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Country Study

Fossil fuel exploration subsidies: Australia

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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.

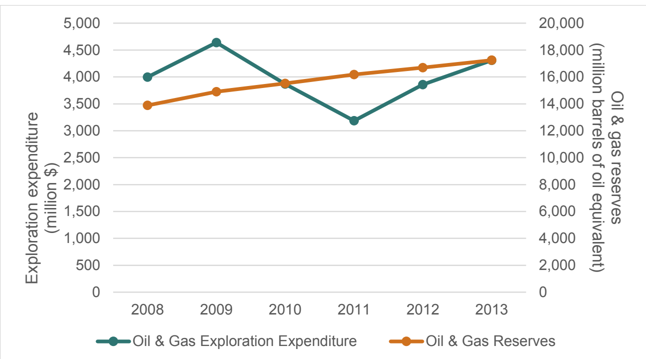
Background

Australia is expanding its fossil-fuel exploration and 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 (U.S. EIA, 2014).

Recent approvals for new coal infrastructure demonstrate that the current Liberal Party Government under Prime Minister Tony Abbott is intent on the further expansion of coal production despite its environmental impacts. Some commercial banks are even pulling funding over concerns that the Australian Government has failed to account properly for environmental concerns. In May 2014, Deutsche Bank pulled its funding for the Abbot Point coal export terminal, which has been approved by the Abbott Government, citing threats to the Great Barrier Reef from dredge dumping and shipping traffic (*The Sydney Morning Herald*, 2014). HSBC and Royal Bank of Scotland followed, withdrawing their support in June (Waters, 2014). Most recently, a $16 billion[1] coal mine in the Galilee Basin received approval from the provincial Queensland Government, and if developed would be Australia's largest coal mine (Howells, 2014).

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. 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, 2014).

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



Source: Rystad Energy, 2014

National subsidies

The Australian Government provides several national subsidies aimed explicitly at promoting fossil-fuel exploration, in addition to production subsidies that also benefit exploration activities (Table 1). In total, these subsidies are worth between $2.9 and $3.5 billion each year. Some Australian provinces also provide significant subsidies for fossil-fuel exploration that are not discussed in this paper. A June 2014 study by The Australia Institute, *Mining in the Age of Ent*itlement, provides detailed information on subsidies in Australia's largest fossil-fuel-producing states: Queensland, Western Australia and New South Wales (Peel et al., 2014).

The Government of Australia 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 (Department of Resources, Energy and Tourism, 2013a). In the 2013/14 federal budget, the Government allocated roughly an additional $30 million per year in exploration funding with a focus on providing resource data to the oil industry, in addition to the agency's ongoing exploration activities (Geoscience Australia, 2014). In 2012/13, the Australian Government allocated more than $100 million to Geoscience Australia, providing the high-end estimate for the agency's annual exploration expenditures (Department of Resources, Energy and Tourism, 2013b).

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, but again the Government assumes much of the risk as it only receives significant revenue if the exploration proves successful (Parliament of Australia, 2014).

Until recently, fossil-fuel companies were able to claim an immediate and full deduction of the cost of many additional exploration and prospecting expenses rather than having the investment depreciate over time at a realistic rate. Eligible expenses included the cost of purchasing mining rights or information from the government, the costs of acquiring exploration rights from other companies under 'farm-in' arrangements, and exploration costs incurred directly by the company (Australian Government, 2014). This subsidy was repealed

1 The dollar amounts shown in this paper refer to US dollars rather than Australian dollars, unless otherwise specified.

Table 1. Australia's national subsidies

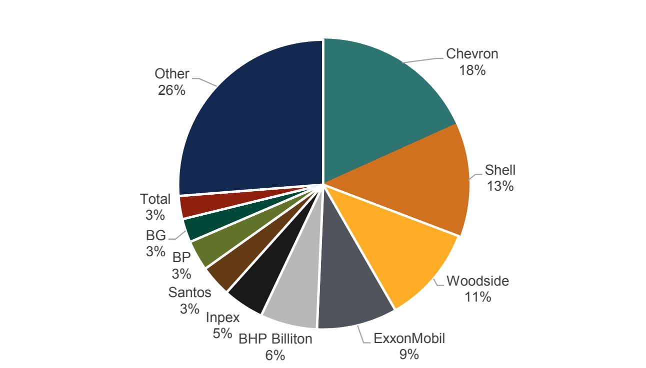
Subsidy	Subsidy type	Targeted fossil-fuels	Estimated annual amount (million $)	Timeframe for subsidy-value estimate	Stage
Direct spending					
Supplementary exploration funding for Geoscience Australia beginning in 2013/14: this agency within the Department of Interior provides exploration data to oil companies, especially in frontier and offshore areas (Geoscience Australia, 2014)	Direct spending	Oil	$30 to $100	FY 2012/13 and 2013/14	Exploration
Competitive tender process for offshore petroleum exploration permits: the Government of Australia assumes the risk for exploration costs through cash-bids and work-bids (Parliament of Australia, 2014)	Direct spending / liability	Oil	N/A*	N/A*	Exploration
Tax expenditure					
Exploration and prospecting deduction: allows companies to fully deduct some exploration costs from tax payments (Environment Victoria and Market Forces, 2014)	Tax deduction	Oil, gas and coal	0	Phased out	Exploration
Exploration development incentive: small exploration companies with no taxable income can provide exploration tax credits to shareholders (ATO, 2013)	Tax deduction	Oil, gas and coal	$23 to $37	FY 2014/15 – 2016/17	Exploration
Fuel tax credits to mining companies for fuel consumption (Environment Victoria and Market Forces Grundoff, 2013)	Tax deduction	Oil, gas and Coal	$2,135 to $2,300	FY 2011/12, 2013/14 – 2016/17	Extraction (including exploration)
Deduction for capital works expenditure (Grundoff, 2013)	Tax deduction	Oil, gas and coal	$464	FY 2012/13	Extraction (including exploration)
Accelerated depreciation for fossil-fuel assets (Environment Victoria and Market Forces Grundoff, 2013)	Tax deduction	Oil and gas	$225 to $460	FY 2012/13 – 2016/17	Extraction (including exploration)
Capital expenditure deduction for mining, quarrying, and petroleum operations (Environment Victoria and Market Forces Grundoff, 2013)	Tax deduction	Oil, gas and coal	$2	FY 2012/13 – 2016/17	Extraction (including exploration)
150% deduction of exploration expenditures from PRRT in 'frontier' areas** (Department of Industry, 2013)	Tax deduction	Oil and gas	0	Phased out	Exploration
Favourable uplift rate for Petroleum Resource Rent Tax (PRRT) for exploration and other expenditures and losses (Environment Victoria and Market Forces, 2014)	Tax deduction	Oil and gas	$18 to $180	FY 2013/14 – 2016/17	Extraction (including exploration)
Total annual national subsidies			$2,897 to $3,543		Extraction (including exploration)

**Subsidy estimate not available.*
***Subsidy has expired.*

Table 2. EFIC oil and gas exploration financing

Company	Year	Financing type	Amount (million $)	Stage
Santos	2012	Guarantee	$250	Extraction (including exploration)
Total EFIC domestic oil and gas extraction financing			**$250**	**Extraction (including exploration)**
Average annual EFIC domestic oil and gas extraction financing			**$63**	**Extraction (including exploration)**

Figure 2. Australia's top 10 oil and gas reserve holders' share of total reserves as of January 2014



Source: Rystad Energy, 2014

in the 2013/14 federal budget, and fossil-fuel companies must now deduct exploration costs over the life of the project or 15 years (whichever is shorter), or until it is established that the exploration was unsuccessful (KPMG, 2013; Australian Government, 2014).

In May 2014, the Australian Government introduced the 2014/15 federal budget, which replaces, in part, the repealed exploration deductions with a new subsidy: the exploration development credit. Starting in July 2014, this three-year, AU$100 million (US$93 million) programme allows small exploration companies with no taxable income to provide tax credits to their shareholders, encouraging more investment in Australian exploration companies (ATO, 2013).

The Australian Government further reduces the cost of fossil-fuel extraction activities through a fuel-rebate programme. Through this fuel-tax credit scheme, the Australian mining industry – including fossil-fuel companies – receives more than $2 billion in subsidies every year (Environment Victoria and Market Forces, 2014).

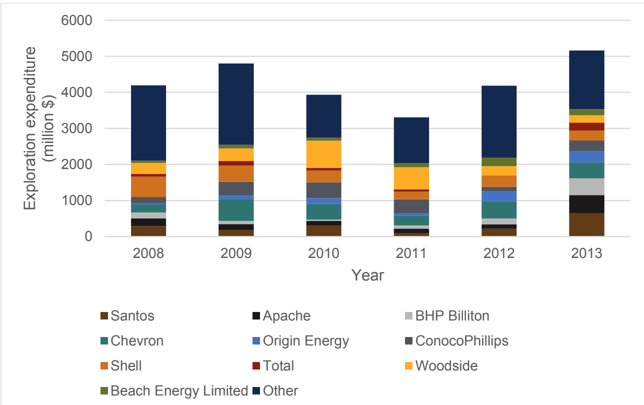
Mining companies, including fossil-fuel extraction companies, can also claim a deduction for capital works expenditure from their tax payments. The value of this subsidy is on the rise as mining investments in Australia are booming – it increased by more than $100 million in FY 2012/13 to reach a value of $464 million that year (Grundoff, 2013).

Australia also allows accelerated depreciation for oil and gas assets, valued at up to $460 million each year (Environment Victoria and Market Forces, 2014). In addition, coal mining and oil and gas companies can still deduct some capital expenditures from tax payments, resulting in a relatively small subsidy of $2 million annually (OECD, 2013; Environment Victoria and Market Forces, 2014).

Exploration expenses 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. The two provisions related to this subsidy – the 'expenditure uplift rate' and the 'starting base and uplift rate for capital assets' each result in $9 to $90 million in annual subsidies (Environment Victoria and Market Forces, 2014).

Furthermore, in order to encourage companies to undertake riskier exploration investments, the Government of Australia designated certain oil fields as 'frontier' areas,

Figure 3. Oil and gas exploration expenditure in Australia



Source: Rystad Energy, 2014

Table 3. EFIC overseas fossil-fuel exploration financing, 2010 to 2013

Company	Country	Year	Amount (million $)	Stage
Xstrata Coal Queensland	Various	2012	$22	Extraction (including exploration)
Anglo Coal Australia	Various	2011	$29	Extraction (including exploration)
Orica	Indonesia	2010	$45	Extraction (including exploration)
Anglo Coal Australia	Various	2010	$28	Extraction (including exploration)
Total EFIC overseas financing			**$124**	**Extraction (including exploration)**
Average annual EFIC overseas financing			**$31**	**Extraction (including exploration)**

where between 2004 and 2008 companies could deduct 150% of exploration expenses from the PRRT. This exploration-specific subsidy was estimated at less than $9 million annually, and has not been in effect since 2009 (Department of Industry, 2013).

Public finance

Financing for both domestic and overseas fossil-fuel exploration projects through the Export Finance and Insurance Corporation (EFIC), Australia's export credit agency, totaled $374 million between 2010 and 2013 – an annual average of $94 million.

Domestic

EFIC provided $250 million in finance in 2012 to Santos, the company with the largest amount of exploration spending in Australia 2013 (Table 2) (EFIC, 2013).

International

In addition to financing oil and gas projects within Australia, EFIC also provided $124 million for oil, gas, and coal exploration overseas between 2010 and 2013 (see Table 3).

Australia also contributed $16.4 million to fossil-fuel exploration projects in 2013 through its shares in the World Bank Group and the Asian Development Bank,

Table 4. Australia's top 10 oil and gas producers' revenues, profits and income taxes, 2013

Company	Headquarter Country	Revenue (million $)	Profit (million $)	Income Tax Payments (million USD)	Income-tax share of revenue*
Woodside	Australia	$6,739	$3,161	$1,398	21%
BHP Billiton	Australia	$5,489	$1,146	$1,661	30%
Chevron	United States	$2,731	-$10,399	$901	33%
BP	United Kingdom	$2,581	$608	$958	37%
Shell	Netherlands	$2,392	-$4,239	$845	35%
Santos	Australia	$2,273	-$1,768	$430	19%
ExxonMobil	United States	$2,128	-$2,898	$434	20%
Mitsui	Japan	$1,392	$248	$441	32%
Apache	United States	$1,379	-$1,181	$408	30%
Origin Energy	Australia	$693	-$2,940	$8	1%

Source, Rystad Energy, 2014

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

which range from 1.0% to 5.8% depending on the institution (Oil Change International, 2014).[2]

Major companies

Oil and gas

In 2013, oil and gas companies made $34 billion in revenue from upstream operations in Australia. As a result of high costs, the Australian industry as a whole made net losses greater than its revenue, totaling $47 billion that year.

Several individual companies lost several billion dollars from their operations in Australia in 2013, with multinational corporations posting some of the largest losses. Chevron – also the largest oil and gas reserve holder in Australia – lost the most ($10.4 billion). Shell, the country's second-largest reserve holder, posted the second-highest losses at $4.2 billion. The other top oil and gas producers in Australia that lost more than $1 billion that year were Apache, Exxon Mobil, Origin and Santos. These enormous 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, stood out as the two companies that made huge profits despite overall industry losses: $3.2 billion and $1.1 billion, respectively.

Of $34 billion in revenue, the Australian Government received $8 billion through income-tax payments (and $112 million in royalty payments), resulting in an income-tax share of revenue of 24%. Table 4 displays these figures for the top 10 oil and gas producers in Australia in 2013.

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 (Figure 2).

Exploration expenditure in Australia has varied in recent years and reached a high of $5.2 billion in 2013. Chevron has consistently been one of the largest exploration spenders in Australia, and Santos has recently increased its exploration significantly to account for the largest share in 2013 (Figure 3) (Rystad Energy, 2014).

Coal

Australian coal production is growing steadily, increasing by 37% since 2000 to reach 421 million metric tons in 2012 (U.S. EIA, 2014; U.S. EIA, 2013). Several companies involved in major coal-mine developments and expansions in Australia are behind this massive production increase, as well as the production of liquefied natural gas (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 ownership of Illawarra Coal. Through its stakes in New South Wales Energy Coal, BHP Billiton is also involved in the Mt. Arthur coal mine, as well as the Caroona coal-exploration project in the Gunnedah Basin (BHP Billiton, 2014).

Some lesser-known companies are at the forefront of coal exploration 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, 2014).

Yancoal, another Australian coal-mining company has several exploration projects in New South Wales and Queensland. The exploration sites are: Ashton, Austar, Donaldson, Duralie / Stratford, Middlemount, Moolarben, Yarrabee, Tasman and Abel Longwall, and all but the last two are also currently operational coal-producing mines (Yancoal, 2012).

International Coal Limited is an Australian coal mining company that focuses largely on exploration. Its exploration activities include the Bundaberg Project coking-coal exploration project, the South Blackall Project and the Consuelo coking and thermal-coal exploration project (International Coal Limited, 2014a; International Coal Limited, 2014b; International Coal Limited, 2014c).

Whitehaven Coal, which operates several surface and underground mines in New South Wales, also holds coal-exploration assets in New South Wales and Queensland (Whitehaven Coal, 2014).

Additional coal companies of note in Australia include Origin Energy, an Australian company, which is the upstream stakeholder in the Australia Pacific LNG project that will extract and process coal-seam gas, and Adani, an Indian company that is 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 operational coal mines in New South Wales and Queensland, with plans for two additional mines (Glencore, 2014).

Peabody, the largest U.S. 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, 2014).

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

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, 2012).

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