



Australia's top 10 climate polluters



**AUSTRALIAN
CONSERVATION
FOUNDATION**

Foreword



Just 10 companies are responsible for nearly one third of our nation's greenhouse pollution through their production and use of energy.

This report by the Australian Conservation Foundation examines those top 10 polluters. It uses the latest publicly available greenhouse emissions data and describes each company, explains how the company creates pollution and summarises what the company says and does about climate change.

The names of the 10 biggest polluters are not a surprise. They are energy and mining companies, many of which rely on out-dated and polluting technologies to build profits for their companies at the expense of the climate we all share.

What is more concerning than this latest pollution data is these companies' efforts to halt or slow Australia's national policies on energy and climate change. While most of the top 10 polluters publicly accept climate change and their responsibilities to reduce pollution, some have opposed important mechanisms such as the carbon price and the Renewable Energy Target.

And sadly, the federal government appears to be listening to the biggest polluters over the Australian people.

The government's own energy and climate policy positions seem to align closely with those of the polluters. The Federal Government ditched a carbon price that was working, is undermining the Renewable Energy Target and is maintaining a pathetic international target to cut pollution by just 5 per cent on 2000 levels in 2020.

It looks a lot like energy and climate policies in Australia are being dictated by the companies and industries that are causing much of the problem.

When it comes to the impacts of climate change, Australia is right in the firing line.

Already pollution is leading to more frequent and more intense droughts, bushfires, heatwaves and other extreme weather. Hot days have doubled in Australia in the last 50 years. Hot weather in Adelaide, Melbourne and Canberra has already reached levels previously predicted to occur by 2030. The impact on our communities, our economy and our environment is significant.

I believe Australians are increasingly putting two and two together. They are living with increasingly bad heatwaves, bushfires, water shortages and extreme weather events. They can see the Federal Government's response to climate change is woefully inadequate.

The Government faces a choice. Will it continue listening only to the big polluters, or will it start listening to the needs of the people and future generations?

The aim of this report is to shine a light on Australia's biggest polluters and encourage them to rapidly reduce their pollution.

To seriously cut pollution in Australia we need to transition energy production and use away from polluting sources like coal to clean alternatives like wind and solar. Australia must seriously consider how to start retiring the most polluting and out-dated coal plants and replacing them with clean energy. Clean energy alternatives are ready and available. And the big electricity consumers must start to use energy much more efficiently.

The federal government should also stop paying the big polluters to pollute. The mining and gas companies in the top ten receive handouts in the form of Fuel Tax Credits and accelerated depreciation allowances that lower tax revenue, make it cheaper to pollute and delay the transition to cleaner energy.

Our hope is that this report, by shining a light on the big polluters, might play a part in helping shift the debate about energy production and use in Australia.

We hope it equips people to better understand the links between powerful polluting companies and our national energy policies.

Most of all we hope it might prompt the Federal Government to start listening to the needs of the people, including future generations, not just the big polluters.

Geoff Cousins, ACF President

Which companies are Australia's biggest greenhouse gas polluters?

Just ten companies are responsible for nearly one third of Australia's greenhouse gas pollution. In 2013-14, these top ten companies reported scope 1 and scope 2 emissions of 158 million tonnes (Mt) of carbon dioxide equivalent (CO₂-e) gases, equivalent

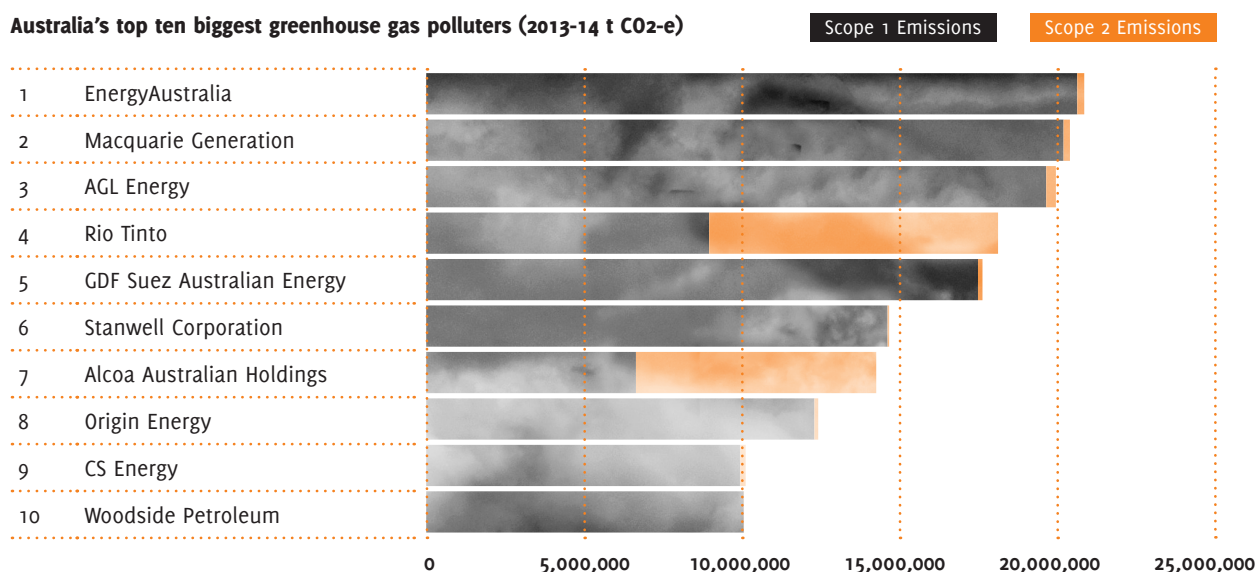
to 29 per cent of Australia's total greenhouse gas pollution in the same year, 550 Mt CO₂-e.

Of the companies in the top ten, seven are energy companies and three are mining companies.

Australia's biggest climate polluters

Rank	Company	Sector (ANZIC Industry Classification)	Total Scope 1 Emission (t CO ₂ -e)	Total Scope 2 Emission (t CO ₂ -e)	Total Scope 1 & 2 Emission (t CO ₂ -e)
1	EnergyAustralia	D26 Electricity Supply and Retail	20,605,152	221,209	20,826,361
2	Macquarie Generation	D26 Electricity Supply	20,171,437	202,132	20,373,569
3	AGL Energy	D26 Electricity Supply and Retail	19,622,185	306,355	19,928,540
4	Rio Tinto	Bo8 Metal Ore Mining in Australia	8,955,777	9,142,745	18,098,522
5	GDF Suez Australian Energy	D26 Electricity Supply and Retail	17,463,566	142,220	17,605,785
6	Stanwell Corporation	D26 Electricity Supply	14,601,378	50,118	14,651,496
7	Alcoa Australian Holdings	DB213 Mining (Aluminium Smelting)	6,637,955	7,604,775	14,242,730
8	Origin Energy	D26 Electricity Supply and Retail	12,287,156	119,428	12,406,584
9	CS Energy	D26 Electricity Supply	9,942,184	168,445	10,110,629
10	Woodside Petroleum	DB700 Mining (Oil and Gas Extraction)	10,050,702	7,508	10,058,210
TOP TEN			140,337,492	17,964,935	158,302,426

Australia's top ten biggest greenhouse gas polluters (2013-14 t CO₂-e)



Pollution sources

ENERGY COMPANIES

Energy companies in the top ten polluters list are responsible for 20 per cent of Australia's greenhouse gas pollution, nearly all through scope 1 emissions. Scope 1 emissions are greenhouse gases resulting directly from an activity at a facility (or machine) owned by a company, for example, the emissions resulting from fuel combustion within a vehicle or a power plant. Scope 2 emissions are greenhouse gases associated with energy consumption by a facility, for example, the greenhouse gases associated with the purchase of electricity.

The vast majority of scope 1 pollution comes from burning coal to generate electricity. While ACF recognises electricity as an essential service, the brown coal plants operated in Victoria owned by AGL Energy, EnergyAustralia and GDF Suez are highly emissions intensive, producing an average of 1.3 tonnes of CO₂-e per megawatt hour of electricity, the highest level in any state.¹ Hazelwood, owned by GDF Suez, was once rated the dirtiest power station in the developed world.²

The black coal plants owned by AGL Energy, Energy Australia, Origin Energy, Stanwell Corporation, CS Energy and Intergen are less polluting but remain inefficient by global standards.³

Australia's most polluting and least efficient power stations⁶

Power Station	Emissions (MT CO ₂ -e)	Emissions Intensity (Tonnes CO ₂ /MWh)	Owner for 2013-14	Commissioned Year
Hazelwood	15.5	1.4	GDF Suez Australian Energy (70 per cent) Mitsui (30 per cent)	1964-71
Yallourn	11.3	1.31	EnergyAustralia	1973/4-81/2
Loy Yang B	8.3	1.13	GDF Suez Australian Energy (70 per cent) Mitsui (30 per cent)	1993-96
Loy Yang A	18.5	1.15	AGL Energy	1984-87
Liddel	6.8	0.92	Macquarie Generation	1971-73
Gladstone	6.6	0.96	NRG Gladstone Operating Services	1976
Eraring	8.1	0.87	Origin	1982-84
Bayswater	13.4	0.86	Macquarie Generation	1985-86
Mt Piper	7.8	0.83	Delta Energy/EnergyAustralia	1992-93
Stanwell	7.3	0.86	Stanwell Corporation	1996

Note: The emissions intensities reported above are based on total generation including the use of electricity by the power station itself, so called auxiliary loads. Emissions intensity is more typically measured based on energy actually sent out to the grid and results in even higher emissions intensity per power station.⁷

AUSTRALIA'S RENEWABLES POTENTIAL

Analysis of data available from the Energy Supply Association Australia shows wind and solar projects already identified could provide a quarter of Australia's forecast electricity demand by 2023-24.⁴

A 2013 study by the Australian Energy Market Operator showed that Australia could be 100 per cent powered by renewables within fifteen to thirty five years.⁵

As a result, Australia has a higher emissions intensity from power generation than China and twice the emissions intensity of other OECD countries.²

MINING COMPANIES

The three mining companies in the top ten list are also responsible for a significant percentage of Australia's greenhouse pollution, with Rio Tinto the largest individual polluter from the mining sector.

The vast majority of pollution from these three mining companies comes from energy produced and consumed for metals, minerals and gas exploration, production and processing activities. Rio Tinto and Alcoa Australian Holdings are responsible for significant scope 2 as well as scope 1 pollution.

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FOOTNOTES

¹ Energy Supply Association Australia (2014) Electricity Gas Australia 2014, table 2.10: Environmental indicators: generation, p.30.

² WWF (2005) Hazelwood tops international list of dirty power stations: <http://www.wwf.org.au/?2320/Hazelwood-tops-international-list-of-dirty-power-stations>

³ The Climate Council (2014) Australia's Electricity Sector: Ageing, inefficient and unprepared.

⁴ Australian Conservation Foundation (2015) Embrace renewables' potential, don't wreck the RET, media brief, 27 February 2015, available online: http://www.acfonline.org.au/sites/default/files/resources/RET_brief_27-2-15.pdf

⁵ Australian Energy Market Operator (2013) 100 per cent renewables study – modelling outcomes, available online: <http://www.environment.gov.au/climate-change/publications/aemo-modelling-outcomes>

⁶ Business Spectator (2015) Emissions intensity resumes upward march; WA confirms demand dip, <http://www.businessspectator.com.au/article/2015/3/4/energy-markets/emissions-intensity-resumes-upward-march-wa-confirms-demand-dip>

⁷ ACIL Tasman (2009) Fuel resource new entry and generation costs in the NEM

Change in big polluters since 2012-13

The most significant changes to this list since 2012-13 are due to EnergyAustralia and Origin Energy purchasing power stations that had previously been owned by the New South Wales Government.

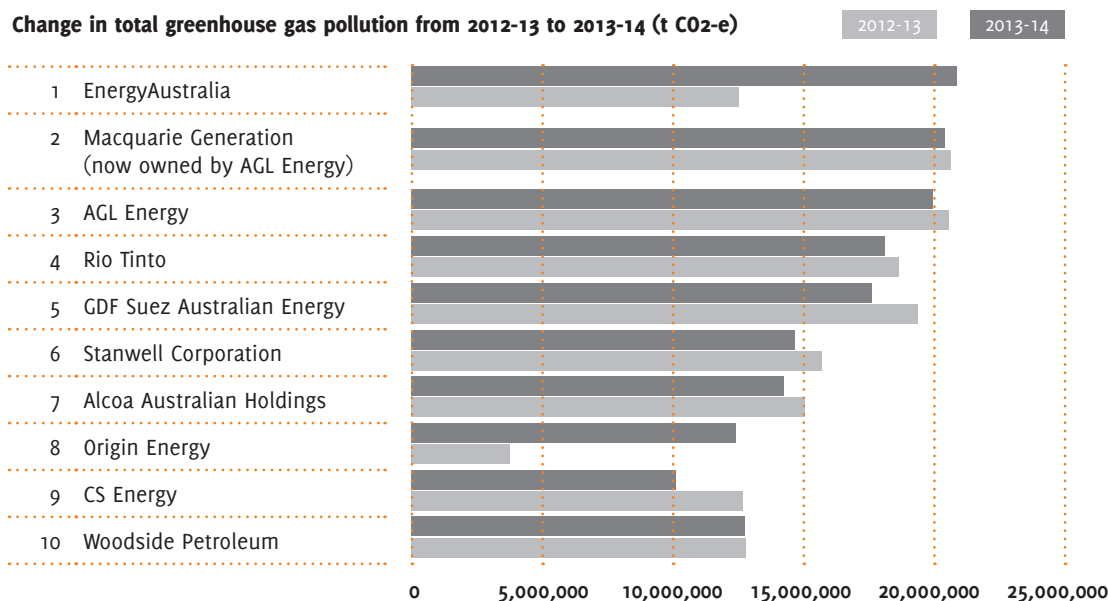
AGL Energy is at #3 in this list, down from #2 in 2012-13. However, AGL acquired Macquarie Generation in September 2014, meaning AGL will likely go to #1 in future years. In purchasing Macquarie Generation, AGL has nearly doubled its share of expected future greenhouse pollution.

Energy Australia jumps eight spots from #9 to #2 as a result of its acquisition of the Mt Piper and Wallerawang power stations from the NSW Government, increasing its pollution by 66 per cent.

Origin Energy jumps 22 spots to #8, as a result of its acquisition of the Eraring Power station from the NSW Government, increasing the pollution for which it is responsible by 230 per cent.

Rank	Company	Total Scope 1 & 2 Emission (t CO ₂ -e)			Ranking		
		2013-14	2012-13	% Change	2013-14	2012-13	Change
1	EnergyAustralia	20,826,361	12,516,052	66%	1	9	+8
2	Macquarie Generation (now owned by AGL Energy)	20,373,569	20,598,633	-1%	2	1	-1
3	AGL Energy	19,928,540	20,550,926	-3%	3	2	-1
4	Rio Tinto	18,098,522	18,615,510	-3%	4	5	+1
5	GDF Suez Australian Energy	17,605,785	19,348,288	-9%	5	3	-2
6	Stanwell Corporation	14,651,496	15,691,344	-7%	6	6	0
7	Alcoa Australian Holdings	14,242,730	15,017,281	-5%	7	7	0
8	Origin Energy	12,406,584	3,764,617	230%	8	30	+22
9	CS Energy	10,110,629	12,664,884	-20%	9	8	-1
10	Woodside Petroleum	10,058,210	10,098,589	0%	10	10	-

Change in total greenhouse gas pollution from 2012-13 to 2013-14 (t CO₂-e)



Polluter profiles

This section examines each of Australia's ten biggest greenhouse polluters in more detail. Each profile includes a brief description of the company, the company's total emissions in 2013-14, how each company generates its pollution, what the company has said about climate change as an issue and what the

company has said about climate change and energy policies in Australia. We have also included details of companies' donations to political parties in last financial year, where that information has been available.

Rank	Company	Sector (ANZIC Industry Classification)	Total Scope 1 & 2 Emission (t CO ₂ -e)	Main state for source of emissions	Headquarters	Parent company/owner	If listed, exchange and ticker for company or parent company	Domestic of company or parent company
1	EnergyAustralia	D26 Electricity Supply and Retail	20,826,361	NSW, VIC	Melbourne	CLP Holdings	SEHK:0002	China
2	Macquarie Generation (now owned by AGL Energy)	D26 Electricity Supply	20,373,569	NSW	Newcastle	NSW Government	NA	Australia
3	AGL Energy	D26 Electricity Supply and Retail	19,928,540	NSW, VIC	Sydney	Publicly listed	ASX:AGL	Australia
4	Rio Tinto	Bo8 Metal Ore Mining in Australia	18,098,522	WA	Melbourne	Publicly listed	ASX: RIO LSE: RIO NYSE: RIO	Australia
5	GDF Suez Australian Energy	D26 Electricity Supply and Retail	17,605,785	VIC	Melbourne	GDF Suez	Euronext: GSZ	France
6	Stanwell Corporation	D26 Electricity Supply	14,651,496	QLD	Brisbane	Queensland Government	NA	Australia
7	Alcoa Australian Holdings	DB213 Mining (Aluminium Smelting)	14,242,730	WA, NSW and VIC	Perth	Alcoa Inc and Alumina Group	NYSE: AA ASX: AWC OTCQB: AWCMY	USA and Australia
8	Origin Energy	D26 Electricity Supply and Retail	12,406,584	Australia-wide	Sydney	Publicly listed	ASX: ORG	Australia
9	CS Energy	D26 Electricity Supply	10,110,629	QLD	Brisbane	Queensland Government	NA	Australia
10	Woodside Petroleum	DB700 Mining (Oil and Gas Extraction)	10,058,210	WA, QLD	Perth	Publicly listed	ASX: WPL	Australia

#1 EnergyAustralia

EnergyAustralia is one of Australia's biggest energy generators and retailers. The company is based in Melbourne, but is owned by CLP Holdings, a Hong Kong listed energy company (SEHK:0002).

TOTAL EMISSIONS IN 2013-14

20,826,361 tonnes CO₂-e
(20,605,152 scope 1 emissions +
221,209 scope 2 emissions)

HOW ENERGYAUSTRALIA'S POLLUTION IS GENERATED

Nearly all EnergyAustralia's greenhouse pollution comes from burning coal to generate energy. In 2013-14, nearly 18 million tonnes of CO₂-e or 85 per cent of EnergyAustralia's reported facility level greenhouse gas emissions came from just two power stations: the brown coal-fired Yallourn power station in Victoria and black-coal fired Mt Piper in NSW.

WHAT ENERGYAUSTRALIA SAYS ABOUT CLIMATE CHANGE

"The most recent Intergovernmental Panel on Climate Change (IPCC) Report, released in March 2014, stated that the energy sector will continue to be impacted by climate change."⁸

"The overriding goal of our Climate Change Strategy is to reduce our greenhouse gas emissions by 60 per cent by 2050."⁹

WHAT ENERGYAUSTRALIA SAYS ABOUT ENERGY AND CLIMATE CHANGE POLICY IN AUSTRALIA

"Longer term, this change [repealing the carbon price] should enhance returns from our low-cost base-load power stations."¹⁰

"In our view recalibration of the RET to equate to the original '20 per cent by 2020' policy commitment is the most balanced approach to addressing the problem for all stakeholder groups."¹¹

POLITICAL DONATIONS

In 2013-14 EnergyAustralia donated \$14,050 to State and Federal ALP and \$32,175 to State and Federal Coalition parties.¹²

FOOTNOTES

⁸ EnergyAustralia (2014) Market Sustainability Report 2014, p.15

⁹ EnergyAustralia (2014) Submission to Prime Minister and Cabinet's 2014 review of the Renewable Energy Target. Available online: <https://retreview.dpmc.gov.au/published-submissions>

¹⁰ CLP Holdings 2014 Interim Report, p.26, available online: https://www.clpgroup.com/en/Investors-Information-site/Documents/Financial%20Report%20PDF/e0003_140814_IR.pdf

¹¹ EnergyAustralia (2014) Submission to Prime Minister and Cabinet's 2014 review of the Renewable Energy Target. Available online: <https://retreview.dpmc.gov.au/published-submissions>

¹² Australian Electoral Commission, Funding, Disclosure and Political Parties, available online: http://www.aec.gov.au/Parties_and_Representatives/index.htm

#2 Macquarie Generation

Macquarie Generation was a New South Wales government owned electricity generator. In the second half of 2014, AGL Energy acquired Macquarie Generation.

TOTAL EMISSIONS IN 2013-14

20,373,569 tonnes CO₂-e
(20,171,437 scope 1 emissions +
202,132 scope 2 emissions)

HOW MACQUARIE GENERATION'S POLLUTION WAS GENERATED

Nearly all Macquarie Generation's greenhouse gas pollution came from burning coal to generate energy at their Bayswater and Liddell black-coal fired power stations in NSW.

WHAT MACQUARIE GENERATION SAID ABOUT CLIMATE CHANGE

In late 2014, Macquarie Generation was acquired by AGL.

WHAT MACQUARIE GENERATION SAID ABOUT ENERGY AND CLIMATE CHANGE POLICY IN AUSTRALIA

In late 2014, Macquarie Generation was acquired by AGL.

POLITICAL DONATIONS

Macquarie Generation was a government owned entity.

#3 AGL Energy

AGL Energy (AGL) is one of Australia's biggest energy generators and retailers. AGL is based in Sydney and is publicly listed on the Australian Stock Exchange (ASX:AGL). In 2014, AGL acquired Macquarie Generation. This acquisition will likely push AGL into the number 1 spot as the biggest greenhouse polluter in Australia.

TOTAL EMISSIONS IN 2013-14

19,928,540 tonnes CO₂-e

(19,622,185 scope 1 emissions + 306,355 scope 2 emissions)

HOW AGL'S POLLUTION IS GENERATED

Nearly all AGL's pollution comes from burning coal to generate energy. In 2013-14 18.7 million tonnes of CO₂-e, or 94 per cent of AGL's reported facility level greenhouse gas emissions, was generated from just one power station: brown coal-fired Loy Yang A in Victoria.

WHAT AGL SAYS ABOUT CLIMATE CHANGE

"Greenhouse gas pollution is one of the most important issues facing the world today."¹³

"Longer-term, AGL believes that achievement of a 450 parts per million goal may require the complete decarbonisation of the electricity sector by mid-century."¹⁴

WHAT AGL SAYS ABOUT ENERGY AND CLIMATE CHANGE POLICY IN AUSTRALIA

"There is little point continuing with higher targets for the LRET in the future if the underlying economic fundamentals prevent investment in new renewable capacity."¹⁵

"Given demand forecasts are being continually revised down, closure of existing plant seems to be a crucially important step."¹⁶

POLITICAL DONATIONS

In 2013-14 AGL declared donations of \$65,600 to the Australian Labor Party (Federal and State) including aligned entities; and \$96,680 to the Coalition (Federal and State).¹⁷

FOOTNOTES

¹³ AGL Greenhouse Gas Policy, accessed February 2015, available online: <http://www.agl.com.au/~media/AGL/About%20AGL/Documents/Media%20Center/What%20We%20Stand%20For/2010/April/Greenhouse%20Gas%20Policy.pdf>

¹⁴ AGL Greenhouse Gas Policy, accessed February 2015, available online: <http://www.agl.com.au/~media/AGL/About%20AGL/Documents/Media%20Center/What%20We%20Stand%20For/2010/April/Greenhouse%20Gas%20Policy.pdf>

¹⁵ AGL Energy (2014) Submission to Prime Minister and Cabinet's 2014 review of the Renewable Energy Target. Available online: <https://retreview.dpmc.gov.au/published-submissions>

¹⁶ AGL Energy (2014) AGL Working Paper No.43: Energy-only markets and renewable energy targets: complementary policy or policy collision?

¹⁷ Australian Electoral Commission, Funding, Disclosure and Political Parties, available online: http://www.aec.gov.au/Parties_and_Representatives/index.htm

#4 Rio Tinto

Rio Tinto is a mineral exploration, production and processing company operating across iron ore, aluminium, copper, coal, uranium, diamonds and other minerals.

TOTAL EMISSIONS IN 2013-14

18,098,522 tonnes CO₂-e
(8,955,777 scope 1 emissions +
9,142,745 scope 2 emissions)

HOW RIO TINTO'S POLLUTION IS GENERATED

Rio Tinto's greenhouse gas emissions result from its mineral exploration, production and processing activities. Rio Tinto's smelting and mineral processing operations are particularly energy intensive. In addition to electricity, the company consumes a lot of oil, diesel and gas.

WHAT RIO TINTO SAYS ABOUT CLIMATE CHANGE

"We recognise the need to understand and adapt to the physical impacts of climate change."¹⁸

"We recognise the long term nature of the need to decarbonise our business and that our efforts to reduce emissions will need to increase over time."¹⁹

WHAT RIO TINTO SAYS ABOUT ENERGY AND CLIMATE CHANGE POLICY IN AUSTRALIA

"The Renewable Energy Target results in expensive carbon abatement which represents an unnecessary and unsustainable cost pressure on business, particularly electricity-intensive industries such as the aluminium industry."²⁰

POLITICAL DONATIONS

In 2013-14, Rio Tinto did not make any donations to Australian political parties.

FOOTNOTES

¹⁸ Rio Tinto (2013) Annual Report

¹⁹ Rio Tinto (2015) 2015, Managing climate risks and opportunities, available online: <http://www.riotinto.com/sustainabledevelopment2013/environment/climate-change.html>

²⁰ Rio Tinto (2014) Submission to Prime Minister and Cabinet's 2014 review of the Renewable Energy Target. Available online: <https://retreview.dpmc.gov.au/published-submissions>

#5 GDF Suez Australian Energy

GDF Suez Australian Energy is a subsidiary of French energy company, GDF Suez. In Australia, GDF Suez owns 70 per cent of International Power (Australia) Holdings Pty Ltd and Loy Yang Holdings Pty Ltd, companies that control a number of coal and gas power stations. GDF Suez also owns Simply Energy, an electricity and gas retailer.

TOTAL EMISSIONS IN 2013-14

17,605,785 tonnes CO₂-e
(17,463,566 scope 1 emissions +
142,220 scope 2 emissions)

HOW GDF SUEZ'S POLLUTION IS GENERATED

95 per cent of GDF Suez's emissions come from just two of Australia's most polluting brown coal-fired power stations, Hazelwood and Loy Yang B, both in Victoria's Latrobe Valley.

WHAT GDF SUEZ SAYS ABOUT CLIMATE CHANGE

"The fight against global warming is one of the great challenges the world faces as we begin the 21st century."²²

"Aware of the major role it has to play in the energy transition, the Group GDF SUEZ shares the need for an international agreement on climate to limit the global warming to 2°C between now and 2015."²³

WHAT GDF SUEZ SAYS ABOUT ENERGY AND CLIMATE CHANGE POLICY IN AUSTRALIA

"Coal-fired power stations produce over 83 per cent of the National Electricity Market electricity ... It's important to understand that lower emission technologies are much more expensive than fossil fuel generation."²⁴

"... we suggest that this [the Renewable Energy Target] is delivered at the expense of incumbent investors and the wider economy through market distortion and costly forms of greenhouse gas abatement respectively."²⁵

POLITICAL DONATIONS

ACF is not aware of GDF Suez having made any donations to Australian political parties in 2013-14.²⁶

FOOTNOTES

²² GDF Suez (2015) Climate and Environment, available online: <http://www.gdfsuez.com/en/commitments/climate-environmental/climate-and-environment/>

²³ GDF Suez (2015) 2015, the Climate year, available online: <http://www.gdfsuez.com/en/commitments/climate-environmental/2015-climate-year/>

²⁴ International Power / GDF Suez (2011) IPR-GDF response to carbon tax proposal, 10 July 2011

²⁵ GDF Suez (2012) Submission to Renewable Energy Target review discussion paper

²⁶ Australian Electoral Commission, Funding, Disclosure and Political Parties, available online: http://www.aec.gov.au/Parties_and_Representatives/index.htm

#6 Stanwell Corporation

Stanwell Corporation (Stanwell) is an electricity generator owned by the Queensland government. It also operates a retail electricity and gas business.

TOTAL EMISSIONS IN 2013-14

14,651,496 tonnes CO₂-e
(14,601,378 scope 1 emissions +
50,118 scope 2 emissions)

HOW STANWELL'S POLLUTION IS GENERATED

Stanwell's reported greenhouse gas emissions result from the combustion of coal and gas to generate electricity. Around 90 per cent of Stanwell's greenhouse pollution comes from the coal-fired Stanwell and Tarong power stations.

WHAT STANWELL SAYS ABOUT CLIMATE CHANGE

ACF was unable to find any public statements regarding climate change made on behalf of Stanwell.

WHAT STANWELL SAYS ABOUT ENERGY AND CLIMATE CHANGE POLICY IN AUSTRALIA

"Stanwell does not support any increase to the (renewable energy) target beyond 2020."²⁷

"The repeal of the carbon tax by the Federal Government in July 2014 was strongly welcomed by Stanwell, as is the review of the Renewable Energy Target."²⁸

"RET should be completely abolished" and "the Emissions Reduction Fund should be Australia's only carbon scheme."²⁹

POLITICAL DONATIONS

In 2013-14 there was no data to suggest Stanwell made any donations to political parties. Stanwell is a state government owned entity. In 2012-13, dividends from Stanwell contributed \$11.7 million to Queensland Government revenue.³⁰

FOOTNOTES

²⁷ Stanwell (2012) Submission to the 2012 Renewable Energy Target (RET) Review Issues Paper

²⁸ Stanwell (2014) Stanwell Annual Report 2013/14

²⁹ Stanwell (2014) Submission to 2014 Renewable Energy Target review. Available online: <https://retreview.dpmc.gov.au/published-submissions>

³⁰ Electrical Trades Union (2014) Analysis of Queensland Government Electricity Sector Cash Flows, available online: <http://not4sale.org.au/sites/default/files/ETU%20Report%20Final.pdf>

#7 Alcoa Australian Holdings

Alcoa Australian Holdings Pty Ltd (Alcoa Australia) operates bauxite mining, alumina refining, aluminium smelting and rolling and aluminium recycling operations. These activities are all highly energy intensive. Alcoa Australia is 60 per cent owned by Alcoa Inc, listed on the New York Stock Exchange (NYSE:AA) and 40 per cent owned by Alumina Ltd, listed on the Australian Stock Exchange (ASX:AWC).

TOTAL EMISSIONS IN 2013-14

14,242,730 tonnes CO₂-e
(6,637,955 scope 1 emissions +
7,604,775 scope 2 emissions)

HOW ALCOA AUSTRALIA'S POLLUTION IS GENERATED

Alcoa Australia's reported greenhouse gas emissions result from its highly energy intensive mining and metals processing operations.

WHAT ALCOA OR ALCOA AUSTRALIA SAY ABOUT CLIMATE CHANGE

"For nearly two decades, Alcoa has been actively engaged in efforts to reduce greenhouse gas (GHG) emissions"³¹

"Our approach to climate policy involves working proactively with policymakers in each region to ensure that the significant benefits of aluminum and aluminum products are included in discussions regarding climate solutions."³²

"In Australia, Alcoa is reducing greenhouse gas emissions through energy efficiency, productivity improvements and new technology."³³

WHAT ALCOA SAYS ABOUT ENERGY AND CLIMATE CHANGE POLICY IN AUSTRALIA

"It is important to understand that implementing a carbon price scheme in Australia represents an international competitiveness challenge for Alcoa and other companies that are Emissions Intensive & Trade Exposed (EITE)".³⁴

"It is questionable that a RET is still warranted. Given the high cost of carbon abatement provided by the RET, the significant reduction in technology costs (in some cases approaching grid parity) and the very limited intrusion of large scale renewable technology other than wind, there is a genuine question as to whether the And RET either achieves its original objectives or is still needed."³⁵

POLITICAL DONATIONS

ACF could not find data to suggest Alcoa Australia, Alcoa Inc. or Alumina Ltd made any donations to Australian political parties in 2013-14.³⁶

FOOTNOTES

³¹ Alcoa (2015) Reducing Our Carbon Footprint, available online: http://www.alcoa.com/sustainability/en/info_page/resources_climate_protection.asp

³² Alcoa (2015) Alcoa's position on Climate Change, available online: http://www.alcoa.com/australia/en/info_page/climatechange/position.asp

³³ Alcoa (2015) Alcoa's position on Climate Change, available online: http://www.alcoa.com/australia/en/info_page/climatechange/position.asp

³⁴ Alcoa (2014) Submission to Prime Minister and Cabinet's 2014 review of the Renewable Energy Target. Available online: <https://retreview.dpmc.gov.au/published-submissions>

³⁵ Alcoa (2014) Submission to Prime Minister and Cabinet's 2014 review of the Renewable Energy Target. Available online: <https://retreview.dpmc.gov.au/published-submissions>

³⁶ Australian Electoral Commission, Funding, Disclosure and Political Parties, available online: http://www.aec.gov.au/Parties_and_Representatives/index.htm

#8 Origin Energy

Origin Energy (Origin) is focused on gas exploration, production and export, power generation and energy retailing. Origin is headquartered in Sydney and listed on the Australian Stock Exchange (ASX:ORG).

TOTAL EMISSIONS IN 2013-14

12,406,584 tonnes CO₂-e
(12,287,156 scope 1 emissions +
119,428 scope 2 emissions)

Note: the 2013-14 greenhouse and energy information for designated generation facilities for Origin reports 13,418,205 tonnes of CO₂-e. ACF has used the lower figure reported in the Greenhouse and Energy Information by Registered Corporation data. Using the higher figure of 13,418,205 tonnes of CO₂-e would not alter Origin's rank in the Top Ten Greenhouse Gas Polluters for 2013-14.

HOW ORIGIN'S POLLUTION IS GENERATED

Nearly all Origin's greenhouse gas pollution comes from burning coal to generate energy. In 2013-14, 10.6 million tonnes of CO₂-e, or 79 per cent of Origin's reported facility level greenhouse pollution, came from just one power station, the black-coal fired Eraring station in NSW.

WHAT ORIGIN SAYS ABOUT CLIMATE CHANGE

"Human activities, such as cutting down forests and burning fossil fuel for energy, have increased the amount of greenhouse gases in the atmosphere and are enhancing the greenhouse effect. This enhanced greenhouse effect is in turn causing global warming and climate change."³⁷

WHAT ORIGIN SAYS ABOUT RENEWABLE ENERGY AND CLIMATE CHANGE POLICY IN AUSTRALIA

"Origin supports...a return to one RET scheme... re-set the target to the original 20 per cent."³⁸

POLITICAL DONATIONS

ACF could not find data to suggest Origin made any political donations in 2013-14.³⁹

FOOTNOTES

³⁷ Origin (2015) Climate Change, available online: <http://www.originenergy.com.au/4243/Climate-change>

³⁸ Origin (2014) Submission to Prime Minister and Cabinet's 2014 Review of the Renewable Energy Target, available online: <https://retreview.dpmc.gov.au/published-submissions>

³⁹ Australian Electoral Commission, Funding, Disclosure and Political Parties, available online: http://www.aec.gov.au/Parties_and_Representatives/index.htm

#9 CS Energy Limited

CS Energy is an electricity generator owned by the Queensland government. It operates two coal-fired power stations and one hydro power station.

TOTAL EMISSIONS IN 2013-14

10,110,629 tonnes CO₂-e

(9,942,184 scope 1 emissions + 168,445 scope 2 emissions)

HOW CS ENERGY'S POLLUTION IS GENERATED

CS Energy's reported greenhouse gas emissions result from combusting black coal to produce electricity. Around 98 per cent of CS Energy's emissions come from three sources, the Callide B, Callide C and Kogan Creek Power Stations in Queensland.

WHAT CS ENERGY SAYS ABOUT CLIMATE CHANGE

"The challenge of responding to climate change is the biggest issue facing the energy industry today."⁴⁰

"We're working to improve our business by incorporating low emission and renewable energy technology into our portfolio [sic]."⁴¹

WHAT CS ENERGY SAYS ABOUT ENERGY AND CLIMATE CHANGE POLICY IN AUSTRALIA

"We recommend it [the Renewable Energy Target] be replaced with a direct contracting policy similar to, or part of, the Emissions Reduction Fund."⁴²

POLITICAL DONATIONS

ACF could not find data to suggest CS Energy made any donations to political parties in 2013-14. CS Energy is a state government owned entity. In 2012-13, CS Energy made a loss of \$47.9 million and as a result did not contribute dividends to Government revenue.⁴³

FOOTNOTES

⁴⁰ CS Energy (2015) Climate change, available online: [http://www.csenergy.com.au/content-\(87\)-climate-change.htm](http://www.csenergy.com.au/content-(87)-climate-change.htm)

⁴¹ CS Energy (2014) Submission to Review of the Renewable Energy Target Expert Panel - Call for submissions Discussion Paper

⁴² CS Energy (2014) Submission to Review of the Renewable Energy Target Expert Panel - Call for submissions Discussion Paper

⁴³ Electrical Trades Union (2014) Analysis of Queensland Government Electricity Sector Cash Flows, available online: <http://not4sale.org.au/sites/default/files/ETU%20Report%20Final.pdf>

#10 Woodside Petroleum

Woodside Petroleum (Woodside) is an Australian oil and gas company that operates globally.

TOTAL EMISSIONS IN 2013-14

10,058,210 tonnes CO₂-e
(10,050,702 scope 1 emissions +
7,508 scope 2 emissions)

HOW WOODSIDE'S POLLUTION IS GENERATED

Woodside's reported greenhouse gas emissions result from power generation required to operate its facilities and from flaring, a process industrial plants use to burn excess gas.

WHAT WOODSIDE SAYS ABOUT CLIMATE CHANGE

"Woodside has recognised the need to integrate climate change measures (both adaptation and mitigation) into its long-term strategy."⁴⁴

"We support an effective greenhouse gas regulatory regime that can achieve Australia's international climate action commitments."⁴⁵

WHAT WOODSIDE SAYS ABOUT RENEWABLE ENERGY AND CLIMATE CHANGE POLICY IN AUSTRALIA

No publicly available submissions from Woodside could be found on the websites for the 2014 Energy White Paper Issues Paper or the 2014 Department of the Prime Minister and Cabinet's Review of the Renewable Energy Target. However, Woodside is a member of the Australian Association of Petroleum Production & Exploration Association (APPEA). APPEA's submission to the RET review stated:

"The RET is an economically inefficient policy that should be discontinued."⁴⁶

POLITICAL DONATIONS

In 2013-14 Woodside donated \$133,602 to state and federal ALP or ALP linked entities and \$136,100 to the state and federal Coalition parties.⁴⁷

FOOTNOTES

⁴⁴ Woodside (2013) Sustainable Development Report 2013, p.43.

⁴⁵ Australian Petroleum Production & Exploration Association (2014) Submission to Prime Minister and Cabinet's 2014 Review of the Renewable Energy Target

⁴⁶ Woodside (2013) Sustainable Development Report 2013, p.43

⁴⁷ Australian Electoral Commission, Funding, Disclosure and Political Parties, available online: http://www.aec.gov.au/Parties_and_Representatives/index.htm

Methodology

Data in this report comes from the Greenhouse and Energy information 2013-14 provided to the Clean Energy Regulator by corporations registered under the National Greenhouse and Energy Reporting Act 2007. It includes scope 1 and scope 2 emissions. Scope 1 emissions are greenhouse gases resulting directly from an activity at a facility (or machine) owned by a company, for example, the emissions resulting from fuel combustion within a vehicle or a power plant. Scope 2 emissions are greenhouse gases associated with energy consumption by a facility, for example, the greenhouse gases associated with the purchase of electricity.

Our top ten list includes the sum total of scope 1 and scope 2 emissions, to reflect total

responsibility for generated emissions and purchased emissions.

Data is for the period July 2013 to June 2014. Since that time, ownership of power stations or controlling corporations may have changed. For example, in September 2014 AGL Energy acquired Macquarie Energy's power assets.

GDF Suez enters our list through its 70 per cent ownership stake in International Power (Australia) Holdings Pty Ltd and Loy Yang Holdings Pty Ltd.

We have not updated the data to adjust for any plant closures or reductions in expected output since July 2014. The impact of such changes will become apparent when the 2014-15 data is released in 2016.

Controlling corporation	Total Scope 1 & 2 emissions (t CO ₂ -e) ²	Notes on any changes to controlling corporation used in this report
ENERGYAUSTRALIA HOLDINGS LIMITED	20,826,361.00	
MACQUARIE GENERATION	20,373,569.00	In September 2014, AGL Energy acquired Macquarie Generation. AGL Energy was not the controlling corporation for the period of this report (July 2013 to June 2014) so we have kept the two companies separate.
AGL ENERGY LIMITED	19,928,540.00	
RIO TINTO LIMITED	18,098,522.00	
INTERNATIONAL POWER (AUSTRALIA) HOLDINGS PTY LTD	16,428,987.00	GDF Suez Energy Australia owns 70% of International Power Holdings, Mitsui owns 30%. We report GDF Suez separately as a result of its large emissions profile once ownership in International Power and Loy Yang Holdings are considered.
STANWELL CORPORATION LIMITED	14,651,496.00	
ALCOA AUSTRALIAN HOLDINGS PTY LTD	14,242,730.00	Alcoa Inc. own 60% of Alcoa Australian Holdings, Alumina Limited owns the remaining 40%.We have retained this as Alcoa Australian Holdings.
ORIGIN ENERGY LIMITED	12,406,584.00	
C S ENERGY LIMITED 1	10,110,629.00	
WOODSIDE PETROLEUM LTD.	10,058,210.00	
LOY YANG HOLDINGS PTY LTD	8,722,135.00	GDF Suez Energy Australia owns 70% of Loy Yang Holdings, Mitsui owns 30%.

Source: Clean Energy Regulator, Energy Supply Association of Australia and company announcements.

Sources

Clean Energy Regulator, Report on Designated Generation Facilities 2013-14 (generation and greenhouse data); Clean Energy Regulator, Greenhouse and energy information 2013-2014; Department of the Environment, Quarterly Update of Australia's National Greenhouse Gas Inventory: to June Quarter 2014; Energy Supply Association of Australia Electricity Gas Australia 2014, appendix 1 (2012-13); Australian Electoral Commission.

Submissions by companies to the following government processes and review:

2012 Renewable Energy Target (RET) Review Issues Paper

2014 Prime Minister and Cabinet Renewable Energy Target (RET) Review (The "Warburton" Review)

2014 Energy White Paper Issues Paper

Public statements made by company spokespersons.



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The Australian Conservation Foundation (ACF) stands for ecological sustainability. We get to the heart of environmental problems by tackling the underlying social and economic causes. We work across society to influence urgent, transformative action to deliver lasting change on the scale required to secure a sustainable environment. We bring people together to champion the true value of our environment and its critical role in sustaining all other systems and in achieving human wellbeing.