

The coal climate

Twelve new coal power stations on the drawing board in Australia

Introduction

Today, twelve new coal fired power stations are on the books in Australia, with one already mid way through construction.

If all of these plants are constructed, they will increase Australia's total annual greenhouse emissions by approximately 39 Mt CO₂-e, or around 7% compared to 2008 emission levels.ⁱ

The Government's proposed CPRS would do nothing to stop this, while the so-called "direct action" climate policy the federal coalition is proposing also fails to address the crucial question of new coal.

Australia is locking itself into an economy fuelled by the most polluting energy source available. Rather than preventing new coal plants and driving investment in renewable energy, the CPRS will see Australian money flooding abroad as offsets.

Meanwhile, Australia has one of the highest dependencies on coal for electricity of any country in the world, with over 80% of all energy coming from coal.ⁱⁱ

What proposals are on the table?

There are currently proposals for twelve new coal fired power stations in Australia, in addition to several major expansions or refurbishments of existing plants.

The largest proposed expansion of coal power is in NSW, with proposals to build two new 2GW power stations (Bayswater II in the Hunter Valley and Mt Piper II in the Blue Mountains), as well as major upgrades and expansions to existing coal plants. At this stage the NSW Government is leaving open the choice of fuel (either coal or gas) to the private sector bidders who would build and own these two plants, but it is widely thought that coal would be the most likely option for the proposed sites due to their proximity to existing coal infrastructure.

The widely criticised "Owen Report", released in 2007, argued for new baseload generation in NSW. However, since then, projections of growth in NSW energy demand have been revised down and an energy shortfall is now not expected until 2017.ⁱⁱⁱ

Research by the Institute of Sustainable Futures^{iv} shows that NSW energy demand can be more cost effectively met through a combination of modest energy efficiency improvements, combined with investments in decentralised, renewable energy using existing technology.

In South Australia there are proposals to build two coal plants to support the controversial coal to liquids technology championed by Federal Minister for Resources and Energy Martin Ferguson^v. The Arckaringa project plans are for an integrated 10 million barrel per year Coal to Liquid ('CTL') plant with a 560 MW co-generation power facility. The proponent, Altona, holds three exploration licences covering 2,500 sq. kms in the northern portion of the Permian Arckaringa Basin in South Australia, containing more than 7.5 billion tonnes of coal.

In Victoria, the proposed HRL coal power station received \$50M in handouts from the Victorian Government and a further \$100 m from the Federal Government.

In Queensland, the proposed Galilee coal power stations form part of a massive \$7 billion coal project that plans to export 40 million tonnes of coal each year, while in Western Australia, the Bluewaters power station is already under construction with a further 2 plants on the drawing board.

Proposed new coal power stations in Australia

	Project Name	Project description	State	Size	Estimated GHG emissions TCO ₂ -e p.a.	Company & website
1	Mt Piper	Proposed new coal (or gas) power station	NSW	2000MW	10,470,000	Delta electricity http://www.de.com.au
2	Bayswater	Proposed new coal (or gas) power station	NSW	2000MW	12,428,000	Macquarie Generation http://www.macgen.com.au/
3	Bluewaters 2	Proposed new coal power station	WA	208MW	1,300,000	Griffin Energy http://www.griffinenergy.com.au/
4	Bluewaters 3	Proposed new coal power station	WA	208MW	1,300,000	Griffin Energy http://www.griffinenergy.com.au/
5	Bluewaters 4	Proposed new coal power station	WA	208MW	1,300,000	Griffin Energy http://www.griffinenergy.com.au/
6	Zero Gen	Proposed new coal power station – with CCS.	QLD	380MW (net)	930,000	Zerogen (QLD Gov't) http://www.zerogen.com.au/project/overview.aspx
7	Galilee Phase 1	Proposed new coal power station and export coal mine.	QLD	450MW	2,345,000	Galilee Power http://www.dip.qld.gov.au/resources/project/galilee-power-station/waratah-power-ias.pdf
8	Galilee Phase 2	Proposed new coal power station and export coal mine.	QLD	450MW	2,345,000	Galilee Power http://www.dip.qld.gov.au/resources/project/galilee-power-station/waratah-power-ias.pdf
9	Wandoan	Proposed new coal power station	QLD	400MW (net)	643,000	Stanwell & GE http://www.wandoanpower.com.au/Home
10	Arckaringa	Coal to liquid plant with new coal power station	SA	560MW (net)	2,943,000	Altona Energy http://www.altonaenergy.com/index.html
11	Hybrid Energy	Coal to liquid plant with new coal power station	SA	40MW	196,000	Strike Energy / Hybrid Energy http://www.strikeenergy.com.au/operations/otwayBasin.php
12	HRL	Proposed new brown coal power station - including a drying & gasification process.	VIC	550MW	3,000,000	HRL http://www.hrl.com.au/
Total				7,454MW	39,200,000*	

* Assuming that Bayswater and Mt Piper power stations were to go ahead as coal rather than gas – which is the more likely option given the availability of low cost coal to the development sites.

**Data for this table has been compiled from Electricity Supply Association of Australia, company statements and State Government planning documents. References available upon request.

ⁱ Based on a national total of 551 MtCO₂-e in 2008 <http://www.climatechange.gov.au/climate-change/~media/publications/greenhouse-report/national-greenhouse-gas-inventory-pdf.ashx>

ⁱⁱ http://www.abareconomics.com/interactive/09_auEnergy/htm/chapter_3.htm

ⁱⁱⁱ Rutovitz J., Dunstan C. 2009. Meeting NSW Electricity Needs in a Carbon Constrained World. Institute for Sustainable Futures, UTS, 2009

^{iv} Rutovitz J., Dunstan C. 2009. Meeting NSW Electricity Needs in a Carbon Constrained World. Institute for Sustainable Futures, UTS, 2009

^v <http://minister.ret.gov.au/TheHonMartinFergusonMP/Pages/SpeechtoCTIandGTLAnnu.aspx>