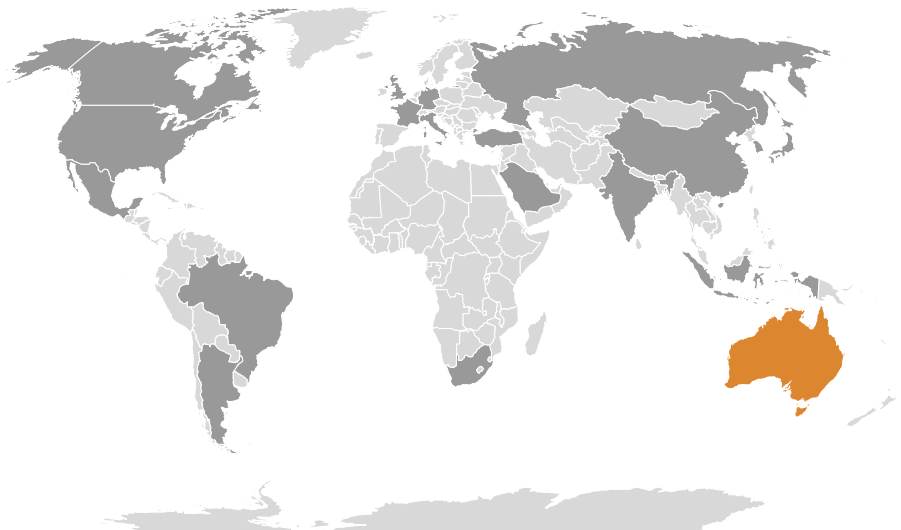




G20 subsidies to oil, gas and coal production: Australia

Shakuntala Makhijani and Alex Doukas



- 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 Australia's production subsidies is available at:
<http://www.odi.org/publications/10071-g20-subsidies-oil-gas-coal-production-australia>

priceofoil.org
odi.org

Country Study
November 2015

Background

Australia is expanding its fossil fuel production on multiple fronts. The country has the fourth largest coal reserves in the world and is the world's fourth largest coal producer and second largest coal exporter (EIA, 2014). In addition, the Carmichael coal mine was re-approved in October 2015 after being temporarily blocked in court (BBC News, 2015b).

While Australia has not historically been a major oil and gas producer, drilling operations have expanded into new offshore areas – especially off the northwest coast – in recent years, significantly boosting reserves and production of gas in particular. Major expansions of export capacity through Gladstone in Queensland have also seen three major liquefied natural gas (LNG) terminals built, exporting LNG derived from coal seam gas.

Public and private oil and gas exploration expenditures in Australia are variable but are increasing in general, growing by 8% since 2008 to reach \$4.3 billion in 2013 (Rystad Energy, 2015).

National subsidies

The Australian federal government provides an estimated \$5 billion in national subsidies to fossil fuel producers each year (Table 1). Some Australian provinces provide significant additional subsidies that are not discussed in detail in this paper. A June 2014 study by The Australia Institute, *Mining in the Age of Entitlement*, provides detailed information on subsidies in Australia's largest fossil fuel-producing states: Queensland, Western Australia and New South Wales (Peel et al., 2014).

One of the largest subsidies to fossil fuel producers in Australia is the fuel tax credit scheme that allows certain companies to claim a tax credit against fuel used in the course of business. This subsidy is included here because of the large proportion that benefits fossil fuel producers (on average around 20% of the total subsidy across all sectors and industries). This report uses only the share of the total subsidy claimed by oil, gas and coal mining in the given fiscal year, with the addition of the associated line items of 'exploration' and 'other mining support services' in proportion to the share of the remainder of the subsidy claimed by fossil fuel producers (as opposed to ore producers, etc.)

Australia also provides statutory effective life caps for certain assets, including oil and gas assets, which allows for accelerated depreciation and a shorter write-off period for taxes on these assets. The subsidy was valued at up to \$1.8 billion in 2014 (Department of the Treasury, 2015).

Mining companies, including fossil fuel extraction companies, can also claim a deduction for capital works expenditure from their tax payments. The value of this subsidy was on the rise as mining investments in Australia boomed, though investments slowed in 2015. The subsidy

reached a value of \$514 million in 2013/14 (Department of the Treasury, 2015; Grundoff, 2013).

Until Australia's carbon price was repealed in July 2014, the Australian government provided free carbon units to coal power producers through the Energy Security Fund. These permits were valued at \$840 million in 2013/14. Together these emissions thresholds accounted for \$131 million in uncollected carbon emission payments in 2013/14 (Environment Victoria and Market Forces, 2014).

Expenses for fossil fuel exploration are also deductible at higher rates from the 40% Petroleum Resource Rent Tax (PRRT) applied to taxable profits from oil and gas projects in government-owned fields. Oil companies can deduct the value of exploration expenses plus the 'uplift' rate of 15% above the Australian government's long-term bond rate. General oil and gas expenditure and losses can be uplifted at 5% above the bond rate. Together, the two provisions related to this subsidy – the 'expenditure uplift rate' and the 'starting base and uplift rate' for capital assets – result in an estimated \$104 million in annual subsidies (Environment Victoria and Market Forces, 2014).

In May 2014, the Australian government introduced a new subsidy in the 2014/15 federal budget, which replaces, in part, deductions for exploration expenses that were repealed the previous year (Australian Government, 2014a). Under the new exploration development credit, which companies can claim up until 2017, small exploration companies with no taxable income can provide tax credits to their shareholders, encouraging more investment in Australian exploration companies. The subsidy was capped at \$19 million (AUD 25 million) in 2014/15, \$27 million (AUD 35 million) for 2015/16, and \$31 million (AUD 40 million) for 2016/17 (ATO, 2013).

The government of Australia also engages directly in exploration activities through Geoscience Australia. Petroleum exploration ranks among Geoscience Australia's top priorities, with a focus on opening up offshore areas to development and providing exploration data and other support to oil companies. Geoscience Australia devotes a stable amount of \$29 million to fossil fuel exploration annually, which was supplemented in the 2013/14 budget with another \$14 million in additional funding specifically designated for exploration activities (Department of Resources, Energy and Tourism, 2013).

Through these activities, the government of Australia assumes the expense and risk of exploration investments on behalf of oil and gas companies. In 2014, the government began to issue offshore exploration permits known as cash-bids through a competitive tendering process in which companies compete for petroleum rights 'in areas where a petroleum resource is known to exist', based on data provided by Geoscience Australia. Exploration permits can also be obtained through 'work-bids' under which companies propose a strategy to develop the petroleum resource. Again the government assumes much of the risk as

Table 1: Australia'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 average amount
Fuel tax credits to mining companies for fuel consumption (oil, gas and coal portion only)	Tax expenditure	Oil, gas and coal	Field development	954	991	973
Statutory effective life caps – accelerated depreciation for fossil fuel assets	Tax expenditure	Oil and gas	Field development	1,611	1,756	1,684
Energy Security Fund	Direct spending	Coal	Electricity production	826	840	833
Deduction for capital works expenditure	Tax expenditure	Oil, gas and coal	Field development	500	514	507
Capital injection to Stanwell Corporation for coal power plant and mine improvements, including Meandu Mine, Tarong Power Station, Stanwell Power Station, Mica Creek Power Station, Swanbank Power Station (Queensland)	Direct spending	Coal	Electricity production	286	127	206
Other national subsidies (see Data Sheets)				1,131	528	829
Totals						
Total national subsidies (\$ m)						5,032
Total national subsidies (AUD m)						5,616

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

it only receives significant revenue if the exploration proves successful (Parliament of Australia, 2014).

At the sub-national level, a number of state budgets include capital injections for state-owned electricity generating companies, with specific line items or allocations for fossil fuel-fired power plants. Where these capital injections are identifiably flowing to natural gas- and coal-fired generating assets, these figures are included in the total for Table 1. The annual average capital injections of this type in Western Australia totalled \$219 million, while in Queensland the annual average totalled \$256 million, split between capital injections to two state-owned electricity generating companies in each case.

A number of capital injections for port infrastructure at the sub-national level also supports transportation of coal, but these subsidies were not included in the total below because it was not possible to disaggregate the use of the ports for movement of coal versus other products. For example, in New South Wales, the 2012–2013 budget details that a capital expenditure by Port Kembla Port Corporation of \$197 million was budgeted for development of Outer Harbour facilities to accommodate coal and cement products (New South Wales Government, 2012).

State-owned enterprise investments

Australia has no national level state-owned enterprises (SOEs), but does have several sub-national SOEs involved in electricity generation and transmission. These sub-national state-owned electricity generating enterprises are almost entirely fossil-fuelled. Where public capital injections to these SOEs from state budgets were identifiably tied to coal or gas power plants or associated coal mines, these values were included in the total for 'national subsidies'.

Public finance

Australia's public finance for fossil fuels totalled \$526 million between 2013 and 2014, averaging \$263 million per year (Table 3).

Financing for both domestic and overseas fossil fuel production projects through the Export Finance and Insurance Corporation (EFIC), Australia's export credit agency, totalled \$317 million between 2013 and 2014 – an annual average of \$158 million.

Australia's shares in the multilateral development banks translated into \$104 million in annual finance to fossil fuel production activities.

Table 2: Power generation by Australia's sub-national state-owned enterprises (SOEs), 2013–2014 (\$ million except where stated otherwise)

Company	Electricity production (GWh)		Proportion of electricity mix generated from fossil fuels		Percentage sub-national government ownership
	2013	2014	2013	2014	
Horizon Power	-	62	-	95%	100%
Verve Energy (Synergy Generation)	-	9,384	-	99%	100%
CS Energy Limited	10,890	8,823	100%	100%	100%
Stanwell Corporation Limited	18,878	18,567	97%	96%	100%

Sources: Horizon Power (2015); Synergy (2014); CS Energy (2014); Stanwell (2014).

Table 3: Australia'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								
Export Finance and Insurance Corporation	-	-	134	0.4	-	135	67	
Subtotal domestic	-	-	134	0.4	-	135	67	
International								
Export Finance and Insurance Corporation	118	-	64	-	-	182	91	
Multilateral development banks	0.2	55	38	116	-	209	104	
Subtotal international	118	55	102	116	-	391	195	
Totals								
Total public finance (\$ m)							262	
Total public finance (AUD m)							294	

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

Private companies

Private upstream oil and gas companies

Several individual companies lost several billion dollars from their operations in Australia in 2013 and 2014, with multinational corporations posting some of the largest losses (as measured by free cash flow – Table 4).

Chevron – also the largest oil and gas reserve holder in Australia – lost the most (\$19.3 billion). Shell, the country's second largest reserve holder, posted the second highest losses at \$8.4 billion. These major losses occurred

despite massive government subsidisation and international public finance in Australia's fossil fuel industry.

Woodside and BHP Billiton, both Australian companies and the two largest oil and gas producers in the country in 2013 and 2014, stood out as the two companies that made huge profits despite overall industry losses: \$4.9 billion and \$3.3 billion, respectively.

At the start of 2014, Australia had 18 billion barrels of oil equivalent (boe) of oil and gas reserves. Chevron led with 18% of total reserves, followed by Shell and Woodside.

Table 4: Top private upstream oil and gas producers in Australia, 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 measured by free cash flow, \$ million)	
		2013	2014	2013	2014	2013	2014	2013	2014
Woodside	Australia	19	23	11	12	2,898	3,749	2,612	2,260
BHP Billiton	Australia	30	33	8	9	2,406	2,097	1,405	1,913
Santos	Australia	10	9	5	5	3,340	2,664	-1,612	-1,076
Chevron	United States	9	8	5	5	12,133	11,212	-10,156	-9,272
BP	United Kingdom	8	7	4	5	997	857	686	792
ExxonMobil	United States	15	17	4	3	4,506	3,253	-2,816	-1,585
Shell	Netherlands	6	5	5	5	5,914	5,824	-4,267	-4,137
Origin Energy	Australia	2	3	3	3	3,556	3,228	-2,899	-2,531
Quadrant Energy	Australia	8	6	2	2	973	740	-27	209
Mitsui	Japan	5	7	2	2	567	579	374	455

Source: Rystad Energy (2015).

Private midstream/downstream oil and gas companies

Australia's subsidies to the oil and gas industry are mostly targeted towards the upstream and downstream sectors, therefore midstream companies are not included in this analysis.

Private coal companies

Australian coal production is growing steadily, increasing by 37% since 2000 to reach 421 million metric tons in 2012 (EIA, 2015, 2014). Several companies involved in major coal mine developments and expansions in Australia (Table 5) are behind this massive production increase, as well as the production of LNG from coal seam methane.

BHP Billiton, an Australian company, is one of the world's largest mining companies and operates several coal mines in Australia, in addition to being one of the country's top oil and gas producers. BHP operates seven coal mines in partnership with Mitsubishi and two in partnership with Mitsui in Australia's Bowen Basin, as well as three underground coal mines in the southern coal fields of New South Wales. Through its stakes in New South Wales Energy Coal, BHP Billiton is involved in the Mt. Arthur coal mine, as well as the Caroon coal-exploration project in the Gunnedah Basin (BHP Billiton, 2014a).

Other companies are also active in coal exploration and production in Australia. In addition to developing the new thermal Moorlands coal mine in the Western Bowen Basin in Queensland that will supply coal for exports, Cuesta

Coal also operates the Yellow Jacket coal exploration project in the Eastern Galilee Basin and the West Emerald exploration and expansion project in the Denison Trough (Cuesta Coal, 2014b).

Yancoal, another Australian coal-mining company, owns seven operating coal mines and has exploration assets in New South Wales and Queensland (Yancoal, 2015).

Additional coal companies of note in Australia include International Coal Limited, which is an Australian mining company that focuses largely on exploration (International Coal Limited, 2014b, 2014c, 2014d), and Whitehaven Coal, which operates several mines and also owns exploration assets (Whitehaven Coal, 2014b). Adani, an Indian company, has been planning the Carmichael coal mine in the Galilee basin, which would be the largest thermal coal mine in the country (Adani, 2012). Glencore coal owns or partially owns 16 operating coal mines in New South Wales and Queensland, with plans for two additional mines (Glencore, 2014b). Peabody, the largest US coal producer, operates three coal mines in New South Wales and seven in Queensland. In 2013, the company produced 34.9 million tons of coal in Australia to supply electricity and steel producers, largely in Asian export markets (Peabody Energy, 2014b). Centennial Coal, a wholly owned subsidiary of Banpu, a Thai company, operates seven coal mines in New South Wales, with 40% of production destined for export, again largely for electricity and steel production in Asia (Centennial Coal, 2015).

Private electricity companies (fossil fuel-based)

According to the Australian Energy Regulator (AER), Origin Energy, EnergyAustralia and AGL are the country's three largest electricity retailers (AER, 2015).

There is limited additional official data on the amount of electricity produced from various sources to determine the largest fossil fuel power producers in Australia.

Table 5: Top private coal producers by production and profit in Australia, 2013–2014

Company	Headquarter country	Coal production (in country)	Profit (from country operations, if possible)	Countries in which the company operates (if global profit)
Adani	India	N/A	N/A	-
Anglo American	United Kingdom	32 Mt (2014)	-\$1 million (Australia and Canada)	-
BHP Billiton	Australia, United Kingdom	N/A	\$386 million (profit from global coal operations, reported as Underlying Earnings Before Interest and Taxes (EBIT))	Australia, Colombia, South Africa, United States
Bloomfield Collieries	Australia	N/A	N/A	-
Centennial Coal	Australia	18 Mt (2013)	\$135 million (2013 EBITDA)	-
Cuesta Coal	Australia	N/A	-\$4 million	-
Glencore	Switzerland	98 (2014)	\$126 million (profit from Australian coal operations, reported as Adjusted EBIT)	-
Idemitsu	Japan	12 Mt	N/A	-
International Coal Ltd.	Australia	0 – exploration company	-\$0.6 million	-
Peabody Energy	United States	38 Mt (amount sold, 2014)	\$74 million (profit from Australian coal operations, reported as Adjusted EBITDA)	Australia, United States
Whitehaven Coal	Australia	8 Mt (2014)	\$90 million	-
Yancoal	China (mining operations all in Australia)	23 Mt (Run-of-mine production, 2013)	\$44 million (EBITDA)	-

Sources: Anglo American (2014), BHP Billiton (2014b), Centennial Coal (2013), Glencore (2015), Idemitsu (2015), Peabody Energy (2014b), Whitehaven Coal (2014a), Yancoal (2013).

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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