



Empty promises

G20 subsidies to oil, gas and coal production

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Executive Summary

G20 country governments are providing \$444 billion a year in subsidies for the production of fossil fuels. Their continued support for fossil fuel production marries bad economics with potentially disastrous consequences for the climate. In effect, governments are propping up the production of oil, gas and coal, most of which can never be used if the world is to avoid dangerous climate change. It is tantamount to G20 governments allowing fossil fuel producers to undermine national climate commitments, while paying them for the privilege.

This report documents, for the first time, the scale and structure of fossil fuel production subsidies in the G20 countries. The evidence points to a publicly financed bailout for some of the world's largest, most carbon-intensive and polluting companies.

It finds that, by providing subsidies for fossil fuel production, the G20 countries are creating a 'lose-lose' scenario. They are pouring large amounts of finance into uneconomic, high-carbon assets that cannot be exploited without driving the planet far beyond the internationally agreed target of limiting global temperature increases to no more than 2°C. At the same time, they are diverting investment from economic low-carbon alternatives such as solar, wind and hydro-power.

The scale of G20 fossil fuel production subsidies calls into question the commitment of governments to an ambitious deal on climate change. Several countries have scaled up their pledges to reduce greenhouse gas emissions, but continued subsidies for fossil fuel production raise serious concerns about these pledges and could undermine the prospects for an ambitious climate deal. As well as phasing out national subsidies, G20 governments have a tremendous opportunity to meet the climate challenge by shifting the investment of state-owned enterprises and public finance away from fossil fuel production, towards clean energy. It is one thing, however, for nations to make pledges, it is another for them to take the most important and necessary step: withdrawing their support from the fossil fuel industry.



Background

The world already has a large stockpile of ‘unburnable carbon’. If countries intend to meet their commitments to the 2°C climate target, at least three quarters of the existing proven reserves of oil, gas and coal need to be left in the ground (see Chapter 1). Yet governments continue to invest scarce public resources in fossil fuel production (see Figure 1), even though the phase-out of these subsidies is widely agreed to be critical for progress on climate change and low-carbon development.

Support for fossil fuel production also adds to the risks of ‘carbon lock-in’. Once carbon and capital-intensive investments are made, the transition to climate-compatible pathways becomes much more difficult because of the long time horizon over which the investments operate (Erickson, 2015).

Back in 2009, leaders of the G20 countries pledged to phase-out ‘inefficient’ fossil fuel subsidies. Indeed, few subsidies are more inefficient. Yet the evidence presented in this report points to a large gap between G20 commitment and action. That gap is reflected in \$444 billion in average annual subsidies from G20 governments to fossil fuel production in 2013 and 2014. To put this figure in context, it is almost four times the amount that the International Energy Agency (IEA) estimates was provided in all global subsidies to renewables in 2013.

Current market conditions reinforce the case for the phase-out of fossil fuel production subsidies (see Chapter 2). The glut in fossil fuel supplies, falling demand and moves towards energy efficiency have driven oil, gas and coal prices to multi-year lows. Take coal, for example. There has been a slow-down in global demand (and in China in particular), with half of the world’s coal output found to be unprofitable in 2015. Without government support for production and wider fossil fuel subsidies, large swathes of today’s fossil fuel development would be even less profitable, particularly for coal and for new hard-to-reach oil and gas reserves. Directing public resources towards these sectors with rising emissions and falling returns represents, therefore, a double folly.

Definitions

The analysis of subsidies presented in this report is consistent with the definition of subsidies provided by the World Trade Organization (WTO) that has been agreed by 153 countries (see Chapter 3).

For the purpose of this report we identify three types of fossil fuel production subsidies:

- **national subsidies** delivered through direct spending and tax breaks of \$70 billion
- investments by majority **state-owned enterprises** (SOEs) that account for another \$286 billion
- **public finance** from majority government-owned banks and financial institutions that amounts to another \$88 billion per year on average in 2013 and 2014.

We discuss these three forms of support separately in the report, as gaps in publicly available information make it impossible to confirm whether all or only a proportion of public finance and SOE investment constitute subsidies.

Key findings

While the pattern of support varies, all G20 countries subsidise fossil fuel production.

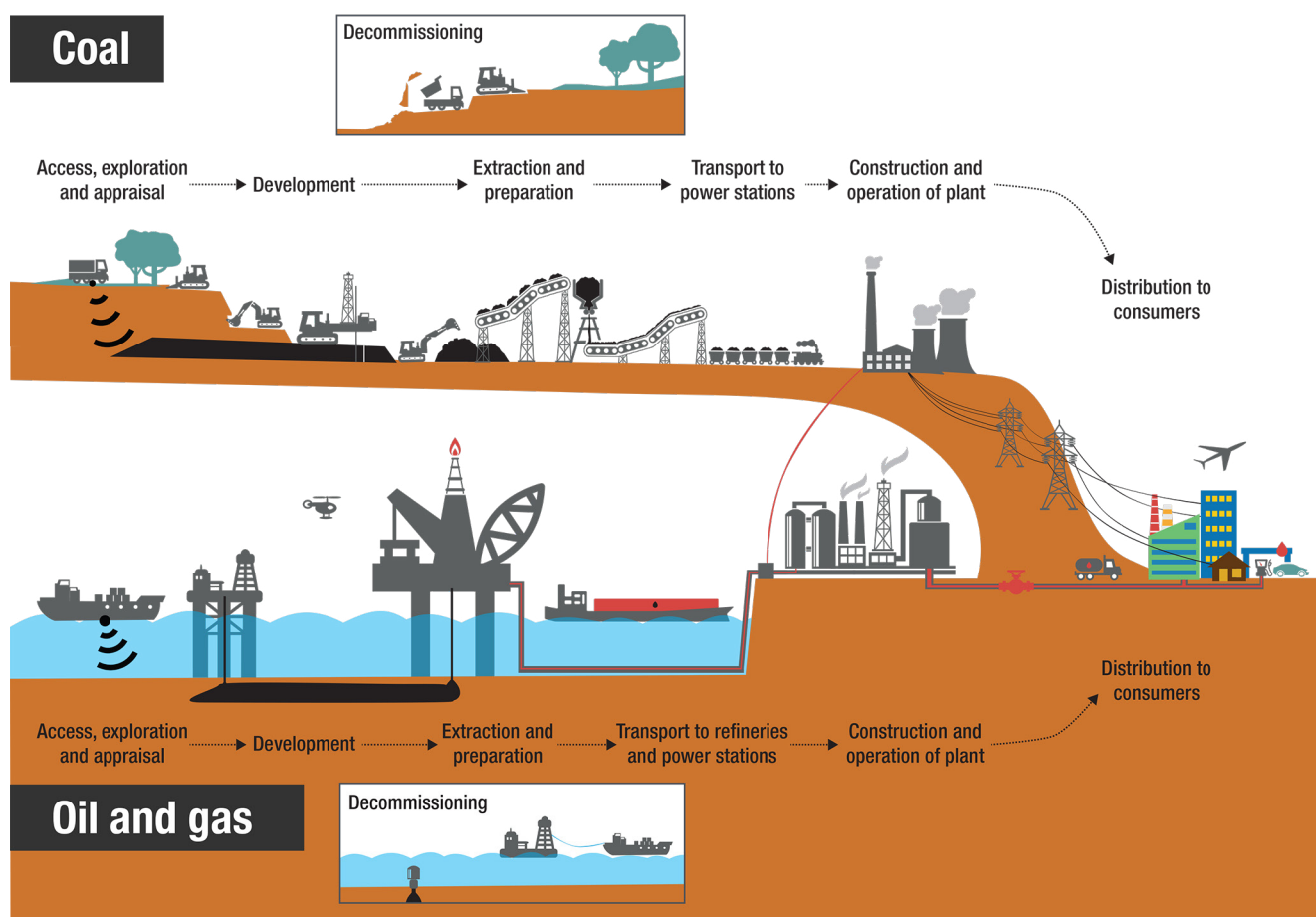
The following are among the key findings from our review of national subsidies alone in 2013 and 2014 (see Chapter 4).

- Russia had significant national subsidies for fossil fuel production of almost \$23 billion annually on average in 2013 and 2014. This is in addition to the SOE investment and public finance provided by their majority state-owned enterprises and state-owned banks.
- The US provided more than \$20 billion in national fossil fuel production subsidies each year, despite calls from President Barack Obama to eliminate industry tax breaks.
- Australia and Brazil provided national subsidies of \$5 billion on average annually, including for the development of fossil fuel resources in increasingly remote and challenging areas (inland and offshore).
- China provided national subsidies of just over \$3 billion annually on average in 2013 and 2014, including grants for coal producers, and support to research and development for fossil fuel production (including for carbon capture and storage).
- The UK is also one of the few G20 countries that is increasing its fossil fuel subsidies while cutting back on support for the renewable energy investments that are needed to support a low-carbon transition. This is despite recent pledges by the UK government in support of the Friends of Fossil Fuel Subsidy Reform.

Investment by SOEs represents a major source of support for fossil fuel production by a number of G20 countries (see Chapter 5). The report finds that SOE investment in China’s fossil fuel production activities, for example, was extensive both domestically and internationally and more than double that found in any other G20 country. On average, Chinese SOEs invested \$77 billion a year in fossil fuel production in 2013 and 2014. Russia and Brazil each also have very high levels of SOE investment in fossil fuel production, particularly for oil and gas, providing \$50 billion and \$42 billion respectively over the same time period.

In some countries where national subsidies cannot be identified (such as Indonesia and Saudi Arabia) there is significant annual SOE investment in fossil fuel production, with an annual average of almost \$45 billion in 2013 and 2014 from Saudi Aramco. In addition, a number of G20

Figure 1: Stages of fossil fuel production



Source: authors, 2015.

majority-owned SOEs operate overseas, meaning that they may be reaping double benefits from domestic support and from the national subsidies of other G20 governments.

Domestic and international public finance also played a significant role in supporting fossil fuel production in 2013 and 2014 (see Chapter 6). Japan provided the largest annual public financing for fossil fuels – an annual average of \$19 billion. China provided the second largest amount of public finance at \$17 billion a year, and Korea provided \$10 billion, largely for investments overseas. Other G20 countries providing high levels of public finance for fossil fuel production abroad included Canada, Germany, Italy, the UK and the US, each providing between \$2 billion and \$6 billion a year. The UK alone is providing \$5.5 billion in international public finance to fossil fuel production across 40 countries, 10 of which are other members of the G20. The emerging economies within the G20 deployed more domestic public finance for fossil fuel production, with Argentina, Brazil, India, Russia and Saudi Arabia providing between \$2 billion and \$7 billion a year, most of which went to production within their own borders.

Much of the international public finance from G20 countries goes to other G20 countries, driving further fossil

fuel production within the G20. In particular, oil and gas ‘megaprojects’, for the production of liquefied natural gas (LNG), refineries, pipelines and fossil fuel extraction accounted for a significant amount of the G20 public finance for 2013 and 2014. These projects often experience significant cost overruns and are facing increasing challenges as fossil fuel development encounters greater economic and environmental risk.

Collectively, the G20 countries hold between 36% and 75% of the shares of the major multilateral development banks (MDBs) such as the World Bank Group and the European Investment Bank. Through all MDBs the G20 provided an additional \$5.5 billion a year in public finance for fossil fuel production in 2013 and 2014.

The scale and persistence of subsidies to fossil fuel production begs the question: who benefits from the financial transfers (see Chapter 7)? The answer is clearly not the tax-payers of G20 countries. In reality, the beneficiaries include global energy companies that face increasingly tight margins, but it is rare for governments to provide the information needed to link specific companies to the subsidies they receive.

At present, the UK's field allowances to oil and gas development in the North Sea are the only fossil fuel production subsidies in the G20 for which detailed information is available in terms of both who benefits (private companies and SOEs) and the level of benefit they receive. The UK government discloses the full list of companies that have been granted this sub-set of national subsidies, valued at \$4.5 billion over five years (2009 to 2014). Of these, a significant portion went to international companies including: Total (France), Apache (US), ENGIE (formerly GDF Suez – France), Statoil (Norway), Ithaca (Canada) and Taqa (Abu Dhabi). In another example, our research found that BP had the potential to realise major tax benefits by writing off large portions of its multi-billion US-dollar settlements arising from the 2010 Deepwater Horizon oil spill in the Gulf of Mexico. State-owned energy enterprises also capture a large share of the financial benefit. Given the political influence of global energy companies, both private and state-owned, there is an urgent need to establish an independent audit of beneficiaries in every G20 country.

A robust understanding of the comparative impact of subsidies on investment for both fossil fuels and cleaner alternatives will require far greater transparency across the energy sector. Nonetheless, the potential to transfer significant volumes of investment away from fossil fuels and towards alternative energy services and other public goods is significant, and the energy transition will only be accelerated through the removal of fossil fuel subsidies. These are:

Recommendations

Governments in the G20 and beyond should act immediately to phase-out subsidies to fossil fuel production.

This report sets out five recommendations to ensure that the G20 governments, in particular, keep their promises (see Chapter 9).

- Adopt strict timelines for the phase-out of fossil fuel production subsidies (and remaining subsidies to consumption) with country-specific and measurable outcomes. The first step would be to eliminate all subsidies to exploration and coal by 2020.
- Increase transparency through a publicly disclosed, consistent reporting scheme for all national subsidies for fossil fuels, strengthening the existing inventory created by the Organisation for Economic Co-operation and Development (OECD) and expanding it to include all countries (using the OECD's existing model for tracking agricultural subsidies).
- Increase the transparency of reporting on investment in, and finance for, fossil fuels by state-owned enterprises and majority publicly owned financial institutions.

- Work closely with international institutions and processes, such as the G20 and Asia-Pacific Economic Cooperation (APEC), the OECD, the United Nations Framework Convention on Climate Change (UNFCCC) and the Sustainable Development Goals (SDGs) to eliminate any incentives for fossil fuel production and to monitor reforms so that no new incentives are established.
- Shift subsidies from fossil fuel production to support wider public goods, including through support for the transition to low-carbon energy systems and universal energy access.

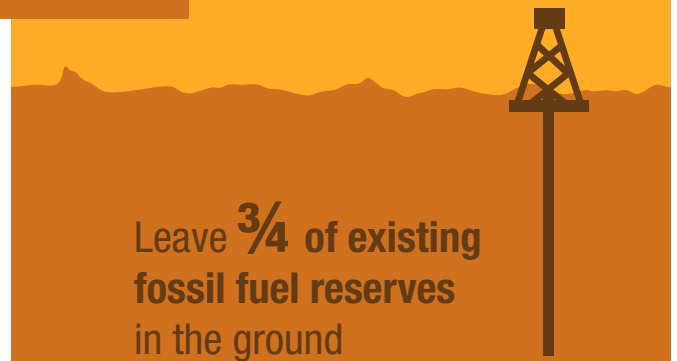
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To avoid catastrophic climate change, we need to:



Stay below the
2 degree
climate limit



Leave **3/4** of existing
fossil fuel reserves
in the ground

But despite pledging to phase out fossil fuel subsidies every year since 2009...

... the G20 provides
\$444 billion
a year in subsidies to
fossil fuel production

\$88bn
Public finance

\$286bn

Investment by state-owned
enterprises

\$70bn
National subsidies



This is almost **4x** the **\$121bn** that the entire world provides in subsidies to renewables.

And it's poor economics.

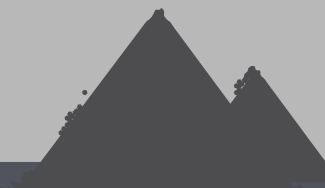
G20 support to coal mining is almost **double** what 20 top private companies invest

\$19bn

Annual G20 subsidies
to coal mining

\$10bn

Annual private investment
by 20 top coal companies



Find out what production subsidies your government provides: odi.org/empty-promises

About the report

The full report *Empty promises: G20 subsidies to oil, gas and coal exploration*, is a compilation of publicly available information on subsidies to fossil fuel production. For the purpose of this report, fossil fuel production subsidies include: ‘national subsidies’, ‘state-owned enterprise investments’ and ‘public finance’. Our aim is to use this information as a baseline for tracking progress in the phase-out of fossil fuel production subsidies as part of the wider global energy transition.

This research builds on 19 desk-based Country Studies and Data Sheets that were completed for each of the G20 member countries (not including the European Union), and on work completed for an earlier report *The fossil fuel bailout: G20 subsidies to oil, gas and coal exploration*, published in 2014.

Chapter 1 reviews the role of fossil fuel subsidies in locking in emissions and driving the use of unburnable carbon. Chapter 2 examines the shifting economics of fossil fuel production, and Chapter 3 sets out the methodology used in this report to identify and estimate subsidies to fossil fuel production as well as raising issues of data transparency.

Chapters 4, 5 and 6 outline key findings on national subsidies, investment by state-owned enterprises, and public finance, respectively, for fossil fuel production. Chapter 7 discusses the primary beneficiaries of subsidies to fossil fuel production. Chapter 8 provides a summary of the support to fossil fuel production identified in each G20 country. Finally, Chapter 9 sets out conclusions and recommendations.





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ODI is the UK's leading independent think tank on international development and humanitarian issues. Oil Change International is a research, communications, and advocacy organization focused on exposing the true costs of fossil fuels and facilitating the coming transition towards clean energy. We gratefully acknowledge the financial support of ClimateWorks that made this report possible.

Cover image: Part of the coal loading facility at Kooragang Island, New South Wales, Australia. Eyeweed.

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).