The Department for Business, Energy & Industrial Strategy (the Department) has set itself five objectives in its single departmental plan:

1. **Deliver an ambitious Industrial Strategy**
   - Increase UK economic performance and earning power.
   - Invest in science and innovation.
   - Support local growth.

2. **Maximise investment opportunities**
   - Increase investment and employment following the UK’s exit from the EU.
   - Maintain business and investor confidence and ensure their interests are reflected in the EU Exit negotiations.

3. **Promote competitive markets and responsible business practices**
   - Secure better outcomes for consumers by creating a more competitive environment for businesses.
   - Improve corporate governance.
   - Promote well-paid jobs and better working conditions in the labour market.

4. **Ensure the UK has a reliable, low-cost and clean energy system**
   - Provide clean, secure and affordable energy supplies for consumers and businesses.
   - Support clean growth and promote global action on climate change.

5. **Build a flexible, innovative, collaborative and business-facing department**
   - Elevate the Department from a well-functioning department to an exceptional one which delivers for business.
   - Enable digital, data and technology to deliver services for staff, people and businesses.

Major projects and programmes

Major projects and programmes that the Department for Business, Energy & Industrial Strategy (the Department) is responsible for:

The Department has nine major projects listed in the Government’s Major Projects Portfolio, with a total lifetime value of £64.3 billion. It will deliver five of these projects, worth £31.5 billion from 2020 onwards.

Note

1 The other four projects have an end date before 2020: of which two have completed and two are due to complete in autumn 2019.


- Smart Meters Implementation Programme
  Smart meters can record energy consumption in each half-hour period and communicate with energy suppliers and network companies. The Department aims to use the smart meters programme to help consumers to reduce their energy consumption, bills and carbon emissions.
  Government is committed to energy suppliers offering smart electricity and gas meters to all homes and small businesses by the end of 2020. Energy supplier forecasts indicate that smart meters will be installed in around 57% of metering points by this date. In September 2019, it published proposals to introduce new requirements on suppliers to continue installing smart meters between 2021 and 2024.
  Lifetime cost: £17,216 million

- New polar research vessel
  A programme for a new research vessel, the Royal Research Ship Sir David Attenborough, to carry out both research and logistics support in polar regions. The vessel is owned by the Natural Environment Research Council and operated by the British Antarctic Survey. It will replace two existing vessels.
  Lifetime cost: £1,403 million

- Heat Networks Investment Project
  The Heat Networks Investment Project is a government-funded programme that aims to: increase the number of heat networks being built; deliver carbon savings; and help to develop a sustainable heat network market.
  A heat network is a distribution system of insulated pipes that takes heat from a central source and delivers it to a number of domestic or non-domestic buildings. The heat source can include, for example, a combined heat and power plant; or heat recovered from industry and urban infrastructure, canals and rivers, or energy from waste plants.
  Lifetime cost: £372 million

- Local Land Charges Programme
  A local land charge is a restriction or prohibition on the use of property. Local authorities maintain a local land charge register for their administrative area, which is held in paper and electronic formats. The programme will replace the 326 local authority registers in England with a single digital register.
  HM Land Registry, one of the Department’s partner organisations, leads on this project.
  Lifetime cost: £193 million

- Geological Disposal Facility Programme
  A programme to construct a permanent geological disposal facility in the UK to safely dispose of radioactive waste from nuclear technologies. In June 2019, the Department concluded its consultation to find a site for the facility.
  Lifetime cost: £12,344 million

- Infrastructure and Projects Authority (IPA) assessment of a project’s likelihood of achieving its aims and objectives to time and budget as at 30 September 2018:
  - Green – successful delivery of the project is highly likely.
  - Amber/Green - successful delivery is probable.
  - Amber – successful delivery is feasible.
  - Amber/Red – successful delivery is in doubt.
  - Red – successful delivery is unachievable.
Major developments in the Department for Business, Energy & Industrial Strategy (the Department) from 2018 to 2019

**Major developments in 2018–19**

- **UK Research and Innovation (UKRI) established** as an arm’s-length body of the Department. It integrates funding for seven research councils, Innovate UK and a new organisation, Research England, with the aim of “creating a single voice and strategic brain” for UK research and innovation. UKRI accounts for 63% of the Department’s total expenditure (see page 6).

- **Nuclear reprocessing operations completed at Thorp.** A nuclear fuel reprocessing plant at Sellafield, the Thermal Oxide Reprocessing Plant (Thorpe), completed its nuclear fuel reprocessing in November 2018. The fuel will be stored until 2030. Decommissioning Thorp will take until 2075 (see page 7).

- **Ofgem introduces energy price cap to limit the amount suppliers can charge customers per unit of energy who are on default and standard variable energy tariffs.** The cap is based on the cost of supplying energy to homes. Ofgem announced a further price cap with effect from 1 October 2019.

- **Consultation on carbon capture, usage and storage (CCUS) launched.** CCUS is a process to avoid the release of carbon dioxide into the atmosphere. The consultation aims to seek views on options for CCUS business models for industry, power and carbon dioxide transport and storage.

- **GB Capacity Market is in a standstill period.** The GB scheme for ensuring security of electricity supply, the Capacity Market, is in a standstill period after the General Court of the Court of Justice of the European Union annulled the scheme’s State Aid approval. Payments to energy firms under the scheme, worth around £1 billion a year, are suspended while the European Commission undertakes the formal investigation required to reinstate the State Aid approval.

- **Good Work Plan published outlining the Department’s policies to protect workers’ rights and ensure fair pay, as advances in technology change working patterns and locations.**

- **10th Sector Deal agreed, this latest deal, agreed between government and the tourism industry, set out how the government and industry will work together to develop skills and support tourism destinations.**

- **Contracts for Difference auction, the main form of financial support for developers of renewable power, awarded to 6 offshore and 4 remote island wind farms fixing the price for the electricity that they generate at £40–£42/MWh (2012 prices) (see page 10).**

- **2018–19: Industrial Strategy Challenge Fund (ISCF) investment made.** The ISCF aims to increase government funding in research and development and is organised in waves. In 2018–19, UKRI continued to deliver the fund under Wave 1 and began to deliver the fund under Wave 2. Waves 1 and 2 include a total of £1.7 billion investment. UKRI also ran an expression of interest under Wave 3 (see page 8). In November 2018, the Industrial Strategy Council had its first meeting. The Council met to agree how it will assess the government’s progress against the commitments made in the Industrial Strategy.

**The Department’s objectives in 2019–20:**

- **Objective 1:** Delivering an ambitious industrial strategy.
- **Objective 2:** Maximising investment opportunities and bolstering UK interests.
- **Objective 3:** Promoting competitive markets and responsible business practices.
- **Objective 4:** Ensuring the UK has a reliable, low-cost and clean energy system.
- **Objective 5:** Building a flexible, innovative, collaborative and business-facing department.

Source: National Audit Office analysis
The Department, including its 40 partner organisations, spent £12.1 billion\(^1\) in 2018-19.

Of this, £1.4 billion related to the core Department and agencies, and £10.7 billion related to its partner organisations.

The majority of the Department’s spend and policy delivery is through its partner organisations, including:

- £7,625 million by UK Research and Innovation (UKRI), on funding for science and research;
- £2,200 million by the Nuclear Decommissioning Authority (NDA), on managing the energy legacy safely and responsibly;\(^2\)
- £347 million by the UK Space Agency (UKSA) on delivering a space programme for the UK; and
- £208 million by the British Business Bank (BBB) on supporting small businesses in the UK to start up and grow.

Notes

1 Expenditure corresponds to annual total Departmental Expenditure Limit (DEL) expenditure for the Department’s departmental group, including its executive agencies and partner organisations, rather than gross expenditure for the core Department. Total DEL is the amount set at Spending Reviews every 3–5 years, which is controllable and used to fund capital costs such as buildings, land and computer systems; and resource costs such as staffing, grants, consumables and maintenance. The chart excludes Annually Managed Expenditure (AME), which is a variable, demand-led amount not controlled by the Department. This includes, for example, £318 million in expenditure on the Renewable Heat Incentive programme in 2018-19.

2 Expenditure figures included are net of income. For example, for the NDA, the figure is the net expenditure figure and includes £1 billion of income from commercial activities, mainly from the management of spent fuels and waste. The income will be surrendered to the Exchequer and partially offset the Department’s annual funding to the NDA.

Future financial commitments and spending pressures

The Department’s significant liabilities

The Department manages significant elements of the government’s liabilities (obligations expected to result in future costs). In the Department’s 2018-19 accounts, these liabilities were worth £157.1 billion and included:

- £131.1 billion of nuclear decommissioning provisions, including finding a long-term solution to store the UK’s supply of plutonium; and finding a site to build the geological disposal facility; and
- £12.9 billion of contracts for difference (CfDs) liabilities (excluding the Hinkley Point C CfD) (see notes 1 and 2).

Consumer-funded policies

The Department also manages a number of schemes which are funded through levies on energy suppliers rather than through general taxation. The costs are ultimately paid by households and businesses through energy bills. These include:

- Renewables Obligations – setting an obligation on electricity suppliers to source a portion of their supply from renewable sources; and
- Capacity Markets – system for providing payments to new or existing power generators in exchange for guarantees that they will provide electricity generating capacity.

Things to look out for

There will be a number of significant future changes to the Department’s spending and balance sheet, including:

- a significant decrease in income to the NDA as it completes its nuclear reprocessing-related activities. The NDA expects to recognise £866 million of income over the remaining life of services, which will conclude in 2024-25. The NDA will surrender cash receipts for this income to the Department. This will partly offset the Department’s annual funding to the NDA;
- a growth in spending on research and development (R&D). This will be delivered in part through a £7 billion increase in government funding allocated as part of the National Productivity Investment Fund (NPIF) over the period to 2022-23. This is part of the government’s ambition to raise investment in R&D to 2.4% of gross domestic product (GDP) by 2027 (and 3% in the longer term);
- a commitment of £92 million to develop options to build the UK’s own Global Navigation Satellite System;
- a new emissions target for the UK of net-zero greenhouse gases by 2050. The Committee on Climate Change, which provides independent advice to Parliament, anticipates that the target can be met by an annual cost to the UK economy of up to 1%-2% of GDP to 2050. The costs of meeting this target will be met by a combination of government, consumer and business spending; and
- an increase in planned spending for the Renewable Heat Incentive, a scheme to encourage consumers to switch from fossil fuel heating to renewable alternatives, from £900 million in 2018-19 to £1,150 million in 2020-21 (as of June 2019).
In November 2017, the Department published a white paper, *Building a Britain fit for the future*, setting out a new Industrial Strategy to improve productivity and shape the economy after exiting the EU. It included a mixture of new and pre-committed funding.

The strategy focuses on five foundations of productivity, and four ‘grand challenges’ for the economy to address (see adjacent Figure).

The strategy also announced government ‘sector deals’ to boost productivity, employment, innovation and skills. The Department has so far launched 10 sector deals between government and industry, including for the aerospace, automotive, tourism, nuclear and offshore wind industries.

**Key developments**

**Industrial Strategy Challenge Fund**

The Industrial Strategy Challenge Fund is a key part of the government’s Industrial Strategy. The Fund, which is administered by UKRI, provides investment in projects that seek to address the grand challenges. The Fund is organised in waves. In 2018-19, £325 million was invested across Waves 1 and 2. The Fund is also a key part of the government’s aim for 2.4% of GDP to be spent on research and development by 2027.

**Productivity review**

In May 2018, the Department launched a call for evidence to review the actions that could be most effective in improving the productivity and growth of small and medium-sized businesses. The Department has yet to publish the results of its review.

**Things to look out for**

- How the Department is monitoring the progress of the projects that were awarded funding through the Industrial Strategy Challenge Fund, and the extent to which they help to address the four grand challenges.

- Whether government support is stimulating additional investment from private sector companies in research and development to support the government’s target of spending 2.4% of GDP on research and development by 2027.

- Whether the Department and other government departments are coordinating effectively to deliver the Industrial Strategy, including the actions taken by the Industrial Strategy Council.

---

**The five foundations of productivity and the four ‘grand challenges’ set out in the new Industrial Strategy**

- **Ideas**
  - Research and development and innovation

- **People**
  - Skills and education

- **Infrastructure**
  - Broadband, energy and transport

- **Business environment**
  - Support for specific sectors and small and medium-sized enterprises

- **Places**
  - Tackling regional disparities

**The industrial strategy proposes four ‘grand challenges’ – areas of strategic importance for the future UK economy**

- **Artificial intelligence (AI) and the data economy**
  - Embedding and maximising the advantages of AI and data

- **Clean growth**
  - Low-carbon technologies across the economy

- **Future of mobility**
  - Low-carbon transport, automation, infrastructure

- **Ageing society**
  - Healthcare and labour market challenges

Source: National Audit Office analysis of the Department for Business, Energy & Industrial Strategy’s industrial strategy white paper
The Department is responsible for energy policy and for ensuring the UK meets statutory targets for reducing greenhouse gas emissions. Its energy-related strategic objectives are to:

- ensure the UK's energy system is reliable and secure;
- deliver affordable energy for households and businesses; and
- support clean growth and promote global action to tackle climate change.

Promoting action to tackle climate change: Net zero target

In June 2019, the government committed to a legally binding target to reduce the UK’s net greenhouse gas emissions to zero by 2050 (see adjacent Figure). Previously, its target had been to reduce such emissions by 80%. The Committee on Climate Change, which provides independent advice to Parliament, has reported that implementation currently falls well short of what is required to meet this target.

Greenhouse gas emission targets and actual emissions to date

The Department must promote action to tackle climate change and reduce greenhouse gas emissions to net zero by 2050. The NAO intends to cover in more depth the progress that the Department and wider government has made in responding to the climate change challenges in its future work.

Notes

1. MtCO2e: Metric tons of carbon dioxide equivalent.
2. Includes emissions from international aviation and shipping. Outturn data are based on the current emissions inventory and therefore do not reflect forthcoming revisions to peatland emissions or global warming potentials.

Key developments

Smart meters

Smart meters are a necessary part of any zero-carbon energy system. Our report on Rolling out smart meters concluded that the programme was encountering serious issues and was not on track to hit its original aim of providing all homes with a smart meter by 2020.

2019 Contracts for Difference auction

In September 2019, the Department announced the results of its third auction for Contracts for Difference (CfD), the main form of financial support for developers of renewable power. The auction awarded 12 contracts, 10 of which are for offshore or remote island wind farms with total generating capacity of 5.7GW. The contracts mean that the wind farms will receive £40–£42/MWh for the first 15 years of generating electricity. These prices are broadly comparable to wholesale electricity prices and lower than those achieved in the 2017 auction (£58–£75/MWh), meaning consumer-funded top-up payments will be lower.

Price cap on energy bills

Ofgem, the regulator for gas and electricity markets, introduced price caps in January and October 2019 to limit the amount suppliers can charge customers per unit of energy who are on default and standard variable energy tariffs. A separate price cap has applied to customers on prepayment meter tariffs since 2017. Twice a year, in April and October, Ofgem adjusts the level of these caps to reflect the estimated costs to supply energy over the next six-month period. In April 2019, the new tariff cap increased from £1,137 to £1,254 per year for a dual fuel customer with typical usage. Ofgem stated that the majority of this increase was due to higher wholesale energy costs, driven by higher global oil prices.

Things to look out for

Decision on nuclear regulated asset base model

Following a National Audit Office (NAO) recommendation in 2017 to explore alternative models for financing nuclear power plants, the Department is consulting on proposals to reduce financing costs by offering investors more certainty of returns (a ‘regulated asset base’ model). The Department believes that this model will reduce the costs of new nuclear power for consumers, and is proposing to use it in future nuclear deals. Its consultation on the proposals is due to close in October 2019.

Decarbonisation strategy

The Department planned to publish an energy white paper in summer 2019. As of mid-October this has not been published. The Committee on Climate Change has called on the Department to address several areas of policy uncertainty by June 2020, including its plans for decarbonising heat, developing low-carbon hydrogen, improving the energy efficiency of buildings, and making carbon capture, usage and storage (CCUS) operational in the 2020s.

Consultation on CCUS

CCUS is a process to avoid the release of carbon dioxide into the atmosphere. In July 2019, the Department launched a consultation to seek views on options for CCUS business models for industry, power and hydrogen production.

Ending fossil fuel heating in new homes

The government aims to end fossil fuel heating systems in all new homes from 2025.

---


2. Department for Business, Energy & Industrial Strategy, Consultation on a regulated asset base model for new nuclear projects, July 2019; see para 15 which refers to the NAO recommendation above.
Managing the energy legacy safely and securely

The Department is responsible for:

- managing the UK’s energy legacy – the long-term impacts of both past and current generation of energy – safely and responsibly;
- managing the impacts of the mining legacy; and
- decommissioning both nuclear and offshore oil and gas infrastructure in the North Sea.

Key developments

Decommissioning offshore oil and gas infrastructure

Oil and gas operators are responsible for decommissioning assets, such as oil rigs and pipelines, but will receive tax reliefs to contribute towards the cost. Our report on Oil and gas in the UK – offshore decommissioning found that HM Revenue & Customs forecasts these tax reliefs to be worth £24 billion out of a total expected decommissioning cost of £58.3 billion. In addition, the report:

- set out the actions that the Department and the Oil and Gas Authority are taking to help operators to reduce their decommissioning costs, such as: encouraging collaboration; sharing of best practice, and investing in new technologies; and
- found that taxpayers could be liable for the full cost of decommissioning assets where operators are financially unable to, such as due to insolvency.

The Department has improved its monitoring of the financial health of operators over recent years, and has taken action to mitigate the risk of liabilities falling to taxpayers, such as requiring operators to set money aside for decommissioning.

The Oil and Gas Authority published its latest estimate of the future cost of decommissioning in July 2019. Its central estimate of decommissioning costs is now £51 billion, with a 17% reduction in like-for-like costs from its 2017 estimate. This compares to its target to reduce forecast decommissioning costs by 35% before 2022.

A nuclear fuel reprocessing plant at Sellafield, the Thermal Oxide Reprocessing Plant (Thorp), completed its nuclear fuel reprocessing in November 2018. The fuel will be stored until 2030. Decommissioning Thorp will take until 2075.

Things to look out for

A new subsidiary to decommission the Magnox stations

In 2014, the NDA procured and let a contract with Magnox to decommission 12 Magnox and research sites (see our report on the NDA’s Magnox contract for more details).

In 2017, the Secretary of State announced that the NDA would terminate its contract to decommission 12 nuclear stations (Magnox stations) nine years early. Cavendish Fluor Partnership, the current contractor, handed back the management of the sites to the NDA on 31 August 2019. Magnox Limited, a newly established subsidiary of the NDA, took over their management on 1 September 2019.

Cost of decommissioning oil and gas over time

The Oil & Gas Authority expects operators to incur almost all decommissioning costs in the next 20 years, but with some expenditure into the 2060s.

<table>
<thead>
<tr>
<th>Year</th>
<th>Decommissioning cost (£bn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>0.50</td>
</tr>
<tr>
<td>2008</td>
<td>1.00</td>
</tr>
<tr>
<td>2012</td>
<td>1.50</td>
</tr>
<tr>
<td>2016</td>
<td>2.00</td>
</tr>
<tr>
<td>2020</td>
<td>2.50</td>
</tr>
<tr>
<td>2024</td>
<td>0.50</td>
</tr>
<tr>
<td>2028</td>
<td>1.00</td>
</tr>
<tr>
<td>2032</td>
<td>1.50</td>
</tr>
<tr>
<td>2036</td>
<td>2.00</td>
</tr>
<tr>
<td>2040</td>
<td>2.50</td>
</tr>
<tr>
<td>2044</td>
<td>0.50</td>
</tr>
<tr>
<td>2048</td>
<td>1.00</td>
</tr>
<tr>
<td>2052</td>
<td>1.50</td>
</tr>
<tr>
<td>2056</td>
<td>2.00</td>
</tr>
<tr>
<td>2060</td>
<td>2.50</td>
</tr>
</tbody>
</table>

Notes

2. Costs quoted after 2017 are five-year averages.

Source: Comptroller and Auditor General, Oil and Gas in the UK – offshore decommissioning. Session 2017–2019, HC 1870, National Audit Office, January 2019. Figure 8, page 24
Preparations for EU Exit

The Department leads government’s work on 62 out of more than 300 EU Exit-related areas of work. This number is subject to ongoing revision as the Department optimises the organisation of its portfolio over time. These areas of work cover several issues relating to:

- goods and services;
- energy and climate change;
- consumers, competition and State Aid rules;
- intellectual property;
- insolvency;
- employment and company law, such as retention of the European Union labour market rules;
- science and innovation; and
- nuclear and space programmes, including developing new bilateral Nuclear Cooperation Agreements with third countries in order to trade nuclear-related materials.

Our report on Contingency plans for exiting the EU with no deal reviewed the government’s preparations for any short-term disruption that may occur if the UK leaves the EU without a deal. This work is codenamed as ‘Operation Yellowhammer’. There are 12 Operation Yellowhammer areas of risk. The Department is the lead department for the areas of risk covering UK energy and other critical industries.

Funding and resources

HM Treasury initially allocated the Department £185.1 million for 2018-19 for EU Exit preparations, which was later revised to £139.5 million.

For 2019-20, HM Treasury allocated the Department £190 million for EU Exit preparations.

In July 2019, HM Treasury allocated a further £108 million of funding to support businesses and exporters prepare for a no-deal exit.

In August 2019, the Department announced a £10 million Business Readiness Fund. Business representative organisations can apply for a grant of £25,000 or more from this fund to help UK businesses prepare for a no-deal exit, such as running events and training courses.

As at July 2019, the Department had 1,030 full-time equivalent staff exclusively working on EU Exit.

The Department temporarily moved more than 500 staff working on the Department’s other objectives to support its preparations for a possible no-deal exit.

EU funding programmes

Horizon 2020 is the largest EU funding programme for research and innovation. With a budget of around €80 billion, it supports researchers, universities and business and will run until the end of December 2020.

If the UK leaves the EU without a deal, the UK will stop contributing to the EU Budget in October 2019. This may mean that UK organisations will no longer receive future funding for projects under Horizon 2020. Government has committed to guarantee funding for all eligible, successful UK bids to Horizon 2020 that are submitted before the end of the programme in December 2020, for the lifetime of those projects.