



As the crow flies

(Straight to the point)

October, 2019

NEWS

Adani insurers heading for the exits

A Lloyd's of London insurer – considered one of the few remaining possible underwriters for elements of the Carmichael coal project – has distanced itself from Adani and says it is not involved in negotiations.

Canopus was one of two global companies understood to have held discussions with a broker about insuring the construction of Adani's proposed rail line, linking the Carmichael mine site to the [Queensland](#) freight network.

Both now appear to have ruled themselves out. It was reported on Thursday that Axis Capital withdrew its bid. Canopus said in a statement on Friday it was "not involved in any negotiations to provide insurance coverage for the Adani mine project".

The dog ate my homework

CROW has made its submission to the NSW Government's inquiry into the future of renewable energy. I was supposed to send out a summary of our submission by now but ran out of time. I will try and get it out 'soon' as a separate email.

SCIENCE

The carbon clock.

We have done this before but it's time to check it again. This is what it was like when I wrote this newsletter on Wednesday afternoon. If you want to see what has happened since, and a full explanation, click [here](#)

2,215,064,694,504 684,935,305,496

Total carbon budget used since 1870, in tons (CO2-e)

Total carbon budget remaining in tons (CO2-e), if we want to limit human-induced warming to less than 2C



2,900,000,000,000
total carbon budget in tons (CO2-e)

251,984

Total emissions in tons (CO2-e) since you started reading this

17 years, 87 days, 8 hrs, 26 mins, 22 secs

Until we will exceed the IPCC's 2C carbon budget, if our emissions stay as they are now

The bushfires of the future are already here.

They burn earlier in the season, and more ferociously, and can interact with extreme weather events to create fires we don't know how to fight.

Key points

- The national aerial firefighting centre, which two years ago flagged the need for an \$11m funding boost, still has not received a decision from the Federal Government
- The Government has not guaranteed funding for the only national body researching the future of bushfires
- Twenty-three emergency services experts calling on the Government to consider the threat of climate change in fire planning have not received a response

This year, the bushfire season began with the worst September in recorded history, with 55 homes destroyed.

The Australian winter was only just in the rear-view mirror when 130 bushfires ripped through southern Queensland and northern NSW in one day.

Former New South Wales fire and rescue commissioner and Climate Council member Greg Mullins said unprecedented conditions could give rise to so-called Black Swan fire events.

"We're going to have fires that I can't comprehend, and I've been in the game for nearly half a century," he said.

A Black Swan is something without precedent and thought to be impossible, until it happens. When it comes to bushfires, these Black Swans happen as our environment changes, creating conditions firefighters have never seen before.

Emergency experts and senior scientists have told a joint ABC investigation that a comprehensive national plan is needed to tackle the fires of the future, and they are concerned about the lack of financial commitment from the Federal Government for resources and research.

POLITICS AND POLICY

Forget net zero – let's go for the whole 700%

Australia's political class is wrestling with the issue of how big a share renewable energy should hold in Australia's grid. At around 20 per cent now, energy minister Angus Taylor already thinks there is too much wind and solar in the network. Labor wants a 50 per cent share by 2030, while the Greens suggest 100 per cent by the same date. The Australian Energy Market Operator is contemplating [scenarios that could see the grid largely decarbonised before 2050](#).

But about 700 per cent renewables – or around 700 gigawatt of wind and solar (compared to our current installation of around 10GW of large scale wind and solar by the end of 2020?

That's the estimate that could be put forward by chief scientist Alan Finkel in his upcoming national hydrogen strategy, and it is one that has the support of Darren Miller, the CEO of the Australian Renewable Energy Agency, which has targeted [hydrogen as one of its core investment themes for its remaining funds](#), along with grid integration, and injecting renewables into industrial processes.

"The key input into renewable hydrogen is low cost electricity," Miller says in an interview with [RenewEconomy's Energy Insiders podcast](#).

"For the first time now with solar and wind prices being so low and still going down, we can see a pathway to very low cost electricity."

And with huge Asian economies such as Japan and Korea hungry for green electricity, and without the resources to provide it themselves, Australia had a fantastic opportunity to develop an export market in renewable hydrogen that would match the current LNG market.

"If we try to make of hydrogen the same kind of opportunity as we have now for LNG, we probably need 700GW of wind and solar to produce that amount of hydrogen," Miller says.

And, if that is grid connected, as he thinks it should be: "We will have a giant system, where cheap electricity is just a bi-product of that system."

Climate Council fact checks PM's UN speech

This week, after avoiding the United Nations Climate Summit altogether, Prime Minister Scott Morrison took to the global stage to defend his government's poor climate record.

His speech to the UN general assembly was long on spin and short on fact – so we asked our climate experts to sift through the speech and hit back with the truth.

Here are our top 8 fact-checks on Morrison's speech:

Morrison statement: "Now, Australia is also taking real action on climate change and we are getting results. We are successfully balancing our global responsibilities with sensible and practical policies to secure our environmental and our economic future."

Fact-check: Australia's Paris target is to reduce our emissions by 26-28% below 2005 levels by 2030. This is one of the weakest targets amongst developed countries. If other countries adopted Australia's target the world would be heading for catastrophic climate damage. Rising emissions and worsening climate impacts are placing Australian lives, our economy and the natural environment at risk.

Morrison statement: "Australia is responsible for just 1.3 per cent of global emissions. Australia is doing our bit on climate change and we reject any suggestion to the contrary."

Fact-check: Australia is the 17th largest polluter in the world, bigger than 175 countries. We are the third largest exporter of fossil fuels in the world.

For the other six fact checks go to [here](#).

[Climate denial explained - why some people still think climate change isn't real](#)

A great article on the origins of Climate Science denial and how to deal with it. The full article is well worth reading and can be found by clicking on the headline above.

On the one hand, it reminds us that deniers are capable of acknowledging the science – at some level, they already do – even though they struggle to embrace the practical and ethical implications. Consequently, climate communications may do well to appeal to more diverse values, particularly those values held by the deniers themselves.

Experiments have shown that, if the risks and realities of climate change are [reframed](#) as opportunities for community relationship building and societal development, then deniers can shift their views. Similarly, in the US context, appealing to [conservative values](#) like patriotism, obeying authority and defending the purity of nature can encourage conservatives to support pro-environmental actions.

On the other hand, not all deniers will be convinced. Some downplay and discount climate change precisely because they recognise that the low-emissions transition will adversely impact their interests. A bombardment of further facts and framings is unlikely to move them.

What will make a difference is the power of the people – through regulation, divestment, consumer choice and public protest. Public surveys emphasise that, throughout the world, [deniers are in the minority](#). The worried majority doesn't need to win over everyone in order to win on climate change.

MONEY

[From Ford cars to wind turbines – rebirth of manufacturing in Victoria](#)

Wind turbines are being assembled on Australian soil for the first time in more than 10 years, with the launch of the Vestas Renewable Energy Hub at a former Ford Motor factory in Victoria. The new facility was officially opened on Thursday in Victoria's former centre for car manufacturing, Geelong, with state Premier Daniel Andrews and minister for energy Lily D'Ambrosio in attendance.

Representatives of Vestas and Marand with Premier Andrews and minister D'Ambrosio at the time of the VREH announcement in February 2019.

Initially, the plant will be used to assemble drive trains and hubs – and test other components – destined for Victoria’s 336MW Dundonnell and 180MW Berrybank wind farms, two projects supported in their development via the state government’s reverse auction scheme. In a statement on Thursday, the government said more than 20 workers were already at work assembling 100 turbine hubs and 50 drive trains for those projects, both of which have local content commitments as part of the state government’s Victorian Industry Participation Policy. The Hub is also expected to invest \$3.5 million in a range of initiatives to grow the local wind energy industry, including a Service, Logistics and Training Centre in nearby Grovedale that will service turbines and house major turbine components.

Does climate change risk include your superannuation?

The risk that your super could take a hit to its bottom line because of climate change could soon be something your fund is legally obliged to act on.

Key points:

- Mark McVeigh is suing his super fund for failing to provide details on how it will minimise the risk of climate change
- Super funds are legally required to pass on info that members need to make decisions about their investments
- It's the first time a superannuation fund has been sued for not doing enough on climate change

That's because 23-year-old Mark McVeigh is suing a \$50 billion super fund — and if he wins, the industry will likely never be the same.

Experts say the case could force super funds to do more to protect people's savings from the impacts of climate change.

And since super funds own about a quarter of the Australian stock exchange, that could change the way business is done across the country.

Mr McVeigh graduated with an ecology degree from the University of Queensland earlier this year. He's unlikely to get hold of his super until at least 2055.

But by that time, if carbon pollution continues on its current path, the world is likely to have warmed by more than 2 degrees Celsius, according to the [Intergovernmental Panel on Climate Change \(IPCC\)](#).

Global warming of this nature represents a risk to many businesses, and anyone who invests in them.

TECHNOLOGY

They made the first petrol car in 1886 but ...

Daimler has no plans to develop next-generation combustion engine

In an interview with German magazine [Auto Motor und Sport](#), Markus Schaefer, the development head at the car company said there are no plans to develop a next-generation combustion engine as the company focuses on electric powertrains. The executive did acknowledge Daimler could still develop parts for the combustion engine to improve upon the existing engines.

Schaefer told the magazine that the main developmental focuses are now on electric drives and developing batteries. That's not to say Daimler is abandoning combustion engines. The engine will be found in its E and S Class vehicles and its SUVs.

VW is phasing out the combustion engine too

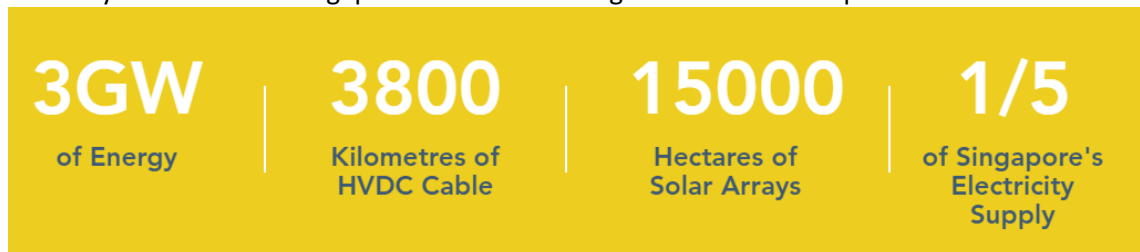
Daimler isn't the only vehicle maker that is eventually saying goodbye to the combustion engine. In late December German rival, Volkswagen said it will develop the last generation of vehicles that are powered by a combustion engine in 2026.

“In the year 2026 will be the last product start on a combustion engine platform,” Michael Jost, chief strategist at VW said [at the time](#).

The moves on the part of the vehicle makers come at a time when interest in electric cars is growing. While it's still a small portion of vehicle sales, advances in technology and increased focus on the part of the traditional vehicle manufacturers are boosting interest. As it stands, Tesla is the undisputed leader in the EV marketplace.

Exporting the sun – the Sun Cable project

These are the numbers behind an ambitious plan to generate electricity in the Northern Territory and send it to Singapore. A brave new angle on Australian exports.



As an island nation, Singapore is reliant on imported Liquid Natural Gas for 95% of its electricity. This leaves Singapore's electricity consumers excessively exposed to the vagaries of global oil and gas pricing.

Sun Cable will produce approximately a fifth of Singapore's electricity through solar power, sourced from the Australian desert and transmitted via a High Voltage Direct Current (HVDC) cable. Australia's strong relationship with Singapore, its stable economy, political and legal framework, will ensure security of supply for Singapore.

The 15,000 hectare solar array near Tennant Creek in Australia's Northern Territory will be supported by battery storage. This will allow Singapore, and also the Northern Territory, to have a more diverse electricity supply, thereby increasing resilience and helping it meet its Paris Commitment greenhouse gas reduction targets.

Community consultation will begin in late 2019.