Submission to Transport and Resources Committee Queensland Parliament on Energy (Renewable Transformation and Jobs) Bill 2023

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December 8, 2023

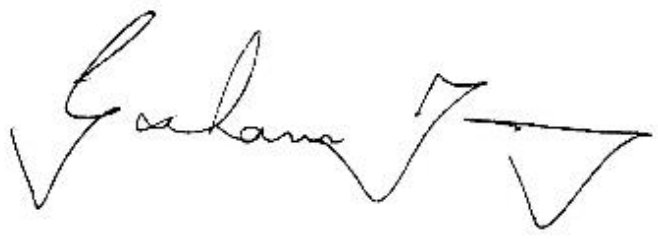
The Chair,
Transport and Resources Committee
Parliament House
George Street
Brisbane Qld 4000

Dear Chair,

The Australian Institute for Progress is an Australian think tank based in Queensland, with a particular interest in energy. We thank the committee for this opportunity to make a submission on the *Energy (Renewable Transformation and Jobs) Bill 2023*.

Should you have any queries you may contact me by email graham.young@aip.asn.au, or by phone 0411 104 801.

Regards,



GRAHAM YOUNG
EXECUTIVE DIRECTOR

Introduction

While the bill has precedents in New South Wales and Victoria, we have some concerns about it including the:

- practicability of the targets
- way the bill centralises executive authority in the minister's office
- wisdom of embedding targets in legislation
- ownership structure, with the apportionment of public and private ownership
- lack of integration with the National Electricity Market
- method of funding the construction of transmission assets
- price regulation
- Job Security Fund and Energy Industry Council

While this submission primarily concerns the bill itself we also briefly touch on alternative approaches to decarbonisation, including nuclear, which has increasing international support. We also argue that the state has time to get this right and doesn't have to rush anything. Wrong decisions on long-lasting infrastructure can be very costly.

General comments about energy policy

We believe that there is little chance of achieving Net Zero in energy production without a significant amount of firming gas capacity and either carbon capture and sequestration, or carbon offsets, as envisaged by the Australian Energy Market Operator (AEMO) in its latest Integrated System Plan[1].

We also believe that the need for gas will limit the ability of the generation system to go much beyond 60% renewables (wind and solar), as demonstrated by South Australia[2], and also King Island (although King Island uses diesel not gas to firm its renewables). This tends to be confirmed by recent work conducted by pro-renewables consultancy Thunder Said Energy[3].

The need for gas may be lessened, although not eliminated, by significant storage which operates at grid scale and is affordable, of which pumped-hydro is the only candidate. While Queensland has some opportunities for pumped-hydro storage, the largest projects are unlikely to come on stream in time to meet the ambitious targets set by this bill, and the smaller projects that will, won't provide the storage required.

Added to that the scale of construction to meet the targets would be historically unprecedented, and we expect there to be problems procuring labour and resources at acceptable prices and within necessary timeframes.

We believe that cost and reliability are the paramount requirements for our power-generation network, and that a conservative approach to the speed of deployment is warranted. There are also political risks for a government that promises ambitious targets and fails to meet them.

So while the targets in the bill may be achievable they are unlikely to occur on the timescale envisaged by the government.

[1] AEMO isp 2023 https://aemo.com.au/energy-systems/major-publications/integrated-system-plan-isp/2022-integrated-system-plan-isp

[2] NEM Dashboard Fuel Mix https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/data-nem/data-dashboard-nem

[3] "Renewable-heavy grids: dividing the pie?" https://thundersaidenergy.com/2023/11/16/renewable-heavy-grids-dividing-the-pie/

Fortunately, as detailed later, there is no climate crisis, and the state can afford to be conservative in its approach.

Structure of the bill's approach

The structure of the bill tends to unnecessary intervention by the minister, and centralisation in their office. This is not a good model for delivering large and complicated infrastructure. The original structure for the preparations for the Olympic Games was an independent committee with representation of appropriate stakeholders. This structure was abandoned and the process taken into the department. We believe that is one of the reasons why preparation for the Olympics does not appear to be proceeding smoothly.

Requiring the minister to approve details of each decision with respect to Renewable Energy Zones (REZs) is not good administrative practice and will inevitably lead to accusations and perceptions of bias. Any failure will also be able to be attributed to ministerial actions or inactions. So it is risky managerially and politically.

Legislated targets

We do not think it is a good idea to legislate targets and note that while the federal government has targets for emissions and generation these are not in any legislation. It is claimed that legislating the targets will give industry certainty, but in fact the bill makes provision for the minister to review and change the targets, although it is not specific in how the changed targets would be legislated.

Presumably the change would require an amendment to the act, but what if the parliament refuses to pass the amendment? Is it good practice to have what has to be ultimately an engineering and project management question dependant on parliamentary procedure? And what if parliament mandates an impossibility?

There is clearly room for uncertainty, as well as legal action.

While legislating targets may appear politically attractive as a statement, it is practically fraught.

Ownership

The bill prescribes that transmission and the most significant deep storage (pumped hydro) assets must be 100% publicly owned, and that generating assets - apart from those used to generate electricity specifically for storage that is to be exported - be no less than 54% publicly owned.

This makes no sense. In a properly functioning market it should make no difference who owns the various elements, particularly the generators.

The bill also implies that it makes no sense by exempting generators employed in making energy for storage which is exported. Presumably the government has in mind hydrogen production, and perhaps ethanol and ammonia.

It also touts hydrogen for domestic storage uses.

Assuming the green hydrogen industry experiences significant growth, what happens if export markets fail to materialise and product is diverted to domestic markets? Does the state need to suddenly acquire some generators to preserve the ownership requirements? What is the ownership requirement trying to protect against that is unnecessary in an export situation?

What does 54% ownership mean? Is this by capacity, or amount of electricity generated?

Another issue is why transmission lines would need to be 100% government owned. They would be regulated assets, so it couldn't be price gouging.

Integration with the National Electricity Market

There is a theme that seems to run through the bill that Queensland is exceptional and shouldn't be governed by the National Electricity Market rules, but still participate in it. This is reflected in a number of instances where the legislation exempts power assets in the state from NEM rules, as well as exempting REZ participants from Commonwealth and State competition policy.

This is also reflected in comments in the briefing session held on Monday November 13 by Mr Shankey. In response to a question from the acting chair about the cost impact on Queensland of renewables growth in New South Wales Mr Shankey said "…at the same time the features of the Queensland market and limited interconnection mean that Queensland is, to a certain extent, in control of its own destiny".

This is concerning. At the one time it seems to suggest that higher electricity costs would be a good thing for Queensland, while it ignores the fact that any credible renewables strategy envisages networks carrying electricity from where it is being generated, anywhere on the eastern seaboard, to where it is needed, anywhere on the eastern seaboard.

It is argued that while the wind might not be blowing in Queensland it may be blowing a gale in South Australia, and surplus power could be exported from there to Queensland to make-up the difference, and vice-versa.

Treating Queensland as a separate electricity fiefdom may feed chauvinistic state pride but it is not a sensible way to supply electricity to Queensland consumers. Particularly as storage, which would alleviate some of the problems that wide networks are also set to mitigate, will not be available in significant quantities until next decade.

Establishment of transmission networks

We are pleased to see that not only will those owners of land directly under transmission lines receive compensation, but so will those within a kilometre of those lines. This fixes a situation that exists in other infrastructure areas where the landowner directly affected is compensated, but the neighbouring landowners, who will have to bear the costs of the nuisance often created by the infrastructure, are not. Not only is this inequitable, but it often creates resistance to necessary infrastructure projects.

We are not pleased with the mechanism for funding the transmission infrastructure which appears to be that the owners of the generating assets will need to not only pay for access to the transmission lines, but also for the capital cost of building them.

While we understand this is common practice in a number of infrastructure areas, it ought to stop. The cost of building the asset will be included in the access charges which will need to provide a reasonable return on investment to the transmission owner, which would include depreciation. The generators are paying for the asset twice over – once to build it, and then once again to use it.

This is also how infrastructure for residential subdivisions are funded and is a direct cause of the housing crisis that we are currently experiencing. It is time that infrastructure providers bear their own capital costs and only charge their users for the use of the asset.

Regulation of transmission networks

The bill also gives the minister power to regulate prices on the transmission assets. As the state is the owner of the assets this is a clear conflict of interest. The power to determine costs and charges should lie with an independent party.

Job Security Fund and Energy Industry Council

The bill provides for special assistance for current energy workers and their communities. We are opposed to this as it is inequitable, and favours a particular well-paid unionised workforce, when the impacts of the energy transition will be felt across the whole state.

For example, it is highly likely that the energy transition will lead to the closing of the domestic aluminium refining industry. Why shouldn't the workers at the Yarwun Alumina Refinery in Gladstone receive special assistance? But why stop there? What about every employee of any business that loses their job because of the increase in power prices?

Nuclear energy

The issue of nuclear energy was raised in the public briefing of November 13. While the laws prevent nuclear generation in Australia at the moment, as was pointed out in that briefing, today's newspapers carry the story that the US Congress is about to approve the sale of three Virginia Class nuclear submarines to Australia[4]. So sooner or later it is likely that in a port in Queensland we will have nuclear generation of electricity, as we did when the USS Ronald Reagan berthed at Hamilton in Brisbane in 2019[5].

On December 1, this year 20 nations announced at the World Action Climate Summit of the COP 28 that they would triple nuclear energy by 2050[6].

Nuclear should be part of the mix. It would negate the need for most of the new transmission capacity for decarbonisation as it could use the existing transmission network. That would save a large amount of cost, as well as averting the need to resume large swathes of land. It would also obviate any need for the Job Security Fund or the Energy Industry Council as existing power workers would have the skills to work in a nuclear power station.

Climate Crisis

It is worth noting that there should be no concern if the REZs and the renewable electricity generation they are meant to support cannot be put into place on the timetable envisaged. Contrary to the claims of some there is no climate emergency, and we can therefore take the time necessary to properly engineer a new electricity system.

This is not because CO2 is not a greenhouse gas it is because warming is occurring gradually and is not dangerous.

Most claims of an crisis focus on alleged dangerous warming, which is said to be accelerating, and manifesting in various physical phenomena like floods, droughts, bushfires and cyclones. However much of this is based on modelling and not real observational data.

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[4] "AUKUS subs deal set to pass Congress after breakthrough", *Australian Financial Review* December 8, 2023. https://www.afr.com/world/north-america/aukus-subs-deal-set-to-sail-through-congress-20231208-p5eq0g

[5] "US Navy warship arrives in Brisbane ahead of Talisman Sabre military exercise" ABC News, July 5, 2019. https://www.abc.net.au/news/2019-07-05/us-navy-warships-arrive-brisbane-uss-ronald-reagan/11281942

[6] https://www.energy.gov/articles/cop28-countries-launch-declaration-triple-nuclear-energy-capacity-2050-recognizing-key

- Climate models have been shown to overestimate the increase in temperature, most recently by McKitrick & Christy[7] and Zou et al[8], and there is no acceleration in temperature increase
- There is no trend in extreme weather events[9]
- Coral cover of the Great Barrier Reef is at record levels[10]
- There is no trend in deaths from wildfires[11]

CO_2 is a trace gas that contributes to the warming of the earth. It is 0.04% of the atmosphere and is vital to life on earth. It has been roughly half the concentration it is today, at which point it becomes dangerously low for life on earth. It has also been 5 times the current level in the last 35 million years without this level being detrimental to life on earth.[12]

The warming effect of CO_2 is logarithmic, which means that the more CO_2 is added to the atmosphere the less it has an effect on temperature. At current concentrations a doubling of CO_2 will result in something like a one degree direct temperature effect. Any greater effect can only be attributed to forcings, but these have not been observed to exist.

At current concentrations we have a lot of time to solve the CO_2 emissions issue. That allows for proper sequencing of the replacement of fossil fuel electricity generation.

These are not just our views, but are shared by a number of diverse scientists influential in climate science such as:

- Steve Koonin (Science Advisor to Barrack Obama)[13]
- Professor Michael Mann (Author of the Hockey Stick Graph that appeared on the cover of the World Meteorological Organisations 1999 report)[14]
- Dr John Clause (Nobel Laureate in science 2022)[15]

to name a few.

It also gives us time to properly debate some of those alternative technologies, such as nuclear. Despite claims to the contrary, it is not dangerous, and it is cheaper than the alternatives while emitting less CO_2[16].

[7] "Pervasive Warming Bias in CMIP6 Tropospheric Layers " https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2020EA001281
[8] "Mid-Tropospheric Layer Temperature Record Derived from Satellite Microwave Sounder Observations with Backward Merging Approach." https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2022JD037472
[9] "How to Understand the New IPCC Report: Part 2, Extreme Events" https://rogerpielkejr.substack.com/p/how-to-understand-the-new-ipcc-report-1e3
[10] "The Good News on Coral Reefs" https://www.thegwpf.org/content/uploads/2022/08/Ridd-Record-Coral-GBR.pdf
[11] https://ourworldindata.org/natural-disasters
[12] https://www.researchgate.net/figure/Temperature-T-and-atmospheric-carbon-dioxide-CO2-concentration-proxies-during-the_fig4_320123470
[13] Koonin, S. (2021). *Unsettled: What Climate Science Tells Us, What It Doesn't, and Why It Matters*. BenBella Books.
[14] Mann, M. (2023). *Our Fragile Moment: How lessons from earth's past can help us survive the climate crisis*. Scribe Publications.
[15] https://www.msn.com/en-us/weather/topstories/climate-scientist-blows-the-lid-off-the-manufactured-consensus/ar-AA1fg06R
[16] https://www.iea.org/reports/projected-costs-of-generating-electricity-2020