



CROW Newsletter

February, 2019

This is big – NSW Land and Environment Court says no to Rocky Hill coal mine.

In an Australian first, the NSW Land and Environment Court this morning rejected the Rocky Hill coal mine near Gloucester, on social and climate change grounds.

The court has effectively ruled that coal – just like tobacco and asbestos – is bad for us.

Significantly, the court ruled that a new coal mine would increase greenhouse gas pollution when what is needed to meet the Paris Climate Agreement commitments “is a rapid and deep decrease in greenhouse gas emissions.”

In an opinion piece in the SMH, David Morris, CEO of the NSW Environment Defenders Office, said, ‘When we first argued that..Groundswell Gloucester should be a party to this case and put a climate change ground before the court, the mining companies thought it a laughable proposition (but) the ramifications are likely to ripple across Australia and possibly the world. This is climate litigation writ large.’

“This case says the starting point for a new fossil fuel project is ‘no’.”

For more detail see the report in the Guardian [here](#).

And this is bigger – Germany getting out of coal by 2038

Germany, one of the world’s biggest consumers of coal, will shut down all 84 of its coal-fired power plants over the next 19 years to meet its international commitments in the fight against climate change, a government commission said Saturday.

The announcement marked a significant shift for Europe’s largest country — a nation that had long been a leader on cutting CO2 emissions before turning into a laggard in recent years and badly missing its reduction targets. Coal plants account for 40% of Germany’s electricity, itself a reduction from recent years when coal dominated power production.

“This is an historic accomplishment,” said Ronald Pofalla, chairman of the 28-member government commission, at a news conference in Berlin following a marathon 21-hour negotiating session that concluded at 6 a.m. Saturday. The breakthrough ended seven months of wrangling. “It was anything but a sure thing. But we did it,” Pofalla said. “There won’t be any more coal-burning plants in Germany by 2038.”

The OECD thinks the Australian Government is dithering

The OECD has urged Australia to intensify its efforts to decarbonise its economy if it has any hope in meeting its 2030 emissions reduction target.

The OECD’s third Environmental Performance Review of Australia found that the country remains one of the most carbon-intensive economies in the bloc.

The review concluded that Australia needs to develop a long-term strategy that integrates energy and environmental policies to support its commitment to reducing emissions to 26-28% below 2005 levels by 2030.

The country remains one of the most dependent on non-renewable energy of the world’s developed economy, with fossil fuel consumption still benefitting from government support. Coal, oil and gas make up 93% of the overall energy mix compared to an OECD average of 80%. The share of renewables in electricity generation has risen to 16% but remains below the OECD average of 25%.

But while the government dithers, business gets going. (Simon Holmes-a-Court)

While the government continued to trash Australia's international reputation by [reaffirming allegiance to coal on the global stage](#), lying about [progress on our climate commitments](#) and [dismissing the findings of the landmark IPCC report](#), the transformation in our electricity sector tells a different and hopeful story.

Attacks by the former prime minister Tony Abbott and his environment minister Greg Hunt on the renewable energy target, and the investment strike that followed, are a fading memory. Momentum is now unstoppable.

In the three years from 2018 Australia will install a little over 12 gigawatts of renewables, as much as was installed in the 30 years after the country's first windfarm opened at Salmon Beach in Western Australia in 1987.

Since 2017, 19 new windfarms and 30 new solar farms have been registered and in early December the two millionth Australian household went solar. Once derided as insignificant, solar supplied more than 7% of Australia's power over the past three months.

A little over a decade ago, when just 5.2% of our power was from renewables, the Rudd government was swept into office with an aspirational pledge of "20% by 2020". That target has been met two years early, and analysts [Green Energy Markets predict](#) one-third of our power will be from clean energy by 2021.

The transformation of the national electricity market over the decade has been stunning. Highly polluting brown coal use is down 36.6% and black coal (still dirty!) has fallen 9.4%, mostly replaced by wind and solar. Surprising to many, we burn less gas in the NEM now than we did a decade ago.

"Clean coal" is dirty and unreliable. Who would have thought.

The nation's newest coal plants are amongst the most unreliable, according to a new report released by The Australia Institute (TAI).

The report found that the 'supercritical' and 'High Efficiency, Low Emissions' generators have the highest breakdown rates per gigawatt.

"Australia already has supercritical coal plants. They break down even more often, gigawatt for gigawatt, than our old clunker coal plants," says Richie Merzian, Director of The Australia Institute Climate & Energy Program.

"These new supercritical coal plants are touted by proponents as 'High Efficiency, Low Emissions' (HELE) coal plants, but this could not be further from the truth.

"Our research shows that not only are these coal plants less reliable, but they are more emissions-intensive than renewable energy and even gas."

The unfavourable report comes just a matter of weeks after new international findings concluded that climate change can be limited to 1.5c if a complete decarbonisation of the future energy pipeline is achieved.

TAI's report can be found [here](#)

So here is the good news.

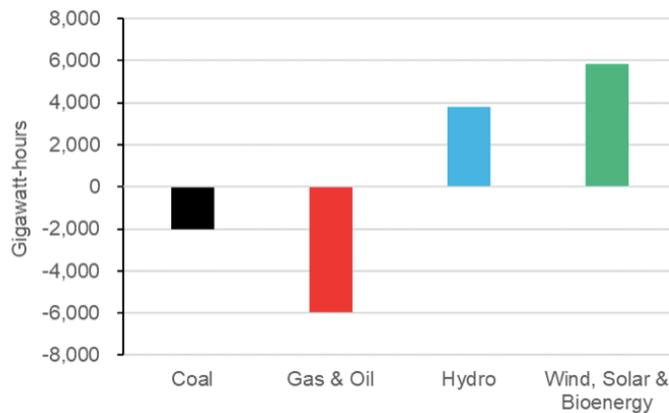
2018 will likely go down as the year that fossil fuels in Australian electricity generation began an inexorable decline, with renewable energy making significant in-roads. These will continue into 2019 and 2020, and almost certainly beyond that.

Renewable energy broke through the 20 per cent market share threshold for the first time since the 1970's, achieving a share of 21.3 per cent across the combination of Australia's main east and west-coast grids. This was significantly up on 2017's share of 17 per cent.

Within the east coast National Electricity Market both coal and gas generation fell in absolute terms in 2018 relative to the prior year. Gas suffered a particularly big fall, dropping by 26 per cent on the prior year.

Wind and solar by contrast experienced substantial growth. Wind generation was up in the NEM by 26 per cent, while solar was up by 35 per cent. Hydro generation was also up substantially by 29 per cent, however this represents more of a cyclical, short-term phenomenon.

Figure 1 - Change in levels of power generation by fuel in 2018 compared to 2017 for NEM



Source: Green Energy Markets Renewable Energy Index analysis of AEMO data via NEM Review and LGC and STC registry data

Love this technology – how one person can plant 100 000 trees a day

[If you like green technology, you must check this short video out - a tree planting drone that can plant 100 000 trees a day.](#)

Yes, that is 100 000 trees. And exactly where you want them, in any terrain.

And it is, of course, an Australian invention.

Ban new climate-damaging exports – sign the petition

Margaret Hender from Cedamia (Climate Emergency Declaration and Mobilisation in Action) is asking for more signatures for their petition to stop fossil fuel exports.

The petition can be found [here](#).

LNG exports cause massive amounts of extra greenhouse gas emissions – emissions which could have been avoided simply by not approving LNG export initiatives over recent years. Existing coal, oil, and LNG export contracts might be hard to wind back, but given the climate emergency the Australian Parliament should at least ban any NEW fossil fuel export contracts. This would have surprisingly little impact on the Australian economy and would prevent locking in avoidable future increases in greenhouse gas emissions.

Yes we can – Paris targets are possible and cheap. Major UTS study.

The world can meet the Paris climate targets at about a quarter of the cost of current subsidies for fossil fuels, according to [a new climate study](#) funded by the Leonardo DiCaprio Foundation. The study, entitled *Achieving the Paris Climate Agreement*, is the culmination of a two-year scientific collaboration with 17 leading scientists at the University of Technology Sydney (UTS), two institutes at the German Aerospace Center (DLR), and the University of Melbourne's Climate & Energy College.

The One Earth climate model is groundbreaking in that it shows the 1.5°C can be achieved through a rapid transition to 100% renewables by 2050, alongside land restoration efforts on every continent that increase the resilience of natural ecosystems and help to ensure greater food security.”

The scientists at UTS created a [sophisticated computer model](#) of the world's electrical grids to date, with 10 regional and 72 sub-regional energy grids modeled in hourly increments to the year 2050 along with a comprehensive assessment of available renewable resources like wind

and solar, minerals required for manufacturing of components, and configurations for meeting projected energy demand and storage most efficiently for all sectors over the next 30 years. The result shows that “not only is it possible to switch to 100% renewables for all energy uses, but it will cost no more to operate than today’s energy system. Moreover, it will eliminate the toxic pollution associated with the burning of fossil fuels, estimated to be the [primary cause](#) of 9 million premature deaths per year. The renewable energy transition will not only improve public health worldwide, it will also drive economic development, providing the 30 million people currently working in the energy sector with permanent, well-paying jobs and creating an additional 12 million new jobs.

Here are three things our politicians didn't want to hear:

From the Australia Institute

The West Australian Government recently cancelled a scientific briefing on fracking. These are the facts they wanted to avoid:

1// The gas industry employs fewer people per dollar of output than any other industry. If employment growth is the policy goal, then investment in virtually any other industry would deliver better results. Our analysis shows that in the most optimistic case, fracking in WA would add 0.05% to total WA jobs (one-twentieth of one per cent!)

2// Fracking is likely to generate little revenue for the state. Even a relatively large shale gas industry would be likely to generate revenue worth just 0.6 per cent of WA's state government revenue -- roughly the value of traffic fines to the WA budget.

3// Allowing the WA fracking 'carbon bomb' could be equivalent to 120 new coal plants operating for 25 years. Australian Institute research has shown how devastating the climate change consequences of a massive expansion of fracking in both Western Australia and the Northern Territory. WA is already heading for up to 6.5° warming within our children's lifetimes according to the Government. Why is fracking in WA even being considered?

If you think it is hot you are right

The Atlantic

SCIENCE

The World Just Experienced the Four Hottest Years on Record

NASA and NOAA are both shut down, so outside scientists affirmed the milestone this week.

ROBINSON MEYER 7:00 AM ET



May McKeown, an Australian farmer, drives her truck to feed the remaining cattle on her drought-affected property in July. (DAVID GRAY / REUTERS)

2018 was hotter than any year in the 19th century. It was hotter than any year in the 20th century. It was hotter than any year in the first decade of this century. In fact, with only three exceptions, it was the hottest year on Earth since 1850.

Those three exceptions: 2018 was slightly cooler than 2015, 2016, and 2017. The past four years, in other words, have been the four hottest years ever reliably measured.

Project Drawdown – the best 100 ways to slow down climate change

This is worth checking out for solid ideas. Go to Project Drawdown at:

<https://www.drawdown.org/>



The Project gathered a qualified and diverse group of researchers from around the world to identify, research, and model the 100 most substantive, existing solutions to address climate change. What was uncovered is a path forward that can roll back global greenhouse gas emissions within thirty years. The research revealed that humanity has the means and techniques at hand. Nothing new needs to be invented, yet many more solutions are coming due to purposeful human ingenuity. The solutions we modeled are in place and in action. Humanity's task is to accelerate the knowledge and growth of what is possible as soon as possible.

And they are not what you might always expect – two examples:

Educate women and girls

Educated girls realize higher wages and greater upward mobility, contributing to economic growth. Their rates of maternal mortality drop, as do mortality rates of their babies. They are less likely to marry as children or against their will. They have lower incidence of HIV/AIDS and malaria. Their agricultural plots are more productive and their families better nourished. Education also shores up resilience and equips girls and women to face the impacts of climate change. They can be more effective stewards of food, soil, trees, and water, even as nature's cycles change. They have greater capacity to cope with shocks from natural disasters and extreme weather events.

Afforestation

Creating new forests where there were none before is the aim of afforestation. Degraded pasture and agricultural lands, or other lands corrupted from uses such as mining, are ripe for strategic planting of trees and perennial biomass.

Afforestation can take a variety of forms—from seeding dense plots of diverse indigenous species to introducing a single exotic as a plantation crop, such as the fast-growing Monterey pine, the most widely planted tree in the world. Whatever the structure, afforestation creates a carbon sink, drawing in and holding on to carbon and distributing it into the soil.