



# As the crow flies

(Straight to the point)

July, 2020

## **Abbeyfield update – PV project has the money and is ready to go**

You may have noticed an article in the Daily Advertiser this week announcing that the CROW initiative to install solar panels on the new Abbeyfield House has raised the money for the project to go ahead. Thanks to William and the other members of CROW who supported and pushed this program ahead.

Abbeyfield Koorungal is a newly built set of six units on Stanley St in Wagga, designed to provide secure and affordable housing to residents living with an intellectual disability. The site will provide Abbeyfield residents with opportunities both to live independently and to form friendships with other residents.

Climate Rescue of Wagga (CROW) has assisted Abbeyfield Koorungal to access funding that will allow it to install solar panels on each of the six units at the site. This is being done in part through a generous \$10,000 grant from Spark Infrastructure, which is the owner of the new Bomen Solar Farm.

The remaining funding of approximately \$34,000 has been raised through CORENA, a not-for-profit organisation that funds solar panels and other energy saving projects for community facilities. This is done through an innovative process of donations into a revolving fund. Money from the fund will be lent to Abbeyfield, which will repay it from the savings on their electricity bills.

**A big thanks to all CROW members who contributed to this great project.**

## **[CROW/WWCC Blower Door project report](#)**

*This is a summary of CROW's report to council on this project.*

A blower door project, funded by the Wagga Wagga City Council, to reduce energy consumption and costs while improving comfort has just concluded.

The project conducted blower door tests on four homes and made recommendations for reducing the leakage of air into and out of the homes. "Blower doors" blow air out of (or into) a home to detect where air leaks in and out.

This small project was designed to demonstrate the benefits that easy actions on energy efficiency can have.

Members of the local community group Climate Rescue of Wagga (CROW) conducted the tests on the homes of four volunteers. The project funding from Council provided for three hours of labour by a local handy person and purchase of materials to seal off leaks, for each home.

In the end, only one of the homes took up the help of the handyperson. There, the flow of air into the zone of the house that was heated was reduced by 40% in a follow-up blower door test.

At another of the homes, simply locking the sash windows improved the seal and reduced the flow of air into the home by 7%. In another home, improving the seal of just two of the air-conditioning vents with a piece of carpet underlay reduced the flow of air into the home by 13%.

This project was part of a larger set of blower door tests that CROW has conducted. In one of those cases, after making inexpensive fixes to draughts, the homeowners were able to be comfortable with their heater in their zoned area set for only 22C, instead of the 25C that they had found necessary previously.

The blower door equipment used has been lent to the Junee Community Power group by Charles Sturt University.

William Adlong commented, "It would be wonderful to see government at different levels take up the calls for major investment in improving the energy efficiency of low income and social housing as part of job creation and economic stimulus in response to the Covid-19 crisis.


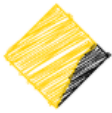


## MONEY

[Since the Paris Accord Australia's big banks have ploughed \\$35.5 billion into the coal, oil and gas industries.](#)

### 1.5°C Scorecard: Bank actions since January 2016

				
Total lending to fossil fuels	\$10,843 million	\$12,059 million	\$7,274 million	\$5,396 million
Total lending to expansionary projects	\$2,222 million	\$2,827 million	\$1,214 million	\$843 million
Fossil fuels vs renewables lending ratio	\$5.49 : \$1	\$3.73 : \$1	\$1.35 : \$1	\$2.71 : \$1
Total emissions enabled (tonnes CO2)	4.1 billion	5.4 billion	2.5 billion	1.9 billion

### 1.5°C Scorecard: Bank policies

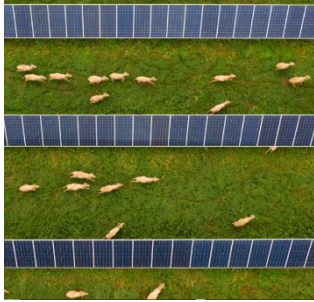
				
Plans to exit thermal coal by 2030, consistent with Paris Agreement?	No	Yes	No	Yes
Plans to phase out all fossil fuel exposure in line with the Paris Agreement?	No	No	No	No
Explicitly rules out funding new or expansionary fossil fuels?	No	No	No	No
Explicitly rules out funding companies whose business plans are consistent with the failure of the Paris Agreement?	No	No	No	No

If you would like to send a message to your bank about this you can do so [here](#).

## As coal investment sinks, the rush to renewables gets faster

Investor confidence in clean energy is rising strongly, led by interest in NSW's new renewables zones, while the boom in solar rooftop installations shows little sign of tapering.

The latest semi-annual survey of renewable energy generators and storage firms by the Clean Energy Council showed businesses were more confident about investing in large-scale wind and solar farms than any of the previous four polls.



On a range of 0-10, the confidence level rose to 7.3 at the end of June from a low of 6.5 at the end of 2019.

Among the states, NSW topped the list for the first time, with investor confidence up from 6.8 to 7.5 at the end of June. It overtook Victoria, where confidence edged higher from 6.9 to 7, while Queensland also registered a big rise from 5.6 to 6.8.

Sheep graze near a solar farm near Dubbo. The industry is facing an upturn of confidence in NSW and the rest of the nation. *CREDIT: JANIE BARRETT*

## The Million Jobs Plan – Beyond Zero Energy’s plan for economic recovery after COVID-19

The [Million Jobs Plan](#) shows how, by tackling climate change, we can also create jobs. The plan outlines zero-carbon initiatives that could generate 1.8 million jobs in the next five years. These job-creating initiatives include:

- A massive acceleration in the installation of renewable energy - 90 gigawatts of solar and wind energy, backed up with new transmission infrastructure and storage.
- Deep energy retrofits to 2.5 million Australian homes to reduce energy bills and create healthier more comfortable homes.
- Building 150,000 energy-efficient social houses to tackle Australia’s chronic lack of social housing.
- Electrifying public transport by introducing 18,000 electric buses and electrifying 3000 kilometres of existing railway.

### The Million Jobs Plan can rebuild Australia’s Economy

In just 5yrs renewables + low emissions projects can deliver...

**1.8m**  
new jobs

In regions & communities these are needed most



90GW renewable energy + transmission  
**200k**  
JOBS

2.5m retrofits + new buildings  
**940k**  
JOBS

20,000 electric buses + new green transport  
**140k**  
JOBS

Clean manufacturing + mining  
**230k**  
JOBS

27MHA land regeneration  
**200k**  
JOBS

90% waste recycled  
**80k**  
JOBS

+ 10,000 new jobs in Training, Education and Research

Affordable  
Reliable  
Clean Energy

Reducing  
Cost of  
Living

Strengthen  
Regional  
Communities

kilometres of existing railway.

- Creating or improving 5,000 kilometres of cycle lanes.

- Using Australian’s exceptional renewable resources to revitalise manufacturing, creating new industries in renewable hydrogen and ammonia and zero-emission metals.

- Revegetating 27 million hectares of land to restore our unique ecosystems and reduce national emissions by 5% per year. This would create 40,000 on-going jobs, including 6000 Indigenous rangers.

- Increasing the national recycling rate to 90% generating 78,000 jobs in the next five years.

## POLITICS AND POLICY

### Whitehaven's Vickery coalmine

The state's 52nd coal mine, and the first since Covid, has been approved by the Minister for the Environment in NSW amid plunging coal prices and huge local opposition. The fate of Whitehaven's Vickery mine, and its impact on farmers around Narrabri, now lies in the hands of the NSW's independent planning commissioners, who are conducting their final public hearings.

The final step is a review by the state's Independent Planning Commission (IPC).

The commission's independence was threatened by then environment minister Rob Stokes for having the audacity to deny a permit for the Bylong Coal Mine in 2018 on environmental and public interest grounds. Following that Bylong decision, Stokes ordered a review of the IPC and introduced a bill – [the territorial limits bill](#) – which limits the scope of environmental damage the IPC can consider.

Local residents opposing the mine are still allowed their say because the case was first heard before the new regulations were introduced. While the game seems stacked against them, one Boggabri local said: "We don't have the political clout or the money to fight these things. But what we do have is timing." Which is to say that the time is right for NSW to finally move past coal.

### The Carbon Capture and Storage boondoggle raises its head again

Carbon capture and storage, the prohibitively expensive climate mitigation strategy, is back on the Coalition's agenda. Yet the facts speak for themselves. Of Shell's total emissions of 656 million tonnes a year, its two CCS plants remove just 5 million tonnes a year from the atmosphere; the few plants in the world only exist because of huge government subsidies; while European oil companies use CCS primarily as a "feel-good" marketing message.

The Coalition wants to broaden the scope of the [Climate Solutions Fund](#) to include the ability to invest in carbon capture and storage (CCS) projects. Yet they are prohibitively expensive compared to other mitigation options such as renewable energy and energy storage technologies, they offer no financial return for investors, and they have a dubious track record. Even the [Global CCS Institute](#), a cheerleader organisation, acknowledges that CCS is at best a minor contributor to decarbonisation. In its [2019 Global Status of CCS Report](#), it states that by 2050, CCS will only address up to [9% of greenhouse gas emissions](#).

No carbon capture and storage project in the world offers a financial justification for investing in it. In fact, without a carbon price, CCS will never provide a return on investment

## SCIENCE AND TECHNOLOGY

### Hydrogen cars manufactured in Port Kembla could be future for Australia's motor vehicle industry

Ambitious [plans to assemble hydrogen electric hybrid vehicles in the Illawarra](#), with production to start within two years, have been greeted with cautious optimism.

#### **Key points:**

- New company H2X plans to set up a car assembly plant at Port Kembla making hybrid hydrogen electric car
- Port Kembla-based gas company Coregas is already making hydrogen from natural gas but wants to make it from renewable energy to reduce emissions
- Coregas is currently supplying gas to hydrogen cars being trialled around Australia and has built a hydrogen vehicle refuelling plant in northern Sydney

CSIRO senior research scientist Christopher Munnings said the design offers the best of both worlds.

"You have the option of either filling it up at a hydrogen refuelling station like you would with a regular hybrid or petrol vehicle, or you can also plug it into a wall socket at home and you can charge it to use it as an electric vehicle," Dr Munnings said.

"So electric vehicles typically take longer to charge and have perhaps a lower range.

## Equal warmest 12 months on record

### **According to Carbon Brief:**

This year is shaping up to be one of the warmest years on record – if not the warmest. This is particularly noteworthy because 2020 is likely to see neutral [El Niño/La Niña](#) conditions that will play little-to-no role in boosting annual temperatures.

The first three months of 2020 were the second warmest on record, behind only the super-El Niño-fuelled 2016. The past 12 months were also nearly tied for the warmest 12-month period on record. Near-record sea surface temperatures have driven [extensive coral bleaching](#) during the southern hemisphere summer.

Global temperatures are currently running at or above the level projected by the generation of climate models featured in the 2013 [Intergovernmental Panel for Climate Change \(IPCC\) fifth assessment report](#) (AR5).

Global sea level continues to rise in 2020. This is being driven by melting glaciers and ice sheets, as well as the thermal expansion of water as it warms. Arctic sea ice currently is on the low end of its historical range after seeing the [joint-second lowest](#) minimum Arctic sea ice extent on record in 2019, while Antarctic sea ice is closer to normal levels for this time of year.

## Is this the future of Australia's heavy transport industry?

The first 10 fuel cell electric trucks set to revolutionise the green hydrogen mobility ecosystem in Switzerland have been shipped from South Korea.

The Hyundai XCIENT Fuel Cell is a present-day reality, not as a mere future drawing board project. By putting this groundbreaking vehicle on the road now, Hyundai marks a significant milestone in the history of commercial vehicles and the development of hydrogen society,



XCIENT trucks are powered by a 190 kW hydrogen fuel cell system with dual 95 kW fuel cell stacks. Seven large hydrogen tanks offer a combined storage capacity of around 32.09kg of hydrogen.

The driving range per charge for XCIENT Fuel Cell is about 400km, which was developed with an optimal balance between the specific requirements from the potential commercial fleet customers and the charging infrastructure

in Switzerland.

Refuelling time for each truck takes approximately 8~20 minutes.

Fuel cell technology is particularly well-suited to commercial shipping and logistics due to long ranges and short refuelling times.

The dual-mounted fuel cell system provides enough energy to drive the heavy-duty trucks up and down the mountainous terrain in the region.

## A simple way to remove CO<sub>2</sub> from the air

Spreading rock dust on farmland could suck billions of tonnes of carbon dioxide from the air every year, according to the first detailed global analysis of the technique.

The chemical reactions that degrade the rock particles lock the greenhouse gas into carbonates within months, and some scientists say this approach may be the best near-term way of removing CO<sub>2</sub> from the atmosphere.

The researchers are clear that cutting the fossil fuel burning that releases CO<sub>2</sub> is the most important action needed to tackle the climate emergency. But climate scientists also agree that, in addition, massive amounts of CO<sub>2</sub> need to be removed from the air to meet the Paris agreement goals of keeping global temperature rise below 2C.

The rock dust approach, called enhanced rock weathering (ERW), has several advantages, the researchers say. First, many farmers already add limestone dust to soils to reduce acidification, and adding other rock dust improves fertility and crop yields, meaning application could be routine and desirable.