Super Thursday

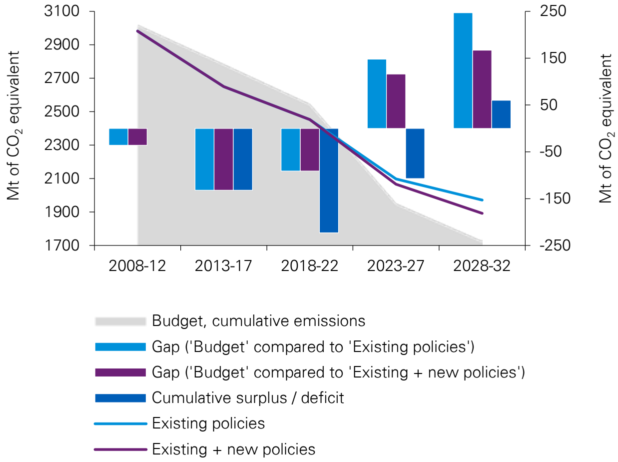
Government recommits to clean growth

12 October 2017

Key points

- Clean Growth Strategy reconfirms Government's commitment to decarbonise the UK economy and meet the Carbon Budgets.
- Notable new policies include £557 million of confirmed funding for CfDs, an extended ECO to 2028 and £100 million for the development of an industrial carbon capture, usage and storage programme.
- Government also published the draft Bill for the establishment of a market wide energy price cap
- National Grid published the Winter Outlook 2017/18, which forecasts capacity margins of over 10%.

UK carbon budgets versus emissions under Government policies



Source: BEIS, Committee on Climate Change

Summary

On Thursday 12 October the Department of Business, Energy and Industrial Strategy (BEIS) made a series of announcements traversing the four pillars of the 'quadrilemma', the framework used to balance Government's energy policy objectives of affordability, security of supply, decarbonisation and industrial strategy.

Whilst much of the content had been announced or soft tested previously, the announcements provide us the first full picture of the new Conservative Government's plans for energy policy.

Specifically, BEIS announced:

1. **Decarbonisation and industrial strategy:** Publication of the 'Clean Growth Strategy' outlining Government's plans to meet the legislated Carbon Budgets to 2032.
2. **Affordability:** Publication of the draft Domestic Gas and Electricity (Tariff Cap) Bill designed to enable Ofgem to implement an absolute price cap on standard variable tariffs.
3. **Security of supply:** National Grid published the Winter Outlook Report assessing the winter capacity margins for winter 2017/18 and BEIS published a review of the gas security of supply in the UK through to 2035.

1. Decarbonisation and Industrial Strategy

The Carbon Budgets

The Climate Change Act 2008 requires an 80% reduction in greenhouse gas emissions on 1990 levels by 2050.

The UK met the first carbon budget (2008 to 2012) by a margin of 1%, and is expected to meet the second and third carbon budgets by margins of 5% and 4% respectively. However, even with Thursday's policy announcements, the figures provided by BEIS show that, without leveraging the 'flexibility' provisions allowing the UK to 'carry forward' excess emissions reductions, there is still a gap to meeting the fourth and fifth carbon budgets.

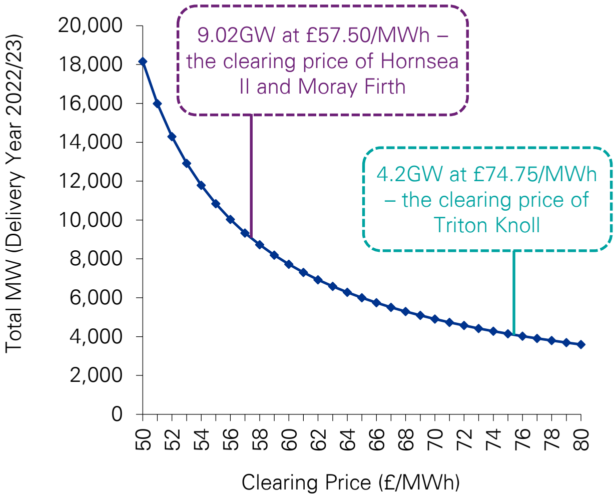
The key policies outlined by BEIS fall under four major sectors of decarbonisation: power, heat, transport and innovation:

Power sector: Of the main sectors generating emissions, the power sector has achieved the most to date. Almost 30% of the UK's electricity came from renewable sources in Q2-17 and this figure is expected to increase rapidly as contracted capacity continues to be built out. When combined with nuclear, this means almost half of Britain's power generation is already coming from low carbon sources.

Building on this, the Clean Growth Strategy announced the following further action:

- 'Up to' £557 million of funding will be made available for future Contracts for Difference (CfD) rounds, with the next auction expected to take place in Spring 2019. This auction will be for 'less established' technologies, including offshore wind, Remote Islands onshore wind in Scotland (subject to State Aid clearance) and some advanced conversion technologies. At the clearing price of Hornsea II and Moray Firth in CfD Round 2, this would see as much as 9GW of offshore wind equivalent awarded CfDs for projects commissioning during the 2020s.
- On nuclear, Government remains committed to the build out of Hinkley Point C and 'will progress discussions with developers to secure a competitive price for future projects.'
- There was no commitment either way on the Swansea Bay Tidal Lagoon project, but it was noted that the door was left open for wave, tidal range and tidal stream, provided that they could demonstrate cost competitiveness.

Possible offshore wind capacity bought forward by £557 million



Source: KPMG analysis

— A commitment to setting a carbon price for the 2020s, the details of which will be set out in the Autumn 2017 budget in November.

Notable by their omission from Thursday's announcements were the role of gas and shale gas as transitional technologies in the decarbonisation of the energy sector; and any reference to the role that onshore wind and solar could play in decarbonising the power sector at least cost to the consumer.

Heat: The heat sector comprises approximately 40% of the UK's greenhouse gas emissions, and requires significant action in order to achieve our longer term carbon budgets.

The plan recognises that there is no 'silver bullet' when it comes to decarbonising heat. There will need to be a combination of locality-specific options across a range of technologies, including biogas, hydrogen, electric and district heating, alongside measures to improve energy efficiency. The Strategy leaves all the longer term options open, saying that decisions will be made in the 'first half of the next decade'.

Nevertheless, the Strategy did announce a range of more immediate measures including:

— Support of approximately £3.6 billion to upgrade around a million homes through the Energy Company Obligation (ECO) and for energy efficiency improvements in homes and buildings until 2028 – an extension from previous commitments which ended in 2021-22;

— A commitment to invest £100 million in carbon capture usage and storage (CCUS) for industrial purposes focusing on the use of waste heat from industry, rather than carbon capture from power plants;

— The implementation of boiler efficiency measures which should ensure 1.2 million new boilers reach an ErP efficiency of at least 92% up from the current 88% threshold;

— To ensure homes classified as 'fuel poor' and as many other homes as possible reach an Energy Performance Certificate Band C by 2035, provided it is practicable, cost-effective and affordable to do so. On average, an EPC C rating saves a household £270 per annum over an EPC D rated home;

— A commitment to undertake an independent review on building regulations, to understand whether changes would promote low carbon and higher energy efficiency heating, ventilation and air conditioning systems in new commercial buildings in cost-effective and affordable ways;

— A call for evidence on the potential reform of the structure of the Green Deal scheme.

Transport: There are currently just over 100,000 plug-in cars and vans in the UK, about 0.3% of the total.

Past commitments by BEIS to provide funding for electric vehicles (EVs) were confirmed, including £1 billion for ultra-low emission vehicles, £1.2 billion for cycling and walking, and the ban of new petrol and diesel sales, for cars and vans, by 2040.

A breakdown of how funds would be allocated was also provided, including:

— £95 million for charging infrastructure deployment;

— £50 million for the Plug-in Taxi programme, which gives taxi drivers up to £7,500 off the purchase price of a new ultra-low emission taxi;

— £100 million for new and retrofitted low emission buses;

— £250 million for connected and autonomous vehicles, which is expected to be matched by industry;

— £841 million towards innovation in low carbon transport technology, such as electric batteries and heavy goods vehicle (HGV) platoons (for example, convoys of lorries, with only the leading vehicle having a driver).

Projections for growth in EVs are increasingly optimistic, with the Clean Growth Strategy comparing Bloomberg's 2017 projection for global deployment levels in 2040 (over 500 million) to the 2016 projection (400 million), signifying changing attitudes towards uptake of electric vehicles.

Innovation: The Government has highlighted its desire to increase investment in low carbon innovation with over £2.5 billion expected to be invested in the research and development of low carbon technologies between 2015 and 2021, plus £720 million of regulated expenditure for smarter, more flexible gas and electricity networks.

A breakdown of how the BEIS Energy Innovation Programme, which comprises £505 million of the £2.5 billion is provided below:

Innovation sector	Funding (£ millions)
Smart systems	£70
The built environment – energy efficiency and heating	£90
Industrial decarbonisation and carbon capture, use, and storage (CCUS)	£100
Nuclear technologies	£180
Renewables technologies	£15
Energy entrepreneurs and green financing	£50

Source: BEIS

2. Affordability

As promised by the Prime Minister in her Party Conference speech, the draft legislation for implementing the price cap was also published on Thursday.

The new price cap is expected to be temporary and to last until the end of 2020, with an option for extension until the end 2023.

With the draft bill only just having been published for pre-legislative scrutiny, which could take several months, Royal Assent is not expected until the end of 2018 at the earliest, and possibly early 2019.

There are currently around 18 million customer accounts on standard variable tariffs (SVTs), including 4 million with prepayment meters (PPM) already benefitting from the PPM price cap, and an additional 1 million vulnerable customers who stand to benefit from the policies announced by Ofgem on 11th October. As such, this new legislation would potentially benefit around 12 million households.

Two of the 'Big Six' energy companies (ScottishPower and E.On) have already indicated that they are planning to abolish or amend their SVTs and this has shifted the focus to the remaining suppliers who may follow suit. If other large suppliers do act to remove or amend their SVTs over the coming months, then there is the possibility that the legislation is no longer needed.

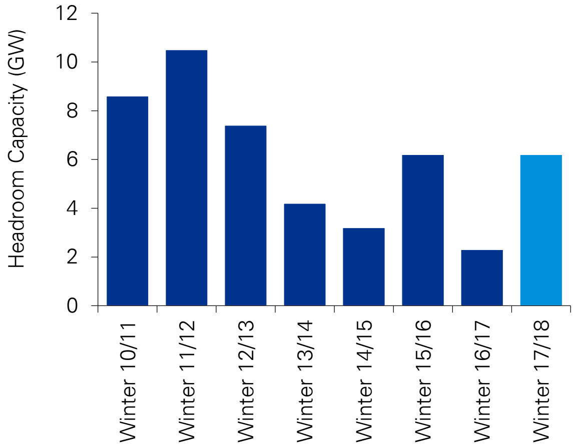
As long as the Bill remains in play, there remains a risk of unintended consequences, including on the hedging strategies and financial position of smaller suppliers, who have been effective in driving competition in retail energy supply.

3. Security of Supply

Winter Outlook 2017/18: National Grid published their annual 'Winter Outlook' for 2017/18 which estimates a margin of 6.2GW for power, or 10.3%, above peak demand. This equates to a loss of load expectation of 0.01 hours (less than one minute), compared to the 3 hours reliability standard set by Government.

National Grid has noted that this is the result of plants without Capacity Market agreements having indicated that they will remain operational in the coming winter. In the short term, this healthy margin will allay security of supply concerns, although it will also raise questions about whether the Government and National Grid have 'over-procured' and that consumers are over-paying for security of supply this winter.

De-rated Capacity – Headroom above peak demand



Source: National Grid – KPMG analysis

Gas security of supply: BEIS also released their strategic assessment and review of 'Gas security of supply', which highlighted the diverse range of supply sources used on the system, and noted that gas deficit is unlikely to become an issue in the UK through 2035, given current spare capacity and the consistently resilient infrastructure behind it.

The review also commented on the likely replacement of supply from the UK Continental Shelf with liquefied natural gas (LNG) imports in the long-term, alongside domestic shale production, and that decarbonisation and energy efficiency would be the key drivers on the demand side.

Decarbonisation could also allow for biogas and hydrogen to become more widespread reducing reliance on conventional gas sources, although any major widespread change would need to take into account costs and impact on overall energy security.

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