# HISTORY

Town gas was first developed in Melbourne in the 1850s by private companies making gas from black coal. A network of small gasworks developed across the suburbs – two gasometers are still standing, in Arden St, North Melbourne and Alexander Pde. Town gas was used for lighting, heating and cooking, as well as for streetlights until it was replaced by electricity in the 1890s. The Gas and Fuel Corporation was founded in 1951; its first project was to build a brown coal gasification plant in Morwell which opened in 1956, and which moved gas to Melbourne through a high pressure pipeline.

Offshore exploration for natural gas commenced in the 1960s in Bass Strait off Gippsland, and gas was discovered in the Barracouta and Marlin fields in 1965 and 1966. The gas was piped from offshore rigs to the Longford distribution centre near Sale, and by the early 1970s households and businesses were being supplied with natural gas.

Natural gas comes in three forms - conventional gas, coal seam gas and shale gas. Natural gas is composed mainly of methane with varying proportions of CO2 depending on where it is extracted; conventional natural gas comes to the surface under pressure. It was first discovered accidentally in Australia in 1900 when drilling for water near Roma in Qld. In Australia coal seam gas (CSG) is found in coal seams where it is bound to the coal and trapped underground by water pressure. To extract CSG, water already in the coal seam, known as formation water, needs to be pumped out to release the gas. If water and gas don’t flow freely, hydraulic fracturing, also known as fracking, may be used to increase the rate of flow; this involves perforating the well casing to gain access to the coal. Shale gas occurs within rock formations under high pressure but having extremely low porosity, making it difficult for gas to flow to wells. Fracking is always used in shale gas wells to increase the flow of gas from the reservoir.

In the early 1970s Woodside discovered immense gas resources off the Western Australian coast, which could not only meet the state’s domestic needs but also supply Asian markets. Export production as liquid natural gas (LNG) began from WA in the late 1980s. In 2002 John Howard announced triumphantly that after years of negotiation Australia’s biggest ever export deal had been sealed; valued at $25bn, Australia would supply China with LNG until 2031. By 2015 it was realised that China had got the deal of a lifetime because by then they were paying about a third of the price that Australian consumers were being charged – the North West Shelf consortium had failed to lock the contract into rising world prices (Wright, 2017).

 In 2006 Australia’s second LNG plant commenced exporting from Darwin. Through the 1980s it became recognized that Australia had immense coal seam gas resources in Qld and SA, and by 2007–08, it had become evident that the availability and potential of gas reserves in Queensland had outstripped existing and potential demand in the greater east coast Australian gas market.

In 2010 Tony Burke approved Santos’ first natural gas plant's liquefaction and purification facility (called a train) at Gladstone, with extensive conditions aimed at protecting groundwater resources. The approval covered the development of coal seam gas resources in the Bowen and Surat Basins around Roma, construction of a pipeline from the gas fields to the coast, and construction of up to three processing trains at a liquified natural gas (LNG) plant and export facility on Curtis Island, off Gladstone. In quick succession six LNG trains for three customers were constructed on Curtis island by 2014. Partner companies in these ventures were Queensland Curtis LNG (a joint venture of QGC – now a Shell-owned business, China National Offshore Oil Corporation and Tokyo Gas), Australia Pacific LNG (a joint venture of ConocoPhillips, Origin and Sinopec), and Santos GLNG (a joint venture of Santos, Petronas, Total, and Kogas). These three entities are global corporations.

World parity pricing for oil production had been introduced by the then Treasurer John Howard in 1978, and with years of LNG exports in prospect, the producers of LNG anticipated massive profits as world parity pricing was adopted for gas exports, meaning that the export price was aligned with international gas prices. In WA, the State government had required the gas producers to reserve 15% of production for domestic use, in this way maintaining long term domestic pricing patterns. But on the east coast before the first exports to Asia in 2014, domestic gas was being sold at prices between $3 and $4 gigajoule, while world parity pricing was around $9 and Japan was paying up to $15 following the Fukishima nuclear accident.

World parity pricing requires some explanation around its effect on domestic prices for gas. With the discovery of CSG, large scale exports from Australia became possible. Once the east coast Australian gas market was connected to the world market, domestic gas producers were able to sell gas into the east coast domestic market at world parity prices, which, as outlined above, meant east coast gas prices for domestic users immediately more than doubled. Once this pricing policy was permitted, gas sales on the east coast became much more profitable, as long as export volumes were maintained. The gas producers claim that restrictions on CSG production are responsible for price increases and that allowing more exploration for and production of CSG will reduce prices; in this way they maintain government support for opening up new fields and at the same time increase public hostility towards groups opposing more CSG production, like Lock the Gate for example. (Grudnoff, M., 2013)

In January 2011 the Santos Board decided to commission a second train, and it began writing overseas contracts in the knowledge that it did not have sufficient production capacity to fulfill them. It filled the gap by buying gas from other producers, creating shortages across east coast markets and driving up domestic prices, contrary to previous promises that it would not do this (Llewellyn-Smith 2017). By 2017 the market was in crisis: manufacturers were dealing with prices which had tripled in some cases; domestic consumers were facing similar price increases, and electricity prices had also increased sharply given the increase in spot prices for gas.

Santos applied to the NSW Dept of Planning and Environment in 2017 seeking approval to develop the Narrabri CSG project. At the time Prime Minister Malcolm Turnbull and Josh Frydenberg were flogging Victoria and NSW for not allowing exploration for unconventional gas - read CSG and fracking – in order to increase supply, their case being that increased supply would drive prices down. But as the Australia Institute pointed out at the time, increasing supply would simply mean more gas would become available for export; the only effective solution would be the development of an east coast reservation policy, which the gas producers were totally opposed to. And the Commonwealth has not been prepared to go there.

In 2019 Bruce Robertson, a long term observer of Australian energy markets , summed up the situation succinctly: “*There is no market for gas on the east coast of Australia, instead there is a cartel of producers that set the price to suit their commercial profit objectives. East coast Australian gas production has trebled at the same time as the price has trebled. Clearly basic economic concepts do not apply. More gas production will not solve the gas price crisis on the east coast of Australia as the fundamental economic transmission mechanism, a market, does not exist. Adding more high cost gas production or locking in the additional costs of multiple regasification import facilities will only serve to entrench high domestic gas prices”.*(Robertson,2019)

In 2017 the Commonwealth established the Australian Domestic Gas Security Mechanism to ensure that sufficient gas was kept in Australia to satisfy domestic commercial and residential requirements. As the Australia Institute pointed out earlier this year, the mechanism “entrenches high domestic gas prices by enabling the LNG industry to supply just enough gas to avoid a “shortfall year, but not so much that domestic prices reduce” (Ogge, 2019)

The ACCC was brought in by the Commonwealth to monitor prices and provide recommendations to government. In August this year it released its Gas Inquiry 2017-2025 Interim Report, which shows that prices offered to domestic gas users in late 2019 and early 2020 ranged from $8 to $11/GJ.

*“While this was down slightly from the $9 to $12/GJ range observed earlier in 2019, this price decline was not in line with the significant and sustained drop in LNG netback* [i.e. export] *prices, which were for 2021 delivery below $6/GJ by early 2020 and have been below $5.50 since May… The ACCC is very concerned with the widening gap between domestic and export parity prices, which will have an inevitable impact on Australia’s industrial sector during what is already a difficult economic period,”* ACCC Chair Rod Sims said (ACCC, 2020). The industrial sector is responsible for about 30% of domestic gas usage, and the price increases have forced the closure of some companies and in other cases, like that of BlueScope Steel, led to the company’s expansion plans being relocated to the US, where energy prices are a third of Australia’s (Gray,D., 2019)

In short, domestic east coast users are paying twice as much for their gas as customers for Australian sourced gas in Japan, South Korea, China or Taiwan, who are buying the same gas from Santos or the other exporters.

And this has led to the exquisite paradox of the world’s largest LNG exporter proposing to import gas from Asia for its domestic markets - an unmitigated failure of Australia’s energy policy.

The clamor for more domestic east coast gas is not only based around pricing but also on anticipated production declines in Victoria’s offshore wells over the next five years or so. In addition there are constraints involved in moving gas from Qld to NSW and Victorian markets, involving pipeline capacity and the cost and availability of uncontracted supply issues of bringing more gas south from Queensland.

There are currently five proposals under consideration for importing gas from overseas. The first, that of AGL, has the potential to supply up to 160 petajoules a year; the Crib Point project would involve a specialist ship continuously moored at a jetty, which would receive LNG from tankers, convert it back into gaseous form and inject it into a new underground pipeline connecting into Victoria's gas grid. With estimated construction costs of $250 - $300 million, the project would involve 40 jobs once operational. It is strongly opposed by the local community given its possible impact on the Ramsar wetlands nearby, and on marine life and the tourism and fishing industries. It is still under consideration by the Victorian and Commonwealth governments. **Importantly, public hearings by the Victorian Crib Point Inquiry and Advisory Committee commenced on October 12th and will run for ten weeks.**

The second proposal is located at Port Kembla and is backed by Australian Industrial Energy, partly owned by Twiggy Forrest’s privately owned Squadron Energy group. It already has environmental approvals and it is claimed that it would be able to supply around 75% of NSW’s gas requirements. In September this year the NSW government placed the project on its priority list.

There are 3 other import proposals – a Korean venture named EPIK, located at Newcastle, one by refiner Viva Energy at Geelong, and a potential LNG import project led by Venice Energy at Port Adelaide in SA.

# DOES THE GAS INDUSTRY PROVIDE A NET BENEFIT TO AUSTRALIA?

Australia is the only country where international energy companies can access and export gas without prioritising domestic supply. It is also the only major gas producing country suffering serious gas shortages and sharply rising prices as production increases. And the following issues need to be added to the catalogue of problematic conditions associated with the gas industry.

1. The industry and the government claim that 225,000 manufacturing fobs rely heavily on gas. The Grattan Institute says the real numbers are about 10,000, of which 6,000 are located in WA where gas prices have remained affordable due to its domestic reservation policy (Dundas,2020)
2. The industry is mainly owned by overseas corporations, who routinely pay no company tax in Australia. Of the 11 major companies involved in gas production and exports in 2017/18, only Origin paid company tax (Ogge + Swann, 2020). Woodside is regarded as an Australian energy company, but in 2019 there was only 18.8% Australian equity in its ownership (Fernandes, 2020).
3. The industry is not paying its way with royalties either. In 1987 the Hawke government introduced a Petroleum Resource Rent Tax (PRRT) to cover offshore petroleum production. In 2012 it was revised to cover both oil and gas production. In principle, companies pay the tax on profits earned, but there are many ways in which companies are able to minimise the profit declared – by lending capital funds to their local entity at inflated interest rates, for example, or by manipulating the price at which the company’s production entity sells the gas to its exporting entity before it is processed into liquid for export (Kraal, 2020).The basic problem with the PRRT is that the Commonwealth Govt collects royalties from the gas companies as a share of the profits they’ve made, rather than assessing royalties as based on the volume of gas produced, in the same way that for example, State governments charge royalty payments for the amount of tonnage of iron ore or bauxite companies extract.
4. In 2017/18 LNG companies had revenues of $29.7bn, but paid PRRT of just $1.07bn in royalties levied through the PRRT. Royalties peaked at $2.5bn in 2000/01, but are currently anticipated to return less than half of this amount over each of the next three years. Qatar exports a similar quantity of gas to Australia, and is thought to have charged over A$20bn in 2018. By that year the Australian gas exporters had accumulated $324bn in tax credits; these are based on infrastructure and related costs expended in bringing projects to the point where production can be sold, and companies do not pay any company tax until all their credits have been used up. A review of the PRRT was announced in 2016 and in 2019 some minor changes were made, but anticipated returns are still minimal - $5.5bn between now and 2030 – and a further review has been commenced (Krall2020).
5. In essence, we value our gas at zero and are currently handing it over global corporations - Shell, Chevron etc, and rewarding them generously for taking it off our hands.
6. To add insult to injury, a new form of cost-shifting has emerged recently, as reported by Michael West Media.
Owing to a loophole in Commonwealth regulations about licensing oil fields, an ageing offshore oil rig in the Timor Sea operated by Woodside was sold to a small oil company which subsequently went into liquidation. The Australian taxpayer is left with the $200m bill for the cleanup: “*Thanks Woodside. Taxpayers are on the hook for the $200 million-plus clean-up of an ageing oil production platform moored in the Timor Sea partly because of a loophole in government regulations that are meant to ensure companies are financially sound when they buy oil field titles. Taxpayers have already stumped up more than $50 million to keep the platform safe*. *“Because this loophole has still not been closed, taxpayers are potentially on the hook for a $4.6 billion clean-up fee for Exxon’s offshore platforms and installations in the Bass Strait.
“It’s just a matter of selling your assets to a tiny company that then, suddenly, goes into liquidation. For tax cheat Exxon, which has racked up $33 billion in income in recent years without paying a brass razoo in corporate income tax, this would be unacceptable.
“That mining companies and regulators consistently underestimate the cost of rehabilitating open-cut mines, leaving taxpayers on the hook, has been known about for years.
“However, the same thing could happen with offshore petroleum platforms around Australia as they gradually wind up, unless the regulations change. Oil and gas giants could sneak out of paying for the damage their operations have caused, leaving the taxpayer with enormous clean up fees and stranded assets strewn in our oceans”(Foote, 2020).*

# THE GAS-LED RECOVERY

## Underwriting New Generations Investments Program, October 2018

Following the ACCC’s involvement in the gas-pricing furore, and the collapse of the NEG, in 2018 the Commonwealth announced that it would develop an Underwriting New Generation Investments Program (UNGI) to implement recommendations made by the ACCC. The intent of these recommendations was for the government to develop a scheme to provide certainty for debt financing and facilitating new entrants into wholesale energy markets. A consultation paper was released in October 2018 and in December a further document was released calling for registration of interest of projects to be funded through the program. However no guidelines or criteria for selection of projects were ever clearly finalized, and following the announcement of 12 projects the Australia Institute, together with Zali Stegall, requested that the Australian National Audit Office should investigate the program. In April this year the ANAO indicated that it would include the UNGI review in its 2020/21 works program, depending on evolving priorities; note that its funding was reduced in this year’s Budget, the tenth year in succession that this has happened, according to the Grattan Institute (Wood +Griffiths, 2020).

The 12 projects include 6 pumped hydro, one coal, and five gas, one of which is the Australia Industrial Energy’s gas import terminal at Port Kembla. Following their selection, the Commonwealth flagged that funding would be sought through the Clean Energy Finance Corporation’s Grid Reliability Fund.

## The King Review, October 2019

In October 2019 the Commonwealth appointed a panel tasked with formulating new ways to reduce emissions, in the context of reviewing the operation of the $2.55bn Emissions Reductions Fund, widely seen as not having enabled sufficient emissions reductions outcomes over its years of operation. This fund was established by the Abbott government following its termination of Australia’s emissions trading scheme.

The Panel was headed by Grant King, outgoing president of the BCA and former CEO of Origin Energy. Members included Susie Smith, chief executive of the [Australian Industry Greenhouse Network](https://www.aign.net.au/index.html) and previously with Santos for 13 years, Prof Andrew Macintosh, head of the [Emissions Reduction Assurance Committee](https://www.environment.gov.au/climate-change/government/emissions-reduction-fund/erac), and David Parker, the [Clean Energy Regulator](http://www.cleanenergyregulator.gov.au/) chairman. The review consulted directly with energy companies and industry bodies; there was no public consultation.

The Review considered ways to better spend existing financing resources, including the extra $2bn committed to the Emissions Reduction Fund before the federal election, when it was rebranded as part of a climate solutions fund, and bringing into the review ARENA and the CEFC’s funding.

Its recommendations were released by the Commonwealth in May, with the government agreeing to establish two new abatement categories under the Emissions Reduction Fund; one for carbon capture and storage, and another to award abatement permits to major industrial emitters able to reduce emissions below a baseline set under the Safeguard Mechanism, which is a component of the Emissions Reduction Fund intended to require the largest greenhouse gas emitters to keep their emissions below agreed baseline levels. It also recommended that ARENA and the CEFC should adopt a ‘technology neutral’ funding stance, and the introduction of mandatory energy performance disclosure obligations for residential dwellings; the government’s response was that these are State and territory responsibilities. Further measures proposed by the Review were referred to the Technology Investment Advisory Council, chaired by Alan Finkel.

## PM Address to Press Club, January 29, 2020

The PM’s statement on this occasion flagged key commitments to gas as essential to the evolution of the electricity grid.

*“Central to this agenda is getting access to our domestic gas supplies. We need to get the gas from under our feet. 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.*

*“There are plenty of other medium to longer term alternative fuel arrangements and prospects, but they will not be commercially scalable and available for at least a decade, is our advice.*

*“Gas has a critical role to play as a backstop to our record investment in renewable energy generation. It helps ensure we can keep the lights on when the wind isn’t blowing and the sun isn’t shining.*

*“Sweating our existing coal fired power generation assets will only take us so far.*

*“Gas can help us bridge the gap while our investments in batteries, hydrogen and pumped hydro energy storage bring these technologies to economic parity with traditional energy sources.*

*So right now, we’ve got to get the gas...*

*“To guide Australia’s future technology investments, the Government will next month release for consultation a new technology roadmap charting the way forward in areas such as:*

* *Hydrogen,*
* *Solar and batteries,*
* *Transmission and networks,*
* *Large-scale energy storage, and*
* *Carbon capture and storage.”* (Morrison, Jan 2020)

So the government’s position is that it has been advised that pumped hydro, batteries and hydrogen will not be available at scale for at least 10 years, and in the meantime more gas will be required to carry out this role – a position at odds with that of AEMO, which, while endorsing the current role of gas, sees its usage as progressively reducing out to the 2040’s, when it is at a minimal residual level.

## Chief Scientist, Press Club, February 12, 2020

Dr Finkel spoke to the Press Club early this year in an address entitled The Orderly Transition to the Electric Planet. Most of his address outlined his serious concerns about growing global emissions levels, the need to transition to a low emissions future based on renewables, and how they need to be complemented by improved technologies in the areas of storage, long distance transmission and energy efficiencies. Then he veered off into two problematic areas – first, the role of gas in the evolving grid:

*“But, while these technologies are being scaled up, we need an energy companion today that can react rapidly to changes in solar and wind output. An energy companion that is itself relatively low in emissions, and that only operates when needed.*

*“In the short-term, as the Prime Minister and Minister Angus Taylor have previously stated, natural gas will play that critical role.*

*“In fact, natural gas is already making it possible for nations to transition to a reliable, and relatively low emissions, electricity supply”* (Finkel, A., 2020)

He went on to cite the examples of the UK where coal usage for electricity production has fallen from 75% in 1990 to 2% today, and gas in 2019 provided 38%, up from 2% in 1990. He also cited South Australia, where in the last financial year wind and solar hit 51%, with gas providing the remaining 49% of electricity production. There are no longer any coal generators in South Australia, which has a target to reach 100% net renewables by 2030, and beyond that to become a net energy exporter.

The Chief Scientist’s views directly contradict the position taken by the Australian Energy Market Operator, which in its Integrated Service Plan 2020 published in July, laid out its pathway for grid development through to 2040, and stated clearly that no new gas generation was necessary through this transition period, in any of the five scenarios modelled. Existing gas generators are anticipated to play important complementary roles in the 2030s when significant coal generation is retired, but AEMO’s assumptions show that by then battery storage will be significantly cheaper than meeting demand through new gas generators:

*“...gas powered generation and batteries can both serve the daily peaking role that will be needed as variable renewable energy replaces coal powered generation... Based on the cost assumptions in the ISP, new batteries are more cost-effective than gas powered generation in the 2030s…* ***particularly in scenarios that have carbon budgets to meet****” (*AEMO, July 2020)

The second more contentious issue relates to Australia’s capacity to become a future hydrogen exporter, and he outlined two contrasting pathways to effect that future, both, he claimed, with near-zero emissions. One depended on electrolysis based on renewable energy; the alternative, based on use of coal and natural gas, accompanied by carbon capture and storage, which he stated is facilitated in the electrolysis process as carbon dioxide is a residual product and doesn’t need separating, and secondly as the process is under high pressure, capture of the carbon dioxide is facilitated. And in a virtually throwaway line:

*“We must also recognise that if hydrogen is produced exclusively from solar and wind electricity, we will exacerbate the load on the renewable lanes of our energy highway.”* (Finkel, A., 2020)

His address raised concerns that hydrogen could be used to provide a lifeline to an endangered coal industry – concerns Finkel has done little to allay (Vorrath, 2020).

 In April AEMO published a report outlining the capacity of the grid to absorb over 75% of renewables by 2025, and after that date to move well beyond, given the speed of technical advances. Since then there has been rapid takeup of synchronous condensors at strategic points across the grid, smoothing the changes in frequency and system strength as wind, utility solar and rooftop solar intermittently enter and exit the system. South Australia is already operating at over 50% renewable capacity, and is targeting 100% by 2030; in late October the SA government identified three hydrogen hubs that it expects will result in rapid growth in wind and solar capacity in the state, and enable it to become a major energy exporter to the rest of the country and the world. And on November 5, the SA government made another important announcement, that it is backing a massive $250 million project to commence construction of the first demonstrator stage of a 75MW electrolyser in Whyalla, to supply green hydrogen for the annual production of about 40,000 tonnes of ammonia, in part for export markets. (Mazengarb, Oct 2020)

The Chief Scientist’s warnings about the necessity of using coal and gas to produce hydrogen don’t seem to be being heeded in South Australia, and the Queensland, Western Australian, NSW and Victorian governments are all pursuing funded projects for the production of green hydrogen.

While couched in less emphatic terms, the Chief Scientist’s position seems to echo that of Angus Taylor, that Australia’s electricity system has reached the point where the level of penetration of renewables is jeopardising the system’s reliability.

## Technology Investment Advisory Council, April 2020

The Council was established in April 2020, chaired by Dr Alan Finkel and with seven members: Grant King (of the King Review); David Parker, CEO of the Clean Energy Regulator; Drew Clarke, CSIRO and NBN; Jo Evans, Deputy Secretary, Industry, Science, Energy and Resources; Ben Wilson, CEO Multinet Gas, Shemara Wikramanayake, CEO Macquarie Bank (owner of a number of gas producers), and Alison Watkins, CEO Coca Cola.

On September 22 Energy Minister Taylor released the five Priority projects arising from the work of the Council, which have some similarities to those flagged by the Prime Minister on January 29:

* Clean Hydrogen
* Energy Storage
* Low Carbon Steel and Aluminium
* Carbon Capture
* Soil Carbon

Gas, coal, wind and solar are grouped together in the lowest priority category described as Mature Technologies; the focus is to be placed on the five Priority projects. Stretch targets for green hydrogen are set at $2 per kg (currently between $4 and $6), and long-duration storage of 6-8 hrs or more set at less than $100 MWh.

## EPBC Act Major Projects: June 15 2020

On June 15 this year the Environment Minister announced that the Commonwealth will work with the states and territories to reduce the assessment and decision timeframes for 15 major projects under the *Environment Protection and Biodiversity Conservation Act 1999*. On June 19 the Department instructed the Office of Parliamentary Counsel to begin drafting the legislative changes required to enable this accelerated assessment process; extraordinarily, the interim report of the Review of the Act had not been received and was not due to be forwarded to the Government until 30 June.

 Among the 15 major projects were Narrabri and Burrup in WA; Woodside has a major production hub at Burrup and is seeking the development of two giant new gas projects. From CleanState, WA:

*“The Burrup Hub project is a mega fossil fuel project proposed by Woodside Energy involving the development of two giant new gas fields (Browse and Scarborough) and other oil and gas resources off the Northwest of WA, to be processed for export as Liquified Natural Gas (LNG) on the Burrup Peninsula. If it proceeds, it will be most polluting project ever developed in Australia, offering little benefit to Western Australians and putting our climate and communities directly at risk. Australian oil and gas company Woodside Energy is the lead proponent of the Burrup Hub. The mega project involves several different joint ventures including with Shell, BP, BHP, Chevron and other partners.”*

*“Over its 50-year lifetime, the Burrup Hub will generate over 6 billion tonnes (gigatons) of carbon pollution from gas production, export and combustion overseas. That is equal to 11times the total annual emissions for the entire of Australia.”* (CleanState,2020)

Clearly, the incorporation of a climate trigger into the EPBC Act as proposed in so many submissions could not be entertained by the government, given its commitment to opening up huge new gas resources.

## The COVID Gas-Led Recovery: March – July 2020

The Prime Minister announced the establishment of the National COVID-19 Coordination Commission on 25 March 2020, and its renaming to the National COVID-19 Commission Advisory Board on 27 July 2020. Chaired by Nev Power, previously at Fortescue, and currently a Director of gas producer Strike Energy, its membership included Catherine Tanna from Energy Australia, and Andrew Liveris, former CEO of Dow Chemical and now a Saudi Aramco board member. Prior to joining the Recovery commission Nev Power had lamented that Australia lacked the Infrastructure to capitalise on its natural advantages – what was most needed, he stated, was a transcontinental gas pipeline.

He lost no time in selling this proposition to the government – a leaked report in May proposed a $6bn subsidy for gas pipelines, did not mention climate change nor Australia’s Paris commitments, and did not consider renewables in connection with national recovery. Previously, Andrew Liveris had attacked the Victorian government in 2017 for its bans on gas exploration. As a member of the commission’s manufacturing taskforce he recommended that if gas prices could be returned to levels between $4 and $6 per gigajoule, an additional 85,000 to 170,000 jobs could be created – a price target achievable only with significant government subsidies and a domestic reservation policy, according to the QLD Department of Natural Resources, Mines and Energy – which of course the gas producers are totally opposed to. In effect, they’re holding the govt to ransom.

Mike Cannon-Brookes said the prime minister's plan would backfire:

*"This intervention will drive up the energy prices for consumers and businesses, not drive them down, he said.*

*"It will lock in that gas plant for another 40 years. This is not the cheapest long-term plan for our grid at all. All of the experts, all of the engineers that write those reports have said that. He needs to listen to the experts."*

## PM’s Gas-Fired Recovery Sept 15, 2020

Just a couple of weeks ahead of the 2020 Budget, the Prime Minister outlined a series of measures which would combine a massive expansion of gas production by opening new fields and developing new infrastructure, which he claimed were essential because there is:

*“...no credible energy transition plan for an economy like Australia that does not involve the greater use of gas.”*

The announcement included funding of $28.3m to plan the development of five strategic basin plans, beginning with the vast Beetaloo Basin in the Northern Territory, and followed by the North Bowen and Galilee Basin plans. As well as the basin plans, Morrison outlined his intention to set new gas supply targets with states and territories and enforce potential “use-it or lose-it” requirements on ga licenses. Another $13.7m will be provided to the CSIRO’s Gas Industry Social and Environmental Research Alliance, and $10.9m will enable the development of an inaugural National Gas Infrastructure Plan. And the prospect of a reservations policy was mentioned:

*“[the govt will explore]...options for a prospective gas reservation scheme to ensure Australian gas users get the energy they need at a reasonable price.”* (Morrison, Gas, 2020)

He also threatened the electricity generators if they did not fill the anticipated dispatchable electricity gap of about 1,000 MW following the closure of the Liddell coal-powered generator in NSW in 2022, a threat which had to be reframed subsequently when it was pointed out that AEMO had stated that NSW would only need an additional 154 MW by 2023 and that the NSW Govt had pledged to help pay for four new projects: two large-scale batteries, a hybrid gas and battery plant and a virtual power plant which together should deliver 170 megawatts. And further, Mike Cannon-Brookes expressed interest in filling the gap if the government specified level-playing field conditions for the project (Murphy, K., 2020)

The Prime Minister also said the Government would also work with state governments through a program worth up to $250 million to accelerate three critical NEM projects – the Marinus Link, Project Energy Connect and VNI West interconnectors. (https://www.pm.gov.au/media/gas-fired-recovery)

## National Energy Address, September 15, 2020

September 15 was a busy day for the PM, because in addition to the Gas Fired Recovery, he also visited the Hunter to outline developments with the government’s National Energy policy.

Much of his address was about providing cheaper gas for domestic consumers on the east coast, especially concerning for the 225,000 workers in manufacturing firms he claims are heavily dependent on gas as a feed stock or energy source. However the Grattan Institute says there are only 10,000 workers in companies or plants heavily dependent on gas, and 6,000 of them are based in WA (Dundas, 2020). The Australia Institute states that in 2018/19 only 56 petajoules or 1% of Australia’s gas production is used as feedstock in manufacturing; 373 petajoules are used in total in manufacturing, mainly for energy, and 4,519 or 82% goes to exports (Merzian, R.,2020). The PM stated that the ACCC had identified that the gap between export and domestic prices for gas was at its highest level since it commenced monitoring prices in 2017, and that there is no credible energy transition plan for an economy like Australia that does not involve the greater use of gas.

Three key areas were identified as underpinning the expanded role for gas:

First, increasing supply by unlocking new basins like Beetaloo in the NT and Narrabri in NSW, together with opening new developments in existing Qld basins - collectively, the 5 Strategic Basins Plans. The Commonwealth will facilitate these processes by funding economic, engineering and scientific studies, as it is currently doing for Beetaloo.

Second, the Commonwealth will facilitate gas distribution by directly supporting pipeline development if necessary through the creation of a National Gas Infrastructure Plan which will set priorities for new pipeline networks, in a way analogous to AEMO’s Integrated System Plan for interconnectors across the grid.

And third, the Commonwealth will address the pricing issues by extending the existing Heads of Agreement with the East Coast gas exporters to ensure they provide competitive gas pricing for the domestic market. If that doesn’t work the government will consider the introduction of a domestic reservation system. (Morrison, Energy, 2020). And as described above, such a step would significantly reduce the producers’ superprofits, as east coast prices would have to align more closely with the cost of production.

##  Transforming Australian Manufacturing, October 1st, 2020

The PM announced that around $1.5 billion in new funding will be invested over the next four years in the *Modern Manufacturing Strategy* to make Australian manufacturers more competitive, resilient and export capable.

The centrepiece of the Strategy is the $1.3 billion *Modern Manufacturing Initiative (MMI),* which will see the Government strategically invest in projects that help manufacturers to scale up and create jobs.

The MMI will support projects within six National Manufacturing Priorities which reflect Australia’s established competitive advantages or emerging areas of priority:

* Resources technology and critical minerals processing
* Food and beverage
* Medical products
* Recycling and clean energy
* Defence
* Space

We might reasonably expect that one of the PM’s stock phrases will be run out here in relation to one or more of the priority areas, for example:

*“There is no credible energy transition plan for an economy like Australia that does not involve the greater use of gas in food and beverage or clean energy production.”*

# POLITICS

## Carbon Budget

The government is operating in a carbon-budget free zone, with wilful ignorance about the implications of its promotion of hugely increased gas production. New research from RepuTex based on a number of Australia’s largest industrial emitters shows that emissions are likely to grow by up to 77% from 2005 levels by 2030, greatly in excess of the government’s 2030 economy wide reductions target of 26%.

*“Industry emissions are the elephant in the room for Australian policymakers. While we are seeing rapid decarbonisation in the electricity sector, those gains are being eroded by policy inaction in other economic sectors”* RepuTex executive director Hugh Grossman said.

*“That imbalance is likely to continue until industry emissions are more formally aligned with Australia’s national target under the Paris Agreement.”* (Mazengarb, Oct 2020)

By 2030 Australia’s overall emissions are anticipated to be around 16 per cent below 2005 levels, well short of the government’s 2030 target of 26% under the Paris Agreement and leaving a surplus of 392 million tonnes of emissions; the government is relying on its leftover credits from the Kyoto 2020 target.

## Industry Degasification

The Australian Industry Group sought Budget funding of $500m over two years to promote the electrification of processes currently using gas, by transitioning to heat pumps and electric induction furnaces. This submission was not funded in the Budget.

## Avoiding Independent Advice

Scott Morrison has surrounded himself with individuals who share his views. The all important position of Secretary of the Department of Prime Minister and Cabinet is occupied by Phillip Gaetjens who was Secretary to the Department of Treasury between August 2018 to August 2019. Previously he was Chief of Staff to Peter Costello, and then Chief of Staff to Treasurer Scott Morrison between 2015 -2018, until being appointed to Treasury and then a year later to Prime Minister and Cabinet.

In June 2019 Former Minerals Council of Australia CEO Brendan Pearson was appointed as a senior advisor in Scott Morrison’s office. Pearson will also be back working side by side with his former MCA deputy chief executive, John Kunkel, who occupies the key position of Scott Morrison’s chief of staff.

It works the other way as well – former Liberal Minister Helen Coonan has been appointed Chair of the Minerals Council of Australia, as well as being appointed a Director of Commonwealth owned Snowy Hydro (and Crown Resorts). Mark Vaille, AO, former deputy Prime Minister, is a Director of Whitehaven Coal; former Minister for Industry Ian Mcfarlane became Chief Executive of the Queensland Resources Council a few months after leaving Parliament in 2016.

Then there are the appointments to advisory bodies, commissions and inquiries, and to key positions in Commonwealth Departments. There is a blatant disregard for seeking objective and informed opinion; the government too often makes key appointments with the certain knowledge that it will obtain the outcomes it wants.

## Labor, the AWU and CFMEU, and the fossil fuel industries

The issues around Labor’s policy on fossil fuel production have represented on ongoing problem for Labor, and in October the Opposition Leader attempted to craft a statement on gas which both the left and the right could live with.

In the process a presentation was made by the AWU and the CFMEU. It acknowledged the inevitability of zero net emissions and renewable energy, but argued that metallurgical coal would be necessary until 2040, and that gas vs renewables was a false choice; gas powered generation “only remains economical until enough firmed renewables can replace it, such as hydro and batteries”.

*“Battery storage is not close to replacing coal. Currently batteries dispatch 0.08 percent of total electricity generation. Hydrogen will not be able to replace firmed generation for several decades.”* (CFMMEU + AWU,2020)

There are a number of questionable assertions in the union presentation: that demand for metallurgical coal will not diminish until about 2040, and the claim that cutting Australian coal exports would hurt other countries’ sensible transitions. Perhaps the principal one is that that natural gas produces 50% less emissions than coal, and that fugitive emissions are not a major issue (CFMMEU + AWU,2020). My understanding is that in Australia the CSIRO has conducted the only small and non-representative measurement of methane emissions, of 6 wells out of over 19,000 in Queensland (Roberts, G.,2020), and that world-wide there is growing awareness of the need for it to be better monitored, with a number of major projects underway to provide measurements which are presently not available.

However the main issue seems to lie not so much with the union presentation as with the formulation of the Labor statement, intended to avert the kind of statements that Joel Fitzgibbon has frequently been making about both coal and more recently gas. Unfortunately this document has not been publicly released, but it did not prevent Joel Fitzgibbon telling the ABC on October 30th and since that Labor absolutely supported the Narrabri gas project.

At this stage it is essential to make a distinction between ongoing gas production and building more gas generators into the NEM. The AEMO ISP2020 supports AGL building an additional gas peaking station in the Hunter following the closure of Liddell in 2023, together with 1200MW of wind and solar, battery storage and demand side participation, but then it does not visualise the need for any additional gas generation through the modelled period to the early 2040s, when the last coal generator is retired. By the early 2030s more dispatchable power will be required, but as emphasized previously, by then AEMO calculates that battery storage will be cheaper than gas generation. It should be remembered that AEMO is the national body responsible for guaranteeing system reliability – any outages or system failures are its direct responsibility – and this responsibility is underlined by it being the only organization in Australia that carries out this modelling, which it updates every two years.

And yet, the Australian government, and many others, consider they know better.

The Labor statement hasn’t satisfied all the parties. Joel Fitzgibbon is jeering at the left over the proposed gas generator in the Hunter. LEAN, in responding to the continuing public disputation, expressed frustration with Labor’s internal disagreements continuing to being played out publicly:

*“(It’s)time we stood up for our constituency and for the millions of Australians who expect Labor to not only defend working people’s livelihoods and jobs but to protect them from a changing climate.”* (Wade,2020)

Labor’s indecision about its emissions targets and its apparent inability to set out a coherent position on coal and gas continue to haemorrhage its support and provide room for assaults from both the coalition and the Greens. Joel Fitzgibbon’s departure from the Shadow Cabinet puts him in a position where his capacity to white ant the party’s stance on fossil fuels will be less constrained. Labor can’t wait until after Glascow in a year’s time to state where it stands.

The two main issues which have bedevilled Labor have been its inability at successive elections to spell out the cost of its 2030 targets, and its failure to develop convincing transitioning plans for workers in regions where thermal coal demand can be expected to decline.

In relation to costing its targets, Labor could commission that work or undertake the task itself, given that so much detailed material has been produced by think tanks, independent consultants and proponents of individual projects. Complicating this process is the speed at which all the States are introducing more renewables and storage plans – all States and territories have net zero emissions targets by 2050, and some will get there sooner. This process is not solely a negative one, of detailing the costs associated with programs and projects – it should also set out the benefits in terms of the employment created, renewed regional vitality, aggregated increase in national output, and most importantly, the level of emissions abated.

Labor should also go to the next election with a clear commitment to the development of comprehensive transitioning plans in the most affected regions. Some of that work has already been initiated in particular regions – in the Hunter, for example, the Hunter Jobs Alliance was formalised in early November with the involvement of LEAN, the AMWU, ETU and eleven other unions, and State and local environment groups. Hunter Renewal is a separate group, established last year, and with a focus around local Councils and environment groups, with Lock the Gate one of the originators. In Queensland the Next Economy, developed by Dr Amanda Cahill, is working with key unions, local Councils and community groups. It has joined with BZE and the Byron Bay Council in developing the Zero Emissions Byron project, and was instrumental in developing the Communities in Transition program which the Queensland Government took to the recent election.

Some of the other components of an integrated policy framework should include the following positions, and should be framed within Labor support for net zero emissions by 2050 and a strong 2030 target. This position should now be more comfortable for Labor with the presumed re-entry of the US into the Paris Agreement, together with strong action from Japan, China, South Korea, Canada and the EU and UK. Labor should be pressing the Coalition as the odd man out.

1. The gas generator in the Hunter appears to be a given but Labor should support the AEMO position, that no further gas generation is required through to 2040, as gas usage in the NEM declines to very low levels across this period. From the 2030s on dispatchable energy from battery storage will be cheaper than gas generation, and emissions free.
2. The need for gas as manufacturing feedstock will decline through the 2020s and will be replaced by hydrogen later in this decade. In the meantime Labor should be facilitating this process by supporting the degasification of manufacturing processes as proposed earlier this year by the Australian Industry Group.
3. Depletion of existing gas fields in south east Australia and NSW is anticipated by the middle of the 2020s but Narrabri for instance will not be producing until around 2026 and the cost on the east coast is expected to be around $8 PJ – there is no more cheap gas. Labor should be adopting a strong domestic reservation policy and should undertake a comprehensive review of the PRRT with a view to keeping more of the corporate revenues in Australia.
4. In May this year the Australian Petroleum Production and Exploration Association (APPEA) commissioned Ernst and Young to assess the role of the oil and gas sector, and the impact of taxation and regulatory reforms in the Covid 19 recovery phase. Released this month, the report is narrowly framed, and provides no consideration of the industry’s role in increasing emissions other than a brief reference to carbon capture and storage. It models low and high growth scenarios, and forecasts strong growth in national output and employment, provided a supportive policy environment is facilitated to encourage investment; unleashing strong development, it claims, will result in lower gas prices. It then discusses the headwinds the industry faces – lower demand, company valuation writedowns and stronger competition internationally. The purpose of the report then emerges: none of these benefits will materialise, the report claims, unless the EPBC Act can be streamlined to shorten and surmount the approval process; the PRRP and royalty regimes must not be strengthened; improved capital depreciation arrangements are sought, together with more favorable treatment of capital gains in joint ventures (Ernst+Young(2020).
5. Should there be any continuing uncertainty about the number of jobs which a gas-led recovery might produce, or its appropriate role in Australia’s energy future, the Grattan Institute has drilled down into current actual manufacturing job numbers in highly gas- intensive, moderately gas -intensive and mildly gas intensive, confirming its numbers of only 10,600 employees in the highly intensive category. The biggest group of employees are found in the food, beverages and tobacco sector, where there are 246,000 employees, but gas as an input cost represents only 0.5% of all inputs. This is precisely the area where substituting electricity for gas in heating and cooking can save both manufacturing costs and emissions produced ( Wood, T. and Dundas, G., 2020).
6. Demand for thermal coal will reduce steadily through this decade and is already affecting some communities; the Institute for Energy Economics and Financial Analysis (IEEFA) forecasts international demand for thermal coal will fall by 60% through the current decade and points out that Australian governments are ignoring the impacts this will have on both workers and communities (West, 2020). A detailed analysis of the Queensland and NSW thermal coal workforces was prepared by John Quiggin for the Australia Institute earlier this year; it identified 2 main regions in Queensland, the Bowen Basin and the Central Highlands Region west of Rockhampton, and the Upper Hunter Region in NSW. He costs a phased program of transition to renewables over 10 years and offering redeployment, early retirement incentives, income protection and retraining options at between $25 and $50m annually (Quiggin,2020).
Clearly, transitioning programs can only be carried out from government. The Hazelwood closure for example was accompanied by the formation of a Latrobe Valley Authority by the Andrews government, and was accompanied by the creation of over 2,000 new jobs, and employment in the Latrobe Valley falling to 3.5% (Quiggin, 2020).
7. An important new paper from Deloitte Access Economics identifies what it describes as a fundamental flaw in the way climate change is considered in Australia, especially by the coalition, where the costs of strong decarbonising action are constantly described as being excessive. The report suggests the costs of determined inaction, in a balance sheet kind of structural presentation, could result in identifying economic damage the equivalent of Covid 19 every year between now and 2050*. “Australia’s economy will be 6% smaller, there will be 880,000 fewer jobs and $3.4tn in economic opportunities will be lost if the climate crisis goes unchecked for the next 50 years.
“On the other hand... policies consistent with a target of net zero emissions by 2050 and keeping global warming to 1.5C could expand the economy by 2.6%, or $680bn to the economy, and create 250,000 jobs.”* (Morton, 2020)

The gas industry in Australia does not have the necessary foundations on which an Australian recovery could be based. Since 2014 it has benefited enormously from the Commonwealth government choosing not to apply essential regulatory mechanisms. Its profits go offshore, its royalty payments are minimal, the employment it creates is minimal, and the corporations pay no company taxes. Gas is responsible for 19% of Australia’s greenhouse emissions, and the expansion of the industry has led to huge price increases, with collateral impact on electricity prices as well. There is strong public focus on reducing Australia’s emissions from the electricity grid, which produces about 33% of our emissions. Why does the Commonwealth government now want to facilitate more emissions from gas?

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