



National Audit Office

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## **Report**

by the Comptroller  
and Auditor General

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**Department of Energy & Climate Change**

# Controlling the consumer-funded costs of energy policies: The Levy Control Framework

## Key facts

**£7.6bn**

cap on costs of low-carbon energy schemes in 2020-21 set by the Levy Control Framework<sup>1</sup>

**£7.1bn**

expected Framework costs in 2020-21 according to government forecasts made in February 2015

**£9.1bn**

expected Framework costs in 2020-21 according to forecasts made four months later, in June 2015

<b>20%</b>	permitted headroom above the cap, above which HM Treasury could impose a financial penalty on the energy department (formerly the Department of Energy & Climate Change, now the Department for Business, Energy & Industrial Strategy)
<b>19.7%</b>	amount by which government's June 2015 forecast exceeded the cap in 2020-21
<b>£8.7 billion</b>	expected costs of Framework schemes in 2020-21 according to the latest government forecasts <sup>2</sup>
<b>£110</b>	total amount that Framework costs are expected to add to a typical household dual-fuel energy bill in 2020 (11% of the entire bill) <sup>2</sup>
<b>£17</b>	the part of the £110 that comes from exceeding the cap
<b>£54</b>	amount households will pay through bills in 2020 to support the Capacity Market, Warm Homes Discount, Energy Company Obligation and Smart Meters – consumer-funded schemes not currently covered by the cap <sup>2</sup>
<b>£1,259</b>	average household annual energy bill in 2020, according to government forecasts in November 2014
<b>£991</b>	average household annual energy bill in 2020 according to the latest government forecasts: increased Framework costs have been offset by falling fossil fuel prices <sup>2</sup>

### Notes

- 1 Because the Framework's budget is defined in 2011-12 prices, we use 2011-12 prices for all figures in this report unless otherwise stated.
- 2 Forecasts as of July 2016.

# Summary

## Context

**1** The government's energy policy has three strategic objectives: to ensure a secure energy supply; to reduce carbon emissions; and to keep energy bills as low as possible. Many of its schemes to support these objectives are funded through levies on energy suppliers rather than through general taxation. These costs are ultimately paid by households and businesses through energy bills. The government expects the cost of replacing existing electricity generation capacity with low-carbon power to be substantial. It anticipates that around 95 gigawatts of new capacity will need to be built over the next two decades. This is equivalent to around 90% of the grid's installed capacity in 2015. Most of this new capacity will come from renewable sources or nuclear power. In 2014 the former Department of Energy & Climate Change (the Department) estimated that around £100 billion of investment in the electricity system may be needed by 2020.<sup>1</sup>

**2** In 2011 the Department and HM Treasury established the Levy Control Framework (the Framework). This aimed to manage some of the tensions between the three objectives for energy policy. The Framework sets a cap on the forecast costs of certain policies funded through levies on energy suppliers. It requires the Department to take early action to reduce costs if forecasts exceed this cap, with urgent action required if forecasts exceed a 20% 'headroom' above the cap. Since November 2012 the Framework has capped the costs of three schemes to support investment in low-carbon energy: the Renewables Obligation, Feed-in Tariffs and Contracts for Difference. It sets caps on costs for each year to 2020-21, with a cap of £7.6 billion in 2020-21 (in 2011-12 prices).<sup>2</sup>

**3** We last reported on the Framework in 2013.<sup>3</sup> At the time, the Department expected costs covered by the Framework to be £6.9 billion in 2020-21, comfortably within the Framework cap. Its forecasts remained at a similar level for the next 18 months, during which the Department made significant decisions about the scale of committed costs under the Framework. In particular, it signed eight contracts to support large renewable projects in May 2014, and in February 2015 held an auction which awarded a further 27 contracts. At that time the Department predicted that 2020-21 costs would be £7.1 billion; £0.5 billion below the Framework cap.

<sup>1</sup> On 14 July 2016, the government announced that the Department of Energy & Climate Change would close and its responsibilities for energy markets and climate change would transfer to a new department, the Department for Business, Energy & Industrial Strategy (BEIS).

<sup>2</sup> We use 2011-12 prices for all figures in this report unless otherwise stated.

<sup>3</sup> Comptroller and Auditor General, *The Levy Control Framework*, Session 2013-14, HC 815, National Audit Office, November 2013.

4 However, shortly after, in April 2015, the Department began to project that it would exceed the Framework cap in every year to 2020-21. By June 2015, its forecasts of costs in 2020-21 had risen to £9.1 billion; £1.5 billion above the cap and only fractionally under the 20% permitted headroom. It reported that this was due to two main factors:

- Better than expected progress in decarbonising electricity. This was partly due to more eligible projects coming forward under the Renewables Obligation and Feed-in Tariffs schemes than expected, and partly due to higher than expected rates of electricity generation (load factors) from projects.
- Costs of top-up payments under the Contracts for Difference schemes having increased due to a significant fall in fossil fuel prices.

5 The exceeding of the cap prompted widespread changes to Framework schemes. These have reduced forecast costs but not brought them within the cap. As at July 2016, Framework costs in 2020-21 were forecast to be £8.7 billion. This is equivalent to £110 of the expected average household dual fuel (electricity and gas) bill in 2020 of £991.

6 As a result of Framework schemes the government expects that renewable sources will provide 35% of electricity supply in 2020, meaning it will meet its ambition for at least 30% of electricity to come from renewables by that point. The March 2016 Budget stated that the government would announce further details of its approach to controlling consumer costs in the autumn.

## **Scope**

7 This report is an update to our 2013 report on the Framework. We use the same evaluative criteria, reflecting the essential requirements of such frameworks: appropriate coverage, strong governance and controls, transparent reporting and robust forecasting. We also assess performance against the additional objectives that the government has set for the Framework, in particular its role in supporting investor confidence.

- Part One explains the purpose of the Framework and what has happened since our previous report.
- Part Two assesses the Framework against three of our evaluative criteria (coverage, controls and governance).
- Part Three assesses the forecasting that underpins the Framework, the Department's reporting and its impact on investor confidence.

Our audit approach and methods are in Appendices One and Two. Further appendices describe and evaluate the Framework forecasts.

## Key findings

### Purpose and coverage

**8 The introduction of the Framework in 2011 was a valuable step forward in government's approach to controlling the costs of consumer-funded energy policies.**

The costs of policies to support new generating capacity will largely be passed on to consumers through their energy bills. The Framework has ensured that government has monitored and exerted some control over an important aspect of these costs, namely the direct costs of support for renewable generation (paragraphs 1.6 and 2.7).

**9 The Framework's measure of costs** has the advantage of being easily understood, but leaves out some important considerations. In particular, its treatment of costs could incentivise decision makers to cut support for renewables when the wholesale price of electricity falls, regardless of whether that is the best decision in terms of longer term value for money (paragraphs 2.7 to 2.10).

**10 Changes to the Framework's coverage have not been clearly explained to stakeholders.** The Department and HM Treasury established the Framework as a way of monitoring and controlling the impact of **all** levy-funded energy schemes on consumer bills. In 2012 they decided that the Framework would only cap the costs of policies that support low-carbon generation. This would help it support decisions about how to trade-off policies that were all aimed at decarbonising electricity. But the two departments have not clearly explained to Parliament the reasons for not including other levy-funded schemes, such as the Capacity Market, in spending caps, despite the associated costs to consumers being substantial (paragraphs 1.9 to 1.14 and 2.4).<sup>4</sup>

### Governance, controls and forecasting

**11 The Department took too long to discover that it was on course to exceed the Framework cap.** One reason for increased forecast costs was the global slump in fossil fuel prices, a development which energy market experts in general were not expecting. But this explains only £0.3 billion of the £2 billion shift in forecast 2020-21 costs that took place in early 2015. Other assumptions became outdated because market intelligence was not gathered frequently enough. One of the Department's crucial assumptions, the load factor of new-build offshore wind turbines, was not updated for 18 months, despite indications during this time that it may have been contributing to an underestimation of costs.<sup>5</sup> Between 2013 and 2015, there was a two-year break between substantive exercises to gather data on technology costs. This was despite the fact that during this time the Department entered into £615 million of new commitments under the Framework by auctioning off Contracts for Difference (paragraphs 2.14 and 3.2 to 3.6).

<sup>4</sup> Capacity Market payments will be around £1 billion to £3 billion annually from 2017-18.

<sup>5</sup> A power plant's load factor is the proportion of time it spends generating electricity.

**12 Poor governance of the Framework contributed to the delay in discovering that its forecasts needed updating.** The Levy Control Board, established to provide joint HM Treasury and departmental oversight of the Framework, stopped meeting after November 2013, and by the time it reconvened in July 2015 the Framework was forecast to exceed the cap. The Department did not establish effective arrangements for sharing information between its officials until January 2015, when the introduction of regular quarterly reporting started to prompt questions about forecast assumptions (paragraphs 2.18 and 2.19).

**13 The government failed to fully consider the uncertainty around its central forecasts and define its appetite for the risks associated with that uncertainty.** If the Department and HM Treasury had asked more explicitly “what if the forecasts or key assumptions are wrong?” this might have prompted more robust design and monitoring of the Framework, and reduced the likelihood of significantly exceeding the Framework’s budgetary cap (paragraphs 2.20 and 3.5).

**14 The Department had not learned the lessons from previous poor forecasting.** In 2011 the Department discovered that its forecasts for one Framework scheme, Feed-in Tariffs, had severely underestimated take-up.<sup>6</sup> The Department commissioned an internal ‘lessons learned’ review, which made broad-ranging recommendations including that governance arrangements and access to commercial intelligence needed to improve. However, the Department did not disseminate widely the findings of this review, nor did it establish a process to track progress against its recommendations (paragraphs 1.17 and 2.21).

**15 The Department commissioned an internal review to learn the lessons from the events of 2015, and has significantly improved its approach.** The Department has more commercial expertise and has started gathering market intelligence more frequently. There is clear senior responsibility for the Framework. Responsibility for analysis has been separated from responsibility for policy, in order to improve scrutiny of forecasting assumptions (paragraphs 2.21 and 2.22).

**16 Because it fully allocated the Framework budget at an early stage and without price competition, the Department has not secured best value for money with it.** The Department chose to award eight early contracts for large renewable projects in 2014, before it had established the full Contracts for Difference regime for auctions. This served to prevent a hiatus in investment and demonstrated that Contracts for Difference were an investable proposition. However, the amount of support it awarded via these early contracts limited its ability to secure value for money with future contracts. According to the latest assumptions, the early contracts now take up all budgetary space under the cap not occupied by the Renewables Obligation and Feed-in Tariffs. The Competition and Markets Authority has estimated that early contracts for offshore wind may have cost £300 million a year more than if they had also been subject to price competition (paragraph 2.14).

6 National Audit Office, *The modelling used to set Feed-in Tariffs for Photovoltaics*, November 2011.

## Reporting

**17 Despite clear recommendations from the National Audit Office and the Energy and Climate Change Committee, the Department has not made its Framework forecasts transparent, preventing effective oversight and challenge.**

The underlying assumptions are either unpublished, or published elsewhere but not alongside the forecasts. The Department has stated that commercial sensitivity prevents it from publishing more information. But we consider that there are ways of overcoming these concerns that would enable the Department to provide more of this information, given the significant interest in it. Improving the transparency of forecasts would improve parliamentary accountability, enhance the confidence of private investors and expose the underlying assumptions to more effective external challenge (paragraphs 3.11, and 3.16 to 3.21).

**18 The Department has failed to report regularly on the full impact of its policies on energy bills.** We and the Energy and Climate Change Select Committee have both previously recommended that government should report regularly on the full costs and impact of all its levy-funded schemes, but it has not done so since 2014. This reporting is important because the relationship between Framework costs and the affordability of energy bills is not straightforward:

- Framework schemes can reduce energy costs as well as add to them.
- Reduced wholesale energy prices increase Framework costs but reduce costs of bills overall.
- Bills are affected by other levy-funded schemes not included in the Framework.
- Contractual commitments under Framework schemes extend well beyond its spending cap, into the 2030s and beyond.

The government's internal forecasts show that, despite forecasts of Framework costs increasing, the estimate of the total average annual energy bill in 2020 **fell** by £268 to £991 between November 2014 and July 2016 (paragraphs 2.7 to 2.10 and 3.12 to 3.15).

## Investor confidence

### **19 The Framework has not met its potential to support investor confidence.**

Maintaining investor confidence helps to keep the cost of new consumer-funded infrastructure low, because it keeps required rates of return low and encourages a healthy pipeline of competing projects. The Framework can support investor confidence in the renewables sector by giving visibility of future government support, but its potential to do so has been hampered by its:

- **Poor forecasting.** With better Framework forecasting, the Department could have discovered earlier that it needed to control costs, potentially enabling a smoother policy response (paragraphs 3.3 and 3.28).
- **Lack of transparency.** The sudden changes to forecasts in 2015 were not sufficiently explained to stakeholders and this invited speculation about whether the numbers had been manipulated. The Department has also not clearly set out the circumstances in which it would tolerate forecasts exceeding the cap, contributing to uncertainty about its implications for investors (paragraphs 3.16 and 3.28).
- **Monitoring and reporting.** The Department's regular internal reports do not mention investor confidence, and the Department does not have summary metrics on investor confidence it can report (paragraph 3.23).
- **Limited and reducing timeframe.** Government needs to strike a balance between providing certainty for investors and maintaining the flexibility to adjust its approach in response to developments in the energy market or changing political priorities. However, the timeframe of the framework cap has not been extended since 2012, and it now only extends for a period of four and a half years. By contrast, some renewable projects take around ten years to come to market. Although the government has given the private sector other valuable information about support beyond 2020 by announcing its anticipated budget for the next three Contracts for Difference auctions, this does not resolve the uncertainty for some projects (paragraph 3.29).



## Conclusion on value for money

**20** The government is on track to achieve its ambition of ensuring that 30% of electricity comes from renewable sources by 2020. Three government schemes funded by energy consumers have made this possible. The Framework has played an important role in making some of the impacts of these policies on consumers clearer. It has also prompted some control over their costs. However, the government has missed opportunities to exploit the full potential of the Framework and this has contributed to decisions which have not secured value for money. The government's forecasting has been poor, as has its allocation of the Framework budget, resulting in a situation in which there is little unallocated budget left for new projects between now and 2020-21, which would have been more cost-effective. Furthermore, the positive effect the Framework could have on investor confidence has been limited by the decision not to extend it beyond 2020-21, and by a lack of transparency. A wider lack of transparent reporting on the impact of policies on bills has also undermined accountability to Parliament.

## Recommendations

**21** The government now needs to do more to develop a coherent, transparent and long-term approach to controlling and communicating the costs of its consumer-funded policies. It should:

- a Report to Parliament every year on the impact its policies have on consumer bills.** We agree with the Competition & Markets Authority that Ofgem would be well placed to help improve transparency over the impact of policies on bills because of its independent role and expertise.
- b Develop and assess new options for controlling the costs of renewables in a formal control framework, particularly in light of the growing importance of Contracts for Difference.** The Department should develop options to address the need to:
  - give Parliament full information about the Department's long-term commitments to levy-funded energy schemes;
  - improve the visibility investors have of planned government support in the long term, to maintain confidence and thereby to promote value for money; and
  - ensure that decisions to allocate funding to renewables are informed by affordability and value for money in the long term. Government should consider moving away from a system of capping renewables' costs relative to the wholesale price of electricity, as that price fluctuates unpredictably in the medium term.

- c Whether or not the Framework is revised, publish a clear explanation of its purpose and how it is going to operate.** In particular, explain how the Department's reaction to future shifts in forecast expenditure would depend on:
- the underlying reason for the shift;
  - where the Framework's costs stand in relation to the cap and headroom; and
  - where the Department stands in relation to ensuring that bills are affordable and the country is on course to meet its carbon targets.
- d Seek to understand the possible consequences of its central forecasts being wrong, and identify its risk appetite in relation to these uncertainties.**
- e Monitor regularly all the significant intended outcomes from Framework schemes.** In particular, the Department should improve its monitoring of investor confidence to ensure that senior officials have regular information on quantitative and qualitative indicators of sentiment. This should form part of the Department's quarterly reporting arrangements for the Framework.
- f Increase the transparency of its projections of levy-funded investment in low-carbon power.** The Department must disclose more of the assumptions underlying its forecasts while respecting legitimate commercial sensitivities. At a minimum, it should seek to learn lessons from the Low Carbon Contracts Company, which has managed commercial sensitivity concerns to publish its own forecasts of the costs of Contracts for Difference.
- g Apply more widely the lessons learned from its approach to the Framework.** The Department should check that the arrangements for governance, internal reporting and exercising control over other schemes of comparable financial importance (such as the Capacity Market) are as good as those now in place for the Framework. It should also assess whether the resources devoted to forecasting for these schemes are sufficient to bring the forecasts into line with high standards of quality assurance.