



As the crow flies

(Straight to the point)

April, 2020

Outline of the Haystacks Solar Garden

The Haystacks Solar Garden will be a 1MW community owned solar garden built just to the west of Grong Grong on the property of Reiner and Gemma Meier. The Haystacks Solar Garden team is a partnership between Komo Energy, Pingala, and the Community Power Agency. It is the first of its kind in Australia at this scale.

The concept is based on a community garden whereby people who are normally locked out of the benefits of rooftop solar (as tenants, or in apartments or shaded roof tops) are able to purchase panels in the solar garden and receive credits on their power bill for the energy generated.

At this stage the team is establishing the co-operative model and will be hosting an information night via webinar in the next couple of weeks.

Remember to send your email address to meierg@bigpond.com if you would like to be included in the webinar.

Climate Action Wagga Joint Meeting – group reports

(As many of you will know, each month Climate Action Wagga hosts a meeting for the several groups in Wagga that are interested in all the issues related to environment and climate change. Because of the coronavirus lockdown laws, the meetings are currently held on line through Zoom software and are held on the first Thursday of each month from 6 pm to 7 pm.

From now on we hope to include a quick summary of the meetings in the CROW Newsletter.

If you are interested in attending the Joint Meeting, please contact Jan Roberts at jan.roberts2129@bigpond.com)

First Thurs Climate Summit Meeting _ 2 April 2020 7 to 8 pm

- **Stop Adani** – Group is writing letters to Murdoch press, continuing with Westpac campaign. Joining Stop Adani national group with action on Mercer
- **CROW** – Assisting Abbeyfield Wagga to get funding for solar panels on six units through Corena. Liaising with CSU, local council to bring Ross Garnaut to Wagga for an event in June. May have to be a webinar. Members are planning to have discussions with Michael McCormack ,or his staff, about low emission ideas for regional development of low carbon industries.
- **Erin Earth** – have seedlings available Cabbage, Broccoli, Lettuce and cauliflower, contact via email admin@erinearth.org.au or phone 6925 7150 to organise pick up
- **Extinction Rebellion** –having a number of regenerative events via zoom on Mondays and Wednesdays - Mondays 6.30–8pm* <https://zoom.us/j/733943095> ; Wednesdays: 7–8.30pm* <https://zoom.us/j/230645603>. Sessions about developing a regenerative culture. See Extinction Rebellion Riverina Facebook site for more information.
- **Farmers for Climate Action** – Peter Holding. Organising a series of Zoom forums about general crisis management and adaptation. Forums will have a clinical psychologist at each one but other speakers as well to address different topics dealing with crisis management, environment, economy. Also have had contact with Ross Garnaut with some focus on carbon sequestration and with Voices for Indi on community empowerment.
- **Regenerative Agriculture** - Michael Gooden. He will keep us informed about workshops on different aspects of agriculture.
- **Fridays for Future** – Will continue to have a presence outside Michael McCormack's office, one family and zoom open for people to join.

SCIENCE

Great Barrier Reef – third bleaching in five years. Biggest ever.

Australia's Great Barrier Reef has suffered its most widespread coral bleaching on record, in a dire warning about the threat posed by climate change to the world's largest living organism. James Cook University professor Terry Hughes said a comprehensive survey last month found record sea temperatures had caused the third mass bleaching of the 2,300-kilometre reef system in just five years.

"We surveyed 1,036 reefs from the air during the last two weeks in March to measure the extent and severity of coral bleaching throughout the Barrier Reef region," Mr Hughes said. "For the first time, severe bleaching has struck all three regions of the Great Barrier Reef – the northern, central and now large parts of the southern sectors."

A little dip into the sea of Twitter

Peter Gleick (leading climate scientist) "In other news today, the world's carbon dioxide level has passed 415 parts per million, higher than any time in human existence and higher than any time in the past 2 to 5 million years."

Isaac Asimov: "The saddest aspect of life right now is that science gathers knowledge faster than society gathers wisdom."

Dr. Genevieve Guenther "That awful feeling you have that the world is not safe? Imagine having that feeling and knowing that the danger was permanent. That is our kids' future if we don't rebuild our global economy by transitioning off fossil fuels."

Good climate news of the week (4th April): 1 Spain confirms it will cut coal to zero by 2030 ; 2 World's oceans can recover in 30 years if action taken; 3 New York's last coal plant closed: State had had coal plants since 1882; 4 Investment decisions on 3 major LNG projects postponed in Australia

Major and detailed environmental summary – the ANU Report Card

2019 was the year Australians confronted the fact that a healthy environment is more than just a pretty waterfall in a national park; a nice extra we can do without. We do not survive without air to breathe, water to drink, soil to grow food and weather we can cope with.

Every year, we collate a vast number of measurements on the state of our environment: weather, oceans, fire, water, soils, vegetation, population pressure, and biodiversity. The data is collected in many different ways: by satellites, field stations, surveys and so on.

We process this data into several indicators of environmental health at both national and regional levels.

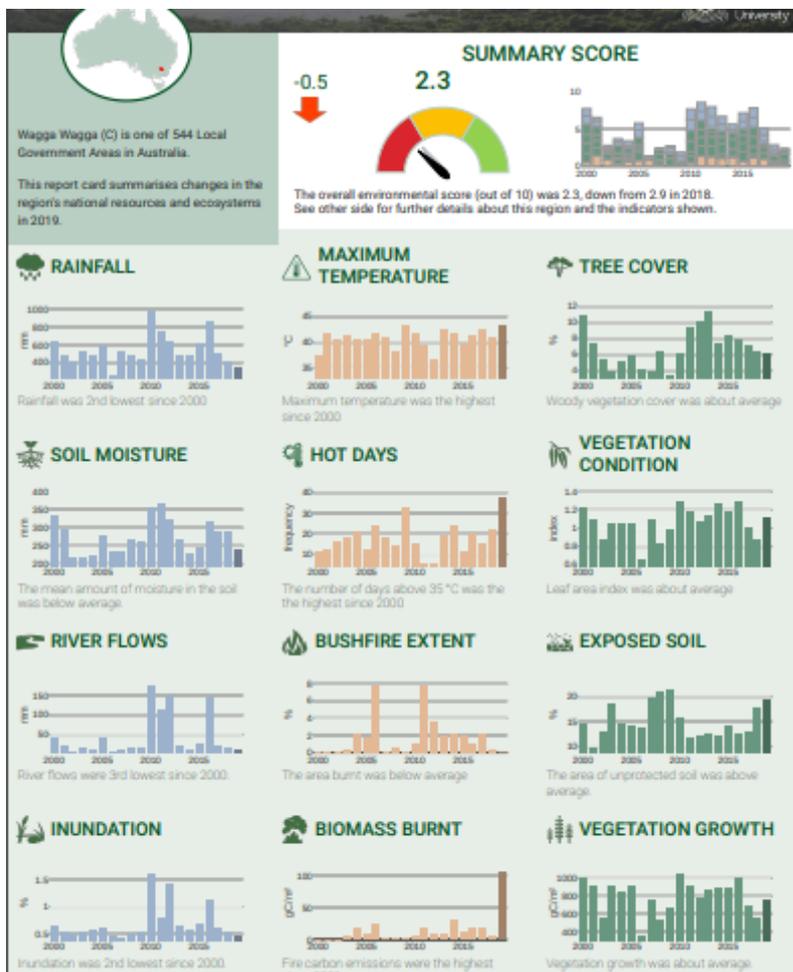
The [report for 2019](#), released today, makes for grim reading. It reveals the worst environmental conditions in many decades, perhaps centuries, and confirms the devastating damage global warming and mismanagement are wreaking on our natural resources.

Immediate action is needed to put Australia's environment on a course to recovery.

The ANU Report Card for Wagga

By heading to the report card at the link above, you can download details for any part of Australia in considerable detail. Fascinating stuff and very useful for anyone wanting to convince local councils or politicians of the need for climate action.

Here are the details for Wagga



MONEY

[Australia faces annual \\$29bn climate bill](#)

A “business as usual” response to climate change will cost Australia at least \$29 billion a year, according to [a new study](#). The World Wide Fund for Nature report projected that Australia’s economy will be the fifth worst-affected over the next three decades. This was a best-case scenario, and did not factor in the cost of [more intense bushfires](#). “Because so much of Australia’s population, infrastructure and service sector output is concentrated in coastal areas, we are more vulnerable than most to sea-level rise and storm surges,” [said WWF-Australia economist Joshua Bishop](#). The modelling shows that the global price of some key commodities will rise by almost 10 per cent. The report noted that environmentally friendly land-use management techniques alone could halve the hit to national GDP. The news comes as [an Australian Conservation Foundation analysis](#) found that the fossil-fuel industry has doubled its donations to the major parties in the past four years.

[Renewable are putting \\$billions of coal investment at risk](#)

Renewables are already cheaper than new coal-fired power stations in all major markets, exposing almost a trillion dollars of new investments and denting Australia's coal exports. Analysis published on Thursday by [Carbon Tracker](#) also found that by 2030 at the latest, new wind and solar farms will be cheaper to build than existing coal plants.

New coal fired-plants are already more expensive than renewable energy in all major markets - and by 2030 even existing coal plants will be uncompetitive, a new report finds. *CREDIT:GETTY* The survey, which tapped International Energy Agency data among its sources, also found more than half of coal-fired power stations were more costly to run than building new renewable energy.

Globally, developers are planning or constructing almost 500 giga-watts of coal capacity at a cost of \$US638 billion (\$984 billion), investments that could soon be wasted.

Renewables delivering in SA and Vic

This was the state of play on March 9 in South Australia and Victoria. More and more this will become the norm.

Renewables are currently providing around 112% of South Australian electricity demand, and about 45% of Victorian demand.

Wholesale electricity prices in both regions are both less than \$10/MWh with 1,500MW being sent to the other states.



Australia's major banks are still fuelling the climate crisis

The latest data on bank lending to fossil fuels over the last four years shows that Australia's major banks continue to undermine the Paris Agreement and global action on the climate crisis by lending to dirty fossil fuels.

Westpac, Commbank, ANZ and NAB collectively poured a massive \$35.4 billion into coal, oil and gas between 2016-19, including \$7.1 billion into projects that expand the fossil fuel industry, increasing carbon emissions, just as humanity needs to urgently reduce them.

Year on year trends show that fossil fuel lending in 2019 has fallen slightly since the record-highs of 2018. Lending to coal is at its lowest level in the last four years, while still significant at almost \$1b. The four banks loaned a massive \$6.6b to oil and gas in 2019, including several companies looking to open up new unconventional gas fields in NSW and the Northern Territory (see below).



These figures demonstrate that despite announcing their support for the Paris Agreement, the lending practices of all four major banks tell a different story. Not one of them takes global warming seriously enough to stop contributing to the crisis fueling bushfires, floods, storms and drought all over the world.

TECHNOLOGY

A breakthrough in battery technology? Maybe

An application for a patent for a new battery that uses glass as a key component has been submitted by a team headed by John Goodenough, the part winner of the 2019 Nobel Prize in Chemistry for his work as co-inventor of the now ubiquitous lithium-ion battery that is the go-to power source for electric cars and energy storage.

And the new glass battery promises to accelerate the shift away from internal combustion engines because it will deliver a significant increase in storage capacity.

By "spiking" glass with either sodium or lithium to form an electrode within the battery, the researchers say the new battery technology provides three times the energy storage capacity of comparable lithium-ion batteries.

It is also neither volatile nor flammable, and does not display issues of lithium dendrite growth that plagues li-ion batteries, which can cause short-circuits and present safety hazards.

[We can replace Australian steel making coal](#)

Dominique Hes , writing in *The Conversation*

Despite a wealth of evidence to the contrary, some still propagate the myth that the world will need Australian coal for decades to come. Last weekend Opposition Leader Anthony Albanese [joined in](#), saying thermal and metallurgical coal mining and exports would continue after 2050, even with a [net zero emissions target](#).

There is potential to not only strengthen Australia's steel manufacturing industry, but also to grow it using the ore (rock containing metals like iron) we currently export and our extensive renewable energy sources.

Doing so would work to our manufacturing strengths, history, abundant resources, and would cater to the future low-carbon market that will still require steel.

The key message is this: it is possible to create low-emissions steel, without metallurgical coal. And it is already happening.

With the support of industry and government, non-metallurgical, low-emissions steel could provide an opportunity to create jobs, develop a decarbonised industry and extend the steel market's contribution to Australia's economy.

Not to mention what products we can produce from the steel – adding value in many more ways than just exporting ore – and taking advantage of an [increasing consumer demand for low carbon products](#). This is especially relevant for [communities](#) transitioning away from fossil fuels.

There's not much stopping low-emissions steel from forming a core new Australian industry.

Australia must address the costs involved in transitioning the infrastructure, to upgrade plants and processes.

But it needs to start with working from facts – and effective government support and vision.

POLITICS AND POLICY

[West Australian starts to catch up using roof top solar and batteries](#)

The West Australia Labor government has unveiled a new energy roadmap that puts community battery storage at the top of its proposals to embrace a wholesale switch to distributed energy sources such as rooftop solar panels, household and community batteries, electric vehicles and microgrids.

The [Distributed Energy Roadmap](#) forms a key part of its Energy Transformation Taskforce, charged with dealing with the switch from coal and then other fossil fuels, to a grid dominated by renewables and storage.

W.A., thanks largely to the disinterest of the previous conservative government, has trailed the rest of the country in the installation of large-scale wind and solar – although it is beginning to catch up, both on its main grid and [through miners in off-grid and in private networks](#).

But the state has been among the leaders in the uptake of rooftop solar, which has been installed by one in three households, meaning the output of rooftop solar is three times as much at certain times than that of the biggest coal generator, and accounts for up to 45 per cent of demand.

[Why more gas won't help Victoria](#)

Last week the Victorian government opened up onshore gas fields after lifting a ban that has stood since 2017.

The pressure exerted by the federal government for ever more gas, aided and abetted by the gas industry peak body APPEA has finally taken its toll.

The Victorian government has caved in for 20 pieces of silver, just as New South Wales did a few weeks ago.

The current rush to open up gas fields all around Australia on a globally significant scale runs counter to the message pushed by the State government that we should be lowering emissions to comply with our Paris agreement commitments.

Gas is a highly polluting source of greenhouse gas emissions.

THE GAS INDUSTRY EFFECTIVELY OWNS BOTH SIDES OF POLITICS. It is not a Liberal or Labor issue. APPEA sets the energy agenda in Australia. Their influence stretches from large donations to both major political parties all the way through to political connections at the highest levels. They also are well connected into the public service.

To see the full story click [here](#).

Barry Jones'* shortlist of questions for politicians

Here are a series of major questions that have never been asked within the Parliament or by the media. Ministers, and especially the Prime Minister, should be asked:

1. Why is Australia No. 1 in the world for per capita CO2 emissions (leaving aside oil producing states such as Qatar, Kuwait, UAE and Saudi Arabia), even ahead of the United States, and more than double the European Union average?
2. Why does Australia produce three times more CO2 emissions per capita than the United Kingdom and twice as much as New Zealand? Is their quality of life so inferior to ours?
3. Even if we meet our Paris targets "in a canter", as the Prime Minister keeps on assuring us, will that still leave Australia as No. 1 per capita, and are we eager to keep that ranking? If an alcoholic has fifteen standard drinks a day and cuts down to ten, there is a dramatic percentage reduction, but he/she is still an alcoholic. The United States ranks as No. 2 per capita in CO2 emissions, but despite President Trump's strong opposition to taking action on climate change, it is cutting back at a faster rate than we are owing to the actions of 41 individual states. California, New York, Massachusetts and Oregon have about half Australia's per capita emissions.
4. Has the Australian government given any consideration to energy efficiency measures so citizens can retain their quality of life with less waste? (Victoria is offering free replacement of light bulbs: superior lumens per watt.)
5. If Australia's coal exports were taken into account (which they are not under the Paris Accords), would our total contribution to world CO2 emissions rise from 1.3 per cent to about 5 per cent?
6. What is the proportionality of access to Coalition ministers and government MPs from the fossil fuel lobby (which has a vested interest to promote) compared with scientists in relevant disciplines (committed to public interest and the long term)? How many ministers, MPs and parliamentary staffers have professional, family or other linkages (such as hospitality) with the fossil fuel industry, especially coal? How many have comparable links with the research community or agencies?
7. Were recent changes weakening the public service's role in providing independent advice to government driven by the climate change controversy within the aptly named Coalition?
8. Is Australia's take up of electric cars the lowest in the OECD? If so, why? Tesla's share price is now \$US900 and Boris Johnson is planning to phase out petrol and diesel vehicles. Do Americans and British know something that we don't?

*Barry Jones was Minister for Science in the Hawke Government (1983-1990).