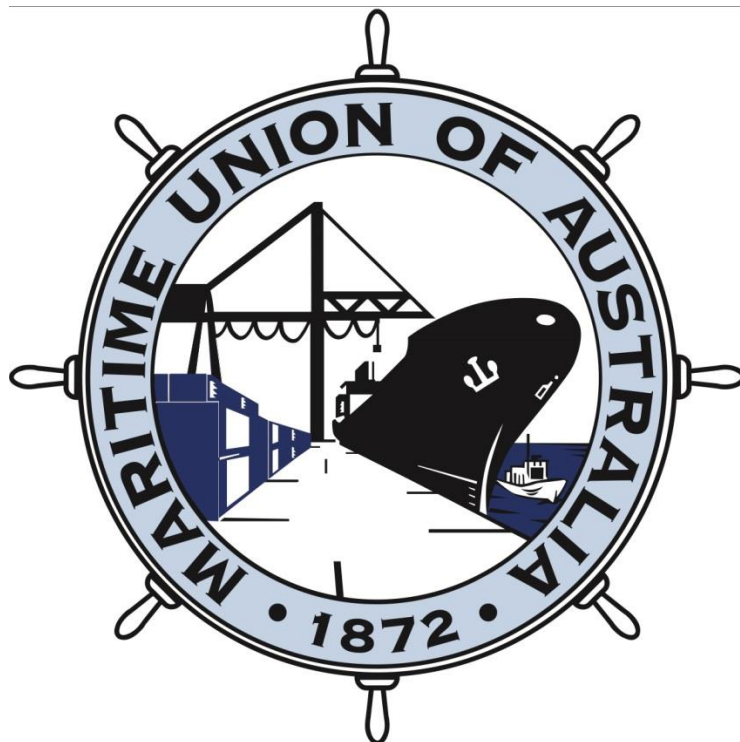


INQUIRY INTO URANIUM MINING AND NUCLEAR FACILITIES (PROHIBITIONS) REPEAL BILL 2019

Organisation: Maritime Union of Australia

Date Received: 21 October 2019

MUA Submission: Inquiry into the Uranium Mining and Nuclear Facilities (Prohibitions) Repeal Bill 2019



21 October 2019

NSW Standing Committee on State Development

Submitted by email: State.Development@parliament.nsw.gov.au

**Paddy Crumlin, National Secretary,
Maritime Union of Australia
A Division of the Construction, Forestry, Maritime, Mining and Energy Union
365 Sussex St, Level 2, Sydney, NSW, 2000**

**Paul McAleer, Secretary, Sydney Branch
Maritime Union of Australia
A Division of the Construction, Forestry, Maritime, Mining and Energy Union
365 Sussex St, Level 1, Sydney, NSW, 2000**

**Glen Williams, Secretary, Newcastle Branch
Maritime Union of Australia
A Division of the Construction, Forestry, Maritime, Mining and Energy Union
406-408 King Street, Newcastle West, NSW 2302**

**Mick Cross, Secretary, Southern NSW Branch
Maritime Union of Australia
A Division of the Construction, Forestry, Maritime, Mining and Energy Union
64 Darcy Road, Port Kembla, NSW 2505**

Website: www.mua.org.au

Introduction

This submission has been prepared by Maritime Union of Australia (MUA). The MUA is a Division of the 120,000-member Construction, Forestry, Maritime, Mining and Energy Union and an affiliate of the 20-million-member International Transport Workers' Federation (ITF).

The MUA represents approximately 14,000 workers in the shipping, offshore oil and gas, stevedoring, port services and commercial diving sectors of the Australian maritime industry.

Other submissions

The MUA supports the joint civil society statement opposing nuclear power, available here: https://www.acf.org.au/wide_community_opposition_to_nuclear_power.

We recommend to the Committee the joint submission to this Inquiry of the Friends of the Earth Australia, The Australian Conservation Foundation, and the Nature Conservation Council of NSW. The Committee should also call them as witnesses. For decades these organisations have played a key role in working with affected communities and key stakeholders, and in supporting people in remote Aboriginal communities dealing with the immediate impacts of uranium mining and potential impacts of the storage of nuclear waste.

Summary

The MUA supports science-based emissions reduction efforts to address the current climate crisis, including the need to limit global heating to 1.5°C.

We recommend:

- That the current ban on uranium mining in NSW should be retained.
- That the current ban on uranium mining in NSW should be extended to include uranium prospecting/exploration.
- That the Committee recommend to the NSW government and parliament that the *Uranium Mining and Nuclear Facilities (Prohibitions) Act* should be amended to provide some protection against any future attempt by the Commonwealth to impose a national nuclear waste facility in NSW.
- That the Committee recommend the Australian government ratify the UN Treaty on the Prohibition of Nuclear Weapons, or at least stop blocking its global progress.
- Any energy transition must include a Just Transition of the workforce and communities, including a job guarantee for workers, substantial community

investment, and the establishment of a Transition Authority. We provide details on this in our submission to the ongoing Inquiry into the Sustainability of energy supply and resources in NSW.

- The transition to renewable energy, the variability of renewable energy, and the price of electricity for consumers can be managed with a much stronger and more coordinated government role in planning, investment and direct ownership of the energy system, including investments in energy generation, storage and an improved system of interconnectors and transmission. Nuclear power is not necessary.
- The Inquiry must acknowledge that corporatisation, fragmentation, privatisation, and the introduction of a National Electricity Market with no decarbonisation target has introduced significant obstacles to the planning and building of a decarbonised electricity system.
- The NSW government should establish a renewable energy company, similar to the CleanCo renewable energy company that has been established by the Queensland government.
- New investment in renewable energy generation, storage, and the new transmission and distribution infrastructure needed to support it should be done under public ownership and financing. Governments can build at lower cost due to their ability to access cheaper financing. Wherever possible, low-emissions projects should be located in emissions-intensive communities. There should be direct government investment and ownership to prioritise these projects and ensure they are built to the highest standards and maximise good employment. Superannuation investment in democratically controlled renewable projects should be facilitated through government-issued bonds intended specifically to fund these projects,¹ or a government superannuation investment agency.²
- We request that the Parliamentary Research Service update the Issues Paper produced for this Inquiry to better reflect the availability of renewable energy resources in NSW, particularly offshore wind.

Nuclear Power in Australia

The MUA and its predecessor unions (especially the Seamen's Union of Australia and the Waterside Workers' Federation) have long opposed the development of nuclear power in Australia. This was discussed at our most recent Quadrennial National Conference of Members in 2016, which unanimously passed a strong resolution against the development of nuclear power, and the risk that all aspects of the nuclear industry pose to the

¹ Trade Unions for Energy Democracy, [TUED Working Paper #10: Preparing a Public Pathway Confronting the Investment Crisis in Renewable Energy](#), November 2017, p.61-63.

² ACTU, 2018, [Workers Capital and Superannuation Policy](#), section 12(d).

environment, local communities, and workers involved in mining, transportation and handling of radioactive materials (appendix 1).

Recent attempts to put nuclear power back on the agenda were further discussed at the MUA's most recent National Council in July 2019, and again were unanimously opposed.

The MUA's National Council has also rejected the suggestion by Industry Super Australia (ISA) that nuclear power should be considered as part of a future energy system in Australia.³ The ISA report contained unfounded assumptions on the amount of energy storage required in a renewable energy system. The ISA report does not refer to the available peer-reviewed and published modelling and simulations on storage requirements in an Australian renewable energy system.⁴ It makes an assumption that storage is required for a full 1.5 days of electricity use (7,200 GWh) without providing any reference for this. It is this assumption that leads the paper to call for nuclear power to fill the gap. Certainly energy storage and new grid interconnectors are needed to deal with renewable energy, and large investments will be required for this. But ISA should have considered the available research and evidence in preparing the report and giving its advice.

Finally, we are concerned that the cost estimates given in the ISA report for building new nuclear power stations are based on projected costs from industry advocates, rather than actual costs for current stations that have been subject to very significant overruns. The report says that "A single reactor would be a relatively small investment." The Hinkley Point C nuclear reactor presently under construction in the UK is estimated to cost £37 billion (\$66 billion AUD), for two reactors.⁵

Transportation of nuclear material

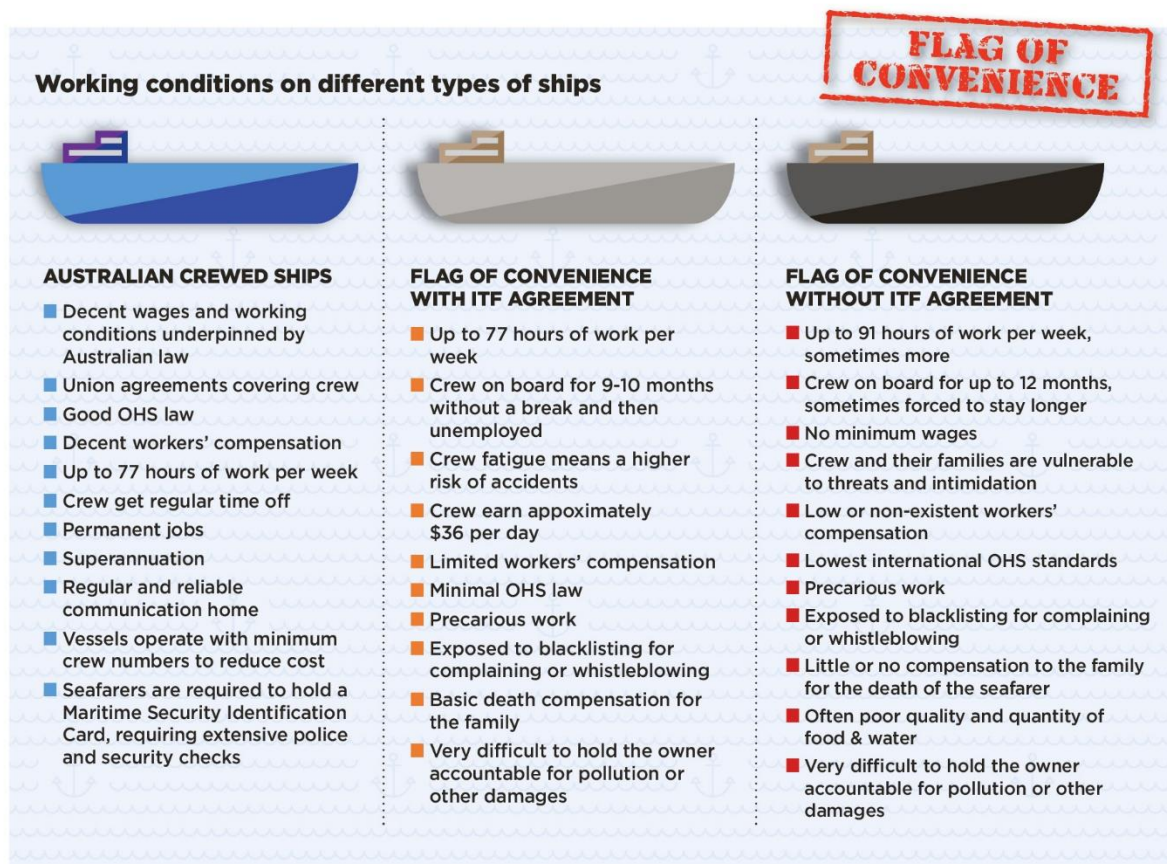
Uranium mining and the nuclear industry involves the transportation of uranium and nuclear waste by ship. Given the safety risks of nuclear fuel and level of political controversy, most Australians would probably assume that transport of nuclear materials would take place on vessels of the highest standards. This is very unfortunately not the case, with nuclear shipments in 2015 and 2018 taking place on vessels with records much worse than the usual standard of Flag of Convenience shipping (Figure 1).

³ Industry Super Australia, *Modernising Electricity Sectors: A guide to long-run investment decisions*.

⁴ Ben Elliston, Jenny Riesz, Iain MacGill. What cost for more renewables? 'The incremental cost of renewable generation: An Australian National Electricity Market case study.' *Renewable Energy*, 95 (2016) 127-139. Andrew Blakers, Bin Lu, Matthew Stocks, '100% renewable electricity in Australia,' *Energy*, 133 (2017), 471-482. Rutovitz, J., James, G., Teske, S., Mpofu, S., Usher, J, Morris, T., and Alexander, D., *Storage Requirements for Reliable Electricity in Australia*, 2017, prepared for the Australian Council of Learned Societies at the request of Australia's Chief Scientist.

⁵ Terry Mcalister, Estimated cost of Hinkley Point C nuclear plant rises to £37bn *The Guardian*, 8 July 2016

Figure 1: A comparison of working conditions on Australian and international ships.



Source: Maritime Union of Australia and International Transport Workers Federation

In July 2018, spent nuclear was carried from Lucas Heights to Port Kembla to be shipped to France, reprocessed, and returned to Australia. The nuclear material was loaded onto the *BBC Austria*, owned by Brise Schiffart, a company with a terrible safety record. The company has been caught leaking oil, losing cargo, and not following basic navigation rules.

In 2015, the BCC Shanghai was chartered to bring reprocessed fuel waste from France to Australia. This was despite the ship being recently detained in Australia and Spain, and banned from carrying government cargo in the United States for failing safety inspections.⁶ It is clear that we do not have sufficient safety measures and standards in place for the current small scale of the nuclear industry in Australia. This must not be expanded.

Remote waste facilities

Dealing with the nuclear waste from Australia's small reactor at Lucas Heights is already expensive, complex and controversial. Generating electricity from nuclear energy would

⁶ Natalie Wasley, 2018, Responsibility overboard: the shocking record of the company shipping nuclear waste to Australia, *Online opinion: Australia's e-journal of social and political debate*, 14 August 2018. The safety records of ships are available on the commercial database run by IHS Fairplay.

generate far more waste, and the Australian government has not been able to find anywhere to put it that does not generate considerable anxiety and opposition from Traditional Owners and community members. The attempts of successive federal government to construct a nuclear waste facility have been thwarted by persistent community campaigns and legal actions. Nominated sites in South Australia (1998-2004) and the Northern Territory (2005-2014) were dropped by the federal government after years of hard fought campaigning.

Significant government resources are currently being thrown at advancing the assessment of three shortlisted sites in South Australia - one on Adnyamathanha country in the Flinders Ranges and two in the Kimba region of the Eyre Peninsula. The SA waste dump plan has caused great anxiety and stress for Traditional Owners and local community members near the sites. The MUA supports the community campaigns against those sites being used as nuclear waste facilities.

Adnyamathanha Traditional Owner Regina McKenzie describes the Flinders Ranges as "arngurla yarta" (spiritual land), and describes how "the proposed dumpsite contains thousands of Aboriginal artefacts. Our ancestors are buried there. We don't want a nuclear waste dump here on our country and worry that if the waste comes here it will harm our environment and muda (our lore, creation)." Communities - including many of Regina's extended family - have campaigned for decades to stop uranium mining and nuclear waste dumps and to fight for compensation for people affected by nuclear bomb tests conducted in the 1950s and 1960s.

The MUA opposes attempts to find a remote nuclear waste facility on Aboriginal land, or any location contested by the local community.

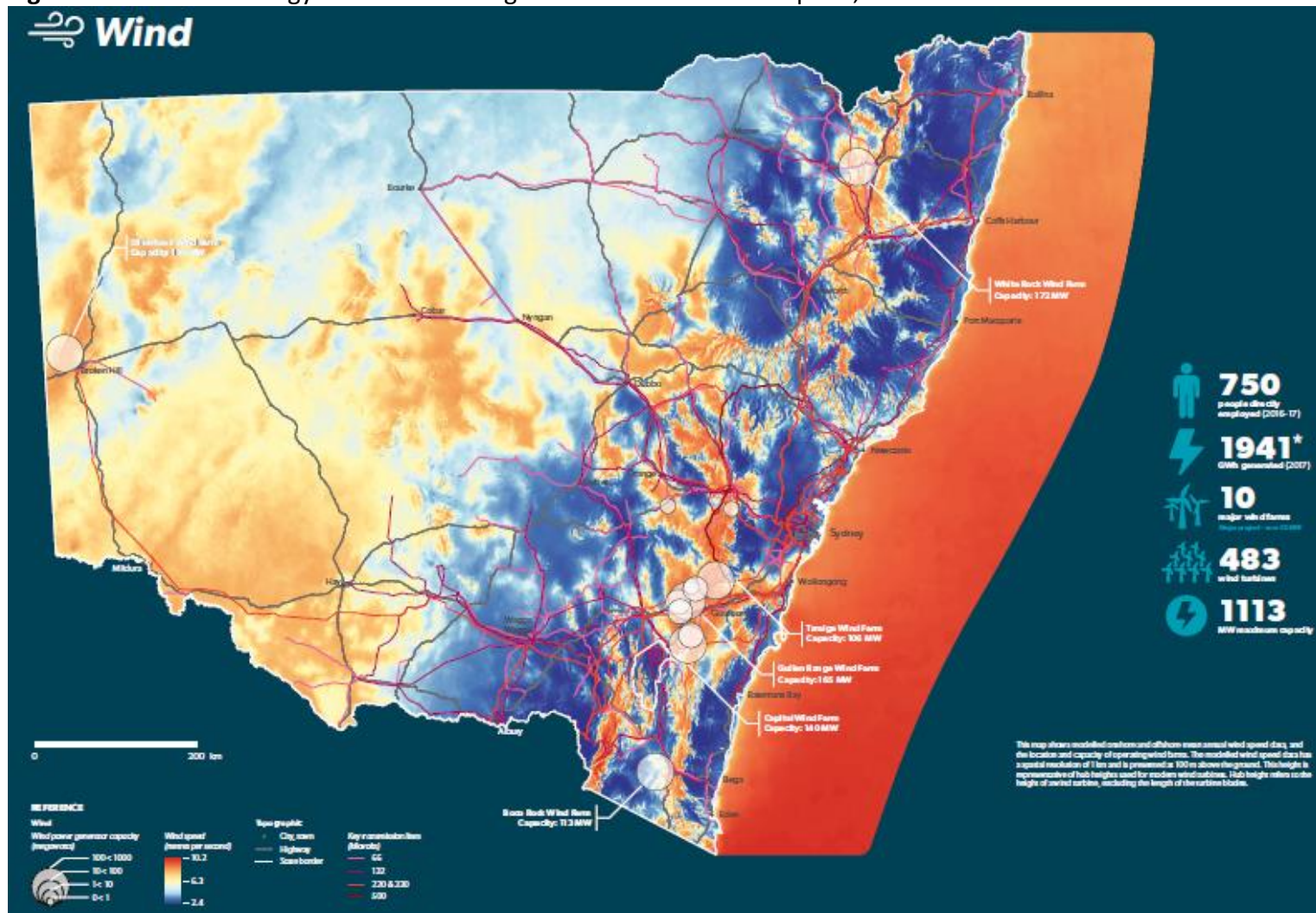
Renewable energy in NSW – Offshore wind potential

The Issues Paper produced for this Inquiry includes a section on the renewable resources of NSW. However the map provided in Figure 3 (p.8) of the Issue Paper is misleading as it only shows wind resources on land, and appears to show that the only renewable energy potential at sea is wave energy. The facts are that wind resources are strongest at sea, and that offshore wind has so far been the most successful renewable energy available at sea. Offshore wind can also be developed at a similar scale to the coal fired power plants that are currently closing – for example the proposed Star of the South project off Victoria is 2,000 MW.

Figure 2 shows the wind resource off the coast of NSW. We detail the potential for offshore wind to be developed in NSW in our recent submission to the ongoing Inquiry into Sustainability of energy supply and resources in NSW.

We request that the Parliamentary research Service update the Issues Paper to better reflect the availability of renewable energy resources in NSW.

Figure 2: NSW wind energy. Red indicates highest mean annual wind speed, and blue is lowest.



Source: Carter P.J & Gammidge L.C. (compilers) 2019. Renewable energy map of new South Wales (3rd Edition). Geological Survey of New South Wales, Maitland. ©State of New South Wales through NSW Department of Planning and Environment 2018.

Nuclear weapons

One significant reason we oppose uranium mining and the development of nuclear power is the potential use of uranium in nuclear weapons, and the significant link between nuclear power and nuclear weapons programs. We are proud supporters of the campaign by International Campaign to Abolish Nuclear Weapons in support of a UN Treaty on the Prohibition of Nuclear Weapons.

The weapons proliferation risks associated with civil nuclear programs are well understood and there is a long history of nation-states using civil nuclear programs as cover for weapons programs – five of the ten countries that have produced nuclear weapons did so under cover of a civil program, and power reactors have been used to produce plutonium for weapons in most or all of the other five nation-states (the 'declared' nuclear weapons states).⁷

The (civil) nuclear industry and its lobbyists have a long history of denying the connections between civil programs (including nuclear power programs) and weapons proliferation. However there has been a dramatic shift in recent years with a growing number of industry bodies and lobbyists acknowledging and even celebrating nuclear power–weapons connections.⁸ They argue that weapons programs will be adversely affected unless further subsidies are made available to troubled nuclear power programs that make important contributions to weapons programs (personnel, materials, etc.).

It is therefore with great concern that we read on the ICAN website:

“Australia did not participate in the negotiation of the UN Treaty on the Prohibition of Nuclear Weapons. It voted against the UN General Assembly resolution in 2016 that established the mandate for nations to negotiate the treaty. Earlier that year, it had attempted to derail a special UN working group on nuclear disarmament in Geneva, which adopted a report recommending the negotiation of the treaty. Australia claims that US nuclear weapons are essential for its security. It was the site of British nuclear testing in the 1950s and 1960s.”⁹

The NSW government should take a position in favour of the UN Treaty on the Prohibition of Nuclear Weapons, and urge the Australian government to do the same. At the very least, the Australian government should not be using its influence to block this important treaty.

⁷ Nuclear Monitor #804, 28 May 2015, 'The myth of the peaceful atom', <https://www.wiseinternational.org/nuclear-monitor/804/myth-peaceful-atom>

⁸ Andy Stirling and Phil Johnstone, 23 Oct 2018, 'A global picture of industrial interdependencies between civil and military nuclear infrastructures', Nuclear Monitor #868, <https://www.wiseinternational.org/nuclear-monitor/868/global-picture-industrial-interdependencies-between-civil-and-military-nuclear>

⁹ <http://www.icanw.org/why-a-ban/positions/>

Problems with market-based electricity systems

The Issues Paper produced for this Inquiry provides a useful overview of the challenges facing our electricity system. However these are not just technical but political challenges, about who controls our electricity system, and in whose interest? The corporatisation, marketisation, and privatisation of our electricity system that began in the 1990s is now having an enormous impact on our ability to overhaul that system in a way that best serves the public interest, and this must be acknowledged in any high-level account of the system and the challenges it faces.

Australia's electricity sector is our country's single largest contributor to greenhouse gas emissions at 33 per cent of total emissions. It is also the sector that can provide the greatest opportunity for rapid reductions in emissions, by reducing overall demand and through the deployment of new technologies. The disruption to the earth's climate caused by greenhouse gas emissions has been well known for decades, yet has been ignored in the rush for corporatisation and then privatisation of most of our electricity system. In this process, the government threw away one of our most significant opportunities to reduce emissions. The National Electricity Market (NEM) was established 10 years after the Intergovernmental Panel on Climate Change was established, 6 years after the Australian government signed up to the UN Climate Change Convention, and in the same year the government signed the Kyoto Protocol. Yet the NEM's 'objectives' and 'rules' do not include any consideration of greenhouse gas emissions.

Electricity networks in Australia were first built, owned and controlled by a few rich families for the private use of their households and businesses. Public systems of street lighting, and later, electric tramways, were first established in Sydney and Melbourne. Between WWI and WWII, Australian state governments systematically nationalised and expanded electricity supply. The Electricity Commission of NSW cheaply and effectively built, expanded and coordinated NSW's electricity generation and transmission from 1950 onwards. By the 1960s Australia had an almost universally publicly owned and controlled electricity system which provided some of the cheapest and most reliable electricity in the world. This all changed in the 1990s when the Electricity Commission of NSW and those in other states were broken up, corporatized, and incorporated into the National Electricity Market (NEM), which was established in 1998. Energy retailers across the country and grid operators in South Australia and Victoria were then fully privatised, and in NSW privatisation began in 2010.

The grid and the NEM are currently run to facilitate market competition and private investment. Australia's electricity prices in this privatised system have become among the world's highest, increasing 56% in the past ten years. In 2018 the COAG Energy Council rated the affordability, security and governance of the NEM as 'critical' and forecast that its ability to deliver reliable low emissions electricity will soon also deteriorate to 'critical'.¹⁰

Privatisation and marketisation meant that the technical oversight and planning of the national electricity network was split into multiple grid operator, generator, and retailing

¹⁰ Energy Security Board, [The Health of the National Electricity Market 2018](#), COAG Energy Council, p.6.

companies – each operating to maximise their own profits. This created an explosion of marketing and sales staff in the NEM adding completely unnecessary overhead costs, such as retailers charging customers hundreds of dollars a year in sales and marketing strategies to convince them to purchase the electricity they are already buying.¹¹ Generators pretend to compete against each other to sell electricity, within an artificial electricity ‘market’, where the price paid to supply power changes constantly, allowing private investors to speculate and make money. Meanwhile every player in the game is guaranteed a profit by the market regulator.

Corporatisation and privatisation, along with the market structure of the National Electricity Market, have added very significant obstacles to the transition of our energy systems.¹² The system is fragmented, with whole sections privately owned and controlled, or publicly owned but entirely corporatized and run on market principles. There are no requirements placed on electricity companies to ensure that high-emissions generation is systematically replaced with renewable energy, or that upgrades keep the electricity grid fit for purpose, or that workers and communities are fully supported through this process. These challenges must be addressed to ensure good electricity supply at low prices, and to avoid increasing inequality and leaving whole communities and regions without jobs and economic infrastructure.

To achieve a just transition to renewable energy at the speed and scale required, the electricity system must be completely overhauled to be run in the public interest, which now includes reducing greenhouse gas emissions. Our electricity network was built around large scale centralised generation sources which then transmit that energy long distances to electricity consumers. A renewable energy system has to function very differently, requiring decentralised and interconnected grids with significant flexibility to manage constantly changing flows of energy. This will require a massive transformation of Australia’s electricity network, a task that a fragmented private or corporatised sector will not deliver.

Relying on the market to run the electricity system also means workers in the industry lose out. In all parts of the system, thousands of skilled maintenance workers have been laid off, and apprenticeship programs reduced or eliminated. Instead, layers of management, and marketing and sales departments have been added to chase customers with confusing electricity offers, adding up to \$200 to annual electricity bills.¹³ Higher electricity prices have a disproportionate on people with low incomes. Meanwhile, three of the largest companies in the electricity system made a combined \$2.6 billion in profit in 2018.

The development of renewable energy

Globally, renewable energy development took off in Europe following the privatisation and liberalisation of those electricity markets. The European model of renewable energy

¹¹David Richardson, [The Costs of Market Experiments: Electricity Consumers Pay the Price for Competition, Privatisation, Corporatisation and Marketization](#). The Australia Institute, January 2019.

¹² John Quiggin, [Electricity Privatisation in Australia: A record of failure](#), February 2014. John Quiggin, ‘Electricity reform’, In *Wrong Way: How privatisation and economic reform backfired*, LaTrobe University Press, p.149-165.

¹³ David Richardson, [The Costs of Market Experiments: Electricity Consumers Pay the Price for Competition, Privatisation, Corporatisation and Marketization](#). The Australia Institute, January 2019.

development was based on sending signals to the market to invest in renewables through, on one hand, setting a carbon price, and on the other hand, spending billions on public subsidies to create investment incentives and reduce risk for private renewable energy developers (such as feed-in tariffs, power purchase agreements and contracts-for-difference awarded through reverse auctions). Variations of this model have been exported to North America, Australia, and even China. While these measures have achieved significantly increased investment in renewable energy, they are failing to achieve emissions reduction at the speed and scale required, or with the social conditions needed to avoid a political backlash that could threaten the transition process.¹⁴ Trade Unions for Energy Democracy have carried out an important analysis of what they call the ‘green growth’ model, identifying that emissions reduction targets are not being met, and by 2015 \$150 billion of public money had been spent subsidising a system not under public control.¹⁵

In Australia, a key policy has been the Renewable Energy Target (RET), which created tradeable Certificates sold by renewable energy companies, up to a targeted amount of renewable generation by 2020 (a target that was reduced by Abbott). Energy retailers and large users were required to buy these Certificates. This additional subsidy for renewable energy developers was ultimately subsidised by consumers, who paid an estimated \$40 annually to support the RET through energy bills. It has already been announced that enough Certificates will be issued to meet the reduced 2020 target, but Minister Angus Taylor has announced that the RET will not be extended. With the RET winding up, state policies have become more important. There are similar RETs in Queensland and Victoria, as well as reverse auctions run by the Queensland, ACT and Victorian governments which effectively guarantee a minimum price for developers.

RETs and reverse auctions have encouraged construction of renewable energy projects, but this has taken place chaotically, without planning of where these projects should be located, how they fit into existing energy supply, and what transmission is needed to support them – far less any just transition policies for coal fired power workers. 38 renewable energy projects completed in 2018 were owned by 32 different companies,¹⁶ mainly specialised private renewable energy companies, which are often subsidiaries of global companies established in Europe and China. In addition, two million homes now use rooftop solar panels, most installed by companies with only a few employees.

Renewable energy companies ‘prospect’ for potential project locations using wind or solar resource maps, and by knocking on the doors of private landowners to see if they will lease land, and at what price. They then arrange to bring in their own contractors for construction, and poor conditions on the worksites are rife. The Electrical Trades Union report that in many cases, licenced electricians are not used and installations do not meet electrical safety standards. Companies must then negotiate the crucial grid connection they need to sell electricity with the company operating the grid locally. Sometimes this can take years of contractual battles, as the grid company seeks to make the renewable energy

¹⁴ Vera Weghmann, [Going Public: A decarbonised, affordable and democratic energy system for Europe](#). Public Services International Research Unit, July 2019.

¹⁵ Trade Unions for Energy Democracy, *TUED Working Paper #10: Preparing a Public Pathway Confronting the Investment Crisis in Renewable Energy*, November 2017.

¹⁶ Clean Energy Council, [Clean Energy Australia Report 2019](#), p.15.

developer shoulder the cost, and the renewable energy company seeks to reduce their costs as much as possible.

This disorganised system can function at low levels of renewable energy, but as the percentage of renewable energy increases, significant problems are developing. Renewable energy supply is variable, and solar energy is concentrated in the middle of the day when the sun is shining. A renewable energy system requires planning to balance out this variability by using different types of generation, connecting different geographical areas, and by using systems of energy storage such as batteries and pumped hydro to ensure grid stability and that sufficient power is available when needed, especially in peak evenings or hot days. The discussions around the cost of renewables that focuses on a single project (Levelised Cost of Electricity or LCOE) do not incorporate these system-level costs – which AEMO is now attempting to calculate and use for future planning.¹⁷

The need for better planning of the electricity system was recognised in the Finkel review of the electricity market in 2017. AEMO developed its first Integrated System Plan (ISP) in 2018, which is now being reviewed and updated. But the ISP is filled with contradictions. It recommends all sorts of new grid interconnectors – but has no power to build them or to require they are built. It has no control over when coal fired power stations will be shut down. AEMO is caught in the contradiction that generators will (hopefully) give three years notice of closure, but they need approximately a 10-year lead time to build significant new grid interconnectors. NSW Minister for Energy and Utilities Don Harwin said that in 2018, only one in 20 proposed new renewable energy projects in the planning pipeline actually have a grid connection available to them.¹⁸

AEMO says four new projects to upgrade and build transmission lines between NSW, Victoria, SA and Qld are critical to maintaining reliability as more coal fired power stations shut and renewables are brought online.¹⁹ It appears that they are mainly relying on Transgrid to do this work. But Transgrid was fully privatised by the NSW Liberal government in 2015, for \$10 billion. A public company could just be directed to make this investment, and could access the lowest cost financing available. But in order to encourage a privatised Transgrid to do this work, the NSW government is offering them a ‘funding guarantee’,²⁰ the South Australian government has offered to put in over \$200 million, and the COAG Energy Council and the Energy Security board are exploring setting up a Fund that could be used to ‘underwrite’ investments recommended by the ISP.²¹ It could end up being a complex and expensive way to take action that could have been done much more quickly and easily under public ownership.

¹⁷ Within the Gencost project jointly run by AEMO and the CSIRO.

¹⁸ NSW Government, [NSW Transmission Infrastructure Strategy: Supporting a modern energy system](#), November 2018, p.3

¹⁹ AEMO, *Statement of Opportunities 2019*.

²⁰ NSW Government, [NSW Transmission Infrastructure Strategy: Supporting a modern energy system](#), November 2018.

²¹ COAG Energy Council, [Energy Security Board: Converting the Integrated System Plan into Action](#), May 2019, p.19

As a start, new investment in renewable energy generation, storage, and the new transmission and distribution infrastructure needed to support it should be done under public ownership and financing. Governments can build at lower cost due to their ability to access cheaper financing. Planning and investment is needed to ensure that the required grid interconnectors and transmission is available for an electricity system based on renewable energy, as well as appropriate timing of retirement of older generation assets. Wherever possible, low-emissions projects should be located in emissions-intensive communities. There should be direct government investment and ownership to prioritise these projects and ensure they are built to the highest standards and maximise good employment. Superannuation investment in democratically controlled renewable projects should be facilitated through government-issued bonds intended specifically to fund these projects.²²

The transformation of the energy network could and should provide the investment that regional Australia desperately needs.

²² Trade Unions for Energy Democracy, [*TUED Working Paper #10: Preparing a Public Pathway Confronting the Investment Crisis in Renewable Energy*](#), November 2017, p.61-63.

Appendix 1: 2016 MUA Quadrennial National Conference resolution

Nuclear Issues

The National Conference of Members resolves the following:

- The Maritime Union Of Australia recognises the unique threat the nuclear industry poses to the environment, local communities and workers involved in mining, transportation and handling of radioactive materials.
- The Maritime Union Of Australia will work to ensure that its members are not exposed to the hazards of radioactive and nuclear materials. This exposure can occur through the movement of radioactive cargoes or through exposure to contaminated cargo and shipping as some members experienced in the aftermath of the Fukushima nuclear incident.
- The Maritime Union Of Australia recognises the ongoing disaster at the Fukushima Dai-ichi nuclear plant in Japan and acknowledges that uranium mined in Australia was present in all of the crippled reactors.
- The Maritime Union Of Australia is unequivocally opposed to the mining and transportation of uranium.
- The Maritime Union Of Australia also strongly opposes attempts by nuclear industry advocates to paint nuclear power as a 'clean' technology that can mitigate climate change and will campaign against development of a nuclear power industry in Australia.

Nuclear waste

- The Maritime Union Of Australia opposes consistent attempts by the Commonwealth government over the past two decades to establish a remote national radioactive waste dump in Australia.
- The Maritime Union Of Australia calls for a transition away from the production of nuclear medicines using a nuclear reactor at Lucas Heights towards production through non-nuclear reactor based means like cyclotrons. We oppose the importation of nuclear fuel assemblies for Lucas Heights and the export of spent fuel for reprocessing.
- The Maritime Union Of Australia calls on the government to initiate an independent inquiry into waste production and all options of waste management. Intermediate level waste currently being produced at Lucas Heights should be stored onsite pending this inquiry.
- Maritime Union Of Australia notes with deep concern the recent 'Tentative Findings' of the SA Royal Commission that recommends importation of international high-level nuclear waste for storage and final disposal. The Maritime Union Of Australia has long-standing opposition to importing nuclear waste from overseas. Maritime Union Of Australia welcomes the Federal ALP's clear opposition to importation of international radioactive waste, and urges Federal Labor to clearly and actively oppose any move to change this policy.

Nuclear weapons

- The Maritime Union Of Australia recognizes the deadly threat of nuclear weapons and the necessity for complete global disarmament.
- The Maritime Union Of Australia acknowledges that export of uranium from Australia can further nuclear insecurity as seen by the debate over uranium sales to India and other nuclear weapons states.

Solidarity

- The Maritime Union Of Australia will support and act in solidarity with workers and communities opposing nuclear projects in Australia, including Traditional Owners across Australia on the frontline of resisting projects.

The Maritime Union Of Australia will actively support moves by workers or communities to resist the expansion or further development of the nuclear industry in Australia including through provision of financial or in-kind advocacy and campaign support.