The Dirty Three

Origin Energy, EnergyAustralia and AGL's attack on Australia's Renewable Energy Target

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Contents

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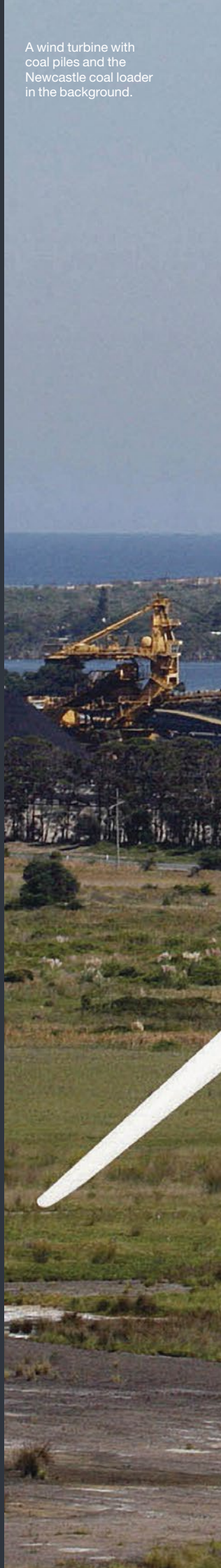
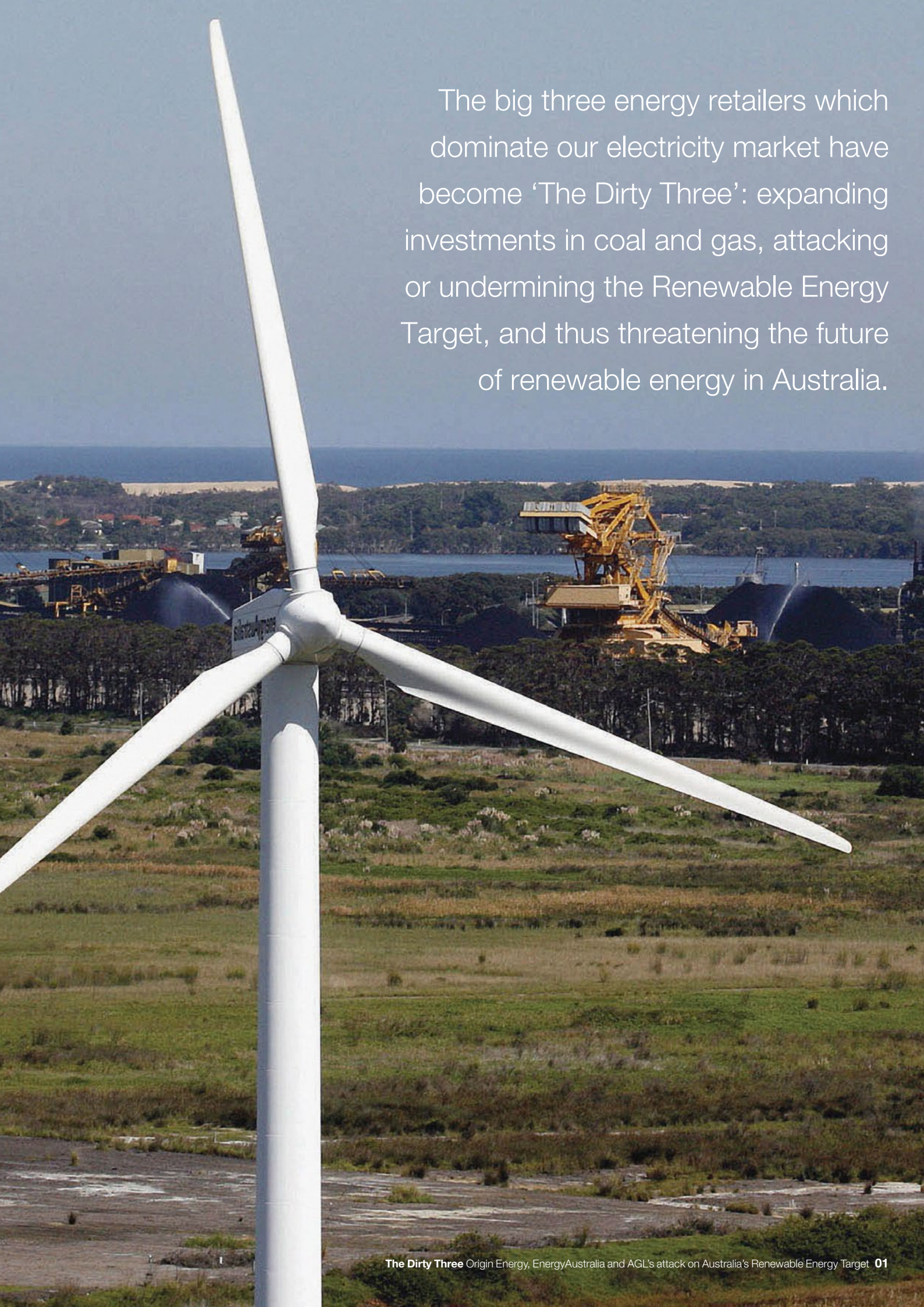


A wind turbine with coal piles and the Newcastle coal loader in the background.



The big three energy retailers which dominate our electricity market have become ‘The Dirty Three’: expanding investments in coal and gas, attacking or undermining the Renewable Energy Target, and thus threatening the future of renewable energy in Australia.

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Executive Summary

Australia's retail electricity market is dominated by three large companies – Origin Energy, EnergyAustralia and AGL. Together, they account for about 77 per cent of all small electricity customers. Most of the electricity they provide comes from burning coal and gas.

Australia's Renewable Energy Target – an initiative pioneered by the Howard government and built on under the Rudd-Gillard Labor governments – has been a successful bipartisan policy that seeks to expand Australia's renewable energy sector and reduce carbon pollution.

When it was introduced, the Renewable Energy Target was supported by the big three energy companies. The policy requires them to source an increasing amount of the electricity they sell to customers from renewable energy, such as solar and wind. By 2020, the amount of electricity generated from renewables in Australia should be equivalent to at least 20 per cent of the total supply.

In recent years Origin Energy and EnergyAustralia have made it clear that they do not support the Renewable Energy Target, and want to see it wound back substantially. AGL has traditionally been much more supportive of both the Renewable Energy Target and renewables. Yet AGL recently stated that the 2020 target cannot be met, a position which undermines political support for the target.

Disappointingly, at this critical time in the development of clean energy in Australia, the big three energy retailers which dominate our electricity market have become 'The Dirty Three': expanding investments in coal and gas, attacking or undermining the Renewable Energy Target, and thus threatening the future of renewable energy in Australia.

This report builds on 100% Renewable and Greenpeace's 2013 Report *'Strangling Renewables: Origin Energy's Campaign Against Renewable Energy'*. It explains how The Dirty Three are holding back Australia's transition to a renewable energy future which threatens the profitability of the coal and gas assets that make up the bulk of their generation portfolio. Recent Bloomberg analysis shows that winding back the Renewable Energy Target would deliver energy companies a massive $70.2 billion in extra revenue between 2015 and 2030.[1]

"Cutting or reducing the Renewable Energy Target is likely to result in less competition among fossil-fuel power generators and strong future increases in the price of electricity. This helps to explain why many of Australia's largest power companies are now pushing for a reduction in the target."

Bloomberg New Energy Finance[2]

The tactics used by members of The Dirty Three include public and private lobbying, maintaining a public drum beat of criticism of the Renewable Energy Target, frustrating the financing of renewable energy projects, and raising doubts about whether the target can be met. These elements combine to create uncertainty that undermines investment and threatens the future of clean energy in Australia.

Key findings of this report:

The Dirty Three have invested relatively little in renewable energy and continue to invest heavily in polluting coal and gas generation:

- Renewable energy made up only 0.5 per cent of Origin Energy's and 1.9 per cent of EnergyAustralia's electricity generation during 2012-13.
- AGL does better, with around 15 per cent of electricity generation, but in the past five years has increased its fossil fuel electricity generation capacity by around 50 per cent.
- EnergyAustralia and Origin Energy have dramatically expanded their fossil-fuel electricity generation by close to 75 and 87 per cent respectively. AGL has increased its fossil-fuel electricity generation by just over 50 per cent.

Members of The Dirty Three are undermining the Renewable Energy Target to protect their profits:

- Members of The Dirty Three have helped to spread misinformation about the Renewable Energy Target and perpetuate mistruths which are distorting the public debate. Myths include that the Renewable Energy Target is leading to higher electricity prices and that the 2020 target cannot be met.
- Wind and solar projects have reportedly been frustrated by Origin and EnergyAustralia refusing to issue the power purchase agreements (PPAs) which renewable energy generators need to ensure they have customers for their power.

Highlights of Australia's renewable energy boom

- There is now enough clean electricity generated to power the equivalent of 4 million homes – about half of all households.[3]
- In 2013, about 4,500 rooftop solar photovoltaic and solar hot water systems were installed each week and registered with the Clean Energy Regulator.[4]
- In 2014, 1.3 million homes are now powered by solar energy.[5]
- Wind power is now being seamlessly integrated into the National Electricity Market and has reliably powered entire states by as much as 46 per cent.[6]
- According to the Federal Government's most recent figures, there are no new coal electricity generation projects currently being seriously considered in Australia.[7]
- Energy efficiency programs are beginning to make large scale reductions in household electricity use.[8]

Solar towers providing energy at Olympic Boulevard, Sydney, for 'Green' Olympics 2000.

© Greenpeace/Ziegler

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Introduction

Australia's renewable energy transition

"Australians understand that a strong renewable energy industry secures us a sustainable future. That's why poll after poll shows that more than three-quarters of Australians support renewables…Australia's Renewable Energy Target has driven large amounts of investment in clean energy over the last decade. If left unchanged, it will continue to drive investment to transform our energy sector over the next decade and beyond, as well as save households money on their power bills."

Clean Energy Council[9]

Australia is in the middle of an unprecedented renewable energy boom. Energy experts agree that a renewable energy future is within our grasp.

The Renewable Energy Target explained

- The Renewable Energy Target is a Federal Government program designed to encourage more of Australia's electricity to be generated from renewable energy sources in order to reduce greenhouse gas emissions. The legislated target is for 41,000 gigawatt hours (Gwh) of Australia's electricity to come from large-scale renewables by 2020, with a further amount coming from small-scale like rooftop solar.
- Companies that generate renewable electricity receive Renewable Energy Certificates based on how much they produce. To meet their target, energy companies can either generate electricity from renewable sources themselves, or buy Renewable Energy Certificates from others. If a company does not have enough certificates to meet its target it is fined based on how far it has fallen short.

The Renewable Energy Target – a great success

The Renewable Energy Target has been a hugely successful bipartisan policy. For example, it has:

- helped 5 million Australians install solar[10]
- created over 24,000 jobs, many in rural areas[11]
- generated $20 billion of investment in renewable energy technologies[12]
- reduced Australian greenhouse gas emissions by 22.5 million tonnes of carbon dioxide equivalent (CO_2e).[13]

The Renewable Energy Target is under review

The Renewable Energy Target is once more the subject of review. The Climate Change Authority, which has a legal obligation to review the target, has been replaced by a Federal Government appointed panel due to report by mid-2014. The review panel is dominated by people with close links to the fossil fuel industry and headed by climate sceptic Mr Dick Warburton.[14]


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Who are The Dirty Three?

Origin, AGL and EnergyAustralia are the biggest energy retailers in Australia with combined revenue in 2013 of more than $32 billion. Together they employ 9,991 people and have 10.9 million customers.[15] Together, they account for about 77 per cent of all small electricity customers. Most of the electricity they provide comes from burning coal and gas.

This report dubs them 'The Dirty Three' because of their:

- growing investment in dirty fossil fuel generation assets at the expense of renewable energy
- efforts to undermine Australia's Renewable Energy Target.

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Why are The Dirty Three trying to trash the Renewable Energy Target?

"It has become difficult to place scientific assessments at the centre of policy in Australia in recent times. Big business has never been so directly influential with Government and senses that it might be a winner which takes all on environmental matters."

Ross Garnaut, John Freebairn Lecture in Public Policy[16]

The Dirty Three initially supported the Renewable Energy Target.[17] At a time when it was assumed that electricity demand would continue to grow, it was thought that the growth of renewables would not significantly impact on the profitability of existing fossil fuel plants.

Yet a decrease in demand for electricity that has persisted in Australia for the last five years, coupled with wind and solar which have low ongoing costs once established, has left The Dirty Three's fossil fuel investments increasingly exposed to competition. If the Renewable Energy Target is maintained at the existing level, more low cost solar and wind will be installed creating even more competition for existing coal and gas plants.

Rather than embracing the renewable energy boom, and adapting to a rapidly changing market, Origin Energy, AGL and EnergyAustralia appear set on protecting the status quo:

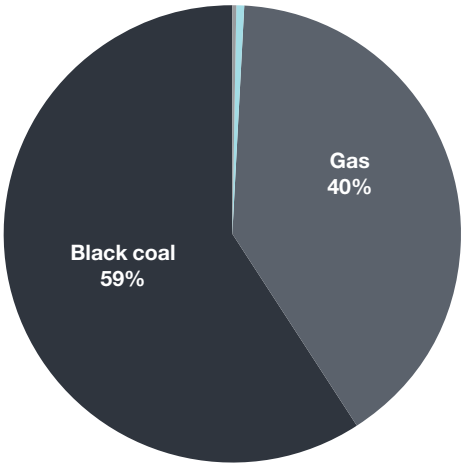
- Origin Energy, with its growing focus on natural and coal seam gas, has actively moved away from renewable generation technologies and alongside EnergyAustralia is undertaking a sustained public attack on the Renewable Energy Target.
- AGL has significant investments in renewable energy but these are outweighed by a growing reliance upon coal and gas. The company purchased the brown coal-fired Loy Yang A Power Station in 2012, one of Australia's dirtiest. While AGL is also building the biggest solar plant in the southern hemisphere at Nyngan, it is simultaneously pursuing the assets of one of Australia's most greenhouse gas polluting corporations, Macquarie Generation.[18] If AGL is successful in acquiring Macquarie Generation it will become the most polluting in Australia by far. AGL has called for the removal of the Small-scale Renewable Energy Target – the part of the target which supports rooftop solar panels and solar hot water – and has undermined support for the broader target by telling the current review panel that the target cannot be met.[19]

The Dirty Three are neck deep in fossil fuels

The Dirty Three's generating portfolios are dominated by dirty fossil fuels and their share of coal and gas generation capacity has increased over the past few years.

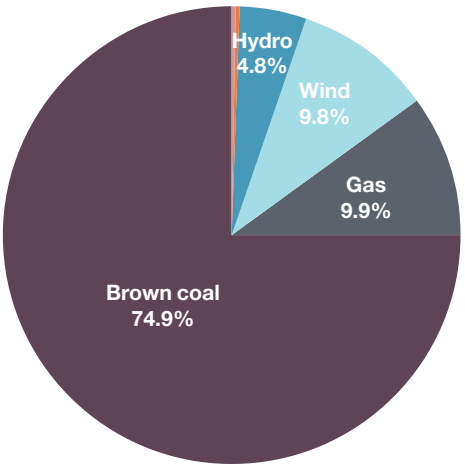
Company data from each of The Dirty Three reveals that in 2012-13 the amount of renewable energy generated was around 1 per cent of the total amount of electricity produced. The generation figures for each company are set out in Diagrams 1-3.

Renewable energy made up a mere 0.5 per cent of the electricity created by Origin Energy in the 2012-13 period. EnergyAustralia's share was slightly higher at 1.9 per cent whilst AGL fares better with 15 per cent of electricity generated coming from renewables over the same period.



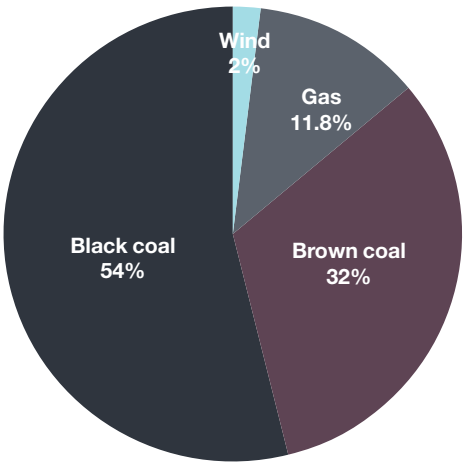
Origin Energy electricity production 2012-2013

Fuel Type	Electricity produced %
Black coal	59%
Gas	40%
Gas cogeneration or tri-generation	0.1%
Wind	0.5%
Other	0.4%



AGL electricity production 2012-2013

Fuel Type	Electricity produced %
Brown coal	74.9%
Gas	9.9%
Wind	9.8%
Hydro	4.8%
Landfill gas	0.2%
Sewage gas	0.2%
Gas/steam cogeneration	0.2%



EnergyAustralia electricity production 2012-2013

Fuel Type	Electricity produced %
Black coal	54%
Brown coal	32%
Gas	11.8%
Wind	2%
Gas/diesel	0.2%

Source: Company Reports,[20] Greenpeace analysis, see appendix 1 for details.

The Dirty Three are big polluters

The Dirty Three are among the highest polluting companies in Australia.

EnergyAustralia is the second largest emitter of greenhouse gas pollution in Australia with AGL in fourth position and Origin ranked 7th.[21] If AGL is successful in acquiring Macquarie Generation as they are seeking to do, AGL will be responsible for over 20 per cent of Australia's greenhouse gas emissions from the electricity sector[22] and will take on the mantle as Australia's dirtiest energy company and Australia's number one polluter (see Table 1).

Table 1: Australia's most polluting electricity generating companies

Rank	Corporation	Direct Emissions (tCO_2-e)
1	GFD Suez	27,431,416
2	**EnergyAustralia Holdings Ltd**	**24,266,272**
3	Macquarie Generation	20,412,509
4	**AGL Energy Limited**	**20,181,847**
5	C S Energy Limited	18,357,752
6	Stanwell Corporation Limited	15,497,127
7	**Origin Energy Limited**	**13,398,573**

Source:Clean Energy Regulator, 2014, Greenpeace analysis (see Appendix 1 for details)

The Dirty Three are actively investing in fossil fuel generation infrastructure

The Dirty Three's dirty greenhouse gas emission profile is not just a hangover from investments made decades ago. Records show that in recent times these companies have rapidly expanded their reliance on polluting fossil fuel generation.

At a time when AGL, Origin Energy and EnergyAustralia should have been preparing for the renewable energy revolution they have invested significantly in coal and gas.

Greenpeace analysis of The Dirty Three's major investments in generating infrastructure, completed or currently underway in the last five years, finds:

- AGL has increased its fossil fuel capacity by just over 50 per cent.
- Origin Energy and EnergyAustralia have increased their fossil fuel capacity by 87 and 75 per cent respectively (see Table 2).

"It looks like AGL has abandoned its support for rational policy, and crossed to the Dark Side with Origin and EnergyAustralia, putting their interests ahead of consumers and the economy."

Ben Burge, CEO of Powershop, the Australian retail offshoot of Meridian Energy, a renewable energy company[23]

Table 2: The Dirty Three's fossil fuel generating investments

What	When	Purchased existing capacity from another company	Created new capacity	Total increase in capacity (MW)
Origin Energy				
Darling Downs Gas Power Station	Operational since 2010		630	630
Eraring Coal-Fired Power Station	Purchased in 2012	2,880		2,880
Mortlake Power Station	Completed in 2012		550	550
Mt Stuart Gas Power Plant expansion	Expansion completed in 2008		126	126
Quarantine Power Station expansion	Completed in 2009		108	108
Roma Power Station	Refurbishment to extend life completed in 2009		35	35
Uranquinty Power Station	Operational since 2009		640	640
Total Additional Capacity		2,880	2,089	4,969
AGL				
Dalton Power Project	Approved 2012, moving into construction phase		500	500
Tarrone	Currently in planning phase		600	600
Loy Yang A Power Station	Purchased brown coal-fired power generator and adjacent mine 2012	2,210		2,210
Total Additional Capacity		2,210	1,100	3,310
EnergyAustralia				
Marulan Gas-Fired Power Station	Approved but currently on hold due to decreased electricity demand in the NEM		700	700
Mt Piper Coal Fire Power Plant	Purchased from Delta Energy in 2013	1400		1400
Wallerawang Coal Fire Power Station	Purchased from Delta Energy in 2013. Currently not in operation due to lack of electricity demand	1000		1000
Tallawarra Gas-Fired Power Station	Opened in 2009 (under TruEnergy which has since merged with EnergyAustralia)		435	435
Total Additional Capacity				3535
Total Additional Capacity of The Dirty Three				11,814

Sources: Company websites and media releases

How The Dirty Three are undermining the Renewable Energy Target

Having failed to adapt to the new reality of booming renewable electricity generation, The Dirty Three, particularly Origin Energy and EnergyAustralia, have been mounting an increasingly public campaign to neutralise the threat that the Renewable Energy Target presents to their business model. Their claims are analysed below.

1 Blaming power bill rises on the Renewable Energy Target

Origin Energy and EnergyAustralia have been leading promulgators of the myth that the Renewable Energy Target is pushing up electricity prices – an issue that has become politically sensitive as consumers face repeated hikes in their power bills.

"I think also we will have to question the level of renewables again because we are now way out in front of the world in terms of the amount of renewables being driven into our economy via prices, again making our manufacturing less competitive at a time when we've got high exchange rates."

Grant King, CEO of Origin Energy, May 2013[24]

"I'd like to see a sensible policy revision of the Renewable Energy Target. The current policy has been politicised, it's unrealistic, costly to consumers and unachievable, and potentially damaging to the sustainable, reliable and low-cost supply of electricity in the country"

Richard McIndoe, then Managing Director of EnergyAustralia, May 2013[25]

It is true that consumers have faced rapidly increasing retail electricity prices over the last few years. However, it is not true that the Renewable Energy Target has been any more than a minor contributing factor to this price rise. In fact, the investments in solar and wind power created by the Renewable Energy Target have actually reduced wholesale power prices.

Since it was established in 2001, the Renewable Energy Target has lowered wholesale electricity prices by up to $10 per megawatt hour (MWh)[26]. There is also some evidence that solar rooftop energy, installed in part as a consequence of the Renewable Energy Target, is helping to reduce the short term 'peaks' in the wholesale electricity market.[27] This is good news for consumers, as price increases are often driven by these peaks – but is bad news for The Dirty Three, as it is during the 'peak times' that they make most of their profit.

It is becoming increasingly acknowledged by independent bodies such as the Australian Industry Group that the Renewable Energy Target is now pushing wholesale electricity prices down.[28] Recent modelling undertaken by Bloomberg New Energy Finance predicts that an unchanged Renewable Energy Target will cut $50 off the average household electricity bill by 2020 and lead to average yearly savings of $2 billion over the longer term.[29]

But long term suppression of electricity prices is exactly what The Dirty Three fear. And this is why the Renewable Energy Target is in their sights. As Kobad Bhavnagri from Bloomberg New Energy Finance underlines:

"Cutting or reducing the Renewable Energy Target is likely to result in less competition among fossil-fuel power generators and strong future increases in the price of electricity. This helps to explain why many of Australia's largest power companies are now pushing for a reduction in the target."

Bloomberg New Energy Finance[30]

What The Dirty Three are saying about the target

"The RET is not achieving any of its objectives. We've seen interventions, from the old RET, to the SRET, to increased targets, and all these sorts of things... all of those policies which go to supply of energy in the community, there is still substantial uncertainty about key elements of that policy mix and how we achieve our environmental objectives as well as our economic objectives in this country."

Grant King, Managing Director of Origin Energy[31]

"Importantly, the current design of the RET also puts pressure on the wholesale electricity market. We argued that a policy that forces new capacity to be built in an already oversupplied market, with falling demand, calls into question the sustainability of the market design itself."

EnergyAustralia, Sustainability Report 2013[32]

"One of the concerns that I have, given all the uncertainty… and people putting down shovels, as it were, for additional wind farms, is a genuine concern that if you left (the fixed RET target) where it was, what is the ability of the industry to actually meet the target? No one wants a target that can't physically be met."

Michael Fraser, CEO of AGL[33]

2 Claiming that meeting the Renewable Energy Target is not possible

The Dirty Three have created uncertainty over whether the industry can actually build enough renewable energy generation units to meet the Renewable Energy Target. This, in turn, is undermining the investment climate that is essential for ensuring Australia can achieve the Renewable Energy Target.

In an interview earlier this year the CEO of AGL, Michael Fraser is reported as saying:

"One of the concerns that I have… is a genuine concern that if you left (the fixed RET target) where it was, what is the ability of the industry to actually meet the target?"[34]

This interview was one of the first signs AGL was backing away from its position as the last remaining supporter of the Renewable Energy Target amongst the big three energy retailers. It was confirmed in AGL's recent two page submission to the Renewable Energy Target Review Panel which clearly states, *"AGL believes that there is a material risk that the Large Scale Renewable Energy Target (LRET) cannot be achieved."*[35]

In its Sustainability Report 2013, EnergyAustralia says, *"... there is a real risk that under the current framework the market will not be able to deliver enough renewable energy as renewable projects need careful planning, engagement and consultation with the community."*[36]

Similar commentary has been made by Origin's CEO Grant King.[37]

Yet data from the Bureau of Resource and Energy Economics (BREE) shows that there is a sufficient level of 'ready to go' projects in the planning pipeline to more than meet the expected additional 10,000 MW of renewable energy capacity estimated by the Renewable Energy Target review panel as being required to meet the 2020 Renewable Energy Target (see Table 3 in Appendix 1 for more detail).

3 Claiming that renewable energy is unreliable

Origin Energy misleadingly paints renewables as unreliable, adding a 'chaotic' element to the National Electricity Market (NEM). Origin's CEO, Grant King for example has said that, "*…RET driven renewables, which is largely satisfied by wind, will drive increasing volatility and potentially increasing unreliability in the NEM.*"[38]

Technical experts from academia, industry and government, including the Victorian Government,[39] *have concluded that a national electricity supply based on clean energy is technically possible and within our grasp provided that appropriate policy frameworks, such as the Renewable Energy Target, are maintained and developed.*

The Australian Energy Market Operator has found that a national electricity market based on 100 per cent renewable energy is technically feasible. Recent research by Associate Professor Mark Diesendorf at the University of NSW has also demonstrated that it is possible for 100 per cent of our electricity to be provided by renewables at the same level of reliability as fossil-fuelled systems and that there would be no need for additional non-renewable electricity to supply 'base-load' electricity demand.[40]

AGL, Origin Energy and EnergyAustralia *"are, unfortunately, just holding the industry in the palm of their hand. It's a bit unfortunate for those with (renewable) projects out there ready to go."*

Andrew Richards, Executive Manager, Government & Corporate Affairs, Pacific Hydro[42]

4 Undermining renewable energy projects

Wind and solar projects have reportedly been frustrated by Origin Energy and EnergyAustralia refusing to issue the power purchase agreements that renewable energy generators need to ensure they have a customer for their power.[41]

According to media reports last year, renewable energy giant Pacific Hydro highlighted the problem caused by the refusal of the two energy companies to sign power purchase agreements. Pacific Hydro speculated that the companies were holding off on the assumption that the Coalition would win the election and weaken the Renewable Energy Target.

AGL, Origin Energy and EnergyAustralia *"are, unfortunately, just holding the industry in the palm of their hand. It's a bit unfortunate for those with (renewable) projects out there ready to go."*

Andrew Richards, Executive Manager, Government & Corporate Affairs, Pacific Hydro[42]

Somewhat ironically, the ongoing uncertainty of the status of the Renewable Energy Target is even leaving question marks over significant renewable energy investments owned by The Dirty Three, which are most responsible for creating this very uncertainty.[43]

Eraring Coal-Fired Power Station, South-West of Newcastle, is the largest power station in Australia and was purchased by Origin Energy in 2012.

© Greenpeace/Sewell

James McCormack – a husband, father, and an engineer for a solar energy company who is worried that these big energy giants could ruin his business for good.

5

Conclusion

Early movement to a world in which low-emissions energy plays a large role in all countries would facilitate the re-emergence of relatively low energy costs in Australia. The superior renewable energy resources of Australia would allow low cost production, and their increased use would be more completely reflected in low domestic prices than are Australia's superior resources of internationally tradable fossil energy.

Ross Garnaut, John Freebairn Lecture in Public Policy[44]

The Renewable Energy Target has already delivered significant economic, social and environmental benefits to the Australian community and there is no technical reason why Australia cannot achieve it and indeed expand the target beyond 2020.

The dramatic growth of solar and wind power is threatening the profits of The Dirty Three – AGL, Origin Energy and EnergyAustralia – and they are using their economic and political muscle to try to undermine the Renewable Energy Target.

The Dirty Three have developed a renewables-friendly face for consumers.[45] Yet the reality is these companies are reliant upon polluting fossil fuels and seem intent on investing further in these technologies. To save their dirty assets from further competition they are seeking to stave off a renewable energy future by creating uncertainty and – at times – even spreading misinformation about its impacts.

Destroying our Renewable Energy Target risks:

- losing an additional $21 billion of investment in Australian renewable energy projects[46]
- dumping an extra 34.7 million tonnes of carbon emissions into the atmosphere[47]
- forgoing an extra 18,400 jobs that are calculated to be generated out to 2020[48]
- adding an extra $50 on household electricity bills each year by 2020 and $140 a year beyond that.[49]

Australians are hungry for clean solar and wind power. It is understandable that customers of The Dirty Three will be dismayed if these big corporates or the Federal Government act to hasten its demise.

Appendix 1 – Calculations used in this report

This Appendix sets out the basic methodology used in sourcing or calculating the data presented in the report's tables and diagrams.

The Dirty Three are neck deep in fossil fuels (page 09)

Data for diagrams 1-3 were sourced from company reports listed in reference 20. Data for generated electricity includes dispatched (produced) electricity from all generating facilities owned, or jointly owned, by the company or for whom the company holds trading rights.

Data for Table 1 (page 10) was sourced from the Clean Energy Regulator's National Greenhouse and Energy Register (NGER) Designated Generation Facilities report for the latest year available (2012-13). Data from NGER 2012-13 was totalled across all power generating facilities listed as owned, or owning the trading rights for output, on company websites or Annual Reports. Although 2012-13 data was used, it has been adjusted to reflect the current 2014 corporate structures. This required, in some cases, the incorporation of facility level data that was originally listed in NGERS under a different corporate entity name.

Adjustments made were:

Energy Australia: emissions associated with Mt Piper and Wallerawang were included because EnergyAustralia holds long term rights to trade electricity produced from these facilities and has the responsibility for supplying them with fuel.[50]

GFD Suez: incorporates all emissions from power stations listed on their website as part of their generation portfolio but which are jointly owned with Mitsui Co Ltd. These facilities (and ownership coverage for GFD Suez) are: Kwinana Co-generation (70%), Loy Yang B (72%), Hazelwood (72%), Synery (70%, also JV with Ratch), Pelican Point Power Station (72%).[51]

CS Energy: includes emissions from NRGVictoria (Gladstone Power Station) as it holds the trading rights of all power produced from this facility.[52]

Origin Energy: includes emissions from its jointly owned Worsley, Bulwer and Osborne Facilities. Origin Energy has contract rights to these facilities.[53]

The Dirty Three are actively investing in fossil fuel generation infrastructure (page 10)

Includes data sourced from the following company websites:

Origin Energy 'Power Stations':
www.originenergy.com.au/289/Power-Stations

AGL 'How We Source Energy':
www.agl.com.au/about-agl/how-we-source-energy

EnergyAustralia 'Generation & assets':
www.energyaustralia.com.au/about-us/what-we-do/generation-assets

Claiming that meeting the Renewable Energy Target is not possible (page 14)

The current Renewable Energy Target review panel estimates that an additional 10,000 MW of renewable energy capacity is required to meet the 2020 target.[54] Data from Bureau of Resource and Energy Economics (BREE) shows that there are 2,101 MW of renewable energy capacity ready to 'break ground' or already under construction – and therefore will be available by 2020. The remaining 'capacity gap' identified by the panel can be more than fulfilled by the renewable energy projects already in the planning pipeline – see Table 3 below. Indeed, less than half of the current projects in the 'announced' or 'feasibility' stages need to go ahead for the Renewable Energy Target to be achieved by 2020.

Table 3 Renewable energy projects in the planning pipeline

	Publicly announced *			Feasibility stage **			Committed stage ***			Total		
	No.	Capacity MW	Value $m	No.	Capacity MW	Value $m	No.	Capacity MW	Value $m	No.	Capacity MW	Value $m
Non-renewable	9	2,530	$2,640	29	18,764	$19,865	4	588	$1,217	42	21,882	$23,722
Renewable	28	3,716	$5,227	71	14,365	$22,959	18	2,101	$4,350	117	20,182	$32,536.00

Source: BREE, 2013, Greenpeace analysis[55]

Endnotes

1 'Modelling options for Australia's RET Review', *Bloomberg New Energy Finance*, May 2014. Accessed 10 June 2014 at: http://about.bnef.com/white-papers/modelling-options-australias-ret-review/

2 '$70 billion at stake in the RET attack', *Climate Spectator*, 26 May 2014. Accessed on 15 June 2014 at: http://www.businessspectator.com.au/article/2014/5/26/energy-markets/70-billion-stake-ret-attack

3 Clean Energy Council, 'Clean Energy Australia Report 2012', p 4. Accessed 15 June 2014 at: https://www.cleanenergycouncil.org.au/dam/cec/policy-and-advocacy/reports/2013/Clean-Energy-Australia-Report-2012/Clean%20Energy%20Australia%20Report%202012.pdf

4 Clean Energy Regulator, 'Renewable Energy Target 2013 Administrative Report'. Accessed 15 June 2014 at: http://www.cleanenergyregulator.gov.au/About-us/Governance-accountability-and-reporting/administrative-reports/RET-2013-Administrative-Report/Pages/3-3-small-scale-systems.aspx

5 Ibid.

6 Joshi, K. ,'Wind supplied 47% of South Australia's energy last week', *RenewEconomy,* 20 August 2013. Accessed 10 June 2014 at: http://reneweconomy.com.au/2013/wind-supplied-47-of-south-australias-energy-last-week-67550

7 Bureau of Resources and Energy Economics, 'Electricity generation major projects', October 2013, p 2. Accessed 11 June 2013 at: http://bree.slicedlabs.com.au/sites/default/files/files/publications/egmp/bree-egmp-report-201310.pdf

8 Saddler, H., 'Power Down: Why is electricity consumption decreasing?' *The Australia Institute Research Paper No.14*, December 2013, p 41-47. Accessed 15 June 2014 at: http://www.tai.org.au/downloadpopup/nojs/10921

9 Clean Energy Council, 'Why We Need the Renewable Energy Target'. Accessed 19 May 2014 at: https://www.cleanenergycouncil.org.au/policy-advocacy/renewable-energy-target/why-we-need-the-renewable-energy-target.html

10 http://solar.org.au/infographics/solarheroes/

11 Figures from Clean Energy Council, 'Clean Energy Council submission to: Renewable Energy Target Review Issues Paper', 2014, p 3. Accessed 15 June 2014 at: http://www.cleanenergycouncil.org.au/dam/cec/policy-and-advocacy/submissions/RET/CEC-submission-to-RET-review-issues-paper-140516.pdf

12 Ibid.

13 Ibid.

14 'Warburton defends climate views', *ABC News AM*, 18 February 2014. Accessed 16 June 2014 at: http://www.abc.net.au/am/content/2013/s3946806.htm

15 Figures compiled from company annual reports.

16 Garnaut, R., 'Resolving Energy Policy Dilemmas in an Age of Carbon Constraints', *The 2014 John Freebairn Lecture in Public Policy,* Melbourne, 20 May 2014, p 10. Accessed 11 June 2014 at: http://fbe.unimelb.edu.au/__data/assets/pdf_file/0004/1028137/Transcript_2014_Freebairn_Lecture_Ross_Garnaut_v1.pdf

17 For example, all three companies expressed support for the Renewable Energy Target in their submissions to the first review of the target by the Climate Change Authority in 2012. Accessed 16 June 2014 at: http://climatechangeauthority.gov.au/submissions/submissions-received

18 'AGL Eyes Delta Coastal Sale', *Climate Spectator,* 15 May 2014. Accessed 10 June 2014 at: http://www.businessspectator.com.au/news/2014/5/15/energy-markets/agl-eyes-delta-coastal-sale

19 Nelson, T., 'AGL Submission to the RET Review', 16 May 2014, p 1. Accessed 15 June 2014 at: http://aglblog.com.au/wp-content/uploads/2014/05/RET-Submission-2014.pdf

20 AGL, 2013 Annual Report, http://www.agl.com.au/~/media/AGL/About%20AGL/Documents/Media%20Center/ASX%20and%20Media%20Releases/2013/September/AGL%202013%20Annual%20Report.pdf

Origin Energy, Annual Report 2012-2013 http://www.originenergy.com.au/files/Origin_Energy_2013_Annual_Report_web-ready.pdf

EnergyAustralia, 2013 Sustainability Report http://www.energyaustralia.com.au/about-us/what-we-do/clean-renewable-energy/sustainability-report

21 Clean Energy Regulator 2014, 2012-13 Greenhouse and Energy Information by Registered Corporation: http://www.cleanenergyregulator.gov.au/National-Greenhouse-and-Energy-Reporting/published-information/greenhouse-and-energy-information/Greenhouse-and-Energy-information-2012-2013/Pages/Default.aspx

22 Clean Energy Regulator 2014, 2012-13 Greenhouse and Energy Information by Designated Generation Facilities: http://www.cleanenergyregulator.gov.au/National-Greenhouse-and-Energy-Reporting/published-information/greenhouse-and-energy-information/Greenhouse-and-Energy-information-2012-2013/Pages/Default.aspx

23 Parkinson, G., 'AGL Energy calls for end of support for rooftop solar', *RenewEconomy*, 18 May 2014. Accessed 15 June 2014 at: http://reneweconomy.com.au/2014/agl-energy-calls-for-end-of-support-for-rooftop-solar-46933

24 Bennett, M., 'Origin CEO Grant King says carbon tax, renewables targets hurt industry', *The Australian*, 1 May 2013. Accessed 11 June 2014 at: http://www.theaustralian.com.au/business/mining-energy/origin-ceo-grant-king-says-carbon-tax-renewables-targets-hurt-industry/story-e6frg9df-1226633015977

25 'Richard McIndoe, EnergyAustralia', *The Australian*, 15 December 2012. Accessed 12 June 2014 at: http://www.theaustralian.com.au/business/in-depth/richard-mcindoe-energy-australia/story-fngmlzq7-1226536266905

26 Sinclair Knight Merz, 'Benefit of the Renewable Energy Target to Australia's Energy Markets and Economy: Report to the Clean Energy Council', August 2012, p 1. Accessed on 15 June 2014 at: http://www.cleanenergycouncil.org.au/dam/cec/policy-and-advocacy/reports/2012/Benefit-of-the-Renewable-Energy-Target-to-Australias-Energy-Markets-and-Economy/Benefit%20of%20the%20Renewable%20Energy%20Target%20to%20Australia%26%23039%3Bs%20Energy%20Markets%20and%20Economy-1.pdf

27 See, for example, REC Agents Association, 'Solar PV making a significant contribution', 20 January 2014. Accessed on 15 June 2014 at: http://www.recagents.asn.au/category/news/facts-about-solar

28 See, for example, the Australian Industry Group's submission to the current Renewable Energy Target review: http://tiny.cc/oifbhx

29 'Modelling options for Australia's RET Review', *Bloomberg New Energy Finance*, May 2014. Accessed on June 10 2014 at: http://about.bnef.com/white-papers/modelling-options-australias-ret-review

30 '$70 billion at stake in the RET attack', *Climate Spectator*, 26 May 2014. Accessed on 15 June 2014 at: http://www.businessspectator.com.au/article/2014/5/26/energy-markets/70-billion-stake-ret-attack

31 Parkinson, G, "Interview: Origin Energy CEO Grant King," *RenewEconomy*, 2013. Accessed 16 June 2014 at: http://reneweconomy.com.au/2013/interview-origin-energy-ceo-grant-king-61027.

32 EnergyAustralia, 'Market Sustainability Report 2013', p 88. Accessed on 11 June 2014 at: http://www.energyaustralia.com.au/about-us/what-we-do/clean-renewable-energy/sustainability-report

33 Parkinson, G., 'AGL baulks at endorsing current fixed renewables target', *RenewEconomy,* 26 February 2014. Available at: http://reneweconomy.com.au/2014/agl-baulks-at-endorsing-current-fixed-renewables-target-30901

34 Parkinson, G., 'AGL baulks at endorsing current fixed renewables target', *RenewEconomy*, 26 February 2014. Available at: http://reneweconomy.com.au/2014/agl-baulks-at-endorsing-current-fixed-renewables-target-30901

35 Nelson, T., 'AGL Submission to the RET Review', 16 May 2014, p 1. Accessed 15 June 2014 at: http://aglblog.com.au/wp-content/uploads/2014/05/RET-Submission-2014.pdf

36 EnergyAustralia, 'Market Sustainability Report 2013', p 88. Accessed on 11 June 2014 at: http://www.energyaustralia.com.au/about-us/what-we-do/clean-renewable-energy/sustainability-report

37 Grant King, CEO of Origin Energy, speech to the Committee for Economic Development of Australia (CEDA), 19 March 2013. Accessed on 15 June 2014 at: http://www.originenergy.com.au/news/files/CEDA_speech_transcript_18March2013.pdf

38 Grant King, CEO of Origin Energy, speech to the Committee for Economic Development of Australia (CEDA), 19 March 2013, p 8. Accessed on 15 June 2014 at: http://www.originenergy.com.au/news/files/CEDA_speech_transcript_18March2013.pdf

39 Victorian Department of Primary Industries, 'Renewable Resourceful Victoria: The Renewable Energy Potential for Victoria', 2010. Available at: http://www.energyandresources.vic.gov.au/energy/sustainable-energy/renewable/part-1

40 See Diesendorf, M., 'Baseload power is a myth: even intermittent renewables will work', *The Conversation*, 10 April 2013. Accessed 15 June 2014 at: http://theconversation.com/baseload-power-is-a-myth-even-intermittent-renewables-will-work-13210. For more detail see http://www.ies.unsw.edu.au/about-us/news-activities/2013/04/least-cost-100-renewable-electricity and http://www.ies.unsw.edu.au/sites/all/files/profile_file_attachments/LeastCostElectricityScenariosInPress2013.pdf

41 This tactic is detailed in 'Strangling Renewables: Origin Energy's Campaign Against Renewable Energy', 100% Renewable and Greenpeace Australia Pacific, 2013. Accessed 15 June 2014 at: http://www.greenpeace.org/australia/Global/australia/images/2013/Strangling%20Renewables.pdf

42 Hannam, P., 'Renewables future at mercy of big power retailers', *Sydney Morning Herald*, 2 April 2013. Accessed 10 June 2014 at: http://www.smh.com.au/business/carbon-economy/renewables-future-at-mercy-of-big-power-retailers-20130402-2h4ki.html

43 For example, Origin Energy has deliberately shelved making a decision about a new wind farm development, claiming it is waiting on the outcomes of the Renewable Energy Target review. See Robins, B., 'Origin Energy's $900 million wind project threatened by RET review', *Sydney Morning Herald,* 20 February 2014. Accessed 10 June 2014 at: http://www.smh.com.au/business/origin-energys-900-million-wind-project-threatened-by-ret-review-20140220-333za.html

44 Garnaut, R., 'Resolving Energy Policy Dilemmas in an Age of Carbon Constraints', *The 2014 John Freebairn Lecture in Public Policy,* Melbourne, 20 May 2014, p10. Accessed 11 June 2014 at: http://fbe.unimelb.edu.au/__data/assets/pdf_file/0004/1028137/Transcript_2014_Freebairn_Lecture_Ross_Garnaut_v1.pdf

45 For example, see company websites and sustainability reports: 'Renewable Energy' page of Origin Energy's website http://www.originenergy.com.au/renewablegeneration; AGL's 2013 Sustainability Report: http://www.agl.com.au/about-agl/what-we-stand-for/sustainability/sustainability-report and EnergyAustralia's 2013 Sustainability Report http://www.energyaustralia.com.au/about-us/what-we-do/clean-renewable-energy/sustainability-report

46 '$70 billion at stake in the RET attack', *Climate Spectator*, 26 May 2014. Accessed 12 June 2013 at: http://www.businessspectator.com.au/article/2014/5/26/energy-markets/70-billion-stake-ret-attack

47 Clean Energy Council, 'Why we need the Renewable Energy Target'. Accessed 12 June 2014 at: http://www.cleanenergycouncil.org.au/policy-advocacy/renewable-energy-target/why-we-need-the-renewable-energy-target.html

48 Clean Energy Council, 'Clean Energy Council submission to: Renewable Energy Target Review Issues Paper', 2014, p 3. Accessed 15 June 2014 at: http://www.cleanenergycouncil.org.au/dam/cec/policy-and-advocacy/submissions/RET/CEC-submission-to-RET-review-issues-paper-140516.pdf

49 Clean Energy Council, 'New study shows power prices will be lower with Renewable Energy Target'. Accessed 11 June 2014 at: http://www.cleanenergycouncil.org.au/media-centre/media-releases/april-2014/140430-power-prices-lower-with-renewable-energy-target.html

50 EnergyAustralia, 2013 Sustainability Report http://www.energyaustralia.com.au/about-us/what-we-do/clean-renewable-energy/sustainability-report

51 GFD Suez http://www.gdfsuezau.com/about-us/assets/

52 CS Energy http://www.csenergy.com.au/content-(172)-gladstone%20.htm

53 Origin Energy, 2013 Annual Report http://www.originenergy.com.au/files/Origin_Energy_2013_Annual_Report_web-ready.pdf

54 Renewable Energy Target Review Expert Panel Call for Submissions, Commonwealth of Australia 2014. http://retreview.dpmc.gov.au/sites/default/files/papers/RET_Review_Call_Submissions.pdf

55 Bureau of Resources and Energy Economics, 'Electricity Generation Major Projects 2013', October 2013. Accessed 11 June 2013 at: http://bree.slicedlabs.com.au/sites/default/files/files/publications/egmp/bree-egmp-report-201310.pdf. In this BREE analysis, projects that are "publicly announced" are at the early stages of planning or have stalled their development. Projects in the "feasibility stage" have undergone extensive study and planning in making them ready for an investment decision and approval by the proponent. Projects in the "committed stage" are under construction or about to commence construction.

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