



House of Commons  
Energy and Climate Change  
Committee

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# Energy network costs: transparent and fair?

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**Sixth Report of Session 2014–15**

*Report, together with formal minutes relating  
to the report*

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## 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.

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## Summary

Network costs (which cover the transmission and distribution of gas and electricity from power stations to households and industry) are a very significant component of household and industrial energy bills. Ofgem has created a new regulatory framework (RIIO) that was designed to ensure that costs were competitive and that profits weren't excessive, but there is clear evidence that network companies are making higher profits than expected. This suggests that the targets and incentives set by Ofgem are too low, barriers to market entry are high and that Ofgem needs to monitor RIIO more effectively and to equip RIIO with stronger, corrective measures.

While we recognise that the new RIIO framework is an improvement on its predecessor, Ofgem has not yet created the conditions for the market to thrive and provide consumers with best value for money. In the short-term, market conditions can be improved if:

- an interim independent audit of price controls is conducted;
- the 40-day notification period for price changes is increased to 15 months; and
- stronger, corrective measures are applied to companies that have received incentive payments for reducing leakages when such reductions have not taken place.

In the medium term, simplifications to charging methodologies would enable greater market efficiency; complexity prevents the market from making informed decisions. These could be achieved, for example, by conducting an in-depth study on the pros and cons of replacing the regional variations for network charges with a standard national tariff. Greater incentives to connect new and smaller energy generators to the grid would increase market competition too. Stronger incentives towards innovations in network technology would see an improvement in the UK's energy infrastructure and attract necessary investment. We recommend that the Government and Ofgem continue to scrutinise network operators and remove market barriers to drive down costs for consumers.



# 1 Introduction

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1. Following our evidence session on ‘Energy Prices’ on 29 October 2013, we agreed to undertake a further inquiry into energy network costs (which cover the transmission and distribution of gas and electricity from energy installations to households and industry), as part of our ongoing scrutiny into energy prices, profits and poverty.<sup>1</sup> The Government also agreed that network costs deserve more scrutiny.<sup>2</sup>

2. Ofgem estimate that network costs currently make up around 23 per cent of a dual fuel (gas and electricity) bill.<sup>3</sup> 20 per cent of the bill represents the cost of transporting gas and electricity on local power and gas mains (or distribution) networks. Three per cent of the bill is the cost of transporting gas and electricity through the high voltage grid and the national high pressure gas mains (transmission) network.

Breakdown of an annual dual fuel bill	Percentage
Wholesale cost	44%
Network costs	23%
Environmental and social costs	7%
Supplier operating costs	13%
Pre-tax margin	8%
VAT	5%

Source: Ofgem website: <https://www.ofgem.gov.uk/information-consumers/domestic-consumers/understanding-energy-bills>

3. The energy network can be divided into four main categories, with two for electricity and two for gas:

- Electricity transmission: 275,000 voltages and over in England and Wales and 132,000 voltages and over in Scotland. National Grid levies charges for using the transmission system in Great Britain, although it does not own the networks in Scotland. The Transmission Operators (TOs) in Scotland are Scottish Power and Scottish Hydro.<sup>4</sup>
- Electricity distribution: 132,000 voltages and below in England and Wales and 66,000 voltages and below in Scotland.<sup>5</sup> There are 14 licensed distribution network operators (DNOs) in Great Britain each responsible for a distribution services area. The 14 DNOs are now owned by six different companies.<sup>6</sup>
- Gas transmission: pipelines which push gas at high pressure through the system using 23 strategically placed compressor stations. This gas then flows on to the distribution networks operators (DNOs). A small number of large end users and power stations receive gas directly from the national transmission system.<sup>7</sup>
- Gas distribution: a network of gas mains. There are 12 Local Distribution Zones (LDZs) in Great Britain based on the regional structure at privatisation.<sup>8</sup> These are now owned by four gas distribution network (GDN) companies.<sup>9</sup>

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1 Energy and Climate Change Committee, [Inquiry on Energy Prices](#), October 2013

2 Q276 (Matthew Hancock)

3 Ofgem, [Understanding energy bills](#)

4 National Grid, [How electricity is made and transmitted](#)

5 National Grid, [How electricity is made and transmitted](#)

6 Ofgem, [Customer perceptions of the market for new connections to the electricity network](#), January 2015

7 National Grid, [How gas is produced, transmitted and distributed](#)

8 National Grid, [How gas is produced, transmitted and distributed](#)

9 Ofgem, [History of Energy Network regulation](#), 27 February 2009

4. These transmission and distribution companies operate within a virtual monopoly and therefore their profits and industry structure are regulated by Ofgem price controls. There are a small number of independent distribution network operators (IDNOs) that own and run smaller networks embedded in the DNO electricity networks. They are small and typically focus on new housing or commercial parks and are outside the general scope of this inquiry.

5. Network charges reduced by more than 40 per cent between 1990 and 2006.<sup>10</sup> However they have been rising again as new networks are built to help connect low carbon energy, replace old gas mains and renew ageing parts of the network.<sup>11</sup> Both Ofgem and DECC have indicated that energy bills are likely to rise as a result of increased network costs. Ofgem have stated, however, that network costs are expected to remain stable in real terms (i.e. excluding inflation) until at least the start of the next decade, which coincides with the end of the current RIIO price control period.<sup>12</sup> Energy companies told us about the improvements to the energy networks and the customer benefits that have accrued since privatisation. Phil Jones, CEO of Northern Powergrid, said:

We are talking about a sector whose prices are a third of what they were at privatisation. All the industry stats would say that power cuts are 20% shorter or less likely, those kinds of things. So service is 20% better, prices are a third what they were, operational costs are half of what they were around the 2000 mark.<sup>13</sup>

While Graham Edwards, CEO of Wales and West Utilities, said:

Since....2005 we have seen customer service improve dramatically. We have seen reliability further improve. When you consider that the average gas consumer can expect to see an outage once in 40 years, we clearly provide a very reliable supply.<sup>14</sup>

6. Despite this, questions remain on how transparently current and future network costs are determined and how effective Ofgem is at monitoring and scrutinising the charges and profits of network companies. The purpose of our inquiry was to assess this and to form a view on:

- The factors that determine network costs, the contribution that these factors currently make towards a typical household energy bill, and how might this change over time.
- The impact that the Government's low carbon ambitions (e.g. smart meter roll out, developing the offshore grid and interconnectors etc) have on network costs.
- Whether Ofgem provides the right incentives to network companies to ensure they keep their costs as low as possible.
- How Ofgem identifies and regulates profits for network companies within a regulatory settlement period. The scope available to adjust profit gains over

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10 Q213 (Dermot Nolan)

11 Ofgem, [Ofgem response to npower's energy explained report](#), 22 January 2014

12 Ofgem, [Ofgem response to npower's energy explained report](#), 22 January 2014

13 Q125 (Phil Jones)

14 Q125 (Graham Edwards)

regulatory periods, and if the current levels of transparency are sufficient.

- How UK network costs could be benchmarked against utility sectors or networks in other countries, and if this would increase confidence in UK network costs.
- The impact on consumer energy prices caused by the charges set by network companies for energy suppliers. The scope and means available to improve this relationship in order to reduce prices for consumers.
- The extent to which different consumer groups (e.g. domestic and non-domestic) are charged different network rates and if the current charging regime is fair to all consumers.
- In the absence of competition, if Ofgem provides sufficient incentives to network companies to maintain, invest and innovate in their networks.
- How losses and leakages in the networks influence network costs and if these are reflected in consumer prices. Whether Ofgem could do more to ensure that network companies keep losses and leakages to a minimum.
- How the balance should be determined between investing in a more reliable network and the impact of this on consumer bills.

7. In February 2014 we launched this inquiry to explore network costs. We received 39 submissions of written evidence and held three oral evidence sessions between July and November 2014. A full list of witnesses can be found at the back of this report. We are grateful to all those who took the time to contribute to this inquiry. We are also grateful for the assistance we received for our inquiry from our specialist advisor, Nigel Cornwall.

## 2 The RIIO price control framework

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### RIIO vs RPI-X

8. Until 2013, Ofgem regulated energy transmission and distribution companies' network cost pricing policies on a five-yearly basis. Charges were linked to inflation through a formula known as RPI-X, where RPI was the Retail Price Index and X was an efficiency savings target. However, Ofgem concluded that the RPI-X price control would not meet Britain's £30bn energy infrastructure shortfall.<sup>15</sup>

9. In 2013, Ofgem replaced the price control RPI-X with RIIO (Revenue = Incentives + Innovation + Outputs) which set targets to encourage more innovation in energy networks to benefit consumers. The more innovative energy networks would receive more financial rewards, while those that failed to innovate sufficiently would face financial penalties and further regulatory scrutiny. Ofgem also designed RIIO to attract more investment into Britain's energy infrastructure by increasing the price framework period from typically five years (under RPI-X) to eight years, the current period started in 2013 and ends in 2021. This stability over a longer period aims to increase investor confidence. Ofgem estimated that £1bn savings for consumers could be achieved through the eight-year period.<sup>16</sup>

10. We heard that RIIO has been better at consulting stakeholders than the RPI-X process.<sup>17</sup> The success of RIIO for the public hinges on setting targets, so that prices and profits rise no more than necessary. Ofgem reported that under RPI-X, all gas distribution networks and gas transmission companies generated greater than expected returns.<sup>18</sup> Thus RIIO was intended to have more stretching targets with explicit outputs for network companies.

11. However, we heard from British Gas that Ofgem's targets for the 2013 RIIO price controls were set too low, with 38 out of 40 targets reached by network companies in the first year. This enabled most, rather than just the best-performing, energy network companies to make higher than expected profits.<sup>19</sup> National Grid confirmed in May 2014 that they had increased their assets by £1.1bn in the first year of RIIO and their performance had exceeded the targets set by Ofgem.<sup>20</sup> Andy Manning, Head of Network Regulation, British Gas told us:

What we see is particularly the networks are making higher returns than were allowed when Ofgem set their allowances... the best performing networks should be able to receive higher returns. It is just that we are seeing that all networks are able to enjoy those high returns.<sup>21</sup>

12. Dermot Nolan, Chief Executive Office, Ofgem, agreed that the network companies' initial profits under RIIO were higher than Ofgem forecast:

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15 Utility Week, [Ofgem's new model to RPI-X](#), 6 October 2010

16 Ofgem, [Decision on strategy for the next transmission price control –RIIO-T1](#), 31 March 2011, page 1

17 Q159 (Jeremy Nicholson)

18 Ofgem, [Transmission network: report on the performance of transmission owners during the regulatory periods TPCR4 and TPCR4RP 2007-08 to 2012-13](#), 21 March 2014

19 British Gas (NTC0030); referring to Ofgem, [End of period review of the first gas distribution price control \(GDPCR1\)](#), 21 March 2014

20 National Grid, [Results for the year ended 31 March 2014](#), 15 May 2014

21 Qq1-2 (Andy Manning)

I have looked at the first year returns and I will say they are somewhat higher than expected...I do think that in any price control [period] it is always far too early to judge how effective the price control is at this point. I would say that if at the end of eight years everybody is earning higher returns, then it is probably indicative that perhaps something has gone wrong.<sup>22</sup>

We do not think it is in the public interest to wait until the eight-year period is over before determining whether the RIIO framework has met its objectives, and if the price targets have been too lenient.

13. The RIIO-Electricity Distribution (RIIO-ED1) is due in April 2015 and will set the outputs that the electricity distribution network operators need to deliver for their customers, as well as the associated revenues they are allowed to collect between 2015 and 2023. In November 2013, Ofgem “fast-tracked” Western Power Distribution (WPD)’s settlement as it was satisfied that its assessment showed value for money for consumers. In July 2014, Ofgem asked the remaining five network companies to reduce their draft RIIO-ED1 cost plans for April 2015 by £2.1bn.<sup>23</sup> Ofgem considered that the network companies could find more efficiencies, particularly from smart grids. These preventative steps to control excessive profits are encouraging. The Minister confirmed his support for the potential benefits of smart grids in reducing network costs.<sup>24</sup> However, there could be an £860m difference between Western Power Distribution (WPD)’s ‘fast-track’ RIIO-ED1 assessment, approved by Ofgem and Ofgem’s subsequent view of efficient costs in October 2014.<sup>25</sup> If this is an Ofgem miscalculation caused by fast-tracking, WPD customers may have to fund the £860m difference over the eight-year price control period.

14. The Citizens Advice Bureau also told us that other network targets were set too low. They questioned whether the target set by Ofgem to connect 80,000 off-grid gas customers to the network over the 8-year RIIO period was stretching enough at 10,000 customers per year, as it is identical to the target under RPI-X, which had been achieved straightforwardly.<sup>26</sup>

## Connecting small generators onto the network

15. The Government has announced that it wants to turn ‘the Big Six [energy companies] into the big 60,000’ by connecting small community generators to [distribution] grids through network improvements.<sup>27</sup> The Government’s ‘connect and manage’ programme aims to connect new generation energy to transmission networks but there appeared to be no comparable policy at the distribution level.<sup>28</sup> We heard from UK Power Networks (UKPN) that there was a lengthy backlog of new generators around the country waiting to connect to the network, especially at the distribution level with some small generating companies expected to wait until 2018 for connection.<sup>29</sup> Basil Scarsella, CEO of UKPN, explained:

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22 Q215 (Dermot Nolan)

23 Ofgem, [Ofgem announces £17 billion for electricity network and cuts bills for consumers](#), 30 July 2014

24 Q310 (Matthew Hancock)

25 Ofgem, [RIIO-ED1: Draft determinations for the slow-track electricity distribution companies; Business plan expenditure assessment](#), 30 July 2014, Table 2.6

26 Q26 (Richard Hall)

27 District Energy, [UK DECC announces £10 million fund for urban community energy](#), 5 February 2014

28 Department of Energy and Climate Change & Ofgem, [Electricity network delivery and access](#), 22 July 2014

29 Q10 (Basil Scarsella)

Distributed generation is a very quickly developing market, as we all know. From a UK Power Networks perspective, over the last three or four years we have connected in excess of 50,000 customers, ranging from a very small domestic wind or solar generator to a very large solar farm or wind farm. What has happened in the market over the last three or four years is that there has been so much demand that the level of offers that are around in the market and not accepted is now getting to the stage where some of the networks, including ours, especially in the eastern network, are getting pretty much full to capacity.<sup>30</sup>

16. We heard a similar view from Northern Powergrid, suggesting that subsidies for energy generation had over-stimulated demand for connection, resulting in lengthy delays for connection times for new energy providers.<sup>31</sup> These delays prevent new competitors from entering the market. The Minister told us that the Government had made progress in increasing the market share of other companies to 9%, but accepted that it had not set a target date by which to achieve the ‘Big 60,000’.<sup>32</sup> This lack of a clear deadline risks reducing the Government’s objective to rhetoric.

17. We also heard that government bureaucracy inhibits the pace of connections of energy providers. John Pettigrew, Executive Director, National Grid said:

The challenge is the planning process. We are very supportive of the new Planning Act, but it is a long process. I will take a specific example, just to give you the sense of it—the Hinkley nuclear station down in the south-west. We have been consulting following the steps that the Planning Act has set out now for four years, and we have just made our application to the planning inspectorate. That is to ensure that all the environmental and engineering studies are done, but, most importantly, that we consult with all the stakeholders locally to ensure that they understand the rationale for what we are doing and we can take on board their interest. It is quite a long process. I think there is the opportunity to put some flexibility in that when it is perhaps a less major project that there could be a fast track way of getting through the Planning Act. That is the long lead time with regard to a lot of the development projects of connecting generators.<sup>33</sup>

18. The Minister told us that the Government recognised the importance of speeding up planning decisions and had a “huge amount of work on to try and improve that”.<sup>34</sup> The Minister also said that from April 2015 there would be commercial incentives in RIIO to ensure that distributors connected providers more quickly.<sup>35</sup>

19. *Ofgem has agreed price control settlements with the gas and electricity transmission companies and gas distribution companies until 2021 and with electricity distribution until 2023. We believe that the price controls are too generous and the targets are too low. We want Ofgem to utilise the RIIO price control frameworks to put more pressure on the networks to limit their costs and provide better value for consumers, for example through a mid-term review, ideally supported by an independent auditor to enable*

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30 Q10 (Basil Scarsella)

31 Q193 (Phil Jones)

32 Q280 (Matthew Hancock, John Fiennes)

33 Q151 (John Pettigrew)

34 Q289 (Matthew Hancock)

35 Q284 (Matthew Hancock)

*more accurate calculations of future price controls. We also recommend that DECC and Ofgem introduce an effective “connect and manage” policy for distribution-connected generation to clear the backlog and enable more connections. We recommend that the Government and Ofgem submit data on the number and regional variation of the backlog of connections, an analysis of the reasons behind it, and proposed solutions with a clear timeframe for network companies to address the backlog.*

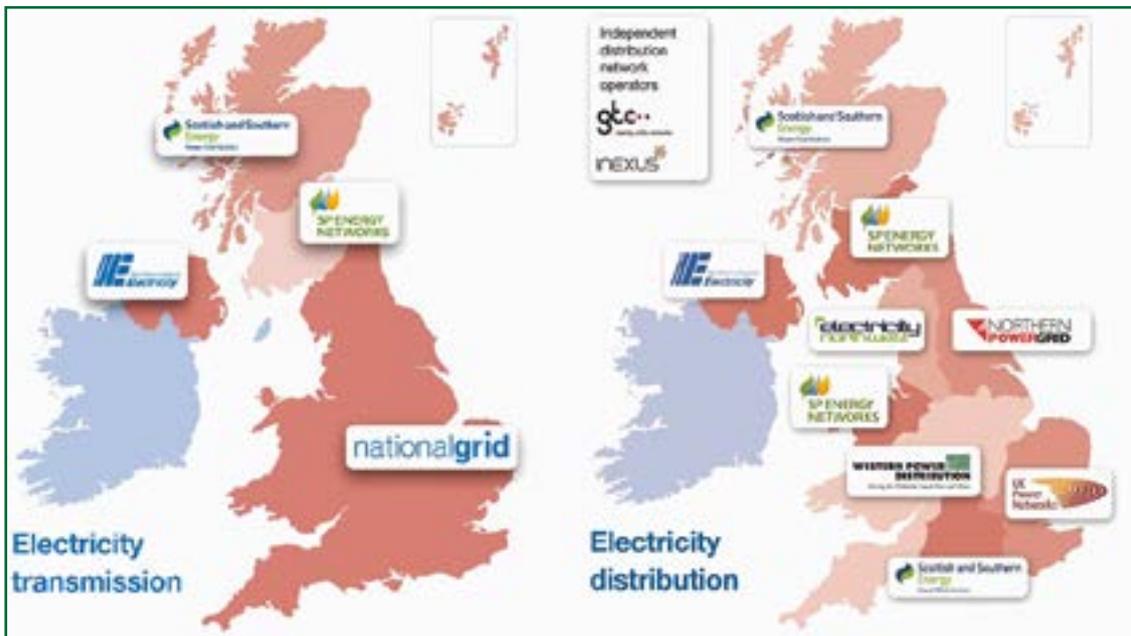
### 3 Complexity and volatility

20. In this chapter, we explore the complexity of the broader network costs landscape, including legacy issues from the pre-privatisation era and the impact that this complexity has on transparency of network costs, and market behaviour in the energy sector.

#### Are network costs too complex?

21. Network charges for gas and electricity vary regionally. There are 14 regions (excluding independent DNOs) in Great Britain for electricity transmission and distribution, for the purposes of charging consumers. Northern Ireland operates a separate wholesale electricity market, the Single Electricity Market (SEM), which is integrated with the wholesale electricity market in the Republic of Ireland.<sup>36</sup> These 14 areas represent the legacy of pre-privatisation supply areas (12 in England and Wales and two in Scotland). For gas networks, Great Britain is split into 12 local distribution zones (LDZs) which mirror the pre-privatisation gas board areas. Northern Ireland is not part of the National Transmission System (for Great Britain) per se, but since 1996 has received natural gas via the Scotland to Northern Ireland gas pipeline.<sup>37</sup> Network companies pass their charges onto suppliers who in turn pass them onto customers.

Figure 1:1 Maps of the charging regions for electricity transmission and distribution



Source Energy Networks Association

<sup>36</sup> Practical Law

<sup>37</sup> Department of Enterprise, Trade and Investment, *Consultation on the potential for extending the natural gas network in Northern Ireland*, June 2011

Figure 1.2 Maps of the charging regions for gas transmissions and distribution



Source Energy Networks Association

22. Charges are calculated on the basis of network charging methodologies, which are set out in the following regulated codes:

- Gas (transmission and distribution)–the Uniform Network Code (UNC)
- Electricity distribution–the Distribution and Connection Use of System Agreement (DCUSA)
- Electricity transmission (use of system)–the Connection and Use of System Code (CUSC); and
- Electricity Transmission (balancing)–the Balancing and Settlement Code (BSC)

23. This combination of codes and regional charges has led to a complex system of network costs, which we heard is making it difficult to compare price and performance across different network companies.<sup>38</sup> The complex methodologies also result in volatility in charges within regions on a year-on-year basis. John Pettigrew, Executive Director, National Grid, explained the reasons for maintaining regional variations for charges:

We have 14 zones and charges vary across those zones. The principle is to try to give to customers an indication of the cost that they are imposing on the transmission system. If you move to a standardised charge then of course there will be winners and losers and whenever we have done a consultation on charging you get people at both ends of the spectrum, both very passionate about what is the right solution. Historically, we have tried to stick to those principles, which have resulted in a tariff structure that is reflective of the costs in the transmission system rather than a standardised one.<sup>39</sup>

24. The Minister told us that RIIO had “significantly flattened” the regional variations on

38 Haven Power (NTC0035)

39 Q163 (John Pettigrew)

distribution costs, exemplified by a £27 reduction in average annual charge in the north of Scotland and a £4 increase in the south of Scotland.<sup>40</sup> We questioned the necessity for maintaining different regional charges and explored whether a national tariff, akin to Royal Mail's where the price of one stamp pays for delivery of a letter anywhere in the country, would be fairer and less complex. Dermot Nolan, CEO of Ofgem, said:

We are looking at that and we will look at it further. As I said, I think it can be done but it would be a very, very major change. It would be essentially a change that would be not delivered but decided upon by policymakers, or so it seems to me. There would also be administrative costs, but it might be considered fairer. I absolutely take the point. The mail service is nationally priced. The distribution service is not. That does seem to me to be a societal choice.<sup>41</sup>

***25. To introduce a national tariff for gas and electricity transmission and distribution would require major changes to the existing charging system for network costs. For this change to be considered, further evidence must be gathered and a robust analysis undertaken. We recommend that the Government and Ofgem publish an evidence-based analysis of the advantages and disadvantages of introducing national tariffs for transmission and distribution network charges. These national and regional charges should include data on the costs for connecting different energy types, such as renewable energy sources.***

## Standardised reporting

26. We also heard that there is further scope to reduce complexity by standardising the reporting between network companies, to enable more 'like-with-like' comparisons. British Gas wrote that some network companies provide information sporadically, and delay publishing information on their performance by up to two years.<sup>42</sup> This lack of information makes it more complex to assess whether or not the price controls are providing value for money. Maxine Frerk, Interim Senior Partner for Smarter Grids and Governance, Ofgem, explained Ofgem's approach:

At the minute they [transmission and distribution companies] all have to produce an annual report, and at the minute the information that is required in it is the standard information that they provide to us. We make sure it is on a comparable basis, but the actual reports may look different. We have a new section of our website where we bring those reports together and over time we will be looking to make sure that that kind of comparable information is available.<sup>43</sup>

27. Ofgem announced on 10 October 2014 that it would launch reforms in 2015 which would require companies to report network costs under a common set of categories.<sup>44</sup> Greater openness of information would help demystify the complexity of network costs. We heard that one aim of the RIIO framework is to lead network companies to have a more direct relationship with the end consumer in order to encourage greater accountability.<sup>45</sup>

40 Q295 (Matthew Hancock)

41 Q245 (Dermot Nolan)

42 British Gas (NTC0030)

43 Qq242 - Q243 (Maxine Frerk)

44 Ofgem, [Ofgem reforms bring more transparency to company profits](#), 10 October 2014

45 Q240 (Dermot Nolan)

We also heard that Ofgem is encouraging network companies to engage directly with local communities.<sup>46</sup>

**28. *A standard form of reporting would bring clarity to the performance of the network companies and the impact of the RIIO price framework. We welcome Ofgem's approach to ensure that network companies provide comparable information at fixed, regular times. We would like Ofgem to provide a clear timetable to phase in this standard form of reporting, and more information on the interim arrangements. We also recommend that Ofgem continues to encourage network companies to engage more directly with consumers and include qualitative and quantitative information on consumer engagement in their reports.***

## Volatility

29. The physical infrastructure for UK energy networks has been in place for many years. There are predictable patterns of customer usage throughout the year. Despite this stability, we heard that price volatility in network costs was common. This potentially has a detrimental effect, particularly on suppliers, who incur extra costs. Peter Bennell, CEO, Haven Power, said:

I think we are making things far too complicated. Here, when we talk about distribution, we have a long-lived asset: 40 years, 50 years, 60 years and some of it has been in the ground 100 years. We have a very stable, predictable usage pattern among most customers, but from my perspective we have very volatile network charges..... If you look in my evidence, you will see how prices have gone up one year, down the next, and up again the year after and that is unnecessary. It is not reflective of the nature of the asset. It is not reflective of the costs that are there and it adds costs for business.<sup>47</sup>

30. Jeremy Nicholson, Director, Energy Intensive Users Group, confirmed that volatility was also adversely affecting large industrial consumers:

It's not just the absolute level of network charges, but the volatility, and the changes in the distribution of where those charges fall, and that has affected our members in what should be a relatively stable part of the bill<sup>48</sup>

31. Jonathan Smith, Head of Trading & Pricing, First Utility, told us about the extra costs caused by volatility, the impact of complexity and the current 40 day notice period for price changes:

Volatility means that suppliers have to put a risk premium on their tariffs. If you think about other costs in the electricity bill, the wholesale electricity is about half of the bill. It is a volatile number, but I can go into the market and I can buy a hedging product to lock in the cost of that for my customers. With network charges there is no equivalent hedging product you can go into the market and lock in. You are exposed to the price that is set sometimes only 40 days before it starts being charged. Then when you think about the retailer, I am selling to

46 Q242 (Maxine Frerk)

47 Q67 (Peter Bennell)

48 Q128 (Jeremy Nicholson)

domestic customers who, under retail market reform, are moving increasingly to one-year, two-year, three-year fixed tariffs where there is no lever. If there is a cost shock on the distribution or transmission charges, I cannot pass that through to my customers. You have complexity you can't manage on one side and a revenue stream you can't adjust on the other side. It is very difficult to compete in that market<sup>49</sup>

32. The Minister acknowledged that uncertainty on network costs created a cost premium and the importance of using stability to bring down costs for consumers:

There is a cost premium to uncertainty and that, again, has to be balanced on the speed with which benefits accrue to consumers. If we can get the cost to everybody down by having a period of certainty then ultimately, over the longer term and over the period of most people's lives, that will benefit consumers.<sup>50</sup>

33. Maxine Frerk, Interim Senior Partner for Smarter Grids and Governance, Ofgem confirmed that volatility needed tackling:

It is an issue that we are aware of and have been trying to take steps to address by making those charges more predictable in the first instance. We are minded to approve a modification that would give companies 15 months' notice instead of three months' notice of the changes. The volatility tends to come as a result of there having been a few major changes to the methodology for how you allocate those costs between different categories of customer...the overall revenues that the companies get are stable over time, but sometimes you can get what are quite big swings as a result of how they are allocated between different categories of customers.<sup>51</sup>

***34. The levels of volatility of network costs are unnecessary. The risk premiums that suppliers are compelled to add to mitigate the costs of volatility raise consumer prices. We recommend that Ofgem adopts the proposal to provide suppliers with 15 months' notice of network price changes. Network companies must also provide clearer explanations for the reasons behind such changes.***

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49 Q67 (Jonathan Smith)

50 Q279 (Matthew Hancock)

51 Q224 (Maxine Frerk)

## 4 Benchmarks and incentives

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35. Under the RIIO framework, the onus is on companies to demonstrate that their proposed charges are a reasonable reflection of their individual costs, and that they are running their businesses in a cost efficient manner. For example, for RIIO-ED1, the price control for the electricity distribution businesses due to commence in April 2015, Ofgem is drawing on historical and forecast data of individual Distribution Network Operators (DNOs) to inform its price controls.

36. We explored the role that benchmarks could play in helping to set better and more robust targets under the RIIO price framework controls. We heard about the challenges that make benchmarking difficult in this sector.<sup>52</sup> There is a lack of obvious proxy companies given the monopoly nature of the sector. With only three transmission owners for electricity and one for gas in Great Britain, the lack of comparators makes it challenging to set valid industry benchmarks for costs. It is difficult to identify “proxy” companies they could be compared with, as these may be international companies with different frameworks. These differences within a small group makes it hard to compare “like with like”.

37. However, although network costs themselves have a unique regulatory framework which makes it hard to replicate, there are other aspects of the industry which could be scrutinised against other sectors. Andy Manning, Head of Network Regulation, British Gas, said:

I think there are certainly areas where you can use external benchmarks more than we currently do. While network assets might be fairly unique in their characteristics, many of the things that networks do around answering calls, customer service, dealing with complaints and offering connections are generic customer service tasks that exist in quite a lot of different industries. For those I think there is probably quite a strong case for benchmarking the networks not simply against each other but against other parts of the economy that carry out those roles to get a better sense of how they compare.

In other areas, too, in terms of the kinds of cost allowances that are applied to different factors, I think you can benchmark against wage growth or wage deflation in the wider economy and aspects like that to try to get a better sense of how the networks are comparing.<sup>53</sup>

38. There are also inter-sector benchmarking opportunities available. Wales and West Utilities and the Energy Intensive Users Group told us that regulators in different sectors such as aviation and rail “talk to each other” in order to compare benchmarks. EDF stated in their evidence that part of the recently established UK Regulators Network’s work should be to benchmark across different industry networks (aviation, finance, telecoms, energy, rail, water) to build best practice and identify benefits for customers.<sup>54</sup>

39. It is not clear how far Ofgem has optimised inter-sector benchmarking for network companies.<sup>55</sup> The Government said that it drew on some international benchmarks to

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52 Q56, (Basil Scarsella), Q175 (Frank Mitchell), Q176 (Graham Edwards)

53 Q56 (Andy Manning)

54 EDF Energy (NTC0033)

55 Q177 (Graham Edwards), Q178 (Jeremy Nicholson)

compare overall network costs. For example, in relation to energy losses from the network the UK fell below the EU average and ranked 101 out of 185 countries.<sup>56</sup> However, it is unclear if the full range of network costs is benchmarked by the Government and Ofgem. SP Energy Networks suggested that there could be more to learn from not-for-profit energy companies about their efficiency benchmarks.<sup>57</sup>

40. RIIO is also a national-specific framework, which adds to the complexity of making international comparisons. Basil Scarsella, CEO, UKPN, argued that Britain's network cost regulatory regime leads the world:

I have experience in other parts of the world, on the regulatory regime in Australia and I have reviewed the US and the European regulatory regimes, and it is important to point out that those other jurisdictions are following the UK regulatory regime. On balance, we should always be striving to improve but the regulatory regime has served the UK very well in the last 25 years.<sup>58</sup>

41. In addition to a lack of comparators, we heard from Citizens Advice Bureau that different accounting practices add further ambiguity when assessing the efficiencies that network companies make under RIIO. For example, some network assets are now being depreciated over 45 years rather than 20 years.<sup>59</sup> So network costs may be reducing because of efficiencies or because of the short-term savings made from a longer-depreciation method. But 45-year asset depreciation is not standard across all network companies, adding further complexity when trying to benchmark and compare like-with-like. Maxine Frerk, Interim Senior Partner for Smarter Grids and Governance, Ofgem explained the regulator's reasons for the recalculation:

That change [from 20 to 45 years] is something that we have agreed to as part of the RIIO process because it better reflects the life of the asset. These are long-term assets, so it is right that they are depreciated over 45 years rather than 20 years. The process of changing for that will be only for new investment and it will be phased in. Clearly, there is a balance there between what current customers pay and what future customers pay, but we think the regime is doing the right thing in reflecting the length of the lives of the assets that are in the ground.<sup>60</sup>

**42. *Benchmarks have an important role to play in helping Ofgem set meaningful targets for network companies. We recommend that Ofgem further develop its use of national and international benchmarks when evaluating the impact of the RIIO framework on network companies. These benchmarks should be drawn from other regulated and non-regulated industries in the UK as well as overseas in addition to not-for-profit/mutual energy companies. These benchmarks should be developed well ahead of the next round of RIIO performance reporting. We also recommend that standard accounting practices be applied to encourage more robust benchmarking. Ofgem should provide a clearer timeline for extending depreciation of network assets from 20 to 45 years, and propose interim measures during this process to allow more 'like-for-like' accounting comparisons.***

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56 Q298 (Matthew Hancock), Q310 (John Fiennes)

57 Q178 (Frank Mitchell)

58 Q4 (Basil Scarsella)

59 Q16 and Q27 (Richard Hall)

60 Q254 (Maxine Frerk)

## 5 Losses and leakages

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43. We explore in this chapter how effective incentives and benchmarks could be used more effectively to address the challenges of losses and leakages in the UK energy networks.

### Network losses

44. Energy is lost during transportation from production to consumption. Electricity distribution losses on average account for 8% of transported volumes, and vary between 3.1% to 10% for the individual DNOs. Loss reduction obligations and incentives for network companies feature across a number of RIIO price control codes such as health and safety (compliance with minimum legal requirements) and environmental impact (to reduce the carbon footprint of the network).

45. For charging purposes losses are dealt with in the electricity sector via the energy market rules. This means that generators and suppliers have their meters adjusted to account for losses. For gas, this is via a “shrinkage” cost defined by the network companies to account for variances between the energy entering a network and leaving it. We were encouraged to hear from John Pettigrew, Executive Director, National Grid, that gas distribution leakages had declined 20% in the last five years.<sup>61</sup> The Government said the UK ranked alongside Sweden, Norway, Italy and Ireland in respect of losses on national energy networks.<sup>62</sup>

46. We received evidence from Citizens Advice Bureau on the impact of electricity leakages through the transmission network:

About 1.7% of the electricity transferred over the transmission network is lost. A further 5-8% of the electricity transferred over the [various regional] distribution networks is lost. These losses on the power networks account for approximately 1.5% of the UK’s greenhouse gas emissions. They also influence consumer costs as the greater the leakages, the more will have to be generated and consumed for the shortfall, leading to increased costs.<sup>63</sup>

47. Jonathan Smith, Head of Trading and Pricing, First Utility, told us that consumer savings could be made by reducing losses:

From a domestic perspective the average bill is around the £1,000 mark. About half is the wholesale element, about £500. We have heard that losses are about 7% or 8% on distribution, 1% or 2% on transmission. That is 10%, so that is £50 in my estimation. That is a big piece we can try to reduce on consumer bills if we can find ways to reduce losses so we absolutely need to ensure the right incentives are in place to encourage that to happen.<sup>64</sup>

48. However, British Gas criticised Ofgem for how electricity distributors calculate their losses, arguing that the networks gain a windfall, while consumers lose out on a reduction in bills:

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61 Q182 (John Pettigrew)

62 Q310 (John Fiennes)

63 Citizens Advice ([NTC0019](#))

64 Q121 (Jonathan Smith)

Ofgem has recently been considering whether to allow Electricity Distributors to restate [i.e. recycle] the level of their line losses in 2009/10. [However] if this were allowed to stand as originally structured, it would produce an overall penalty (and reduction in customer bills) of £140m. The networks have retrospectively restated the level of losses which has artificially improved performance. Ofgem recently decided to allow this, creating an overall reward of £269m. This will leave networks with a windfall gain of £409m at the expense of customers compared with the original scheme outcome.<sup>65</sup>

49. Ofgem stated that they had challenged network companies robustly on their stated losses. Maxine Frerk, Interim Senior Partner for Smarter Grids and Governance, Ofgem, said:

That is currently the subject of a legal challenge so it is hard for us to say very much about it. At one level we agree with you. We disallowed half of the revenues that they were claiming that they should have, and we have proposed what will be seen as handing about £161 million to customers as a settlement of this. We did not take their figures at face value, but we are being challenged for that at the minute so we cannot really say very much more.<sup>66</sup>

50. We were therefore concerned to hear that Ofgem pay network companies incentives to tackle energy leakages although the actual leaks appear not to be reducing proportionately with the incentives. The Government stated that there is a plan in place to reduce losses by transmission owners.

Ofgem introduced loss incentive mechanisms and is using the RIIO framework to strengthen this. As part of the RIIO-T1 price control, Ofgem has required Transmission Owners to publish a strategy for transmission losses and report to stakeholders annually on progress.<sup>67</sup>

51. However, within electricity distribution, Ofgem recognise that DNO's loss strategies have produced mixed results. In its draft discussions for the price control issued in July 2014 (applying to all the DNOS except Western Power Distribution which was settled early under the "fast track" process), Ofgem expressed disappointment with the current standard of the loss reduction strategies, and concern over whether they would meet the licence requirement. Ofgem has called on the DNOs to revise their strategies.<sup>68</sup>

52. The price control in electricity distribution (RIIO-ED1) planned for April 2015 will introduce a losses reduction mechanism consisting of four components:

- licence obligation;
- loss reduction strategies in the DNO's business plans;
- annual reporting; and
- discretionary reward.

53. However, under the proposed settlements, electricity distribution networks are

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65 British Gas (NCT0030)

66 Q259 (Maxine Frerk)

67 Department of Energy and Climate Change (NCT0012)

68 Ofgem, [Ofgem announces £17 billion for electricity network and cuts bills for consumers](#), 30 July 2014

presently required only to report on the actions they are taking to reduce losses; they are not subject to specific or measurable financial incentives for these actions.<sup>69</sup>

## Locational charges

54. Citizens Advice Bureau highlighted that currently electricity transmission leakages are recovered from generators and suppliers on a geographically uniform basis—i.e. a flat rate without any reference to location.<sup>70</sup> This means that there is less incentive for transmission companies to improve their infrastructure and reduce leakages.

*55. While gas distribution leakages have improved, the current incentives to reduce energy losses and leakages are not fit for purpose, particularly for electricity networks. We were concerned to hear that Ofgem had paid incentives to network companies who had not reduced losses in proportion to those incentives. Consumers are losing out. We recommend that Ofgem develops explicit loss reduction targets and incorporates tougher penalties for network companies that fail to meet them. Introducing locational charges for leakages rather than uniform losses would encourage network companies to be more rigorous about cutting leakages.*

*56. Greater public scrutiny would also assist market performance, so we recommend that Ofgem publish the network companies' performance against loss reduction strategies alongside the UK's performance against international rankings of losses and provide a commentary on good and poor performers. This combination of information on individual and macro performance on loss reduction should help the market to hold the sector to account, which in turn can spur on energy efficiency and market effectiveness.*

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<sup>69</sup> Ofgem, RIIO-ED1: Final determinations for the slow-track electricity distribution companies, 28 November 2014

<sup>70</sup> Citizens Advice (NTC0019)

## 6 Conclusion

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57. Overall, British energy network regulation is in transition. The migration from RPI-X to RIIO has led to significant framework changes. It is important to build market confidence for the stability of the framework. RIIO is an improvement on its predecessor, and there are positive signs that the framework has brought about a more robust negotiation process involving a wider group of stakeholders. However, RIIO has not gone far enough in providing value for money for consumers of energy. We are particularly concerned by the greater than expected profits by the network companies after the first year of the new framework. As set out in this report, a number of changes are needed to provide greater transparency of how network costs are calculated and passed onto consumers. Greater transparency will allow more scrutiny for this often overlooked aspect of the UK's energy market and help to ensure that it is held to account. This is needed particularly in view of the absence of any real competition in the transmission and distribution functions.

58. We are concerned that the network cost recovery framework is excessively complex with barriers which hinder the development of a competitive market. Simplifications to charging methodologies would strengthen the market's ability to scrutinise costs, and increase pressure for more efficiencies.

59. We recognise the need to balance investment in network infrastructure against cost reductions, but we want to see Ofgem both develop more incentives focussed on the roll-out of network technology, such as smart grids, and connect more consumers and smaller energy providers to the grid.

# Conclusions and recommendations

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## Connecting small generators onto the network

1. Ofgem has agreed price control settlements with the gas and electricity transmission companies and gas distribution companies until 2021 and with electricity distribution until 2023. We believe that the price controls are too generous and the targets are too low. We want Ofgem to utilise the RIIO price control frameworks to put more pressure on the networks to limit their costs and provide better value for consumers, for example through a mid-term review, ideally supported by an independent auditor to enable more accurate calculations of future price controls. We also recommend that DECC and Ofgem introduce an effective “connect and manage” policy for distribution-connected generation to clear the backlog and enable more connections. We recommend that the Government and Ofgem submit data on the number and regional variation of the backlog of connections, an analysis of the reasons behind it, and proposed solutions with a clear timeframe for network companies to address the backlog. (Paragraph 19)

## Are network costs too complex?

2. To introduce a national tariff for gas and electricity transmission and distribution would require major changes to the existing charging system for network costs. For this change to be considered, further evidence must be gathered and a robust analysis undertaken. We recommend that the Government and Ofgem publish an evidence-based analysis of the advantages and disadvantages of introducing national tariffs for transmission and distribution network charges. These national and regional charges should include data on the costs for connecting different energy types, such as renewable energy sources. (Paragraph 25)

## Standardised reporting

3. A standard form of reporting would bring clarity to the performance of the network companies and the impact of the RIIO price framework. We welcome Ofgem’s approach to ensure that network companies provide comparable information at fixed, regular times. We would like Ofgem to provide a clear timetable to phase in this standard form of reporting, and more information on the interim arrangements. We also recommend that Ofgem continues to encourage network companies to engage more directly with consumers and include qualitative and quantitative information on consumer engagement in their reports. (Paragraph 28)

## Volatility

4. The levels of volatility of network costs are unnecessary. The risk premiums that suppliers are compelled to add to mitigate the costs of volatility raise consumer prices. We recommend that Ofgem adopts the proposal to provide suppliers with 15 months’ notice of network price changes. Network companies must also provide clearer explanations for the reasons behind such changes. (Paragraph 34)

## Benchmarks and incentives

5. Benchmarks have an important role to play in helping Ofgem set meaningful targets

for network companies. We recommend that Ofgem further develop its use of national and international benchmarks when evaluating the impact of the RIIO framework on network companies. These benchmarks should be drawn from other regulated and non-regulated industries in the UK as well as overseas in addition to not-for-profit/mutual energy companies. These benchmarks should be developed well ahead of the next round of RIIO performance reporting. We also recommend that standard accounting practices be applied to encourage more robust benchmarking. Ofgem should provide a clearer timeline for extending depreciation of network assets from 20 to 45 years, and propose interim measures during this process to allow more 'like-for-like' accounting comparisons. (Paragraph 42)

### Losses and leakages

6. While gas distribution leakages have improved, the current incentives to reduce energy losses and leakages are not fit for purpose, particularly for electricity networks. We were concerned to hear that Ofgem had paid incentives to network companies who had not reduced losses in proportion to those incentives. Consumers are losing out. We recommend that Ofgem develops explicit loss reduction targets and incorporates tougher penalties for network companies that fail to meet them. Introducing locational charges for leakages rather than uniform losses would encourage network companies to be more rigorous about cutting leakages. (Paragraph 55)
7. Greater public scrutiny would also assist market performance, so we recommend that Ofgem publish the network companies' performance against loss reduction strategies alongside the UK's performance against international rankings of losses and provide a commentary on good and poor performers. This combination of information on individual and macro performance on loss reduction should help the market to hold the sector to account, which in turn can spur on energy efficiency and market effectiveness. (Paragraph 56)

### Conclusion

8. Overall, British energy network regulation is in transition. The migration from RPI-X to RIIO has led to significant framework changes. It is important to build market confidence for the stability of the framework. RIIO is an improvement on its predecessor, and there are positive signs that the framework has brought about a more robust negotiation process involving a wider group of stakeholders. However, RIIO has not gone far enough in providing value for money for consumers of energy. We are particularly concerned by the greater than expected profits by the network companies after the first year of the new framework. As set out in this report, a number of changes are needed to provide greater transparency of how network costs are calculated and passed onto consumers. Greater transparency will allow more scrutiny for this often overlooked aspect of the UK's energy market and help to ensure that it is held to account. This is needed particularly in view of the absence of any real competition in the transmission and distribution functions. (Paragraph 57)
9. We are concerned that the network cost recovery framework is excessively complex with barriers which hinder the development of a competitive market. Simplifications to charging methodologies would strengthen the market's ability to scrutinise costs, and increase pressure for more efficiencies. (Paragraph 58)

10. We recognise the need to balance investment in network infrastructure against cost reductions, but we want to see Ofgem both develop more incentives focussed on the roll-out of network technology, such as smart grids, and connect more consumers and smaller energy providers to the grid. (Paragraph 59)

# Formal Minutes

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**Tuesday 10 February 2015**

Members present:

Mr Tim Yeo, in the Chair

Ian Lavery  
Mr Peter Lilley  
Christopher Pincher

John Robertson  
Sir Robert Smith  
Graham Stringer

The following declarations of interest relating to the inquiry were made:

#### **4 November 2014**

Sir Robert Smith declared interests, as listed in the Register of Members' Interests, in the oil and gas industry, in particular a shareholding in Shell Transport and Trading (oil integrated).

Mr Tim Yeo declared interests, as listed in the Register of Members' Interests, in Eurotunnel as a non-executive director and shareholder.

Draft Report (*Energy network costs: transparent and fair?*), proposed by the Chair, brought up and read.

*Ordered*, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 59 read and agreed to.

Summary agreed to.

*Resolved*, That the Report be the Sixth Report of the Committee to the House.

*Ordered*, That the Chair make the Report to the House.

*Ordered*, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

[Adjourned till Tuesday 24 February at 9.15 a.m.]

# Witnesses

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The following witnesses gave evidence. Transcripts can be viewed on the Committee's inquiry page at [www.parliament.uk/ecc](http://www.parliament.uk/ecc).

## Tuesday 1 July 2014

*Question number*

**Andy Manning**, Head of Network Regulation, British Gas, **Richard Hall**, Consumer Futures Business Unit, Citizens Advice Bureau, and **Basil Scarsella**, CEO, UK Power Networks Q1-61

**Jonathan Smith**, Head of Trading & Pricing, First Utility, **Peter Bennell**, CEO, Haven Power, and **Patrick Smart**, UK & Ireland Grid Manager, RES Q62-123

## Tuesday 9 September 2014

**Phil Jones**, Chief Executive Officer, Northern Power Grid, **Tony Glover**, Director of Policy, Energy Networks Association, **Jeremy Nicholson**, Director, Energy Intensive Users Group, **Graham Edwards**, Chief Executive Officer, Wales and West Utilities, **John Pettigrew**, Executive Director, National Grid, and **Frank Mitchell**, Chief Executive Officer, SP Energy Works Q124-211

## Tuesday 4 November 2014

**Dermot Nolan**, Chief Executive Officer, **Martin Crouch**, Ofgem Senior Partner, Transmission, Smarter Grids and Governance: Transmission and **Maxine Frerk**, Interim Senior Partner for Smarter Grids and Governance: Distribution, Ofgem Q212-275

**Rt Hon Matthew Hancock MP**, Minister of Energy and **John Fiennes**, Director, Energy Strategy Networks and Markets, Department of Energy and Climate Change Q276-325

## Published written evidence

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The following written evidence was received and can be viewed on the Committee's inquiry web page at [www.parliament.uk/ecc](http://www.parliament.uk/ecc). NTC numbers are generated by the evidence processing system and so may not be complete.

- 1 BEAMA Ltd (NTC0011)
- 2 British Gas (NTC0030)
- 3 Chemical Industries Association (NTC0028)
- 4 Citizens Advice (NTC0019)
- 5 Citizens Advice (NTC0039)
- 6 Department Of Energy And Climate Change (NTC0012)
- 7 EDF Energy (NTC0033)
- 8 Electricity North West Limited (NTC0017)
- 9 Energy Intensive Users Group (NTC0040)
- 10 Energy Networks Association (NTC0032)
- 11 Energy UK (NTC0029)
- 12 First Utility (NTC0036)
- 13 Haven Power (NTC0035)
- 14 Hugh Smeaton (NTC0034)
- 15 IESIS (NTC0005)
- 16 John Muir Trust (NTC0014)
- 17 Martin Watt (NTC0001)
- 18 National Energy Action (NTC0038)
- 19 National Grid (NTC0031)
- 20 Northern Gas Networks (NTC0008)
- 21 Northern Powergrid (NTC0007)
- 22 Northern Powergrid (NTC0037)
- 23 Ofgem (NTC0027)
- 24 Oil And Gas UK (NTC0041)
- 25 Prospect (NTC0021)
- 26 Renewable Energy Systems Limited (NTC0010)
- 27 RenewableUK (NTC0003)
- 28 Scotia Gas Networks (NTC0026)
- 29 Scottish Renewables (NTC0022)
- 30 SHE Transmission (NTC0024)
- 31 Smartgrid GB (NTC0004)
- 32 SP Energy Networks (NTC0018)
- 33 SSEPD (NTC0025)
- 34 The Institution Of Engineering And Technology (NTC0002)
- 35 Transmission Investment (NTC0013)
- 36 UK Power Networks (NTC0009)
- 37 UK Power Reserve Ltd (NTC0006)
- 38 Wales & West Utilities Ltd (NTC0016)
- 39 Western Power Distribution (NTC0015)

# List of Reports from the Committee during the current Parliament

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All publications from the Committee are available on the Committee's website at [www.parliament.uk/ecc](http://www.parliament.uk/ecc).

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

## Session 2010–12

First Report	Emissions Performance Standards	HC 523 (807)
Second Report	UK Deepwater Drilling—Implications of the Gulf of Mexico Oil Spill	HC 450 (882)
Third Report	The revised draft National Policy Statements on energy	HC 648
Fourth Report	Electricity Market Reform	HC 742 (HC 1448)
Fifth Report	Shale Gas	HC 795 (HC 1449)
Sixth Report	Ofgem's Retail Market Review	HC 1046 (HC 1544)
Seventh Report	A European Supergrid	HC 1040 (HC 1684)
Eighth Report	The UK's Energy Supply: Security or Independence?	HC 1065 (HC 1813)
Ninth Report	Solar Power Feed-In Tariffs	HC 1605 (HC 1815)
Tenth Report	The EU Emissions Trading System	HC 1476 (HC 1870)
Eleventh Report	The Future of Marine Renewables in the UK	HC 1624
Twelfth Report	Consumption-Based Emissions Reporting	HC 1646
First Special Report	Low carbon technologies in a green economy: Government Response to the Committee's Fourth Report of Session 2009–10	HC 455
Second Special Report	Fuel Poverty: Government Response to the Committee's Fifth Report of Session 2009–10	HC 541
Third Special Report	The future of Britain's electricity networks: Government Response to the Committee's Second Report of Session 2009–10	HC 629

## Session 2012–13

First Special Report	The Future of Marine Renewables in the UK: Government Response to the Committee's Eleventh Report of Session 2010–12	HC 93
First Report	Draft Energy Bill: Pre-legislative Scrutiny	HC 275
Second Report	The road to UNFCCC COP 18 and beyond	HC 88 (HC 633)
Second Special Report	Consumption-Based Emissions Reporting: Government Response to the Committee's Twelfth Report of Session 2010–12	HC 488

Third Report	Low-Carbon Growth Links with China	HC 529 (HC 748)
Fourth Report	Pre-appointment hearing with the Government's preferred candidate for Chair of the Committee on Climate Change	HC 555
Fifth Report	Consumer Engagement with Energy Markets	HC 554 (HC 1036)
Sixth Report	Building New Nuclear: the challenges ahead	HC 117
Seventh Report	The Impact of Shale Gas on Energy Markets	HC 785

#### Session 2013–14

First Report	The Green Deal: watching brief	HC 142 (HC 607)
First Special Report	Building New Nuclear—the challenges ahead: Government Response to the Committee's Sixth Report of Session 2012–13	HC 106
Second Report	A Severn Barrage?	HC 194 (HC 622)
Second Special Report	The Green Deal: watching brief: Government Response to the Committee's First Report of Session 2013–14	HC 607
Third Special Report	The Impact of Shale Gas on Energy Markets: Government Response to the Committee's Seventh Report of Session 2012–13	HC 609
Third Report	UK oil refining	HC 340 (HC 718)
Fourth Report	Smart meter roll-out	HC 161 (HC 719)
Fifth Report	Energy Prices, Profits and Poverty	HC 108 (HC 717)
Sixth Report	Local Energy	HC 180 (HC 749)
Seventh Report	Pre-appointment hearing with the Government's preferred candidate for Chair of Ofgem	HC 645
Eighth Report	Levy Control Framework: Parliamentary oversight of Government levies on energy bills	HC 872
Ninth Report	Carbon capture and storage	HC 742

#### Session 2014–15

First Special Report	Levy Control Framework: Parliamentary oversight of Government levies on energy bills: Government Response to the Committee's Eighth Report of Session 2013–14	HC 590
First Report	Intergovernmental Panel on Climate Change Fifth Assessment Report Review of Working Group I contribution	HC 587 (HC 732)
Second Report	Innovate to accumulate: the Government's approach to low carbon innovation	HC 747 (HC 733)

Second Special Report	Carbon capture and storage: Government Response to the Committee's Ninth Report of Session 2013–14	HC 638
Third Report	The Green Deal: watching brief (part 2)	HC 348 (HC 882)
Fourth Report	Small nuclear power	HC 347
Fifth Report	Linking emissions trading systems	HC 739