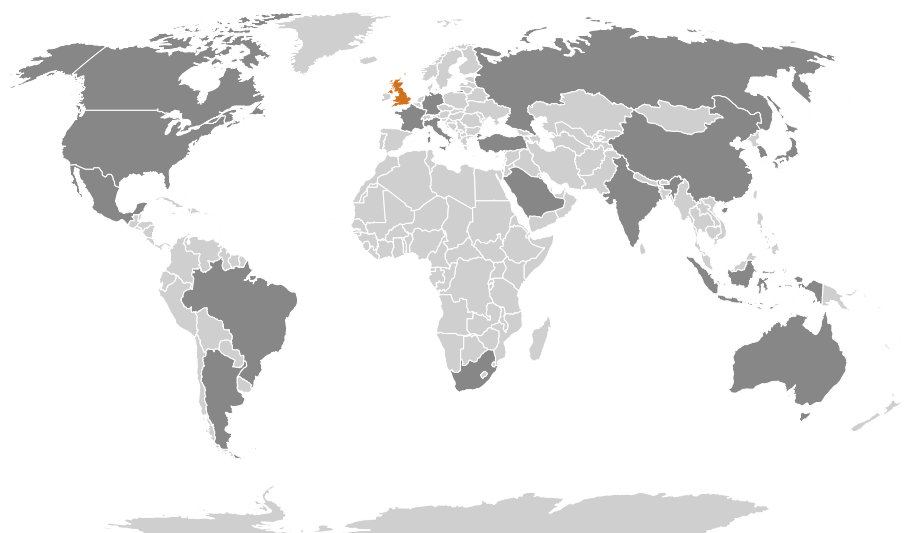




G20 subsidies to oil, gas and coal production: United Kingdom

Sam Pickard and Laurie van der Burg



Argentina
Australia
Brazil
Canada
China
France
Germany
India
Indonesia
Italy
Japan
Korea (Republic of)
Mexico
Russia
Saudi Arabia
South Africa
Turkey
▶ **United Kingdom**
United States

This country study is a background paper for the report **Empty promises: G20 subsidies to oil, gas and coal production** by Oil Change International (OCI) and the Overseas Development Institute (ODI). It builds on research completed for an earlier report **The fossil fuel bailout: G20 subsidies to oil, gas and coal exploration**, published in 2014.

For the purposes of this country study, production subsidies for fossil fuels include: national subsidies, investment by state-owned enterprises, and public finance. **A brief outline of the methodology can be found in this country summary.** The full report provides a more detailed discussion of the methodology used for the country studies and sets out the technical and transparency issues linked to the identification of G20 subsidies to oil, gas and coal production.

The authors welcome feedback on both this country study and the full report to improve the accuracy and transparency of information on G20 government support to fossil fuel production.

A Data Sheet with data sources and further information for the United Kingdom's production subsidies is available at:
<http://www.odi.org/publications/10085-g20-subsidies-oil-gas-coal-production-united-kingdom>

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Country Study
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Background

The United Kingdom (UK) is the largest producer of oil and the second largest producer of gas in the European Union (EU), but offshore production is declining as accessible oil and gas runs out in fields across the North Sea (EIA, 2014). The industry lobby group reports that the UK Continental Shelf (UKCS) is one of the most expensive offshore basins in the world; however, more than two thirds of North Sea fields reportedly remain profitable at oil prices of \$50 a barrel (Economist, 2015; Oil and Gas UK, 2015).

As a result of the decrease in domestic production, in 2013 the UK's net energy imports reached their highest level since the 1970s (EIA, 2014). This decline, changes in global energy prices and an increase in tax deductions means that the government forecasts its oil and gas revenues to drop from \$3.5 billion in 2014 (from \$17 billion in 2011/12) to about \$791 million from 2016. This projected revenue is less than 0.05% of GDP and would be the lowest government tax revenue from oil and gas relative to GDP since 1975/76 (HM Government, 2015b; Office for Budget Responsibility, 2015b).

Both coal production and consumption in the UK have significantly declined in recent decades, with production reaching an all-time low of 13 million tonnes in 2013 (DECC, 2014a) and the last two deep coal mines set to close in 2015 following a government-aided wind-down (Press Association, 2015). A number of surface opencast mines are still in production, and a number of applications for new mines are ongoing with one developer noting that one of the driving forces behind their project is the UK's 'excellent fiscal regime and low corporate taxes and royalties' (NAE, 2015).

The UK power sector remains heavily reliant on fossil fuels with coal and gas together used for 60% of electricity generation in 2014 (DECC, 2015a). Alongside seeking to increase the proportion of energy from renewables and nuclear generation, the UK has recently formed a capacity market for its future electricity sector and is investing in carbon capture and storage (CCS) to help achieve its 2050 goal of greenhouse gas (GHG) emissions that are 80% lower than 1990 levels.

In parallel with the increase in support for fossil fuel production, the government has significantly watered down its efforts to promote energy efficiency and low carbon energy by rolling back building regulations and cutting financial support for both large- and small-scale renewable energy installations (HM Treasury, 2015b; Vaughan, 2015). The commitment of the previous coalition government to continue increasing the proportion of government revenue from environmental taxes was dropped in the 2015 Budget, and from August 2015 the government will start

applying the Climate Change Levy – originally designed as a tax on fossil fuels – to renewable electricity sources (HM Treasury, 2015b).

Through its membership of the G20, and as a new member of the Friends of Fossil Fuel Subsidy Reform, the UK has called for fossil fuel subsidy reform (Cameron, 2014; King, 2015). Specifically, in a speech at the UN Climate Summit in 2014 the Prime Minister David Cameron called on fellow nations to join in 'fighting against the economically and environmentally perverse fossil fuel subsidies, which distort free markets and rip off taxpayers' (Cameron, 2014). However, because the UK government only defines subsidies as 'government action that lowers the pre-tax price to consumers to below international market levels', a recent freedom of information request resulted in the government maintaining that 'the UK has no fossil fuel subsidies' (DECC, 2015d).

National subsidies

Tax expenditure

The UK stands out as a major industrialised economy that, despite the G20 pledge, has dramatically increased its support to fossil fuels in recent years. While other nations have responded to the drop in energy prices by reducing fossil fuel consumer subsidies, the UK has reduced taxes on fossil fuel production, increasing subsidies to fossil fuel producers. Many of the changes to the UK's tax regime for oil and gas are very recent and will not come into effect until 2015 or later and are therefore not captured in the totals reported here. For more information on the new national subsidies provided in the UK in 2015 see Box 5 in the full report, *Empty promises: G20 subsidies to oil, gas and coal production*.

In 2013 and 2014 (the years covered in this report),¹ taxation on oil and gas production in the UK comprised three components: the Petroleum Revenue Tax (PRT), a Supplementary Charge (SC) and the Ring-Fenced Corporation Tax. The tax regime included a number of concessions designed to incentivise the production of fossil fuels (many of which remain in place or have been scaled up since).

- A number of recent changes to the tax regime have meant that companies can offset capital costs associated with the decommissioning of oil and gas fields against tax that they had paid over the lifetime of those fields. This means that 'UK taxpayers [are] effectively footing the bill for as much as half the costs of

1 Data for the UK is reported as stated, with most data covering the fiscal year from April to May. For comparison with other nations, the 2013/14 data is assumed to represent calendar year 2013 and 2014/15 data is assumed to represent 2014 data though these periods – and all taxation data between countries – are not directly comparable.

- decommissioning rigs' (Dunbar, 2015). The introduction of decommissioning relief deeds, estimated to increase oil and gas production by 1.7 billion barrels, guaranteed that companies will continue to receive these subsidies even if the government attempts to amend the regime (HM Treasury, 2013). The total impacts on tax receipts for 2013/14 and 2014/15 were estimated at \$299 million and \$645 million, respectively (HM Revenue & Customs (HMRC), 2014a; HMRC, 2015b).
- Field allowances exempt a portion of a company's profits from the SC, reducing the tax rate on that portion from 50% to 30% to support investment across all stages of production. Because only 20% of a field allowance can be used in one year, allowances granted in the five years previous to the year in focus will likely be claimed that year. More than 100 allowances were granted in the period April 2009 to March 2015, corresponding to a maximum available benefit of approximately \$12 billion (approximately \$2.4 billion per year over the years in focus).² However the only publicly available data confirming the amount taken up is for \$1.7 billion of allowances granted in 2013/14 (\$336 million per year), which we include in our totals. This is despite the fact that it is likely to be a significant underestimate because it omits the allowances taken up in 2013/14 that were issued in the period April 2009 to March 2015 (Powell, 2014).
 - PRT oil allowance exempted a substantial share of production from the PRT for at least the first 10 years of field operations (and could often be claimed for a much longer period). This allowance was estimated to be worth \$127 million in 2013/14 and \$111 million in 2014/15 (HMRC, 2014b).
 - PRT tariff receipts allowance excluded the first 250,000 tonnes of throughput per field per six-month period from the PRT. This allowance was valued at an average of \$39 million per year (UK Parliament, 2014; OECD, 2015).
 - PRT Uplift for Certain Capital Expenditures allowed companies to deduct 35% of capital expenditure from the PRT, but only to developing fields that were given development consent prior to 16 March 1993. While this measure is still mentioned as being active in government reports from 2014, estimates of its value are only available up to 2007/8 when the value of the tax deduction was approximately \$80 million (HMRC, 2014b; OECD, 2015). No data for the years investigated here are therefore included in the table.
 - Safeguard for Less Profitable Fields was introduced to guarantee companies a specific return on investment before paying PRT. Although ostensibly still in place, this measure has not reduced assessable PRT since 2008 (HMRC, 2014c; OECD, 2015).
 - The mineral extraction allowance was also changed in 2014 to accelerate the relief from 10% to 20% per year available to the mineral extraction industry (90% of which are fossil fuels) for costs incurred in obtaining planning permission (HMRC, 2014d). The government forecasts that the impacts of this change on the budget will be negligible.
- Beyond the scope of this report, but projected for 2015 subject to EU clearances, additional to previous financing agreements, the government will provide \$44 million to meet UK Coal's concessionary fuel obligations to its employees as compensation for the company's bankruptcy (UK Parliament, 2015b).
- ### Direct spending
- The International Energy Agency (IEA) estimates for budgetary support for R&D to all fossil fuels in the UK were \$76 million in 2013, with the largest share of this funding, \$65 million, directed to CCS (IEA, 2015). This includes direct investments by the Department of Energy and Climate Change (DECC) in CCS totalling \$285 million for a four-year (2011 to 2015) R&D and innovation programme (UK Trade and Investment, 2014); \$4 million for developing CO₂ storage in the North Sea (which may include enhanced hydrocarbon recovery); and \$4 million for the development and demonstration of state-of-the-art CCS technologies.³
- In addition, the UK government has committed to providing significant direct support for the development of CCS. The largest commitment is for the \$1.6 billion for the Commercialisation Programme, although this has not yet been disbursed. Specific support to be provided for the two finalist projects in the programme will be decided in 2016, although unspecified 'multi-million pound funding' was awarded to the finalists to carry out front-end engineering design (FEED) studies in 2014 and 2015 (DECC, 2015c).
- Two measures of direct funding that support fossil fuel production were approved in the 2014 Autumn Statement: an \$8 million fund to provide a shale gas public information campaign concerning the 'robustness of the existing regulatory regime'; and \$49 million approved for the launch of subsurface research test centres for research relevant to shale gas and CCS operations (HM Treasury, 2014c).
- The UK government pays for coal mine rehabilitation through the UK Coal Authority (UKCA), a public body that is sponsored by DECC and manages the effects of

2 Data on approval for new fields and addenda in the UKCS shows allowances were granted for 48 small fields, 52 brown fields, 3 ultra heavy oil fields, 2 deep-water gas fields as well as 2 fields under the new investment allowances (OGA, 2015). This data was then combined with the maximum relief available for each field (Powell, 2014; HMRC, 2015c).

3 Discrepancies between the total and the annualised averages may arise from non-uniform spending across the period and/or variation in reporting methodology between the data sources. This appears to be funded from the Innovation Fund and the Energy Entrepreneurs Fund.

past coal mining. UKCA reported net expenditures of \$18 million and \$12 million for carrying out mining reports, environment operations and public safety works in 2013/14 and 2014/15, respectively. Given that some legacy pollution will pervade for decades, UKCA is also provisioned with funds to oversee the management of these sites going forward. As of 2014, \$1.6 billion of provisions were in place for liabilities and charges arising from spending on mine water treatment, the investigation and treatment of hazards arising from claims against former mining sites, subsidence pumping stations, the management of abandoned mine tips and other activities (UKCA, 2015). This was valued at an annual average of \$43 million across 2013 and 2014 (OECD, 2015).

No evidence was found of direct government investment in – or ownership of – fossil fuel infrastructure in the UK.

Other support mechanisms

With variable renewable energy capacity accounting for an increasing share of electricity generation, many governments have become concerned about supply security (the ability of the power system to meet high electricity demand when the sun is not shining or the wind is not blowing). In response, an increasing number

of governments are considering various forms of ‘capacity mechanisms’, under which payments are offered to those actors that can guarantee flexible capacity through existing or new plant capacity, interconnectors, or that can manage demand through demand-side response (DSR) measures. The UK government has designed an auction-based capacity market through which it provides payments to those actors that can guarantee such flexible capacity.

Because the UK’s capacity market proposal was the first to be approved under the European Commission’s new State Aid rules,⁴ its experience is being closely followed by other EU Member States. In 2014 the first auction awarded 70% of the capacity offered to fossil fuel plants, which in 2018/19 will receive payments totalling almost \$1.1 billion (Jones, 2014; National Grid, 2014). Considerably longer contracts were awarded to generators than to DSR, which won 1% of capacity auctioned (National Grid, 2014).⁵ The estimated \$464 million in payments to existing coal-fired plants between 2018 and 2020 has been argued to dis-incentivise investments in newer, less carbon-intensive generation (Pinchbeck, 2015). However, because these are future forecasts, this support is not included in the estimates in this report.

Table 1: United Kingdom’s national subsidies to fossil fuel production, 2013–2014 (\$ million except where stated otherwise)

Subsidy	Subsidy type	Targeted energy source	Stage	2013 estimate	2014 estimate	Estimated annual amount
Offsetting capital costs associated with field decommissioning	Tax exemption	Oil and gas	Decommissioning	645	299	475
Field allowance (\$1.7 billion over 5-year period)	Tax exemption	Oil and gas	Production	N/A	336	336
PRT oil allowance	Tax exemption	Oil	Production	127	111	119
Fossil fuel R&D	Direct spending	Oil, gas, coal	Cross-cutting	76	N/A	76
Coal mine liabilities	Direct spending	Coal	Decommissioning	42	44	43
Other national subsidies (eight more in Data Sheet)				38	97	68
Totals						
Total national subsidies (\$ m)						1,114
Total national subsidies (£ m)						722

Sources and additional data are available in the Data Sheets that accompany each Country Study.

Note: N/A indicates data was not publicly available at the time of publication. When data is not available for both 2013 and 2014, the two-year average is based on the data for one year only

4 Although capacity mechanisms may seem to offer an ideal solution for governments seeking to balance the objectives of increasing renewable energy with ensuring security and stability of supply, the European Commission’s (EC) new State Aid rules acknowledge that: ‘[a]id for generation adequacy may contradict the objective of phasing out environmentally harmful subsidies including for fossil fuels.’

5 15-year contracts for new generation, 3-year contracts for existing coal plant and coal-to-biomass conversions and 1-year contracts for DSR.

State-owned enterprise investment

The UK energy sector is almost entirely privatised with only very limited infrastructure still publicly owned; including Ministry of Defence-owned pipelines and fuel depots.

Public finance

Domestic

Coal mines as well as coal-fired power plants in the UK have received loans from the UK Department for Business Innovation and Skills to address bankruptcy, closure and rehabilitation. These include a \$13 million loan offered to the owners of the Hatfield mine and a commercial-rate loan worth \$6 million to avert the insolvency of UK Coal (UK Parliament, 2015a, 2015b). A further \$32 million was offered to the owners of the now-closed Hatfield mine in

May 2015, though the timing of this falls outside of the scope of the report (UK Parliament, 2015c, Wilson, 2015). According to the 2015 Summer Budget, the government has plans to work closely with the Scottish Coal Task Force and industry stakeholders to explore options for addressing the environmental liabilities of unrestored opencast mines in Scotland (HM Treasury, 2015b). Since decommissioning costs are normally borne by the operator, any financial liability taken on by the government for sites that were previously privately held would, in essence, create new production subsidies for coal.

A small amount of domestic public finance for production of oil and gas in the UK was identified via the 73% government-owned Royal Bank of Scotland (RBS) – although the government is in the process of selling shares in this back to the private sector⁶ – and via the Department for International Development's (DfID) projects in a British

Table 2: United Kingdom's public finance for fossil fuel production, 2013–2014 (\$ million except where stated otherwise)

Institution name	Coal mining	Coal-fired power	Upstream oil and gas	Oil and gas pipelines, power plants and refineries	Multiple or unspecified fossil fuels	Total fossil fuel finance 2013 & 2014	Annual avg. fossil fuel finance
Domestic							
Royal Bank of Scotland	-	-	-	-	126	126	63
Department for International Development	-	-	-	0.04	-	0.04	0.02
Department for Business, Innovation and Skills	19	-	-	-	-	19	9
Subtotal domestic	19	-	-	0.04	126	145	72
International							
Royal Bank of Scotland	-	-	1,916	872	5,191	7,979	3,989
UK Export Finance	-	1	866	311	-	1,177	589
Department for International Development	-	-	20	24	4	48	24
CDC Group	-	-	-	47	-	47	24
Multilateral Development Banks	1	51	382	1,200	-	1,633	817
Subtotal international	1	52	3,184	2,454	5,195	10,885	5,443
Totals							
Total public finance (\$ m)							5,515
Total public finance (£ m)							3,576

Sources and additional data are available in the Data Sheets that accompany each Country Study.

⁶ See: <http://investors.rbs.com/share-data/equity-ownership-statistics.aspx>

Overseas Territory. Together that financing averaged \$126 million annually in 2013 and 2014. Alongside the developments planned under the Infrastructure Bill, in the future the government may provide commercial-rate loan guarantees for finance used to build new gas-fired power stations and/or CCS projects, which could require guaranteeing \$6.7 billion and \$2.5 billion of loans by 2020, respectively (HM Treasury, 2014b; NAO, 2015).

International

The UK government also provides public finance for fossil fuel production overseas which totalled \$9.3 billion from 2013 to 2014 – an annual average of \$4.6 billion. This financing is provided through RBS; the UK's export credit agency, UK Export Finance (UKEF); DfID; and the development finance institution the CDC Group. The government additionally contributes to fossil fuel production beyond its borders through its shares in multilateral banks including the World Bank Group, the European Bank for Reconstruction and Development (EBRD), the European Investment Bank (EIB), and the Asian Development Bank (ADB).

Without giving an indication of the actual figures for finance provided to energy projects, RBS reports that in 2014 oil and gas projects accounted for 1.9% of its total lending with power projects and mining and materials (both of which may include fossil fuel production support) constituting a further 1% and 0.5%, respectively (RBS, 2015). RBS further reports that 22% of lending to its top 25 power customers funds coal- and gas-fired energy generation, while 6% funds renewable energy generation (RBS, 2015). Reportedly, the bank earlier identified itself as the 'oil and gas bank' (Minio-Paluello, 2007). Because RBS does not provide figures for its total annual lending, it is not possible to estimate support levels through government ownership of RBS with the above-listed shares of financing for oil and gas projects. Nonetheless, based on data from IJ Global, RBS provided \$8 billion in finance for fossil fuel production from 2013 to 2014.

A significant share of UKEF loans, guarantees and insurance policies issued in 2013 and 2014 benefited the fossil fuel industry. Of the total export finance provided in 2013 and 2014, about \$1.2 billion benefited fossil fuel production activities abroad, for an average of \$589 million annually (see accompanying spreadsheet for full references).

In 2013 and 2014, at least four of DfID's international projects had fossil fuel energy components. Based on DfID classifications of 'energy' and 'power' in the project budgets, DfID provided \$48 million to fossil fuels in 2013 and 2014, or an average of \$24 million annually (see accompanying spreadsheet for full references).

The UK's development finance institution the CDC Group supports several private equity funds involved in oil and gas production. Because of a lack of transparency in

the institution, it is not possible to determine the amount of CDC financing that went towards these projects.

However, at least two funds from 2013 and 2014 were fully fossil-based, with finance for fossil fuel production therefore totalling \$48 million, or \$24 million annually (see accompanying spreadsheet for full references).

The UK also contributed an annual average of \$817 million to fossil fuel production from 2013 to 2014 through its shares in the World Bank Group, the European Bank for Reconstruction and Development, the European Investment Bank, and the Asian Development Bank, which range from 1% to 16%, depending on the institution (Oil Change International, 2015).

Private companies

Private upstream oil and gas companies

In 2013 and 2014 the annual combined oil and gas production in the UK stood at the same level, 539 million barrels of oil equivalent (mboe). There are more than 40 companies in the UK producing oil and gas with the top 10 producers included in Table 3 responsible for just 58% of total production. Alongside the highest offshore expenditure on record (\$42 billion) in 2013 and 2014, industry revenues stood at \$39 billion, the lowest since 1998. Further reflecting the continually declining production from the fields, expenditure on decommissioning was the highest on record in 2014 (at \$1.6 billion) and oil and gas discoveries in the year were only one fifth of the decade average (Oil and Gas UK, 2015). Of the top 10 producers, only BG's profitability increased from 2013 to 2014 and eight of the top 10 had negative values for free cash flow.

The most active companies in the development of new offshore oil and gas fields in the UK are Maersk (Denmark), Premier (UK), Enquest (UK), Apache (US) and Total (France), which all received field approvals in 2014 or 2015, and Nexen (China), Enquest (UK), BP (UK), GDF Suez (France) and Centrica (UK) which started field developments in 2014 and 2015. As all field approvals qualified for field allowances and/or investment allowances, all of these new developments will be eligible to receive government support (HM Government, 2015a). For more information on the beneficiaries of UK field allowances, and estimated levels of historic support received by specific companies see Box 5 in the full report, *Empty promises: G20 subsidies to oil, gas and coal production*.

No shale gas was produced in the years studied in this report and no subsidies within the years in focus could be identified. Currently, the companies that appear to be leading the UK shale gas industry's development are Cuadrilla, iGas, Celtique Energie, Ineos and Third Energy.

Table 3: Top private upstream oil and gas producers in the United Kingdom, 2013–2014

Company	Headquarter Country	Oil production (million barrels in country)		Gas production (billion cubic metres in country)		Sum of operating expenditure & capital expenditure, including exploration expenditure (\$ million)		Profitability (from country operations, as indicated by free cash flow) (\$ million)	
		2013	2014	2013	2014	2013	2014	2013	2014
BG	United Kingdom	23	24	2.5	2.6	1,543	1,247	738	877
CNOOC	China (SOE)	37	33	0.4	0.6	1,085	1,142	1,433	1,091
Centrica Energy	United Kingdom	7.8	6.7	5.7	4.7	2,175	2,070	145	-33
Total	France	12	12	4.5	3.6	2,622	2,430	-46	-56
Shell	Netherlands	15	14	3.3	3.2	3,775	3,823	-596	-714
ConocoPhillips	United States	10	14	3.1	3.8	3,205	2,069	-277	225
TAQA (Abu Dhabi National Energy Company)	UAE (SOE)	19	21	1.2	1	1,783	2,614	242	-43
ExxonMobil	United States	7.9	8.6	3.1	3	1,500	1,871	168	-13
Apache	United States	23	21	0.7	0.7	2,084	2,037	69	-87
BP	United Kingdom	20	18	1.1	1.1	3,131	2,969	-424	-519

Source: Rystad Energy, 2015.

Private midstream / downstream oil and gas companies

No government support to midstream oil and gas has been identified and therefore we have not included information on potential beneficiary companies.

Private coal companies

The UK is set to close the last of its deep coal mines this year. However, New Age Exploration (NAE) is continuing to explore a coking coal project in Lochinvar. This would be the UK's first major new underground coking coal project in more than 30 years and is set to begin producing in 2018 (NAE, 2015).

The UK currently has 26 operational opencast mines (BGS, 2015). Three further mines were granted planning permission in 2014, while four applications were refused. Precise data for the amount mined by each company was not found, however, the industry group, CoalPro, includes 11 companies as 'producer members'. These are: H J Banks & Co. Ltd, Celtic Energy, Hall Construction Services Ltd, Hargreaves Services Plc, H R M Resources Limited, The Kier Group – Kier Mining, Land Engineering Services Ltd, Miller Argent (South Wales) Limited, Recycoal Ltd and UK Coal Production Limited (CoalPro, 2015). A lack of data on UK coal producers may in part be due to recent

changes of ownership in the industry. For example, The Scottish Coal Company, which held 53% of the UK annual capacity in 2012, fell into liquidation in 2013 (Perez, 2014; KPMG, 2013).

Private electricity companies (fossil fuel-based)

As of May 2015, the UK had approximately 55 GW of installed capacity that includes fossil fuels as one of its fuel types, representing 68% of total installed capacity (81 GW). Gas-fired stations (dominated by 40 combined-cycle gas turbines) represent nearly 34 GW of capacity while 13 coal-fired stations (eight dedicated coal, five mixed fuels) provide approximately 20 GW of capacity. EDF (France), Drax Power, SSE, Scottish Power (Spain), E.On (Germany) and RWE NPower (Germany) all own significant coal-fired generating capacity. Ten operators have gas-fired generation capacity of more than 1 GW though RWE Npower (Germany), E.On (Germany) and Centrica own approximately half of UK gas-fired generation (DECC, 2015b). Although these companies may benefit in the future from capacity payments and support to CCS, no specific government support to fossil fuel power production was in place in 2013 or 2014 (and therefore we have not carried out a detailed analysis of these companies).

Methodology

(for detailed methodology see Chapter 3 of main report)

This report compiles publicly available information on G20 subsidies to oil, gas and coal production across G20 countries in 2013 and 2014. It provides a baseline to track progress on the phase-out of such subsidies as part of a wider global energy transition. It uses the following terms and their definitions.

Production subsidies

Government support for fossil fuel production. For the purpose of this country study, production subsidies include national subsidies, investment by state-owned enterprises (SOEs) (domestic and international) and public finance (domestic and international) specifically for fossil fuel production.

Fossil fuel production

Production in the oil, gas and coal sectors. This includes access, exploration and appraisal, development, extraction, preparation, transport, plant construction and operation, distribution and decommissioning. Although subsidies for the consumption of fossil fuels can support their production, this report excludes such subsidies as well as subsidies for the consumption of fossil fuel-based electricity.

National subsidies

Direct spending, tax and duty exemptions and other mechanisms (such as forms of capacity markets) provided by national and sub-national governments to support fossil fuel production. Normally, the value assigned for a national subsidy is the number provided by the government's own sources, by the OECD, or by an independent research institution.

State-owned enterprise (SOE) investment

A SOE is a legal entity created by a government to undertake commercial activities on its behalf. SOEs can be wholly or partially owned by governments.

It is difficult to identify the specific component of SOE investment that constitutes a subsidy, given the limited publicly available information on government transfers to SOEs (and vice-versa), and on the distribution of investment within their vertically integrated structures. Therefore, this report provides data on total investment by SOEs in fossil fuel production (where this information is available from the company), which are presented separately from national subsidies.

For the purpose of this report, 100% of the support provided to fossil fuel production through domestic and international investment by an SOE is considered when a government holds >50% of the shares.

Public finance

Public finance includes the provision of grants, equity, loans, guarantees and insurance by majority government-owned financial institutions for domestic and international fossil fuel production. Public finance is provided through institutions such as national and multilateral development banks, export credit agencies and domestic banks that are majority state-owned.

The transparency of investment data for public finance institutions varies. Assessing the portion of total financing that constitutes a subsidy requires detailed information on the financing terms, the portion of finance that is based directly on public resources (rather than raised on capital markets) or that depends on the institutions' government-linked credit rating. Few of the institutions assessed allow public access to this information. Therefore, we report the total value of public finance from majority government-owned financial institutions for fossil fuel production separately from 'national subsidy' estimates.

For the purpose of this report, 100% of the support provided to fossil fuel production through domestic and international financing is considered when a government holds >50% of the shares in the bank or financial institution.

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Erratum: This report was updated in April 2016 to amend UK national subsidy estimates to reflect annual oilfield decommissioning costs for 2013/14 and 2014/15, as opposed to total projected oilfield decommissioning costs between 2014 – 2018 (estimated in 2013/14) and projected costs between 2015 – 2041 (estimated in 2014/15).