

Australia's 10 biggest climate polluters

2016



**AUSTRALIAN
CONSERVATION
FOUNDATION**

Foreword

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In the 12 months since the Australian Conservation Foundation's first report on Australia's 10 biggest climate polluting companies, energy giant AGL has gone from #3 to #1 and miner Glencore has entered the list for the first time.

Despite what the federal government tells Australians, the amount of climate pollution Australia pumps into the sky is rising.

And Australia's 10 biggest polluters – all energy and mining companies – continue to rely on last century's fuels to generate energy and conduct their businesses.

This report, based on the very latest available data, describes each company, explains how the company creates climate pollution and summarises what each says on the public record about climate change.

These 10 companies are responsible for the equivalent of nearly a third of Australia's climate pollution. Together, they are responsible for pouring more climate pollution into the atmosphere than Switzerland, Ireland, and Denmark combined.

And government policies encourage them to keep doing what they've been doing for decades.

Meanwhile, the world is changing.

In Paris in December last year, 195 countries agreed to keep "the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels."¹

To achieve this goal all countries have to work hard to cut climate pollution.

But in 2014-15 Australia's climate pollution *increased* by 1.3 per cent.² That's more than seven million additional tonnes of planet-warming pollution pumped into our skies in just one year.

Why? In axing the carbon price, the government removed the one policy Australia had to reduce climate pollution from the energy sector, leaving electricity generators – and the rest of us – largely reliant on coal for our power.

The truth is the energy sector is crying out for government leadership to help the industry make the transition to a zero-pollution future.

At an energy forum hosted by ACF last year representatives of energy companies, superannuation funds, financial services companies and investors agreed the early closure of coal-fired power stations was inevitable and the federal government needed to manage this transition.³

AGL's chief executive Andrew Vesey has called on the federal government to develop a "clear and equitable policy" to close the least efficient power stations. "It is important that older, less efficient and reliable power stations are removed from Australia's energy mix," Mr Vesey said. "Decarbonisation and modernisation of Australia's electricity system are important goals requiring effective policy."⁴

The calls are there – from the energy companies, investors, environmentalists and infrastructure experts. Now, the government must take the lead.

ACF urges the federal government to commit to a phased closure of Australia's coal-fired power stations. This means starting with the dirtiest and least efficient stations, helping affected workers and communities with the transition and drawing up comprehensive plans to clean up and rehabilitate old mine sites and power stations.

The big polluters identified in this report own some of the world's dirtiest coal-fired power stations. Every day these dirty power stations are spewing out pollution. Every day they are making climate change worse.

Australians already live with the impacts of climate change. Last year was the world's hottest recorded year, the 39th consecutive year of above average temperatures.⁵ This has fuelled droughts, bushfires, heatwaves and other extreme weather events across the country. This summer ancient parts of Tasmania's alpine World Heritage wilderness were burnt by bushfires for the first time in a thousand years. These big polluting companies are making this situation worse every day.

It's time for Australia to get out of last century's energy sources and leap into a brighter future powered by clean energy.



Geoff Cousins, ACF President
29 February 2016

Which companies are Australia's biggest climate polluters?

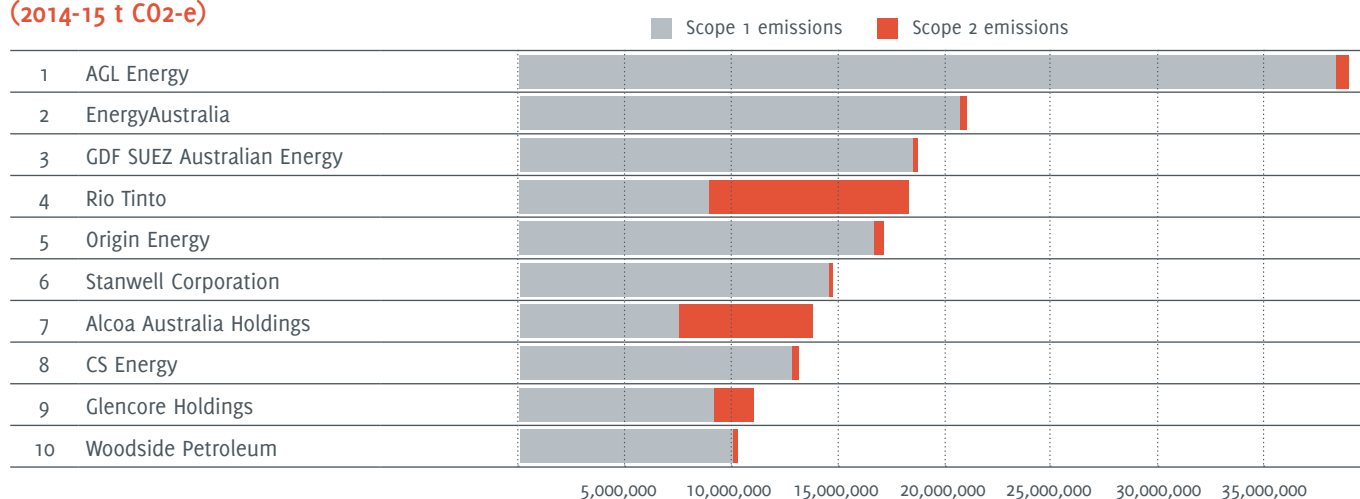
Just 10 companies are responsible for the equivalent of one third of Australia's climate pollution. In 2014-15, these 10 companies reported scope 1 and scope 2 emissions of 183.2 million tonnes of carbon dioxide

equivalent (CO₂-e) gases, equivalent to 33.3 per cent of Australia's total climate pollution in the same year (549.3 Mt).

Australia's 10 biggest climate polluters

Rank	Company	Sector	Total Scope 1 emissions (t CO ₂ -e)	Total Scope 2 emissions (t CO ₂ -e)	Total Scope 1 & 2 emissions (t CO ₂ -e)
1	AGL Energy	Electricity supply and retail	38,346,476	495,693	38,842,169
2	EnergyAustralia	Electricity supply and retail	20,595,391	362,447	20,957,838
3	GDF SUEZ Australian Energy	Electricity supply and retail	18,514,620	146,102	18,660,722
4	Rio Tinto	Metal ore mining in australia	8,992,286	9,358,888	18,351,174
5	Origin Energy	Electricity supply and retail, production of oil and gas	16,743,130	399,667	17,142,797
6	Stanwell Corporation	Electricity supply	14,737,132	49,835	14,786,967
7	Alcoa Australia Holdings	Mining (aluminium smelting)	7,649,023	6,057,867	13,706,890
8	CS Energy	Electricity supply	13,131,828	152,430	13,284,258
9	Glencore Holdings	Mining	9,017,938	2,097,349	11,115,287
10	Woodside Petroleum	Mining (oil and gas extraction)	10,080,219	7,527	10,087,746
Top ten			164,091,252.00	19,184,679	183,275,931

Australia's 10 biggest climate polluters (2014-15 t CO₂-e)



An explanation of scope 1 and scope 2 emissions

Scope 1 refers to greenhouse gas emissions that result directly from an activity at a facility (or machine) owned by a company. For example, the climate pollution that comes out of a power plant or a vehicle is classed as 'scope 1 emissions'.

Scope 2 refers to greenhouse gas emissions from the consumption of electricity produced at another facility. For example, if a mining company buys electricity to run its operations, the greenhouse pollution from the electricity it uses counts as 'scope 2 emissions' for the mining company.

Pollution sources

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Energy companies

Energy companies in the 10 biggest climate polluters list are responsible for the equivalent of 22 per cent of Australia's climate pollution, nearly all through scope 1 emissions. The vast majority of this climate pollution comes from burning coal to generate electricity. The Australian Conservation Foundation (ACF) recognises electricity is an essential service. However, the highly emissions intensive brown coal plants in Victoria owned by AGL Energy, EnergyAustralia and GDF SUEZ produce an average of 1.3 kg of CO₂-e per megawatt hour of electricity, the highest level in any state.⁶ Hazelwood, owned by GDF SUEZ, was once rated the dirtiest power station in the developed world.⁷

The black coal plants owned by AGL Energy, EnergyAustralia, Origin Energy, Stanwell Corporation and CS Energy pollute less, but remain inefficient by global standards.⁸

As a result, Australia's emissions intensity from generating power is higher than China's and twice the emissions intensity of other OECD countries.⁹

Mining companies

The four mining companies in the biggest polluters list are also responsible for a significant percentage of Australia's climate pollution. Rio Tinto is the largest individual polluter from the mining sector.

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

Australia's most polluting and least efficient power stations (2014-15 t CO₂-e)

Power station	Emissions (MT CO ₂ -e)	Emissions intensity (Tonnes CO ₂ /MWh)	Fuel source	Year commissioned
Hazelwood	15.5	1.4	Brown coal	1964-71
Yallourn	14.6	1.27	Brown coal	1973/4-81/2
Loy Yang A	18.8	1.14	Brown coal	1984-87
Loy Yang B	9.8	1.13	Brown coal	1993-96
Gladstone	6.4	0.97	Black coal	1976
Liddell	6.6	0.94	Black coal	1971-73
Bayswater	12.3	0.88	Black coal	1985-86
Tarong	6.7	0.88	Black coal	1984-86
Vales Point	6.1	0.87	Black coal	1978
Eraring	12.3	0.86	Black coal	1982-84

Changes in the biggest polluting company rankings since 2014-15

Most significant changes in the list relate to Glencore, AGL Energy, Origin Energy and GDF SUEZ.

In 2013-14 Glencore reported its emissions under a number of subsidiary companies, including AZSA Holdings Pty Ltd, GHP 104 160 689 Pty Ltd, Glencore Investment Pty Ltd, and Glideco Pty Limited. In 2014-15 Glencore Holdings Pty Ltd became the controlling corporation for all of its businesses in Australia. For this reason Glencore Holdings' total emissions are counted in this report and the company comes in at #9 on the list.

As predicted in our 2013-14 report, AGL's acquisition of Macquarie Generation's Bayswater

and Liddell power stations has increased its climate pollution dramatically, in fact, by 95 per cent. AGL's climate pollution is nearly double that of EnergyAustralia, this year's #2.

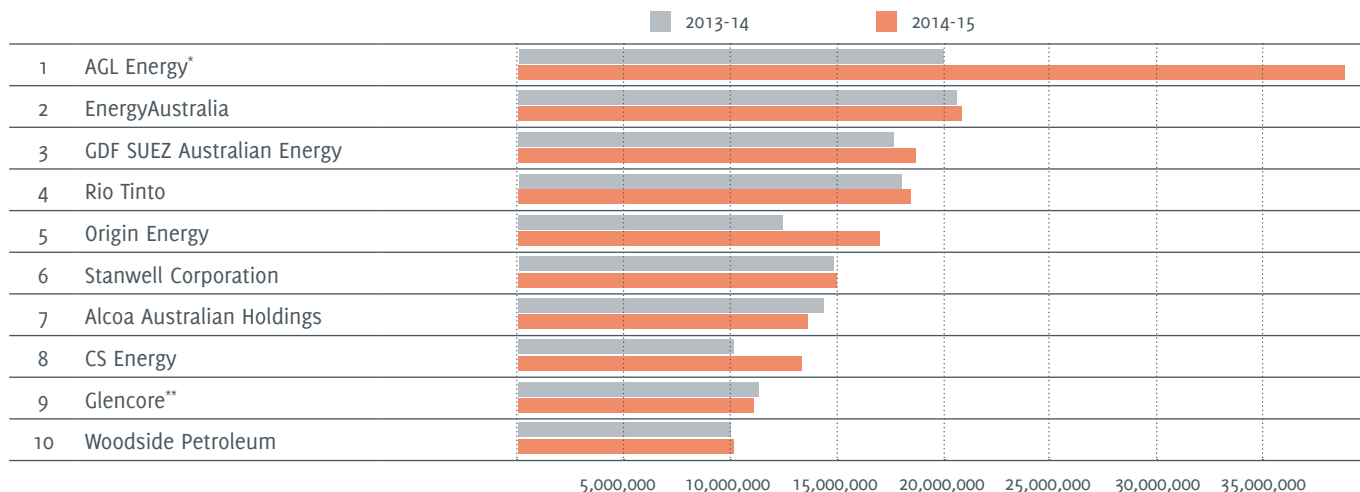
Origin Energy has jumped three spots to #5 this year, as a result of increased production at its Eraring coal-fired power station. Origin Energy acquired Eraring in 2015 from the New South Wales government. Eraring's production increased by 43 per cent over 2014-15, pushing up the power station's emissions by four million tonnes.

GDF SUEZ has moved from fourth biggest polluter to third on the list, ahead of Rio Tinto. It produced six per cent more climate pollution since the the same period last year.

Changes in biggest polluters since 2013-14

Rank	Company	Total scope 1 and 2 emissions (t CO ₂ -e)			Ranking		
		2013-14	2014-15	% Change	2013-14	2014-15	Change
1	AGL Energy*	19,928,540	38,842,169	95%	3	1	2
2	EnergyAustralia	20,826,361	20,957,838	0.63%	1	2	-1
3	GDF SUEZ Australian Energy	17,605,785	18,660,722	6%	5	3	2
4	Rio Tinto	18,098,522	18,351,174	1.40%	4	4	0
5	Origin Energy	12,406,584	17,142,797	38%	8	5	3
6	Stanwell Corporation	14,651,496	14,786,967	0.92%	6	6	0
7	Alcoa Australian Holdings	14,242,730	13,706,890	-3.76%	7	7	0
8	CS Energy	10,110,629	13,284,258	31%	9	8	1
9	Glencore**	11,275,222	11,115,287	-1.42%	-	9	-
10	Woodside Petroleum	10,058,210	10,087,746	0.29%	10	10	0

Change in total greenhouse gas pollution from 2013-14 to 2014-15 (t CO₂-e)



* Since the previous report, AGL acquired Macquarie Generation, which was second in last year's report.

** Glencore's corporate structure has changed since the last report which is why it was not in last year's report and has no 2013-14 ranking.

Company profiles

This section examines each of Australia's 10 biggest climate polluters in more detail. Each profile includes:

- A brief description of the company;
- The company's total climate pollution in 2014-15;
- How each company generates its climate 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; and
- The commitments the company has made to clean energy and coal closure.

#1 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 Securities Exchange. In 2014, AGL acquired Macquarie Generation, bringing two of Australia's largest coal-fired power stations, Bayswater and Liddell, into its portfolio. This pushed AGL into the number one spot as Australia's biggest climate polluter.

Total climate pollution in 2014-15

38,842,169 tonnes CO₂-e (38,346,476 scope 1 emissions + 495,693 scope 2 emissions)

Change in ranking

#3 to #1

Change in actual emissions

AGL increased its greenhouse gas emissions by 95 per cent from 19,928,540 tonnes CO₂-e in 2013-14 to 38,842,169 tonnes CO₂-e in 2014-15.

How AGL generates its pollution

Nearly all AGL's climate pollution comes from burning coal to generate energy. In 2014-15, AGL generated 37.6 million tonnes of CO₂-e, or 97 per cent of its reported facility level greenhouse gas emissions, from just three power stations: brown coal-fired Loy Yang A in Victoria and black-coal fired Bayswater and Liddell power stations in New South Wales.

What AGL says about climate change

"AGL supports the Commonwealth Government's commitment to work towards a global agreement to limit global warming to less than 2°C above pre-industrial levels (2°C goal). Continued use of coal and gas for power generation by mid-century is likely to be dependent upon cost-effective deployment of very low emissions technology, such as Carbon Capture & Storage (CCS)."¹⁰

"We're not necessarily out of the coal business and it's not fossil fuels because we'll still use gas. We need to be out of the CO₂ emissions business."¹¹

What AGL says about energy and climate change policy in Australia

"As Australia's largest CO₂ emitter, AGL Energy Limited (AGL) understands we have a key role to play in helping to provide an orderly transformation to a carbon constrained future."¹²

"It is important that government policy incentivise investment in lower-emitting technology while at the same time ensuring that older, less efficient and reliable power stations are removed from Australia's energy mix."¹³

"AGL will not build, finance or acquire new conventional coal-fired power stations in Australia."¹⁴

"By 2050, AGL will close all existing coal-fired power stations in its portfolio."¹⁵

Changes affecting AGL's climate pollution in the past 12 months

AGL acquired Macquarie Generation in September 2014. This acquisition increased the company's reported emissions to include climate pollution from the Bayswater and Liddell coal-fired stations.

AGL's commitments to clean energy and coal closure

AGL states in its 2015 annual report that its renewable generation portfolio includes:

- Three hydroelectric power stations located in the Kiewa, Dartmouth and Eildon catchments in New South Wales and Victoria with total installed capacity of 780 MW;
- Seven wind farms in South Australia and Victoria with installed capacity of 925 MW; and
- Two large-scale solar photovoltaic (PV) power plants with a total capacity of 155 MW, one at Nyngan (102 MW) and Broken Hill (53 MW) in regional New South Wales.¹⁶

AGL has recently announced its planned exit from the coal seam gas market in Australia, pulling out of investments in New South Wales and Queensland.¹⁷

The company also recently announced the establishment of a Powering Australia Renewables Fund, including \$200 million in equity, which it hopes will stimulate \$3 billion investment in renewable energy. The fund will target 1000 megawatts of capacity in large-scale renewable projects.¹⁸

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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.

Total climate pollution in 2014-15

20,957,838 tonnes of CO₂-e (20,595,391 scope 1 emissions + 362,447 scope 2 emissions)

Change in ranking

#1 to #2

Change in actual emissions

EnergyAustralia increased its greenhouse gas emissions by 0.63 per cent from 20,826,361 tonnes CO₂-e in 2013-14 to 20,957,838 tonnes of CO₂-e in 2014-15.

How EnergyAustralia generates climate pollution

Nearly all of EnergyAustralia's climate pollution comes from burning coal to generate energy. In 2014-15, EnergyAustralia generated 20.88 million tonnes of CO₂-e, or 99 per cent of its reported facility level greenhouse gas emissions from just two power stations: brown coal-fired Yallourn in Victoria and black-coal fired Mt Piper in New South Wales.

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."¹⁹

"The overriding goal of our Climate Change Strategy is to reduce our greenhouse gas emissions by 60 per cent by 2050."²⁰

What EnergyAustralia says about energy and climate change policy in Australia

"We're not rushing out to build new renewables because there's no demand."²¹

"We have to find an industry-led, government supported solution for modernising generation in Australia, and that requires orderly, managed retirement of the oldest plants in the fleet."²²

"This would have the double benefit of making space for renewables, so if you have a situation where supply exceeds demand, you need to retire the older fleet to make way for renewables."²³

"Industry has to lead. I think it would be a mistake to sit around and wait for a plan; industry should go to governments and say this is what we need."²⁴

Changes affecting EnergyAustralia's pollution in the past 12 months

Yallourn power station increased production from 8,676,249 MWh to 11,254,470 MWh, pushing up its emissions by three million tonnes.

EnergyAustralia's commitments to clean energy and coal closure

EnergyAustralia decommissioned the inactive Wallerawang power station in response to subdued customer demand for electricity and a lack of access to competitively-priced coal.²⁵

EnergyAustralia states that its renewable generation portfolio includes:

- 66MW Cathedral Rocks wind farm (50 per cent ownership) in South Australia;
- A commitment to purchase 100 per cent of the output and renewable energy certificates from 400MW of renewable energy power supply from the Gullen Range, Boco Rock, Taralga and Morton's Lane wind farms in New South Wales;
- Fifty per cent offtake of the 111MW Waterloo wind farm;
- Twenty-five power purchase agreements with a diverse range of counter parties representing more than 750MW of renewable energy capacity (the majority of which are wind-based).

Furthermore, EnergyAustralia has options for further projects including:

- The recently approved Waterloo wind farm extension (18MW);
- The Stony Gap Wind Farm (110MW); and
- The fully approved Mallee Solar Farm (180MW).²⁶

#3 GDF SUEZ Australian Energy

GDF SUEZ Australian Energy is a subsidiary of French energy company, ENGIE. The French government owns 33.3 per cent of ENGIE.²⁷ In Australia, GDF SUEZ owns 70 per cent of International Power (Australia) Holdings Pty Ltd and Loy Yang Holdings Pty Ltd. These companies control a number of coal and gas power stations, including the Hazelwood power station – Australia’s dirtiest power station.²⁸ GDF SUEZ also owns Simply Energy, an electricity and gas retailer.

Total climate pollution in 2014-15

18,660,722 tonnes CO₂-e (18,514,620 scope 1 emissions + 146,102 scope 2 emissions)

Change in ranking

#5 to #3

Change in actual emissions

GDF SUEZ increased its greenhouse gas emissions by six per cent from 17,605,785 tonnes CO₂-e in 2013-14 to 18,660,722 tonnes CO₂-e in 2014-15.

How GDF SUEZ generates climate pollution

GDF SUEZ generates 95 per cent of its climate pollution from 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.”²⁹

“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.”³⁰

What GDF SUEZ says about energy and climate change policy in Australia

ACF was unable to find any recent comments from GDF SUEZ Australian Energy on climate and energy policy.

GDF SUEZ’s parent company ENGIE welcomed the Paris Agreement:

“Gérard Mestrallet, ENGIE Chairman and CEO and Business Dialogue coordinator, welcomed the signature of the climate agreement by COP21 delegates, highlighting the particular importance of the introduction of carbon pricing. The ENGIE Group has also announced its environmental targets for limiting global warming to a maximum of 2°C.”³¹

Changes affecting to GDF SUEZ’s climate pollution in the past 12 months

GDF SUEZ’s increased climate pollution was likely a result of increased production from the Loy Yang B power station. In 2013-14 Loy Yang B produced 7307 GWh, and in 2014-15 this increased to 8662 GWh.

GDF SUEZ’s commitments to clean energy and coal closure

GDF SUEZ Australian Energy owns 72 per cent of the Canunda Wind Farm, a wind farm of 23 turbines that generates 46MW of electricity.³²

GDF SUEZ has not announced plans to close any of its coal-fired power stations.

Internationally, ENGIE has announced:

- A halt to building any new coal-fired power stations;³³
- Closure of its 1 GW Rugeley coal-fired power plant in the UK;³⁴
- Increased installed capacity of renewable energy sources by 50 per cent worldwide between 2009 and 2015;
- A target to double its renewable energy generating capacity in Europe by 2025; and
- Its aim for a 10 per cent reduction in its CO₂ emissions from its power generation and associated heat generation activities by 2020.³⁵

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#4 Rio Tinto

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37. Rio Tinto, *Rio Tinto 2013 Annual Report: Delivering greater value for shareholders*, p.22, accessed 24/2/2016: http://www.riotinto.com/documents/RT_Annual_report_2013.pdf
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Rio Tinto is a mineral exploration, production and processing company operating across iron ore, aluminium, copper, coal, uranium, diamonds and other minerals.

Total climate pollution in 2014-15

18,351,174 tonnes CO₂-e (8,992,286 scope 1 emissions + 9,358,888 scope 2 emissions)

Change in ranking

No change

Change in actual emissions

Rio Tinto increased its greenhouse gas emissions by 1.4 per cent from 18,098,522 tonnes CO₂-e in 2013-14 to 18,351,174 tonnes CO₂-e in 2014-15.

How Rio Tinto generates climate pollution

Rio Tinto's generates its climate pollution through 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

"There is a need for large reductions in global greenhouse gas emissions to reduce the extent of future climate change and avoid the most severe of the risks."³⁶

"We recognise the need to understand and adapt to the physical impacts of climate change."³⁷

"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."³⁸

What Rio Tinto says about energy and climate change policy in Australia

"We welcome the Paris Agreement and congratulate the French Government and UN in leading all countries at COP21 to deliver a new climate agreement."³⁹

"Our own climate change programme focuses on reducing the energy intensity of our operations, as well as the carbon intensity of our energy."⁴⁰

Changes affecting Rio Tinto's climate pollution in the past 12 months

It is likely the slight increase in Rio Tinto's climate pollution has occurred due to a drop in efficiency of its copper production. The copper group's 2014 greenhouse gas emissions were 8.57 tonnes of CO₂-e per tonne of copper produced, compared with 8.34 tonnes in 2013. The decrease in efficiency resulted from a planned maintenance shutdown of one of its smelters, which reduced copper production despite the continued operation of the mine and concentrator during the shutdown period.⁴¹

Rio Tinto's commitments to clean energy and coal closure

Rio Tinto's renewable generation portfolio includes:

- One solar farm at its bauxite operation in Weipa; total capacity 6.7 megawatts.⁴²

#5 Origin Energy

Origin Energy (Origin) is an energy retailer and power generator that supplies electricity and gas. The company also has a gas exploration and production portfolio that includes exploration in Australia and New Zealand. Origin is headquartered in Sydney and listed on the Australian Securities Exchange.

Total climate pollution in 2014-15

17,142,797 tonnes CO₂-e (16,743,130 scope 1 emissions + 399,667 scope 2 emissions)

Change in ranking

#8 to #5

Change in actual emissions

Origin Energy increased its greenhouse gas emissions by 38 per cent from 12,406,584 tonnes CO₂-e in 2013-14 to 17,142,797 tonnes CO₂-e in 2014-15.

How Origin generates climate pollution

Origin generates most of its climate pollution by burning coal to generate electricity. In 2014-15, Origin generated 12.3 million tonnes of CO₂-e, or 71.7 per cent of its reported facility level greenhouse gas emissions, from one power station, the black-coal fired Eraring station in New South Wales.

What Origin says about climate change

"We acknowledge climate change and support meaningful global action to reduce carbon emissions to limit global warming to less than 2°C on pre-industrial levels. Origin Energy has become the world's first energy company to sign up to all seven initiatives under the global 'We Mean Business Coalition', joining a worldwide group of NGOs, signatory companies and institutional investors committed to leadership on climate change."⁴³

What Origin says about energy and climate change policy in Australia

"The world is moving more quickly towards renewable energy than people thought even a year ago, and Australia can expect an imminent boom in large-scale solar investment."⁴⁴

"COP21 in Paris was better than Copenhagen. There is a greater global resolve – and we will need more gas and more renewables to achieve it, and less coal."⁴⁵

"We suggest that standards be considered to progressively phase out brown coal-fired generation in Victoria. Standards are currently being implemented in North America with the US basing theirs on intensity and Canada on age. Either policy could be applied in Victoria... This phased closure would need to be accompanied by appropriate structural adjustment packages as well as environmental site remediation."⁴⁶

Renewables "are more attractive than ever as costs fall, we will see the introduction of baseload renewables increasingly over the next two years."⁴⁷

"Australia's 2030 target will require a significant transformation of the energy sector. Given Origin's track record in renewables and strategic interests in gas-fired generation, we're ready and willing to lead the response..."⁴⁸

Changes affecting Origin's climate pollution in the past 12 months

Origin's increase in climate pollution resulted from a 43 per cent increase in production at the Eraring power station. In 2013-14 the power station produced 9,300 GWh and in 2014-15 this increased to 13,320 GWh, leading to an extra 4 million tonnes of CO₂-e pollution.

Origin's commitments to clean energy and coal closure

Origin has announced an exit from coal-fired generation by the 2030s.⁴⁹

According to its website, Origin's renewable energy portfolio includes:

- The Cullerin Range Wind Farm, a 30 megawatt wind farm in New South Wales;
- Two solar parks in Bendigo and Ballarat, generating 700 megawatt hours;
- A combined generation capacity of around 800 megawatt in wind power owned and purchased through power-purchase agreements in New South Wales and Victoria;
- 80,000 homes installed with solar panels;⁵⁰ and
- A 150 megawatt solar farm in development on the Darling Downs.⁵¹

43. Origin Energy Limited, *World's first energy company to adopt all 'We Mean Business Coalition' initiatives*, 21 Oct 2015, accessed 29/2/2016: <https://www.originenergy.com.au/about/investors-media/media-centre/origin-becomes-worlds-first-energy-company-to-adopt-seven-initiatives-climate-change.html>
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#6 Stanwell Corporation

52. Stanwell Corporation Limited, *Annual Report 2014-15: Diversified Energy*, 2015, p.3, accessed 24/2/2016: <http://www.stanwell.com/wp-content/uploads/Annual-Report-2014-15.pdf>

53. Ibid., p.3

54. Ibid., p.9

55. Stanwell Corporation Limited, *Our Power Stations: Hydro*, accessed 24/2/2016: <http://www.stanwell.com/energy-assets/our-power-stations/hydro>

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

Total climate pollution in 2014-15

14,786,967 tonnes CO₂-e (14,737,132 scope 1 emissions + 49,835 scope 2 emissions)

Change in ranking

No change

Change in actual emissions

Stanwell increased its greenhouse gas emissions by 0.92 per cent from 14,651,496 tonnes CO₂-e in 2013-14 to 14,786,967 tonnes CO₂-e in 2014-15.

How Stanwell generates climate pollution

Stanwell generates its reported climate pollution by combusting coal and gas to generate electricity. Approximately 90 per cent of this comes from the Stanwell and Tarong coal-fired power stations.

What Stanwell says about climate change

ACF was unable to find any public statements made by Stanwell regarding climate change.

What Stanwell says about energy and climate change policy in Australia

"In the short-term, coal will continue to be the most cost-effective source of electricity for Queensland and the nation."⁵²

"Ensuring we continue to provide sustainable dividends for the people of Queensland throughout the transition from fossil fuels to renewables will be a key focus for Stanwell in coming years."⁵³

Changes affecting Stanwell's climate pollution in the past 12 months

Stanwell's increase in climate pollution resulted from increased production from its Tarong and Stanwell power stations. Tarong increased from 6,218 GWh in 2013-14 to 7,025 GWh in 2014-15. Stanwell power station increased from 7,762 GWh in 2013-14 to 8072 GWh in 2014-15.⁵⁴

Stanwell's commitments to clean energy and coal closure

Stanwell owns and operates four hydro-electric generators in Queensland. The Barron Gorge Hydro, Kareenya Hydro, Koombooloomba Hydro and Wivenhoe Small Hydro generate a combined output of more than 150 megawatts of renewable energy.⁵⁵

#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 emissions intensive. Alcoa generates approximately 25 per cent of the power it uses at smelters worldwide and generally purchases the remainder under long-term arrangements.⁵⁶ Alcoa Australia is 60 per cent owned by Alcoa Inc, listed on the New York Stock Exchange and 40 per cent owned by Alumina Ltd, listed on the Australian Securities Exchange.

In August 2014, Alcoa closed its Port Henry smelter and in August 2015 it closed the Anglesea coal-fired power station. The reduced climate pollution from its smelter closure is reflected in this report. However, the impact the Anglesea closure will be covered in next year's report as it occurred in the 2015-16 financial year.

Total climate pollution in 2014-15

13,706,890 tonnes CO₂-e (7,649,023 scope 1 emissions + 6,057,867 scope 2 emissions)

Change in ranking

No change

Change in actual emissions

Alcoa Australia has decreased its greenhouse gas emissions by 3.76 per cent from 14,242,730 tonnes CO₂-e in 2013-14 to 13,706,890 tonnes CO₂-e 2014-15.

How Alcoa Australia generates climate pollution

Alcoa Australia generates its reported climate pollution with its highly energy intensive mining and metals processing operations, and its power generation from Anglesea coal-fired power station.

What Alcoa or Alcoa Australia say about climate change

"We have been a leader in reducing greenhouse gas emissions for nearly two decades..."⁵⁷

"We continue to help policy makers and customers understand the role that aluminum, aluminum-based alloys, and multi-material solutions can play in the mitigation of global warming."⁵⁸

"In Australia, Alcoa is reducing greenhouse gas emissions through energy efficiency, productivity improvements and new technology."⁵⁹

What Alcoa says about energy and climate change policy in Australia

"To 'de-carbonize the world' is one of our core business objectives."⁶⁰

"We are affirming that we're committed to an absolute reduction goal in the US of 50 per cent by 2025."⁶¹

"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)."⁶²

Changes affecting Alcoa's climate pollution in the past 12 months

Alcoa's decrease in greenhouse gas emissions likely occurred as a result of the closure of its Port Henry smelter in August 2014. Aluminium smelting is highly energy and emissions intensive.

Alcoa's commitments to clean energy and coal closure

On its website, Alcoa states: "Alcoa in Australia does not operate on renewable energy."⁶³

56. Alcoa, *Annual Report 2014: Transforming*, 2014, p.19, accessed 24/2/2016: https://www.alcoa.com/global/en/investment/pdfs/2014_Annual_Report.pdf

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#8 CS Energy Limited

64. CS Energy website, *Greenhouse Gas Emissions*, [http://www.csenergy.com.au/content-\(89\)-emissions.htm](http://www.csenergy.com.au/content-(89)-emissions.htm) accessed 25/02/2016

65. CS Energy, *Maximise value today, create opportunities for tomorrow: 2014/15 Annual Report*, 2015, p.7, accessed 24/2/2016: [http://www.csenergy.com.au/media-\(68\)-\(82\)-\(272\)-2014_2015+Annual+Report.htm](http://www.csenergy.com.au/media-(68)-(82)-(272)-2014_2015+Annual+Report.htm)

66. Ibid.

67. Ibid.

68. CS Energy, *Wivenhoe Power Station fact sheet*, 2013, accessed 24/2/2016: <http://www.csenergy.com.au/userfiles/file/Wivenhoe%20Power%20Station%20fact%20sheet%20-%20April%202013.pdf>

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

Total climate pollution in 2014-15

13,284,258 tonnes CO₂-e (13,131,828 scope 1 emissions + 152,430 scope 2 emissions)

Change in ranking

#9 to #8

Change in actual emissions

CS Energy increased its greenhouse gas emissions by 31 per cent from 10,110,629 tonnes CO₂-e in 2013-14 to 13,284,258 tonnes CO₂-e in 2014-15.

How CS Energy generates climate pollution

CS Energy generates its reported climate pollution by combusting black coal to produce electricity. Ninety nine 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

"Our portfolio mainly comprises coal-fired power stations, so we understand our responsibility to ensure we operate in strict accordance with our emissions limits and strive towards emissions reduction."⁶⁴

What CS Energy says about energy and climate change policy in Australia

"CS Energy recognises the part it plays in delivering solutions for transitioning to a less carbon intensive energy market, where fossil fuels still dominate the generation mix."⁶⁵

"Over the last decade, CS Energy has played a leading role in the research and development of low emission and renewable energy generation sources. In 2014-15, the Callide Oxyfuel Project, the world leading carbon capture and storage demonstration project at the company's Callide A Power Station, completed its demonstration phase."⁶⁶

Changes affecting CS Energy's climate pollution in the past 12 months

Over the past year CS Energy has increased its production at all three of its coal-fired power stations. This has resulted in a 31 per cent increase in CO₂-e pollution. Over this period Kogan power station increased its energy use from 4,821 GWh in 2013-14 to 5,224 GWh in 2014-15, Callide B increased from 2,527 GWh to 3,212 GWh and Callide C increased from 1,467 GWh to 2,668 GWh.⁶⁷

CS Energy's commitments to clean energy and coal closure

CS Energy owns and operates the Wivenhoe Power Station, a 500 megawatt pumped storage hydroelectric plant 90 kilometres north west of Brisbane.⁶⁸

#9 Glencore Holdings Pty Ltd

Glencore is one of the world's largest producers, processors and marketers of commodities, including metals and minerals, agricultural products and coal and oil.⁶⁹ Glencore Holdings is the controlling company for all Glencore operations in Australia. With Australian headquarters in Sydney, Glencore Holdings is a wholly-owned subsidiary of Glencore PLC based in Switzerland.

Total climate pollution in 2014-15

11,115,287 tonnes CO₂-e (9,017,938 scope 1 emissions + 2,097,349 scope 2 emissions)

Change in ranking

Due to corporate restructure, 2014-15 is the first time Glencore Holdings has reported as a single company. In 2013-14 Glencore reported under a number of subsidiaries, with total greenhouse gas emissions of 11,275,222 tonnes CO₂-e. If this was included in last year's report, Glencore would have come in at #9 in 2013-14.

Change in actual emissions

Glencore decreased its greenhouse gas emissions by 1.42 per cent from 11,275,222 tonnes CO₂-e in 2013-14 to 11,115,287 tonnes CO₂-e in 2014-15.

How Glencore generates climate pollution

Glencore produces climate pollution through its mining and mineral processing operations. The majority of Glencore's greenhouse gas emissions come from its 13 coal mines, located across Queensland and New South Wales.⁷⁰

What Glencore says about climate change

"The weight of global scientific opinion on climate change calls for significant reductions in human-generated greenhouse gas emissions (GHG) worldwide."⁷¹

What Glencore says about climate and energy policy in Australia

"We need global policy that acknowledges the global energy reality that fossil fuels including coal will continue to be used."⁷²

"We also need a policy which addresses the funding gap to facilitate the build of high-efficiency, low emission power stations."⁷³

Changes affecting Glencore's climate pollution in the past 12 months

In 2013-14 Glencore reported its greenhouse gas emissions under a number of subsidiary companies including AZSA Holdings Pty Ltd, GHP 104 160 689 Pty Ltd, Glencore Investment Pty Ltd, and Glideco Pty Limited. The total greenhouse gas emissions for these companies last year was 11,275,222 tonnes CO₂-e. In 2014-15 Glencore Holdings Pty Ltd became the controlling corporation for all of its businesses in Australia, and reported greenhouse gas emissions of 11,115,287 tonnes CO₂-e. Glencore Holding's 2014 annual report attributes this decrease to an improvement in the reporting of coal seam emissions.⁷⁴

Glencore's commitments to clean energy and coal closure

According to publicly available data, Glencore does not own any renewable energy assets and has not made any future investments in renewable energy. ACF could not find any record of Glencore committing to withdraw investment from its climate polluting activities.

69. Glencore, *Glencore in Australia: Who we are: Our operations*, accessed 29/2/2016: <http://www.glencore.com.au/EN/who-we-are/Pages/Our-operations.aspx>

70. See AZSA Holdings entry in NGER 2013-2014 Greenhouse and energy information by registered corporation <http://www.cleanenergyregulator.gov.au/NGER/Published-information/Reported-greenhouse-and-energy-information-by-year/Greenhouse-and-Energy-information-2013-14>, and Glencore website, Coal <http://www.glencore.com.au/EN/who-we-are/Pages/Coal.aspx>, accessed 26/02/2016

71. Glencore, 2015, *Our approach to sustainability: Climate change*, accessed 26/02/16, <http://www.glencore.com/sustainability/our-approach-to-sustainability/environment/climate-change/>

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73. Ibid.

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#10 Woodside Petroleum

75. Woodside, 2013, *Sustainable Development Report*, p.43, accessed 26/02/2016: <http://www.woodside.com.au/Working-Sustainably/Documents/2013%20Sustainable%20Development%20Report.pdf>
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Woodside Petroleum (Woodside) is an Australian oil and gas company that operates globally.

Total climate pollution in 2014-15

10,087,746 tonnes CO₂-e (10,080,219 scope 1 emissions + 7,527 scope 2 emissions)

Change in ranking

No change

Change in actual emissions

Woodside increased its greenhouse gas emissions by 0.29 per cent from 10,058,210 tonnes CO₂-e in 2013-14 to 10,087,746 tonnes CO₂-e in 2014-15.

How Woodside generates climate pollution

Woodside's reported climate pollution results from its use of power 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."⁷⁵

What Woodside says about energy and climate change policy in Australia

"Natural gas should and must play a key role in addressing climate change and we must step up."⁷⁶

"Woodside supports an effective greenhouse gas regulatory regime that can achieve Australia's international climate change commitments."⁷⁷

Changes affecting Woodside's pollution in the past 12 months

The slight increase in greenhouse gas emissions from Woodside is likely to be associated with an overall increase in production of oil and gas in 2014, up 9 per cent from 2013.⁷⁸

Woodside's commitments to clean energy and coal closure

According to publicly available data, Woodside does not own any renewable energy assets and has not made any future investments in renewable energy. ACF could not find any record of Woodside committing to withdraw investment from its climate polluting activities.

Methodology

Data in this report comes from the Greenhouse and Energy information 2014-15 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 list of Australia's biggest climate polluters includes the sum total of scope 1 and scope 2 emissions, to reflect total responsibility for climate pollution from self-generated as well as purchased emissions.

We recognise that all indirect pollution that occurs in the value chain of a company – otherwise known as scope 3 emissions – contributes to climate change. Scope 3 emissions include climate pollution from the use of exported fossil fuels. Currently NGERs does not require reporting of scope 3 emissions, so we have not included this category of pollution in this report.

Our analysis of each company's commitment to clean energy and coal closure takes in the company's ownership and investment in renewable energy and any commitments to halt activities in fossil fuel mining or energy generation.

Data is for the period July 2014 to June 2015. Since that time, ownership of power stations or controlling corporations may have changed. For example, in August 2015 Alcoa closed the Anglesea power station in Victoria.

GDF SUEZ is on the list by virtue of the company's 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 2015. The impact of such changes will become apparent when the 2015-16 data is released in 2017.

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About ACF

The Australian Conservation Foundation is Australia's national environment group. We are a community of people advocating for a healthy environment, a safe climate and a better life for all.



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