



Fossil fuel exploration subsidies: Germany

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This country study is a background paper to the report **The fossil fuel bailout: G20 subsidies for oil, gas and coal** by Oil Change International (OCI) and the Overseas Development Institute (ODI).

For the purpose of this report, exploration subsidies include: national subsidies (direct spending and tax expenditures), investment by state-owned enterprises and public finance. The full report provides a detailed discussion of technical and transparency issues in identifying exploration subsidies, and outlines the methodology used in this desk-based study.

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

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Background

Germany has some of the strongest renewable-energy policies and greenhouse-gas emissions reduction targets in the world, and has accelerated its phase-out of nuclear energy since the 2011 Fukushima nuclear disaster in Japan. This shift away from conventional fossil and nuclear energy is known in Germany as the ‘Energiewende’, or energy transition (Morris and Pehnt, 2012). Renewable energy generation under the Energiewende has more than made up for the phased-out nuclear plants. However, coal production and consumption have recently increased in Germany (U.S. EIA, 2013). The German federal government continues to provide millions of dollars of support each year to support continued coal mining in Germany, in addition to nearly USD 2 billion in annual coal mining subsidies from state governments in Germany (OECD, 2013).

Like its neighbour France, Germany has limited and dwindling conventional oil and gas resources. However, it has been somewhat more open than France in allowing exploration and development of potential shale-gas reserves, establishing restrictions but falling short of a full moratorium on hydraulic fracturing (fracking). In July 2014, the German Government established a plan to prohibit shale-gas drilling less than 3,000 metres below the surface and established measures to protect aquifers from the injection liquids used in shale-gas exploration activities (Hromadko and Torry, 2014).

Public and private oil and gas exploration expenditure dropped significantly in 2012 and 2013 and is low compared with the other major oil and gas producing countries assessed in ‘The fossil-fuel bailout: G20 subsidies for oil, gas and coal exploration’ (Figure 1) (Rystad Energy, 2014).

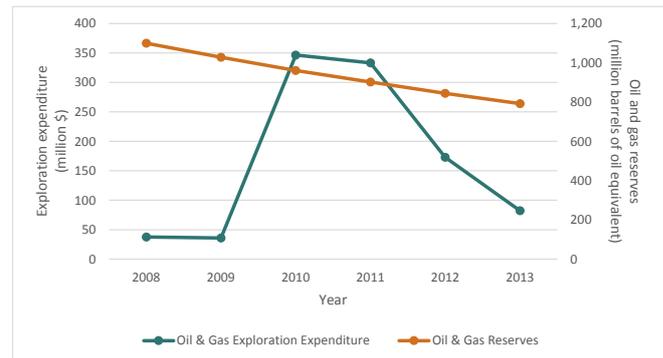
National subsidies

Due to its limited domestic conventional oil and gas resources and identification of virtually all coal deposits, Germany does not have any major national subsidies specifically aimed at fossil-fuel exploration. The German Government does provide tax exemptions to fossil-fuel producers that could benefit exploration activities (Table 1). Despite the past trend of refusing permits for shale-gas projects, the new Government has demonstrated an openness to study fracking, which could result in some direct spending on shale-gas exploration in Germany (Eckert, 2014).

A 2010 review of fossil-fuel policies found that Germany provides an undetermined amount of funding for research and development (R&D) relating to offshore oil and gas extraction, which could include exploration components (Koplow and Charles, 2010).

The German Government provides a manufacturer privilege, worth \$344 million in 2011, that exempts companies from paying a tax on fuel used in fossil-fuel

Figure 1. Oil and gas exploration expenditure and reserves in Germany



Source: Rystad Energy, 2014

production (OECD, 2013). While this applies to oil, gas and coal production in general, it could also benefit exploration by reducing the cost of fuel used in exploration activities.

Public finance

Domestic

We did not identify domestic public finance for exploration in Germany.

International

Germany’s public financing for fossil-fuel exploration is targeted toward overseas projects through support from KfW, Germany’s export finance bank and Euler Hermes, its trade credit insurance company. Financing from development and export-credit agencies in Germany is highly opaque. Finance data are not available through KfW and Euler Hermes annual reports or other government publications. IJ Global, a database of infrastructure project finance, provides data for some but not all fossil-fuel exploration financing transactions by these institutions. From 2010 to 2013, KfW and Euler Hermes provided a total of \$497 million in known fossil-fuel exploration finance, an average of \$131 million per year.

KfW is intensifying its financing of German maritime companies that invest in offshore oil and gas through its largest subsidiary, KfW IPEX-Bank. In particular, in 2013 KfW instituted a programme to provide export-credit financing for projects involving a minimum of \$30 million worth of German equipment per investment to offshore oil and gas ship, vessel and platform projects. It is likely that most of this will be for overseas oil and gas extraction, given Germany’s limited domestic resources and the fact that 70% of German shipbuilding and offshore revenue is generated outside of Germany at present (Wiebers, 2013). KfW also provides financing for coal mining. Data from IJ Global and KfW show that KfW provided \$497 million

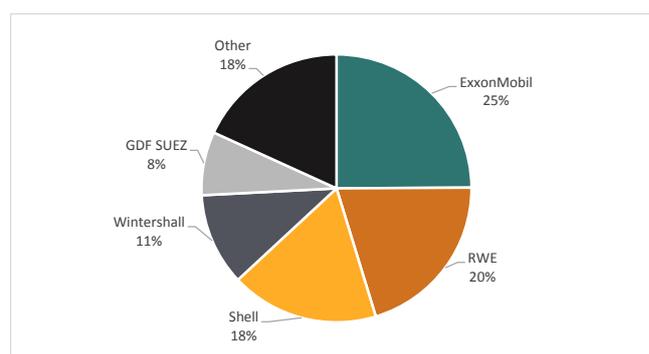
in fossil-fuel exploration finance from 2010 to 2013 (Table 2).

Euler Hermes, Germany's trade-credit insurance company, also provides fossil-fuel exploration finance. The only available exploration transaction data were for the 2013 refinancing of Glencore, a Swiss mining company with oil, gas, and coal operations (Table 3).

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the German Society for International Cooperation, appears to fund overseas fossil-fuel extraction projects to a lesser extent. However, these projects seem to be geared more toward resource governance than towards a direct increase in exploration and extraction. In 2013, for example, GIZ provided an unknown amount of financing for a project aimed at 'strengthening resource governance in the gas sector in Tanzania' (GIZ, 2013). Because of a lack of transparency in this institution, information on additional fossil-fuel projects is not available.

Germany also contributed an annual average \$54.5 million to fossil-fuel exploration projects from 2010 to 2013 through its shares in the World Bank Group, European Bank for Reconstruction and Development, European Investment Bank and Asian Development Bank, which range from 4.3% to 16.1% depending on the institution (Oil Change International, 2014).¹

Figure 2. Germany's top oil and gas reserve holders' share of total German reserves as of January 2014



Source: Rystad Energy, 2014

Major companies

Oil and gas

In 2013, oil and gas companies made \$5.9 billion in revenue from upstream operations in Germany. The net income for the German industry totaled \$2.5 billion that year.

Of the \$5.9 billion in revenue, the German Government received \$465 million through income-tax payments (and \$1.6 billion in royalty payments), resulting in an income-tax share of revenue of 11%.² Table 4 displays these figures for active oil and gas producers in Germany in 2013.

At the start of 2014, Germany had 756 million barrels of oil equivalent (BOE) of oil and gas reserves. The top

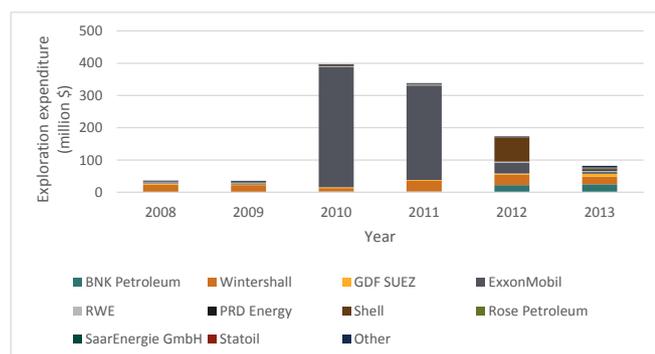
Table 1. Germany's national subsidies

Subsidy	Subsidy type	Targeted fossil-fuels	Estimated annual amount (million \$)	Timeframe for subsidy-value estimate	Stage
Direct Spending					
Research and development (R&D) for offshore oil and gas extraction (Koplow and Charles, 2010)	Direct spending	Oil and gas	N/A*	N/A*	Extraction (including exploration)
Tax Expenditure					
Manufacturer privilege: companies are exempt from tax on fuels used for fossil-fuel production (OECD, 2013)	Tax exemption	Oil, Gas and coal	\$344	2011	Extraction (including exploration)
Total annual national subsidies			\$344		Extraction (including exploration)

1 Data are based partly on shares of multilateral development banks (MDBs) held by each G20 country sourced from the respective MDB annual reports and replenishment agreements.

2 Income tax share calculated by dividing income tax by revenue, excluding royalties, bonuses, and government profit.

Figure 3. Oil and gas exploration expenditure in Germany



Source: Rystad Energy, 2014

five reserve holders, led by Exxon Mobil, held 82% of Germany's reserves (Figure 2).

Exploration expenditure in Germany has varied over recent years, and is down from a high of \$397 million in 2010 to stand at \$82 million in 2013 (Figure 3). The peak in exploration expenditure in 2010 and 2011 was dominated by Exxon Mobil spending in those years (Rystad Energy, 2014).

Exxon Mobil is the largest oil and gas producer and reserve holder in Germany, and one of the leading investors in exploration in the country. The other major players in all areas of the industry are Shell, German companies RWE and Wintershall and the French company GDF SUEZ. These are the oil and gas companies most likely to benefit

from Germany's manufacturer-privilege subsidy for their exploration and production activities.

Coal

In addition to being one of Germany's largest oil and gas companies, RWE also owns and operates coal mines in Germany that contain billions of tons of coal (RWEa, 2014; RWEb, 2014; RWEc, 2014). Vattenfall, a Swedish state-owned energy company, owns several coal mines in eastern Germany and is planning expansions to develop new mines. Vattenfall's plans have had a mixed reception: the coal-mining expansions would significantly impact several local communities and displace thousands of people. Some members of the Swedish Government are also building pressure to sell off Vattenfall's coal assets in Germany as a result of climate concerns (Mathiesen, 2014; Greenpeace, 2010). MIBRAG operates two surface mines in Germany, and RAG Mining Solutions owns three operational underground mines, with plans to build one additional mine (MIBRAG, n.d.a; MIBRAG, n.d.b; CEZ Group, 2009; Bloomberg Finance, 2014).

Table 2. KfW fossil-fuel exploration finance, 2010 to 2013 (IJ Global, 2014; KfW, 2014)

Project	Country	Fossil-fuel	Year	Amount (million \$)	Stage
Seadrill Drillships Financing 2013	Norway	Oil and gas	2013	\$73	Extraction (including exploration)
West Taurus Drilling Rig Refinancing 2013	Brazil	Oil and gas	2013	\$28	Extraction (including exploration)
MB Kolubara coal mine in Serbia	Russia	Coal	2012	\$76	Extraction (including exploration)
La Muralla IV Additional Facility	Mexico	Oil and gas	2012	\$29	Extraction (including exploration)
Barzan Gas Field Development Phase I	Qatar	Oil and gas	2011	\$178	Extraction (including exploration)
Schahin Black Diamond Rigs Refinancing	Brazil	Oil and gas	2011	\$77	Extraction (including exploration)
Guvnor corporate refinancing	Netherlands	Oil and gas	2011	\$36	Extraction (including exploration)
Total KfW fossil-fuel exploration financing, 2010 to 2013				\$497	Extraction (including exploration)
Average annual KfW fossil-fuel exploration financing				\$124	Extraction (including exploration)

Table 3. Euler Hermes fossil-fuel exploration finance, 2010 to 2013

Project	Country	Fossil-fuel	Year	Amount (million \$)	Stage
Glencore CBF Refinancing 2013	Switzerland	Oil and gas	2013	\$28	Extraction (including exploration)
Total Euler Hermes fossil-fuel exploration financing, 2010 to 2013				\$28	Extraction (including exploration)
Average annual Euler Hermes fossil-fuel exploration financing				\$7	Extraction (including exploration)

Table 4. Germany's top oil and gas producers' revenues, profits and income taxes, 2013

Company	Headquarter country	Revenue (million \$)	Profit (million \$)	Income-tax payments (million \$)	Income-tax share of revenue
ExxonMobil	United States	\$1,682	\$634	\$119	10%
RWE	Germany	\$1,273	\$633	\$122	13%
Shell	Netherlands	\$1,186	\$440	\$82	10%
Wintershall	Germany	\$944	\$476	\$91	12%
GDF SUEZ	France	\$754	\$301	\$46	8%
Vermilion Energy	Canada	\$74	\$30	\$6	12%
Internationale Tiefbohr GmbH	Germany	\$8	\$0.2	\$0.4	6%

Source: Rystad Energy, 2014

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