



BRIEFING PAPER

Number CBP 07268, 29 March 2017

UK offshore oil and gas industry

By David Hough

Inside:

1. State of the industry
2. Outline of the industry
3. Industry regulation
4. Offshore health, safety and environmental regulation
5. Industry challenges
6. Annex: Infrastructure



Contents

Summary	3
1. State of the industry	5
2. Outline of the industry	6
2.1 Volume and value of production	6
2.2 Oil and gas market developments	6
UK oil market	6
UK gas market	7
2.3 Employment in oil and gas	7
2.4 Outlook for oil and gas production	8
2.5 Contribution of UK oil and gas industry to energy security of supply	10
3. Industry regulation	11
3.1 Changing regulatory framework	11
Review by Sir Ian Wood	11
3.2 Energy Act 2016	12
3.3 Oil and Gas Authority	13
Maximising Economic Recovery and the Principle Objective	13
4. Offshore health, safety and environmental regulation	16
4.1 Health and safety	16
Health and safety record	17
Oil leaks	18
4.2 Environmental regulation	18
5. Industry challenges	19
5.1 Pressure on the level of investment	19
Capital investment	19
Exploration	21
Operating Costs	21
5.2 Falling UK Government revenue	21
5.3 Decommissioning	23
Costs of decommissioning	24
Policy for dealing with decommissioning	25
Future burden sharing of decommissioning costs	26
6. Annex: Infrastructure	28

Contributing Authors:
David Hough

Cover page image copyright: [Sunset](#) by [Gordon McKinlay](#). Licensed under [CC BY 2.0](#) / image cropped.

Summary

This Commons Library briefing paper provides a summary of the state of the UK offshore oil and gas industries and outlines the industry, the regulatory framework and the key challenges for the industry.

State of the industry

The UK offshore oil and gas industry is important to the economy. The industry contributed some 0.8% of GDP in second quarter 2015, down from a high of 2.5% in second quarter 2008. It supported around 370,000 jobs in 2015 falling to 330,000 in 2016.

However, production levels of oil and gas from the UK Continental Shelf (UKCS) are in decline, though there was a modest increase in 2015.

Oil prices rose from \$28 per barrel (bbl) in 2000 to highs of \$111/bbl in 2011-12 before falling slightly in 2014 and then rapidly to just over \$50/bbl in 2015.

Against declining oil and gas production, rising prices over most of the period meant industry income in the period remained at between £25 billion and £30 billion a year between 2000 and 2013 but declined to just under £20 billion in 2015.

Tax revenue made an average annual contribution over the 10 years 2004/05 to 2013/14 of £7.4 billion, it declined rapidly to just over £2 billion in 2014/15 and to almost zero in 2015/16.

Changing regulatory framework

The Government's [Energy Act 2016](#) of 12 May 2016 responded to the need to maximise the economic recovery of oil and gas in the UK Continental Shelf (UKCS), the Act:

- formally transferred the licensing, exploration and development functions previously carried out by the Department for Business, Energy and Industrial Strategy (BEIS) to the Oil and Gas Authority (OGA).
- established the OGA as an independent regulator and a government company; it has up and until now operated as an executive agency within BEIS.

In the [Scotland Act 2016](#), regulation and licensing of offshore energy is a reserved matter, this is regardless of which country the waters belong in the UK.

Industry challenges

The principal challenges facing the industry include:

- the level of investment in the UK Continental Shelf (UKCS);
- declining tax revenues but the need for a fiscal regime that supports investment; and
- the growing pace of decommissioning while ensuring that the remaining infrastructure supports new developments where necessary.

Recent Government announcements

In [Budget 2016](#), on 16 March 2016, the Chancellor of the Exchequer announced reductions in taxation for North Sea oil and gas fields, he said the Government will:

- *effectively abolish Petroleum Revenue Tax* by permanently reducing the rate from 35% to 0%, to simplify the regime for investors and level the playing

field between investment opportunities in older fields and infrastructure and new developments. The change will take effect from 1 January 2016

- *reduce the Supplementary Charge* from 20% to 10%, to send a strong signal that the UK is open for business and in recognition of the exceptionally challenging conditions that are currently facing the sector. The change will take effect from 1 January 2016.¹

In [Spring Budget 2017](#), on 8 March 2017, the Treasury announced the fiscal regime needs to ensure support for the transfer of late-life assets as part of the objective of maximising economic recovery of oil and gas from the UKCS.² To determine the best approach, the Government has published a formal discussion paper on the case for allowing transfers of tax history between buyers and sellers.³ The Government is establishing a new advisory panel of industry experts to ensure appropriate scrutiny of the options arising from the discussion paper. The review will report at Autumn Budget 2017⁴

¹ HM Treasury [Budget 2016](#), 16 March 2016

² HM Treasury [Spring Budget 2017](#) para 3.29, 8 March 2017

³ HM Treasury [Tax issues for late-life oil and gas assets: discussion paper](#) 14 March 2017

⁴ HM Treasury [Spring Budget 2017](#) para 3.29, 8 March 2017

1. State of the industry

The industry body Oil & Gas UK⁵ and the Department of Business Energy and Industrial Strategy (BEIS) give an overview of the state of the oil and gas industry:⁶

- Oil and gas provided 67 per cent of the UK's total primary energy in 2015;⁷
- In 2015 about 53% of *oil* was imported with the remainder from North Sea oil production;⁸
- About 51% of *natural gas* was imported in 2015 with the remainder from UK gas production;⁹
- The UK is the second largest producer of oil in Europe, after Norway, and the third largest producer of gas, after Norway and the Netherlands;
- The UK oil and gas industry in 2016 supported 330,000 jobs directly and indirectly down from 450,000 at the start of 2014;¹⁰
- In 2015/16, oil and gas production provided only £43 million to the Treasury in taxation, the lowest level since 1975/76;¹¹
- The decline in drilling activity over the last decade, particularly exploration and appraisal (E&A), has been exacerbated by the downturn. Exploration activity has declined by one third in just three years from 2013 to 2016.¹²
- In 2016, 8.3 billion was invested in the UK Continental Shelf (UKCS), down from £11.6 billion in 2015. Less than £7 billion of capital expenditure is expected in 2017;¹³ and
- Some £1.2 billion was spent on decommissioning activity in 2016, 10% higher than in 2015. Expenditure is expected to be around £1.9 billion in 2017, rising to over £2 billion by 2017 with an average annual expenditure over the next decade of £1.8 billion.¹⁴

⁵ Oil & Gas UK [Activity Survey 2016](#), February 2016

⁶ BEIS [Digest of UK energy statistics 2016](#), July 2016

⁷ BEIS [Digest of UK energy statistics 2016](#), July 2016 Table 1.1

⁸ *Ibid*

⁹ *Ibid*

¹⁰ Oil & Gas UK [Activity Survey 2016](#), February 2016

¹¹ OGA [Government revenues from UK oil and gas production](#) 4 July 2016

¹² Oil and Gas UK [Business Outlook 2017](#), 3 March 2017 p.5

¹³ Oil and Gas UK [Business Outlook 2017](#), 3 March 2017 p.2

¹⁴ Oil and Gas UK [Business Outlook 2017](#), 3 March 2017 p.26

2. Outline of the industry

2.1 Volume and value of production

Trends since 2000 are shown below. Oil production has declined steadily between 2000 and 2014; there was a modest upturn in 2015, the first since 1999 and back to the level in 2012. Gas production also fell between 2000 and 2013 and also increased in 2015 back to 2012 levels.

Oil prices over the period rose from \$28 per barrel in 2000 to highs of \$111 per barrel (bbl) in 2011 and 2012 and just below that level in 2013 and 2014 before falling rapidly to just over \$50/bbl in 2015.

Against generally declining oil and gas production, rising prices over most of the period has meant industry income remained at between £25 billion and £30 billion a year between 2000 and 2013 but declined to just under £20 billion in 2015, principally due to falling prices.

Tax revenue made an average annual contribution over the 10 years 2004/5 to 2013/14 of £7.4 billion, but declined rapidly in 2014/15 to £2.2 billion and almost zero in 2015/16.

Summary statistics for UK oil and gas production

	Industry income £million	Tax revenue (Financial years) £million	Oil production million tonnes	Gas production Twh	Brent oil price \$/barrel
2000	25,486	4,454	126.2	1,260.2	28.50
2001	24,185	5,432	116.7	1,230.5	24.44
2002	24,118	5,117	115.9	1,204.7	25.02
2003	23,562	4,281	106.1	1,196.9	28.83
2004	23,397	5,171	95.4	1,120.4	38.27
2005	28,707	9,381	84.7	1,025.2	54.52
2006	32,689	8,927	76.6	929.8	65.14
2007	30,865	7,465	76.6	838.1	72.39
2008	39,733	12,456	71.8	809.6	97.26
2009	25,665	5,989	68.2	694.0	61.67
2010	32,165	8,391	63.0	664.4	79.50
2011	36,215	10,939	52.0	526.0	111.26
2012	32,860	6,218	44.6	452.1	111.67
2013	30,280	4,742	40.6	424.2	108.66
2014	26,640	2,217	39.9	427.8	98.95
2015	19,875	43	45.3	460.3	52.39

Sources: DECC, DBEIS, Energy Trends, Oil and Gas Authority, BP Statistical Review 2015

Notes:

Income includes oil, gas and natural gas liquids (DECC)

Oil production includes natural gas liquids (DBEIS)

Crude oil price in nominal prices (BP)

Tax revenue includes all taxes collected from UK oil and gas production (OGA)

2.2 Oil and gas market developments

UK oil market

The price of Brent crude oil reached an all-time high above \$145/barrel (bbl) in July 2008.

7 UK offshore oil and gas industry

After more than three years of (unusual) stability in the range of \$100-115/bbl, Brent prices collapsed dramatically in the second half of 2014. Brent prices fell from \$110/bbl in mid-year to \$55/bbl at the end of December 2014 and was trading around \$50/bbl in August 2015, the lowest level since the first quarter of 2009 during the depths of the world recession.

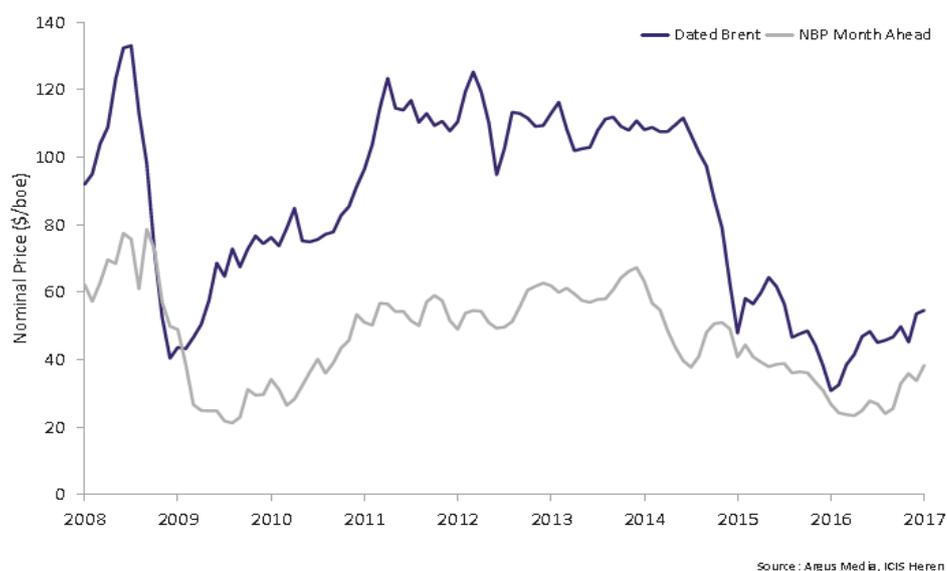
The price fell further to a range of \$25 to \$30/bbl by early 2016 – the lowest levels since 2004. Since then the price increased again to around \$40 to \$50 a barrel by early 2017.

The Commons Library briefing on [Oil prices](#) discusses market developments further.

UK gas market

The annual average UK wholesale gas price fell from 68 pence per therm (p/th) in 2013 to 43 p/th in 2015, and to 35p/th in 2016.¹⁵ The UK gas price has not been subject to so much variation as the oil price as shown in the chart below.¹⁶

Brent oil price and wholesale UK gas prices (from Oil & Gas UK Business Outlook 2017)



2.3 Employment in oil and gas

The latest estimates of direct and indirect employment in the UK offshore oil and gas industry were expected to fall to 330,000 during 2016, down from over 450,000 in 2014 as shown in the table below.¹⁷

¹⁵ Wholesale prices are those measured at what is called the National Balancing Point (NBP); licenced gas suppliers have to balance their gas 'inputs' into the gas grid and 'outputs' from the grid to customers every day and the NBP price is the clearing price on any one day.

¹⁶ Oil & Gas UK [Business Outlook](#) March 2017

¹⁷ Oil & Gas UK [Oil & Gas UK figures show impact of oil price downturn on jobs](#) 10 June 2016

Employment in the UK offshore oil and gas industry

	2013	2014	2015	2016
Direct	36,600	41,700	38,200	34,000
Indirect	198,100	201,000	160,600	151,500
Induced	206,200	211,100	170,800	144,900
Total	440,900	453,800	369,700	330,400

Source: Oil and Gas UK

These figures vary slightly from Office for National Statistics (ONS) data.

In 2014, the ONS estimated there were 50,000 people in Great Britain *directly* employed in the oil and gas sector.¹⁸

This included:

- 16,600 employees working in businesses whose main activity was the extraction of crude petroleum or natural gas;
- 25,100 employees working in businesses who conduct support activities for petroleum and natural gas extraction (for example, exploration services or test drilling).
- 8,300 employees working in businesses who manufacture refined petroleum products.

Around two-thirds of these jobs were based in Scotland (33,900). The majority were based in Aberdeen City (28,500) and Aberdeenshire (4,000). There is also has a significant presence in Norfolk, the North East and Yorkshire and the Humber.¹⁹

2.4 Outlook for oil and gas production

Two recent forecasts of the medium outlook for UKCS oil and gas production show a significant reduction in oil and gas production in the medium term.

Oil & Gas UK expects:²⁰

- a production rise in 2016 of 2.3 per cent; and a further 5% rise in 2017 and 2018 with some 40 per cent of that increase anticipated to come from fields that have started production or seen significant redevelopment since 2013.
- very few new start-ups are currently scheduled post-2018,

The latest official projections for future oil and gas production, prepared by OGA in October 2016, show:²¹

- range between a 25% fall in production and a 35% increase in production between 2016 and 2020

¹⁸ Source: ONS, Business Register and Employment Survey 2014. Figures are rounded to the nearest 100.

¹⁹ Employment levels were set out in HMRC [Oil and gas taxation: reduction in Petroleum Revenue Tax and supplementary charge](#), 16 March 2016

²⁰ Oil & Gas UK [Activity Survey 2016](#), February 2016 and [Business Outlook 2017](#) March 2017

²¹ OGA [UKCS Oil and Gas Production Projections](#), October 2016

9 UK offshore oil and gas industry

- range between a 33% fall in production and a 33% increase in production between 2016 and 2020

The OBR's [Fiscal Sustainability Review](#) in June 2015 provided estimates of long term reserves of oil and gas and production.

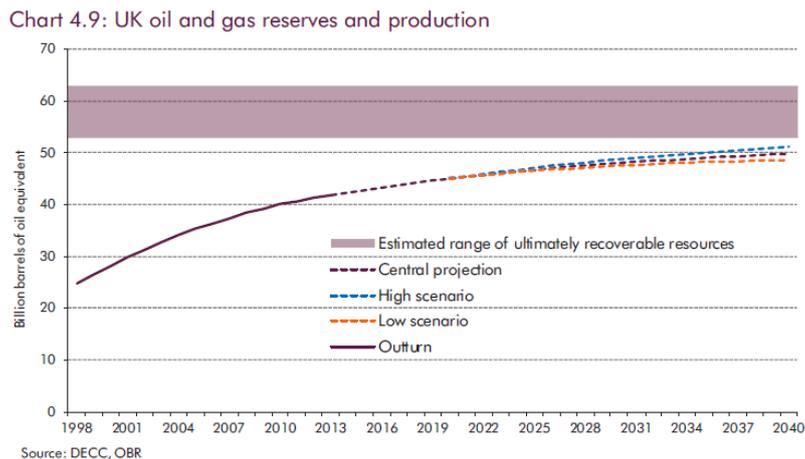
The OBR said:

Our central long term assumption is that production falls by 5 per cent a year from 2020 onwards. For our low production scenario we assume a 7.8 per cent a year fall. Our high production scenario sees production remaining as we expect in 2019 for a further 5 years, with a fall of 5 per cent a year thereafter

For oil and gas reserves, the OBR said:

Over the long term, recoverable reserves are clearly on a declining path as the basin matures and resources are exhausted or become increasingly difficult or uneconomic to extract.

The following shows the cumulative production forecasts implied by OBR's scenarios against the estimated level of ultimately recoverable reserves produced by DECC as at the end of 2013.²²



The OECD's International Energy Agency in its [World Energy Outlook 2014](#) broadly supported the outlook for oil and gas output set out by the OBR.

Finally, the OGA, in oral evidence to the Energy and Climate Change Committee on 3 November 2015, said that they expected a general decline in production over the long term.²³

²² Office of Budget Responsibility [Fiscal sustainability report](#), June 2015 Chapter 4

²³ Energy and Climate Change Committee [Responsibilities of the Oil and Gas Authority](#), HC 508, 3 November 2015 Q53

2.5 Contribution of UK oil and gas industry to energy security of supply

The Government set out the importance of gas and oil to the UK's energy security of supply in its October 2016 [Statutory Security of Supply](#) report:

Security of supply – Gas

54. To date, the GB gas system has reliably delivered secure supply. Security of supply reports by Ofgem and by BEIS have concluded that the GB market is generally secure. Most recently, BEIS's Risk Assessment on Security of Gas Supply, submitted to the European Commission in September 2016, found that, in the short to medium term, UK gas supply infrastructure is resilient to all but the most extreme and unlikely combinations of severe infrastructure and supply shocks²⁴. The UK N-1 calculation exceeds the target of 100% with a score of 127% and 123% including exports to Ireland. This Risk Assessment is repeated biennially.

63. The UK gas market is one of the most liquid and developed markets in the world. The National Balancing Point (NBP) is by far one of Europe's largest traded gas markets.

65. Overall, the UK gas market has the characteristics of a developed and competitive market. This assessment was supported by the Competition and Markets Authority (CMA) Energy Market Investigation

Security of supply outlook – Oil

73. The UK both imports and exports crude oil, and the direction of this trade is dependent on the prevailing market conditions. Historically around two-thirds of the UK's crude imports have come from Norway, although this has decreased in recent years and stands at 50% in 2015. Imports from the OPEC countries have increased significantly and now consist of 39% of imports, in particular from Algeria.

74. The UK's own production of crude oil would be sufficient to meet roughly two thirds of UK refinery demand, but the increase in the diversity of sources coming into the UK would reduce the impact of a disruption to any one source of supply on the UK. In 2015, less than 20% of UK crude oil production was used by UK refineries.

79. The UK has a well-developed infrastructure for the trade of both crude oil and petroleum products and sources its petroleum products from a diverse range of countries.

²⁴ Based on a 1 in 50 winter as opposed to the required standard of a 1 in 20 winter.

3. Industry regulation

The section sets out the regulatory framework for maximising the exploitation of UK oil and gas. The regulation of health and safety, and the regulation of environmental protection is set out in section 4 below.

3.1 Changing regulatory framework

Review by Sir Ian Wood

In June 2013, the then Secretary of State for Energy and Climate Change, Edward Davey asked Sir Ian Wood to conduct a review into the recovery of oil and gas from the UK's continental shelf (UKCS).²⁵

The result of that review, *UKCS Maximising Recovery Review: Final Report* (the Review), was published on 24 February 2014.²⁶

The Review's principal recommendations can be summarised as follows:

- Government and industry should develop, and commit to, a new strategy for 'Maximising [the] Economic Recovery' of petroleum from the UKCS; a strategy referred to as MER UK.
- A new arm's length regulatory body should be created and charged with effective stewardship and regulation of UKCS hydrocarbon recovery. That body should also seek to maximise collaboration in the areas of exploration, development and production across the industry.
- The regulator should take on additional powers to facilitate the implementation of the MER UK strategy.
- Important Sector Strategies should be developed and implemented.

The Government published its response to the review in July 2014, in which it accepted all of the Review's recommendations.²⁷

The Government published its response to the subsequent consultation on how to implement the recommendations on 20 March 2015.²⁸

The Impact Assessment, *Implementation of the Wood Review Proposals for UK Offshore Oil and Gas Regulation*, 5 September 2014, explains that:

The Government intends to implement all of the Review's recommendations, but full implementation will require multiple stages of legislation and policy development in order to fully incorporate stakeholder views and avoid unintended consequences. A phased approach will therefore be adopted.

Phase 1 requires primary legislation to establish the framework for MER UK Principles and to create the power for the Secretary of

²⁵ Sir Ian Wood is the former Chairman of Wood Group, an international energy services company.

²⁶ Wood Review, [UKCS Maximising Recovery Review: Final Report](#), 24 February 2014.

²⁷ DECC, [Government Response to Ian Wood's UKCS: Maximising Economic Recovery Review](#), July 2014.

²⁸ DECC, [Implementing the Wood Review Recommendations](#), 20 March 2015.

State to raise a levy to fund the activities of the new Regulator which cannot currently be charged for.

Phase 2 will require primary and secondary legislation to establish wider powers, an enforcement regime, setting the level of the levy itself, developing a detailed strategy for how the MER UK Principles will be implemented, and the creation and establishment of an arm's length regulator.²⁹

The [Infrastructure Act 2015](#) established the framework for MER UK in primary legislation and provided the Secretary of State with the power to raise a levy to finance the Oil and Gas Authority (OGA).³⁰

3.2 Energy Act 2016

The Government published the [Energy Bill \(HL\) \(2015-16\)](#) in the House of Lords on 9 July 2015.³¹

The Bill completed all its stages and received Royal Assent on 12 May 2016.³²

In summary, the [Energy Act 2016](#) (as it relates to oil and gas):

- formally established the OGA as an independent regulator, which will take the form of a government company, charged with the asset stewardship and regulation of domestic oil and gas recovery;
- transferred the Secretary of State for Business, Energy and Industrial Strategy's existing regulatory powers on oil and gas to the OGA. The Secretary of State's regulatory functions in relation to the environment would not be transferred;
- gave the OGA additional powers including: access to company meetings; data acquisition, retention and transfer; dispute resolution; and sanctions; and
- introduced provisions in relation to charges for the offshore oil and gas environmental regulator's services to the industry.³³

The formal transfer of powers from the Secretary of State to the OGA took place on 1 October 2016.³⁴

The overall responsibility for the offshore oil and gas industry has passed from DECC to BEIS following ministerial changes in July 2016.³⁵

²⁹ DECC Impact Assessment, [Implementation of the Wood Review Proposals for UK Offshore Oil and Gas Regulation](#), 5 September 2014, p.1.

³⁰ Infrastructure Act 2015, section 42 and schedule 7.

³¹ See [House of Lords Library Note](#) on the *Energy Bill*, 17 July 2015 for a detailed description of the Bill as introduced in the House of Lords

³² The Commons Library briefing paper [The Energy Bill 2015-16: Background and changes in the Lords](#) set out the details of the Bill and the [Energy Bill - Committee Stage report](#) summarised the debate and amendments made during the Commons Committee stage.

³³ [Energy Act 2016 Explanatory Memorandum](#)

³⁴ BEIS press release [The Secretary of State announces that the Oil and Gas Authority will receive new powers on 1 October](#), 9 August 2016

³⁵ Prime Minister [Machinery of Government Changes](#) 18 July 2016 [HCWS94](#)

In the [Scotland Act 2016](#), regulation and licensing of offshore energy is a reserved matter.³⁶

3.3 Oil and Gas Authority

The OGA was established as an arm's length body accountable to the Secretary of State, DECC and became an executive agency on 1 April 2015.³⁷

However, the Government explained that it did not believe that an executive agency would be the best long-term structure for the OGA, arguing that it would be better established as a government company:³⁸

[...] this will give the Authority greater operational independence from Government and will provide a more suitable platform to provide the arm's length regulatory certainty Industry requires to invest in exploration and production activity to maximise economic recovery from the UK's oil and gas resources.³⁹

During its transition between being an executive agency of DECC and an independent government company, the OGA operated and acted as closely as possible to its final form of a government company. The OGA's *Framework Document* stated that "this principal has been reflected in the development of this *Framework Document*, so as to ensure that the OGA has sufficient operational independence to be effective from day one".⁴⁰

The OGA is now an established body with a team of 160 people and offices in Aberdeen.⁴¹

The OGA is largely funded by an industry levy introduced on 1 October 2015.⁴²

Progress on its main activities were outlined in the OGA's *Annual Report 2015-16*.⁴³

Maximising Economic Recovery and the Principle Objective

MER UK is a policy to achieve the *principal objective*. This is the objective of maximising the economic recovery of UK petroleum.⁴⁴

³⁶ See House of Commons Briefing Paper (CBP 07205) [Scotland Bill 2015-16 \(Bill 3\)](#), 4 June 2015

³⁷ House of Lords, written statement: *Establishment of the Oil and Gas Authority*, 15 June 2015, [HLWS34](#).

³⁸ The Government defines a government company as a private company, limited by shares, under the *Companies Act 2006*, with the Secretary of State as the sole shareholder.

³⁹ DECC, [Government Response to Ian Wood's UKCS: Maximising Economic Recovery Review](#), July 2014.

⁴⁰ DECC and OGA, [Oil and Gas Authority Framework Document](#), 1 April 2015, p.2.

⁴¹ Oil and Gas Authority [oral evidence](#) to Energy and Climate Change Committee, Q79, 11 May 2016

⁴² DECC [Impact Assessment. Funding the Oil and Gas Authority \(OGA\): Levy Design](#), 25 March 2015, p.8.

⁴³ Oil and Gas Authority [Annual Report 2015-16](#), 20 July 2016

⁴⁴ As defined by section 9A of part 1A of the Petroleum Act 1998—as inserted by the Infrastructure Act 2015.

The Secretary of State is required to produce a strategy for enabling this objective to be met.

MER UK Strategy

The Government's [MER UK Strategy](#) was published on 18 March 2016. BEIS states on its website that the MER UK Strategy should be read as a legal document:⁴⁵

[...] containing obligations with which those bound by it are required to comply. The Strategy is binding on the OGA, petroleum licence holders, operators appointed under those licences, the owners of upstream petroleum infrastructure, and those planning and carrying out the commissioning of upstream petroleum infrastructure.

The MER Strategy aims to:⁴⁶

Mitigate the risk of land banking through its supporting obligation on exploration whereby the licensee of an offshore licence who has made a firm commitment to carrying out a work programme in respect of the licence must not relinquish the licence without first having completed the work programme in the licence

The document sets out obligations for companies involved in oil and gas operations in the UKCS. Most notably the Strategy notes amongst its high level principles that:

all stakeholders should be obliged to maximise the expected net value of petroleum produced from relevant UK waters, not the volume expected to be produced;

And that:

compliance with the Strategy may oblige individual companies to reallocate value between them, matching risk to reward. However, while the net result should deliver greater value overall, it will not be the case that all companies will always be individually better off;

The [MER UK Strategy](#) goes on to set out a range of obligations which include:

- *Central Obligation* - Relevant persons must, in the exercise of their relevant functions, take all steps necessary to secure that the maximum value of economically recoverable petroleum is recovered from the strata beneath relevant UK waters;
- *Exploration* - that exploration is carried out in a manner which is optimal for maximising the value of economically recoverable petroleum and that Licensees carry out work programmes for explorations before surrendering licences;
- *Development* - infrastructure is developed in a way that meets the optimum configuration for maximising the value of economically recoverable petroleum;
- *Assets Stewardship* - owners and operators of infrastructure must ensure that it is maintained in such a condition and operated in such a manner that it will achieve optimum levels of performance;

⁴⁵ DECC [Maximising economic recovery of UK petroleum: the MER UK strategy](#) 16 March 2016 [downloaded on 14 September 2016]

⁴⁶ DECC Impact assessment [Maximising economic recovery of offshore UK petroleum: Strategy](#), 29 January 2016

15 UK offshore oil and gas industry

- *Technology* - that technologies, including new and emerging technologies, are deployed to their optimum effect in maximising the value of economically recoverable petroleum;
- *Decommissioning* - before commencing the decommissioning of any infrastructure in relevant UK waters, owners of such infrastructure must ensure that all options for their continued use have been suitably explored, including those which are not directly relevant to the recovery of petroleum such as the transport and storage of carbon dioxide.;
- *OGA Plans* - the OGA may produce a plan or plans which set out its view of how any of the obligations in this Strategy may be met;
- *Relinquishing assets* - where operators decide not to ensure the recovery of the maximum value of economically recoverable petroleum from their licences or infrastructure they must relinquish or divest themselves of such licences or assets.

Operators are then provided with a number of safeguards which qualify these obligations:

- None of the obligations requires conduct which would otherwise be prohibited by other legislation (e.g. health and safety or environmental legislation).
- The strategy cannot require any person to fund activity where they will not make a satisfactory commercial return.
- OGA enter discussions with the relevant person before taking any relinquishment action.
- The Strategy cannot require conduct where the benefits to the UK are outweighed by the damage to the long term confidence of investors in oil and gas exploration and production projects in relevant UK waters.

Oil and Gas UK, the offshore industry trade body, commented on the release of the draft Strategy. [Oil & Gas UK's chief executive Deirdre Michie said](#) at the time:

"The Maximising Economic Recovery (MER) UK strategy will form the cornerstone of the tripartite approach being taken by the new Oil and Gas Authority, HM Treasury and the industry to extraction of the UK's oil and gas resources.

The Secretary of State for Energy stated that energy security has to be the number one priority and that gas will play a key role in powering our future economy. It makes sense therefore to make the most of the country's own resources and the MER UK strategy, in tandem with the creation of the new Oil and Gas Authority, is designed to do just that. There are up to an estimated 20 billion barrels of oil and gas to be recovered from our offshore waters, around eight billion barrels of that is natural gas."

4. Offshore health, safety and environmental regulation

This section sets out the regulation of offshore health and safety, and the regulation of environmental protection.

Following the Piper Alpha disaster in 1988, tripartite arrangements for offshore regulation were implemented.⁴⁷

Under these tripartite arrangements, it is the responsibility of the [Health & Safety Executive](#) (HSE), an executive non departmental public body of the Department for Work and Pensions, to assess and regulate the integrity and safety of offshore installations in the UK via the Health and Safety at Work Etc Act 1974 and the offshore specific suite of regulations.

The Department of Business, Energy and Industrial Strategy ([BEIS](#)) is responsible for the environmental regulatory framework for the UKCS, and for administering and ensuring compliance with that regime in relation to offshore oil and gas exploration and production and decommissioning, including the approval of Oil Pollution Emergency Plans (OPEPs).⁴⁸

The [Maritime and Coastguard Agency](#) (MCA), an executive agency of the Department for Transport, is responsible, if required, for deploying any counter pollution measures to minimise a pollution incident.

4.1 Health and safety

The UK offshore regulatory framework was developed after the Piper Alpha disaster in 1988.⁴⁹

The framework is aimed at preventing or mitigating the health and safety risks associated with drilling for oil and gas offshore.

The framework, at the same time, implements the relevant [European Directive 92/91/EEC](#) on the minimum requirements for improving the safety and health of workers in the mineral-extracting industries through drilling. The UK regulations also contain a range of additional safeguards to mitigate the health and safety risks associated with offshore drilling.⁵⁰

The Health and Safety Executive (HSE) [Energy Division \(ED\)](#) is responsible for regulating the risks to health and safety arising from work in the offshore industry on the UK Continental Shelf (UKCS). HSE's Offshore

⁴⁷ Section 4 has drawn on the [Memorandum](#) submitted by the Department of Energy and Climate Change, Health & Safety Executive, and Maritime and Coastguard Agency to the Energy and Climate Change Committee inquiry [Deepwater drilling - Implications of the Gulf of Mexico Oil Spill](#) HC 450, 6 January 2011

⁴⁸ The regulatory framework is set out in detail on the DBEIS website [Oil and gas: offshore environmental legislation](#) updated 7 August 2015

⁴⁹ Department of Energy. [The public inquiry into the Piper Alpha disaster](#) Cm 1310, November 1990

⁵⁰ The regulatory framework is set out in detail on the DBEIS website [Oil and gas: offshore environmental legislation](#) updated 7 August 2015

Division has a team of specialist inspectors who provide expertise in regulatory inspection; well engineering; occupational health; process safety; fire and explosion; marine and structural; evacuation and escape; mechanical; electrical; and diving.

In July 2015, HSE and the then Department of Energy and Climate Change (DECC) created the Offshore Safety Directive Regulator (OSDR), which is the Competent Authority (CA) responsible for implementing the requirements of the EU Directive on the safety of offshore oil and gas operations. OSDR is a partnership jointly managed and operated by BEIS (as successor to DECC) and HSE.⁵¹

The newly established OGA now has a Memorandum of Understanding (MOU) with the HSE. At an Energy and Climate Change Committee evidence session on 11 May 2016, the OGA said:

Dr Samuel: The MOU covers five key areas and the first is just to ensure that we understand each other's roles, which kind of alludes to it; the second is then that we align mutual objectives, where appropriate; the third is that we plan and co-operate collectively where appropriate; the fourth is that we can share data, which is in everyone's interests and minimises the burden on industry.

Then we are also looking at whether we should jointly communicate and show up at events. I have never seen a conflict between safety and good operations; I really haven't. In fact, safety leadership is often the key to good leadership, the kind of things that the unions are talking about, which I fully support. The workforce engagement leads to far safer operations and it leads to far more efficient operations.⁵²

Health and safety record

In the UK, the HSE publishes an [Annual Offshore Statistics & Regulatory Activity](#) report.

The following from HSE's bulletin for 2015 sets out the principal statistics for fatalities and injuries:⁵³

- There were no fatal injuries in 2015; there have been three fatalities in the last 5 years and seven in the last 10 years;
- There were 33 specified injuries, with a rate of 103 per 100,000 full-time equivalent (FTE) workers;
- There were 80 over-7-day injuries, a rate of 249 per 100,000 FTE workers;
- There were 15 occupational diseases, a slight decrease on the previous year;
- *Fractures* accounted for 91% of specified injuries reported (30 of 33);
- *Sprains and strains* accounted for 31% of over-7-day injuries reported (25 of 80);

⁵¹ HSE [Offshore Statistics & Regulatory Activity Report 2015](#), June 2016

⁵² Energy and Climate Change Committee [Maximising Economic Recovery of Oil and Gas](#), HC 989, 11 May 2016, Q69

⁵³ HSE [Offshore Statistics & Regulatory Activity Report 2015](#), June 2016

- There were 299 dangerous occurrences; a fall of over a quarter compared to last year.

Oil leaks

The HSE bulletin provides statistics on the number of offshore hydrocarbon releases or HCRs (oil leaks).⁵⁴

There were 94 hydrocarbon releases in 2015, the same number as reported in 2014; the hydrocarbon release rate has fluctuated over the last 10 years

4.2 Environmental regulation

The Department for Business, Energy and Industrial Strategy (BEIS) is responsible for the framework of environmental protection measures that has been developed to minimise the impact of oil and gas activities. This is embodied in the relevant legislation, consistent with and in large part derived from the legislation framework of the European Union.⁵⁵

In addition, the UK is a signatory to the Oslo and Paris Convention for the Protection of the Marine Environment of the North East Atlantic (the OSPAR Convention). To date, the UK has implemented and applied all of the OSPAR decisions and recommendations.

This offshore environmental protection regime covers oil and gas development throughout its life cycle, from the initial licence application to the final decommissioning of facilities. All activities that could potentially impact on the environment are subject to assessment, and significant activities are controlled through the issue of permits, consents or authorisations. There is also an inspection and enforcement regime in place to confirm compliance with the conditions included in the environmental approvals.

⁵⁴ HSE [Offshore Statistics & Regulatory Activity Report 2015](#), June 2016

⁵⁵ BEIS will continue to be responsible for environmental regulation after passage of the *Energy Act 2016* (see [Explanatory Memorandum](#))

5. Industry challenges

Possible challenges for the industry include:

- the level of investment in the UK Continental Shelf (UKCS);
- declining tax revenues but the need for a fiscal regime that supports investment; and
- the growing pace of decommissioning while ensuring that the remaining infrastructure supports new developments where necessary.

Box 2: Brexit

The impact of Brexit is unknown; the Commons Library Briefing paper [Brexit: impact across policy areas](#) covers the energy industry broadly.

- Unknown policy changes around the single European Energy market. The UK relies on the use of gas interconnectors between the UK and Belgium, Netherlands and Norway.
- Uncertainty in investment decisions and availability of capital while new arrangements are decided.
- UK energy markets and companies are multinational and withdrawal from the EU would probably not affect the direction of travel towards a more integrated energy economy, although differences in approach may emerge.

5.1 Pressure on the level of investment

With the fall in the price of oil since the middle of 2014, company plans, according to Oil & Gas UK, have been under intense internal scrutiny and face significant revision as investors seek to adjust to the new business environment.⁵⁶

The following looks at the effects on capital investment, exploration and operating costs.

Capital investment

According to the Oil & Gas UK's [Business Outlook 2017](#) and [Activity Survey 2016](#), capital investment in the UKCS is forecast to fall rapidly following years of record expenditure. After peaking at £14.8 billion in 2014, capital investment declined to £11.6 billion in 2015 and fell to £8.3 billion in 2016. The outlook is dominated by a small number of large developments that received a final investment decision before the oil price fall in mid-2014.

Oil & Gas UK forecasts that less than £1 billion of new capital will be sanctioned in 2016. The relatively few new projects coming forward has led Oil and Gas UK to forecast a rapid fall in investment in the next three years to around £6-7 billion.⁵⁷

This reflects a scarcity of capital globally across the oil and gas industry, primarily due to the price fall, but also, as Oil and Gas UK say, due to

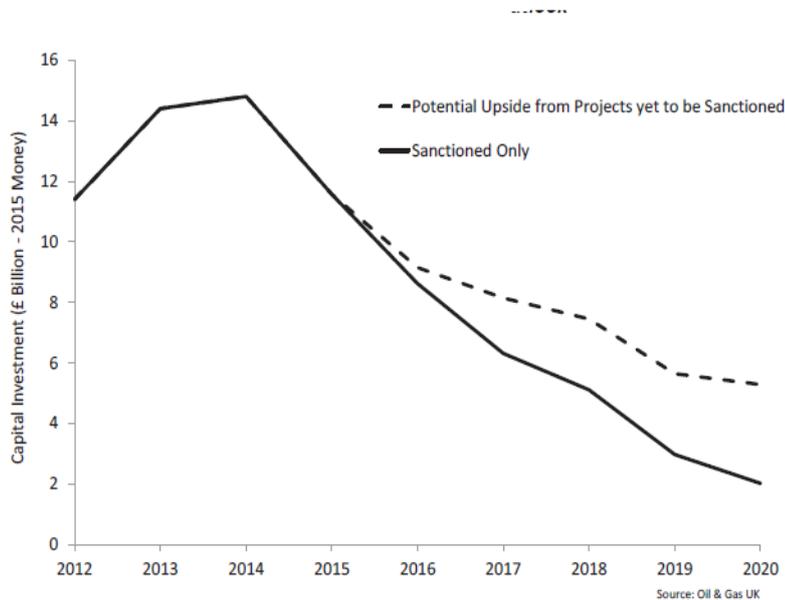
⁵⁶ Oil & Gas UK [Activity Survey 2016](#), February 2016

⁵⁷ Oil & Gas UK [Economic Report 2015](#), September 2015

the lack of attractive investment opportunities on the UKCS, which is of serious concern.⁵⁸

The chart below sets out future capital investment as forecast by Oil and Gas UK:⁵⁹

Capital Investment Outlook (taken from Oil & Gas UK [Activity Survey 2016](#))



In response to the market changes, the Government announced in the Budget 2016 further reductions in taxation of North Sea oil and gas fields. Details are given in section 5.2 below.

In January 2016, the government announced:

- a major new injection of cash into North East Scotland's economy with the signing of a new £250m UK City Deal, jointly funded by the UK and Scottish Governments.
- £20m of new funding for a second round of new seismic surveys to unlock new exploration activity on the UK Continental Shelf (UKCS),⁶⁰

The remaining potential of the UK Continental Shelf (UKCS) is dependent on the future levels of investment and what happens to the oil price.

Oil & Gas UK noted that even if no further capital investment is sanctioned, it expects a further 6.6 billion barrels of oil equivalent (boe) to be produced, around two thirds from the 300 fields currently in production and one third from new fields under development.⁶¹

⁵⁸ Oil & Gas UK [Activity Survey 2016](#), February 2016

⁵⁹ *Ibid*

⁶⁰ DECC [Prime Minister announces further boost for UK oil and gas industry](#) 28 January 2016

⁶¹ Oil & Gas UK [Economic Report 2014](#) September 2014

Exploration

Future production will depend not just on the level of capital expenditure but also on the rate of exploration. The rate of exploration has decreased from 157 exploration and appraisal (E&A) wells in 1990 to 26 wells in 2015, its lowest in 45 years.⁶² The [Wood Review](#) concluded that “exploration is at a critically low level and badly needs significant new initiatives.” The [OGA Corporate Plan 2016-2021](#) has a target of 60 E&A wells per annum by Q1 2021.

Operating Costs

The difficulties facing the UK oil industry were emphasised by the International Monetary Fund (IMF), which said the collapse in oil prices since the middle of 2014 would ‘stifle investment and hit production [in the UK] at a much faster pace than other countries’.⁶³

Given the high operating costs, estimated by consultants [Rystad Energy](#) when compared to other countries, UK producers are finding it much more difficult to absorb the lower prices than the low cost producers of Kuwait or Saudi Arabia.

However, in March 2017, Oil & Gas UK estimate in their [Business Outlook 2017](#) that the industry has made substantial progress in reducing costs and improving efficiency. Unit operating costs, they estimate, fell to \$21/bbl in 2015 and are expected to fall by another 20 per cent to around \$17/bbl in 2016, a total reduction of 42 per cent within two years.⁶⁴

This degree of reduction was confirmed and indeed reduced further to close to \$15/bbl by the end of 2016 by the OGA in its oral evidence to the Energy and Climate Change Committee on 11 May 2016.⁶⁵

Reducing operating costs is one of the seven priorities set out in the [OGA Corporate Plan 2016-2021](#).

5.2 Falling UK Government revenue

In the past UK oil and gas production has provided substantial revenues for the Treasury; that revenue is now falling rapidly to near to zero in 2015/16. The challenge for the Government is managing likely declining tax revenues with the need for a fiscal regime that supports investment.

The Office of Budget Responsibility (OBR) provide updated public finance forecasts taking account of the latest views of energy prices and oil and gas production.⁶⁶

The OBR set out the difficulties of estimating future Government petroleum revenues in the long term.⁶⁷

⁶² Oil & Gas UK [Activity Survey 2016](#)

⁶³ IMF [World Economic Outlook](#) April 2015

⁶⁴ Oil & Gas UK [Business Outlook 2017](#) March 2017

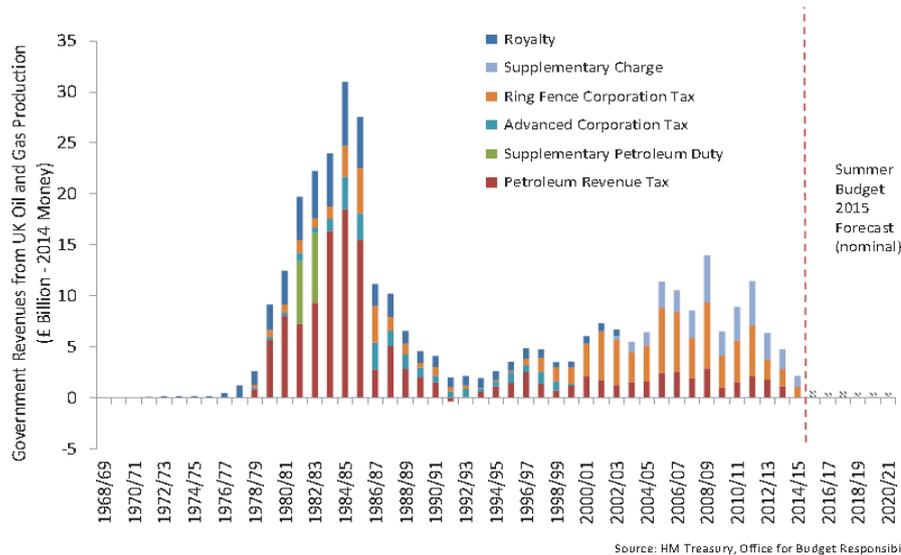
⁶⁵ Energy and Climate Change Committee [Maximising Economic Recovery of Oil and Gas](#), HC 989, 11 May 2016, Q58

⁶⁶ For further discussion of the history of taxation of North sea oil and gas see Commons Library Briefing paper [Taxation of North Sea oil](#) (29 May 2015)

⁶⁷ Office of Budget Responsibility [Fiscal sustainability report](#) June 2015 Chapter 4

The changes in the UK Government revenue from oil and gas production since 1968/69 are shown below:⁶⁸

Production tax revenues and HM Treasury forecasts (taken from Oil & Gas UK [Economic Report](#) September 2015)



Budget 2016

Important changes in the taxation of offshore oil and gas fields were announced in the 2016 Budget on 16 March 2016 as follows:

Budget 2016 delivers the next stage of the government's plan to ensure the fiscal regime supports the objective of maximising economic recovery while obtaining a fair return on the nation's resources. The government will:

- *effectively abolish Petroleum Revenue Tax* by permanently reducing the rate from 35% to 0%;⁶⁹
- *reduce the Supplementary Charge* from 20% to 10%;
- *extend the Investment and Cluster Area Allowances* to include tariff income, in order to encourage investment in key infrastructure maintained for the benefit of third parties; and
- provide certainty that companies will be able to access tax relief on their costs when they retain decommissioning liabilities for an asset after a sale, to encourage new entrants for late-life assets and the development of late-life business models.⁷⁰

⁶⁸ Oil & Gas UK [Economic Report](#) September 2015

⁶⁹ The Budget Report says that "while no company will ever pay Petroleum Revenue Tax again, the tax will not be abolished in legislation. This is to ensure that companies which decommission fields that have paid Petroleum Revenue Tax will be able to benefit from the decommissioning relief to which they are entitled."

⁷⁰ HM Treasury [Budget 2016](#) 16 March 2016; further information is given in HMRC policy paper [Oil and gas taxation: reduction in Petroleum Revenue Tax and supplementary charge](#) March 2016

There was a mixed reaction to the Chancellor's announcement. For example, Deirdre Michie, Oil & Gas UK chief executive, welcomed the changes:⁷¹

Today's announcement does indeed mark further progress in modernising the tax regime for an increasingly mature basin. We welcome these measures as they will build on the industry's achievements in improving efficiency in the face of low oil prices, boosting the sector's competitiveness and helping to restore investor confidence.

Environmental groups, on the other hand, have been critical of the support to the offshore oil and gas industry; for example, Doug Parr, Greenpeace policy director commented that there is no economic sense in cutting support for renewable energy while seeking to 'prop up' the North Sea oil and gas sector.⁷²

Outturn revenue is estimated at £43 million in 2015-16, down from £2.2 billion in 2014-15 and almost £11 billion as recently as 2011-12.⁷³

5.3 Decommissioning

Decommissioning refers to the point in time when production of oil or gas ceases. Decommissioning is an integral part of the life cycle of oil and gas assets.

Owners of offshore field infrastructure, including the platforms, processing plant and pipelines, are obliged by the [Petroleum Act 1998](#) (Part IV) to have in place an abandonment of infrastructure' plan when it wishes to decommission its facilities and is subject to approval by the Secretary of State.

With the expected continuing overall decline in UKCS oil and gas production as fields reach the end of their economic life, the pace of decommissioning of these fields will likely accelerate. Indeed the average age of North Sea installations is around 25 years.⁷⁴

Industry body *Oil & Gas UK* has highlighted accelerated decommissioning of old infrastructure as one of the major challenges for the offshore oil and gas industry:

Decommissioning - much of the infrastructure in the North Sea is more than 25 years old and requires substantial ongoing investment if it is to remain technically and commercially viable. However, there are three issues which have the potential to accelerate the rate of decommissioning of UKCS infrastructure. These are:

- Industry concerns about the fiscal risk regarding future access to tax relief on decommissioning costs.
- The impact on investment of providing decommissioning security on a gross cost basis rather than a net-of-tax basis.

⁷¹ Oil & Gas UK [Budget measures complement industry's own efforts to improve competitiveness of the offshore sector](#) 16 March 2016

⁷² Business Green [Budget 2016: Green Economy Reaction](#) 16 March 2016

⁷³ OGA [Government revenues from UK oil and gas production](#) 4 July 2016

⁷⁴ Arup [Decommissioning in the North Sea](#) October 2014

- Phase III of the EU emissions trading scheme (EU ETS) which will significantly increase the costs of operating mature assets with declining production.⁷⁵

With its substantial scale and costs (see Box 3), decommissioning is of fundamental importance to operators.

Box 3: The scale of decommissioning on the UKCS

- 4,000 wells to plug & abandon
- 290 fixed platforms
- 33 floating installations
- 370 subsea wellhead & structures
- 20,000 km of pipelines

Source: Oil and Gas Authority

There are a small number of major decommissioning projects now under way. Upcoming projects listed on the Department of Business Energy and Climate Change (BEIS) Pathfinder [website](#) include the Brae area, Brent, Miller, Murchison and Thames.⁷⁶

A report from Wood Mackenzie forecast 150 UK field closures by 2020 even if the oil price returns to \$85 per barrel.⁷⁷

In its latest *Activity Survey 2016*, Oil & Gas UK say:

- in 2015, 21 fields ceased production in part due to the worsening market outlook.
- a further 80 fields are expected to cease production by the end of the decade.
- just over £1 billion was spent on decommissioning activity in 2015, similar to 2014.
- decommissioning expenditure is expected to be around £1.5 billion in 2016, rising to over £2 billion by 2017 and could match capital expenditure by the end of the decade.⁷⁸

Costs of decommissioning

The latest estimate of the costs of decommissioning were set down in the OGA's *Decommissioning Strategy* of June 2016 which said that:

The current mid-point cost estimate for UKCS decommissioning to 2050, prepared by an independent industry expert for the OGA and DECC, is approximately £47 billion (in today's money), with a stated uncertainty range of +/- 40%.⁷⁹

⁷⁵ Oil & Gas UK, *A policy framework for the UK's Offshore Oil and Gas Industry*, 2010

⁷⁶ Oil and Gas UK [Decommissioning Report 2015](#), November 2015

⁷⁷ BBC Online [North Sea could lose 150 platforms within 10 years](#) 7 February 2016

⁷⁸ Oil & Gas UK [Activity Survey 2016](#) February 2016

⁷⁹ OGA [Decommissioning Strategy](#) 30 June 2016

The earlier 2014 review by Sir Ian Wood for the then Coalition Government on maximising the economic recovery of oil and gas from the UK Continental Shelf (UKCS) had estimated that decommissioning would cost more than £35 billion (in 2012 money) over the 30 years from 2014 to 2044; though some estimates at the time put the costs as high as £50 billion. The two elements with the highest costs are well plugging and abandonment and offshore facilities lifting and transportation to shore.⁸⁰

Whilst the industry will carry out the decommissioning, more than half the costs (estimated by Sir Ian Wood at around 60%) will ultimately be borne by the Government through tax relief. Therefore improvement to decommissioning performance could impact on public finances; for example a 25% reduction in costs could save the Treasury around £5 billion (2013 money).⁸¹

Policy for dealing with decommissioning

The Wood review said that the OGA will need to ensure that decommissioning is executed in a safe and environmentally sound and cost effective manner (consistent with the UK's international legal obligations) with sufficient early planning and co-ordination.⁸²

The Wood review made it clear that it will be important for the OGA to ensure that key assets are not decommissioned prematurely to the detriment of production hubs and infrastructure and thereby achieve maximum economic extension of field life.⁸³

The Annex sets out further detail on the complexity of the infrastructure on the UKCS.

Policy on decommissioning is the responsibility of the OGA; it published its [Decommissioning Strategy](#) on 30 June 2016. This short document sets out how the OGA plans to manage decommissioning to support the [MER UK Strategy](#), and the [OGA Corporate Plan 2016-2021](#).

The 2016 decommissioning strategy sets a target of a cost reduction relative to the 2015 base case cost in late-life asset management and the execution of decommissioning projects by at least 35%. The OGA say this reduction in cost is essential if premature cessation of production is to be avoided and if an exportable expertise is to be developed.⁸⁴

The strategy concludes:

The OGA priority on decommissioning is to achieve the maximum economic extension of field life and to ensure that decommissioning, when executed, is done in a safe, environmentally sound and cost effective manner.

This strategy describes the starting point for a long-term and significant journey. As learning occurs and as successes are delivered, the shape of the strategy may evolve to acknowledge

⁸⁰ Sir Ian Wood [UKCS Maximising Recovery Review: Final Report](#), 24 February 2014

⁸¹ *Ibid*

⁸² *Ibid*

⁸³ *Ibid*

⁸⁴ OGA [Decommissioning Strategy](#), 30 June 2016

and accommodate the emerging environment. The overarching goals of the strategy, however, will remain.⁸⁵

Future burden sharing of decommissioning costs

The issue of future decommissioning costs has arisen in a number of recent Government statements.

In Energy and Climate Change questions in March 2016, the issue of support for the oil and gas industry was raised, including decommissioning:⁸⁶

The Minister of State, Department of Energy and Climate Change (Andrea Leadsom):

Last week, the Chancellor announced a £1 billion fiscal package to reduce the additional taxes historically imposed on the North sea as well as to introduce targeted measures to encourage investment in exploration, infrastructure and late-life assets.

Kirsty Blackman: Oil & Gas UK, the industry body, has said that we need a fourfold increase in exploration to ensure that the 20 billion barrels that are still there are recoverable. The extra funding for the seismic surveys has been most welcome and we appreciate it. Will the Minister expand a little on what other action the UK Government will take to increase the confidence in the industry and to encourage further exploration?

Andrea Leadsom: The industry is vital for the UK, and we will continue to support it in every way we can. I have already mentioned some of the measures. Perhaps I will just reiterate that, in setting up the Oil and Gas Authority on Sir Ian Wood's recommendations, we are establishing an authority that will improve the economic recovery of the sector, and that will ensure that we do not move to early decommissioning.

Budget 2017

In the Spring [Budget 2017](#), on 8 March 2017, the Treasury announced the fiscal regime needs to ensure support the transfer of late-life assets as part of the objective of maximising economic recovery of oil and gas from the UKCS.⁸⁷

To determine the best approach, the government has published a formal discussion paper on the case for allowing transfers of tax history between buyers and sellers.⁸⁸ The government is establishing a new advisory panel of industry experts to ensure appropriate scrutiny of the options. The review will report at Autumn Budget 2017.⁸⁹

The Treasury's main objectives, as set out in its discussion paper, are to ensure that any changes to the tax regime continue to deliver sufficient and proportionate benefit to taxpayers while continuing to encourage innovation and maximising economic recovery.⁹⁰

⁸⁵ OGA [Decommissioning Strategy](#) 30 June 2016

⁸⁶ ⁸⁷ HM Treasury [Spring Budget 2017](#) para 3.29, 8 March 2017

⁸⁷ HM Treasury [Spring Budget 2017](#) para 3.29, 8 March 2017

⁸⁸ HM Treasury [Tax issues for late-life oil and gas assets: discussion paper](#) 14 March 2017

⁸⁹ HM Treasury [Spring Budget 2017](#) para 3.29, 8 March 2017

⁹⁰ HM Treasury [Tax issues for late-life oil and gas assets: discussion paper](#) 14 March 2017 para 2.33

The Treasury said that any changes should mitigate as far as possible tax-based obstacles to late-life assets transferring to new owners and prevent any gaming of the regime that would result in costs to taxpayers and avoid disproportionate administrative complexity for industry and government. Any changes should not affect decommissioning obligations under existing legislation and treaties.⁹¹

The Treasury states that its aim is to identify the areas of the tax system that could be preventing assets being transferred to new owners who could maintain the assets in line with MER principles.⁹²

Different approaches to decommissioning

In January 2017, Ed Davey the former Secretary of State for Energy and Climate Change, suggested there is a case for looking at alternatives to full decommissioning that would save considerable costs to the taxpayer from decommissioning write offs and reduce concerns that clearing away all the infrastructure might harm the marine environment if the infrastructure is left in place.

In an article in The Times, Ed Davey said:

There's growing concern that [the] "clean seabed principle", enshrined in international conventions and domestic law, might harm the marine environment.⁹³

The second problem is one of legal liability; at present

Under the Petroleum Act, successive governments and lawyers have said that any present or previous owner of the oil and gas assets will always and forever be responsible for liabilities occurring after decommissioning

Ed Davey has called for an alternative approach that would involve a form of insurance fund to meet any costs;

Such a fund could be capitalised over the next two decades, from a share of the savings generated from a more flexible approach to decommissioning.

⁹¹ HM Treasury [Tax issues for late-life oil and gas assets: discussion paper](#) 14 March 2017 para 2.33

⁹² HM Treasury [Tax issues for late-life oil and gas assets: discussion paper](#) 14 March 2017 para 2.34

⁹³ The Times [Flexible approach to decommissioning can pay off for everybody](#), 23 January 2017

6. Annex: Infrastructure

Infrastructure on the UK Continental Shelf is principally the processing, transport and export of the UK's offshore oil and gas resources. In the early days of production, in the 1970s and 1980s, a small number of very large fields dominated UKCS production. Today production comes from more than 300 fields operated by an increasingly diverse mix of companies who are far more independent than before with 20,000 km of pipelines connecting these fields and platforms to onshore terminals.

The challenge for the industry is to use the competitive advantage that the extensive coverage of infrastructure in the UKCS offers by allowing new fields to be developed more cheaply via existing infrastructure and enabling smaller fields to be developed which would otherwise be uneconomic if developed on a standalone basis.

To manage the existing infrastructure more efficiently, it is important that all parties gain access to infrastructure on an appropriate commercial basis.⁹⁴

The Wood review recognised risks that early decommissioning of ageing assets could reduce output while there was a need for new infrastructure particularly West of the Shetlands and in the Central North Sea which should be developed on a collaborative basis either by existing incumbents or new players.⁹⁵

In oral evidence to the Energy and Climate Change Committee on 3 November 2015, the OGA acknowledged the challenges when it said:

We have a unique challenge perhaps in the North Sea compared to some other basin's, where the infrastructure is so highly interconnected and so there can be unintended consequences: when one field goes down early, it could take out other fields.

Because they then all share infrastructure, and particularly the cost of maintaining that infrastructure, it can load up costs on other parts of the system and before long we can end up in a very grave situation. We are working very hard, for example in the northern North Sea, with a large number of operators to try to reverse some of those effects, but it is very difficult.⁹⁶

The map on the following page shows the current extensive number of producing oil and gas fields and pipelines in the UKCS.

⁹⁴ Sir Ian Wood [UKCS Maximising Recovery Review: Final Report](#). 24 February 2014

⁹⁵ *Ibid*

⁹⁶ Energy and Climate Change Committee [Responsibilities of the Oil and Gas Authority](#), HC 508, 3 November 2015 Q21

About the Library

The House of Commons Library research service provides MPs and their staff with the impartial briefing and evidence base they need to do their work in scrutinising Government, proposing legislation, and supporting constituents.

As well as providing MPs with a confidential service we publish open briefing papers, which are available on the Parliament website.

Every effort is made to ensure that the information contained in these publically available research briefings is correct at the time of publication. Readers should be aware however that briefings are not necessarily updated or otherwise amended to reflect subsequent changes.

If you have any comments on our briefings please email papers@parliament.uk. Authors are available to discuss the content of this briefing only with Members and their staff.

If you have any general questions about the work of the House of Commons you can email hcinfo@parliament.uk.

Disclaimer

This information is provided to Members of Parliament in support of their parliamentary duties. It is a general briefing only and should not be relied on as a substitute for specific advice. The House of Commons or the author(s) shall not be liable for any errors or omissions, or for any loss or damage of any kind arising from its use, and may remove, vary or amend any information at any time without prior notice.

The House of Commons accepts no responsibility for any references or links to, or the content of, information maintained by third parties. This information is provided subject to the [conditions of the Open Parliament Licence](#).