



As the crow flies

(Straight to the point)

January, 2020

The impact of the Morrison Fires, damaging rain and high winds is still being felt in Australia, not least of all by politicians, activists and even the press. Chris Kenny and Andrew Bolt now say they always knew that global warming was happening (but check the small print) and a few Liberals have been emboldened to come out and say we need to act (though, unfortunately by installing nuclear energy).

The SMH reports “Coalition rethinks climate targets”, Innes Willox from the Australian Industry Group says “the aversion to a carbon price should be rethought”, Ross Gittins praises Ross Garnaut’s push for Australia to become a “renewables superpower” and (so help me) Jennifer Westacott (Business Council of Australia) broke a long run of BCA denialism by pushing for policies to achieve zero emissions by 2050.

Time for activists to stick the boot in while the edifice is wobbly.

TECHNOLOGY

Carbon dioxide free steel

Huge step: Swedish steelmaker SSAB will bring CO₂-free steel on the market by 2026, speeding up from earlier goal of 2035. The firm's entire production will be converted to hydrogen direct reduction by 2040, single-handedly cutting CO₂ by 7% in Finland and 10% in Sweden.

Australia is ideally positioned with natural resources and renewable energy to be a world leader in this technology and make huge profits from refined steel rather than shipping dirt overseas.

Australian EV sales tripled in 2019

A total of 6718 electric vehicles were sold in Australia in 2019. That’s [three times](#) as many as in 2018, but it’s still small beer. More than [a million](#) fossil-fueled light vehicles (including SUVs and utes) were sold in the same period.

The sales figures were published in the wake of UK Prime Minister Boris

Johnson’s [announcement](#) that sales of petrol or diesel cars will be banned in the UK by 2035.

The UK’s isn’t the only right-of-centre government to see the benefits of going electric — in 2016, New Zealand’s Conservative party introduced a wide-ranging program to encourage drivers to get off fossil fuels.

If Australia wants to head in the same direction, we can learn from what others have done.

Why should we go electric? And why don’t we?

The main argument for electric vehicles is often about cutting greenhouse gas emissions. But even leaving those aside, there are plenty of reasons to move away from oil as an energy source for transport, among them energy security, better health outcomes, and spending less money on petrol imports.

[All Energy Exhibition, 14-15 July in Sydney \(h/t to Dennis Lambert\)](#)

If you missed last year's All-Energy Exhibition in Victoria and you are able to make it to Sydney in July 14-15th I would encourage you to attend, it is free. If you have an interest in rural regional development it should be worth your effort.

I suspected the updates on the Hydrogen economy could be very worthwhile. In particular local Riverina generation of green hydrogen to fuel our trucking industry, local heavy vehicles, trains and hydrogen electric (fuel cell) cars is coming sooner than we think!. In addition the potential to add hydrogen to the natural gas pipeline (up to 10%), have hydrogen gas fired turbines for the electricity grid and make ammonia locally for fertilizer manufacture for agriculture. Allan Finkel's update is the Federal Government is due in the next few months, so keep an eye out for it.

To find out more about the conference click [here](#)

[South Australia is leading the way with hydrogen and ammonia production](#)

(Again, h/t to Dennis Lambert)

H2U (an association of companies developing green hydrogen and ammonia technologies) is developing a facility integrating more than 30 MW in water electrolysis and distributed ammonia production, near Port Lincoln in South Australia. The South Australian Government has provided \$4.7 million through a grant and additional loan funding to deliver the \$117.5 million project.

The plant will use 100 per cent wind and solar generation to produce up to 18,000 tonnes of green ammonia a year to supply the local agriculture and industry sectors. This is a globally significant demonstration project for the emerging hydrogen energy sector, being one of the first-ever commercial plants to produce carbon dioxide (CO₂)-free green ammonia from intermittent renewable resources, and to demonstrate the adoption of green hydrogen across multiple value chains.

The plant will also feature two 16 MW open-cycle gas turbines operating 100 per cent on hydrogen at the site to provide electricity generation to the grid during periods of low wind or solar output. The project has capacity to provide a truly self-contained solution to firming renewable energy supply within the South Australia grid.

POLITICS AND POLICIES

[CO₂ flatlines in 2019](#)

The International Energy Agency reports that as advanced countries switch from coal to gas or other energy sources the energy related levels of CO₂ emissions flatlined last year.

The US saw almost a 15% reduction in the use of coal, mainly replaced by gas. The European Union, spearheaded by Germany and the UK, dropped emissions by 12%.

In Japan the decrease in CO₂ emissions was mainly due to nuclear plants coming back on line. In countries outside the advanced group emissions rose because of the increased use of electricity. Almost 50% of this increase was provided by increased use of coal.

[Morrison misleads on gas](#)

As Australia continues to battle horrific bushfires, Prime Minister Scott Morrison has announced a renewed focus on gas-fired electricity to reduce emissions and lower energy prices. This is a dangerous and completely unnecessary route.

In a speech to the National Press Club Morrison claimed:

There is no credible energy transition plan, for an economy like Australia in particular, that does not involve the greater use of gas as an important transition fuel.

This statement is completely untrue, even among the "official" transition plans.

The Australian Energy Market Operator's [draft Integrated System Plan](#), used to plan future infrastructure needs in Australia's largest grid, contains multiple scenarios for the coming

decades. Several of these, including the “central” scenario – representing entirely neutral assumptions about the future – see [no substantial increase in gas consumption over the coming decades](#).

But with Morrison now pursuing [bilateral agreements with the states](#) to open up more gas reserves, it is vitally important to interrogate the logic of gas as a transition fuel.

Read more [here](#)

[Is the Zali Steggall Climate Bill a way forward?](#)

On Monday, Zali Steggall, the conservative Independent member for Warringah, released her [Climate Change \(National Framework for Adaptation and Mitigation\) Bill 2020](#). It will be presented to the federal House of Representatives on March 23 for a conscience vote.

It provides five-year plans to reduce emissions to zero by 2050, linking climate risks and impacts with emissions reduction. The plans are sector-wide, as similar plans are in the UK, with safeguards to ensure equitable transition, and they’ll be revised to adjust emissions reduction targets every five years.

The bill calls for transparent monitoring, reporting and accountability in line with global expectations, by establishing an independent Climate Change Commission. The commission’s role wouldn’t be to develop policy, but to ensure the five-year climate plans are progressing towards their targets.

But the main strength of Zali’s bill is its non-partisan nature. And it’s important for side stepping toxic climate politics and for proposing reasoned, apolitical, tried and tested policy solutions.

All it would take for Zali’s bill to pass is for a majority of MPs in the House of Representatives to vote for it, meaning some members of the government would need to use their conscience vote.

If this were to happen, it would be a relief for business and industry, which are looking for certainty; for State and Territories, which are building vibrant renewable energy economies; and for Australians for whom climate change is now a [foremost concern](#).

[Western Sydney Councils combine to reduce CO₂ emissions.](#)

Nine Western Sydney councils have launched the Western Sydney Energy Program (WSEP) — a new strategy to slash emissions and boost energy savings for a more sustainable, affordable energy future.

Coordinated by the Western Sydney Regional Organisation of Councils (WSROC), the program aims to reduce Western Sydney’s emissions by 200,000 tonnes of CO₂e each year.

WSEP will focus on four key areas: renewable energy; transport infrastructure; supporting communities; and implementing best practice in energy planning and design for buildings and precincts.

“Councils are already achieving remarkable goals in projects geared towards a low-emissions future, embracing projects and technologies such as increased solar installations and low-carbon vehicles,” WSROC President Cr Barry Calvert said.

[How long should we be using gas?](#)

Alan Finkel, Australia’s Chief Scientist, argued at this week’s Press Club that Australia will need to rely on fracked gas for several decades to firm up intermittent renewables. While his argument is based on technological and engineering issues, others have questioned the decision on economic and political grounds. (Finkel’s address to the Press Club is very worthwhile listening to and can be found [here](#).)

Bruce Robertson, from the Institute for Energy Economics and Financial Analysis comments:

Scott Morrison's recent deal with NSW to open up more fracked gas will lock in 30 years of gas/LNG infrastructure and supply and hence, a very uncertain future.

There is a high risk these proposed investments will *not* see the end of their proposed lives.

They will likely be left non-performing and stranded due to Australia's Paris Agreement commitments – at a huge cost to local Australians.

Morrison's deal with the New South Wales government will see more than \$2 billion invested in substantially increasing gas use.

The deal is a deliberate strategy to lock Australians into another fossil fuel – this time gas, and despite what the Prime Minister asserts, more gas production will *not* solve the gas price problem.

The only proposed gas field in NSW at present, the Santos Narrabri gas project, has costs well above the average field in Australia and well above the current price for LNG in Asia.

The PM must be oblivious to the fact that gas supply on the east coast of Australia has tripled since 2014 – primarily for export – and domestic gas prices have also tripled. Producing yet more high-cost gas is no panacea to Australia's problem of high domestic prices in a low-priced gas world currently suffering a supply glut.

The Australian Competition and Consumer Commission (ACCC) has clearly shown that price fixing by gas producers has been occurring over recent years, Robertson says. The cartel of gas producers will ensure prices stay well above international prices.

Robertson says gas is not a transition fuel for Australia.

Local demand for gas-powered generation has fallen 41% since 2014, according to the Australian Energy Market Operator (AEMO).

"The Australian consumer – and developers – have moved away from gas due to its high expense and its high emissions," says Robertson.

Due to massive technological breakthroughs in battery storage, almost every project proposed now has a battery attached to it. Storage problems have been solved due to increased investment in batteries and pumped hydro.

MONEY

Spanish oil company, Repsol, goes carbon free by 2050

Repsol SA's announcement this week that it will eliminate emissions from its business by 2050 throws down the gauntlet to competitors as large oil companies face mounting investor pressure to clean up their act.

European majors Royal Dutch Shell Plc and Total SA have already set emission targets in response to the Paris Agreement, but Repsol's plan is the most ambitious by far. That puts the onus on its rivals to show shareholders they can keep pace with the energy transition without sacrificing generous returns.

The Spanish oil producer plans to erase all greenhouse-gas emissions from its own operations and its customers by mid-century, with its exploration and production unit focusing on value instead of output growth. The company also revised its long-term view of the value of oil and gas assets in a decarbonizing world, resulting in a 4.8 billion-euro (\$5.3 billion) accounting charge.

Australia's policy inaction is killing renewables

One of the biggest contractors and constructors of large-scale solar farms in Australia, the listed constructing giant Downer Group, has signalled a dramatic exit from the solar business, saying it is too hard.

"We're out of solar," Downer CEO Grant Fenn told analysts during a telephone briefing of the company's half year earnings on Wednesday.

Fenn said the decision to withdraw from solar was disappointing, but inevitable given that the large-scale solar market had all but evaporated over the last 12 months.

“Developers, contractors and bankers all struggle to come to terms with the risk of large power loss factors, grid stability problems, connection problems, and equipment performance issues,” Fenn said.

“These problems will no doubt be sorted out in time, but right now we don’t see a construction market in the short to medium term that will accept our terms and risk position on these matters.

There is exasperation about the lack of planning and investment, and the perverse impact of market rules designed to favour incumbent fossil fuel businesses. After a three-year boom thanks to the renewable energy target, investment is drying up and the federal government is showing no interest in pursuing wind and solar projects, focusing only on coal and gas, and amid new calls for nuclear.

[ARENA is funding better buildings](#)

ARENA has announced \$630,000 for the Sustainable Australia Fund to expand its [Better Building Finance program](#), which is already operating in Victoria.

Established by the City of Melbourne in 2010, the fund provides low cost, long-term finance that businesses can pay back through their council rates. Commercial and non-residential buildings are eligible for loans ranging anywhere from \$10,000 to tens of millions.

The fund has been modelled on the American Property Assessed Clean Energy (PACE) scheme, which finances energy upgrades in commercial, industrial and residential buildings. To date, more than \$5 billion in loans have been issued for 220,000 home upgrades in 20 American states.

In the decade since the Sustainable Melbourne Fund launched, more than 85 buildings have been upgraded across 37 Victorian municipalities, sharing in \$30 million in loans. In 2018 alone, Better Building Finance facilitated \$10.5 million of investment across 26 projects that will collectively abate 178k tonnes of emissions over their lifespan.

Better Building Finance Executive Manager Shay Singh said the program was first established to help owners of older, lower grade buildings in Melbourne’s CBD make energy improvements.