House of Commons
Energy and Climate Change Committee

Investor confidence in the UK energy sector

Third Report of Session 2015–16

Report, together with formal minutes relating to the report

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The Energy and Climate Change Committee

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Contacts

All correspondence should be addressed to the Clerk of the Energy and Climate Change Committee, House of Commons, London SW1A 0AA. The telephone number for general enquiries is 020 7219 2158; the Committee’s email address is ecc@parliament.uk.
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Summary

Over the course of summer 2015, the Government made a series of policy announcements, which appeared to signal a significant change of direction on low-carbon energy policy. The changes took many stakeholders by surprise and raised serious questions about the Government’s plans for meeting long-term carbon objectives. Given that great pains have been taken in recent years to take account of investors’ need for policy stability and predictability, it was not surprising that stakeholders identified investor confidence in the UK energy system as a priority area for us to investigate.

We found that the Government’s actions have clearly had an impact on the confidence of many investors. While the effect is not as great as has been experienced in some other countries—where the implementation of retroactive policies has caused investment to collapse—there nevertheless has been a dip in confidence since the election in May 2015. This is most clearly illustrated by the UK’s position in the EY Renewable Energy Country Attractiveness Index, which fell from 8th place in June 2015 to 11th place in September 2015.1

We identified six factors that have combined to damage investor confidence:

(1) Sudden and numerous policy announcements have marred the UK’s reputation for stable and predictable policy development.

(2) A lack of transparency in the decision-making process has led investors to question the Government’s rationale for policy changes and to wonder “what will be next?”

(3) There has been insufficient consideration of investor impacts, exemplified by insufficient consultation and engagement ahead of policy decisions.

(4) Policy inconsistency and contradictory approaches have sent mixed messages to the investment community about the direction of travel. Examples of this include:

• claiming to want to decarbonise at lowest cost while simultaneously halting onshore wind;

• giving local people a say in wind consents but not shale gas; and

• emphasising the important role of gas while scrapping support for carbon capture and storage.

(5) The lack of a long-term vision has made it more difficult for investment committees to make decisions about projects that are, by their nature, long-term endeavours.

(6) A policy “cliff-edge” in 2020, does not provide sufficient visibility about the size of the future Levy Control Framework (LCF) budget or what will happen to the Carbon Price Floor. This is a problem when projects can take five years or longer to go from conception to completion.

The good news is that there is no shortage of money available for projects that have advanced to the late construction or operation phase. Institutional investors in particular

favour these kinds of investments. However, the problem occurs earlier in the project pipeline where there is some anecdotal evidence of a pause in investment in the supply chain and development of new projects. If investment in these activities has indeed dried up, it may not become apparent until the end of the decade.

Given the scale of investment that is needed in our energy infrastructure (DECC estimates £100 billion by 2020), it is of course unhelpful that progress may have been slowed, but we are hopeful that—if the Government is willing to learn from its mistakes—things can now begin to move in a more positive direction.

The first task that Government must address is to provide more clarity about how existing policy mechanisms will be used. Despite repeated promises to provide plans and clarity, the Government has yet to set out detailed information about what will happen to the Levy Control Framework beyond 2020 or to provide satisfactory plans for the rounds of Contract-for-Difference auctions (merely stating that there may be three auctions this Parliament does not constitute a “plan”).

Next, the Government must turn its attention to creating a credible long-term vision for the future of the UK’s energy system. The process of developing a “Carbon Plan” to deliver the fifth carbon budget presents an ideal opportunity for the Government to build a shared vision of the direction of travel. If it is to successfully repair investor confidence, the Government should adopt the following five principles in developing the Plan:

(1) develop the Plan in full consultation with the investment community;

(2) ensure that any modelling or scenario work is transparent and open to external scrutiny;

(3) provide more clarity about how transitions will be managed, including the intended “glide path” out of subsidies;

(4) retain sufficient flexibility to adapt to new technologies and innovations such as storage and demand-side response; and

(5) take steps to build a cross-party consensus around the Plan.

Finally, the Government needs to pay particular attention to the LCF, which seems to be at the root of many of the recent policy alterations. The LCF appears to now have a central role in driving the direction of energy policy. A projected overspend in the budget—and the impact this might have on consumer bills—was the trigger for the recent round of policy announcements. However, we are concerned that the Government appears to be considering only short-term costs to consumers. The Government also has a responsibility to consider the impact of its decisions on the next generation of consumers. Many stakeholders considered that the LCF was far from perfect. In particular the failure to take a holistic view of whole system costs and the lack of transparency about how the spending forecasts are calculated are causing some nervousness. The assumptions that underpin the forecasts need to be made public as soon as possible.
1 Introduction

1. Investment in low-carbon electricity generation is vital in order to replace ageing energy infrastructure, maintain secure energy supplies and meet legally-binding environmental targets. The Department of Energy and Climate Change (DECC) estimates that approximately £100 billion of investment is required in electricity generation and networks by 2020. Energy projects like gas-fired power stations, wind farms, and nuclear power stations can take years from conception to completion. Alongside these large-scale energy projects with high up-front development costs, there are small-scale developments, including community projects and individual installations, all of which will contribute to diversifying energy generation in the UK. Investor confidence is crucial to ensuring that projects—large and small—attract and maintain investment throughout their development.

2. In July 2015, one of the first steps we took as a Committee was to consult our stakeholders on priority areas of scrutiny. Many stakeholders suggested that a series of DECC policy announcements (see box 1) through the summer, and a lack of clarity on the long-term direction of energy policy, had damaged investor confidence. We heard that policy uncertainty was weakening the case for investment in energy in the UK. This could mean that projects become more expensive to deliver—as investors demand a greater return on their investment to compensate for increased risk—or that projects simply do not go ahead. Moreover, any hiatus in energy investment could undermine the UK's ability to meet climate, energy security and affordability objectives.

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2 Department of Energy and Climate Change (ICE 0088)
3 Energy and Climate Change Committee, First report of session 2015–16, Our priorities for Parliament 2015–20, HC 368
Box 1: DECC policy announcements

May 2015: Conservative Party Manifesto pledge to “halt the spread of onshore windfarms”

18 June 2015: DECC announces early closure of the Renewables Obligation (RO) for onshore wind

8 July 2015: Chancellor announces, in the Summer Budget, the removal of the Climate Change Levy (CCL) exemption for renewable electricity; Office for Budget Responsibility publishes figures on the Levy Control Framework


22 July 2015: DECC announces cuts to RO for solar PV and biomass, and changes to Feed-in Tariff (FIT) accreditation

23 July 2015: DECC ends funding for the Green Deal Finance Company, effectively ending the Green Deal energy efficiency programme

27 August 2015: DECC publishes consultation on a review of the FIT scheme

8 September 2015: Impact Assessment published on closure of RO for onshore wind

9 September 2015: DECC announces decision to end pre-accreditation for new participants in the FIT

18 November 2015: The Secretary of State gives her long anticipated energy policy “reset” speech

25 November 2015: Autumn Statement and separate stock market announcement cancelling the £1 billion CCS competition

26 November 2015: The Committee on Climate Change publishes proposals for the fifth carbon budget

17 December 2015: Solar FITs decision announced

3. On 16 September 2015, we launched our inquiry into investor confidence in the UK energy sector. We have received 95 submissions of written evidence. We began our inquiry with a public hearing on 20 October 2015 with the Minister of State, Andrea Leadsom MP, to discuss the rationale for the announcements made by DECC over the summer. Since then we have held four further evidence sessions with stakeholders involved in energy investment, including representatives of utilities, supply chain companies, banks, asset managers, pension funds and other institutional investors. We are grateful to all those who have contributed to this inquiry. We are also grateful for the assistance we received for our inquiry from our specialist advisers: Andrew Buglass and Kirsty Hamilton. We also held a separate one-off session on the unexpected cancellation in November of the £1 billion carbon capture and storage competition, and have recently published a separate report on this.4

4 Energy and Climate Change Committee, Second report of session 2015–16, Future of carbon capture and storage in the UK, HC 692
4. The policy environment has continued to evolve throughout the course of our inquiry with further significant decisions and announcements (see box 1) that have affected investor confidence. In the light of this, and with the 2016 Budget approaching, we have been keen to present our findings at the earliest possible time. We have therefore taken the unusual step of publishing this report without formally hearing from DECC Ministers at the conclusion of our series of oral evidence sessions.

5. This report sets out our views on investor confidence. It also highlights a number of unanswered questions that the Government needs to respond to. Chapter two provides our assessment of the current state of investor confidence and sets out some of the factors contributing towards uncertainty for investors. Chapter three provides our conclusions and recommendations on the steps that should be taken to respond to concerns expressed by investors. In chapter four we look in depth at the Levy Control Framework (LCF)—Government’s tool for controlling the costs to consumers from pursuing energy policy objectives such as investment in low carbon generation—which appears to be at the root of many of our witnesses’ criticisms. We explain in further detail how to achieve greater visibility on the LCF. Finally, in chapter five we summarise our overarching conclusions. We will look carefully at the Government’s response to this report and may follow-up with further evidence sessions as appropriate.

A note on terminology

6. In this report we use the word “investors” to refer to any organisation that is providing finance of some form to the energy sector. This includes utilities, other equity investors and lenders.

Box 2: Working towards our goals

| At the start of the 2015 Parliament we set out three goals for our scrutiny work: |
| Holding the Government to account on achieving a balanced energy policy; |
| Setting the agenda on an innovative future energy system; and |
| Influencing the long-term approach to climate targets.¹ |

Our work on investor confidence in the UK energy sector and this report are primarily focussed on our goal to hold the Government to account on achieving a balanced energy policy. Timely and appropriate investments in the energy sector are crucial to the UK’s ability to meet climate, energy security and affordability objectives. Throughout the course of this Parliament, we welcome feedback on our work towards our goals.

¹ Energy and Climate Change Committee, First report of Session 2015–16, Our priorities for Parliament 2015–20, HC 368, para 35-37
2 The state of investor confidence

Factors affecting investor confidence

7. Historically, the UK has been viewed favourably as a place to invest. A transparent legal and political system, combined with a stable macro-economic environment have proved to be attractive to investors. In the energy sector, the relatively stable policy framework, avoidance of retroactive change and cross-party commitment to achieving long-term decarbonisation targets reinforced that appeal. The Institutional Investors Group on Climate Change (IIGCC), a forum for investor collaboration, explained:

The UK has been a leading European destination for institutional investment into low-carbon technologies over recent years. Financial investors invested nearly EUR 6.4 billion in equity in EU renewable infrastructure in 2014, of which nearly EUR 4.0 billion was invested in the UK.

8. However, the attractiveness of the UK as a destination for international investment is being called into question. We have heard consistently throughout our inquiry that the Government’s actions since the election in May 2015 are undermining confidence and unsettling the investment community. This is encapsulated in the EY Renewable Energy Country Attractiveness Index, which ranks 40 countries according to the attractiveness of renewable energy investments. The UK slipped from 8th place in June 2015 to 11th place in September 2015. This is the first time since the Index was established in 2003 that the UK has been placed outside the top 10.

9. There has been a dip in investor confidence in the UK energy sector since the election in May 2015. We have identified six factors that, when combined, are having a damaging effect on investor confidence. These are:

   i) Sudden and numerous policy announcements
   ii) A lack of transparency in the decision-making process
   iii) Insufficient consideration of investor impacts
   iv) Policy inconsistency and contradictory approaches
   v) Lack of a long-term vision
   vi) A policy “cliff-edge” in 2020

1. Sudden and numerous policy announcements

10. The stability of the policy regime is one of the factors that investors will consider when making an investment decision. This is particularly relevant in the UK energy sector where, as the Secretary of State herself has acknowledged, no form of power generation can currently be built without Government support, whether that is in the form of a

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5 Barn Energy Limited (ICE 0080), Environment Agency Pension Fund (ICE 0098), Greenpower Developments (ICE 0103)
6 ABB (ICE 0047), DONG Energy (ICE 0035), Environment Agency Pension Fund (ICE 0098), IIGCC (ICE 0041), Siemens (ICE 0076), UKSIF (ICE 0028)
7 IIGCC (ICE 0041)
Investor confidence in the UK energy sector

Contract-for-Difference, Feed-in Tariff or Capacity Market payment. Policy decisions can cost money. In paragraphs 30-32 we explore the impact that recent announcements may have had on investment, particularly on projects in the earlier phases of supply chain and project development.

11. Due to the long lead time required to deliver new investment, and the long life of energy assets, investors look for a stable and predictable policy environment. However, they also understand that policy changes are a fact of life in a democracy. If changes are made with sufficient prior warning and in full consultation with the industry, investors feel able to manage their risk exposure across projects or portfolios and mitigate the risk of future changes, adapting their investment plans accordingly. When policy changes are sudden and unexpected, there is less room for manoeuvre and investors face greater exposure to losses. IIGCC explained:

Every change of policy involves a cost for some market participants. However, if policy changes are announced with sufficient lead time, are in line with the overall direction of energy policy, are not retroactive and result from an extensive and objective consultation they are acceptable to investors.10

12. Unfortunately, the Government’s track record since May 2015 has not been good in this regard. Witnesses described the raft of policy announcements that was made over the summer as “dramatic”, “unexpected” and “abrupt”.11 This was compounded in the autumn by the decision to axe the CCS competition, with only an hour’s warning given to the industry.12 Investors have been left wondering “what next?”

13. The sheer number of policy changes was also a cause for concern. E.ON told us:

Considered individually, some of the recent changes may appear reasonable, but the combination of so many changes in such a short period of time with limited or no consultation has left a void. Investors have been left questioning the future direction of Government policy and its commitment to long term targets.14

2. A lack of transparency in the decision-making process

14. When changes are made to policy, the investment community wants to understand why. If the rationale behind a decision is not clear, or if the decision-making process is not transparent, confidence in the stability of the policy regime will be diminished, and investors may be left with the question “what will be next?” Witnesses criticised

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9 DECC, Amber Rudd’s speech on a new direction for UK energy policy, 18 November 2015
10 IIGCC (ICE 0041)
11 ABB (ICE 0047), Centrica (ICE 0059), Environment Agency Pension Fund (ICE 0098), Hallidays Hydropower Ltd (ICE 0037), IIGCC (ICE 0041), Lightsource Renewable Energy (ICE 0070), Scottish Renewables (ICE 0050), US Industrial Pellet Association (ICE 0024)
12 Energy and Climate Change Committee, Second report of session 2015–16, Future of carbon capture and storage in the UK, HC 692
13 Scottish Power (ICE 0091)
14 E.ON (ICE 0038)
the Government’s lack of transparency, in particular the failure to make public the methodology and assumptions behind the Levy Control Framework (LCF) spending projections. Schroder Investment Management said:

None of the assumptions that underpin the [LCF] forecasts have been made available. This makes understanding the context to investment decisions difficult.¹⁶

3. Insufficient consideration of investor impacts

15. Genuine consultation allows the Government to gain a fuller understanding of the likely impact of a proposed policy change on industry and the investment community. A failure to consult properly risks damaging investor confidence if investors feel that the Government does not sufficiently understand how policy changes could impact investment. Consultation works both ways—investors get early visibility as well as the opportunity to provide input into policy changes, which reduces the suddenness and lack of transparency of any subsequent announcements. We heard criticism that the consultation period for the changes to Feed-in Tariff accreditation was just four weeks.¹⁷ There was no formal consultation on the decision to close the Renewables Obligation early, and the change to the Levy Exemption Certificates was brought in on the day of the Summer Budget without any engagement or consultation, even though it had significant impacts on the share prices of several investors in renewables. For example, Drax’s share price dropped 28 per cent on budget day, “wiping £425 million off the company’s value.”¹⁸ Centrica told us:

Whilst the Levy Exemption regime (under the Climate Change Levy legislation) was always recognised as a transitional support mechanism for renewable generation, it was not expected to be removed with such immediate effect and without industry consultation. The Chancellor’s announcement in the Summer Budget of the removal of the Levy Exemption Certificates from 1 August 2015 thus impacted the revenue streams of a range of projects, from new and existing renewable generation, as well as renewable electricity trading and supply to business customers thereof.¹⁹

16. However, this has not always been the case. We heard praise for the efforts DECC has made in the past to take investors’ needs into consideration. Witnesses cited the Electricity Market Reform process, including the development of the Contract-for-Difference mechanism, as an example of good practice.²⁰ They also noted the work of DECC’s Commercial Team and Investor Relations Team.²¹

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¹⁵ Q 112 (Andrew Koss; Paul Spence), Q 170 (Paul Barwell), Carter Jonas (ICE 0017), CCSA (ICE 0055), Greenpower Developments Ltd (ICE 0103), Green Highland Renewables Ltd (ICE 0008), IREGG (ICE 0089), Nextenergy Capital (ICE 0090), RWE (ICE 0067), Energy UK (ICE 0086), RenewableUK (ICE 0095), Schroder Investment Management (ICE 0051), UKER (ICE 0073)
¹⁶ Schroder Investment Management (ICE 0051)
¹⁷ E.ON (ICE 0036), Hallidays Hydropower (ICE 0037), Endurance Wind Power (ICE 0007)
¹⁸ Financial Times, Summer Budget: End of climate levy relief undermines Drax shares, 8 July 2015; TheBusinessDesk.com, Drax challenges Government to back biomass after Budget blow, 28 July 2015
¹⁹ Centrica (ICE 0059)
²⁰ ENGIE Energy-UK Turkey (ICE 0102), Siemens (ICE 0076)
²¹ Energy UK (ICE 0086)
17. Witnesses felt there was room for improvement, though, in ensuring that investors’ concerns were better understood across Whitehall and in particular within HM Treasury. 22

2020 Renewables Ltd said:

Because many of the policy decisions impacting renewables (levy exemption certificates, levy control framework) and other energy investment (i.e. oil and gas taxation) are driven by budgetary issues, decisions by HM Treasury have a large impact on the investor community. It is therefore important that investor feedback is properly communicated to both Treasury and DECC in crafting policy decisions. Currently investors have little understanding on decisions being taken by HM Treasury which is contributing to investor uncertainty. 23

4. Policy inconsistency and contradictory approaches

18. While investors will naturally look at the detail of policies, they also respond to the broader signals and narratives sent out by Government. Witnesses told us that the current Government is at best sending mixed messages. At worst, some of the decisions made in the last nine months appear to signal a significant change of course. Once again, this increases uncertainty and undermines confidence in the sector.

19. Siemens described some of the “apparently contradictory messages” that were “unsettling” for investors:

- Decarbonising at lowest cost whilst halting onshore wind
- Giving local people a say in wind consents but not shale gas
- Claiming to “let markets decide” when activity in the energy market is heavily influenced by government policy
- Focussing on the LCF rather than actual impact on customer bills [this is explained in more detail in paragraphs 66-67] 24

WWF UK added that:

Since May 2015, the Government has enacted or proposed a series of policy reforms that cumulatively have been understood by stakeholders as a significant shift away from low-carbon technologies (even if this was not the intended purpose). 25

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22 Schroder Investment Management (ICE 0051), Velocita (ICE 0006), North East Chamber of Commerce (ICE 0022), Oil and Gas UK (ICE 0081)
23 2020 Renewables Limited (ICE 0026)
24 Siemens (ICE 0076)
25 WWF UK (ICE 0092)
5. **Lack of a long-term vision**

20. The overwhelming number of submissions to our inquiry expressed a desire for more clarity about the Government’s intended long-term direction of travel. Temporis, a Fund Manager for the Environment Agency Pension Fund said:

   The criteria for investment decisions will vary depending upon the nature of the specific transaction, but as a general matter policy stability is one of the key investment drivers. Long term visibility is especially important here given the nature of infrastructure investment and its close ties to regulation.

Energy projects are by their nature long-term endeavours. The process of developing plans, acquiring permissions and constructing an energy project—whether that be a wind farm, thermal plant or a nuclear power station—takes many years. For nearly all, the process lasts longer than one parliamentary term. For long lead-time plant, such as offshore wind, nuclear or carbon capture and storage, the process may take more than one five-year parliamentary term, and in some cases may span multiple parliamentary terms.

And of course, once it has been built, the project will likely operate for decades. This means that investors and lenders want to understand how the energy generating landscape (and supporting policy framework) will look in the medium- and long-term, in order to have an idea of the potential returns a project might provide and the risks to which these returns are exposed. Matthew Knight from supply chain firm Siemens told us:

   All energy investments are long-term. It can take you 10 years to develop a project and then it operates for another 30, 40, 50 years. So you are talking about projects that take two Parliaments to go from an idea to actually being constructed.

21. Unfortunately, again, this is an area where the Government has not performed well to date. For the six months following the election, the Government did not set out a positive vision about how it envisaged the power sector evolving over time, other than to say that it believed the UK was on track to meet its 2020 renewable electricity commitment. It was not until November 2015, when the Secretary of State gave her long-anticipated energy policy “reset” speech, that the Government’s direction of travel became a little clearer. The industry association, Energy UK said:

26 Environment Agency Pension Fund (ICE 0098), Scottish Renewables (ICE 0050), RWE (ICE 0067), Q 149 (Abid Kazim), ABI (ICE 0032), Glenmont Partners (ICE 0012), SSE (ICE 0013), IET (ICE 0100), Association for the Conservation of Energy (ICE 0039), Siemens (ICE 0076), Renewable Energy Association (ICE 0066), NIA (ICE 0045), Scottish Power (ICE 0091), Centrica (ICE 0059), Halliday’s Hydropower Ltd (ICE 0037), E.ON (ICE 0036), Energy UK (ICE 0086), Drax (ICE 0058), Vattenfall UK (ICE 0094), EDF (ICE 0034), British Hydropower Association (ICE 0009), Green Highland Renewables Ltd (ICE 0008), ABB (ICE 0047), UKSIF (ICE 0028), CCSA (ICE 0055), Q 117 (Paul Spence), DONG Energy (ICE 0035), Q 75 (Andrew Koss), Durham Energy Institute (ICE 0060), Green Switch Solutions (ICE 0044), IGCC (ICE 0047), Renewable UK (ICE 0095), UKERC (ICE 0073), Tempus Energy Supply Ltd (ICE 0072), Rathbone Greenbank Investments (ICE 0096), The Investment Association (ICE 0097)

27 Environment Agency Pension Fund (ICE 0098), Green Alliance (ICE 0021), RWE (ICE 0067), Velocita (ICE 0006), Glenmont Partners (ICE 0012), Centrica (ICE 0059), SSE (ICE 0013), VPI Immingham (ICE 0020), Energy UK (ICE 0086), Carter Jonas (ICE 0017), Greenpower Developments Ltd (ICE 0103), Durham Energy Institute (ICE 0060), Friends of the Earth (ICE 0074), IREGG (ICE 0089), Q 186 (Andrew Lee)

29 Q 180 (Matthew Knight)

30 Q 26

31 DECC, *Amber Rudd’s speech on a new direction for UK energy policy*, 18 November 2015
The sudden, near retroactive, changes have been difficult for investors to explain to credit committees, and the absence of a longer-term policy direction makes it hard to construct a compelling narrative to persuade the decision makers that medium term projects in the UK merit support.32

22. We also heard how cross-party support for a long-term vision was something that investors would welcome.33 We heard that the cross-party consensus over the recent Electricity Market Reform (EMR) process was an example of good practice. Siemens told us:

Investors were prepared to wait during the lengthy EMR process with the promise of clarity beyond. [ … ] Investors were then reassured by the cross-party consensus on the 2013 Energy Bill.34

We note the approach taken by the Swedish Government, which has appointed a cross-party Energy Policy Commission to prepare the basis for a long-term, cross-party agreement on energy policy.35

23. The “reset” speech set out aspirations to replace coal with gas, to get nuclear “off the ground” and to hold three further Contract-for-Difference auctions for offshore wind, conditional on meeting cost reductions.36 However, witnesses told us that further clarity was needed, as evidenced by the overwhelming call for greater long-term visibility on energy policy.37 Investment over the past decade has put us on track to meet our 2020 renewable electricity commitments, but concern remains about the course for 2030 and beyond. We return to these points in paragraphs 45–49.

6. A policy cliff-edge in 2020

24. As we have already noted, energy projects can take many years, or even decades, to go from conception to fully operational. Investors therefore want to have clarity about the policy framework over a project-long timescale. Witnesses described a policy “cliff-edge” in 2020: beyond this point, there is no information about the Levy Control Framework budget or the Carbon Price Floor.38
25. In the pre-2020 timeframe, witnesses also called for greater clarity about the next round of Contract-for-Difference (CfD) auctions. ScottishPower explained that investors “need clear visibility of budgets and timing of auctions in order to be prepared”. RenewableUK called for clarity on the following aspects:

Who is allowed to compete for contracts, when the auctions will be, and what budgets are available for each of the pots, all on a rolling horizon. A clear plan for how technologies will move through the allocation system, from negotiated contracts to the less-established pot to the technology-neutral established pot.

26. In October, DECC told us that it would “set out plans for the next CfD allocation round this autumn”. In November the Secretary of State suggested in her “reset” speech that the Government would make funding available for three further CfD auctions this Parliament, and that the first of these would take place by the end of 2016. These auctions are subject to “Government’s conditions on cost reduction” being met.

27. While the speech provided some reassurance to investors that there would be further CfD rounds, it did not set out a detailed “plan” and many questions still remain unanswered: When will the auctions take place? How big will the budgets be? Which technologies will be eligible to participate? How much must costs fall by in order to remain eligible for support? Further clarity is needed on these issues.

Why does investor confidence matter?

28. Although the UK’s standing in the attractiveness league tables has dipped a little in recent months, investments are still being made. For example, DONG Energy recently announced that it had taken a final investment decision on Hornsea One, which will be the world’s largest offshore wind farm. The issue is whether any loss of confidence is having a material impact. The picture is actually a great deal more complicated than it appears at first glance.

29. We have heard about two ways in which reduced investor confidence may have serious consequences for the UK energy system. The first is that the development of new projects—creating the medium-term project pipeline coming forward for investment—may have been put on hold, pending further clarity on energy policy. The second is that the overall costs of building the energy infrastructure that is needed for a secure and low-carbon future may be higher than they would otherwise have been.

Maintaining the project pipeline

30. As Siemens explained to us, “energy investments occur in four distinct phases: supply chain, project development, construction and refinancing [of operational projects]. The

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39 CCSA (ICE 0055), Environment Agency Pension Fund (ICE 0099), EDF (ICE 0034), Green Alliance (ICE 0021), Q 86 (Paul Spence), RWE (ICE 0067), ScottishPower (ICE 0091), Renewable Energy Association (ICE 0066), Low Carbon Ltd (ICE 0063), Alderney Renewable Energy (ICE 0087)

40 ScottishPower (ICE 0091)

41 RenewableUK (ICE 0095)

42 Department of Energy and Climate Change (ICE 0088)

43 DECC, Amber Rudd’s speech on a new direction for UK energy policy, 18 November 2015

44 DECC, Amber Rudd’s speech on a new direction for UK energy policy, 18 November 2015

45 DONG Energy World’s largest ever offshore wind farm to be built by DONG Energy, 3 February 2016
types of investors and decision criteria are different at each stage”. We also note that there are varying rates of return and, as we note in paragraph 37, all energy project costs—for renewable as well as other forms of energy production—are ultimately passed onto consumers. We heard that there is no shortage of money available for projects in the later phases: late construction and operating projects which are lower risk as they are at or close to revenue generation. We also heard that there may be a strong level of activity at present financing through construction in order to meet the new 2016 cut-off date for the Renewables Obligation and getting in ahead of other regulatory charges. Energy UK said:

There is unlikely to be an immediate tail off of investment in the UK, especially as banks and developers hasten to finish projects ahead of the RO [Renewables Obligation] and FIT [Feed-in Tariff] termination deadlines.

However, there is concern among investors about an impact on new investment in the earlier phases of supply chain and project development. Energy UK went on to add that “the uncertainty may already be impacting longer lead projects which are struggling to attract earlier stage development capital”. The UK Energy Research Centre (UKERC) explained why this was the case:

Development stage investors are potentially embarking on a process lasting several years before the project is operational. This is because it is necessary to undertake detailed site assessment (for example wind regime monitoring) and to secure planning and consent before construction can take place. [ … ] Investors therefore need a good deal of certainty that there will be a market for the construction of their developed asset a considerable time into the future. This means that these investors are most concerned with the long-term commitment of policy—for example that the CfD regime will sustain and have sufficient budget to offer contracts. They are likely to be concerned more about a signal that sufficient volume of projects will be demanded in the future than they are with the price at which their power will eventually be remunerated. This is because so many factors in a projects costs and revenues can (and have) change over the timescales in which most developers operate.

31. Returning to our previous example of DONG Energy’s recent investment in Hornsea One, this project secured a Contract-for-Difference (CfD) in April 2014. The contracts are legally binding, private law contracts between the developer and a government-established company and so will not be affected by any future policy changes. That is, once the wind farms are built and operational, the CfD top-up payments will be guaranteed. This is clearly a very different proposition for investors than putting capital into, say, the development of a new onshore wind farm in England, which may not be granted planning permission, may not be eligible for any support schemes and for which returns would be highly uncertain.

32. In relation to offshore wind, DONG Energy told us that whilst the "short-term pipeline, up to 2020 is assured, the medium-term, 2020–2025, is less clear, with a lack of
clarity about future auctions and the potential volume that could be accommodated”. An indication that there is an impact on new projects coming forward was provided by Carol Gould, Bank of Tokyo-Mitsubishi who told us:

> At the moment we are actively working on a number of offshore and onshore wind projects, but there is a much smaller pipeline of earlier development projects. [...] from the pipeline perspective, there are fewer discussions with developers regarding new projects. [...] It is probably closer to 95% less conversations with onshore wind [developers].

33. **The pace of current investment activity in projects that are close to completion (in order to get ahead of regulatory changes) may be masking a slowing down of investment in the earlier stages of the project pipeline. However, the impact of this will only really become visible in three to five years. While there is anecdotal evidence that this slowdown is taking place, it is too early to provide hard data. The Government should monitor this through DECC’s Renewable Energy Planning Database and the Planning Inspectorate Register of Applications and report back to us annually, through the course of the Parliament, on the health of the energy project pipeline.**

### Cost to consumers

34. The cost of building a new power plant is made up of many different elements: the cost of attaining relevant permits and consents; the cost of the equipment, engineering and construction, labour costs and so on. One important factor is the so-called “cost of capital”. Put very simply, this reflects the cost of borrowing money—interest and fee payments on loans and/or the cost of equity (the return that shareholders require to invest in the project)—that is needed to finance the project.

35. The cost of capital is itself a reflection of a number of factors, including the creditworthiness of the borrower, operating history, profitability, interest rates and so on. Lenders and investors will assess a “risk premium” for projects, reflecting factors that may impact the ability of a project to deliver the anticipated returns. Generally speaking, the more risky a project looks, the greater the risk premium will be. In much the same way that someone with a poor credit rating will have to pay higher interest rates when they take out a bank loan, so a project that is perceived to be higher risk will have to pay a higher risk premium. Schroder Investment Management said “In the light of recent changes to support mechanisms, we perceive that there is now increased policy risk and therefore require a higher premium to compensate for this risk”.

36. Witnesses explained that “policy risk” is one of the factors that lenders and investors will take into account when calculating their project risk premium. Increased policy risk will result in increased risk premiums and therefore an increased overall cost of the project. Andrew Lee, CEO and Managing Director of Velocita Energy Developments Ltd, explained in more detail why a more risky environment resulted in demands for higher rates of return:

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51 DONG Energy (ICE 0035)  
52 Qq222-224 (Carol Gould)  
53 DECC Renewable Energy Planning Data, 18 September 2014  
54 National Infrastructure Planning, Register of applications, accessed 23 February 2016  
55 Schroder Investment Management (ICE 0051)
Long-term investments in the onshore wind sector in France have achieved 5% or 6% returns, currently, in a low interest rate environment. In the UK we probably have to add 2% or 3% on to that, because we have learnt from experience that, over the years, [the return] will be salami-sliced back and that probably, at the end of the day, when […] someone has managed to slice off a piece of our revenue for some reason, it will come back to the same amount. Investors are looking for that sort of return from long-term infrastructure projects, and then you have to price the perceived more risky areas higher up.\textsuperscript{56}

37. Since all project costs are ultimately passed on to consumers, it was argued, the consequence would be higher consumer bills.\textsuperscript{57} Statkraft UK explained:

The biggest risk is that UK is seen as risky and unreliable destination for long term capital-intensive investments—precisely what EMR [Electricity Market Reform] was designed to avoid. This won’t stop investment, but it will make everything more expensive for investors and—ultimately—consumers.\textsuperscript{58}

38. Octopus investments provided an example of how an increased risk premium could affect UK investment costs. Using their methodology, and a 2% risk premium, the cost to the UK could be an additional £3.14 billion per annum of additional financing costs.\textsuperscript{59}

39. However, the Minister explained to us that the recent actions taken by the Government were motivated by the need to keep consumer bills down:

It is the case that when this new Government came into office we could immediately see that there were serious problems with, effectively, significant impacts on consumer bills, so we had to take action.\textsuperscript{60}

40. We are concerned that the Government appears to be considering only short-term costs to consumers when making energy policy decisions. Increasing policy uncertainty leads to increased risk premiums, which will result in consumers paying more in the long-run. In addition to considering the needs of today’s consumers, Government also has a responsibility to consider the impact of its decisions on risk premiums which will directly affect prices paid by the next generation of consumers.
3 Looking to the future

41. Chapter two explained the six factors that have combined to damage investor confidence, and why investor confidence matters. In this chapter we set out the steps Government should take to repair this damage.

Immediate actions

42. The Government needs to take immediate action to address (i) specific issues linked to Contracts-for-Difference, and (ii) the policy “cliff-edge” issue. This requires Government to set out more detail about the CfD auctions that are due to take place this decade, as well as how the Levy Control Framework is managed pre-2020. The Government must also be clear about what will happen to the existing suite of policy tools beyond 2020. In particular clarity is needed on the Levy Control Framework post-2020, and the Carbon Price Floor beyond 2020. Recommendations about the Levy Control Framework are set out in chapter four.

43. There are a number of unanswered questions that the Government needs to respond to:

i) When will there be clarification on when the three CfD auctions will take place?

ii) What budget will be available for the CfD auctions, and how far in advance of the auctions will the Government communicate this to help investors plan?

iii) Which technologies will be eligible to take part in the CfD auctions?

iv) How much must costs fall by in order for offshore wind projects to remain eligible for support under the CfD? Does this condition apply to all technologies, or just offshore wind?

v) What will happen to the Carbon Price Floor beyond 2020?

Providing a long-term vision and the pathway to achieve it

44. As we described in paragraphs 20–23, the investment community has told us it needs more clarity on the Government’s long-term vision. The “reset” speech provided a first step towards providing this (in relation to offshore wind, gas and nuclear), but further direction and detail is needed.

45. Many witnesses went on to add that the Government should also provide a strategy, which would set out the pathway to meeting its long-term objectives. Siemens and UKERC both argued that many of the policy tools were already available to Government, but clarity about how they would be used was lacking. E.ON told us that “investors need
a vision of what the new Government wants to achieve and a clear direction. This must be backed up by a coherent, stable framework that investors can rely on”. Equitix, a Fund Manager for the Environment Agency Pension Fund, said:

DECC should lay out a clear road map for their plans across the energy sector so that investors can forecast and better understand the financial returns that ultimately contribute to the business case for continued investment into the sector.

46. Some witnesses told us that the UK’s 2050 carbon reduction target combined with the carbon budgets were a helpful guide to the direction of travel. Vattenfall UK explained how they might be used to boost investor confidence:

The Carbon Budgets are one tool that provides investors with a clear map to least cost decarbonisation. To ensure they continue to provide this long term visibility and confidence, Government must set out a clear plan for delivery and proposed mitigation should the power, heat or transport sectors fall behind in their planned contribution to future Carbon Budgets.

47. The Government is currently in the process of setting the fifth carbon budget, which will cover the period 2028–32. The budget must be formally set by Parliament through secondary legislation by June 2016. As soon as is reasonably practicable after setting the carbon budget, the Secretary of State must lay before Parliament a report setting out proposals and policies for meeting the carbon budgets for the current and future budgetary periods up to and including that period. In 2011, after the fourth carbon budget was set, the then Secretary of State presented this report as Government’s “Carbon Plan”.

48. The “Carbon Plan” for achieving the fifth carbon budget represents an ideal opportunity for rebuilding confidence in the direction of travel for the energy sector in the UK. We have identified five key principles that the Government should follow as it develops the Plan over the course of 2016:

i) The Plan must be developed in full consultation with the investment community.

It will not be possible to meet our long-term climate change targets without significant levels of investment in energy infrastructure. It is essential that DECC understands investors’ needs as it develops the Plan.

ii) Any modelling or scenario work on the future energy mix that is carried out needs to be transparent and open to external scrutiny.

Investors need to feel confident that the methodology used is robust and where appropriate, have the opportunity to contribute.

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63 E.ON (ICE 0036)  
64 Environment Agency Pension Fund (ICE 0098)  
65 Centrica (ICE 0059), E.ON (ICE 0036)  
66 Vattenfall UK (ICE 0094)  
67 Climate Change Act 2008, Section 14  
iii) The Plan should provide more clarity about how transitions will be managed as new technologies become established, including the intended “glide path” out of subsidies. Subsidies are not intended to last forever and it is right that support reduces as technology costs fall. However, this needs to be done in a consistent, transparent and controlled manner which can be clearly understood by investors and factored into their investment plans—which require long-term assessments to be made. This would both provide the appropriate downward pressure on subsidy levels, while mitigating investor concern about sudden, unexpected policy changes. In view of regulatory changes likely to be required as the regulatory framework evolves in response to changing power sector business models, it is critical that amendments to regulation are consulted on and introduced in a similarly transparent, predictable fashion.

iv) The Plan needs to retain sufficient flexibility to adapt to new technologies and innovations such as storage and demand-side response.

v) The Government should take steps to build a cross-party consensus around the Plan.

49. There are a number of unanswered questions that the Government needs to respond to:

i) What consultations or engagement activities does DECC intend to conduct as part of the process of developing the Carbon Plan for the fifth carbon budget, and when will these activities take place?

ii) What modelling and/or scenario work will DECC be commissioning to inform the Carbon Plan?

iii) How will DECC factor in uncertainty around the role that new and emerging technologies (such as storage and demand-side measures) might play in the future energy mix as it develops the next Carbon Plan?

iv) What plans does DECC have to provide forewarning of decisions affecting the supply chain and what support will be provided to maintain jobs in the energy sector?

Improving understanding of investor impacts

50. So much in energy and climate change policy depends on what investors do, including how, when and where they invest. It is therefore crucial that the Government improves cross-Whitehall understanding of investors’ perspectives and the impacts of its policies and decision-making process on the investor community.

51. We recommend that Government develops its in-house capacity to analyse the consequences of its policies on investment (to the extent policy is expected to impact investment decision). Government should develop a complementary process to Economic Impact Assessments whereby the consequences for investment are assessed for all new policies.

69 TGE Group (ICE 0010), Sustainability First (ICE 0016), RenewableUK (ICE 0095), E.ON (ICE 0036)
The institutional landscape

52. The Government is currently in the process of establishing a National Infrastructure Commission (NIC), which will be “an independent body that enables long term strategic decision making to build effective and efficient infrastructure for the UK”. It will have a remit to look at energy as part of this. Several witnesses welcomed this move and noted that there could be a role for the NIC to play in providing greater clarity and certainty about the long-term direction of travel. Centrica said:

We welcome [ … ] the recent announcement of a National Infrastructure Commission (NIC) to assess the UK’s infrastructure’s needs in a dispassionate and even-handed manner. Providing long term certainty is critical for ensuring investment in major and expensive infrastructure.71

Vattenfall UK said:

There is potentially a role for the recently announced National Infrastructure Commission to gather evidence to prepare an agreement or ‘roadmap’ for the decarbonisation of the electricity sector.72

53. There is an important question about how the National Infrastructure Commission, Committee on Climate Change, Ofgem, Infrastructure and Project Authority, and Office for Budget Responsibility will work together.

54. We note that HM Treasury is currently consulting on the governance, structure and operation of the National Infrastructure Commission (NIC). We recommend that the NIC has an explicit requirement to consider the infrastructure requirements of meeting the UK’s carbon budgets and long-term legally binding carbon reduction targets.

55. The Government needs to explain exactly how DECC Ministers and officials intend to liaise with the newly-created National Infrastructure Commission (NIC), in particular in relation to the work which the NIC intends to commission on key aspects of energy sector investment.
4 The Levy Control Framework

56. A large number of the responses to our inquiry mentioned the influence of the Levy Control Framework (LCF) on investor confidence. In this chapter we focus in depth on the LCF, its role in shaping policy and the way in which it affects investors.

57. One of the Government’s key tools for signalling the level of intended public investment in the energy sector is the LCF. The LCF was established by DECC and HM Treasury in 2011 in order to cap the cost of levy-funded schemes and ensure that DECC “achieves its fuel poverty, energy and climate change goals in a way that is consistent with economic recovery and minimising the impact on consumer bills”.73 The LCF is “supposed to provide certainty to investors whilst also attracting financiers by reducing the impacts of the cost of developments”.74 It was also designed to drive long-term change in the energy mix and has been successful in doing so.75 The Government has put a limit on the amounts that can be raised and spent through this mechanism, which means that the LCF also serves to protect consumers by controlling the impact of a low carbon transition on energy bills.

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73 HM Treasury, Control framework for DECC levy-funded spending, March 2011, para 1.1
74 RWE (ICE 0067)
75 Q 172 (Abid Kazim)
Box 3: The Levy Control Framework

What is it?

The Government funds some of its energy and climate change policies directly through consumer energy bills rather than through funding from general taxation. The LCF is a cost control mechanism, which allows the Government to set an overall cap for the amount of money that can be raised and spent through this mechanism in support of low carbon electricity.

Why is it needed?

The LCF budget is a helpful signpost for investors about the amount of funding that is available to help support the investment required to replace ageing energy infrastructure, maintain secure energy supplies and meet legally-binding environmental targets. The cap on the budget is in place to minimise the impact of this investment on consumer bills.

What schemes are included in the cap?

Renewables Obligation (RO): Support mechanism for relatively large scale renewable electricity projects. This scheme will be closed to all new generation projects from 1 April 2017.

Feed-in-tariffs (FITs): Support mechanisms for relatively small scale renewable and low carbon electricity projects.

Contracts-for-Difference (CfDs): Set to replace the RO. Scheme designed to give greater certainty and stability of revenues to electricity generators by reducing their exposure to volatile wholesale prices.

How much money is available?

The cap was originally set to grow year-on-year in line with investment in low-carbon projects. The cap was set at £2 billion in 2011–12, rising to £7.6 billion in 2020–21 (in 2011–12 prices). A “headroom” of 20% on top of the cap was provided to deal with uncertainty (for example, external factors like unforeseen changes to wholesale prices).

58. A number of witnesses to our inquiry mentioned the LCF in their responses.76 Donald MacDonald, Chairman of the IIGCC, told us that mechanisms such as the LCF were “hugely” influential in investment decisions.77 At a very high level, the LCF provides some reassurance to investors for two reasons. First, it sets out how much money will be available under the various support schemes, which provides some visibility on the future size of the market. Second, it provides an assurance that costs to consumers will be

76 Q 112 (Andrew Koss; Paul Spence), Q 170 (Paul Barwell), Greenpower Developments Ltd (ICE 0103), IREGG (ICE 0089), UKERC (ICE 0073), Green Highland Renewables Ltd (ICE 0098), RWE (ICE 0067), CCSA (ICE 0055), Carter Jonas (ICE 0017), Energy UK (ICE 0080), Schroder Investment Management (ICE 0051), RenewableUK (ICE 0095), Nextenergy Capital (ICE 0090), VPI Mingham (ICE 0020), Solar Trade Association (ICE 0048), Statkraft UK (ICE 0071), Statkraft UK (ICE 0069), RES (ICE 0062), Lark Energy Commercial (ICE 0043), SSE (ICE 0072), Scottish Power (ICE 0091), Velocita (ICE 0006), Green Alliance (ICE 0021), E.On (ICE 0036), ENGIE Energy-UK Turkey (ICE 0102), 2020 Renewables (ICE 0026), Vattenfall UK (ICE 0094), Drax (ICE 0058), Scottish Renewables (ICE 0050), Smarstestenergy Limited (ICE 0040), NIA (ICE 0045), IIGCC (ICE 0041), Friends of the Earth (ICE 0074), Enviva (ICE 0064), Dr Emma Dawney (ICE 0015), ETI (ICE 0031), ECA (ICE 0053)

77 Q 283
kept under control, which is important because uncontrolled costs can undermine public support for policy measures, in turn leading to greater instability, more upheaval and change.78 SSE said:

The Levy Control Framework is not a perfect arrangement, however, alongside well-designed funding allocation mechanisms, it can help to control costs and provide a clear commitment about the volume of support available to low-carbon generation. This is an important principle for investor confidence.79

59. Witnesses identified a number of flaws with the LCF as it is currently configured and explained the impact on investor confidence. These flaws are:

- Not all levies are included within the cap
- Failure to take a holistic view of gross vs net costs to consumer
- Lack of transparency on spending forecasts
- Uncertainty on dealing with projected overspends
- Lack of clarity on the LCF post-2020

The rest of this chapter explores these flaws and suggests ways in which they might be rectified.

**Not all levies are included within the cap**

60. A common criticism of the LCF is that not all levy-funded policies are included within the spending cap. Currently excluded policies include the Capacity Market, the Warm Home Discount, and Energy Companies Obligation (ECO) even though these policies are also paid through levies on consumer bills. This sends a skewed signal about where support is being deployed, resulting in a disproportionate focus on the cost of supporting renewable energy and low-carbon generation, while less attention is paid to the cost to consumers of maintaining energy security or delivering energy efficiency.

61. The Government’s rationale for this is that the cap only applies to levies raised to fund electricity policies and not to non-electricity policies that are levy-funded, like the Warm Home Discount and ECO.80 This is difficult to square with its LCF Update (published July 2013) which states that the LCF caps “are intended to cover electricity policy in general, and would therefore apply equally to any future levy-funded electricity policy”.81 The Capacity Market, although excluded, is clearly an electricity policy. DECC’s 2014 Annual Energy Statement stated:

The Capacity Market will be paid for through the Levy Control Framework, but Capacity Market spend will be in addition to existing £7.6 billion Levy Control Framework cap for low carbon electricity. The first payment for the main Capacity Market scheme will be made in 2018–although payments under

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78 Q 244 (Alejandro Ciruelos, Carol Gould)
79 SSE ([ICE 0013](http://example.com))
81 DECC, *Annex D: Levy Control Framework Update* July 2013, p 2
the transitional arrangements will commence in 2016. Updated Capacity Market budgets will be set for each capacity year following the outcome of the auctions for that year.\textsuperscript{82}

62. No revisions to the LCF budget to account for the Capacity Market have yet been made. The latest Office for Budget Responsibility (OBR) figures forecast spending of £1.1 billion in 2020–21 on the Capacity Market; a not-insignificant sum.

63. In its 2013 report on the LCF (written before the Capacity Market auction process had begun), the NAO said:

Including some consumer-funded electricity market support schemes but not others also risks undermining the utility of the Framework as a mechanism for considering the affordability and relative merits of spending on different interventions.

[ ... ] The Capacity Market and, within it, Electricity Demand Reduction measures would involve payments by a government-owned body, which the Department assumes will ultimately be funded by a charge on consumers. Bringing all such arrangements within a single Framework would give Parliament and consumers transparency on: costs, the consequences of decisions on individual measures for other schemes in the Framework, and on any trade-offs made.\textsuperscript{83}

64. Witnesses told us that they wanted greater clarity about what the LCF was for. Lilia Stoyanova, Director at the Townsend Group, investment managers for the Environment Agency Pension Fund, told us: “I think it would help if it was clear what the LCF stands for. What is it trying to achieve? How does it fit within the overall framework of reaching the 2020 goals?”\textsuperscript{84}

65. The rationale for introducing a Levy Control Framework (LCF) is sound: it is important that the costs to consumers of providing secure, low-carbon energy infrastructure are affordable and able to be managed in a transparent manner. However, the rationale has become blurred over time, particularly since the Capacity Market has not yet been incorporated into the LCF. We call on the Government to set out clearly the purpose of the LCF and to explain why the Capacity Market is not currently included, when it is clearly an electricity policy that results in levies on consumers’ bills.

**Failure to take a holistic view of gross vs net costs to consumer**

66. Although the rationale behind introducing the LCF was to control the costs paid by consumers towards levy-funded policies, there are some important technicalities about the way in which it is measured that mean that increased spend under the LCF doesn’t automatically result in increased costs to consumers.

67. Emails between DECC and HM Treasury released under a Freedom of Information request in January 2016 enabled the website Carbon Brief to compare forecasts made by Government in November 2014 and those made in May 2015. This revealed that although

\textsuperscript{82} DECC Annual Energy Statement 2014, p 75
\textsuperscript{83} National Audit Office, The Levy Control Framework, 27 November 2013
\textsuperscript{84} Q285 (Lilia Stoyanova)
the Government had increased its forecast of the amount consumers would be paying under the LCF in 2020 from £92 to £104, the forecast for the average total bill had come down from £1,319 to £1,222. In other words, the latest projection showed consumers spending less on their energy bills in 2020 than had previously been forecasted, even when LCF payments were taken into account. Abid Kazim, UK Managing Director of Next Energy Capital, believed that it should be these net costs that were monitored, rather than the gross costs under the LCF.

68. There are two factors at play when considering why an increased cost under the LCF doesn’t necessarily mean an increased bill for consumers:

1. **Contract-for-Difference (CfD) design**

69. Under the CfD, payments to generators—against the agreed strike price—will be greater the lower the wholesale price. However, as illustrated in the analysis above, this will not necessarily lead to higher bills as the lower wholesale price itself reduces the bill. Ultimately, consumers should not notice any difference in the price they pay because lower wholesale prices should offset the impact on bills of the increase in CfD costs.

70. As DECC itself has acknowledged, the fall in global fossil fuel prices in recent months has been partly responsible for the projected increased spending under the LCF. Carbon Brief has calculated that £0.5 billion of the projected £1.5 billion LCF overspend is caused by the impact of falling fossil fuel prices on CfD costs. That is, there will be no net impact on consumer bills associated with this £0.5 billion overspend.

2. **The Merit Order Effect and full system costs**

71. When wind and solar power are feeding into the energy mix, they also have the effect of lowering the wholesale electricity prices. Wholesale prices are set based on the system operator always purchasing sufficient electricity to meet demand at the lowest marginal cost possible—the merit order. As there are no fuel costs for wind and solar they have zero marginal cost and therefore they will be called upon first to meet supply, with the effect of lowering the overall cost. A gross rather than net approach to LCF cost calculation does not reflect this benefit. Matthew Knight, Director of Energy Strategy and Government Affairs at Siemens Plc, explained:

> The political instinctive statements about the Levy Control Framework are unhelpful because they betray a lack of awareness of what is really going on. That is what gets us scared. We hear somebody from the Treasury talking about spending the money too fast and, by our own analysis, we cannot see that, and we also know things, like the merit order effect that for every pound that is spent on subsidising onshore windfarms you are getting about 60 pence back in a lowered wholesale market price.

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85 Carbon Brief *Revealed: Emails undermine government’s argument for cutting renewables support*, 5 January 2016
86 Q 169 (Abid Kazim)
87 The opposite is also true: if wholesale prices increase, the level of support paid will decrease and if the wholesale price goes above the strike price, the generator must pay back the difference.
89 Carbon Brief *Revealed: Emails undermine government’s argument for cutting renewables support*, 5 January 2016
90 UKSIF (ICE 0028), Greenpower Developments Ltd (ICE 0103), Nextenergy Capital (ICE 0090), Siemens (ICE 0076)
91 Q 203 (Matthew Knight)
72. A separate effect, pulling in the opposite direction, are the so-called “balancing costs” (that is, the costs of providing back up for variable sources of generation such as wind and solar), which are currently spread across all generators, rather than paid according to the impact of each technology. In her “reset” speech, the Secretary of State said:

In the same way generators should pay the cost of pollution, we also want intermittent generators to be responsible for the pressures they add to the system when the wind does not blow or the sun does not shine.  

DECC has reportedly commissioned Frontier Economics to conduct a review of full system costs of different technologies.

73. The Committee on Climate Change (CCC) has previously recommended that:

In judging the level of subsidy paid to low-carbon generators (e.g. onshore wind), the Government should consider the full costs of the low-carbon option and the alternative:

–This should include any system integration and security of supply costs, for example reflecting that variable renewable capacity will generally need to be backed up by flexible capacity that can operate on demand. [ … ]

–The appropriate comparator is not the wholesale electricity price, but the alternative means of providing generation. Where this is unabated gas generation, its costs should be judged across its lifetime, assuming that it would face the full costs of its emissions.

Lack of transparency on spending forecasts

74. The LCF cap was set at £2 billion in 2011–12, rising to £7.6 billion in 2020–21 (in 2011–12 prices). A “headroom” of 20% was provided to deal with uncertainty. Where spending exceeds or is projected to exceed the headroom, DECC must agree a plan with HM Treasury to bring spending back down to the agreed level.

75. The OBR regularly forecasts the level of spending under the LCF in its Economic and Fiscal Outlooks. DECC also published in October 2014 a more detailed forecast in its Annual Energy Statement 2014, in that it projected that LCF spending—on the RO, FIT and CfDs—would be £6.25 billion in 2020–21 (in 2011–12 prices). An updated forecast by the OBR in July 2015 indicated that projected LCF spending would breach the cap by reaching £9.8 billion in 2020–21 (in 2011–12 prices). The OBR’s most recent forecast, in November 2015, showed a projected spend equivalent, in 2011–12 prices, to £9.5 billion.

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92 DECC, Amber Rudd’s speech on a new direction for UK energy policy, 18 November 2015
93 Policy Exchange, What exactly is ‘subsidy free’ onshore wind?, 16 September 2015
94 Committee on Climate Change Reducing emissions and preparing for climate change: 2015 Progress Report to Parliament, 30 June 2015, p 65
95 HM Treasury Control framework for DECC levy-funded spending, March 2011
96 Department of Energy and Climate Change Annual Energy Statement 2014, October 2014, p 75
97 Department of Energy and Climate Change, DECC Annual Energy Statement 2014, October 2014, table p.75
98 Office for Budget Responsibility, Economic and fiscal outlooks, supplementary table 2.7: nominal forecasts July 2015 £11.5m (RO £6.3m, FIT £2.1m, CfD £3.1m), and November 2015 £11.2m (RO £6.2m, FIT £2.2m and CfD £2.8m), adjusted for using Jan 2016 GDP deflators published by HM Treasury
This means that in the space of a year the forecast has increased by £3.25 billion (in 2011–12 prices). This is a huge change over the course of a year, and calls into question the reliability of both forecasts from OBR and DECC.

76. The Government has been clear that this projected overspend on the LCF was the trigger for making the numerous policy changes announced over the summer in 2015. DECC told us:

As announced over the summer, the latest forecasts under the Levy Control Framework show that uptake of Government’s renewable energy schemes is much higher than previously expected, compounded by accelerated developments in technological efficiency. The projected future spend under the LCF is set to be £11.4bn (in nominal prices) or £9.1bn (in 2011/2012 prices) in 2020/21. As the Government has set a limit of £7.6bn in 2020/21, the current forecast is £1.5bn above that limit, a cost that is paid through additions to consumers’ electricity bills. As a result, the Government has decided to act quickly to get its costs under control.99

77. The scale of the change in forecast spending took many stakeholders by surprise.100 DECC attributed the change in the forecast to three factors: accelerated developments in technological efficiency, higher than expected uptake of demand-led schemes and changes in wholesale prices.101 Witnesses told us, however, that they were not satisfied by this explanation. Some suspected that changes to underlying assumptions may also have played a role.102 The detailed assessment that underpins the LCF budget forecasts has not been made public and we heard a united call from stakeholders to put this information in the public domain.103 Energy UK told us:

One example of where industry would ask for further transparency from government is on the projected overspend of the Levy Control Framework which was announced following a report by the Office for Budget Responsibility (OBR) in July. The figures published by the OBR in July were radically different to the figures the OBR had published in March and so it came as a surprise to many in the industry. Industry would like to see a new calculation be published, taking account of recent developments, and including more clarity on the modelling which was used to calculate the results. Some months have now passed and the relevant information has still to be made public.104

Schroder Investment Management said:

Increased transparency of budgets and forecasts is critical. For example, in July the Office of Budget Responsibility (OBR) stated that the LCF Budget will reach £9.1bn in 2020/21, some 20% over the £7.6bn forecast cap for that year. However, none of the assumptions that underpin the forecasts have been

99 Department of Energy and Climate Change (ICE 0088)
100 RWE (ICE 0067), Energy UK (ICE 0086), SmartestEnergy Ltd (ICE 0040)
101 Lord Bourne, Written statement to Parliament, Levy Control Framework cost controls, 22 July 2015
102 Q 112 (Andrew Koss), RWE (ICE 0067)
103 Q 112 (Andrew Koss; Paul Spence), Q 170 (Paul Barwell), Greenpower Developments Ltd (ICE 0103), IREGG (ICE 0089), Green Highland Renewables Ltd (ICE 0008), RWE (ICE 0067), Aldersgate Group (ICE 0068), ScottishPower (ICE 0091), CCSA (ICE 0055), Carter Jonas (ICE 0017), Energy UK (ICE 0086), E.ON (ICE 0036), Schroder Investment Management (ICE 0051), Nextenergy Capital (ICE 0090), RenewableUK (ICE 0095), Green Alliance (ICE 0021)
104 Energy UK (ICE 0086)
made available. This makes understanding the context to investment decisions difficult and raises the return we would like for them which ultimately increases costs for consumers.105

78. We heard that it is important for investors to understand more about how the figures in the LCF projections are calculated. First, because it will help them to understand differences between their own calculations and those of the Government.106 Second, it will help anticipate LCF budget availability and allocation if investors understand how assumptions in key areas are being arrived at. And third, there is a more fundamental question of trust. A lack of transparency about assumptions and methodologies invites speculation about whether the numbers are being manipulated in some way, especially when the policy changes that were triggered by the projected overspend have been so dramatic. Trade association RenewableUK told us:

Lack of transparency in the numbers used to justify this claim has led to a perception that there is some kind of ideological motive behind the moves to limit spending, which will take some considerable effort to overcome if Government wishes investors to trust their new policies, when they are finally revealed.107

79. The Department told us in October 2015 that “DECC intends to provide further clarity on the LCF overspend and details of future CfD auctions shortly.”108 In January 2016, Andrea Leadsom MP told the House “we will publish an updated set of LCF projections as well as the assumptions underpinning the latest forecasts in due course.”109 At the time of writing [February 2016] this information had not yet been published.

80. The Levy Control Framework will play a central role in shaping the direction of near-term energy policy in the UK. There is no logical reason why the assumptions and methodologies used to calculate the projected spending should remain undisclosed, particularly given its importance to investors in assessing their risks. DECC Ministers have promised to make this information available on several occasions but seven months after the OBR’s surprising figures were published there has been no further clarification from Government.

81. We call for the Government to improve transparency around its LCF spending calculations. It should make the assumptions and methodologies used in its calculations available publicly. In particular, it should answer the following questions:

i) What assumptions are being made about how much capacity will be built?

ii) What load factors are being assumed?

iii) What assumptions are being made about the number of projects in the pipeline that will actually go ahead?

iv) What assumptions have been made about future wholesale energy prices?

105 Schroder Investment Management (ICE 0051)
106 Q 203 (Matthew Knight)
107 RenewableUK (ICE 0095)
108 Department of Energy and Climate Change (ICE 0088)
v) **What assumptions were made about the proportion of the budget going to CCS (before the competition was ended)?**

82. We note that the National Audit Office has recently announced that it will be updating its 2013 review of the LCF, with a report due in summer 2016.\(^{110}\) We urge the NAO to consider the points we make in this chapter.

83. Two years ago, our predecessors called for “a single annual report covering all the DECC levy-funded schemes, along with other Government initiatives which affect energy bills but which fall outside of the Levy Control Framework (LCF), such as the Energy Companies Obligation (ECO)”.\(^{111}\) The Government did then subsequently publish this information as an annex to its Annual Energy Statement 2014.\(^{112}\) Unfortunately, there has been no such statement published in 2015.

84. We urge the Government to reinstate its annual reporting of DECC levy-funded schemes and other Government initiatives which affect energy bills but which fall outside of the Levy Control Framework.

**Uncertainty on dealing with projected overspends**

85. At the time the LCF was introduced, HM Treasury set out a requirement that when spending exceeded or was expected to exceed the cap (including the 20% “headroom”), DECC would have to agree a plan with Treasury to bring spending back within the agreed range. The plan should “set out the adjustments that DECC proposes to make to its policies to reduce their spend, and the impact by year of taking action”.\(^{113}\)

86. As mentioned above, the projected LCF overspend, as reported in the OBR’s July 2015 Economic and Fiscal Outlook, appears to have triggered the recent round of policy changes. It is not clear to us whether DECC agreed any kind of plan with HM Treasury ahead of making the changes, but from the outside, the perception was that the changes were being made in a “piecemeal” way.\(^{114}\) Investors want more clarity about the Government’s approach. The Aldersgate Group called for:

> the introduction of guidelines that provide a mechanism for accountability. The government must make clear how it intends to respond if circumstances turn out differently to those currently assumed, for example, if the assumptions on the future cost or generation output from renewable technologies were to prove incorrect.\(^{115}\)

87. We recommend that DECC develops and publishes a structured response plan, setting out how any future overspend would be dealt with, in order to increase transparency of the Government’s approach. This should set out criteria against which DECC would assess changes to policies and support levels, in the event of future overspend, including

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\(^{110}\) National Audit Office *Controlling consumer-funded costs of energy policies: the Levy Control Framework*, accessed 23 February 2016


\(^{112}\) Department of Energy and Climate Change *Annual Energy Statement 2014*, October 2014

\(^{113}\) HM Treasury *Control framework for DECC levy-funded spending*, March 2011

\(^{114}\) Q 258 (Donald MacDonald)

\(^{115}\) Aldersgate Group ([ICE 0068](https://www.ice.org.uk/ICE-0068))
the anticipated impact of proposed changes. This should be done explicitly on the basis of grandfathering existing support levels (unless otherwise agreed), against an agreed timeframe, and preferably with consultation.

Lack of clarity on the LCF beyond 2020

88. In 2012, a year after the introduction of the LCF, the Government announced an upper limit of £7.6 billion (in 2011–12 prices) for 2020–21. At this point in time investors had visibility of the envelope of spending available eight years ahead. Given the long lead times for energy projects, this forward visibility has been helpful. Now, in 2016, investment decisions are taking place about projects that will be developed through the 2020s. Many witnesses have therefore told us that they want to know what is going to happen to the LCF beyond 2020. For example, SSE told us:

[A] major concern for SSE at present is the lack of sight of the LCF budget beyond the existing settlement to 2020/21. The Government recently committed to make an announcement about the LCF and this is welcomed, since without an understanding of the Budget’s trajectory it is challenging to commit to projects which are due to commission in the next decade. Whilst SSE acknowledges that that UK must meet its legally binding climate change targets, SSE takes no firm view of the level of funding available in the LCF or the generation mix, but as a developer, it does require clarity to properly assess where to commit its capital.

The Institutional Investors Group on Climate Change added:

In the medium term, DECC in consultation with HMT needs to clarify the scale of the levy control framework (the UK’s low-carbon support budget) beyond 2020/2021. This framework should be defined at least until 2025, in line with advice from the Committee on Climate Change, so that investment decisions with long lead times can be taken.

89. Our predecessors agreed with the need for forward visibility. They recommended in March 2015 that:

the Government clarifies the future of the LCF beyond 2020–21 as soon as possible after the General Election. Rolling forward projections of LCF funds should be published annually thereafter, so that investors are always able to look at least seven years ahead to make their investment decisions.

116 DECC announcement, Government agreement on energy policy sends clear, durable signal to investors, 23 November 2012
117 Q87 (Paul Spence), Q103 (Andrew Koss), ENGIE Energy-UK Turkey (ICE 0102), UKSIF (ICE 0028), Scottish Renewables (ICE 0050), ScottishPower (ICE 0091), IIGCC (ICE 0041), Siemens (ICE 0076), ABI (ICE 0032), Schroder Investment Management (ICE 0051), UKERC (ICE 0073), CCSA (ICE 0055), Green Alliance (ICE 0021), RenewableUK (ICE 0095), Aldersgate Group (ICE 0068)
118 SSE (ICE 0013)
119 IIGCC (ICE 0041)
Soon after the election, in June 2015, the Government responded that it recognised the “importance of long term budget visibility for industry” and that it would be “setting out its plans for delivering a new generation of cost effective, secure, electricity supplies in the near future”.121

90. Since then we have heard that a 10-year rolling horizon for the LCF would help to reduce policy uncertainty and increase investor confidence.122 This was one of five main recommendations made by the Committee on Climate Change (CCC) in its 2015 Progress Report to Parliament. The CCC called on DECC and HM Treasury to:

> Ensure the power sector can invest with a 10-year lead time: as soon as possible, set the Government’s carbon objective for the power sector in the 2020s and extend funding under the Levy Control Framework to match project timelines (e.g. to 2025 with rolling annual updates).123

91. DECC told us in the autumn that it was “working to set out more detail on the post-2020 LCF budget shortly to give investors certainty for the long-term and provide support for investment into the next decade”.124 Further details on the post-2020 LCF budget have not emerged in the months that have since passed.

92. The Government should urgently set out what the budget for the LCF will be post-2020, but this must be done in the context of the 4th and 5th carbon budgets to ensure the available funding is consistent with meeting our longer-term carbon commitments. We also urge the Government to introduce rolling annual updates on a ten-year horizon, as recommended by the Committee on Climate Change.

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122 CCSA (ICE 0055)


124 Department of Energy and Climate Change (ICE 0088)
5 Conclusion

93. It is clear that the confidence of many investors has been dented by the Government’s actions since the election. The sudden, unexpected nature of many of the announcements has unsettled investors who had been used to receiving more forewarning of policy changes. There is a high risk that a hiatus in new developments has been created, pending further clarity on short- and longer-term policy. The Government removed support for renewables due to concerns about costs for consumers. But they have not set out the evidence base for this conclusion or for other decisions, and engagement with the investment community has been poor.

94. The Government has been slow to set out its new direction of policy: the Secretary of State’s “reset” speech was made six months after the election. The emphasis on gas in this speech, followed one week later by the abrupt removal of funding for carbon capture and storage have left many wondering how clear the Government’s long-term vision really is. This has led to questions about how, and whether, the Government will meet its long-term climate change and security of supply objectives.

95. Supply chain company ABB summed up the combined impact of these failings:

At best the step change in policy is indicative of a Government that is allowing short term politics to get in the way of long term policy, and at worst it is policy making without any rationale or clear intent. Either way, it is indicative of a department that has not explicitly factored in the potential impact that uncertainty has on investors when making or changing policies affecting infrastructure.125

96. It is not unusual that new Governments introduce new policies. But lessons must be learnt, not just by this Government but by future Governments, that there are ways in which things can be done without damaging investor confidence. The policy uncertainty caused by policy changes made through the first six months after the election was unhelpful, but we are hopeful that things can now begin to move in a more positive direction. We recommend that the Government should give a clear statement on policy direction by May 2016.

97. Post-Paris, and in the lead up to setting the fifth carbon budget the Government has an important opportunity to rebuild long-term confidence in the UK, by adding detail and balance to a range of issues flagged in the “reset” speech and clarifying the future growth and “opportunity” in the renewable energy and other low carbon sectors. Although it is disappointing that the UK has fallen down the global ranking in recent months, it is worth noting that we are still relatively well placed to attract international investment. In this report, we have identified the risk of an investment hiatus for new projects but we have also outlined the specific areas that are problematic and sharpened the assessment of where a response is needed. We have set out some of the steps that the Government should take if it is to restore trust, start to re-establish the investor confidence that has been lost, and begin to restore the attractiveness of the UK as an investment destination for the many global investors seeking new opportunities.

125 ABB (ICE 0047)
Annex: Glossary

2020 renewable electricity commitment: the UK is bound by the EU’s 2009 Renewable Energy Directive to deliver 15% of final energy consumption—across electricity, heat and transport—from renewable sources by 2020. The Government proposes to achieve this with a sub-target of 30% for renewable electricity.

Capacity Market: An annual auction designed to achieve security of electricity supply, in which generators bid for a steady stream of ‘capacity payments’ in return for their commitment to remain operational for a set future period (either one or four years in advance).

Carbon Budgets: Legally-binding limits on carbon dioxide emissions over five-year periods, set by the Government under the Climate Change Act 2008 with advice from the Committee on Climate Change (CCC). The fifth carbon budget, covering the period 2028–32, will be set in 2016.

Carbon Capture and Storage (CCS): A way of ‘decarbonising’ fossil-fuel power generation by capturing carbon dioxide emitted from high-producing sources, transporting it and storing it in secure geological formations deep underground.

Carbon Price Floor: The EU Emissions Trading System (ETS) requires businesses to purchase permits for every unit of greenhouse gases they emit, effectively making them pay to pollute. The UK’s Carbon Price Floor sets a minimum price for such permits: where this is higher than the market price of ETS permits, businesses must pay the difference to HM Treasury.

Climate Change Act 2008: An Act of Parliament requiring the UK to reduce its carbon emissions by 80% of their 1990 levels by 2050, with interim targets set in the form of Carbon Budgets.

Climate Change Levy (CCL): A tax on business energy use. Levy Exemption Certificates (LECs) exempted some businesses, such as renewable generators. LECs for renewable energy were removed from 1 August 2015.

Committee on Climate Change (CCC): An independent, statutory body established under the Climate Change Act 2008 to advise the UK Government and Devolved Administrations on emissions targets, and report to Parliament on progress made in reducing emissions and preparing for climate change.

Contracts-for-Difference (CfDs): Contracts designed to support low-carbon electricity generators by effectively fixing the price they receive per unit of electricity. A ‘strike price’ is set for generators who are paid the difference between this and the wholesale price of electricity (where the latter is lower) for every unit generated. If the strike price is lower than the wholesale price, the generator has to repay the difference.

Economic Impact Assessment: An Impact Assessment which focuses on the macroeconomic effects of a policy, such as those on economic growth and employment.
Feed-in Tariffs (FiTs): A subsidy for small-scale renewables, such as household solar photovoltaic (PV) panels and wind turbines. Participants receive a ‘generation tariff’ for each unit of electricity generated, even those used by the household, and an ‘export tariff’ for selling surplus units to suppliers.

Grandfathering: Protection of those affected by a policy from future changes to that policy. Feed-in Tariffs (FiTs) and the Renewables Obligation (RO) guarantee that the generators they support will continue to receive the full amount of that support over its lifetime, regardless of future policy changes.

Impact Assessment: The Government’s quantitative cost-benefit analysis of a policy’s effects.

Infrastructure and Projects Authority: Part of the Cabinet Office and HM Treasury established in January 2016 to provide expertise in infrastructure and the financing, delivery and assurance of major projects.

Lead time: The period between a project’s initiation and completion.

Levy Control Framework: A system to control and cap levy-funded spending currently covering Contracts for Difference (CfDs), Feed-in Tariffs (FiTs) and the Renewables Obligation (RO).

Levy Exemption Certificate (LEC): An exemption from the Climate Change Levy (CCL) for renewable generators. This was removed from 1 August 2015.

Office for Budget Responsibility (OBR): The UK’s official independent fiscal watchdog, created in 2010.

Renewables Obligation (RO): An obligation on electricity suppliers to achieve a set minimum level of generation from renewable sources.

“Reset” speech: The Secretary of State, Amber Rudd’s, speech on a new direction for UK energy policy, 18 November 2015.
Conclusions and recommendations

Factors affecting investor confidence

1. There has been a dip in investor confidence in the UK energy sector since the election in May 2015. We have identified six factors that, when combined, are having a damaging effect on investor confidence. These are:
   i) Sudden and numerous policy announcements
   ii) A lack of transparency in the decision-making process
   iii) Insufficient consideration of investor impacts
   iv) Policy inconsistency and contradictory approaches
   v) Lack of a long-term vision
   vi) A policy “cliff-edge” in 2020 (Paragraph 9)

Why does investor confidence matter?

2. The pace of current investment activity in projects that are close to completion (in order to get ahead of regulatory changes) may be masking a slowing down of investment in the earlier stages of the project pipeline. However, the impact of this will only really become visible in three to five years. While there is anecdotal evidence that this slowdown is taking place, it is too early to provide hard data. The Government should monitor this through DECC’s Renewable Energy Planning Database and the Planning Inspectorate Register of Applications and report back to us annually, through the course of the Parliament, on the health of the energy project pipeline. (Paragraph 33)

Cost to consumers

3. We are concerned that the Government appears to be considering only short-term costs to consumers when making energy policy decisions. Increasing policy uncertainty leads to increased risk premiums, which will result in consumers paying more in the long-run. In addition to considering the needs of today’s consumers, Government also has a responsibility to consider the impact of its decisions on risk premiums which will directly affect prices paid by the next generation of consumers. (Paragraph 40)

Immediate actions

4. The Government needs to take immediate action to address (i) specific issues linked to Contracts-for-Difference, and (ii) the policy “cliff-edge” issue. This requires Government to set out more detail about the CfD auctions that are due to take place this decade, as well as how the Levy Control Framework is managed pre-2020. The Government must also be clear about what will happen to the existing suite of policy
tools beyond 2020. In particular clarity is needed on the Levy Control Framework post-2020, and the Carbon Price Floor beyond 2020. Recommendations about the Levy Control Framework are set out in chapter four. (Paragraph 42)

5. There are a number of unanswered questions that the Government needs to respond to:

i) When will there be clarification on when the three CfD auctions will take place?

ii) What budget will be available for the CfD auctions, and how far in advance of the auctions will the Government communicate this to help investors plan?

iii) Which technologies will be eligible to take part in the CfD auctions?

iv) How much must costs fall by in order for offshore wind projects to remain eligible for support under the CfD? Does this condition apply to all technologies, or just offshore wind?

v) What will happen to the Carbon Price Floor beyond 2020? (Paragraph 43)

Providing a long term vision and the pathway to achieve it

6. The “Carbon Plan” for achieving the fifth carbon budget represents an ideal opportunity for rebuilding confidence in the direction of travel for the energy sector in the UK. We have identified five key principles that the Government should follow as it develops the Plan over the course of 2016:

i) The Plan must be developed in full consultation with the investment community. It will not be possible to meet our long-term climate change targets without significant levels of investment in energy infrastructure. It is essential that DECC understands investors’ needs as it develops the Plan.

ii) Any modelling or scenario work on the future energy mix that is carried out needs to be transparent and open to external scrutiny. Investors need to feel confident that the methodology used is robust and where appropriate, have the opportunity to contribute.

iii) The Plan should provide more clarity about how transitions will be managed as new technologies become established, including the intended “glide path” out of subsidies. Subsidies are not intended to last forever and it is right that support reduces as technology costs fall. However, this needs to be done in a consistent, transparent and controlled manner which can be clearly understood by investors and factored into their investment plans—which require long-term assessments to be made. This would both provide the appropriate downward pressure on subsidy levels, while mitigating investor concern about sudden, unexpected policy changes. In view of regulatory changes likely to be required as the regulatory framework evolves in response to changing power sector business models, it is critical that amendments to regulation are consulted on and introduced in a similarly transparent, predictable fashion.
iv) The Plan needs to retain sufficient flexibility to adapt to new technologies and innovations such as storage and demand-side response.

v) The Government should take steps to build a cross-party consensus around the Plan. (Paragraph 48)

7. There are a number of unanswered questions that the Government needs to respond to:

i) What consultations or engagement activities does DECC intend to conduct as part of the process of developing the Carbon Plan for the fifth carbon budget, and when will these activities take place?

ii) What modelling and/or scenario work will DECC be commissioning to inform the Carbon Plan?

iii) How will DECC factor in uncertainty around the role that new and emerging technologies (such as storage and demand-side measures) might play in the future energy mix as it develops the next Carbon Plan?

iv) What plans does DECC have to provide forewarning of decisions affecting the supply chain and what support will be provided to maintain jobs in the energy sector? (Paragraph 49)

Improving understanding of investor impacts

8. We recommend that Government develops its in-house capacity to analyse the consequences of its policies on investment (to the extent policy is expected to impact investment decision). Government should develop a complementary process to Economic Impact Assessments whereby the consequences for investment are assessed for all new policies. (Paragraph 51)

The institutional landscape

9. There is an important question about how the National Infrastructure Commission, Committee on Climate Change, Ofgem, Infrastructure and Project Authority, and Office for Budget Responsibility will work together. (Paragraph 53)

10. We note that HM Treasury is currently consulting on the governance, structure and operation of the National Infrastructure Commission (NIC). We recommend that the NIC has an explicit requirement to consider the infrastructure requirements of meeting the UK’s carbon budgets and long-term legally binding carbon reduction targets. (Paragraph 54)

11. The Government needs to explain exactly how DECC Ministers and officials intend to liaise with the newly-created National Infrastructure Commission (NIC), in particular in relation to the work which the NIC intends to commission on key aspects of energy sector investment. (Paragraph 55)
The Levy Control Framework

12. The rationale for introducing a Levy Control Framework (LCF) is sound: it is important that the costs to consumers of providing secure, low-carbon energy infrastructure are affordable and able to be managed in a transparent manner. However, the rationale has become blurred over time, particularly since the Capacity Market has not yet been incorporated into the LCF. We call on the Government to set out clearly the purpose of the LCF and to explain why the Capacity Market is not currently included, when it is clearly an electricity policy that results in levies on consumers’ bills. (Paragraph 65)

Lack of transparency on spending forecasts

13. The Levy Control Framework will play a central role in shaping the direction of near-term energy policy in the UK. There is no logical reason why the assumptions and methodologies used to calculate the projected spending should remain undisclosed, particularly given its importance to investors in assessing their risks. DECC Ministers have promised to make this information available on several occasions but seven months after the OBR’s surprising figures were published there has been no further clarification from Government. (Paragraph 80)

14. We call for the Government to improve transparency around its LCF spending calculations. It should make the assumptions and methodologies used in its calculations available publicly. In particular, it should answer the following questions:
   i) What assumptions are being made about how much capacity will be built?
   ii) What load factors are being assumed?
   iii) What assumptions are being made about the number of projects in the pipeline that will actually go ahead?
   iv) What assumptions have been made about future wholesale energy prices?
   v) What assumptions were made about the proportion of the budget going to CCS (before the competition was ended)? (Paragraph 81)

15. We note that the National Audit Office has recently announced that it will be updating its 2013 review of the LCF, with a report due in summer 2016. We urge the NAO to consider the points we make in this chapter. (Paragraph 82)

16. We urge the Government to reinstate its annual reporting of DECC levy-funded schemes and other Government initiatives which affect energy bills but which fall outside of the Levy Control Framework. (Paragraph 84)

Uncertainty on dealing with projected overspends

17. We recommend that DECC develops and publishes a structured response plan, setting out how any future overspend would be dealt with, in order to increase transparency of the Government’s approach. This should set out criteria against which DECC would assess changes to policies and support levels, in the event of
future overspend, including the anticipated impact of proposed changes. This should be done explicitly on the basis of grandfathering existing support levels (unless otherwise agreed), against an agreed timeframe, and preferably with consultation. (Paragraph 87)

**Lack of clarity on the LCF beyond 2020**

18. The Government should urgently set out what the budget for the LCF will be post-2020, but this must be done in the context of the 4th and 5th carbon budgets to ensure the available funding is consistent with meeting our longer-term carbon commitments. We also urge the Government to introduce rolling annual updates on a ten-year horizon, as recommended by the Committee on Climate Change. (Paragraph 92)

**Conclusion**

19. It is clear that the confidence of many investors has been dented by the Government’s actions since the election. The sudden, unexpected nature of many of the announcements has unsettled investors who had been used to receiving more forewarning of policy changes. There is a high risk that a hiatus in new developments has been created, pending further clarity on short- and longer-term policy. The Government removed support for renewables due to concerns about costs for consumers. But they have not set out the evidence base for this conclusion or for other decisions, and engagement with the investment community has been poor. (Paragraph 93)

20. The Government has been slow to set out its new direction of policy: the Secretary of State’s “reset” speech was made six months after the election. The emphasis on gas in this speech, followed one week later by the abrupt removal of funding for carbon capture and storage have left many wondering how clear the Government’s long-term vision really is. This has led to questions about how, and whether, the Government will meet its long-term climate change and security of supply objectives. (Paragraph 94)

21. It is not unusual that new Governments introduce new policies. But lessons must be learnt, not just by this Government but by future Governments, that there are ways in which things can be done without damaging investor confidence. The policy uncertainty caused by policy changes made through the first six months after the election was unhelpful, but we are hopeful that things can now begin to move in a more positive direction. We recommend that the Government should give a clear statement on policy direction by May 2016. (Paragraph 96)

22. Post-Paris, and in the lead up to setting the fifth carbon budget the Government has an important opportunity to rebuild long-term confidence in the UK, by adding detail and balance to a range of issues flagged in the “reset” speech and clarifying the future growth and “opportunity” in the renewable energy and other low carbon sectors. Although it is disappointing that the UK has fallen down the global ranking in recent months, it is worth noting that we are still relatively well placed to attract international investment. In this report, we have identified the risk
of an investment hiatus for new projects but we have also outlined the specific areas that are problematic and sharpened the assessment of where a response is needed. We have set out some of the steps that the Government should take if it is to restore trust, start to re-establish the investor confidence that has been lost, and begin to restore the attractiveness of the UK as an investment destination for the many global investors seeking new opportunities. (Paragraph 97)
Draft Report *(Investor confidence in the UK energy sector)*, proposed by the Chair, brought up and read.

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

Paragraphs 1 to 97 read and agreed to.

Summary agreed to.

Annex agreed to.

*Resolved*, That the Report be the Third 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 (Standing Order No. 134).

[Adjourned till Tuesday 1 March at 9.15am]
Witnesses

The following witnesses gave evidence. Transcripts can be viewed on the Committee’s inquiry page at www.parliament.uk/ecc.

Tuesday 20 October 2015

Andrea Leadsom MP, Minister of State, Ben Golding, Deputy Director, Head of Strategy and Finance Team, Home Energy, Dr Stephanie Hurst, Head of MI Strategy and Programme Management and Gareth Redmond, Head of Renewables, Programme Team, Department of Energy and Climate Change

Tuesday 1 December 2015

Alan White, Director, Carlton Power Limited, Andrew Koss, Chief Executive, Drax Power Limited, Paul Spence, Director of Strategy and Corporate Affairs, EDF Energy, and Danielle Lane, Head of Regulatory and Stakeholder Relations, DONG Energy

Tuesday 15 December 2015

Abid Kazim, UK Managing Director, NextEnergy Capital, Paul Barwell, Chief Executive Officer, Solar Trade Association, and Nick Boyle, Chief Executive Officer, Lightsource Renewable Energy

Tuesday 2 February 2016

Matthew Knight, Director of Energy Strategy and Government Affairs, Siemens Plc, Niall Stuart, Chief Executive, Scottish Renewables, and Andrew Lee, Chief Executive Officer and Managing Director, Velocita Energy Developments Limited

Tuesday 9 February 2016

Carol Gould, Head of Power and Renewables, Bank of Tokyo-Mitsubishi, Alejandro Ciruelos, Project and Acquisition Finance - Energy, Santander, Peter Dickson, Glennmont Partners, and Chris Hulatt, Chief Financial Officer and Co-founder, Octopus Investments

Lilia Stoyanova, Director, and Morgan Angus, Principal, Townsend Group, and Donald MacDonald, Chairman, Institutional Investors Group on Climate Change

Question number

Q1-65

Q66-130

Q131-178

Q179-204

Q205-256

Q257-293
**Published written evidence**

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). ICE numbers are generated by the evidence processing system and so may not be complete.

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<td>Department of Energy and Climate Change (<a href="#">ICE0088</a>)</td>
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<td>18</td>
<td>DONG Energy UK (<a href="#">ICE0035</a>)</td>
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<td>19</td>
<td>Dr Emma Dawnay (<a href="#">ICE0015</a>)</td>
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<td>20</td>
<td>Drax Group Plc (<a href="#">ICE0058</a>)</td>
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<td>21</td>
<td>Durham Energy Institute, Durham University (<a href="#">ICE0060</a>)</td>
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<td>22</td>
<td>E.ON (<a href="#">ICE0036</a>)</td>
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<td>25</td>
<td>Electrical Contractors’ Association (ECA) (<a href="#">ICE0093</a>)</td>
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<td>26</td>
<td>Electricity Storage Network (<a href="#">ICE0018</a>)</td>
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<td>27</td>
<td>Endurance Wind Power (<a href="#">ICE0007</a>)</td>
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<td>28</td>
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<td>Enviva (<a href="#">ICE0064</a>)</td>
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<td>34</td>
<td>Friends of the Earth England Wales and Northern Ireland (<a href="#">ICE0074</a>)</td>
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Investor confidence in the UK energy sector

35 Glennmont Partners (ICE0012)
36 Green Alliance (ICE0021)
37 Green Highland Renewables Ltd (ICE0008)
38 Green Switch Solutions (ICE0044)
39 Greenpower (International) Ltd (ICE0101)
40 Greenpower Developments Ltd (ICE0103)
41 Hallidays Hydropower Ltd. (ICE0037)
42 Institution of Engineering and Technology (IET) (ICE0100)
43 Institutional Investors Group on Climate Change (ICE0041)
44 IREGG (ICE0089)
45 Lark Energy Commercial (ICE0043)
46 Lightsource Renewable Energy (ICE0070)
47 Low Carbon Ltd (ICE0063)
48 Mr Colin Megson (ICE0004)
49 Mr Edward Billington (ICE0011)
50 Next Energy Capital (ICE0090)
51 Next Energy Capital (ICE0106)
52 North East Chamber of Commerce (ICE0022)
53 Northern Powergrid (ICE0053)
54 Nuclear Industry Association (ICE0045)
55 Octopus Investments (ICE0083)
56 Oil & Gas UK (ICE0081)
57 Old Mutual Global Investors (ICE0033)
58 Orbis (ICE0029)
59 Rathbone Greenbank Investments (ICE0096)
60 Renewable Energy Association (ICE0066)
61 Renewable NI (ICE0001)
62 RenewableUK (ICE0095)
63 RES (ICE0062)
64 RM Energy Ltd (ICE0002)
65 RWE (ICE0067)
66 Schroder Investment Management (ICE0051)
67 Scottish Renewables (ICE0050)
68 ScottishPower (ICE0091)
69 Siemens Plc (ICE0076)
70 Silva Renewable Energy Limited (ICE0105)
71 SmartestEnergy Limited (ICE0040)
72 Solar Trade Association (ICE0048)
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<td>Wind Prospect Group Limited (ICE0075)</td>
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<td>96</td>
<td>WWF - UK (ICE0092)</td>
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List of Reports from the Committee during the current Parliament

All publications from the Committee are available on the Committee's website at www.parliament.uk/ecc.

Session 2015–16

First Special Report  Linking emissions trading systems: Government response to the Committee’s Fifth Report of Session 2014–15  HC 376
First Report  Our priorities for Parliament 2015–20  HC 368
Second Report  Future of carbon capture and storage in the UK  HC 692