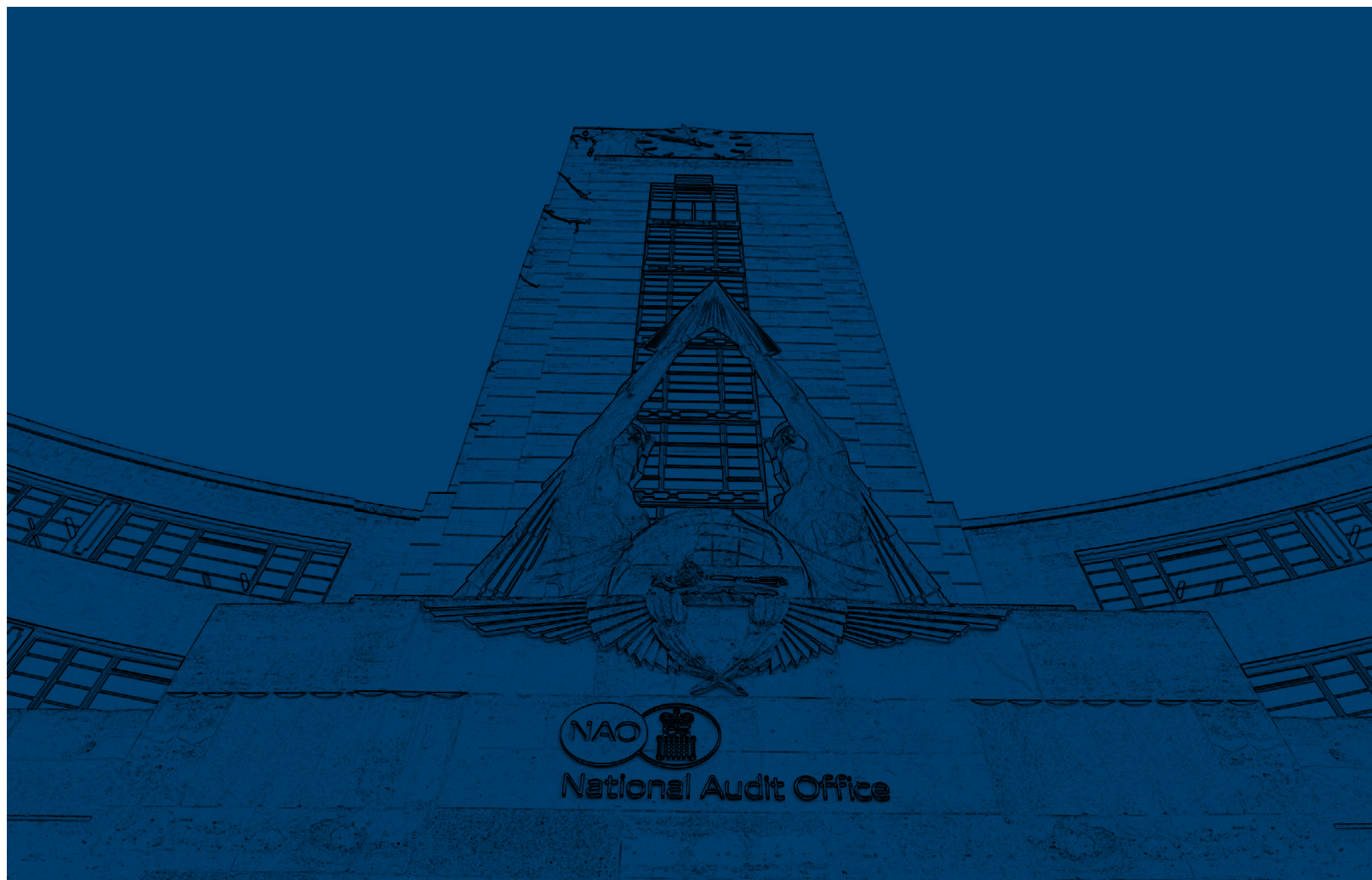




September 2016

# Department for Business, Energy & Industrial Strategy



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# Executive summary

This Departmental Overview looks at the Department for Business, Energy & Industrial Strategy (BEIS). It uses data about the Department's activities drawn from the accounts of its predecessor departments, the Department for Business, Innovation & Skills (BIS) and the Department of Energy & Climate Change (DECC), and summarises those departments' performance during the year ended March 2016, together with our recent reports on them. The content of the report has been shared with the Department to ensure that the evidence presented is factually accurate.

**Part One** sets out some facts about the Department and how it has performed against its responsibilities:

- The Department has been formed as the result of Machinery of Government changes announced in July 2016. It has inherited a number of responsibilities from BIS and DECC.
- The Machinery of Government changes are expected to be cost-neutral, and the Department does not expect its budgets to be reopened. It will need to reallocate resources from BIS and DECC to support any reprioritisation of responsibilities.
- The new Department has inherited significant liabilities from DECC (Nuclear Decommissioning Provisions and Contracts for Difference), which it will manage going forward.

**Part Two** sets out findings from our work on the departments that now form BEIS:

- We have produced a range of studies relevant to the new Department's responsibilities, including work on *Capital Investments in Science Projects* (ex-BIS), the *Green Deal and Energy Company Obligation* (ex-DECC) and on *Nuclear Power in the UK* (ex-DECC).
- We have undertaken a number of cross-government studies, where BIS or DECC have acted as case study departments, including on the establishment of government companies and government progress with Single Departmental Plans.

**Part Three** sets out analysis of the Department's major upcoming developments:

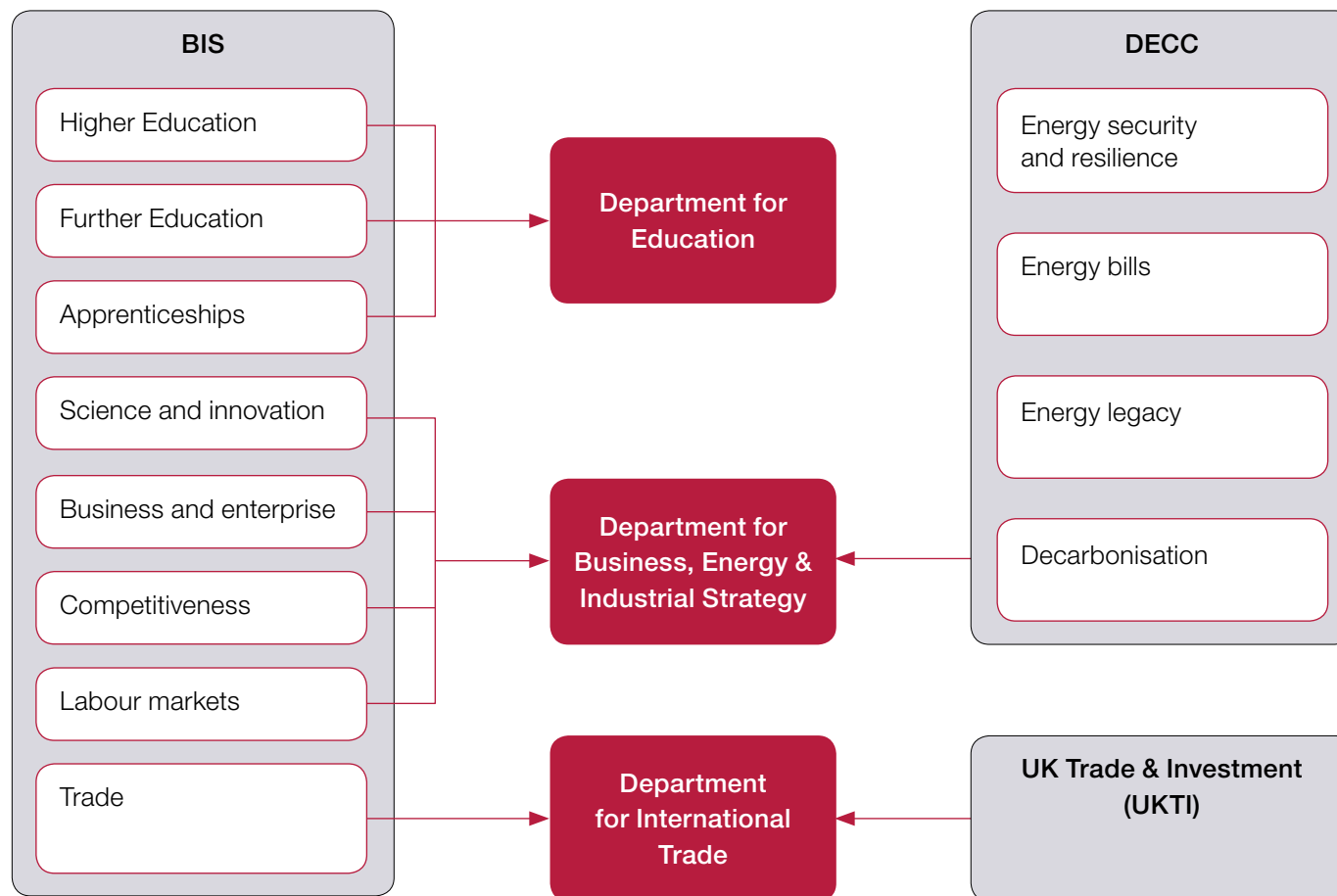
- We set out significant issues that should be considered when reviewing the Department's achievements against its objectives.
- There are a number of important decision points regarding securing energy supply in the near future, and legislative changes, such as the Higher Education and Research Bill, which will influence the shape of the Department's partner organisation landscape.
- The new Department needs to define and prioritise its objectives, through key tasks such as reformulating the industrial strategy.

## Formation

The Department for Business, Energy & Industrial Strategy (BEIS) was created on 14 July 2016 following a number of changes to ministerial responsibilities including:

- movement of responsibility for Higher and Further Education and Apprenticeships from the Department for Business, Innovation & Skills (BIS) to the Department for Education (DfE);
- movement of responsibility for overseas trade from BIS to a newly created Department for International Trade (DfIT); and
- merger of the Department of Energy & Climate Change (DECC) with the remaining activities of BIS.

Accounting Officer (AO) responsibilities will formally transfer at the supplementary estimate. Once the estimate is passed, the BEIS AO will be accountable for the way funds have been spent for the full financial year. On 5 September 2016, it was announced that Alex Chisholm will take the role of sole Permanent Secretary for BEIS.



Formation	<b>Responsibilities</b>	Delivery partners and the energy trilemma	The 2015 Spending Review	Significant assets and liabilities		
Science and innovation	Business and enterprise	Competitiveness and labour markets	Energy security and resilience	Energy legacy	Decarbonisation	Energy bills

## Responsibilities

### Science and innovation

Increasing productivity and growth while reforming the system to maximise value from investment



### Business and enterprise

Cementing the UK's position as the best place in Europe to start and grow a business



### Competitiveness

Developing long-term industrial strategy, supporting competitive markets, cutting red tape and protecting intellectual property



### Labour markets

Tackling illegal practices in the workplace, implementing reform of trade union law, dealing with abuse of the minimum wage



### Energy security and resilience

Working with oil, gas and electricity sectors to ensure a well-functioning, competitive and resilient energy system and sufficient capacity



### Energy legacy

Discharging legal liabilities and managing the security risk from the legacies of nuclear and coal industries



### Decarbonisation

Working with international partners. Meeting National Carbon Target of 80% reduction by 2050



### Energy bills

Keeping bills as low as possible for hard-working families and businesses



Source: [www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2016-07-18/HCWS94/](http://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2016-07-18/HCWS94/)

Formation	<b>Responsibilities</b>	Delivery partners and the energy trilemma	The 2015 Spending Review	Significant assets and liabilities		
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## Science and innovation

BEIS uses science and research bodies to promote economic growth in the UK, and aims to stimulate a more competitive and productive research environment.



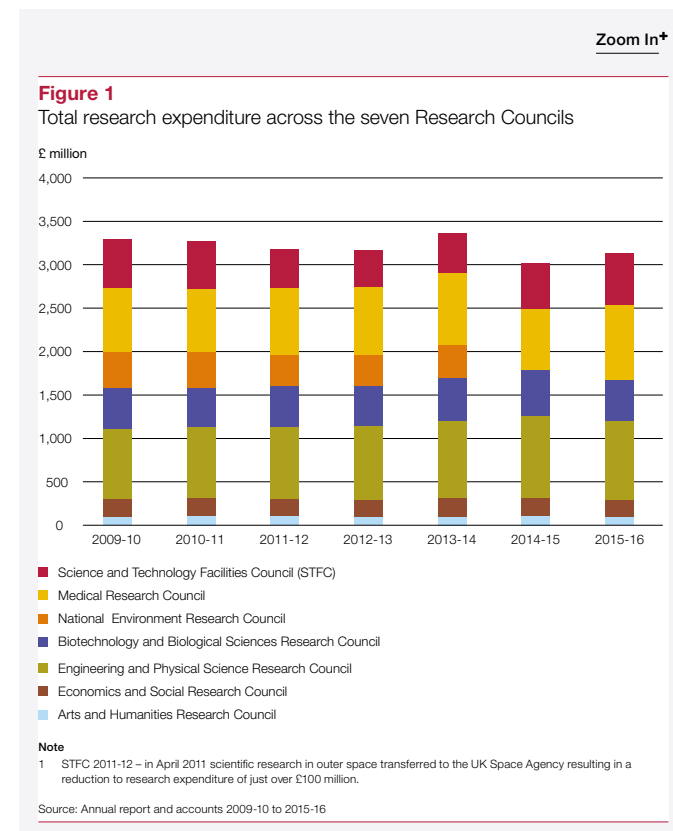
These bodies include **The UK Space Agency**, **Innovate UK** and the seven **Research Councils**.

As a group, research councils fund research and postgraduate training, supporting science in the UK and internationally. They do this predominantly by awarding grants to research organisations including higher education facilities, and by paying international subscriptions. A number of the councils also undertake their own research.

The government has committed £6.9 billion of capital investment in the UK's research infrastructure over the period 2015-16 to 2020-21. This will cover investments such as the *RSS David Attenborough* and the Francis Crick, Sir Henry Royce and Alan Turing Institutes. Separately, the government has committed to doubling DECC's innovation programme to £500 million over five years, for small modular nuclear reactor development and commitments to fund new renewable energy technologies and smart grids.

The government continues to support research and development in developing countries, for example through the Newton Fund, which provides £435 million over the period 2016-17 to 2019-20, and the Global Challenges Research Fund investment of £1.5 billion over the period 2015-16 to 2020-21.

Innovate UK aims to support innovative small and medium-sized enterprises (SMEs) that have high growth potential, and to encourage development in key areas such as manufacturing, digital and transport. This is currently grant-funded but will transition to loans and other finance mechanisms over the Spending Review period, reaching £165 million per year by 2019-20.



Formation	<b>Responsibilities</b>	Delivery partners and the energy trilemma	The 2015 Spending Review	Significant assets and liabilities
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## Business and enterprise

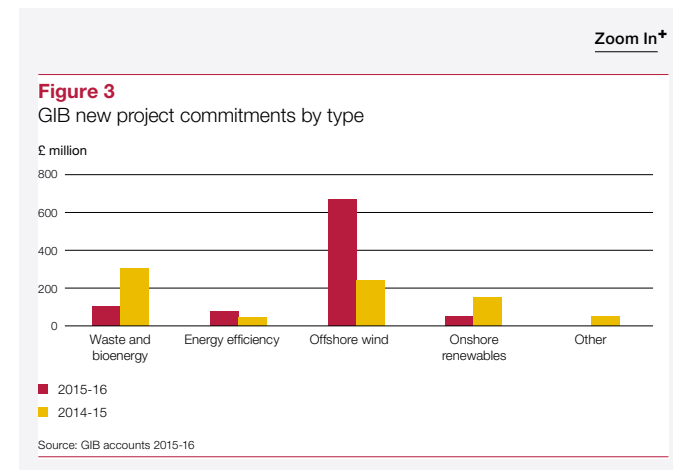
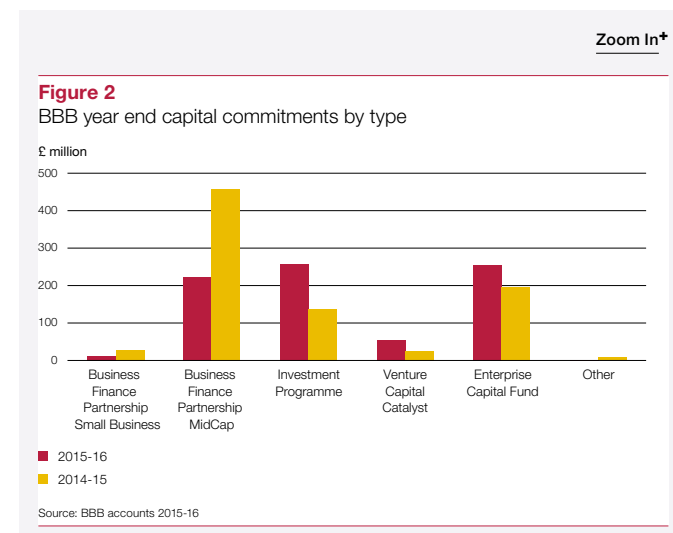
BEIS uses a number of activities to support businesses including investment through the British Business Bank (BBB) and Green Investment Bank (GIB). During 2015-16, the Department provided share capital of £233 million to help fund the banks' operations and investments, alongside the banks' own reinvestment of earnings from previous investments.



Programmes run by BBB and GIB aim to improve the access to finance for small and green businesses. They run a number of programmes aimed at different market sectors. Consistently across these, investments are driven by the requests for funds, the timing of which is flexible and driven by market conditions.

Examples of other areas of support for business include:

- repayable Launch Investments (assets worth £1.4 billion) – payments supporting aerospace industry innovation, to be repaid based on product delivery;
- support for Post Office Ltd through the provision of a rolling loan facility (loan at 31 March 2016, £515 million). During 2015-16, BIS sold its remaining shares in Royal Mail, raising £1,341 million, of which 2% was gifted to employees (equivalent to £94 million);
- payments under the Redundancy Payment Scheme (£285 million) to employees of insolvent firms;
- support for energy-intensive industry such as steel, mining and manufacturing (£219 million); options to replace with an exemption are being considered;
- support managed by BBB on behalf of BEIS, for example, Start-Up Loans (£34 million) and ENABLE funding to support asset financing (in-year spend £93 million); and
- commitment to funding aerospace and automotive technologies for 10 years, providing more than £1 billion additional funding for innovation in these sectors.



Formation	<b>Responsibilities</b>	Delivery partners and the energy trilemma	The 2015 Spending Review	Significant assets and liabilities
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## Competitiveness and labour markets



BEIS will support markets and workers through its activities, those of its partner organisations and through its partnering with other government bodies such as the Competition and Markets Authority.

The [written ministerial statement](#) issued in July outlining the formation of BEIS, outlines competitiveness and labour markets to include:

- defining a long-term industrial strategy;
- supporting competitive markets, cutting red tape and protecting intellectual property;
- Trade Union reform; and
- supporting workers, for example minimum wage.

BEIS undertakes a number of activities to help support competitive markets, for example:

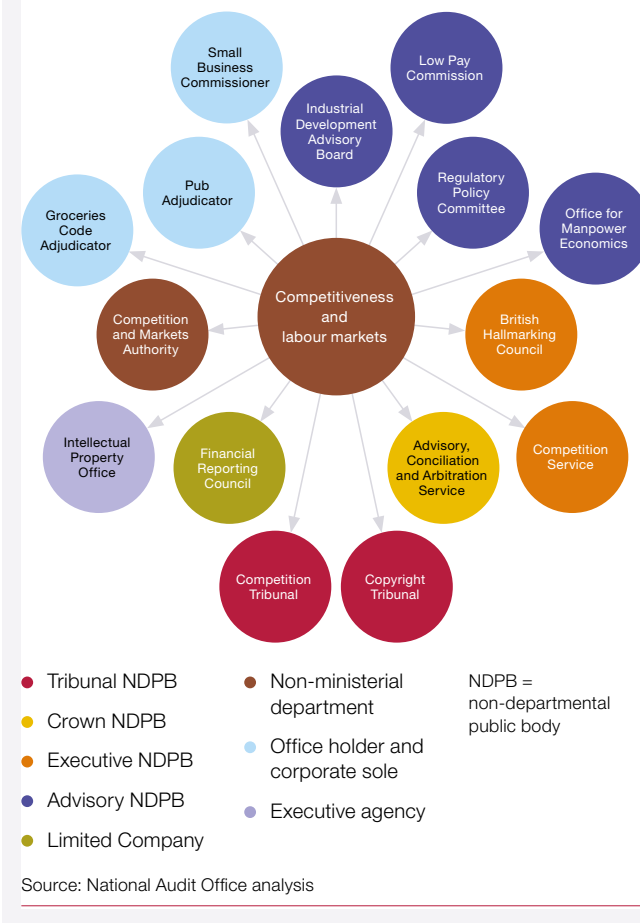
- Launching a competition plan entitled [A better deal: boosting competition to bring down bills for families and firms](#), which includes proposals to improve the energy market.

- Contribution to delivery of the Business Impact Target of a further £10 billion of savings to business during this Parliament through reduced government regulation.
- Creation of new bodies – such as the Small Business Commissioner and the Pubs Code Adjudicator.

Work to support changes to the labour market in 2015-16 included:

- introduction of the National Living Wage at £7.20 for workers aged 25 and over; the government’s objective is for this to rise to £9 by 2020. The Low Pay Commission will advise the government on the annual increases;
- the [Trade Union Act](#) received royal assent on 4 May 2016 providing new rules on the requirements for strike action; and
- implementation of changes introduced by the [Small Business, Enterprise and Employment Act](#) including a ban on exclusivity clauses in zero-hours contracts.

**Figure 4**  
Bodies with responsibilities for competition and labour markets



Formation	Responsibilities	Delivery partners and the energy trilemma	The 2015 Spending Review	Significant assets and liabilities
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## Energy security and resilience

Energy security means having enough gas and electricity available at all times to meet demand. In November 2015, the then-Secretary of State for Energy and Climate Change signalled that the Department would prioritise security of supply over its other energy objectives.



### The situation in the UK

For electricity, which cannot be readily stored, a complex regulatory framework is in place to balance supply and demand on a second-by-second basis. The government policy framework plays a key role in influencing private sector decisions on investment in electricity generating plant.

The provision of gas and oil and the balancing of supply and demand to support energy generation is largely a private sector matter. A regulated gas distribution network is operated and maintained by National Grid on behalf of BEIS. The government also has procedures in place to deal with major emergencies causing disruptions to fuel supplies.

### BEIS's approach to ensuring security of supply

**Balancing services** – National Grid manages a range of services to balance supply and demand. The day-to-day costs of the system are recovered from energy generators and suppliers through a flat-rate tariff, the 'Balancing Services Use of System' charge.

**Balancing services penalties** – Ofgem has the ability to issue financial penalties for generators and suppliers who are out of balance. Penalties imposed by Ofgem are either paid to the consolidated fund or distributed by the supplier as redress to customers or appropriate charities, such as Citizens Advice services and the Carbon Trust.

**Capacity market** – Government's Electricity Market Reform Programme introduced the capacity market as a means of ensuring adequate future energy supply availability. Energy generators are provided with a steady, predictable income stream to support investment in energy generation, and in return are expected to be able to provide additional energy supplies when necessary. BEIS estimates the capacity market will increase domestic energy bills by £2 by 2030, assuming that wholesale energy prices are

reduced. The first capacity market auction in 2014 (covering 2018-19) achieved a far lower clearing price (£19.40/kW/year in 2012 prices) than expected, which will reduce costs for consumers. The second auction, for 2019-20, achieved an even lower clearing price of £18/kW/year (2014-15 prices). However, relatively little new capacity was procured in either year: of the 46.4GW secured in the 2015 auction, 42.0GW was existing capacity; 1.86GW was existing interconnector capacity; and 1.94GW was new-build generating capacity.

**Interconnectors with Europe** – Existing connections with the European energy grid have a capacity of 4GW, which represents 6% of total electricity demand. Increasing harmonisation of the EU energy market provides additional energy security through allowing imports of electricity and gas when additional supply is necessary.



Formation	<b>Responsibilities</b>	Delivery partners and the energy trilemma	The 2015 Spending Review	Significant assets and liabilities		
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## Energy legacy

BEIS is responsible for managing the UK's energy legacy – the long-term impacts of both past and current generation – safely and responsibly. The main focus of this work is decommissioning nuclear processing facilities in Sellafield and retired nuclear reactors and research sites. There is also effort expended on building modern storage and development of a geological disposal facility for higher-level waste. BEIS also has responsibility for managing the legacy impacts of the fossil fuel industry. This includes environmental impacts and public safety issues associated with both mining and energy generation.



### The situation in the UK

The Nuclear Decommissioning Authority's (NDA's) 17 sites contain nuclear waste and contaminated buildings. Some of this nuclear material is housed in ageing facilities and now needs to be stored to modern standards. Much of the NDA estate requires constant management and security protection. Specific challenges include the lack of a facility for long-term disposal of high-hazard nuclear waste, and security risks associated with a stockpile of separated plutonium, which is expected to be around 140 tonnes at the cessation of nuclear reprocessing in around 2020.

Coal mining has largely ceased in the UK: the last deep coal mine (Kellingley) closed in December 2015, leaving only a few open-cast mines remaining. The extensive mining of the past has lasting impacts over a long

timescale. Scientists expect waste water treatment to be necessary for at least 100 years, and further subsidence claims for another 50 years. The exact timeframe and cost of these is difficult to estimate.

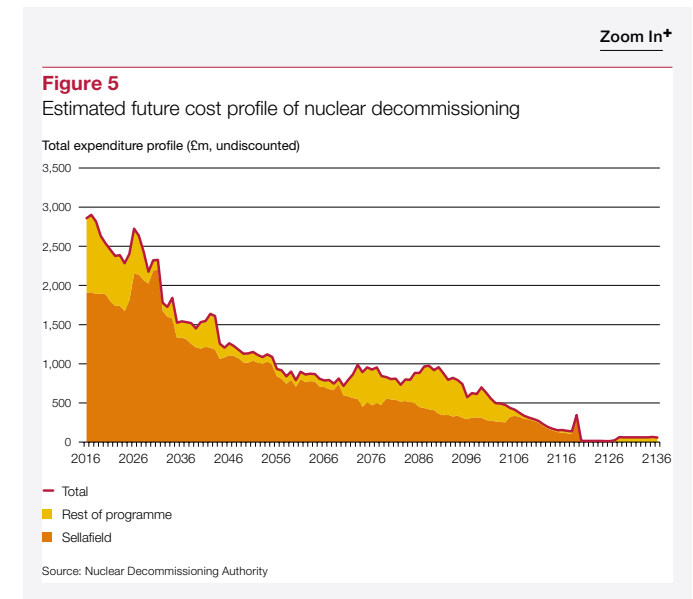
The Department recognises the future costs of the energy legacy as provisions in its accounts. In 2015-16, the estimate of costs for the undiscounted nuclear decommissioning provision totalled £117.4 billion. Due to the long timeframes involved, HM Treasury discount rates are applied to give a present value disclosed in the accounts of £161 billion: £51 billion of this is expected to be utilised in the next 20 years. The Coal Authority (CA) provision totalled £2.8 billion discounted. Both of these provisions were significantly impacted by a change in the discount rates issued by HM Treasury.

### The Department's approach to the energy legacy

The NDA is responsible for managing and decommissioning its sites and storage of nuclear waste. NDA does this through a number of subsidiaries, such as site licence companies (SLCs). NDA engages with the SLCs that operate its sites in different ways, ranging from full sale of the company to the private sector, as at Springfields; temporary transfer of the SLC to the private sector under contract through competition, as with Magnox; and as a direct subsidiary, most recently implemented at Sellafield. Sellafield had previously been under the private sector, but ministers signed

off a recommendation from NDA that this model was not delivering, and as of 1 April 2016 ownership of Sellafield Ltd has been transferred to the NDA. Another subsidiary of NDA, Radioactive Waste Management Ltd, is working to identify a suitable site for a deep geological disposal facility for long-term disposal of waste, expected to be active around 2040.

The CA has responsibility for managing the effects of past coal mining, including subsidence damage claims and mine water pollution. The core BEIS has responsibility for funding concessionary fuel payments and health liabilities for former miners.



Formation	<b>Responsibilities</b>	Delivery partners and the energy trilemma	The 2015 Spending Review	Significant assets and liabilities
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## Decarbonisation

The consensus of scientific opinion is that, if greenhouse gas emissions are not reduced, global temperatures may rise 2°C–5°C this century. This would have potentially devastating consequences for ecological systems and human welfare. In December 2015, the UN adopted the ‘Paris Agreement’ to limit temperature changes to under 2°C, through specified activities to start in 2020. However, the agreement has not yet been ratified by sufficient countries to come into force. The UK has signed the agreement, but not ratified it: the BEIS Minister of State for Energy and Intellectual Property confirmed in July 2016 that the government intends to ratify the agreement as soon as possible.



- The UK Climate Change Act (2008) established a statutory target for the UK to achieve at least an 80% reduction in greenhouse gases by 2050 against a 1990 baseline. It requires the government to set five-year carbon budgets to serve as stepping stones towards the 2050 target.
- The [UK Carbon Plan](#) (2011) confirmed measures to meet the first three carbon budgets (2008–2012, 2013–2017, 2018–2022). The government has agreed the fourth carbon budget (2023–2027) and the fifth carbon budget (2028–2032), and is expected to produce an emissions reduction plan incorporating these in 2016.

### The Department’s approach to incentivising decarbonisation

#### Electricity Market Reform (EMR)

- **Contracts for Difference (CFDs)** fix the price that low-carbon generators receive for their output (discussed in more detail on page 17).
- The **Emissions Performance Standard (EPS)** sets an emissions limit for power plants, which new coal-fired plants can only meet if they capture and store their carbon emissions.

#### Other policies

- The **Renewables Obligation** supports renewable generation technologies. It is being replaced by CFDs, and will close to new applications in 2017.
- The **Renewable Heat Incentive (RHI)** supports renewable energy heating for domestic and non-domestic buildings.
- The small-scale **Feed-in Tariff** scheme supports renewable generation, such as solar panels and biomass.
- The **EU Emissions Trading Scheme** promotes decarbonisation.

#### The situation in the UK

- The UK is to source 15% of all energy from renewable sources by 2020 to meet its EU statutory target. The EU aims to reduce carbon emissions across the EU by 40% by 2030, against a 1990 baseline.

Formation	<b>Responsibilities</b>	Delivery partners and the energy trilemma	The 2015 Spending Review	Significant assets and liabilities
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## Energy bills

Fuel poverty arises where households cannot afford to heat their homes adequately. It is a significant problem in the UK due to the poor quality of the housing stock, particularly for low-income households. Energy costs are also a concern for businesses, including SMEs.



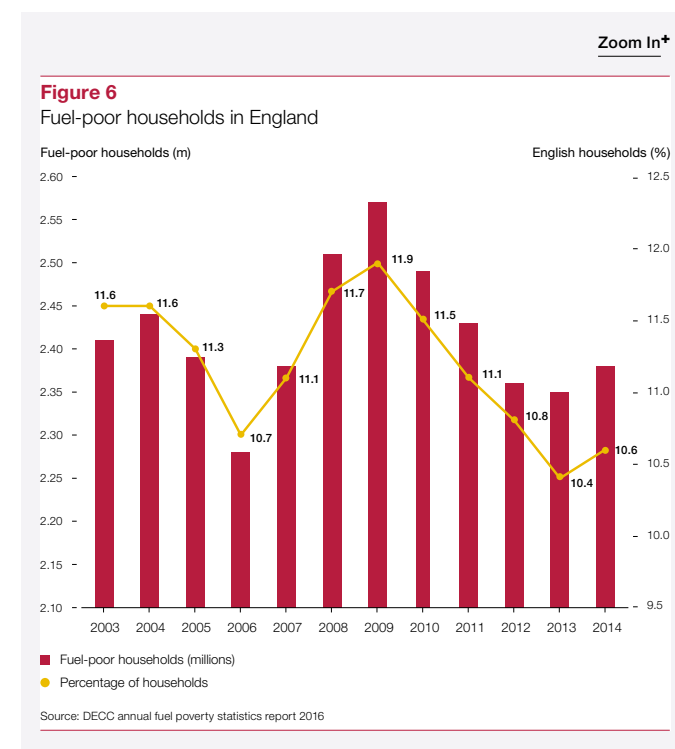
### The situation in the UK

- Fuel poverty is a devolved issue, with each nation in the UK having its own fuel poverty definition. Scotland and Wales have set themselves targets to eradicate fuel poverty by 2016 and 2018 respectively.
- England uses the ‘Low Income High Costs’ indicator to measure fuel poverty. This describes a household as being in fuel poverty if its required fuel costs are above the national median average and if spending that amount would leave the household with residual income below the official poverty line. Under this definition, DECC estimated that 2.38 million households in England (10.6% of the total) were in fuel poverty in 2014, and projected similar levels for 2015 and 2016.

- The energy intensity, the amount of energy consumed per unit of output, of the UK economy is improving. Industry sector energy intensity has reduced by 39% since 1990, whereas the services sector has seen a 67% fall since 1970.

### The Department's approach to keeping bills low

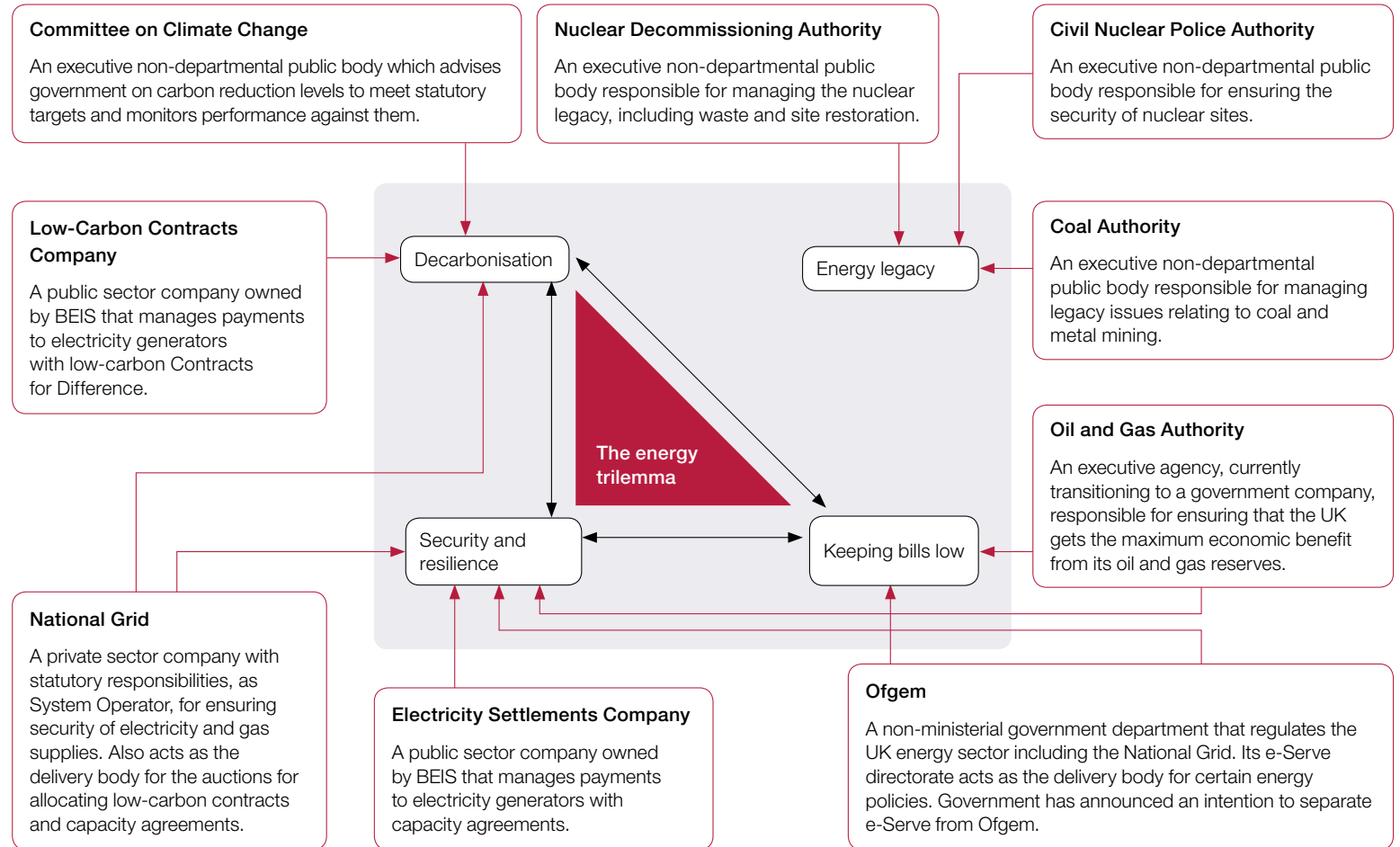
- There is concern that the retail energy market is not fully competitive, with prices not fully reflecting changes, and particularly falls, in wholesale energy prices. In June 2016, the Competitions and Markets Authority completed an investigation into the energy market, which included a package of measures intended to improve competition and set a deadline of 23 December 2016 for implementation of remedial action.
- The government uses the Levy Control Framework (LCF) to control the costs of supporting investment in low-carbon generation and to protect consumers. The LCF caps aggregate spending on consumer-funded support for low-carbon projects in 2020-21 at £7.6 billion (2011-12 prices). The Department estimates that this will add, on average, around £92 (7%) to annual household energy bills in 2020 (real 2014 prices). However, the most recent forecasts of LCF spending suggest the cap will be breached.



## Delivery partners and the energy trilemma

Energy policy is largely ‘reserved’, with BEIS overseeing policy and legislation for the entire United Kingdom. Some areas, such as tackling fuel poverty, are devolved to Scotland, Wales and Northern Ireland, although the extent of devolution varies between countries.

DECC’s energy objectives (excluding legacy issues) were often referred to as its ‘trilemma’, because the objectives can conflict and policies can contribute to, or impact upon, more than one of its objectives. DECC had a number of delivery partners to help deliver its strategic objectives. It is expected that arrangements with these bodies will continue under BEIS.

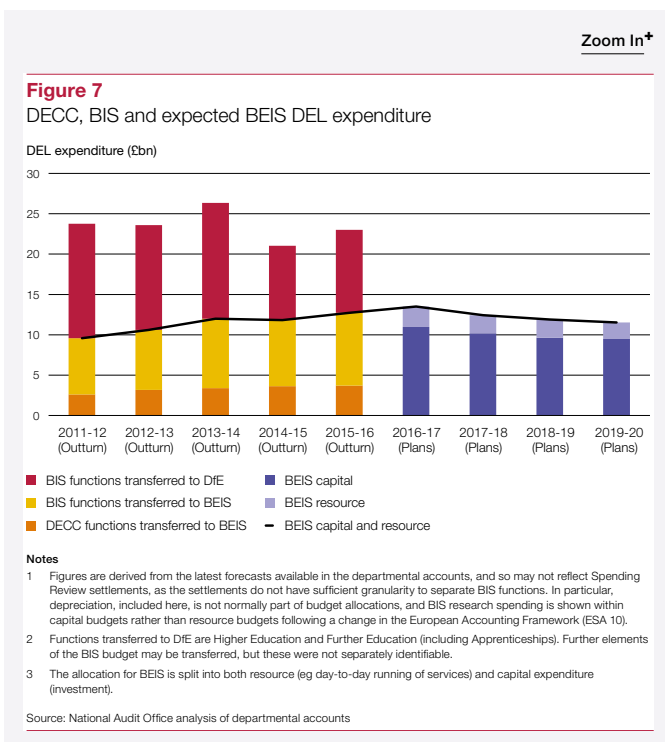


# The 2015 Spending Review

Departmental Expenditure Limit (DEL) budgets for this Parliament were set for both BIS and DECC through the 2015 Spending Review, covering day-to-day, planned and controllable departmental expenditure. The Chief Secretary to the Treasury has written to all departments setting out his expectation that Machinery of Government (MoG) changes should be fiscally neutral; so BEIS does not expect its budgets to be reopened.

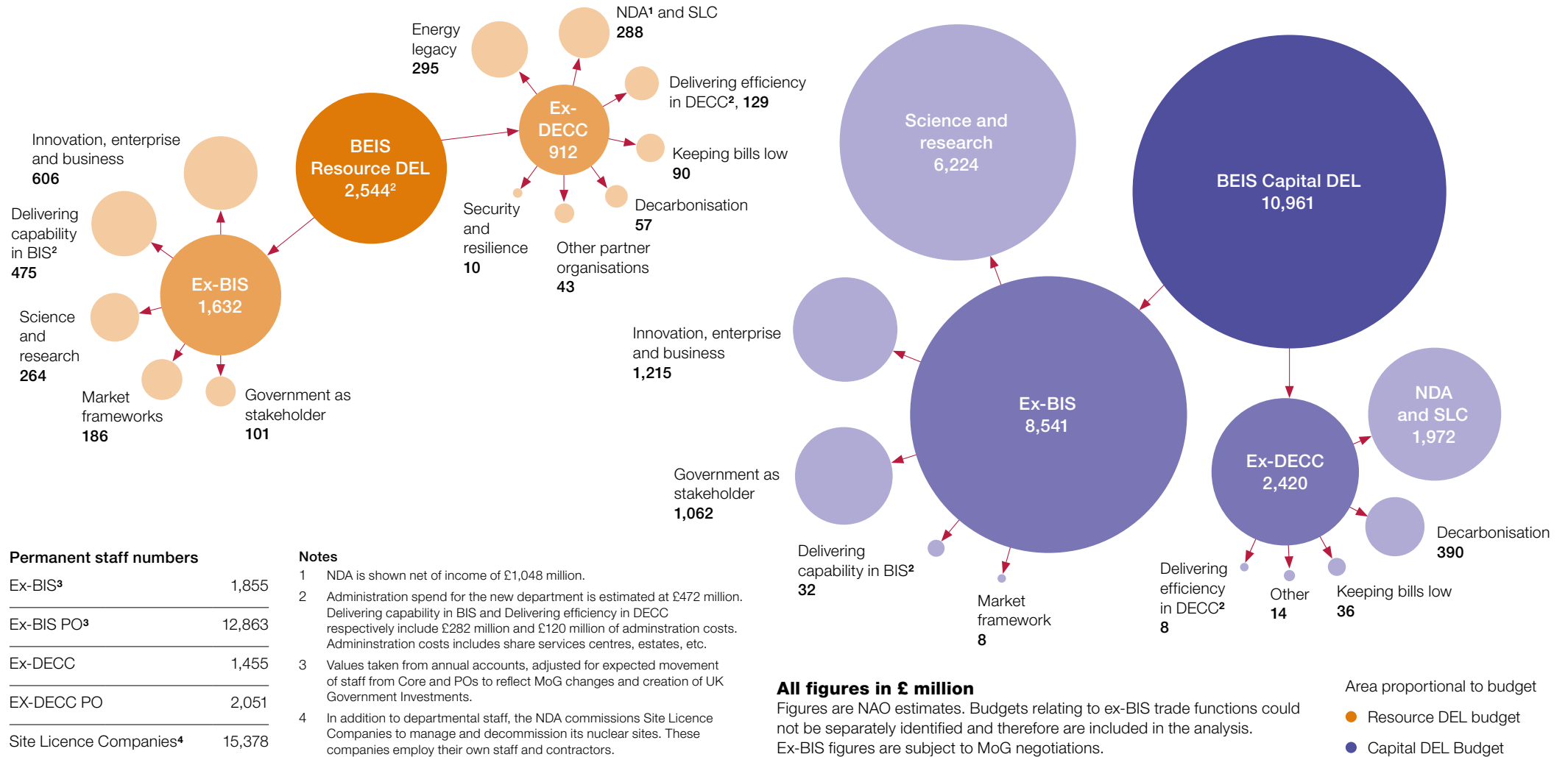
Significant points from the 2015 Spending Review include:

- DECC and BIS, as ‘unprotected’ departments, were expected to identify resource budget savings to support fiscal consolidation. HM Treasury calculated that their settlements represent cumulative real-terms reductions of 16% for DECC and 17% for BIS by 2019-20.
- DECC resource savings were expected primarily from changes in the Nuclear Decommissioning Authority (saving £1 billion across both resource and capital) and from pooling of back-office and corporate services and contract cost reductions (saving £220 million).
- BIS savings were expected from changes to delivery mechanisms (for example, grants to loans and other finance products, and delivering energy-intensive industry exemptions), and changes to the Higher Education and Further Education sectors. BIS also aimed to deliver £350 million through its BIS 2020 programme, elements of which included rationalising its estates and partner organisations, digitalisation and reduced commercial spend.
- Capital budgets are made up from individual capital projects bid for by departments.
- The capital budget for BIS (including Further Education and Higher Education functions subsequently transferred to DfE) reduced from a 2015-16 baseline of £3.8 billion to £1.6 billion in 2020-21. Government committed to protect annual science resource funding (now shown as capital) at £4.7 billion, therefore rising in cash terms over the Spending Review period, while also investing £6.9 billion in new scientific infrastructure.
- DECC capital budgets increased from £2.3 billion in 2015-16 to £2.8 billion in 2020-21 to allow for an increase in investment in innovation, including in nuclear technologies.



Formation	Responsibilities	Delivery partners and the energy trilemma	The 2015 Spending Review	Significant assets and liabilities
DEL Expenditure – Planned 2016-17		AME Expenditure – Planned 2016-17		

## DEL Expenditure – Planned 2016-17



**Permanent staff numbers**

Ex-BIS <sup>3</sup>	1,855
Ex-BIS PO <sup>3</sup>	12,863
Ex-DECC	1,455
EX-DECC PO	2,051
Site Licence Companies <sup>4</sup>	15,378

**Notes**

- NDA is shown net of income of £1,048 million.
- Administration spend for the new department is estimated at £472 million. Delivering capability in BIS and Delivering efficiency in DECC respectively include £282 million and £120 million of administration costs. Administration costs includes share services centres, estates, etc.
- Values taken from annual accounts, adjusted for expected movement of staff from Core and POs to reflect MoG changes and creation of UK Government Investments.
- In addition to departmental staff, the NDA commissions Site Licence Companies to manage and decommission its nuclear sites. These companies employ their own staff and contractors.

**All figures in £ million**

Figures are NAO estimates. Budgets relating to ex-BIS trade functions could not be separately identified and therefore are included in the analysis. Ex-BIS figures are subject to MoG negotiations.

Area proportional to budget

- Resource DEL budget
- Capital DEL Budget

Source: National Audit Office analysis of departmental accounts

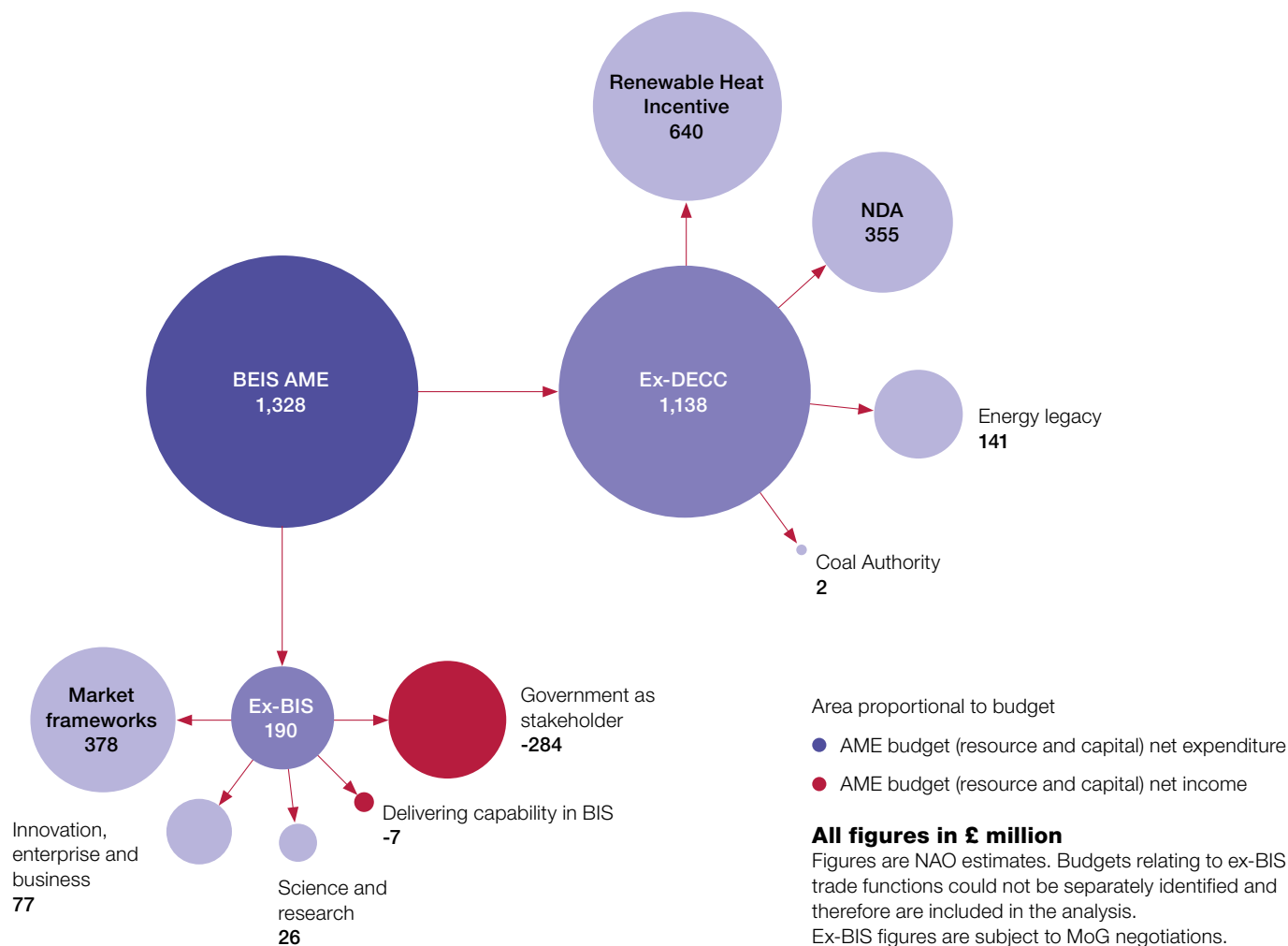
Formation	Responsibilities	Delivery partners and the energy trilemma	The 2015 Spending Review	Significant assets and liabilities
DEL Expenditure – Planned 2016-17		AME Expenditure – Planned 2016-17		

## AME Expenditure – Planned 2016-17

AME expenditure is volatile and unpredictable, and will vary year-on-year. For example, in 2015-16, NDA AME was £89.8 billion compared with the £355 million expected in 2016-17. The large value in 2015-16 was attributable to a change in HM Treasury required discount rates on provisions which, for cash flows exceeding 10 years, changed from 2.2% to -0.8%. More details are provided on the following pages.

### Non-budget income and expenditure

Ex-DECC policies such as Contracts for Difference, the Renewables Energy Obligations and the small-scale Feed-in tariff are funded through levies and not captured in departmental budgets. The levies are capped by the Levy Control Framework, and the cap is due to rise to £7.6 billion per year (2011-12 prices) by 2020-21.



Source: National Audit Office analysis of departmental accounts

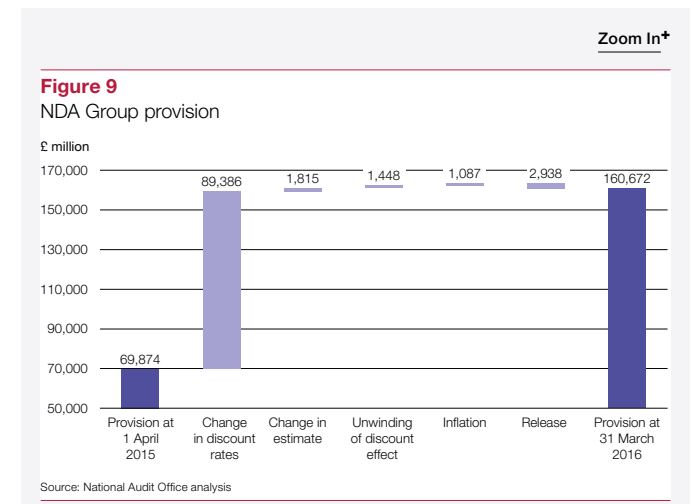
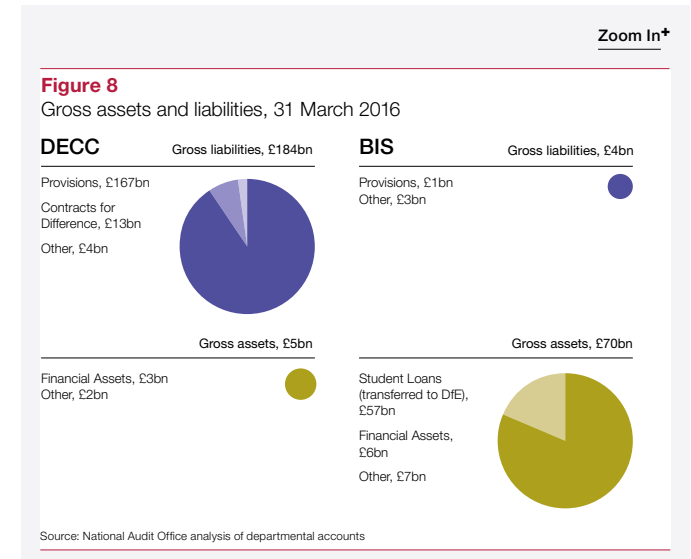
## Significant assets and liabilities

BIS and DECC managed significant elements of the government's assets (resources expected to produce future value) and liabilities (obligations expected to result in future costs), as shown in departmental Statements of Financial Position (Figure 8). These included student loan assets (£57 billion), nuclear decommissioning provisions (£161 billion) and Contracts for Difference (CFD) liabilities (£13 billion). Student loan assets will transfer to DfE while the decommissioning and CFD liabilities will remain with BEIS.

The nuclear decommissioning provisions represent the expected costs of managing the Department's obligations arising from nuclear decommissioning; the NDA is required to decommission and clean up nuclear facilities and their associated sites, a process expected to take many decades. Estimates over a long timescale are inherently uncertain: the Department expects that the total undiscounted cost will be between £95 billion and £218 billion. Further provisions exist for the coal industry, although these are much lower in value than for nuclear decommissioning.

In order to present a single figure in the accounts, DECC calculated a best estimate of the costs. This figure is discounted to indicate the present value of the future costs, taking account of future inflation and market expectations. In 2016-17, a change in the HM Treasury calculation method for discount rates resulted in an increase of £89 billion in the reported value of the future costs. Figure 9 illustrates the scale of this movement relative to other changes in the expectation of future costs. The Department's best estimate of future costs remained stable.

The Comptroller and Auditor General (C&AG) has highlighted inherent uncertainties in the estimates of these liabilities through his opinion on the NDA's financial statements since 2005.





## Significant assets and liabilities *continued*

Contracts for Difference (CFD) guarantee a fixed price per unit of electricity (the 'strike price') to developers of new electricity generating capacity in the UK, supporting investment in low-carbon technology. Future payments under the contracts are recognised as a liability in the departmental accounts.

The Low-Carbon Contracts Company makes payments to generators when the average cost of electricity is below the strike price, and collects payments from the generator if the average price is above the strike price. This process is illustrated in Figure 10.

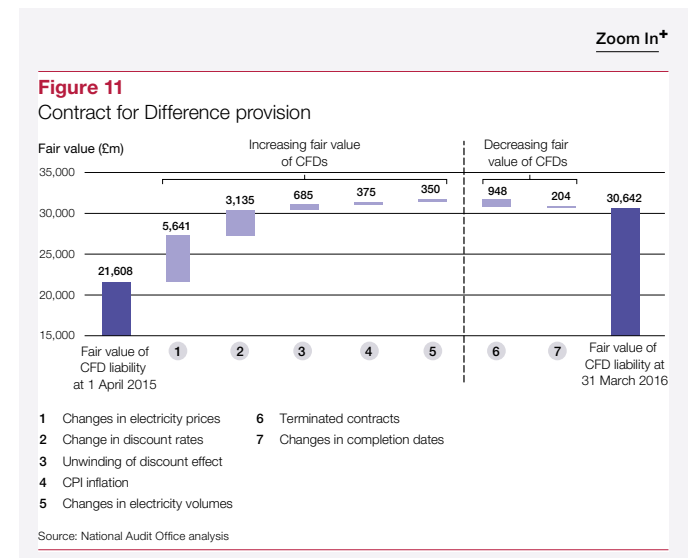
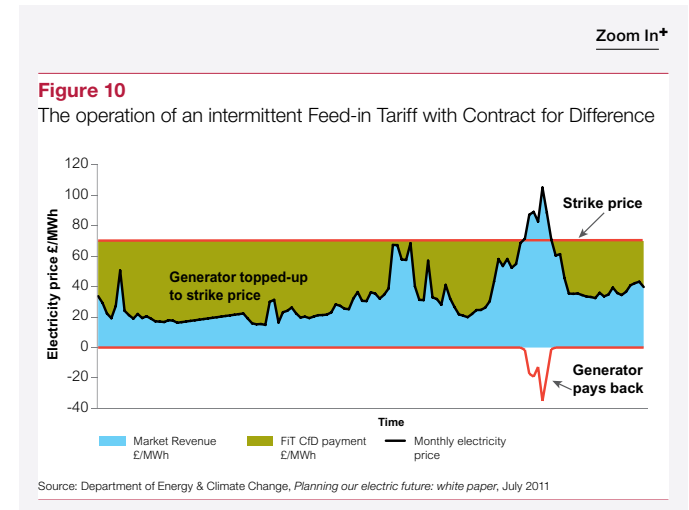
CFD liabilities are highly volatile as their value is linked to future wholesale electricity prices and the contracts typically last 15 years. The 'fair value' of the CFD liability as at 31 March 2016 is £30.6 billion<sup>1</sup> and represents the March 2016 estimate of the subsidy to be paid to generators, recognising that agreed strike prices are likely to be higher than wholesale prices. The subsidy that will be paid to generators is levied from electricity suppliers and is assumed to be ultimately passed on to consumers through electricity bills.

The fair value of the CFD liability increased by £9 billion in 2015-16, mainly due to lower forecasts of wholesale electricity prices and changes in discount rates. The changes in fair value are illustrated in Figure 11.

The C&AG has highlighted the uncertainty in the estimates of these liabilities and their sensitivity to assumptions regarding future electricity prices and volumes within his opinion on the Department's financial statements.

**Note**

- 1 Note that under accounting standards, only £13 billion has been recognised on the Statement of Financial Position as day one losses, the estimated value at contract inception, are deferred.



Findings from our value-for-money audits – BIS

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Findings from our value-for-money audits – Project and programme delivery

## Findings from our value-for-money audits – Department for Business, Innovation & Skills (BIS)

### Science and innovation



#### [Capital investment in science projects \(March 2016\)](#)

We found that many science projects were delivered on time and within budget and, among the projects that have been operational for some time, many are in high demand and have produced benefit to science and society. However, we found that BIS has not consistently used good-quality information to decide which science projects to invest in and that this has undermined BIS's ability to achieve value for money. We recommended that BIS needs to develop a more systematic and informed approach to investing in science projects.

### Business and enterprise



#### [National Audit Office \(NAO\) reports on impacts \(October 2015\)](#)

The NAO reports on where previous value-for-money studies have produced changes in government behaviour.

In October 2015 we were able to confirm impacts from our [Improving access to finance for SMEs](#) report published in 2013, as this helped shape the formation of the British Business Bank and its activities.

Further, we confirmed impacts from our [Achieving value for money for the sale of government shares](#) report published in 2014 covering the privatisation of the Royal Mail, which prompted the appointment of Lord Myners to undertake a review that led to several recommendations around changes to UK Market Conventions and regulation.

### Competitiveness and labour markets



#### [The business impact target: cutting the cost of regulation \(June 2016\)](#)

We found that the government does not know how much of a cost and/or benefit there is to businesses and wider society as a result of existing regulations. We also found that deregulation targets often conflict with overall policy objectives. We recommended that the Better Regulation Executive should improve its understanding, for example by commissioning an independent review.

#### [Ensuring employers comply with National Minimum Wage regulations \(May 2016\)](#)

BIS led on setting the National Minimum Wage in collaboration with the Low Pay Commission. Our briefing focuses on HM Revenue & Customs, which is responsible for investigating non-compliance with the policy. This briefing was in response to correspondence around processes, time taken for cases to be resolved and specific concerns around the care sector. We found that some cases can take up to 240 days to be resolved and that BIS takes action to prioritise sectors seen as high-risk by the Low Pay Commission, such as healthcare.

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## Findings from our value-for-money audits – Department of Energy & Climate Change (DECC)

### Energy efficiency



#### Green Deal and Energy Company Obligation (April 2016)

Our study concluded that the Green Deal had not achieved value for money. The scheme had not generated savings in energy usage, as the way DECC designed and implemented the project did not persuade householders that energy-efficiency measures were worth paying for.

The Green Deal scheme saved substantially less CO<sub>2</sub> than previous supplier obligations, mainly because of the Department's initial focus on 'harder-to-treat' homes, as its analysis showed that previous schemes had already delivered on the cheaper-to-install measures.

Additionally, our accompanying [Investigation into loans to the Green Deal Finance Company](#) (a not for profit company set up to provide loans to householders) found that DECC expected that it would not recover its £25 million stakeholder loan to the finance company, plus £6 million of interest that has accrued on it.

### Electricity supply

#### Nuclear power in the UK (July 2016)

This study provides context for future NAO studies by looking at some of the main electricity system challenges the UK faces in the next two decades, and the aims and responsibilities of the Department in meeting those challenges.

It sets out the Department's policies for encouraging investment in new generating capacity, including its specific measures for nuclear power stations. It also assesses the value-for-money risks that the Department needs to manage.



### Climate change and carbon

#### Sustainability in the spending review (July 2016)



Our briefing for the Environmental Audit Committee included a case study relating to the cancellation of the carbon capture and storage competition, examining the process that led to the cancellation decision. Carbon capture and storage technology is being developed to reduce emissions from fossil fuels by allowing for storage of the carbon produced, and is seen as a significant element of long-term decarbonisation. The competition to support development was cancelled on the basis of not having a sufficiently strong business case. However, it is estimated that this decision removed the option of the technology contributing meaningfully to decarbonisation before 2030. We will report on DECC's management of the programme prior to the cancellation later in 2016.

The briefing also critiques the Single Departmental Plan produced by DECC from a sustainability perspective, highlighting notable gaps relating to air quality and biodiversity and a focus on intended actions rather than desired impacts.

## Findings from our value-for-money audits – Cross-government

Throughout 2015-16 and in the first part of 2016-17, we conducted studies which looked at common topics across government, sometimes using case study departments to investigate an issue. Outlined here are studies in which either DECC or BIS have been covered.

### Departments' oversight of arm's-length bodies: A comparative study (July 2016)

The study compared how BIS, the Ministry of Justice, the Department for Environment, Food & Rural Affairs and the Department for Culture, Media & Sport oversee their arm's-length bodies (ALBs). The study found that BIS uses a structured risk-based approach to oversight, informed by an overall assessment of risk in each of its ALBs and noted an example of where the Department had flexed its approach for individual ALB circumstances. The report found that the four departments took different approaches without a consistent overarching framework and that departments could do more to learn from approaches in other departments. The Cabinet Office is currently developing principles for engagement with ALBs across government.

### Government's management of its performance: progress with Single Departmental Plans (SDPs) (July 2016)

The study looked at whether the SDP process is likely to be an enduring performance system across government and how SDPs have impacted on business planning within departments. It highlighted an example of how BIS is monitoring performance to allow it to identify earlier risks to delivery. We supported the scope of the SDP process but raised concerns about the cross-government approach to transparency as much of the detail behind SDPs is not published, and whether SDPs will deliver the parliamentary accountability intended.

### Investigation into the acceptance of gifts and hospitality (February 2016)

The investigation looked at hospitality registers across all departments and included BIS as a case study department where the gift and hospitality guidance and the gift and hospitality registers were reviewed in more detail. BIS recorded 718 occasions of acceptance, while DECC reported 182. The investigation found that across government there are weaknesses in gift and hospitality policies and processes, but that in most cases the gifts and hospitality were reasonable.

### Use of consultants and temporary staff (January 2016)

The study looks at spending on consultants and temporary staff, the cost of which has been rising since 2011-12. As at 1 May 2015, 47 temporary staff were engaged on a daily rate of more than £1,000, including seven within BIS and three within DECC. Departments are expected to explain how they plan to replace these with permanent staff to Cabinet Office and the Crown Commercial Service. The NAO recommended that Cabinet Office review its spending controls and procurement processes and consider how the civil service could share, support and retain its staff.

### Companies in government (December 2015)

BIS created seven companies between 2010 and 2014, including British Business Bank and Green Investment Bank, and DECC created three companies in the same period including the Low-Carbon Contracts Company. In total, 66 companies were set up during this period. This briefing covered companies across government and found that there is no set approval process or central guidance on the setting up of companies. It also noted that the current accountability system does not reflect the differences between a public body that is incorporated (as a company, Royal Charter or statutory corporation) or not incorporated.

## Findings from our value-for-money audits – Project and programme delivery

### Major projects in government

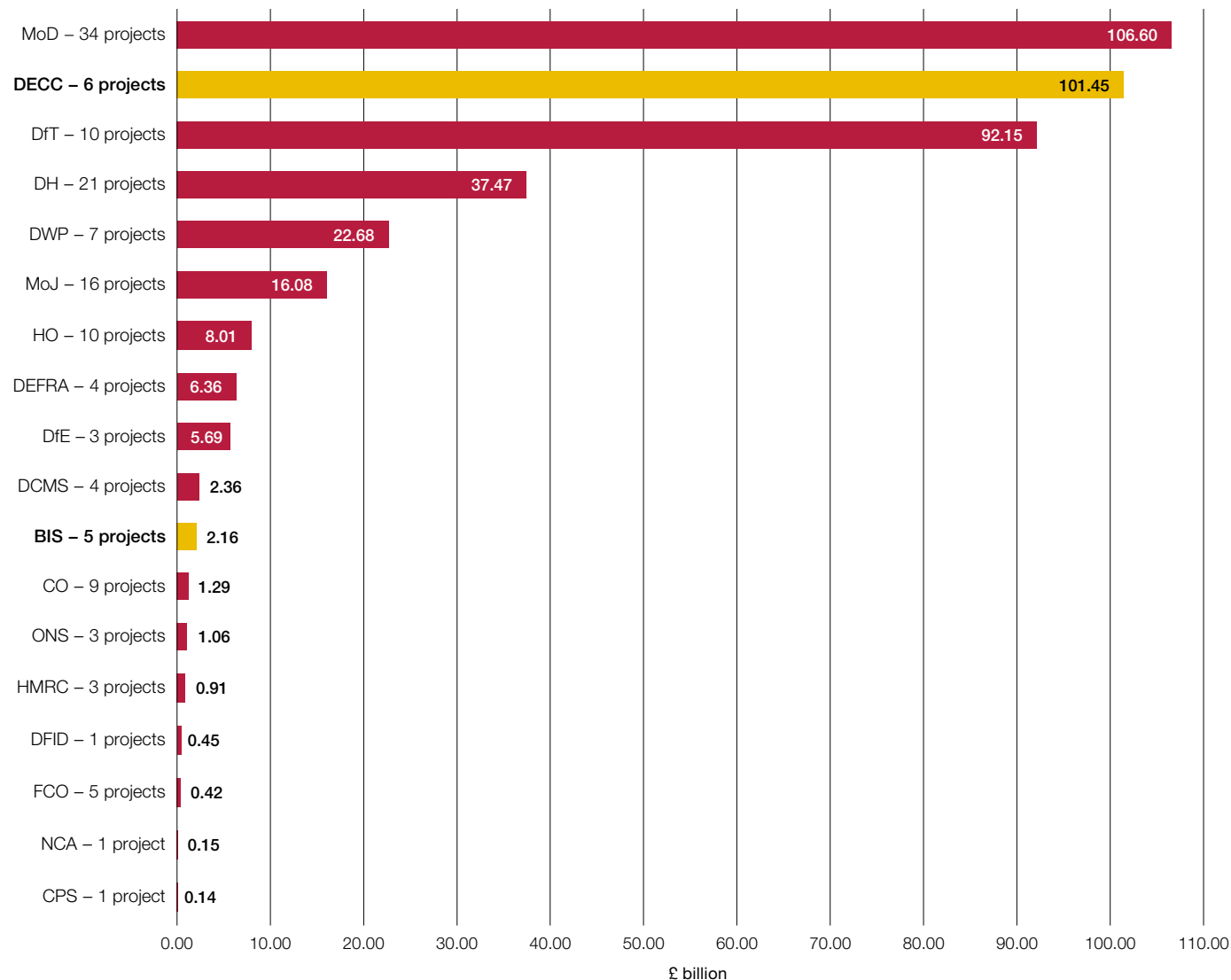
Many of a department's objectives are implemented through projects. In September 2015, the government's Major Projects Portfolio, which includes the biggest and riskiest projects, comprised 143 projects with estimated whole-life costs of £405 billion. Of these, 100 are due to be delivered in this Parliament but four have durations of more than 25 years. Some span several departments or seek to meet multiple objectives. Three departments – MoD, DECC and DfT – accounted for 74% of the portfolio by value.

DECC's most significant projects in the portfolio relate to the nuclear industry:

- Hinkley Point C (£37 billion);
- Sellafield Model Change (£30 billion); and
- the Geological Disposal Facility Programme (£11 billion).

**Note**

1 MoD = Ministry of Defence; DECC = Department of Energy & Climate Change; DfT = Department for Transport; DH = Department of Health; DWP = Department for Work & Pensions; MoJ = Ministry of Justice; HO = Home Office; DEFRA = Department for Environment, Food & Rural Affairs; DfE = Department for Education; DCMS = Department for Culture, Media & Sport; BIS = Department for Business, Innovation & Skills; CO = Cabinet Office; ONS = Office for National Statistics; HMRC = HM Revenue & Customs; DFID = Department for International Development; FCO = Foreign & Commonwealth Office; NCA = National Crime Agency; CPS = Crown Prosecution Service.



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Findings from our value-for-money audits – Project and programme delivery

## Findings from our value-for-money audits – Project and programme delivery *continued*

### Recurring themes across government

The government has not had a record of accomplishment in delivering major projects. The lack of clear, consistent data with which to measure a project's performance makes it difficult to say whether performance is improving. Data on costs and benefits is often poor or absent, and over-optimism is not uncommon. Coordinated and controlled management of multiple projects as a portfolio to achieve a set of objectives both within departments and across government is lacking, with no central oversight around prioritisation between departments. Poor early planning has put projects at risk through inadequate options appraisals and ineffective piloting and testing. Skills shortages in project and programme management, digital and commercial, combined with a lack of capacity to undertake a growing number of projects, remains a challenge. Persistently high turnover of senior responsible owners (SROs) and the heavy workloads for SROs raises concerns over how best to ensure accountability for how taxpayers' money is spend. Many responsibilities have been devolved to local bodies and there is increased cross-departmental working that could result in unclear lines of accountabilities for taxpayers' money.

We have observed some of these recurring issues within DECC and BIS. For example, our report on the Green Deal found that the Department did not test the Green Deal finance design with consumers, despite warnings from stakeholders. It also had significant gaps in its information which meant it was unable to measure progress against all of its objectives. We recommended that the Department be clear about the purpose of schemes from the outset, setting realistic priorities and clear success criteria, and that it ensure it has sufficient information to track progress of the schemes towards each of its desired outcomes.

### Main challenges for this Parliament

The main challenges for departments and the centre of government (HM Treasury and the Cabinet Office) during this Parliament are to:

- 1 encourage departments not to make firm commitments on cost and timescales for delivery before their plans have been properly tested;
- 2 develop an effective mechanism whereby the centre of government can prioritise all major projects according to strategic importance, and capability is deployed to priority areas; and
- 3 make sure departments and the centre of government put in place systems and data which allow proper performance measurement of projects and their corresponding portfolio.

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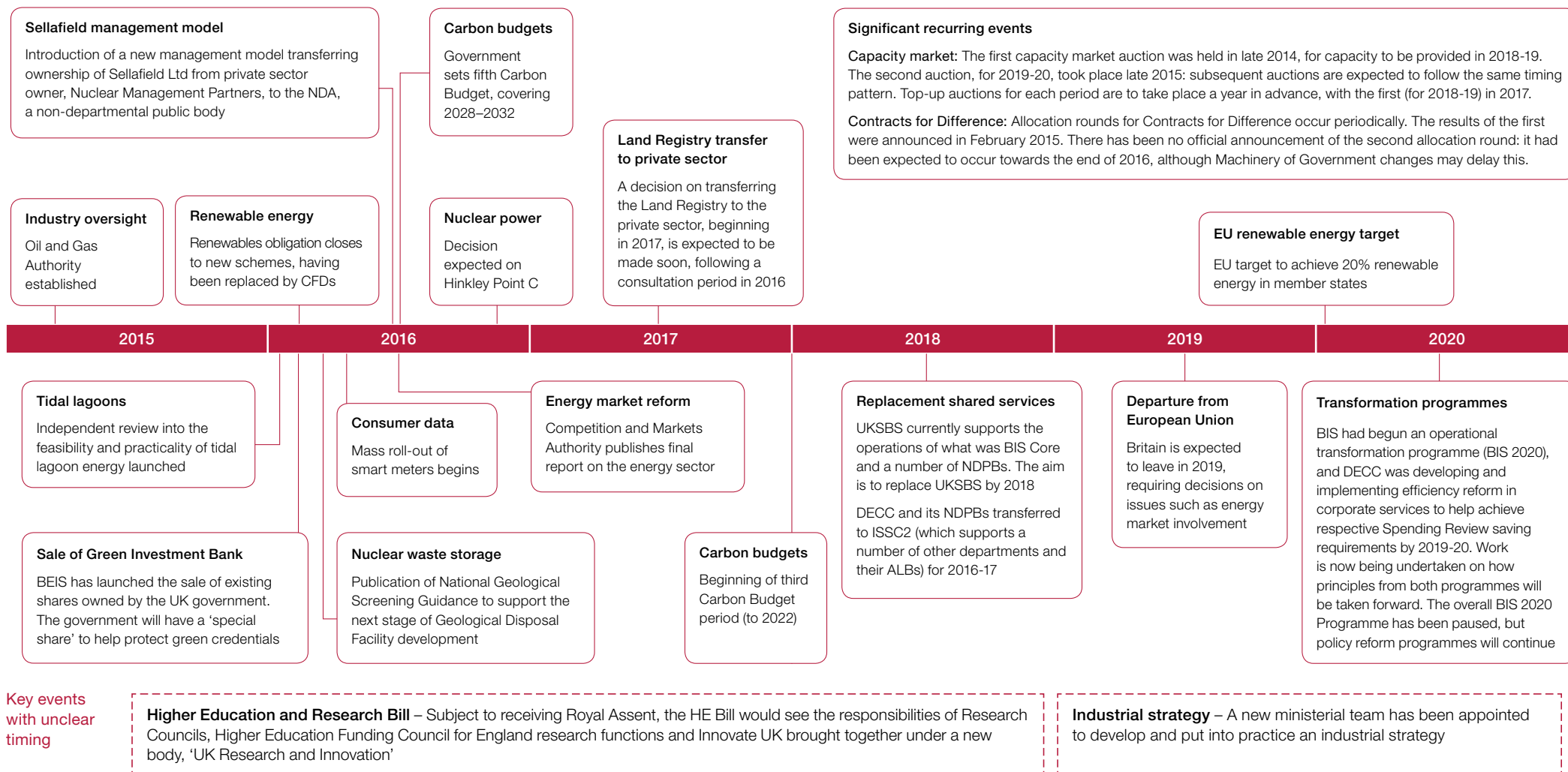
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## Department for Business, Energy & Industrial Strategy (BEIS) recent and upcoming events



Source: National Audit Office analysis

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## Science and innovation

### What are the things to look out for?

#### What will be the impact of potential reform to research funding?

- The Nurse Review examined the balance of funding between grants, equipment and infrastructure. It also considered whether interdisciplinary research is adequately supported and how the work of councils could effectively integrate with other agencies such as Innovate UK. A white paper entitled [Success as a knowledge economy](#) published on 16 May 2016, outlined how government intends to implement recommendations from the Nurse Review covering Research Councils, and to reform Higher Education.
- The paper recommended the creation of 'UK Research and Innovation', which will incorporate the functions of the seven Research Councils, HEFCE's research functions and Innovate UK, although each will retain autonomy and authority through delegation and budgets approved in annual grant letters. A more coordinated service approach may mean that Research Councils seek to further divest any associated institutes and facilities, becoming more grant-giving than research-producing bodies, and pushing 'ownership' back to the universities.

- The recommendations of the white paper are captured in the [Higher Education and Research Bill](#), which had a first reading in the House of Commons on 19 May 2016.

#### Will commercialisation continue?

- Innovate UK and its 'catapult' centres focus on development rather than research, providing funding for more commercial projects with the aim of boosting the economy. It is likely that this trend in commercial investment will continue, and government is looking to change funding from grants to loans by 2019-20.

#### Will there be an end to research and innovation budget prioritisation?

- The research budget (the majority of which is managed by Research Councils, the research activities of HEFCE and the UK Space Agency) is currently ringfenced. The government has also currently committed to double energy innovation spend to £500 million in the next five years. If this was no longer the case, bodies responsible for delivering research and innovation may need to cut costs and reconsider their priorities.

# Innovate UK





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## Business and enterprise

### What are the things to look out for?

#### Will BEIS successfully manage movements of its partner organisations to the private sector?

- The [Single Departmental Plan](#) outlines three bodies for transition to the private sector: Green Investment Bank, Land Registry and Ordnance Survey.
- Government formally announced the start of the process to sell its shares and seek additional private investment in the Green Investment Bank (GIB) on 3 March 2016. The government will maintain a special share to help protect the 'green' credentials of investments. The sale is expected before April 2017.
- A consultation was launched on 24 March 2016 on the option to privatise the operations of the Land Registry from 2017. The consultation closed on 26 May 2016, and responses are being considered.



#### Will the expansion of British Business Bank (BBB) activities help the Northern Powerhouse?

- The activities of BBB are due to expand, for example through management of the Northern Powerhouse Investment Fund (worth £400 million) and the Midlands Engine. A separate fund for the North East is also being developed, worth £100 million.
- As with all initiatives undertaken by BBB and GIB, the ability to leverage private investment will be important, and can be dependent upon economic conditions.
- BEIS will need to work closely with the Department for Communities and Local Government, which has taken over responsibility for the Northern Powerhouse from HM Treasury.

#### Will BEIS meet its target on start-up loans?

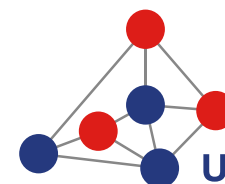
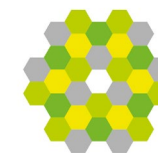
- BEIS aims to deliver 75,000 start-up loans during this Parliament to help entrepreneurs set up their own businesses. BIS reported that 36,300 business have been supported to date.

**Green Investment Bank**



Ordnance Survey

Land Registry



**UK Northern Powerhouse**

**BRITISH BUSINESS BANK**

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## Competitiveness and labour markets

### What are the things to look out for?

#### What should the new industrial strategy look like?

The latest completed [industrial strategy](#) was published in August 2013. It identified five themes:

- working with all sectors and developing strategic partnerships with those where the most impact on growth can be achieved;
- supporting emerging technologies;
- improving access to finance for businesses;
- working with businesses to help develop the skills they need; and
- developing supply chains and simplifying government procurement processes.

On 1 August 2016, it was announced that a new ministerial team will develop the industrial strategy. It is likely to draw upon previous work, such as the productivity plan [Fixing the foundations: creating a more prosperous nation](#) published in September 2015.

#### What action should BEIS take to support industries such as steel?

- Falling steel prices have caused the steel industry to struggle. BIS provided a support package of £80 million for areas affected by the decline and has said it is willing to take up to a 25% equity stake and offer financial support if Tata Steel were to sell its UK steel business.

#### What impact can BEIS have on the productivity gap?

- The productivity gap (that is, the shortfall in output per hour achieved by UK workers compared with that of workers in other industrialised nations) is often seen as a significant risk to economic performance.

#### What will the future of the Competition and Markets Authority look like?

- The [Single Departmental Plan](#) outlines that BIS will consult on the new strategic direction for the Competition and Markets Authority. This responsibility will transfer to BEIS, which will need to consider the potential to devolve competition and consumer policy, and delivery of consumer protection, as the Authority has stated that this could have significant impact on consumers and place additional costs on compliance.



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## Energy security and resilience

### What are the things to look out for?

#### Is any evidence emerging that security of electricity supplies is worsening?

- Reports from Ofgem and National Grid on security of supply and capacity should address the outcomes from the first capacity market auction and may indicate any knock-on impacts for the continuing commercial operation of coal and older gas plants, which were unsuccessful in the first auction.
- National Grid's tendering for, and use of, reserve generating capacity for 2016-17 and subsequent years will indicate whether the current system provides sufficient capacity at an appropriate cost.
- The electricity capacity margin – the expected spare capacity available as contingency in case of energy source failure – has fallen in recent years (Figure 12) due to the closure of old coal, nuclear and gas plants. Lower excess capacity reduces consumer costs, as they are not charged for unused capacity, but it also increases the vulnerability of the system.

#### Is the capacity market incentivising energy suppliers to develop the necessary level of energy supply and is it encouraging large consumers to reduce their demand?

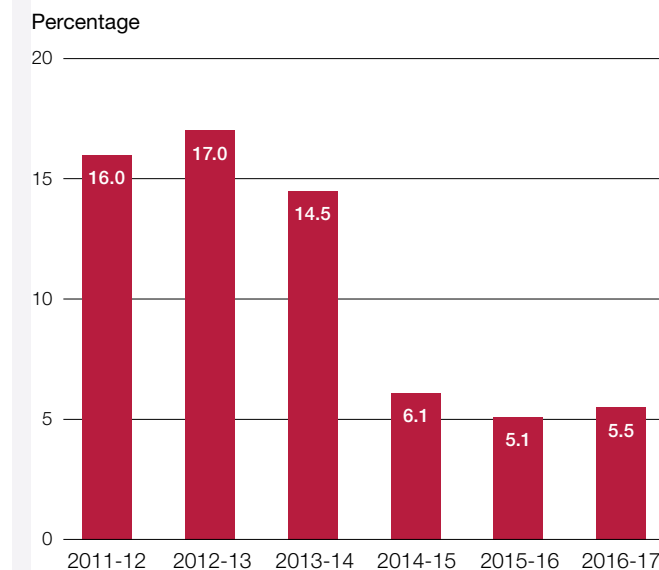
- Capacity market auctions, where suppliers bid to receive a predictable income stream in exchange for an agreement to meet future capacity needs, have resulted in prices far lower than anticipated. This is a benefit to consumers, but risks disincentivising suppliers who would otherwise invest in new generating capacity.
- The capacity market now also includes demand side participation, that is, incentivising significant consumers to reduce usage at peak times.

#### Is BEIS considering any further measures to address the security of oil and gas supplies?

- Ofgem's 2012 *Gas Security of Supply* report assessed medium- to long-term gas security risks and current supply will be sufficient in all but the most extreme circumstances. There have, however, been recent concerns raised about the security of European gas supplies.

**Figure 12**

Electricity winter capacity margin forecasts



Source: National Grid Winter Outlook reports

**ofgem** nationalgrid

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## Energy legacy

### What are the things to look out for?

#### Is the NDA making progress in decommissioning?

- The Spending Review settlement over the five years to 2020-21 provided net funding to the NDA of £11.5 billion, after allowing for £5 billion of income from commercial activity and £1 billion of efficiencies to be delivered through changes in the Sellafield model. NDA's income is likely to decline over the Spending Review period as energy generation at its Magnox reactor has ceased and other commercial contracts wind down.
- Managing the nuclear legacy is a long and inherently uncertain endeavour. Achievement of efficiencies and faster progress on decommissioning will be closely linked to implementation of the new management model at Sellafield. Sellafield Ltd ownership transferred from a private sector owner to the NDA. This took effect from April 2016. NDA will need to measure early indications of faster progress on decommissioning.

#### Is BEIS making progress with identifying a suitable site for developing a geological disposal facility?

- DECC set out in its 2014 [white paper](#) a two-year programme of actions to support an improved siting process. As no appropriate site was identified during a first siting process, which ran from 2008 to 2013, a new process for identifying a site is expected to start in 2017.

#### What decision is government making on handling the plutonium stockpile?

- The government has indicated that the preferred policy for managing the plutonium inventory is reuse in civil nuclear reactors as mixed oxide fuel. The NDA continues to work with government to develop reuse options along with immobilisation as an alternative approach. Any final decision is conditional on business case approval for reuse of the material. The NDA has reviewed the likely costs of the preferred policy, and the credible alternative of storage and disposal in the long term, and included £5.8 billion (£7.5 billion discounted) within its nuclear provision relating to the plutonium stockpile.



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## Decarbonisation

### What are the things to look out for?

#### Is the UK on track to meet the Climate Change Act Carbon Budgets?

- The UK met the first Carbon Budget and is on track to meet the second and third. However, a policy gap exists for the fourth Carbon Budget onwards, illustrated in Figure 13, with current plans expected to be insufficient to meet the targets. A government response indicating how this gap is to be addressed is expected in 2016.
- Figure 13 shows cumulative values over five-year periods from 2008 to 2027. Vertical bars show uncertainty in the projections and indicate 95% confidence intervals for the central reference scenario. The chart shows the UK is projected to meet Carbon Budgets two and three but further action will be required to meet Carbon Budget four since the level of this lies below the minimum projected level of emissions (the lower of the uncertainty bars).

#### Is BEIS using CFDs to support an appropriate mix of technologies, given their different strategic outcomes, and do other developments in energy policy complement CFDs in incentivising investment in low-carbon generation?

- BEIS is progressing negotiations for future CFDs for nuclear and other low-carbon technologies (such as carbon capture and storage and tidal lagoons).

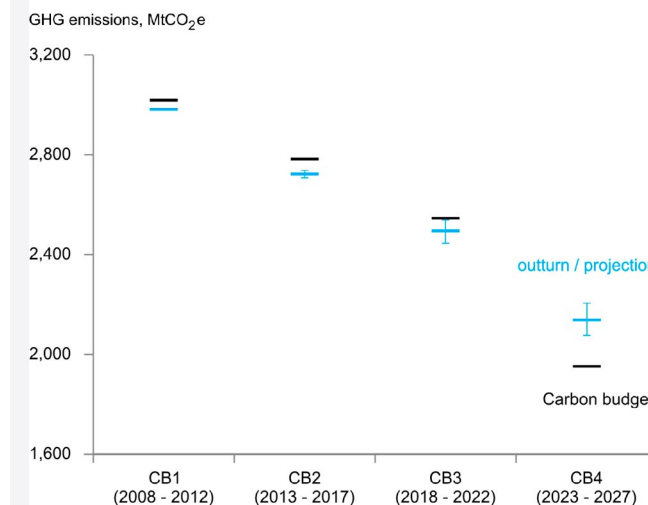
#### What role does BEIS have in reducing emissions from sources other than energy generation?

- Progress in reducing emissions since 2012 has been almost entirely due to the power sector. Sector emissions fell by 17% in 2015 and are now 33% below 2009 levels, and 50% below 1990.

#### How will the outcome from the international negotiations on the next steps for the UN Framework Convention on Climate Change support, or cut across, delivery to meet national commitments?

- The UN agreed in December 2015 to limit temperature change to under 2°C, with activity to start in 2020. However, this agreement has not yet been ratified by sufficient countries to come into force.

**Figure 13**  
Carbon Budgets and greenhouse gas emission projections



Source: Department of Energy & Climate Change energy and emissions projections 2015



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## Energy bills

### What are the things to look out for?

**Will government set new caps for the Levy Control Framework (LCF) beyond 2021 and will it use the results of design reviews of the Framework to improve its effectiveness?**

- Future development of the LCF should appropriately balance the need to control consumer costs and secure sufficient investment in low-carbon generation to meet national statutory commitments.

**Will developments in the regulatory framework improve competition and reduce consumer costs?**

- The Competition and Markets Authority investigation made recommendations for improving the energy market, to which the Department is responding.
- EU developments on harmonising networks and markets across member states are intended to create a more efficient single market in energy. However, these may now be more uncertain following the EU referendum.

**Are energy-efficiency schemes achieving their intended outcomes and affecting consumer behaviour?**

- The Green Deal finance arrangements have had limited take-up to date and the revised Energy Company Obligation scheme runs to 2017.
- The smart meters mass roll-out period is planned to start during 2016-17 and to be completed by 2020. The project has experienced delays, having originally pledged to begin roll-out in 2014. However, the original target for completion by 2020 remains the same. Smart meters provide energy companies with real-time meter readings to improve monitoring of supply and billing, and allow consumers to see how much energy they are using as an incentive to reduce consumption.
- The new Climate Change Agreements for energy-intensive sectors run until March 2023, and include interim targets for achieving business energy efficiency.

**Is the UK successfully reducing fuel poverty?**

- Figures for 2014, published in June 2016, estimate the number of households in fuel poverty in England at 2.38 million, representing approximately 10.6% of all English households. This is an increase from 2.35 million households in 2013 (a change of around 1.4%).
- The government's fuel poverty target for England is to ensure that as many fuel-poor homes as reasonably practicable achieve a minimum energy-efficiency rating of a Band C (on a rating from A to G) by 2030.



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## Possible impacts of Brexit

Below are some suggestions of areas that BEIS will need to consider in light of the vote to leave the European Union.

### EU regulation

**Competitiveness** – BEIS enforces some EU regulation and directives, for example the activities previously conducted by the National Measurement and Regulation Office, and responsibilities around Working Time Directives. BEIS will need to work with the Department for Exiting the European Union to identify and agree which of these regulations should be transferred into UK legislation.

**Business and enterprise** – Depending on the terms negotiated, BEIS may find it is not subject to the same regulations around State Aid. This could allow for interventions in new markets and with new products that would not previously have been allowed.

**Climate change and carbon reduction** – The UK government is currently involved in a number of EU schemes and directives including the EU Emissions Trading System and EU Renewable Energy Directive. The government has yet to announce whether it will remain part of these schemes, although both have non-EU members.

- The EU Emissions Trading System (EU-ETS) is a 'cap-and-trade' scheme designed to drive reductions in man-made greenhouse gas emissions. In 2015, the Committee on Climate Change estimated 40% of UK emissions were from sectors which are part of the EU-ETS.
- The EU Renewable Energy Directive is part of the EU's 20-20-20 target, to reduce greenhouse gas emissions by 20% from 1990 levels, to improve energy efficiency by 20% and to produce 20% of final energy consumption from renewable sources in 2020. The UK's target is to produce 15% of energy requirements from renewable sources by 2020.

### Access to markets

**Research** – The research sector indicates that, since the referendum, the UK has struggled to be considered as a collaborator in projects due to uncertainty about continuation of funding. The government has provided some certainty through its pledge to guarantee EU-funded projects signed before this year's Autumn Statement.

**Skills markets** – There are questions over whether the UK will have access to the same skills markets as previously. This is a risk across BEIS activities, as skills from those within the EU are used for nuclear decommissioning and for research.

**Energy** – The European Council set an objective to ensure energy supply through 'interconnectivity'. As part of this, the UK has a target of having interconnectors capable of transmitting at least 10% of their installed electricity capacity across national borders (current capacity of 6%). The National Grid estimates that, for every 1GW of new interconnection, British wholesale power prices could fall by 1% to 2%, and if interconnector capacity doubled to between 8GW and 9GW, there are potential savings of £1 billion a year. It is unclear at this stage whether the UK will continue to participate in interconnectivity initiatives, or whether the cost of energy procured in this way will increase.



Department  
for Exiting the  
European Union