auction will have a detrimental impact on the attractiveness of the UK as a place to invest.

6. Criteria for a Satisfactory Capacity Mechanism

6.1 Criteria for success

6.1.1 InterGen believes the criteria below must be met for a successful GB Capacity Mechanism

6.1.1.1 The Capacity Mechanism must maintain sufficient existing plant and bring forward new generators, demand-side response (DSR) or storage to meet the need for flexible, dependable capacity so that security of supply is maintained.

6.1.1.2 The Capacity Mechanism must be a bankable contract which supports the financing of new plants and so must feature clear revenues with proportionate and capped penalties (beyond those to which generators are already exposed under BETTA). Additionally, the mechanism must be with a credit worthy counterparty otherwise it will not be bankable.

6.1.1.3 The capacity made available must be sufficiently flexible to meet the need for changes in demand from the start of the mechanism or new generators will enter onto the system as inflexible baseload generation, exacerbating rather than mitigating the intermittency of wind generation.

6.1.1.4 The Capacity Mechanism should support the lowest cost method to achieve the required security of supply: it must not be restrictive or prescriptive on technology and should therefore encourage innovation to reduce costs.

6.1.1.5 Generators which meet the requirements to participate in both the Capacity Mechanism and FiT-CfD contracts must not make a double recovery.

6.1.2 There is no need for the mechanism to favour the lowest carbon or other emissions—this will be achieved via the EUETS, Carbon Price Support and the proposed Emissions Performance Standard, Large Combustion Plants Directive and the Industrial Emissions Directive.

7. Gas Generation- Routes to Market

7.1 InterGen and other independent generators need PPAs or tolling agreements (whereby a counterparty provides the gas and then electricity is provided in return for a fee) to secure funding for their projects. The market for PPAs/tolling agreements for gas fired generation is very challenging owing to the domination of the VIs which tend to build their own plant for their own supply. InterGen notes that the Energy Bill recognises this and emphasises to Government the importance of energy markets to ensure consumers receive value for money.
7.1.2 InterGen agrees that the improvements in the day ahead markets are a step in the right direction for liquidity. However, and critically, beyond the day ahead market liquidity remains poor and the Government must address the likes of firms selling longer term products in the market so as to improve liquidity further out than one day.

June 2012

Written evidence submitted by the Renewable Energy Association (REA)

The REA welcomes the opportunity to submit evidence to The Energy and Climate Change Committee’s inquiry to examine the draft Bill. The Bill proposes fundamental changes to the electricity market, and it is vital the new framework incentivises, and is not a barrier to, the investment and deployment in renewable technologies.

— The Draft Bill is lacking the important detail that is required by industry to allow investment to progress.
— Generally speaking the renewables industry is cautious about the process of Electricity Market Reform. We can ill-afford any break on the deployment rates required to reach the electricity component of the Renewable Energy Directive target, which requires renewables to achieve a 30% share of electricity, in order to reach a 15% contribution of overall energy, by 2020. We are currently at around 10% of renewable electricity.
— EMR heralds the end of the Renewables Obligation, which will close to new entrants in 2017. The RO was far from perfect but it achieved three functions:
  (1) It delivered an outcome resembling that of premium feed in tariffs.
  (2) It provided an incentive for electricity suppliers to buy power from renewable generators.
  (3) It contained an inbuilt means of ensuring that the rate of deployment would not run away with itself and blow the budget.

Its major downside is that it can over reward renewable generators in a scenario of rising electricity prices.

The REA’s high level concerns are fivefold:

— There should be a level playing field between renewables, CCS and nuclear. Renewables will fare less well as it is proposed to have a shorter contract length, and it seems likely that nuclear will need a higher strike price than most renewables.
— It will be extremely difficult for renewable generators to achieve the reference price for their electricity sales. If this is not achieved the strike price will not be achieved. This will mean the fundamental objective of CfDs, of achieving a fixed and stable price whilst maintaining an incentive for generators to follow market signals when selling their electricity will not be achieved.
— The CfD mechanism is untried and riddled with potential problems and unresolved issues.
— During the period when the strike price for CfDs will be set under an administrative process, we cannot see how they can be awarded in a fair, transparent basis that stays within budget and delivers renewables targets in a cost effective manner.
— We have major concerns about the prospect of auctions; whilst they have theoretical benefits great care must be exercised in the detailed design.
— We welcome the further clarity that the Bill brings in relation to the operation of offshore transmission assets during the commissioning phase. It is unclear to us exactly when the completion notice is sent and when the 1 year exemption period is deemed to begin. We are concerned that one year will not be sufficient time to carry out all of our commissioning and testing activities.

A Level Playing Field

1. The UK has legally binding targets carbon targets post 2020 (80% reduction in 2050), but not specific technology targets. In the development of both EU and UK renewable energy strategies post 2020 the inclusion of a minimum renewables target should be considered and seriously discussed. Longer term targets would allow the renewables industry to reach cost competitiveness, and also provide a sufficient long-term perspective for manufacturers and investors.

2. We believe that because of certain fundamental benefits of renewables (not being dependent on finite fuels, not requiring storage of waste products) they should be incentivised over and above other low carbon options—but as a minimum they should not be treated less well. An example of this would be allowing longer contract lengths for nuclear (DECC is yet to propose an exact length but is expecting the length for nuclear to be no less than 15 years) or having higher prices for nuclear than some renewables. Intellectually, if—as the government insists—nuclear is not receiving subsidy on account of it being nuclear, but merely a fair price
given its status as a low carbon technology, this price should form the floor price for any renewable technology that does not merit a higher level of support for any reason. See para 15.

**Achieving the Reference Price for Electricity Output**

3. The assumption that the stability conferred by CfDs (as opposed to current arrangements under the RO) will result in lower costs of capital is predicated on generators’ ability to secure the market reference price. If this is not achieved, then the basic premise of CfDs is undermined.

4. **Power Purchase Agreements (PPAs) are required.** Lenders will not lend on the assumption that generators will be able to achieve the reference price, but will need to see Power Purchase Agreements (PPAs) in place for reasonable periods, with creditworthy counterparties. However, suppliers will typically offer PPAs at a discount on market values. This discount will reflect things such as: the risk that generators will not settle as predicted under trading arrangements either directly if they are a BSC signatory, or indirectly if via an aggregator (ie balancing risk); the impact of increasing penetration of wind, which will reduce the value of electricity at periods of high wind output; transaction costs which are higher for smaller generators. Theoretically, aggregators could assist generators achieve the reference price, but they will only enter the market if there is some margin that they can earn. There is none.

5. The Government acknowledges that failure to achieve the reference price could be a problem and it has said it will issue a call for evidence on this matter in June 2012.

6. Similarly the Government intends to ensure that there is a liquid electricity market, and it has stated it will work with industry and Ofgem to that effect. Unlike under the RO, suppliers have no incentive other than price to contract with generators, whereas at present they buy power in order to earn ROCs to meet their Renewables Obligation. If the lack of liquidity is not resolved in time, which it seems unlikely to be, there may need to be transitional arrangements. Three approaches have been discussed by consultants engaged by a small group of renewable generators and include:
   - a buyer of last resort;
   - incentivising Suppliers to source energy from low carbon generation eg by making the proportion of the costs of CfDs proportional to the amount of low carbon energy they secure; or
   - delaying the closure of the RO to new entrants.

7. None of these solutions is ideal. Only if there is a buyer of last resort, which would guarantee that generators would achieve a reference price, would PPAs not be required. However, any capacity using this route to market will not be responding to market signals. The impact will be equivalent to a fixed feed in tariff, which was ruled out as an option in the previous consultation (despite it being acknowledged as a cheaper option overall).

**Ensuring That the CfD Mechanism Works Properly**

8. **The proposed reference price for intermittent generation.** This causes concern in that the relevant GB zone is not defined and could separate Britain from Scotland from Ireland. There is a risk that CfD is defined around a “hub” to avoid having to implement the change provisions in the contract, but the “hub” is not effectively implemented.

9. For non intermittent generation a year ahead reference price is proposed, but its exact source is still to be determined. DECC are considering a number of options. The fact that this index does not yet exist is a concern in itself. Baseload generators will have similar issues to those set out above but to a lesser degree due to the more predictable output.

10. **Eligibility.** The government is “Minded that new low-carbon technology plants that are not eligible for the small-scale FIT will be eligible for a CfD” and that “Those eligible under the RO are expected to be included”. There are some renewables that are either not eligible either for the small scale FIT or the RO, such as tidal barrages larger than 1GW, landfill gas (which may qualify for Zero ROCs/MWh from 2013 if current banding proposals are implemented) Energy from waste power only plant. The REA wants to see all forms of renewable energy eligible under the RED qualify for CfDs.

11. **Strike Prices.** It is envisaged that prices will initially be set using the approach taken for the RO. This in itself has not been satisfactory, with the consultants often showing little understanding of the energy from waste technologies, in particular. The strike price for the lowest cost renewables should be set at a level which exerts no curb upon their rate of deployment. There should be no discrimination against technologies which don’t have the potential to make a very large contribution (eg landfill gas, sewage gas), nor which are currently ineligible of the RO, eg tidal barrage over 1GW. As argued above; intellectually there should be no justification for these technologies receiving less than nuclear.

12. Those technologies which are still undergoing technology development eg wave and tidal stream, need to have visibility of strike prices further in the future. Early stage investors will find it difficult to make an investment case for projects without clear sight of the market towards 2020 and beyond.
13. **Contract length.** Under the RO renewable generators earn ROCs for a 20 year duration. A longer duration of contract reduces the cost of borrowing. There is no justification for this being of shorter duration for renewables than for nuclear. All three should be of equal duration, and sufficiently long to reduce the cost of capital. If the government is determined to go to a 15 year CfD, then developers will need a commensurate increase in the CfD strike price to account for the 5 year loss in revenue as a result of moving from 20 to 15 years.

14. **Allocation rounds.** It is proposed the System Operator will run allocation rounds every six months eg April and October. Each round is expected to take about three months, with the application window open for a month, the System Operator carrying out an assessment of applications against criteria and then awarding CfDs to successful projects by the award date marking the end of the allocation round. There seems to be no reason for having allocation rounds, indeed it could be counterproductive as companies could end up in competition for CfDs, when there is no transparent basis on which a choice could be made between them. This would be avoided in a continuously open process, where contracts are allocated on a first come first served basis. It is also proposed that some form of pre-accreditation implemented. This seems to add further complication for no benefit.

15. The question of how the system operator allocates contracts on a technology by technology basis, and remains within the budget is still outstanding. This is discussed under section 4 "The fair allocation of CfDs during the administered pricing period."

16. The “point of accreditation”. The REA is pleased that the CfD will be signed around the time of FID, at which point the price is set, and that developers can set the timescale for build out. This is far superior to the situation under the RO; where the banding period had to remain open long enough for generators to stand a chance of commissioning before a review. This arrangement can be far more flexible, allowing price adjustments to be made more regularly and development timescales to reflect the differing needs of technologies. Those doing projects on balance sheet need to have a point at which they should sign the contract, which could be when planning permission is achieved.

17. **However, developers will need some certainty that they will be able to get a CfD.** Under the RO developers are certain to receive support, if they enter into a PPA and as long as they meet the RO’s eligibility criteria. The allocation process under CfDs will have several “gates” (eligibility, matching technology mix need, and the identification of specific CfD contract terms) each of which creates additional risk for a developer. Additionally, to even apply for a CfD, developers will need to have spent millions of pounds just to bring a project to the point of application. The concept of pre-accreditation is mentioned as an option in the context of longer lead time projects, but this concept could also be applied to other projects as a means of minimizing the risk of developing a project.

18. **Penalties within the proposed CfDs.** Commissioning too far in advance of the anticipated start date means the generator will have to sell its output without the benefit of the CfD until the start of the commissioning window. For late commissioning DECC is considering a reduction in the agreed term commensurate with the length of any delay and/or a reduction in the agreed strike price, or imposition of financial penalties for delay or abandonment, with developers required to provide collateral to cover those penalties. The objective of the penalties is encourage accuracy and delivery, but in reality they will add risk, and therefore cost, with little overall impact on the budget for CfDs.

19. A strike price penalty for failure to be on-stream by the “target commissioning window” would be an inordinately high penalty unless there is a quite long window being considered (ie—greater than 1 year). As developers are already putting investment at risk by participating in the allocation process, to further penalize them to such a great extent if the window is short seems disproportionate. If the time frame needs to be short for dispatching or billing purposes, a penalty fee which turns into a strike price penalty if a medium or longer time frame is exceeded seems more in-line with the Government’s objectives.

20. The penalty for non-delivery is also not suited to the UK’s protracted planning and grid development regimes and significantly increases the risk-adjusted development cost as well as acting as a barrier to entry to new market players.

21. It seems appropriate that a generator should ultimately lose its CfD if the project does not commission by some final deadline, however there should be provision for negotiation if there are genuine reasons why build had not taken place in time. Any penalty should be proportionate. It should be borne in mind that the desire for accuracy is to assist the Government in budgeting; however the impact of the reference price being lower than anticipate would have a far more material impact.

22. **Payment schedules.** DECC is minded that settlement periods will be at most one month. We may have concerns over the process and timing for invoicing and administering CfD payments, however with the current level of detail it is hard to tell. It is an area industry would like to work with Government to get right. Sites under 50MW will not have a generation licence. DECC suggests that small generators could instead only be a party to the CfD codes, but it is not clear how this would work in practice and more detail is needed.

23. **Payment on metered volume.** DECC is minded that the CfD pays on the basis of metered output unless the price in the reference market is negative, in which case the payment is on a measure of availability. Some plant might generate when the electricity price is lower than their marginal cost in order to access the CfD...
support and negative electricity prices could result in very high CFD payments as the plant would always be topped up to the strike price no matter how low the reference price falls. This would also pose problems for the system operator. The CFD availability payment would be fixed at the strike price giving the plant the incentive to stop generating once the reference price reaches zero. This raises lots of questions about definition, implications of constraint, transmission boundaries, implications for distribution connected generation, and it is not at all clear how this works for co-firing and energy from waste. Some types of energy from waste plant will need to be online at all times as their contracts demand it and it is not desirable or possible to leave the fuel.

24. **Inflation indexation.** DECC is minded to choose CPI, whereas both RO and small scale FITs are linked to RPI. RPI has historically usually shown a higher rate of inflation than CPI. The indexation of inflation is very important when pricing debt and setting hurdle rates. RPI is referred to in most contracts with lenders. There is also an issue if only part of the cost is inflated, for example just the operating cost when RPI has been used to calculate the cost of debt.

25. **Amendment of the reference price and other CFD parameters.** DECC is minded to include an “independent expert” role in the CFD framework to manage any review of CFD parameters and determine any amendments required. It is essential that the work of this panel is transparent and the scenarios under which changes would be considered, clearly laid out. Those on the panel must understand the market for all the different types of technologies. There should be a mechanism for ensuring that the majority of generators accept amendment of CFDs before this is accepted.

26. **Change in law.** The CFD should contain change in law provisions, the form and scope of which remain to be determined. Further detail will be set out in the autumn. Change in law concepts need to be defined and put into legislation as early as possible in order to allow informed decision-making for future developments.

27. **Dispute resolution.** Government will seek further legal advice in this area before engaging with stakeholders later in the year. It is vital that developers have an independent third party to seek a resolution to any disputes. It would be a huge additional risk if a generator had no route to challenge decisions, with large amounts of private investment involved there should be a clear defined process.

28. **Legal framework and payment model.** The draft Energy Bill outlines that the CFD will be an instrument that sets out obligations on suppliers and generators. This is a major shift away from the government underwriting the CFDs as was the case with ROC or FITs payments. The result of this will be that the supply companies will incur additional cost for financing CFDs which are unpredictable and might jeopardise their business as a whole.

29. **Counterparty and accounting practices.** Industry is very concerned with the contracting party being shifted from Government to Suppliers and the commensurate price, volume, and risk being shifted to a combination of suppliers, customers, and generators. The Government is considering whether to set up a new entity, so that a conventional contract form with a single counterparty could be used. Lenders must have confidence in the creditworthiness of the counterparty, but perhaps more fundamentally the accounting aspects need to be determined. It is not clear whether the CFD will be classified as a derivative or not, which will have implications for balance sheets. If the CFD is classified as derivative it is a financial instrument and would appear as a liability on the balance sheet of the supplier (the difference between the strike and market reference price). A generator is required to pay back money if the market reference price is above the strike price, and this would be a liability on their balance sheet. The amounts would be difficult to predict and be considered long term liabilities. The generator and supplier would be required to annually re-value the liabilities and adjust balance sheets.

30. **Credit and Collateral.** DECC is minded to place a collateral requirement based on an estimate of likely settlement amounts due in a given trading (settlement) period. This could potentially increase financial risk for both supplier and generator, and feed through as increased costs for consumers.

31. **Devolution issues.** The Northern Ireland Executive does not expect CFDs to be available until 2016 at the earliest. This gives insufficient time if the RO closes to new entrants in the following year. It will be interesting to observe the amount of influence Scotland and Wales will have on the strike prices.

32. A large proportion of the UK’s marine energy development sites are in Scotland, and much of the UK’s offshore and onshore wind sites are also north of the border. The Scottish Government retains powers to set the Renewables Obligation in Scotland. It is crucial therefore the Scottish and UK governments work closely together to ensure a coherent, effective and seamless package of reforms will be delivered, fully aligning the respective powers of the Scottish and the UK parliaments. The proposals should ensure the Scottish Government has a statutory role in the EMR and CFD institutional framework, a statutory ongoing role in the governance of National Grid and a statutory role for Scottish Ministers in formulating the Strategy and Policy Statement for Ofgem to better align the work of the regulator with the policy aims of government.

33. **Transition into CFDs—the FID enabling process.** DECC should ensure that CFDs should be tested for every Renewable electricity technology through the FID enabling process.

34. If DECC is not able to give clarity regarding strike prices and operation of the CFD by mid-2013, in order to providers with investment certainty we suggest the UK and Scottish Governments consider leaving the RO open to new entrants until 2020.
35. **Basis risk and cost to consumers.** There is a large risk that the electricity price in the day-ahead market could be significantly lower than DECC’s expectations. This will increase costs to consumers. This will increase as wind penetration increases.

THE FAIR ALLOCATION OF CfDs DURING THE ADMINISTERED PRICING PERIOD

36. It is intended that the System Operator be required to remain within an agreed budget when issuing CfDs. The REA is concerned about how a strategy will be devised to ensure that the renewables target is met in a cost effective manner. For this to be achieved, there should be maximum deployment of the cheapest technologies, sufficient deployment of the marginal technology and for technologies that are more expensive, enough deployment to ensure other policy objectives are met—eg to realise the export potential of wave and tidal energy, in which the UK is currently world-leader.

37. DECC has proposed different strike prices for different technologies, set out five years in advance, varying each year, with the price fixed according to the year in which the CfD is allocated. The price may be changed in a manner similar to the “emergency review” under the RO, but an approach offering a more “fine-grained control of cost” is also mooted (para 29 page 26, Annex B). There is an attempt to discuss how to ensure that the allocation of CfDs remains within the levy framework, over pages 25—28. Three options are put forward, but they are insufficiently explained, and beg the following questions;

- Should the Government seek to set out the “correct” level of deployment for each technology?
- Who determines what the “correct” deployment of each type of technology is?
- Are the aspirations in the renewables roadmap correct? The roadmap is due to change later this summer, will the new version be any more correct?
- How can the Government know the amount of resource available of any particular renewable technology, given uncertainties in resource assessment, public acceptance, improvements in renewable energy technologies etc?
- What happens in the case of over under-delivery of a particular technology? Two of the three options proposed raise this concern, but give no suggestion as to what might be done about it. Presumably it would be an upward movement of strike price? How would this be determined?
- What would ensure that the deployment of a cheaper technology would not be curtailed? This currently happens under administered pricing in the RO. It can be for political reasons. Technologies are often overlooked if their contribution is less significant and consequently they don’t benefit from enough attention from either ministers or government officials.
- How would sufficient reassurance be provided to developers of more costly technologies, that further RD&D remains worthwhile if their contribution could be reduced to allow more of the cheaper technologies to be deployed?

38. The above questions are impossible to answer, and it is for this reason that every effort should be made to let the market determine the outcome. There is no perfect solution to this problem.

- Under the unbanded obligation, which could be argued to be the ultimate approach to leaving things to the market, the cheapest technologies were over-rewarded.
- Under the banded obligation, the cheapest technologies are not exploited to the full, as their support levels are frequently set too low.
- Under CfDs with administered pricing the likelihood is that this will remain the case.

39. Auctions, theoretically, could provide the answer—but great care should be taken to ensure that these work. An ineffective auction system will seriously undermine the ability to deliver the Government’s carbon and renewable objectives.

AUCTIONS

40. Under auctions, the choice of where to draw the line between awarding a contract and not awarding it, is political, but at least it can be justified on the basis of choosing the point at which costs begin to escalate more steeply.

41. It is the Government’s stated objective is to move to auctions, yet they are not described in any detail, and there is a reluctance to address the detail. Paragraph 24 page 24 states “Design of competitive processes such as a tender or auction is an intricate activity which is highly sensitive to the market conditions in which it is to operate. Given that conditions are not expected to be right for such processes until 2017 for some renewable technologies, it is not appropriate to focus on the detailed design yet.”

42. It is proposed that a move to auctions happens in two stages. The first “technology specific” phase is anticipated to take place over “2017–2020s”—at a time when each individual technology is deemed to be able to cope with them. The idea is that it only applies to projects which will commission after 2020. The second stage is for “technology neutral” auctions, where nuclear, renewables and CCS compete together. This is anticipated to take place “in the 2020s”.

Basis risk and cost to consumers. There is a large risk that the electricity price in the day-ahead market could be significantly lower than DECC’s expectations. This will increase costs to consumers. This will increase as wind penetration increases.

35. **Basis risk and cost to consumers.** There is a large risk that the electricity price in the day-ahead market could be significantly lower than DECC’s expectations. This will increase costs to consumers. This will increase as wind penetration increases.
43. Government must carefully consider the appropriateness of a single auction. This approach overlooks the fundamentally different financing, operational and investment characteristics of different technologies, at different stages of development.

44. Given the great care that will have to be taken in ensuring auctions work, the REA thinks there is merit in at least beginning to consider the most challenging aspects of auctions.

45. A CfD is entered into at the time when the FID has, or is about to, take place. We understand the CfD will remain when allocated by auction. Generators will therefore have had to have spent a great deal of money (possibly £millions) prior to this point, and so they must have a great degree of certainty they will win a contract, otherwise they will not take the risk of investing in project development.

46. Industry’s first experience of auctions, was during the 1990’s under the Non-Fossil Fuel Obligation. This was very unsatisfactory as there was no confidence in the forward momentum of the process. Each and every round could have been the last. Auctions must be held on a regular basis and industry must be confident of the process and its objectives. The Government’s position of not wanting to have a specific target for renewables beyond 2020 is profoundly unhelpful in this respect.

47. Unless there is a clear mechanism for guaranteeing that generators receive PPAs at reference price, independent generators may be competing in auctions with vertically integrated generators. This would be completely unsatisfactory.

48. In pre-commercial market segments, such as marine renewables, there will be a small number of competing firms and a number of other non-financial barriers to be overcome prior to power production—including planning, and project technology. Under such a scenario, a single developer would have the potential to skew the price offered and block the market to all other early-stage developers. It will become a “race to the bottom.”

**Capacity Market**

49. We have limited comments to make on the capacity market. The REA in its submission to the White Paper consultation in 2011 recommended a market-wide mechanism in which all parties that can contribute to security are incentivised to do so.

50. This is very far removed from the current proposals. We are concerned that the capacity market could increase costs to consumers unnecessarily. A new development is that Government is minded to exclude plants in receipt of CfDs from the Capacity Market, even though some of this plant will clearly play a role in contributing to security of supply.

**Emissions Performance Standard**

51. The REA cannot see the need for an emissions performance standard, as the policy objective it seeks to achieve should be covered by the EU emissions trading scheme and if it is not sufficiently effective, it should be made to be.

*June 2012*

**Supplementary written evidence submitted by the Renewable Energy Association**

When giving oral evidence to the committee on 19 June, Gaynor Hartnell of the Renewable Energy Association offered to send in further supplementary evidence on two issues.

— The burden of posting collateral for generators with year-ahead reference price. (We recommend that the use of a shorter term reference price be considered).

— Whether larger onsite generation would be eligible for CfDs.

We hope these brief comments will assist the committee.

**CfD FIT Market Reference Price and Associated Collateral Issues**

The cost of new entry into the generation sector is a considerable hurdle, particularly for independent and smaller players. A substantial element of this hurdle is the credit and collateral arrangements required for trading in the GB wholesale electricity market. It is important to ensure that the new renewable support regime (CfD FIT replacing the Renewables Obligation) does not inadvertently make this situation worse by increasing the collateral requirements of new entrants.

Collateral requirements for electricity trading in the GB market, generally comprise both initial margin and mark to market margin. These reflect the potential future exposures to market prices; the longer the duration of a forward sales contract from the delivery date, the higher the potential collateral requirement. To highlight this graphical illustrations are provided below.
Generators, particularly those project financed, have access to a finite amount of collateral, these differing levels of collateral will often determining the Generators hedging (sales) regime. Power being typically sold forward over a range of time horizons.

Under the previous RO scheme, the RO support was set at a fixed level irrespective of the actual wholesale price. Under new renewable support regime the support paid to the generator is dependent on the wholesale price and effectively assumes that the generator captures the full revenue from the market reference price. Hence, a generator that holds a CfD FiT contract will be highly incentivised to sell power into the wholesale market to match the market reference price.

The operations of the CfD FIT therefore effectively require the Generators to make sales rateably during the calculation period of the index, to do otherwise would introduce Basis Risks. The Risk that the Generator’s actual sales price achieved is below the Reference Price Index and therefore underperforms against forecast and required financing income.

Some Generators without collateral constraints may well find the Year Ahead proposal attractive. Alternatively those with collateral constraints may well find it more difficult to operate against and would prefer Reference Price Indices which require less collateral; these include Seasonal, Monthly and Daily markets. The operations of the CfD FIT effectively require the Generators to make sales rateably during the calculation period of the index, not to do so introduce Basis Risks. The Risk that the Generator’s actual sales price achieved is below the Reference Price Index and therefore underperforms against forecast and required financing income.

Modelling assumes that the CfD FIT contract is for 425MW baseload generation. It is assumed that Initial Collateral of £3 per MWh is required and that mark to market collateral will be required to cover the daily price movements. The charts show collateral requirements of a two way CfD FIT type contract using three different reference price indices. It is assumed that the generator will try to match the index by rateably selling UK Baseload Power in the same fashion as the reference price calculation. Collateral requirements have been back tested using historic power prices from April 2005 to April 2012.

1. Annual Contract—based on the arithmetic daily average of both the summer and winter power contracts in the previous Financial Year.
2. Season Ahead Index—based on the daily average of the Season Ahead power contract three months prior to delivery.
3. Month Ahead Index—based on the daily average of the of the Month Ahead power contract in the month prior to delivery.

**Figure 1**

*ANNUAL CONTRACT*

*CfD FIT - Collateral Requirement using an "Annual Contract" Index*
The charts above, whilst illustrative, provide a clear indication as to the collateral burden the Year Ahead Index could impose.
ELIGIBILITY FOR CfDs FOR LARGER SCALE ONSITE GENERATION

In terms of our view and potential concern on how the FIT CfD will work, it appears that for electricity to be registered in the CfD mechanism, the renewable electricity would need to be registered and go through settlements (ie exported) therefore the generator needs to be a BSC party or have a PPA with a BSC party who will push the power through settlements (DECC take the view that PPA’s will be available by the marketplace and won’t place a mandatory obligation to make PPA’s available). DECC is considering an option for a generator being a participant in the BSC on a “lite”[simplified] basis (to gain the CfD and have a route to market), our concern is how an electricity generator shall gain the CfD where the electricity is generated and predominantly consumed on site (ie self-supplied or through private wires).

Under the current FIT mechanism (for <5MWe generators), there are the premium payments made for generated power and the option to export power under the standard tariff, therefore the 100% of the eligible power attracts the FIT.

Under the Renewables Obligation, if electricity is self-supplied for onsite use, this can be deemed as a permitted way to gain ROCs on the total station eligible output (<10MWe plant), therefore 100% of the eligible power can claim the ROCs. If the private wire volume exceeds 10MWe, the power would need to be subject to the “sale and buyback” arrangements that used to exist under the RO.

Under the FIT CfD, we believe the power will need to be physically exported (or have a the facility for sale and buyback arrangements) to allow the CfD reconciliation to take place via the “Settlement Agent” who shall reconcile the CfD payments. At the moment however, it is not explicitly clear how self-supplies of renewable electricity will be treated for >5MWe plant.

July 2012

Written evidence submitted by the CBI

EXECUTIVE SUMMARY

The CBI supports the aims of the draft Energy Bill and the need for a secure, low carbon and affordable energy supply. Our electricity policy goals are to set the conditions to generate investment in low-carbon electricity infrastructure whilst keeping costs competitive, and in this context we are broadly supportive of the direction of the draft bill.

However, although we welcome the draft bill, it is clear that on some key issues the bill is not yet fully formed and there is still a need to design policy. We recognise that these are complex issues, but we are concerned that without more detail it will be challenging for investors to make any firm decisions. To avoid an investment hiatus, these questions need to be resolved and a fully formed bill passed into legislation as soon as is practicable.

Therefore, the CBI’s recommendations are to:

Design the Feed-in Tariff structure to maximise its bankability

(a) DECC should work with industry, including a wide range of financiers and traders, to develop and implement a workable contractual model.

Design the capacity mechanism to minimise system costs

(b) Given that Government is committed to introducing a capacity mechanism, it should do so as quickly as possible.

(c) Government should introduce a capacity auction in 2014 to allow companies to plan.

(d) Government should manage costs and avoid potential carbon lock in by allowing existing plant to bid in.

(e) Government should consider the optimal contract lengths carefully.

Ensure the Emissions Performance Standard (EPS) does not affect security of supply

(f) The EPS policy position that the draft bill is intended to implement should remain unchanged.

Ensure the competitiveness of energy-intensive industries is not undermined

(g) Government should ensure that the most at risk energy-intensive industries, whose competitiveness would be impacted, can be shielded from the costs associated with EMR.

(h) Government should use the Energy Bill to incentivise the efficient use of Combined Heat and Power (CHP) plants.
INTRODUCTION

1. The CBI is the UK’s leading business organisation, speaking for some 240,000 businesses that together employ around a third of the private sector workforce. With offices across the UK as well as representation in Brussels, Washington, Beijing, and Delhi, the CBI communicates the British business voice around the world.

2. The CBI has consistently argued (in its reports Decision Time (2009) and No Time to Lose (2010)) that without reforms to the electricity market, energy security would be harder to achieve, the UK’s ability to meet climate change targets would be jeopardised, and the UK could, in the future, have some of the highest and most volatile electricity prices in Europe.

3. With this in mind, the CBI’s electricity policy goals are to set the conditions to generate investment in secure low-carbon energy infrastructure whilst keeping UK electricity costs competitive. Against this backdrop, the CBI welcomes the publication of the draft Energy Bill and the opportunity to respond to the Energy and Climate Change Committee’s call for evidence.

4. But UK policy must also be considered in the context of the European framework. The CBI believes that a robust and market-generated European carbon price is needed to generate investment and that an enduring solution to the future of the Emissions Trading System (ETS) must be developed soon to restore and build business confidence. This could also make the UK carbon price floor a redundant backstop, removing the price differential with European competitors.

5. However, even in the context of a robust European carbon price the CBI would still support the introduction of a feed-in tariff to incentivise the diverse, low-carbon generation mix necessary, because:
   — For some forms of generation requiring high upfront capital expenditure, the ETS price does not provide sufficient certainty because it is affected by commodity prices and other economic factors, such as growth rates and demand.
   — For some forms of generation which are currently high-cost but need investment to bring down costs for the future, a higher carbon price is needed which it would not be efficient for the economy as a whole to bear.

6. And as set out in the CBI’s response to the 2011 EMR White Paper, the CBI believes that any changes to the existing market framework should:
   — Build on the EU ETS.
   — Remain market-oriented.
   — Aim for technology neutrality (though support for key pre-commercial technologies may still be required).
   — Safeguard existing investments.
   — Be politically durable.
   — Minimise the cost impact on energy users.
   — Enable sufficient investment in low carbon power generation and supporting technologies (although reforms might not need to “go live” for some years).

7. Therefore reforms presented in the draft Bill are a constructive step towards creating the conditions to generate investment in secure low-carbon energy infrastructure whilst keeping UK electricity costs competitive, but some of the mechanisms may not be effective as currently proposed (such as the CfDs) and in many areas more detail will be required (for example for the capacity mechanism) before investors can make decisions.

8. In addition, keeping costs internationally competitive is an issue for all users of electricity but particularly for energy-intensive companies. The CBI concurs that investment now will help to insure against the possibility of global price rises and volatility in the future, but it is imperative that we keep costs competitive now as well.

9. Finally, although outside of the scope of the bill, the importance of energy efficiency should be underlined. Generating investment in energy supply through EMR is key, but Government must also ensure that demand side measures are also effective. This includes ensuring that the Green Deal and the new Energy Company Obligation (ECO) operates effectively and that the business energy efficiency landscape is overhauled, including scrapping the ineffective Carbon Reduction Commitment.

10. In responding to the draft bill and annexes, the CBI’s recommendations are to:
    — Design the Feed-in Tariff structure to maximise its bankability.
    — Design the capacity mechanism to minimise system costs.
    — Ensure the Emissions Performance Standard (EPS) does not affect security of supply.
    — Ensure the competitiveness of the most at risk energy-intensive industries is not undermined.
DESIGN THE FEED-IN TARIFF STRUCTURE TO MAXIMISE ITS BANKABILITY

11. Designing the Feed-in Tariff (FIT) mechanism is difficult because it must both stimulate investment and minimise costs to consumers. CBI members on balance continue to support the contracts for difference (CfD) model over the premium FIT model, and believe that CfDs can be made to work for investors in all low carbon technologies. However, members have serious concerns that the payment model proposed in the draft bill will not prove effective.

12. Investment on the scale required cannot come solely from generators’ balance sheets, and will require finance from the market. This means that to bring forward investment, the CfDs must lower the cost of capital offered by banks and other financial investors to the point where projects become viable. The cost of capital will be determined by the level of risk associated with the contracts. The most important issues potential investors will consider in assessing risk are the legal structure of the contracts (including the dispute resolution process) and where liability ultimately sits. In short—if the CfD is not honoured, how confident are they that there is a clear and workable system for pursuing their money, and how confident are they that the entity liable for it will be able to pay? This relates to DECC’s aim to “provide investors with a level of certainty about the legal status of the CfD that is equivalent to a conventional contract with a counterparty who has a strong credit rating”.

13. Under the proposed payment model, CfDs would be based on a combination of public and private law. Introduced through statute, they would then be governed by commercial contracts. The liability would sit collectively with the electricity suppliers, with no single counterparty. This approach could create two main risks.

14. Firstly, legally, it is not clear whether CfDs under the proposed model would be enforced through public or private law, both, or neither. In the event of a contractual dispute, it is not clear with whom generators would engage to resolve the dispute; the structure is new, complex, and has no clear legal precedent.

15. Secondly, in terms of the liability risk, the current approach is different from what was anticipated at the beginning of the EMR process, when it was thought that Government would underpin the contracts, meaning the liability would ultimately sit with an entity with an AAA credit rating. Under the current model, where the liability would sit collectively with suppliers, it is not clear what the effect on the cost of capital would be.

16. Taken together, these legal and liability-related concerns risk driving up the cost of capital and making the CfDs expensive for generating investment. The CBI welcomes DECC’s recognition of industry concerns over the current model and willingness to consider how best to design the CfDs including considering alternative models. In designing the final model, we believe that DECC should consider:

— Whether a legal design involving a single counterparty would reduce the risks associated with dispute resolution, and if so whether such a model can be created.
— How the cost of capital is likely to be affected by where the liability sits, including whether or not it might be more cost-effective for the UK economy for it to sit with Government.

17. To address these questions and develop the final model, the CBI strongly recommends that Government does not only seek views from its current expert panel and the Low Carbon Finance Group, but that it also consults directly with a wide range of people at a senior level in the investment community, ie a representative sample of the people who will actually make investment decisions on these contracts. It is important that as broad a range of financial companies as possible understands, supports and “buys-in” to any proposals. The CBI would be happy to help facilitate these discussions.

18. There are further key issues to be considered in designing the CfD model:

— There must be robust change of law terms to ensure contracts signed cannot be retrospectively changed. These are critical to ensuring that investors have sufficient confidence when taking account of the risk of future changes in the law.
— It is not clear what the year ahead reference price for baseload power generation will be based on, especially given current proposals to alter the retail market, which have not been agreed.
— The rationale behind the currently proposed contract lengths (15 years for renewables, 10 years for early stage CCS) is not clear. Different projects will have different Return on Investment criteria, but investors are likely to seek a return over the duration of the contract, which means that having shorter contracts could drive the price up.
— It is not clear how CfDs will be treated in accounting terms—whether as financial instruments and therefore derivatives, or as an operating cost like the Renewables Obligation. This may have implications for company balance sheets and credit ratings.

19. Finally, the CfD must also be designed to minimise costs to consumers. It will be important to allow particularly vulnerable users, such as energy-intensive companies, to be exempted from costs (see below). But there are also concerns that the design of the CfDs could make it possible to game the system, increasing consumer costs. Consulting more widely, such as with energy traders from across the industry, will also help to ensure the design of the system is “game proof”.

---

58 Annex B, Feed-in tariff with Contracts for Difference, draft operational framework, p68
Recommendations

(a) DECC should work with industry, including a wide range of financiers and traders, to develop and implement a workable contractual model.

Design the Capacity Mechanism to Minimise System Costs

20. The CBI’s Decision Time report and analysis by Pöyry have shown that a future electricity mix with a higher penetration of wind power could have much more volatile electricity prices and require much higher levels of system flexibility to cope with periods of low wind power. Sufficient electricity capacity and flexibility is needed to reduce the risk of involuntary supply reductions and reduce the cost of excessive wholesale price volatility on energy users.

21. However, CBI members have never uniformly accepted the case for a capacity mechanism, arguing that its introduction could lead the market to become more administratively or centrally determined; it risks under or over providing capacity creating unnecessary cost; and that it could undermine the role of the demand side.

22. However, given that Government has committed to introducing a capacity market, it should do so as quickly as possible to avoid any potential investment hiatus and to give companies time to plan what to do with their existing plant. Current market price signals, including the comparative spark/dark spread, the EU ETS price, and the impending Carbon Price Support, could incentivise companies to use up their running hours on coal plants under the Industrial Emissions Directive (IED). Early capacity market design decisions will help companies decide what to do with existing plant, and if that plant has limited running hours under the IED, how best to use them and when.

23. Similarly, running an auction as soon as possible would be a positive step, and the CBI would support an auction taking place in 2014. It would give companies greater visibility and therefore certainty in planning both future investments and what to do with existing plant.

24. There should also be a focus on minimising costs accruing from the capacity market. Government should allow existing plants to bid into the capacity market and compete with new plants. This would prevent any artificial need for new build plant and avoid unnecessarily creating stranded assets and carbon lock-in.

25. Finally, government should also consider what lengths of capacity contract it will allow for fair competition in the interests of the most cost effective solution. Old plant requiring refurbishment could need longer term contracts to incentivise any retrofit work needed. Conversely, companies and aggregators offering demand-side measures are unlikely to be able to offer capacity too far into the future, because it is difficult to predict what industrial behaviours will look like in, for example, five years’ time.

Recommendations

(b) Given that Government is committed to introducing a capacity mechanism, it should do so as quickly as possible.

(c) Government should introduce a capacity auction in 2014 to allow companies to plan.

(d) Government should manage costs and avoid potential carbon lock-in by allowing existing plant to bid in.

(e) Government should consider the optimal contract lengths carefully.

Ensure the Emissions Performance Standard (EPS) Does Not Affect Security of Supply

26. CBI analysis (Decision Time, 2009) supports the Government and Committee on Climate Change view that the UK needs to largely decarbonise its electricity grid by 2030. However, the CBI has never seen an EPS as necessary to achieving this aim.

27. Given that Government has insisted on introducing an EPS, the CBI’s chief concerns are that it must not undermine investor confidence, security of supply, or Carbon Capture and Storage (CCS) development. The current proposal achieves these key criteria, through the level of the standard (450g/kWh), the grandfathering proposals to 2045, and the exemptions for CCS demonstration projects.

28. And, if an EPS is to be in place, it makes sense for Government to have the power to review it to allow flexibility. However, it is critical that grandfathering for existing plant remains as a key principle entrenched in legislation.

29. On this basis, the CBI recommends that the EPS policy proposals should remain as set out in the draft bill. (This does not preclude improvements to the drafting of the sections of the bill that implement the policy.)

Recommendations

(f) The EPS policy position that the draft bill is intended to implement should remain unchanged.

ENSURE THE COMPETITIVENESS OF THE MOST AT RISK ENERGY INTENSIVE INDUSTRIES IS NOT UNEARTHED

31. The CBI’s 2011 report Protecting the UK’s foundations argued that energy-intensive industries (EIIs) are a cornerstone of a growing UK low-carbon economy, providing, for example, steel for wind turbines and chemicals for electric car batteries.

32. However, the UK’s EIIs are at risk from internationally uncompetitive energy costs, which may lead to carbon leakage. The EU Emissions Trading System (ETS) creates a cost gap between European industry and the rest of the world. UK companies are also at a disadvantage compared to their European competitors through unilateral costs such as the carbon price floor (to be introduced next year).

33. UK electricity prices for businesses already rank relatively poorly compared to EU competitors, both before and after energy taxation is accounted for (see table below). The UK’s standings in the rankings improve slightly after taxes are added, because the UK’s energy tax levels are lower than many member states’. However, these figures do not take account of the tax discounts, cost exemptions, and other support which is given in other countries to the most at-risk EIIs. Comprehensive data taking these factors into account is not available, but commercially confidential evidence available to the CBI suggests that once this support is taken into account UK electricity costs for EIIs become even more uncompetitive.

UK INDUSTRIAL ENERGY RANKINGS: JULY 2011—DECEMBER 2011 (1 IS CHEAPEST)

<table>
<thead>
<tr>
<th></th>
<th>Small (incl tax)</th>
<th>Medium (incl tax)</th>
<th>Large (incl tax)</th>
<th>Extra Large (incl tax)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity (rank in EU 15)</td>
<td>10</td>
<td>6</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Electricity (rank in EU 27)</td>
<td>17</td>
<td>14</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Gas (rank in EU 15)</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Gas (rank in EU 27)</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Figures from DECC drawn from Eurostat and the International Energy Agency (sorted by user size—gas figures have no extra-large category)

34. Therefore, the CBI is concerned that EMR will add significant further unilateral policy costs. Government has committed to “explore options for reducing the impact of electricity costs arising as a result of EMR policies…where (it) significantly impacts their competitiveness”.61 The CBI fully supports this commitment and believes it will be essential to design the EMR mechanisms such that it is possible to exempt the most at-risk EIIs from costs.

35. Exemptions must be evidence-based, and to achieve this Government should publish a thorough analysis of energy costs faced by industry, including comparisons with other European countries and the exemptions that are made to their EIIs.

36. While it is beyond the scope of the Energy Bill, it is also worth noting that even once the policy cost differential with other European countries is addressed, there remains the issue of the policy cost gap between companies operating in the European Union and the rest of the world. The CBI believes that this issue must be addressed through pan-European solutions, including for electro-intensive companies facing the pass-through costs of the EU ETS, for which there is currently no harmonised solution.

37. In addition, a comprehensive EII competitiveness strategy must address more than just price protection. Most of the elements of this are beyond the scope of the Energy Bill. However, the Bill does give Government the opportunity to encourage CHP, which is of use to EIIs as it increases energy efficiency in a cost effective way, but also more widely.

38. CHP brings benefit to the economy and to the environment, yet not all of the benefits accrue to the operators of the plant. Running CHP plants reduces the import of gas into the UK bringing economy-wide benefits of reduced cost and increased security of supply. The most efficient way to run CHP plant is to export electricity and, with the forthcoming removal of Levy Exemption Certificates, Government should look at how the Bill can best incentivise CHP plant to run.

60 Companies in the EU 2000 Regulation on Pollution Prevention and Control, within the 2006 EU Energy Products Directive and whose energy intensity is more than 3%, meaning energy costs must be 3% or more of their production costs.

61 Electricity market reform: policy overview, p7
Energy and Climate Change Committee: Evidence  Ev 211

Recommendations

(g) Government should ensure that EIIs whose competitiveness would be impacted can be shielded from the costs associated with EMR.

(h) Government should use the Energy Bill to incentivise the efficient use of Combined Heat and Power plants.

June 2012

Written evidence submitted by the Low Carbon Finance Group (LCFG)

Executive Summary

This submission addresses the extent to which the draft Energy Bill establishes a framework that will boost investor confidence to attract new sources of capital into UK power sector, with a focus on renewable energy (RE) investment. The Low Carbon Finance Group brings insight from energy finance practitioners, from across the finance sector, with extensive experience of investing in and lending to renewable energy in the UK and globally.

— The draft Energy Bill, and the supporting Electricity Market Reform (EMR) documents, at present, do not form a framework or structure that financiers believe they could present to, and secure approval from, credit or investment committees.

— In our initial consultation response over eighteen months ago, we advised that EMR proposals could be made to work if certain specific modifications were incorporated and ambiguities clarified. However, our current sentiment is one of serious concern. In our view, many outstanding substantive issues have arisen in intervening work, particularly at the critical operational level. The proposed arrangements are currently too complex, and unlikely to attract investment capital to the UK, in the scale required.

— Our particular concern is that the CfD, as proposed, will not provide the revenue certainty that investors require and that risks surrounding revenue security are not quantifiable. This is central to whether banks and investors invest in the first place, and the return expected on their investment. Specific CfD concerns include:

— Payment model, in particular the creditworthiness of the CfD counterparty and legal enforceability of the contract;

— Route to Market, the ability for renewable energy generators to sell power into the market, as the current obligation on Suppliers comes to a close;

— Access to CfD contracts, under conditions of constraint and lack of visibility;

— CfD strike price setting, reference price determination and basis risk, and particularly concern over moves to introduce auctioning as early as 2017; and

— CfD/Capacity Mechanism interaction, which is unclear and adds further uncertainty to overall electricity market operation.

— Although we make recommendations to tackle these issues, we are increasingly convinced that the complexity facing renewable energy investment requires attention to the actual structures being proposed, and the risk profile of the overall package. This is necessary to provide confidence that the elements of the EMR package, together with those elements sitting outside, form a coherent, straightforward, legally robust electricity system.

— Consideration of the draft Energy Bill, and the EMR package, is occurring at a time of deepening concern over the investment environment, and specifically policy stability in the UK. A set of factors is contributing to investment uncertainty, not least of which is recently damaging speculation regarding the Renewable Obligation (RO) banding review decisions.

1. Introduction

Thank you for the opportunity to provide input to the Energy and Climate Change Select Committee pre-legislative scrutiny of the draft Energy Bill.

The Low Carbon Finance Group ("LCFG") is a non-political group of senior practitioners in energy finance from across the finance spectrum, formed to provide policymakers with the factual basis for understanding the conditions required for attracting capital to low carbon energy, with significant investment focus and interest in renewable energy and energy efficiency.

The group comprises individuals from global equity investment funds, pension fund advisors, independent power investors, project finance banks and investment banks, bringing to bear experience over 15 years of investing in, and advising on, c. £20 billion of global renewable energy investments.

LCFG submitted to the original EMR consultation and have been involved throughout the last 18 months providing input on the detailed design elements of the market, including CfDs. We appreciate that considerable work has been done by DECC and other government departments in the intervening period. Our work included...
development of a financial model to illustrate how several of the factors interact, and assumptions that are made during financing decisions.

2. Capital Allocation

Delivering secure, low carbon energy sources requires substantial long-term infrastructure investment. A core objective of EMR is to stimulate additional investment from banks, private equity/infrastructure funds, pension funds and other institutional investors, as well as create the right conditions for other key stakeholders with investment capacity (eg supply chain and new entrant developers).

Allocating capital to UK ‘low carbon’ will be made on the basis of risk-adjusted returns, clearly taking into account the risk profile, of those assets. The risk profile will vary by technology and resource. Policy risk is closely scrutinized and has a central role in the generation of the revenues that service debt and provide returns for investors.

Different elements of the finance sector will have different risk appetites and different return expectations. The risk profile of the EMR package is therefore critical and, by definition, its constituent parts must form a package that is more attractive than the original Renewable Obligation, if there is an expectation that greater investment will flow, particularly from new sources that may be looking for a lower risk environment.

Credit and investment committees, which may not be based in the UK, make the ultimate decisions over the provision of capital within an institution and will raise questions on the full range of risks that can impact repayment or return, eg the detail of market operation, or policy regime and its stability. These are not just ‘details’ but rather material risks that can result in capital being allocated to opportunities that are regarded as lower risk or more familiar. Political statements, as well as policy interventions, that raise questions over the government’s commitment towards renewables are problematic for financiers and can influence the decisions of their credit and investment committees.

3. The Current Investment Environment

One of the key drivers behind EMR was the belief that the CfD would remove power price risk and attract much needed capital. However, this is only one of the risks faced by renewable energy investors, who have successfully navigated this under the RO. The greater risk is whether the overall electricity market envisioned under the EMR is workable for renewable energy investment. Concern encompasses not only the support arrangements (RO, CfDs) but also across planning, transmission grid issues and broader EU market and policy developments.

This Inquiry is occurring at a point of deteriorating policy and regulatory confidence in the UK for renewable energy. Credit and investment committees are already asking questions over the durability and robustness of government policy and incentives. This is not only due to uncertainty created through the EMR process. Of immediate concern, although not the subject of this Inquiry, is the delay in finalising the Renewables Obligation (RO) Banding review, from October 2011, and damaging speculation that the proposed banding levels will be reduced (financiers have already committed financing, and are in the midst of arranging further deals on the basis of numbers in the consultation, pending decisions).

This comes on the back of a range of other changes, for example: the solar FIT tariffs; specific decisions relating to the planning regime, efforts to refocus EU legislation from renewable energy to more general low carbon; as well as uncertainty linked to the broader EMR process.

These energy policy issues are in the context of challenging financial conditions and changing project economics (briefly summarised in Annex 1). It must be borne in mind that financiers may be looking across several markets and sectors for investment opportunities.

4. Draft Energy Bill and EMR

In LCFG’s original EMR submission, examining the different support options (CfD, FIT, Premium FIT), we outlined the relative attractiveness of the different support mechanisms against key criteria.

At that point, all the FIT options were clearly understood to involve a government-backed contract as commonly used in other countries. Although the CfD option was the most complex of the three, and not the preferred option of financiers, we stated that CfDs could be made to work if a set of changes were made.

We also questioned the government’s cost of capital assumptions in the underpinning Impact Assessment. We highlighted that the modelled results reflected a theoretical approach to capital pricing, not how banks and investors allocate capital to, or price capital, for various investment opportunities. We highlighted that the characteristics of different types/classes of investors needs to be clearly understood.

Complexity

In the intervening period, DECC has undertaken considerable work on the detail of how the new market and CfDs will work. In several cases, that work has raised further issues and a greater complexity in the architecture of the CfD support system and its operation.
A clear account of how CfDs will operate in the context of the overall power market and interaction with the capacity mechanism, is still missing, and with this whether the pricing certainty desired will be achieved. Due to these outstanding issues our current view is that we are not in a position to take projects to credit and investment committees with an expectation that these would secure investment or lending.

As such, we do not believe the proposed structure will function, as outlined, to meet the objective of attracting capital, at scale, to the UK renewable energy market. Increasingly, UK project development and financing may be under question pending articulation of a clear, much simpler, legally robust, overall framework. This is likely to be more so for those not yet engaged in the UK market.

The level of complexity also creates additional costs for all parties as greater resource is required for analysis and legal due diligence. It also adds time delays to approvals.

Timing

These issues are becoming more imperative to resolve as the 2017 deadline for shifting to CfDs approaches, given the timing required for project development. There is a particular risk for projects that won’t fit into the tail end of the Renewables Obligation (RO) but also don’t have sufficient clarity on EMR to be able to reach final investment decision (FID).

An additional factor is how long financiers will take to get comfortable with new structures implemented, against the timing of when investment is required to remain on track for 2020 EU targets.

We do appreciate the challenge of getting the framework right against the need for timely decisions to keep project development on track given the 2013 window when CfDs become available as an option.

5. Key Elements of Bill and Supporting Operational Documents

We have considered both the draft Bill and the operational information, as set out in the Annexes, with emphasis on Annex B the operational report on Contracts for Difference. It is essential to look at these together from a financing perspective, although we appreciate this goes beyond the draft Energy Bill itself.

Specific issues and relevance to finance:

The "payment model":

The statutory instrument between generators and suppliers as a whole, as set out in the draft Energy Bill:

— The reliability and enforceability of the contract payment is central to reliable revenues for any project or portfolio.
— The approach outlined in the Bill we believe may not be workable given legal questions over the nature of a statutory contract or instrument and its enforceability. DECC has already indicated it is considering an alternative model.

More detail:

The assumption all along had been that the FIT would be a government-backed contract, providing 1) a creditworthy counterparty, and 2) legally enforceable contracts. We do not believe the instrument in the Bill ‘looks’ like this, as such we believe that for any FIT option, at minimum, consideration needs to be made of DECC’s alternative model, as this goes some way to addressing certain of the concerns.

Route to market:

— Serious questions remain linked to avenues for selling power into the market. It appears likely that financiers will still require PPAs alongside the CfD to provide confidence in the revenue stream for independent generators.
— We believe it is critical to resolve this issue in a manner fully integrated with EMR, and in the context of a more comprehensive approach to electricity market operation.
— The linkage between EMR and broader market liquidity proposals, and expectations over what this delivers, is also unclear to us at present.

More detail:

To secure finance, generators will need to show they 1) can sell the power, and 2) achieve the reference price: basis risk is introduced if projects are unable to secure the reference price; this is a particular issue for intermittent generators, alongside imbalance management and consequent erosion of value that may arise. If the market structure (a power pool in some countries) assures the independent generator of achieving the reference price then a PPA may not be required. However, if there is a strong prospect, as in the current and continuing market arrangements, that they cannot get their power to market independently, then the banks will require an investment grade counterparty such as that provided through the PPA today. Without confidence in these areas, generators may be unable to secure debt financing at all or, at best, achieve lower levels of debt provision.
Contract allocation:

— A CfD contract is central to certainty over the support for project economics through the subsidy, and this is key to securing finance. Certainty over the allocation process will be central to the ability of developers to bring forward a project for financing. At present this is one of the weakest parts of the package, given its importance.

More detail:

Headroom provisions under the RO meant that developers/generators were not ‘competing’ for contracts, which is potentially the case under the proposed system. The characteristics of projects that will secure CfDs, and the government’s approach to constraint management, particularly for renewable energy needs to be more clearly defined and tested.

Management of the Government’s financial exposure—affordability—is clearly important for the stability of a regime. However, lack of certainty over access to a contract will impact project development. Developing projects, especially under the UK planning system, can take several years and considerable development capital, and projects are only developed if sponsors have reasonable certainty they will qualify for support and the support level provides a return for the risks taken. Without this certainty, risk is left with developers, raising the overall cost of development since they will price risk of failure into their return expectations and hurdle rates.

There is substantive information linked to Round 3 Offshore wind (via Crown Estate) that already provides both visibility of, and constraints on, the project pipeline, and therefore clarity is needed as soon as possible on the consequences of EMR in this area.

We believe there is merit in discussing a pre-registration process that provides greater security that a contract will be awarded, early enough in the project development process, to ensure costs are manageable. A transparent strike-price review process (for new rounds) that enable falling costs to be captured, linked to track record and technology cost reduction and appropriate developer input, should also be considered.

Payment level: reference index and strike price setting

— Confidence that the reference price can be achieved, by the market routes available, and early visibility on strike price levels and strike price setting process, are key to understanding stability of revenues, the level of payment, and therefore the commercial attractiveness of the new regime.

— At present there is both uncertainty over the reference price index and over strike price setting, including the indication that some technologies may face auctions as early as 2017.

— DECC’s current proposals on reference prices are based on market indices and trading markets that do not yet exist. More clarity is required on how these will work, or a back up mechanism whereby if the reference pricing is not clear by 2017, that projects can obtain the reference price.

— A shift to auctioning as the means of strike price setting from 2017 will only increase risk in this area, and further add risk for developers in turn impacting access to, and cost of finance.

More detail:

Greater clarity is needed on how the reference index will work in practice, as detail is required in order to determine the extent to which the CfD reference index price might reflect the actual captured price of the generator (or not). Potential solutions have been discussed, there needs to be early resolution given the impact of uncertainty in this area.

DECC is currently proposing reference prices to calculate CfD payments. The proposed indices are for trading markets that do not yet exist, and assume that the OfGem liquidity reforms will work to increase liquidity and price transparency. Experience in other markets suggests that it can take years for such markets and indices to develop and provide accurate and transparent pricing that will allow projects to secure the reference pricing.

Given that there are already multiple uncertain factors in the EMR framework it is important that auctions, which would add further risk, are not introduced for renewable energy too early. We do not believe that this would be feasible before 2020 at the earliest. Introducing auctioning by default through the contract allocation process is also opposed and would add to the uncertainty over the strike price setting regime. This refers to a suggestion that if there are multiple registrations for CfD contracts, those at lower cost may be chosen in the event that contracts availability is constrained.

Overall market context:

— Transparent and efficient operation of the power market is key to visibility on both electricity pricing and strategy of market players. By definition, the Capacity Mechanism (CM), as well as elements outside of EMR such as market liquidity currently under review by Ofgem, will now be active factors determining market operation. How these will shape the market and interact with the CfD mechanism needs to be clarified.
The proposal to create a GB hub to establish the CfD reference price raises many questions and further increases uncertainty for investors. In particular, it is unclear how such a market will operate efficiently once a significant number of the existing baseload generating assets are retired and the bulk of all the new-build renewable, gas and nuclear assets are themselves supported by the various EMR components.

More detail:

Capacity Mechanism: even with a CfD, renewable energy project developers and financiers will need to understand the impact of the capacity mechanism (CM) on the overall electricity market, and wholesale electricity prices, among other elements. It was for this reason that our original preference was to consider the CM, and CM design, in the context of the electricity system policy due to be developed in 2012.

Clarity on ‘whole of system’: to be clear, financiers are familiar with CfDs in other markets, and indeed in the UK in the period when there was a power pool (which provided the reference price and removed complexities over routes to selling power into the market). What is required at present is ‘whole of system’ understanding: how the pieces fit together in an operating market, notwithstanding the need to get the detail of each element right, such that the risk profile can be both understood and effectively managed and, as such, support project development and funding.

6. Recommendations

We have outlined both concern over the complexity of the proposals, as well as specific areas that are contributing to this. The EMR White Paper indicated an electricity system policy was due to be advanced in 2012. Although the content of this was not outlined, we believe that this highlights a missing ingredient: a coherent overview of how the electricity system will develop and operate, how renewable energy will fit in, and ensuring that unintended consequences are minimized. This includes electricity market elements that are directly relevant to EMR.

To provide a framework that will maintain existing investor interest and attract larger pools of capital, actions taken should:

— reduce complexity;
— pay close attention to execution linked to timing, to avoid negative impacts on project development in the UK;
— focus on the provision of design detail that is specifically intended to reduce uncertainty and the risk profile of the package.

In this context, in the specific areas we highlight:

— Payment model: a clear government-backed, legally enforceable contract needs to be implemented for a move to any FIT scheme. DECC’s alternative option needs further consideration and development to provide a working alternative, in preference to the one that is proposed in the draft Bill.
— Route to market: independent generators must be sure they can sell power into the market, absent a power pool or market obligation in the UK. This needs to be integrated into the Energy Bill package and not dealt with separately. All options need to be considered that will create a level playing field in this area, and enable a generator to go to the market and achieve the reference price (in the case of the CfD). In essence, this is the “market” part of EMR, and is central to its success.
— Access to contracts: this needs addressed up front, based on minimising or removing the uncertainty this creates for project development and financing, we highlight the potential for eg an early pre-registration process to increase certainty.
— Strike price setting, reference price and removal of basis risk: these need to be clarified, and we note the connection with the broader development of the electricity market. Introduction of auctions should be postponed until 2020 or later, to minimise introducing further risk in the early stages of the new system.
— CfD/Capacity Mechanism interaction: an electricity market overview must enable financiers and investors to go to the credit and investment committees and answer the question ‘how do we know this will all work?’ given lack of precedence.
— Monitoring and review: it is critical that Government establishes independent, regular monitoring of various elements under change, by means of a transparent set of criteria, and triggers to enable government to reassess those when there are signs of potential market failure.
— Credible monitoring of specific factors, will be more effective than a general policy review. Commitment to grandfathering remains essential.

June 2012
SUMMARY OF FINANCING ISSUES AT Q1 2012

Banking Sector
— Deals are getting done across mature technologies (onshore wind, biomass and solar; strong interest in offshore, as a less-mature market).
— Pipeline of bankable projects: “healthy but challenging”.
— Liquidity (finance) is being prioritised to existing clients, and known sectors (smaller developers likely to be more impacted in this environment).
— Capital is still available but hurdles are more challenging: banks are maximising engagement and committing resource to key deals in a given market.

Banking Sector—Challenges
— De-leveraging and managing balance sheets.
— Consequences for terms and conditions: previous long-term lending tenors now shortened to below 10 years (and re-emergence of “mini-perm” structures) capacity is being built-in for re-pricing.
— Long-term cost of capital is for banks is up, with pricing on new transactions up by around one percentage point.
— Basel 3 financial regulation and its consequences are on the horizon, banks are nervous about market volatility.
— Deals are taking a longer time to close.
— Trend across banks to return to home markets.

Equity
— General perception of lower commitment by government to renewable energy means we are seeing some return of equity investor interest in more conventional energy segments, less reliant on government support (e.g. gas generation, CCGT).

Bond Market
— Bond market is a next step for long term debt financing;
— Policy stability is essential through this transition (as volume of available debt going down and equity is stepping in to bridge the gap).
— Bond investors are generally transactional (rather than relationship banking) so deals have to ‘stack-up’ in terms of its risk matrix e.g. counter-party risk, electricity market structure.
— Recent rating agency pronouncements suggest a very conservative approach is being taken to the sector that is likely to constrain institutional appetite further.

Institutional Investors
— While there is a step up of activity; there remains a gap between the current interest in investing in the sector, and actual investments. While considerable resources are held, pension funds don’t have detailed sector knowledge in-house; allocations to date remain relatively modest, with notable exceptions.
— There is an opportunity to tap into appetite for structured assets: investors are considering greater exposure to infrastructure, currently c.1–2% of capital with potential of 10% of overall capital, albeit renewable energy assets have to compete with other infrastructure assets (road, rail, hospitals, grid etc);
— Perception of risk is holding back further expansion, including: technical, operational and regulatory risk.
— Investment is in operating assets: II’s have not been willing to take construction risk: banks and developers are taking this risk. Onshore wind is general small-scale but risk profile is known; for offshore wind the scale of deals is larger (a factor that creates interest), but risks are more challenging.
LCFG ORIGINAL EMR SUBMISSION EXECUTIVE SUMMARY

— There is growing global investor interest in low carbon investments, including global institutional investors that are considering many geographic markets, including the UK.

— The UK’s low carbon investment requirements are unlikely to be met by UK investors alone. To attract global capital, the UK needs policies that create an investment climate that is attractive relative to its peer countries. Capital will flow to the most attractive opportunities in those markets with straightforward regulatory regimes, and with superior risk/return balances.

— The UK’s current market/regulatory structure is one factor that makes it less attractive to financiers—lack of grid and the planning system are other key factors, as government is aware.

— The suite of policy proposals in the Consultation and the Treasury Carbon Floor Price Consultation provides the basis for an overall improvement that can attract more capital. However, modification and clarification will be needed to maximize capital flows to the UK.

— Key factors that would spur international financiers to allocate to the UK more low-cost, long-term capital to low carbon investment include:
   — Electricity price stability and predictability, including:
   — Long-term revenue certainty and visibility.
   — Bankable markets and structures.
   — Inflation-linked revenues.
   — Certainty that electricity can be sold on a level playing field for all market participants.
   — Simplicity and transparency.

— DECC’s preferred option—the Contracts for Differences (CFD) feed-in tariff—can be made to work. However, as outlined in the Consultation, at present it is not simple and risks falling short in key areas. To fully deliver for financiers it requires modifications, including:
   — Increased pricing stability and predictability through:
     — Credible index design.
     — Implementation to eliminate price unpredictability stemming from “basis risk”, linked to the above.
   — Inflation linked revenues.
   — Level playing field with incumbent utilities:
     — A firm purchase obligation from suppliers (or a central buyer) to assure that all generators that they can sell their output.
   — Balancing market reform.
   — Strong coordination with Ofgem’s Liquidity Review.

— Absent modification of the CFD in these areas, we prefer DECC’s second choice, the Premium FIT, with consideration of a cap and floor on prices to avoid “excess” remuneration and reduce costs to consumers. A firm purchase obligation and balancing market reform would also be necessary.

— The use of auctions to set pricing levels is not supported at this point in time. Auctions remove long-term visibility on prospective returns to investors, especially vanguard investors and new entrants from outside the UK, at the crucial phase of project formation and early development.

— There are many elements needed to attract capital, and all of them need to be in place, to ensure that the goals of the Consultation are delivered in practice, at least cost, and avoiding an unnecessary investment hiatus. We note that the cost of capital analysis underpinning the Consultation does not fully reflect the complexity of real-world financial analysis or decision-making. We would be happy to work with DECC to ensure greater understanding of these areas in more detail, and the important linkage with the policy development.

Written evidence submitted by Good Energy

INTRODUCTION: GOOD ENERGY

1. Good Energy is the UK’s only dedicated 100% renewable electricity supplier. We supply 30,000 electricity customers of which 6,000 are dual fuel customers. We are also the FIT licensee for 35,000 generators.

2. We own and operate a 9MW wind farm in Cornwall, and have embarked on a five-year plan to develop a further 40MW of renewable energy generation, all of which will be connected to the local network as opposed to the transmission system.

3. Good Energy was founded in 1999, and is one of the oldest “new” entrants into the domestic electricity market. Our ambition is to empower people to make a difference to climate change by choosing a renewable
energy supply, generating their own power, and growing renewables in the UK. Good Energy has grown year-on-year since it was founded, in terms of customer numbers, turnover and profit and employees, with customer numbers growing by 15% last year despite the economic downturn. We have consistently delivered stable prices and have not increased our prices for over three years.

4. We continue to be an innovator in the energy market. We developed the UK’s first FIT and RHI scheme and we were instrumental in setting up the Green Energy Supply Certification Scheme under Ofgem’s guidelines. Last year we came top of the Which? Customer Satisfaction survey of energy suppliers, for the second time.

EXECUTIVE SUMMARY

5. Good Energy wishes to bring to the attention of the Committee the following concerns:

— The Energy Bill (and wider EMR) proposals miss the opportunity to create a more open, transparent and liquid energy market, that is more accessible, flexible and dynamic and therefore more capable of responding to the challenge of decarbonising the power sector.

— The FIT CFD is too prescriptive in its outcomes relating to Power Purchase Agreements and will skew the market in favour of larger existing players.

— The FIT CFD will act as a new barrier to market entrants, potentially harming efforts to improve liquidity in the wholesale power market and undermining competition in the retail market. If the Government is to continue with the FIT with CFD it should scrap its plans to use a day ahead reference price, and move to a longer term reference price instead.

— The Energy Bill is primarily focussed on the needs of nuclear and offshore wind, potentially to the detriment of other forms of low carbon generation.

— The current proposed arrangements will increase the influence of the “Big Six” and reduce competition and choice for consumers.

SPECIFIC COMMENTS

Renewables and current electricity market arrangements

6. The current electricity market arrangements were designed around fossil-fuel based generation which could be called on or off line as required and based on contractual arrangements between generators and suppliers. The main financial risk that generators faced was that they controlled their fuel cost in alignment to their Power Purchase Agreement (PPA) with the supplier. If the cost of generation rose too high, then the risk of being uncalled by the supplier in their merit order increased. Large generation businesses mitigated this risk by becoming a vertically integrated business with both generation and supply businesses. The risk of non-delivery (and subsequent imbalance cost) remained low as plant was able to deliver precise capacity on demand.

7. The characteristics of power generated from renewable resources are fundamentally at odds with this model. First, the cost of fuel is removed, and the costs are principally concerned with return on capital. Second, an intermittent generator such as a wind farm, cannot produce electricity on demand in the same way as a traditional generator, so there is an increased imbalance risk. As a result, a market which requires precise delivery on demand is unsuited to the current arrangements.

8. In response to this, independent renewable generators have reacted by developing PPA arrangements with suppliers that allow them to deliver their output in an unconstrained manner in return for a discount on the price paid in relation to the market. This impact has to date been cushioned by the Renewable Obligation, where the price paid for Renewable Obligation certificates (ROCs) is the same irrespective of when the energy is generated.

9. Vertically integrated suppliers will be able to manage this change through direct control of their own generation assets and through their ability to hedge any imbalance through the size and breadth of their power trading portfolios. Arguably, the resources required to manage this imbalance mean that under the current arrangements, the market will be even more prone to vertical integration than previously as they seek to control this risk. However in reality it is widely recognised that the size and scale of investment required in the market is beyond that which the traditional “Big Six” suppliers are capable of providing.

10. Under the EMR proposal, the contract for difference removes the RO cushion, and any independent generators’ income is completely exposed to the discount on the market price. This contradicts the principle in the FIT with CFD of fixing the CFD between the strike price and the market price, which assumes a generator can achieve market price.

11. This is further aggravated by the current absence of liquidity in the market. Even Ofgem’s liquidity proposal will still leave a majority of trades opaque to the market as they will be between the generation and supply arm of vertically integrated companies.
Impact on distributed and independently owned generation

12. A key objective of the EMR programme and the Energy Bill is to bring forward new investment in the UK energy market. It is now almost universally accepted that the traditional “Big Six” energy suppliers are simply not capable of providing the investment needed, and that new forms of investment will have to be found instead.

13. EMR is a rare opportunity for the Government to improve liquidity. Improving market liquidity is key to this in order to aid accurate price discovery, improve transparency, and so reduce the risks and therefore the cost of investment. In June 2012, the International Energy Agency warned that EMR will only be success if it is matched with decisive action to improve market liquidity.

14. Distributed generation (also described as decentralised generation), ie locally based generation typically connected to the Distribution Network (which for the purposes of EMR would need to be larger than 5MW in capacity), has a significant role to play in this respect. In encouraging greater direct involvement in the production of electricity at a range of scales by independent organisations, it not only acts as a new source of investment, but also ensures that electricity is produced at a range of sizes to help improve wholesale market liquidity.

15. Based on Good Energy’s experience, a more decentralised approach will lead to the greater geographical dispersion of generation, and the more diverse deployment of different renewable technologies, each with their own power production characteristics. This will aid the management of intermittent generation at a national level by creating a natural “hedge” against weather risk and so reduce the need for carbon-based back up plant and interconnection, and help engage consumers with their energy demand to aid demand side reduction.

16. The UK is already starting to see the benefits of more distributed generation through the current sub-5MW FIT scheme, which has acted as a catalyst for new independent investment in the market, created new sources of power for small suppliers to purchase and led to the deployment of renewable technologies that help suppliers manage the intermittency of wind (large scale solar in particular). For example, based on Good Energy’s experience, solar generators are often producing power when output is low from wind or hydro generators, and vice versa.

17. However the FIT with CFD which is designed for larger generation built and operated by the traditional market industry makes new entry into the market particularly difficult above the 5MW level. Under the Government’s plans, liquidity will be provided for by the mandatory auctioning of just 25% of power produced by the ‘Big Six’ suppliers.

18. At best, this is overly complex, a completely artificial method of improving market liquidity which may or may not work. A traditional, straightforward FIT, however, with the required budgetary safeguards in place, is likely to be a far more effective method of creating a genuinely liquid market through a more level playing field, because it is one where the chief policy mechanism does not fundamentally favour the market incumbents over new entrants.

19. In addition to the points outlined above, distributed generators above the 5MW fixed FIT threshold face additional hurdles, which make the FIT with CFD even less suited to support their development.

20. The first hurdle is that these generators are generally independent of supply businesses and have to find a buyer for their energy in the skewed, illiquid market. Many of these generators are non-industry professionals, and the FIT with CFD is significantly more complex than the current RO arrangements. Many of these generators are single site generators, who do not have a portfolio of generation, and in order to finance their build, will show security of income by signing a fixed price PPA, rather than a market-tracking, variable PPA, thus increasing further the risk of the inability to achieve their strike price.

21. In addition, their small clip sizes, and lack of access to weather forecasting software means that the discount to market price increases as the supplier takes on the forecasting risk, and administration cost of a smaller output.

22. All of these factors mean that independent, distributed generators typically incur a discount on the price paid to them for any power produced. This discount will not be reflected in the standard day-ahead power price which is planned for the Intermittent FIT with CFD, because it is market wide rather than specific.

23. At the same time, the EMR Operational Framework has confirmed that the Intermittent FIT with CFD will mean that generators are likely to require variable, rather than fixed price PPAs, in the future. This will be necessary to ensure that the revenue the generator receives from the PPA matches the day-ahead reference price used for the CFD as closely as possible, to ensure that any CFD ‘top-up’ payment is accurate.

24. However for the supplier, managing a PPA that is linked to a volatile day ahead price will incur additional costs that will be passed back to the generator in the form of an increased discount. The nature of these costs is likely to be fixed, and so smaller, distributed generation is more likely to be impacted on by them, proportionally speaking.

25. We believe that if a FIT with CFD is to be introduced, it should use a longer term reference price (ie at least a year, ideally three years) to address this problem.
26. By removing the RO, which is a form of premium FIT, the proposals increase the basis risk to distributed generators, which did not form part of the impact assessment by Government as it admits that no consideration was given to sub 50MW sites in selecting FIT with CFD over a premium FIT.

27. Good Energy’s experience to date has shown that the terms of reference of the EMR programme are set so that instead of being focussed on reducing existing barriers to a more decentralised market so that it can deliver the wider public policy benefits described, the programme is simply focussed on ensuring that it does impact further on those generators. There is a fundamental lack of ambition in the terms of reference of the EMR programme in this respect.

Impact on smaller suppliers

28. Smaller suppliers are the natural PPA counterparty of decentralised generation. In order to set their consumer tariffs for a reasonable period of time, they need to be confidence about the price they are paying for their PPA contracts and therefore favour fixed price PPAs. Any PPAs that track the market price increases the risk that the supplier’s costs will not be truly reflected in their consumer tariffs. This could result in more frequent tariff changes; just at a time when Ofgem’s Retail Market Review is restricting variable domestic tariffs in favour of fixed price contracts.

29. Compared to larger suppliers, small suppliers have a more limited ability to manage any wholesale price fluctuations. This is not only because they do not own the plant in question, but also because they lack the same ability to hedge through energy trading portfolios, due to low levels of liquidity and associated credit problems.

30. To date, the Government has not published any Impact Assessment on the decision to move away from the Government being the FIT with CFD counterparty to one backed by energy suppliers. However, Good Energy is concerned that this adds another risk to non-vertically integrated suppliers as they will not have a view of the cost of being a counterparty nor any way of mitigating these costs, which will vary based on volume of FIT with CFD contracts in any half hour and the price (the gap between strike price and market price) attached to each unit of generation.

31. The only logical solution is to factor in a risk premium to consumer bills, which means that independent energy suppliers will be faced with higher risk premiums than larger vertically integrated businesses who will have the protection of having a net position, based on the cost to their supply business less the income to their generation businesses. Larger players will also be less vulnerable to unpredictable changes in cash flow, due to their better access to credit.

32. The decision to make suppliers the counterparty increases the risk of operating as an independent supplier and will therefore deter new market entry, thus entrenching the dominance of the “Big 6” energy suppliers in the market. This will restrict rather than encourage competition which is not in energy consumers’ best interests.

Conclusions

33. The proposal in the Energy Bill for a new FIT with CFD mechanism is based on evidence that only considers large generation sites such as nuclear and offshore wind. The Government has not considered the suitability of the mechanism for smaller, distributed and independently owned generation.

34. The Government appears to have recognised this in its belated call for evidence on the issue, but the onus of this is for the industry to prove that FIT with CFD will be a problem for independent and decentralised generation, rather than seeking the best and most efficient support mechanism for them. This reflects a lack of ambition in the terms of reference of the EMR programme, to encourage greater independent involvement in the market, improve liquidity and recognise the benefits of more distributed generation to a reformed market place with a significant proportion of intermittent generation.

35. The Energy Bill could be used to support distributed generation in combination with demand-side response, energy efficiency and most importantly consumer engagement with their energy use. However, the Bill chooses to focus on delivering a mechanism for new nuclear that avoids state aid rules and other options must “make do or die”.

36. The FIT with CFD mechanism is overly complex, which creates risk to the market, not just in that it will be difficult to administer effectively, but could create unintended consequences such as deterring generation at time of high prices caused by tight margin between generation and supply.

37. If the Government is to continue with its plans for a FIT with CFD, then it should use a longer term reference price for intermittent generation, as a day ahead price will disproportionately affect on independent and distributed forms of generation. This is due to their reliance on PPAs as a route to market.

38. The Government does not appear to have undertaken an Impact Assessment on the decision to switch the FIT with CFD counterparty from themselves to suppliers. In particular, there has been no consideration on
the impact of independent suppliers and market competition in general. We strongly urge this Impact Assessment is produced and published before this decision is enacted in law.

**June 2012**

**Written evidence submitted by Professor Catherine Mitchell and Bridget Woodman**

**Overview**

This written evidence is divided into three main sections: (1) an introduction; (2) a few general points about Electricity Market Reform (EMR), and why this unfortunately means that the realistic recommendation is that the process should be halted; and (3) points on specific issues within EMR, such as the Contract for Difference mechanism (CfD); nuclear power and strike prices, capacity payments; firm decarbonisation targets; enabling powers for reducing total energy demand and so on. The Energy Policy Group provided written evidence to the ECC’s Inquiry into Electricity Market Reform in 2011. This response does not repeat the points raised in that submission.62 Our view is that the most viable energy policy is one that is based on renewable energy and energy efficiency in a “smart”, interconnected energy system which manages the electricity, heat and transport sectors efficiently together, and uses a decreasing amount of gas (possibly with CCS) as the interim balancer to the energy system. We do not see the need to support new nuclear power plants and we cannot understand why the Government is so determined to crowbar it into their energy policy.

**Introduction**

The Energy Policy Group submitted evidence to the ECC Inquiry on Electricity Market Reform in 2011. In that response, we said that we agreed that the current arrangements were not fit for the purpose of moving to a sustainable, secure and affordable energy system and that reform was needed. However, we also said we did not consider the proposals put forward in the EMR Consultation to be reform, in the sense that they were going to be an improvement on the current arrangements. That view has become stronger as time has gone on.

The ECC is now undertaking an Inquiry into the Pre-Legislative Scrutiny of the Draft Energy Bill. However, we would also argue that the Committee will be unable to scrutinise the Draft Energy Bill effectively because so many essential details have yet to be decided—for example, how the CfD will work; what the basis of it will be; how long the contracts will be for; how the strike and reference prices will be set; who the counterparty will be; whether it has met State Aid rules and so on. Without this information, the Committee will be unable to determine the likely impacts on companies’ investment decisions for low carbon generation.

The Draft Energy Bill remains based on the fundamental desire to find a way to support nuclear power without a public subsidy and without contravening state aid rules. The former is now totally discredited and the latter is still undecided, but may yet cause EMR to unravel. Of course, we cannot see into the future but, so far, history appears to be repeating itself from the 1970s and 1980s—the last time the Government in Britain unsuccessfully tried to build a set of nuclear power plants, ending up with just one: Sizewell B. Even if current nuclear output is all replaced with new stations, and that is most unlikely, they will provide around 3.5% of end use energy demand.63 They will do very little for our carbon emission reduction targets but have every chance of undermining the infrastructure, the supply technologies and the demand reduction policies necessary to make a real impact on the other more important 96.5%.

It should not be forgotten that the EMR reforms is only one of a raft of measures put in place over the last few years to reduce the risks faced by developers wishing to build new reactors in the UK.64 Britain appears to be going up a very time-consuming and expensive cul-de-sac, this despite the Government having been warned by stakeholders across the energy system, not least via evidence to the ECC’s last inquiry.65 Moreover, the ability of Britain and its people to benefit from the opportunities that a new energy system could bring will be seriously undermined if not lost.

**Complexity of EMR, and as a result so few details agreed**

What hits the reader of the Draft Energy Bill and its attendant publications, is how unnecessarily complex Electricity Market Reform has become; how it fails to meet its original objectives; how little seems to have been decided since the Consultation; and what a different path it is taking compared to the rest of Europe.

**The EMR process should be halted.**

While we would like to be helpful and solution-orientated, we feel it is necessary to make clear our view that the Government should halt the EMR process on the grounds that it will fail and that ultimately it will be cheaper (in terms of both money and environmental degradation) to consumers to stop now. Of course, a

---

62 http://geography.exeter.ac.uk/research/groups/energypolicy/newsandevents/responsetoemr/
63 DECC Energy Statistics.
64 For a brief overview, see National Audit Office (2012), The nuclear energy landscape in Great Britain, briefing, http://www.nao.org.uk/publications/1012/nuclear_energy LANDSCAPE.ASPX
65 The University of Exeter, WWF, Consumer Focus and SSE have organised a Round Table on different aspects of the EMR process and will input this as evidence to this inquiry at the end of June 2012.
preferable outcome would be that the Energy Bill contents are altered to such a degree that the fundamental problems with EMR can be avoided by deleting them from the Bill. However, it seems to us that, whilst not optimal, a new analysis should be undertaken to take account of the energy situation, which is very different now than it was a couple of years ago.

The EMR process was begun by the previous Government. Since then:

— Renewable energy prices have generally fallen, particularly photovoltaics (PV), amidst a step-change in global investment across all renewables, taking it to $257 billion in 2011. These new technology costs, and their effect on energy systems has led to the reassessment of investment policies in some utilities. For example, the head of corporate R&D for RWE, talked at the Power in Europe Conference about the "...astounding solar story. Three years ago we didn’t believe in it, now we do. We are inclined to believe in further cost reductions, leading to generation costs in Germany of lower than 10 euro cent per kWh by 2020. In the longer term PV is projected to be as low as 4 cents per kWh, which beats everything except perhaps onshore wind in good locations." The UK small Feed-in-Tariff (FIT) has been spectacularly successful showing enormous interest from investors for small scale renewable energy installations around Britain. In addition, these new technologies supported by FITs have opened up the possibility of new entrants in markets, whether they are individuals or small companies. By the end of the first quarter of 2012, nearly 250,000 households and nearly 7,000 non domestic entities qualified for a FIT in the UK, together providing over 1GW of capacity, mostly PV, in little more than a year. We are clearly not arguing that PV is the answer to all the UK's energy needs, but the dramatic cost reductions in the last few years show how much the game has changed for renewables since the UK reasserted its support for nuclear power in the 2008 Nuclear White Paper. The bigger and wider impacts from the PV example is the way that such a different technology initiates new ways of running, and investing in, energy systems. Given the energy policies of other countries, ie Germany and Denmark discussed below, we can expect huge changes in infrastructure technologies and the way energy systems are operated, as well as renewable energy applications and costs by the time the first nuclear power plant comes online in Britain.

— The Japanese tsunami and Fukushima nuclear accident of March 2011 has had various knock-on effects including Germany’s decision to phase out nuclear power. The time delays and cost overruns for the Okiloiso and Flamanville nuclear power plants have continued and escalated calling into question the complexity and economic feasibility of EPRs, the nuclear power plant of choice by EDF. The expected cost of new nuclear in Britain has escalated (or clarified) sharply, with Hinkley Point C now reportedly estimated to be around £7 billion. In addition, EDF appears to have delayed the possible start date for Hinkley Point C until around 2021, three to four years later than originally intended.

— Germany and Denmark have announced new energy policies, based on “smart”, flexible, interconnected, primarily renewable energy systems, which is having a knock-on effect on European energy and climate policy, as pressure builds for renewable energy to provide 30% of energy in Europe by 2030; for a legally binding energy efficiency Directive; for a 30% carbon dioxide reduction target by 2030. An integral part of both German and Danish energy policy is a whole system approach between electricity, heat and transport with greater interconnection between countries (both physically and via markets)—so that energy flows to the highest price and energy security is increased by the ability to access more geographically dispersed, wider scale, different sources of energy and total capacity—but also greater local involvement.

— A rapidly changing gas market, including the expansion of the LNG market, increased exploitation of shale gas as well as new resource finds and producers of conventional gas.

— Increasing costs of nuclear power, described below.

66 Bazilian, M., et al, 2012, re-considering the economics of photovoltaic power, available UNIDO/IASA.
70 NAO, 2012, ibid, page 33: Flamanville, France (1630 MW), original budget E 3bn now E 5.7 billion, application submitted 2001, likely completion date 2016, seven years behind.
71 http://www.thetimes.co.uk/tto/business/industries/utilities/article3406852.ece
72 http://www.guardian.co.uk/business/2012/may/27/edf-nuclear-delay
73 The Energy Transformation (energiewende) http://www.bmu.de/english/transformation_of_the_energy_system/general_information/doc/48050.php
In addition to the changed energy situation set out in the bullets above, the Government’s Impact Assessment has not been updated since the White Paper. Given that the Government has now said it will be not be the counterparty for the CfD mechanism, a fundamental aspect of EMR, another analysis should be undertaken to take account of this and the changing factors described above.

**Decision-making in Britain**

At a future date, an investigation by the Energy and Climate Change Select Committee into the decision-making processes of DECC and EMR would be valuable. For those of us who genuinely want to move to a sustainable, secure and affordable energy system as quickly as possible, the EMR process is one which baffles, disappoints and depresses. There is a sense of déjà vu from twenty or more years ago, the last time a programme of nuclear power plants and an auction mechanism for renewable energy was put forward by the Government in Britain. It is as if we in Britain have learnt nothing in the last 20 years, and are determined to continue to learn no lessons from the wealth of energy policy evidence now available from across the globe.

**Learning from Evidence for Renewable Energy Deployment**

The evidence of technological change to do with renewable energy is that domestic markets need to be developed with support mechanisms which reduce risk (thereby bringing in investors, increasing deployment and its attendant learning effects) and stimulating the enabling environment around those technologies (for example, market rules, infrastructure change, domestic manufacturing, skills, laws, attitudes etc). This is not contentious, and is the underlying argument in the original Electricity Market Reform approach. However, while there is an explicit recognition within EMR of the need to support new technologies in competitive markets to allow them to develop and eventually compete, the Government is choosing a group of instruments, and particular the CfD mechanism, which as it stands will favour an established technology (nuclear power) over newer, less developed ones (renewable energy technologies). Reducing risk requires regulation but does not have to be more expensive—indeed evidence from the most successful countries which deploy renewable energy such as Germany and Denmark is that their renewable electricity is cheaper per kWh, for the comparative technologies. Evidence shows that mechanisms put in place to support renewable energy which do not reduce risk and knowingly incorporate competition will be less successful in terms of deployment and will be more expensive per kWh for the same technologies, compared to risk-reducing, non-competitive mechanism. This is evidenced across the world from over 100 countries or State policies.

The UK has deliberately chosen to go down the more risky, more expensive route for renewable energy which will also be undermining to its nascent domestic manufacturing base.

**Not all Technologies are Complementary**

The essence of UK Government policies is that all low carbon technologies are complementary to each other and to the goal of reducing carbon and enabling the transformation from one energy system to another. It is not that Government or EDF argue that nuclear power is the central technology for the transformation of the energy system. However, they do argue that it is important that nuclear power takes its place along with other technologies as a key component of that move. For this argument to be correct, nuclear power has to complement the other aspects of the transition to a sustainable, secure and affordable energy system. However, this is clearly not the case, with operational conflicts; institutional support conflicts and so on. If one technology is not complementary to another, then supporting it will undermine the other. Moreover, if the non-complementary technology (ie nuclear power) is the one which provides a limited amount of energy and is constraining the set of technologies which can be chosen, then the others are undermined. This is not underwritten by the British public, thereby in all likelihood tying them to expensive contracts and nuclear waste costs for decades to come. It has even been agreed that the additional uncertain and will have to be underwritten by the British public, thereby in all likelihood tying them to expensive contracts and nuclear waste costs for decades to come. It has even been agreed that the additional costs of running the electricity system caused by connecting each new nuclear power plant (about £160 million/year/plant) will be socialised—ie spread across all bills—unlike all renewable energy power plants.

**Government Logic—Treatment of Nuclear Power**

Under EMR, nuclear power faces different rules than renewable energy. Nuclear power developers still have to deal with construction risk but otherwise price, volume, market and off-take risk are all removed and handed to Government, and ultimately the British public. As is described below, the cost of nuclear power is extremely uncertain and will have to be underwritten by the British public, thereby in all likelihood tying them to expensive contracts and nuclear waste costs for decades to come. It has even been agreed that the additional costs of running the electricity system caused by connecting each new nuclear power plant (about £160 million/year/plant) will be socialised—ie spread across all bills—unlike all renewable energy power plants.

---


79 The only global exception to this is (probably) China which is viewing development of energy as an industrial experiment.

80 http://www.nationalgrid.com/uk/Electricity/Charges/modifications/uscmc/
which have to pay their additional system costs themselves. As said above, nuclear power currently provides around 3.5% of end-use energy and, with the best will in the world, is unlikely to produce much more than that.

In this way, nuclear power, a mature technology which has certain serious dis-benefits (such as its waste) and which is not complementary to most renewable electricity technologies is being treated preferentially to the latter; a set of technologies whose prices are tumbling, which have a far greater UK resource and which makes up the lion’s (and growing) share of global energy technology investment (roughly half of electricity capacity for example\textsuperscript{81}).

We have watched the progress of policy towards nuclear power with interest since the PIU Energy Review of 2002,\textsuperscript{82} which argued that nuclear power should be put on hold for five years so that other options, including renewable energy technologies, could develop and be assessed. Since then there were calls to overturn that policy, based on the argument (now shown not to be the case) that the energy situation assessed by the PIU and the EWP team of 2003 had changed. Slowly but surely over the last decade, Government Reviews and White Papers have all changed positions and policies to meet the requirements that were said to be needed if new nuclear power were to be built. Concrete measures which delivered renewable energy and energy efficiency have taken a backseat throughout this decade to a determined effort to shape policy to support nuclear power, despite the limited amount of power that can be provided by nuclear power. Moreover, this is despite a strong pro-market logic in most other aspects of British policy; the changes to the global energy system described above; and the increasing costs of nuclear power described below. Yet, even with all these policy changes called for by most of the large energy companies (for example E.on), and culminating in EMR, only EDF and Centrica remains interested in investing in nuclear power.

We would argue that any rational analysis would question why energy policy in Britain has followed this path over the last decade, and why it has shown such preferential treatment to nuclear compared to renewable energy and energy demand reduction.

**The Goal for British Energy Policy**

Britain has a legal obligation to cut carbon dioxide emissions by 80% by 2050 and to provide 15% of energy consumption from renewable energy by 2020. This will lead to a very different energy system in 2050 and it will require changes:

— in Government (and its institutions) decision-making and way of acting (ie move away from markets as providers to a strategic framework based on transparent, legitimate, open-decision making to a more discursive, inclusive communication between Government and stakeholders);
— in energy business practice—and this needs rules and incentives to make it happen. This reflects directly back to policy makers and their need to create an “enabling environment” to allow business to deliver policy outcomes;
— in customer and community practice. Consumers need to be engaged in delivering policy outcomes, rather than the passive recipients of them.

Government needs to keep its eye on the ultimate goal—not just decarbonisation, but a sustainable, secure and affordable system. EMR is focussing on one very small part of that energy system change—nuclear power which currently provides 3.5% of end-use energy—while ignoring or undermining the other aspects which are essential to delivering the sustainable, secure and affordable energy system.

**Comments of Specifics of the Draft Energy Bill**

The EMR process and the Draft Energy Bill is now very complex. This complexity has led to difficulties in policy design, and the detailed working of the Draft Energy Bill is still very unclear.

**Contracts for Differences (CfD)**

There are so many questions about how (for example who the counterparty is) and whether the CfDs will work (for example, if compliance is possible and whether it will gain EU State Aid approval) and what the potential differing impacts on different technologies might be, that it is difficult to know where to start. As it stands, the CfDs seem to be an unworkable mechanism which should be scrapped.

**Nuclear Power and the Strike Price**

The cost\textsuperscript{83} of nuclear power has come under considerable scrutiny because of the EMR process—which is to be welcomed. The original cost put forward by EDF for Hinkley Point C was $4727/kW\textsuperscript{84} whilst the latest one given is $4260/kW,\textsuperscript{85} already far higher than the price put forward by DECC in the 2008 Nuclear

\textsuperscript{81}REN21 above
\textsuperscript{82}http://webarchive.nationalarchives.gov.uk/+/http://www.cabinetoffice.gov.uk/media/cabinetoffice/strategy/assets/theneergyreview.pdf
\textsuperscript{83}Costs are stated in Euros, Pounds and Dollars depending on the source.
\textsuperscript{84}Can nuclear power survive Fukushima? Global Equity Research UBS Investment Research Electric Utilities, April 2011 UBS p20
\textsuperscript{85}National Infrastructure Planning, Hinkley Inquiry
CfDs and Renewables

There are significant worries about how CfDs will affect renewable energy deployment, although until details are published we cannot be clear in what ways. This includes issues around Power Purchase Agreements and discounting of the reference price; how the proposed reference price for intermittent generation will be calculated; who is eligible for a CfD; what the strike price and contract length will be; how the allocation rounds and penalties will work; who the counterparty is and numerous more technical issues such as what type of inflation indexation should be used. Individually and collectively decisions on these issues are going to be incredibly important for the development of renewable energy in the UK.

As stated earlier, there is a great deal of evidence about how to implement successful renewable energy projects. This is to reduce risk, keep them simple and make them inclusive to all potential investors. The CfD for renewable energy is the opposite of this. There will be no obligation to buy RE. As pointed out above, RE takes second place to nuclear power in EMR time and again despite RE having a far greater resource than nuclear power and being able to be deployed far quicker. Notwithstanding Ofgem’s liquidity review, all nuclear generation has a guaranteed buyer for that period but it is still unclear how the renewable energy is to be bought. If there is to be a purchaser of last resort to ensure that all renewable electricity is bought (for example, by the system operator), then much of the EMR process for renewables is unnecessary. A mechanism whereby the system operator gives renewable energy and the combined heat and power output priority would be welcomed and far easier to implement.

Auctions

As if CfDs are not risky enough, the Draft Bill sets out its framework to the late 2020s/beyond (page 6 of the Policy Overview), whereby after a few years some technologies are expected to be able to move to competitive, technology auctions, although again not nuclear power. This is reminiscent of the Non-Fossil Fuel obligation from 1990–98 (please see the numerous papers Mitchell wrote about that particular mechanism at that time)—an unsuccessful mechanism for a variety of reasons, which also destroyed the British wind manufacturing base because the level of competition was so great that cheaper overseas turbines were used. I predict if an auction is put in place in Britain for wave energy, it will destroy our nascent wave industry.

There are few successful auctions around the world. One of the more successful ones is in support of renewable energy in Texas. The Transmission System Operator executes an auction for a certain amount of capacity of particular renewable energy technologies, with minimum payments and contract lengths. There are similarities to the Feed-in-Tariff except the effect has been supportive of incumbents, as is to be expected. Denmark has recently had a one-off auction for off-shore wind. In that case, a block of offshore area was set aside for offshore wind energy where planning permission would be given; connection to the offshore plant and its cost were agreed; and the sale of the generation was guaranteed. The only cost that was being bid for was effectively the capital costs, all other risks were being covered. Penalties were part of the contract. Even in this very different situation from that contemplated by EMR, only Dong the Danish State Company bid—with a higher price to make up for the risk of penalties—and the process is currently under review.

Again, the details of the EMR auction are still unknown. However, why Britain is returning to a type of mechanism which was so unsuccessful before in Britain is unclear. It is hard to reach any other conclusion than that DECC wants to maintain some sort of competitive aspect to its mechanism to support renewable energy, despite the clear evidence, as said above, that reduced risk is the way to increase investment and deployment for renewable energy and often at less cost (technology for technology).

87 http://www.thetimes.co.uk/tto/business/industries/utilities/article3406852.ece
90 SSREN ibid.
At the time of the inception of the NFFO in 1990, Britain, Germany and the Netherlands were putting in place new mechanisms in support of RE, and to that degree Britain could be forgiven for such a flawed mechanism given the relative lack of alternative mechanisms to learn from Denmark and California). However, there is now ample evidence. If Britain is serious about wanting to support RE, then it has to put in place a mechanism which reduces risk for investment. The CfD/auction mechanism put forward in EMR is extremely risky and a throw-back to a past era which reflects badly on DECC’s intentions for RE, and its capability of analysis.

While the pressure within EMR on renewable energy is explicitly to move towards a more competitive system, the government seems to be constructing the CfD format in a way which will only expose the nuclear industry to changes through negotiation with the developers.

**Firm Decarbonisation Targets**

The Draft Bill lacks firm decarbonisation targets. These should be included to fit the Committee on Climate Change’s recommendations.

**Enabling Powers to Reduce Total Energy Demand**

Managing the demand side of the energy system to reduce total energy demand (through utilising energy in as an efficient manner as possible; demand side responses and by reducing energy use when possible) should be the most important focus of our energy policy. We strongly believe that there should be a parallel policy instrument to ensure total energy demand reduction, in the same way that there are UK policy instruments to increase renewable energy deployment and to reduce carbon emissions. It seems to us that a parallel mechanism to the supply FIT should be developed for energy efficiency. The Draft Energy Bill lacks this ability to implement these actions and it should be incorporated.

**Infrastructure, Including Interconnection and Storage**

Infrastructure (whether generation, heat networks, storage, interconnectors, data collection and dispersal etc) holds the key to the most cost-effective and energy efficient energy future. We strongly believe that there should be a parallel policy instrument to ensure total energy demand reduction, in the same way that there are UK policy instruments to increase renewable energy deployment and to reduce carbon emissions. It seems to us that a parallel mechanism to the supply FIT should be developed for energy efficiency. The Draft Energy Bill lacks this ability to implement these actions and it should be incorporated.

**Flexibility and Resilience Mechanism**

An interconnected European energy system should fundamentally reduce the capacity requirements for individual countries. However, as variable power increases new security challenges will be faced. We support a flexibility or resilience mechanism rather than a capacity mechanism per se, which should be open to demand side response, storage, interconnectors as well as generation capacity. To this degree we are reasonably supportive of the capacity mechanism idea, and that the system operator is the executive. Generally, system operators in Europe are state owned and there are clear incentive problems for National Grid. Nevertheless, overall, we are theoretically supportive of a system operator beginning to undertake this type of role, and see it as a step in the right direction.

**Conclusion**

This brings us back to the way that decisions are made for UK energy policy. For renewable energy, in the face of incontrovertible international evidence about what works in enabling technical change, the UK continues to plough its own lonely furrow of emphasising short term competition over long term delivery, in spite of our experience to date from the NFFO and the RO that this approach is flawed. The EMR as it stands will continue to inhibit the deployment of a diverse set of renewable technologies, while at the same time creating a protected environment for nuclear power.

The threat to the UK meeting its renewable energy obligations for 15% of its energy from renewable sources by 2020 is only one part of the picture. The bigger question is about why the Government continues to support a technology—nuclear power—to the degree that it does given the appalling record of cost escalations and delays and the significant technological, system and energy policy developments which are going on within the global energy system.

What the UK needs is a process by which stakeholders (including Government) keep up with these changes at the global level in a legitimate and transparent manner.

*June 2012*
Supplementary written evidence submitted by Scottish Power

1. ScottishPower is a major UK energy company with network, generation and retail supply interests; it is a leading UK developer of wind power, and part of Iberdrola, a major international utility and the world’s leading renewables developer. We are also a leader in the development of new marine technologies and Iberdrola is a participant in the proposed Moorside new nuclear plant in Cumbria.

2. We have already given oral evidence to the Committee as part of its pre-legislative scrutiny of the draft Energy Bill. This memorandum is intended to supplement that with further more detailed points that may assist the Committee.

3. Alongside the Bill, DECC has also published a series of policy updates aimed at providing further clarity on the Electricity Market Reform (EMR) proposals. We continue to assess the draft Energy Bill and accompanying policy documents through further engagement with DECC officials and internally. In addition, some of the key elements of EMR are still to be decided by DECC and so we are not yet in a position to come to a final view on some of the specific issues. Noting the various Parts of the Bill, we have grouped our evidence under key themes. A summary of the main points is provided below.

Summary

— We welcome the publication of the draft Energy Bill providing for the reform of the electricity market. This is an important step in incentivising the construction of new low carbon generation in a cost effective way, whilst ensuring long term security of supply for the UK. It is crucial for investor confidence that momentum for reform is maintained and timely progress is made to develop the details of the policy that the framework legislation aims to implement.

— Central to attracting much needed investment in low carbon generation to the UK is the introduction of a stable, robust and durable support mechanism to maintain investor confidence. We consider that a properly designed “Contracts for Difference” (CfD) mechanism can provide the long-term revenue certainty to incentivise large-scale low carbon investment. However, the issue of ensuring that there is a robust counterparty to the contracts remains crucial.

— It is also essential that a robust and enduring payment model for securing the CfD revenue stream through suppliers is in place, enabling market participants to manage any risks economically and efficiently.

— A clear, fair and transparent process for agreeing support levels and the allocation of CfDs must be developed taking into account the Treasury’s Levy Control Framework (LCF). In particular, there needs to be visibility and certainty on strike prices over an adequate horizon given the development lead times for large-scale low carbon generation, such as offshore wind and nuclear. Circumstances under which CfD terms may be varied should also be clearly defined, with no potential retrospective application. Timely visibility of CFD prices will help give investors the confidence press on with the development phase of large projects.

— The design and implementation of robust governance and associated procedures is key to ensuring that CfDs provide the required levels of comfort to investors with regard to enforceability, dispute resolution and change of law provisions.

— It is also vital that a definitive position is established as to whether or not CfDs will be considered as a financial instrument for accounting purposes given the potential implications for supplier and/or generator financial accounts.

— A smooth transition from the existing RO regime to the new CfD mechanism will be needed in order to avoid an investment hiatus.

— We welcome the commitment to legislating for a market-wide Capacity Mechanism. Early introduction of the Capacity Mechanism is key to incentivising investment in new and existing thermal plant, requiring a first auction in 2014. This is essential for decision making in respect of existing plant under the Industrial Emissions Directive (IED), with the optimal utilisation of such plant enabling cost-effective delivery of security of supply.

— The commitment to grandfathering the EPS level of 450g/kWh (set as an annual limit) through to 2045 will significantly increase investor confidence. It will be important to enshrine the grandfathering in primary legislation.

— It is vital to understand and manage the impact that reform of the electricity market will have on consumers—without creating uncertainty for investors. Delivering new investment in the most cost-effective way is rightly at the heart of the Government’s EMR programme.

Timescales and Bill Scope

4. We welcome the publication of the draft Energy Bill with provisions for the reform of the electricity market and see this to be a pivotal step. The Government has also set out a detailed delivery timetable and it is essential that this is adhered to in order to avoid any hiatus in investment.
5. Considerable work is still needed to develop the various elements of the package, especially the design of the Contracts for Difference (CfDs) and the Capacity Mechanism as well as the institutional arrangements framework. It is therefore crucial that timely progress is made to develop and finalise the details of the policy that the framework legislation is designed to enable, without being distracted by unnecessary consideration of alternatives.

6. The overall aim must be to improve long-term confidence for investors so as to facilitate cost-effective delivery. Investors need early clarity on the proposals underpinned by the primary legislation, whilst the terms of the primary legislation must be clear so as to give proper effect to the proposals without unintended consequences. There is much work still to be done and we must all work together to deliver a step up in progress. Any slippage on the current delivery timetable would undermine confidence, and impact on the delivery of low carbon energy, as well as the economic benefits associated with development of the supply chain, including potential jobs.

7. The draft Bill gives extensive enduring powers to the Secretary of State to change, amend or modify the elements of the EMR package, which contrary to the intent, could introduce significant regulatory risk and uncertainty for investors. This is most evident in the clauses governing the capacity mechanism, perhaps reflecting less complete policy thinking. Some of the discretionary powers might be narrowed or subject to appropriate time limitation provisions—or indeed limited to use on a single occasion, in order to provide investors with greater comfort on policy stability. Where there are other powers that cannot be so limited, these should be subject to clear criteria or objectives governing their exercise.

8. There must also be consistency between the timing and operation of the EMR proposals and Ofgem’s work on market liquidity and cash-out reform. There needs to be greater recognition of the interdependencies between these areas of work by the Government and the Regulator.

9. EMR is intended to provide a platform for long term stability and certainty for investment in the energy sector—the implications of wider European reform and market harmonisation should therefore be taken into account in order to avoid any unintended consequences in the future. EMR must be fit for purpose in this regard to ensure that there is not a risk of creating new uncertainty through lack of foresight.

**Contracts for Difference (CfD)**

10. We welcome the Government’s commitment to supporting low carbon technologies. Central to attracting much needed investment in low carbon generation to the UK is the introduction of a stable, robust and durable support mechanism. We consider that a properly designed Contracts for Difference (CfD) mechanism can provide the long-term revenue certainty to incentivise large-scale low carbon investment.

11. We agree that the Government must develop a clear, fair and transparent process for support levels under CfDs. We also recognise the need to minimise the total cost to consumers of the proposed measures, whilst delivering investment consistent with meeting the UK Government’s legal obligations under the 2020 renewables target and its carbon budgets under the Climate Change Act 2008.

**Strike Price Setting**

12. Getting the process right in terms of setting the strike prices of CfDs will be crucial to investor confidence. We would highlight the following key points:

- **Strike Price Setting**: A robust and transparent process for setting the strike prices under the CfD will be essential. We welcome the proposals in the draft Energy Bill to include provision to set the “strike price” for the CfDs through an administrative process through an initial five year delivery period. Under the administrative process, early visibility of strike prices will be critical for continued investment, so the Government must stick to its timetable of early notice of draft rates by mid-2013 and final rates by late 2013. In addition, further consideration must also be given to the scope for visibility of strike prices beyond the five year window where large-scale projects might require this.

- **Role of Delivery Body and Panel of Experts**: EMR will not achieve its objectives if the strike prices are set below the level needed to incentivise the necessary investment. The terms of reference and consultation procedures, both for the advisory role of the Delivery Body and for the proposed Panel of Experts, will therefore be critical to success, especially as respects feeding in and giving due weight to the views of investors. We welcome the commitment to providing further clarity on this. In this context, we would also seek clarification on the underlying purpose of Clause 5(3) of the draft Bill (which provides for a person other than the Secretary of State to set strike prices), and, if the provision is to be retained, on whether it will be subject to guidelines on its use.
— Strike Price Levels: Equivalence of support levels, between the RO and the CfD, based on evidence and taking into account the difference in risk and benefits between the two schemes, is vital to ensuring a smooth transition to the new mechanism. Given that CIDs resemble fixed price contracts it follows that the normal market mechanism, whereby costs that affect the whole market end up being passed to consumers, does not apply unless there are specific pass-through rules. These may need to be considered for a number of areas such as business rates, transmission charges and taxes. In addition, it might be that some risks, such as construction cost risks, are best dealt with using a degree of risk-sharing in order to avoid a higher strike price.

— Carbon Price Support (CPS) mechanism: the CPS due to be introduced next year is not, in our view, a bankable option for low carbon investment. This is due to uncertainties around the sustainability of a future trajectory that would mean an increasing divergence from the rest of Europe, with consequent competitiveness implications for high energy industrial users in the UK.

— Penalties: We would also like to note that the introduction of significant penalties for late commissioning is unhelpful for developers. Developers will be keen to get their projects commissioned as quickly as possible and delays are likely to be beyond their control. We believe that this will add further costs to projects without any apparent benefit for consumers.

— PPAs: We can see no reason why PPAs should not continue to be available with the introduction of CIDs. We currently provide PPAs on a competitive but economic basis and our expectation is that we would continue to do so.

13. We would also wish to emphasise that maintaining the integrity of an evidenced-based approach under the current Banding Review is crucial to investor confidence going forward under EMR. Any surprise outcomes on DECC’s RO Banding Review proposals not tied to an evidence-based approach, or indeed further delay in the confirmation of the new rates, would be very damaging for investor confidence.

**Levy Control Framework**

14. We have long agreed with the Government that affordability and security of supply must be central considerations as the low-carbon agenda is pursued. It is therefore right that there is an over-arching framework designed to ensure that the costs of energy policy interventions are affordable for the UK economy. The question is how best to achieve this in a way which both protects consumers and provides a firm framework for investors, both once they have signed CFDs and also, importantly, while they are spending very substantial sums in developing projects to a level where such a contract could be signed. Those objectives also need to take into account the opportunity for scaling up the delivery supply chain so as to realise cost efficiencies from economies of scale and learning.

15. In designing a system that might address these objectives, we would highlight the following key areas for consideration:

— The cost of a CFD will depend on the difference between a largely fixed strike price and the variable wholesale power price. Any control system needs to be stable against fluctuations in wholesale prices, so as to avoid swinging between “feast and famine” and the damage that this would do to investor confidence. For this reason, in calculating the cost of a CFD for levy control purposes, it may be helpful to use a notional rather than an actual wholesale price;

— Volume limits on CFD availability cause serious problems for developers because of the risk that, after expending significant sums developing a project (which could be in the hundreds of millions of pounds in the case of nuclear or large scale offshore wind) a CFD might not be available. This is particularly problematic because of the risk of bunching: if several large projects are due to be delivered in the same year, it would be of concern to investors if some are held up at the FID stage because of annual quotas;

— A more realistic approach might be to monitor the overall level of projects and, in the presently unlikely event that the development pipeline reaches a worryingly large level, adjust the strike prices on offer to reduce demand. However, any such action should be signalled sufficiently in advance so that developers are not caught with significant nugatory expenditure;

— Given the long development times of large low-carbon generation projects, the arrangements need to operate over a significantly longer period than the current four year Spending Review timeframe if they are to be meaningful and provide long-term certainty.

16. The Government Delivery Plan for EMR needs to be consistent with the fiscal planning under the Treasury control framework and vice versa. We look forward to working with Government to help resolve these issues.

**Counterparty and Payment Model**

17. To make the CfD viable there must be a robust counterparty underpinned by an enduring payment mechanism for securing the CfD revenue stream. When CIDs were first proposed there was a shared expectation
that they would be directly backed by the Government. But this proposal has now been withdrawn. The issue of ensuring that there is a robust counterparty to the contracts is therefore crucial.

18. It is also essential that the underpinning payment model arrangements enable market participants to manage any risks economically and efficiently. The payment model should not adversely impact the balance sheet or credit rating of any market participants nor place undue risk on suppliers and their customers.

19. We have been working with the Government to understand how the current multi-party statutory contract model proposal would work in practice and give investors the assurance they need. There is concern in the industry that the proposal outlined in the draft Operational Framework and the draft Energy Bill lacks clear legal precedent and there is a need for more detail to understand how it might work in practice.

20. In particular, as DECC itself notes in the draft Operational Framework, the multi-party nature of the current model means that dispute resolution procedures may not be as straightforward as in the case of ordinary bilateral contracts where the number of parties are limited. We therefore welcome the Government’s recognition of industry’s strong concerns and support the opportunity to engage further on the detailed design work through this pre-legislative scrutiny period.

21. In addition, we also welcome that the Government is in parallel considering an alternative payment model which would include a single counterparty under a bilateral contract. It is important to fully consider the range of possible options and assess each one thoroughly. Thus, under a bilateral contract model the question of the identity and robustness of the counterparty and its ability to recover its costs is clearly a critical issue.

22. In short, further details regarding the models under consideration are needed to facilitate a full and effective assessment. There are important issues that need resolving for any CfD payment model to be workable, including:

— Dispute resolution: It is critical for investors to have a clear understanding of the dispute resolution process under the CfD and appropriate recourse.

— Accountancy treatment: We are concerned about the impact of the accounting treatment of the CfD on both the generation and supply sides. If the CfD is classified as a financial instrument then the accounting treatment could create a significant burden on balance sheets as well as variability of reported earnings. Industry, accountants, auditors and DECC need to have a common view on the accounting treatment of the CfD on suppliers and generators.

— Entrenchment of terms and cost recovery: Investors will need assurance that both contract terms and cost recovery mechanisms will be maintained over the long-term.

— Change of law: Investors will need to understand which parties are liable for any costs arising from future changes in law (eg material tax changes) and this risk allocation needs to be codified in the CfDs.

— Amendment clauses: The terms of the contract that enable and help parties to manage a change in circumstances (eg effective market indexation for the reference price) will also need to be developed.

— Retail pricing: Any impacts on the operation of the retail market (for example, because of the uncertainty in generation levels from CFD-supported plant) need to be understood and accepted.

— Credit risk and cost efficiency: Given the long term nature of the contract and the requirement for a contractual mechanism to support the delivery of the CfD, suppliers and generators, will be exposed to credit risk directly or indirectly via a potential central counterparty. The costs associated with mitigation of this risk under the alternative models requires to be considered in full to ensure all appropriate means of efficiently managing the costs are explored.

23. The issues outlined above will need to be fully addressed to deliver a workable CfD mechanism. Investors need to understand, and be satisfied with, provisions dealing with these issues.

**INVESTMENT INSTRUMENTS**

24. We welcome the intention to provide support to investors making early investment decisions before the introduction of CfDs, in order to prevent a hiatus. However, with the opportunity to agree early investment instruments, we would like to emphasise the importance of this being an adequately transparent process. The Final Investment Decision (FID) enabling process through investment instruments will inevitably set a precedent for future CfDs even if it is not intended to do so. Furthermore, it will act as a benchmark for the financial community in assessing the nuclear development plans of later developers. Accordingly, there must be sufficient engagement in the process, and ability to influence outcomes, for developers of future projects. Clearly, the terms of such instruments will also need to provide sufficient certainty for early mover investors.

**Capacity Mechanism**

25. We support the Government’s decision on the need for a market-wide capacity mechanism. We believe that early introduction of the mechanism is crucial to incentivise investment in existing and new thermal plant and this will require a first auction in 2014. This is of particular importance to generators making decisions
36. It is vital to understand and manage the impact that reform of the electricity market will have on consumers in light of the objectives of EMR. As we make progress in decarbonising the electricity sector, government should be transparent about the costs and benefits of energy policy in order to gain the trust and buy-in of consumers. It will also be important to ensure that there is support available to the vulnerable in society.

37. The draft Energy Bill scopes out the capacity market design in general terms, leaving much of the technical detail to secondary legislation provisions. This leaves, on the current draft, exceptionally wide delegated powers. We think that once the policy is clearer, some of the width can be narrowed down and that to do so would be good practice.

38. It is imperative that existing and new generation is allowed to participate in the Capacity Mechanism auction on a level playing field. This should maximise competitive tension and lead to an economically optimal outcome minimising costs for consumers.

39. It is also important to fully explore the opportunities for the involvement of Demand Side Response (DSR) and electricity storage in the Capacity Mechanism, recognising the potential environmental benefits and also any limitations, especially on duration of its availability and the challenges in establishing a counterfactual.

40. Whilst the Capacity Mechanism’s primary objective should be to ensure that the required plant can be built in the UK, it is desirable to harmonise national markets and in any event the outcome will have to be consistent with EU legal requirements in this area. Such an approach could imply more inter-state System Operator cooperation at an operational level. It may also be useful to explore reciprocity agreements with other states in detail.

CONFLICTS OF INTEREST

31. We welcome the Government’s recognition of the need to consider potential or perceived conflicts of interest between the delivery of the EMR functions by the System Operator and National Grid’s other businesses and objectives. In this context, we would highlight the importance of limiting the discretion of National Grid to decide whether or not to allocate a CfD provided that basic eligibility criteria are met. This is key to ensuring a level playing field for all developers, technologies and locations.

RENEWABLES OBLIGATION: TRANSITIONAL ARRANGEMENTS

32. It is crucial to ensure a smooth transition from the existing Renewables Obligation (RO) regime to the new CfD mechanism so as to avoid an investment hiatus. We therefore support the Government’s commitment to the use of a grace period for the planned closure of the RO. It is essential that this is designed properly to allow for sufficient flexibility on delivery issues such as grid connections and aviation issues which are outside a developer’s control and could take in excess of six months to resolve.

33. In the event of delay to CfDs being introduced, the RO will need to be extended to avoid the risk of a hiatus in renewables investment with potentially adverse consequences in terms of meeting the EU 2020 renewables target.

34. We support the Government’s intentions to introduce a “Fixed ROC” price from 2027 until the final closure of the RO in 2037. Certainty of this mechanism and the methodology to calculate the Fixed ROC must be confirmed by Government in order to provide confidence over future incomes to investors developing projects now. The EMR Technical Update provided this, confirming details of how headroom and the buyout price would be set. However, this has not been set out in the draft legislation which seems to be very open, leaving the Secretary of State with powers to modify ROC values, eligibilities or rules at any future date. We think that it may be best to include in the Bill a clear statement of the policy that the Secretary of State must follow, in terms of maintaining the real terms value of RO support per MWh for each generator for the originally intended support lifetime, without distorting supply markets.

EMISSIONS PERFORMANCE STANDARD (EPS)

35. The Government’s commitment to grandfathering the EPS level of 450g/kWh (set as an annual limit) to 2045 is very important in terms of providing the necessary investor certainty for vital new build gas generation. The commitment to enshrining this in primary legislation is also welcome as an essential aspect of fully securing that confidence. It will be important to review the draft Bill provisions to ensure that they give full effect to the Government’s intent.

COSTS TO CONSUMERS

36. It is vital to understand and manage the impact that reform of the electricity market will have on consumers in light of the objectives of EMR. As we make progress in decarbonising the electricity sector, government should be transparent about the costs and benefits of energy policy in order to gain the trust and buy-in of consumers. It will also be important to ensure that there is support available to the vulnerable in society.
Offshore Transmission

37. We welcome the provisions in the draft Energy Bill to permit the transmission of electricity without a licence during the commissioning period for new offshore transmission assets prior to transfer to an Offshore Transmission Owner. This is essential for investors so that construction and testing of the infrastructure can be carried out. It is important that the final drafting of the legislation gives full effect to the policy intention and in particular attention must be given to considering the position of those projects being developed in several phases over long periods of time.

Enhancing Ofgem’s Regulatory Accountability—The Requirement for Merits-based Appeals

38. A stable and predictable regulatory regime is vital to investor confidence and promoting competitiveness in the UK energy sector, bringing benefits to consumers. Part of this is ensuring that the Regulator’s enforcement decisions are subject to an appropriate level of independent scrutiny.

39. The Energy Bill will have the effect of adding to the large number of licence obligations imposed on energy companies. As Ofgem acts as enforcer of these obligations, it will be able to impose sanctions for what it judges to be non-compliance, including the power to levy financial penalties up to 10% of global turnover.

40. We consider that existing checks on Ofgem’s enforcement decisions should be strengthened by giving regulated firms the right to appeal on the merits of the case. This would align Ofgem’s level of accountability with that of Ofcom.

41. The House of Lords Select Committee on the Constitution recommended this change in its 6th Report of Session 2003–04. The arguments are even stronger now given that: (a) since 2004 more relevant obligations have been imposed on energy companies, (b) in 2011 Ofgem acquired the ability to make licence modifications without the approval of a qualified majority of licensees and (c) DECC is currently consulting on giving Ofgem wide new powers to secure redress that would not be subject to a financial cap.

References

i Electricity Market Reform—options for ensuring electricity security of supply and promoting investment in low-carbon generation, DECC, 12 July 2011, Pg. 32 paragraph 100

ii The narrow grounds of appeal are provided by s.27E subsection (4) of the Electricity Act 1989 and replicated in the Gas Act 1986. Subsection (8) states that “Except as provided by this section, the validity of a penalty shall not be questioned by any legal proceedings whatever.”

iii S.195 (2) of the Communications Act 2003 states that “The Tribunal shall decide the appeal on the merits and by reference to the grounds of appeal set out in the notice of appeal.”


July 2012

Further written evidence submitted by SSE

ANNEX 1: IS THE GOVERNMENT’S PREFERENCE FOR A CFD STILL VALID?

1. Executive Summary

1.1 Ahead of the release of the EMR White Paper of July 2011, Planning our Electric Future, SSE made it clear in its own White Paper, which focussed on the deliverability of solutions, that it felt that the CfD was not the most appropriate support mechanism for all low carbon technologies. It felt that whilst a CfD may be appropriate for new nuclear its characteristics did not suit renewables as well as a Premium Feed-in Tariff. It therefore favoured different support mechanisms for different low carbon technologies—this would ensure the best outcome across the board.

1.2 However in the White Paper the Department of Energy and Climate Change (DECC) outlined its preference for a CfD, rather than a premium FIT system to support low carbon electricity. Therefore over the last year SSE has worked with DECC and others in industry to try and design a workable CfD mechanism.

1.3 Nearly a year on it is SSE’s view that the CfD, as currently proposed, is fundamentally flawed, and therefore an unworkable mechanism for renewable investment, especially for independent generators and suppliers.

1.4 It is important to stress that this is not because the theoretical CfD model is flawed—a CfD is a well known and well understood financial mechanism. Rather it is the arrangements associated with implementing the CfD in the UK’s energy market which are preventing a workable model from being designed.

1.5 These arrangements are much more complex than originally envisaged by DECC. As a result of the development process they now attempt to meet a number of extremely challenging and sometimes conflicting design criteria, including State Aid clearance, balance sheet liabilities, and unintended consequences for the electricity market.

1.6 The complexity of these issues means that each potential solution to an individual problem has simply created additional unintended consequences and unforeseen problems which in turn need solutions that have to fit with the design criteria. This has produced a vicious circle of policy design.

1.7 These changing arrangements and design features mean:

- That the analysis on which DECC’s decision in favour of the CfD was made is no longer valid. It was based on underlying assumptions that have now changed and should therefore be re-visited.
- That DECC should look again at the design of a Premium FiT to see whether it can be designed in a way which can mitigate some of the “value for money” concerns that have been expressed. SSE believes that this can be done and more details are included in section 2.
- That, at the very least, the Government should keep the option of introducing a Premium FiT open in its forthcoming Energy Bill. This would allow it the flexibility to change policy direction if its re-analysis of the CfD leads it to conclude that it is unworkable.
- That there may be some unsolvable design issues that have arisen as a result of the criteria which the CfD now has to meet. SSE believes that, unless these criteria change and there is a radical overhaul of the current design, that the CfD will be unworkable as a mechanism for supporting low carbon.

1.8 SSE’s view is that, unless solutions can be found to the design issues that it has identified, then the CfD will be unworkable for all technologies. If this is the case then DECC should consider a Premium FiT for renewable technologies, and targeted, transparent support should be provided to nuclear and CCS where necessary and appropriate.

2. INTRODUCTION

2.1 In the White Paper of July 2011, Planning our Electric Future, the Department of Energy and Climate Change outlined its preference for a CfD, rather than premium, FiTs system to support low carbon electricity. The main justification given for this was that the CfD is:

“potentially more cost-effective than the alternatives due to lower scope for rents in high electricity price scenarios and reduced cost of capital as a result of removing long-term electricity price exposure and providing long-term revenue certainty”.

2.2 The savings associated with the CfD compared to the Premium FiT mechanism were quantified in DECC’s Impact Assessment as being £2.5 billion over the period until 2030.95

2.3 However, almost one year on, there are serious questions as to whether any substantive evidence to support DECC’s preference for a CfD remains. Many of the underlying assumptions on which the Impact Assessment and original analysis were based have changed as DECC has developed the CfD. This development process has also revealed a number of gaps in the original analysis.

2.4 The analysis on which DECCs original preference for a CfD over a Premium FiT must therefore be re-visited and the impact assessment remodelled to determine whether the CfD remains more cost-effective. Clearly if it does not then DECC should consider a change of policy direction.

3. HOW HAS THE EVIDENCE CHANGED?

3.0.1 The Impact Assessment published alongside the White Paper contained a number of assumptions which should now be reconsidered; as well as a number of areas of risk and cost that now need to be properly assessed and quantified. PWC has recently analysed some of these issues in more detail.

3.1 Changing Assumptions

3.1.1 Assumption 1: Cost of capital is lower under a CfD than a premium FiT (para 12)—financing costs are expected to be £2.5 billion lower over the period to 2030. The modelling and assumptions made by Redpoint and CEPA in quantifying this benefit are based on a significant number of variables. However, the basic principle that supports the assumption of reduced financing costs is that lower market price risk for a generator will allow a higher level of gearing and this lowers the Weighted Average Cost of Capital (WACC) even though the underlying costs of debt and equity will remain the same. CEPA rightly caution that modest increases in potential project gearing would only impact on WACC by up to 1%, and that this is not very material given the assumed range of views on applicable WACC baseline.

94 “Planning Our Electric Future”, DECC (July 2011), p. 39
95 Ibid, p. 41
96 “CfD Supplier Analysis Report”, PWC (May 2012)
3.1.1.2 The analyses agree that the potential difference between a CfD and p-FIT could be approximately 0.3% for onshore wind, 0.7% for offshore wind and 1% for nuclear. If roughly similar capacities of these three technologies were assumed to be supported under these schemes and the capital costs for offshore wind and nuclear are roughly £3M/MW and onshore wind about half of this, then of the £2.5 billion difference between the schemes outlined in the analysis, about 60% (£1.5 billion) comes from nuclear and 40% (£1 billion) from wind. Therefore, when evaluating the specific impacts for renewables, the smaller differences should be considered.

3.1.1.3 The principle of higher gearing for renewable projects should be market tested with real investors looking at the specific proposals. There are now indications that banks are currently looking at lower, not higher gearing under the CfD, at least in the foreseeable future. If this is confirmed, it fundamentally undermines the only quantified benefit for the original decision. DECC must therefore seek advice from a wide range of relevant financiers to ascertain whether this assumption remains correct, and remodel their analysis if the assumption has changed.

3.1.2.1 Assumption 2: Government will manage the cash-flow volatility of the CfD payment mechanism—the Impact Assessment contains one fundamental assumption which is no longer the case—that the price and volume risk, and associated cash-flow risk, of the CfDs will be “borne by the Government balance sheet” (para 100 and table 4 and shown below).

“100. A FiT CfD, in contrast, insulates generators and consumers from both short-term volatility and the impacts of long-term price trends: higher- or lower-than expected gas prices have no effect on price received by the generator or bills paid by consumers. This means that consumers will be shielded from longer-term wholesale price increases, but also that they will not gain from longer-term wholesale price decreases. Changes in wholesale prices only affect the amount of support paid out by Government; hence the price risk is borne by Government balance sheets.”

<table>
<thead>
<tr>
<th>RISK ALLOCATION UNDER FIT CFDS AND PREMIUM FITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue for generators</td>
</tr>
<tr>
<td>Bills for consumers</td>
</tr>
<tr>
<td>Government support payments</td>
</tr>
</tbody>
</table>

3.1.2.2 DECCs most recent payment model completely changes this assumption, with electricity suppliers now bearing these risks instead. This will result in a number of unforeseen costs that should now be quantified and taken into account when considering the total costs of CfDs. These costs include:

3.1.3 Assumption 3: Settlement costs (paras 189, 190 and 192): “Settling the CfD could be a simple monthly process …; These minor settlement costs …; for recovering costs from consumers … the costs (if any) would be negligible “On the basis of currently proposed institutional and payment models this is certainly no longer the case and a detailed quantification of likely settlement costs must be made.

3.1.4 Assumption 4: Volatility of support costs for the CfD (CEPA report, 4.3 and para 522): The CEPA report makes clear that a new type of volatility is being introduced which may be difficult to estimate and which may significantly influence the revenues. The uncertainty and volatility of support costs under the CfD on the public finances are discussed in the Impact Assessment but not quantified even though they were being compared with the economic rents for p-FIT
3.2 Gaps in the Analysis

— **Gap 1: Credit and credit rating issues (para 300):** One of the few references that is made in the Impact Assessment to potential credit issues is in this section. However, especially with the now proposed institutional and payment models, there is the potential for very significant financing costs for Generators and Suppliers to build up. Estimates suggest these could amount to cash flow impacts of XXX. Even for a major utility player the impacts of the volatility and magnitude of CfD payments could impact on credit ratings. Clearly this would dwarf any incremental savings on the cost of the low carbon generation investment sector.

— **Gap 2: Transition/Timing—limitations of the modelling (para 619):** No quantification of the transition or administration costs has been made or accounted for. On the basis of the likely lengthy transition, the hiatus impacts that are now already clear and the significant administrative costs that will result from the CfD proposal these impacts must be assessed.

— **Gap 3: Risk comparison with the RO (CEPA report, 2.1):** The report clearly states that revenue risk has not discouraged banks from lending to onshore wind projects and that high gearing and low interest rates have been offered despite some revenue risk. Under the RO, construction and technology risks are perceived as greater than market risks and thus have a more significant impact on cost of capital. Since development is almost entirely funded by higher cost equity, increasing development risk will significantly impact adversely on overall financing costs. The proposed allocation process for CfDs introduces a large new development risk that does not exist under the RO—the risk that after years of development costing hundreds of millions of pounds, no CfD will be available or public procurement processes will be very lengthy and introduce further risk and cost. This impact must be modelled.

— **Gap 4: Index and basis risk (CEPA Report, 3.2):** The report identifies that the CfD introduces index and basis risks that do not exist with the RO or a p-FIT. It does not model or quantify the impacts of these assuming that the CfD will be designed to deal with them. Since this is not the case these potential costs and impacts should be quantified.

4. Fundamental Flaws?

4.0.1 As outlined above the latest proposals from DECC need to be thoroughly analysed to see whether the evidence still supports the theoretical benefits of CfDs which formed the basis of the original decision of July 2011.

4.0.2 However there is also a more fundamental practical question as to whether the CfD can work at all because of the strict criteria which must be adhered to. These criteria were not originally envisaged by DECC when it made its decision re: CfDs but have come about as a result of the design process. However because these criteria are very limiting DECC is now faced with a number of areas which have no solution. At this stage it appears unlikely that these issues can be resolved unless the criteria are relaxed and the CfD model radically overhauled:

4.1 Institutional Arrangements vs State Aid

4.1.1 The proposed “statutory contract” payment model places the liabilities for CfD contracts either with suppliers or consumers. However the analysis by PWC illustrates that this payment model, regardless of where the liabilities sit, will expose energy suppliers to significant risks. These risks will be challenging to manage and will have unwanted distortive impacts on the energy retail market as well as well as potentially disastrous impacts on energy suppliers. Therefore, as it stands, the payment model is not implementable.

4.1.2 The alternative is to use a Government underwritten body to act as the contract counterparty and manage the price, volume and associated cash flow risks that the CfD mechanism creates. The problem for Government is that it a) does not want the liabilities for contracts to sit on its balance sheet; and b) does not want to have to manage the financial risks and exposure that the payment model creates. The main dilemma here is that the more direct the role of Government or Government bodies becomes in order to satisfy the real or perceived needs of investors for the certainty that this creates, the more challenging the State Aid clearance for these proposals becomes, especially because they include subsidy for nuclear, a mature technology for which no State Aid exemptions apply.

4.1.3 These balance sheet and risk management issues will face any counterparty to such contracts. Therefore it is not surprising that Government, National Grid and Suppliers are all unwilling to take them on. Even if a counterparty can be found, ultimately the costs created by the CfD system and faced by the organisation will be have to be recovered from consumers.

4.1.4 Further, whatever arrangements are proposed, they must deal with the real and perceived concerns of investors if they are to invest at all, let alone at a lower cost of capital. This was highlighted very clearly in
the evidence given to the Energy and Climate Change Select Committee by RWE and EON following their withdrawal from nuclear investment in the UK.

4.2 Contract vs Derivative

4.2.1 The objective of the CfD is to stimulate investment in low carbon generation technologies at the lowest cost to the consumer. For renewable generators, the proposals for the operation of the CfD’s will reduce exposure to the power price component of revenues and for new nuclear and new technologies such as CCS, the CfD offers stable revenue streams without which these technologies would not attract investment. The attraction for investors is that revenue streams are guaranteed over the long-term through the CfD contract.

4.2.2 However the introduction of a mechanism which uses a contract creates questions as to how these contracts will be accounted for. A crucial question is where the liabilities for these contracts will sit.

4.2.3 PWC conclude “that if the CfD is determined to meet the requirement of a contract, then it gives rise to a financial instrument and ...that financial instrument would meet the definition of a derivative.” This would mean that the liabilities for multi-billion pound long-term contracts would have to be fair valued and this would have serious consequences for whatever counterparty is chosen. The current statutory contract proposals indicate that this would be suppliers—this would place a huge strain on already stretched balance sheets potentially leading to credit rating downgrades. This is clearly not an acceptable outcome. PWC conclude that “whilst these shocks can become painful for large players, for smaller market players they can be detrimental to the survival of the business”.

4.2.4 However the alternative is no better. If a contract is not determined to exist then the proposed CfD model will not be legally enforceable, and therefore generators and investors will not have a guaranteed revenue stream. This will mean that a CfD is less attractive to generators and investors and therefore is unlikely to bring down the cost of capital or bring more investment in low carbon forward.

4.2.5 Changing the counterparty does not change the definition of a contract or the likely need to fair value any liabilities—this is a function of the contract not the counterparty.

4.3 PPAs vs Spot Market

4.3.1 In the current market independent generators need a PPA to transfer electricity market risk away from the generator giving the certainty over the income stream from power sales which is needed to attract the necessary third party finance. A discount is applied by Suppliers under the PPA to compensate them for taking on those risks. PPA providers are generally the larger utilities.

4.3.2 The CfD system does not work well with PPAs since there is a requirement for liquid reference markets—indeed there is an assumption within the White Paper that generators will no longer require a PPA to obtain finance. The reason given is that Ofgems reforms of the wholesale market will make it sufficiently liquid to be able to attract investors without a PPA.

4.3.3 This assumption has subsequently been found to be incorrect. Independent generators have informed DECC that, even with improved liquidity, they will still need a PPA in order to be able to access finance. However, under the CfD, it is likely that PPA discounts will increase to reflect the higher risks and costs faced by PPA providers. Uncertainty created by the CfD proposals is already adversely impacting on the availability and terms of PPAs.

4.3.4 Even if, through time, the need for PPAs were removed, realistically it will be at least five years before this could be achieved. The absence of attractive PPAs in the interim will, at least, seriously impact on the number of projects requiring third party finance that will be developed and, at worst, could drive independent developers out of the country or out of business.

5. Conclusion

5.1 The underlying assumptions on which DECCs original decision to choose a CfD rather than a Premium FIT as the mechanism through which to support low carbon investment have changed significantly in the last year. In addition the CfD design process has illustrated that there are a number of issues which DECC had not previously considered which will now have a material impact and therefore need to be fully analysed.

5.2 This evidence illustrates that DECC should re-analyse the CfD in more detail to ascertain whether the evidence still supports its original position that CfDs are the most cost effective mechanism through which to support all low carbon.

5.3 As part of this work DECC should comprehensively examine the current CfD design criteria and the potentially unworkable situations these are causing.

5.4 Whilst DECC is completing this work it would seem sensible for it to, at the very least, keep the option for a Premium FIT open in the forthcoming Energy Bill. This would prevent any further delay to the EMR timetable if DECCs review of the CfD led it to the decision that it was not the best option.
1. INTRODUCTION

1.1 DECC’s main justification for choosing the CfD was that it was more cost effective than the PFiT. However there were additional reasons including that there was no way of limiting cost pass through to consumers if electricity prices increase significantly.

1.2 The main charge levelled at the Premium FiT is that it doesn’t protect consumers from higher electricity costs (if these rise in the future) in the way that the CfD does, and that generators will be able to make economic “rents” in these scenarios. As such, it is argued, the Premium FiT is not “value for money”.

1.3 This argument however depends on how the Premium FiT is designed. SSE believes that there are ways in which it could be designed and implemented to avoid these scenarios. This annex outlines some ideas on how this could work, and SSE hopes that DECC will work with industry to explore this area more thoroughly.

2. INCREASED ECONOMIC RENT TO P-FiT GENERATORS (PARAS 480 AND 481)

2.1 The Impact Assessment assumes that, since P-FiT generators would benefit more from higher electricity prices than CfD generators, they will receive an associated higher economic rent.

2.2 However it is not clear that, as stated, all the modelled scenarios contain increasing electricity prices why this does not feed through into a lower level of support under the P-FiT to reduce the rents, just as has been proposed in the recent RO banding review.

2.3 Ways in which caps or limits can be introduced are suggested below but it is clear that this should be re-examined by DECC and industry in more detail.

3. DESIGN

3.1 Such a function could be achieved through all or some of the following elements:

- Market price limit—a level of wholesale electricity price (including carbon price) above which support would no longer be justified. This cap would vary depending on the banding level of the supported technology.
- Volume cap on each individual project/generating station.
- Digression curve for the volume cap which, in the later stages of the mechanism, reduces support as target levels for generation are reached. The volume cap would be steadily reduced for new applicants, against pre-set criteria and flagged well in advance.

3.2 In this modified p-FiT, overall earnings for a generating station would be:

\[ \text{Wholesale price} + (\text{FiT payment} \times A \times B) \]

Where:

- \( A = 1 \) when wholesale price < limit, otherwise \( B = 0 \)
- \( B = 1 \) when total produced volume < cap, otherwise \( A = 0 \)

Theoretically, intermediate factors eg 0.5, could be introduced for technologies with high levels of support to smooth the transition.

4. IMPLEMENTATION

4.1 It would be possible to quickly establish the new mechanism by:

- Evolving the RO into a p-FiT over an appropriate period of time (already proposed by DECC as part of the Transitional Arrangements to happen by 2027)
- Extending existing small scale FiT to > 5MW; or
- Creating a new p-FiT

4.2 The first option could be achieved very easily and rapidly through secondary legislation and the second through relatively minor changes to existing primary legislation. Therefore, far from further delaying the process, this would actually accelerate progress and, because the outcomes are already well understood, minimise any further uncertainty and investment hiatus.

97 “Planning Our Electric Future”, DECC (July 2011), p. 37
5. Benefits

5.1 Generators can predict and access a clear level of support provided by the P-Fit which covers a fixed, maximum production volume. The level of support payment remains unchanged unless the wholesale price reaches a level above which the market earnings are sufficient to amortise the investment. This creates a bankable income stream and still maintains market disciplines on generators and upside potential from managing market risk well. This approach also:

— Avoids the “all or nothing” contract allocation risk for a developer that is inherent in the current CfD proposals.
— Replaces damaging “cliff edges” with manageable “ski-slopes”—ie a smooth and manageable transition.
— Is similar to the risks with the existing RO where the recycle value will reduce if more generation is produced and/or targets are met.
— Could be administered using either of the existing mechanisms/counterparty arrangements and be compatible with changes in the wholesale market to improve liquidity.
— Would allow continuing use of PPAs as long as these are needed to help finance projects, especially for independent generators and would also be compatible with greater use of short term trading.
— Lowers barriers to new entrants since it is considerably simpler and less volatile than the proposed CfDs.

5.2 For Government this provides a simpler means of managing support levels in line with levy control frameworks without the need to ration contracts. If needed, longer term balancing could be facilitated with borrowing and banking between control framework periods. The caps on support level volumes provide a further means of matching levy controls over time.

5.3 The wholesale price cap avoids a situation arising where overall earnings for generators represent an unnecessary level of cost to consumers. This methodology also avoids the great weakness of the CfD scheme in which consumers are prevented from benefiting from a fall in retail price if the wholesale price comes down.

June 2012

Further written evidence submitted by SSE

ANNEX 2: THE ECONOMICS OF NUCLEAR POWER GENERATION

0.1 This Annex discusses the economics of nuclear generation, and what support it may need. Much of the detail is taken from SSE’s “Energy White Paper” document of May 2011.

1. How much does new nuclear cost?

1.1 To understand what the economics of new nuclear investment are, it is perhaps instructive to refer to figures from EDF, the leading company in the drive to invest in new nuclear in the UK. At their investor day, in December 2008 as they were preparing to take over British Energy, they gave a clear outline of the relationship between the necessary power prices needed to support the range of capital costs experienced in France and expected for the UK.

1.2 The following graphic shows the updated costs of the French nuclear development at Flamanville and how the power price would need to develop in order to support the various capital costs.
1.3 This is summarised in the following table and also shows the progressive increases in capital costs and associated necessary power price levels for EDF to invest in the UK. In some examples the gas price equivalent, the level against which nuclear becomes cost competitive with gas generation is also shown.

<table>
<thead>
<tr>
<th></th>
<th>Capital Cost (€/kW)</th>
<th>Power Price (€/MWh)</th>
<th>Gas Price (€/cent/kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flamanville 3, 2005 (original estimate)</td>
<td>3,300</td>
<td>46</td>
<td>28</td>
</tr>
<tr>
<td>Flamanville 3, 2008 (revised estimate)</td>
<td>4,000</td>
<td>54</td>
<td>28</td>
</tr>
<tr>
<td>France new, 2008 (projected cost)</td>
<td>4,450</td>
<td>60</td>
<td>28</td>
</tr>
<tr>
<td>UK new 2008 (projected cost)</td>
<td>4,750</td>
<td>64</td>
<td>28</td>
</tr>
</tbody>
</table>

1.4 What this shows is that even at the relatively high costs of the early plants in France (and Finland with considerable cost overruns, the power price EDF requires is comfortably lower than projected levels. Another way of considering this is to look at the levels of gas price at which such projects, even with the higher overrun capital costs, would be cost competitive. Gas prices below these levels have not been observed in the last six years and are not currently forecast to be reached in the near future.

1.5 The graphic below shows how EDF summarised this at the end of 2008. While this is expressed in Euros, the numbers all hold true if expressed in pounds.

---

Ibid
1.6 This shows that a plant costing £4,000/kW would require a levelised power price of £54/MWh for baseload running in order to be viable and that this would be cost competitive with gas at an oil price equivalent to $60 per barrel (approximately £0.30 per therm) at a carbon price of £20 per tonne.

1.7 Current gas price projections are running at much higher levels. With CPS, the carbon price is actually due to reach £30 by 2020.

1.8 Further guidance on the necessary level of power price required to support a fleet of existing and new build nuclear plants was also given by EDF in discussion around the introduction of the “Loi Nome” a law in France which requires EDF to sell a quarter of its nuclear output at a fixed price, which EDF argued had to be at least €42/MWh, the level at which it has now been set. Unfortunately, this may not be sold to any non-French consumers and so could not be purchased through an interconnector for use in the UK.

1.9 As EDF have said repeatedly, it is clear that with these economics (now further enhanced by the CPS) nuclear investment is cost competitive and does not need any subsidy.

1.10 In their report in May 2011, the Climate Change Committee published similar figures for capital costs and came to the conclusion that nuclear is cost competitive with a modern gas CCGT based on a comparison of levelised costs, including the enhanced level of CPS support but with no further benefit from the propose Reliability Mechanism included. DECC, using Mott McDonald’s report in June 2010, quote a range of levelised costs from £53–69.101

1.11 Additional evidence of the likely capital costs was published in a 2010 OECD study which showed that nuclear overnight capital costs in OECD ranged from:

- $1,556/kW for APR-1400 in South Korea through
- $3,009/kW for ABWR in Japan,
- $3,382/kW for Gen III+ in USA,
- $3,860/kW for EPR at Flamanville in France to
- $5,863/kW for EPR in Switzerland

101 Mott McDonald (June 2010) UK Electricity Costs Update
1.12 This is equivalent to a range of approximately £1,000 to £3,650. It would be justifiable for the UK to expect the learning points from the Finnish and French reactors to have been learnt and for the capital costs for the next EPR plants to be lower rather than higher and to come down to the levels shown in other countries. Therefore the illustrative example of £4000/kW and the attendant power price requirement of £54/MW seems to err on the high side.

2. What new nuclear now needs?

2.1 Despite the evidence outlined above it now appears as if nuclear will require income over and above that it can receive from the power price in the energy market.

2.2 The key question at this stage is how much subsidy it will require. SSE believes that nuclear developers need to be open and honest about the levels of additional support they require. Once this has been established Government can then make a decision on whether consumers should provide that support, and a tailored mechanism, without the unintended consequences of the CfD, can then be designed to provide this additional support. Work will also be needed to allow changes to State Aid regulations and to build in contingency for the continuous overspend and delays that will, as has often been the case, occur.

June 2012

**Supplementary written evidence submitted by Green Alliance**

In response to questions raised in our oral evidence session about an efficiency feed-in tariff (FiT), we would like to offer a short explanation to explain why consumers should be willing to pay for efficiency even though the price of electricity should already incentivise demand reduction; how Government can prevent energy service companies from becoming dependent on public subsidy in the medium term; and how an efficiency FiT creates incentives to save energy at low cost.

1. Why consumers should be willing to facilitate demand reduction

Paying for efficiency is good for consumers because it substitutes a cheaply avoided MWh of electricity consumption for an expensively created MWh of low-carbon electricity. Audited savings from three US programmes suggest that efficiency programmes cost between £20 and £33 per MWh of electricity saved. By comparison, low-carbon electricity costs between £83 and around £150 per MWh, although this is likely to reduce over time. If consumers do not reduce their demand—and peer reviewed evidence suggests that across the US and UK every 10% increase in price only causes consumers to cut demand by 1%—they will have to purchase low carbon power at a higher cost.

2. How to avoid creating an industry dependent on long-term public subsidy

In theory, energy efficiency should be procured by the market without the need for government support. In practice, its economic potential has not been taken up. As outlined below, an efficiency FiT has the potential to increase investment in efficiency, reducing the cost of decarbonisation. However, the creation of an efficiency FiT does raise the risk of creating an efficiency industry that requires ongoing subsidy.

In order to mitigate this risk, the Government could incorporate a digression pathway into support for efficiency, in the way it has done for the Renewables Obligation. If done correctly, and with sufficient warning

---

to the market, this could help to create interest in ESCOs and stimulate investment in efficiency in the near term, helping to bring down energy bills as fossil fuel prices rise and renewable costs fall.

Support for efficiency is not the same as support for renewables, CCS or nuclear, however. Because efficiency is usually cheaper than building new low-carbon generation, an efficiency FIT may not need to incorporate subsidy at all. Instead, it may simply need to derisk efficiency investment, and enable a guaranteed return for actual energy savings to allow ESCOs to raise capital. In this case, a FIT similar to the CFD, which has the ability to as a financing, rather than support, mechanism for nuclear power may be sufficient. As outlined below, the main barriers to efficiency relate to risk rather than affordability: put simply, efficiency makes economic sense but fails to raise finance.

3. How an efficiency feed-in tariff creates an incentive for aggregators

The existing electricity market provides no reliable business model for demand reduction. On the contrary, the market delivers increased profit as electricity sales increase, and reduced profit as electricity sales decrease.

As a result, energy service companies (ESCOs) must make an indirect offer to consumers: exchange a defined upfront payment or monthly charge for demand reduction, which is repaid via avoided electricity costs over the long term. This business model is unattractive to ESCO customers, because the certainty of having to pay for demand reduction contrasts poorly with the perceived uncertainty of future demand reduction. This makes efficiency investment appear riskier than it is, partly due to the fact that investment triggers a feeling of loss aversion. Combined with the low visibility of efficiency upgrades, hassle factor, perception of limited upside from efficiency investment, and limited consumer and business appetite for payback periods longer than around two years, this makes efficiency unattractive.

These are well known barriers which have been overcome in the US. In contrast to the UK, ESCOs in the US have prospered because governments have created opportunities for ESCOs to profit from demand reduction. In the US, individual states have created frameworks which overcome the problem of short-termism: risk averse consumers only pursue investment with short payback periods—below two years typically—even if this means that they pay much more over the long term. This has proved transformative for energy saving. As an example, Texas has had a scheme similar to an efficiency FIT since 2005, which saved over $300 million in 2010.

An efficiency FIT provides a means to provide relevant incentives similar to those provided in the US in the context of the deregulated UK electricity market. To do so, the system operator (SO) would offer FITs to energy service companies who would be paid for every MWh of electricity they save. This would mirror the FITs the SO will offer to low-carbon generators. The FITs would be paid for demand reduction verified according to the guidelines in the International Performance Measurement & Verification Protocol.

June 2012

---

103 “Loss aversion” refers to a strong psychological preference to avoid losses, even if the likely outcome of a transaction would result in equal or greater gains. The perception of losses appears to be twice as powerful, psychologically, as gains.

104 For an individual consumer, an investment in efficiency can only have a return as great as the avoided cost of electricity. Compared to investment in a business opportunity with potentially greater upside,


106 For further information on the IPMVP, see http://www.evo-world.org/index.php?option=com_content&task=view&id=272&Itemid=60&lang=en