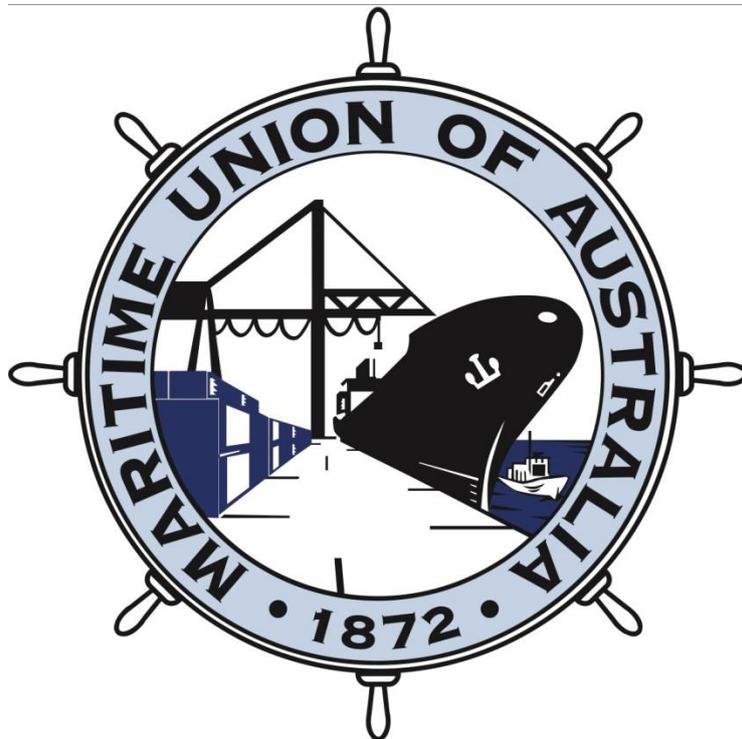


MUA Submission:

Select Committee into Jobs for the Future in Regional Areas



16 September 2019

Select Committee into Jobs for the Future in Regional Areas

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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.

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Putting the 'Justice' in 'Just Transition'

The MUA supports science-based emissions reduction efforts to address the current climate crisis. There is now widespread acceptance that a transition to a low carbon economy should be a 'just transition'. The need for a just transition, the need to avoid the failures of past structural adjustments for working people, and specific proposals for the creation of an Energy Transition Authority (or Just Transition Authority) are supported by the ACTU, the ALP and other political parties, the CFMMEU, and other unions. Good secure union jobs are the cornerstone of combating inequality and ensuring that there is justice in the transition to a new low-emissions economy.¹

Unfortunately, we are already in the midst of a largely unplanned and unjust energy transition. This is a result of the failure of the current Australian government to develop a transition plan, the unjust industrial relations system, the rapid decrease in the price of renewable energy, the aging of Australia's coal-fired power stations, the fragmented and privatised nature of our current electricity system and the rigid adherence to market-based approaches. The following problems are already developing:

- Fear and angst amongst workers and coal-mining communities. There is widespread unemployment following the closure of the Northern coal fired station (in South Australia) with no transition plan, and significant unemployment in the Latrobe Valley following the privatisation and restructuring of the electricity generation industry over the last twenty-five years, culminating in the closure of the large Hazelwood power station in March 2017. The 2019 federal election showed that right-wing political parties including the Liberals, Nationals, United Australia and One Nation were effective in using the fear of action on climate change to win working class votes.² One Nation has developed a strongly climate denialist platform³ and ran two coal miners as candidates: in Hunter NSW Stuart Bonds received a 21.6% swing (with the ALP losing 14% of its votes) and in Capricornia, Qld Wade Rothery won a 16.7% swing with the ALP losing 14% of its votes.
- Renewable energy projects are being constructed in regional areas on poor wages and conditions, and without consideration for, and training of, workers from high-emissions sectors as part of a transition plan.⁴
- Rights to build renewable energy projects being awarded to private companies by states through reverse auction programs that prioritise cost-minimisation over the

¹ Dr. John Falzon, [Goodbye Neoliberalism: Restoring democracy, supporting trade unions, protecting workers' rights](#), December 2018,.

² The Nationals, [Labor's Just Transition Plan](#).

³ One Nation, [Climate change](#).

⁴ Josh Bavas, [Queensland solar farms actively hiring backpackers, insider claims](#), ABC, 26 Sept 2018; Marco Balsamo, [Worker dies on Bungala solar farm site](#), *The Transcontinental Port Augusta*, 19 Feb 2018; ETU Victoria, [Solar Scandal: Unsafe UGL pocketed state subsidies by exploiting French Backpackers](#), Sept 2018; ETU National, [A Tale of Two Solar Cities](#), October 2018; [ETU Submission to Senate Standing Committee on Legal and Constitutional Affairs Inquiry into the effectiveness of the current temporary skilled visa system in targeting genuine skills shortages](#), December 2018.

broader economy or community. These rights and associated subsidies are being awarded with no minimum labour standards or procurement standards, encouraging a race to the bottom for workers and wages in these areas.⁵

- Failure of important renewable projects, and instability and loss of employment for thousands of workers due to competitive underbidding and bankruptcy, such as occurred with RCR Tomlinson.⁶
- Lack of financing for important projects, such as for the Port Augusta solar thermal plant.⁷
- Loss of ability to plan the development of the electricity grid in the public interest and to plan for and provide connections for new renewable systems.⁸
- Difficulty in planning and implementing transition plans due to the fact that most existing coal-fired power plants in Australia are privately operated and focused on profit maximising and cost minimisation, rather than providing a just transition for their workforce.⁹

The impact of an unjust transition will be felt most strongly in regional areas, where a great deal of high-emissions industries are concentrated. Our aim in the rest of this submission is to outline the measures that should take place to ensure that we can achieve a just transition in Australia, and secure the future regional jobs that we need.

Measures to guide the transition into new industries and employment

There is a significant body of policy work that has been done about what a just transition might mean. Some key documents include:

⁵ John Falzon argues that government procurement and industry assistance, including for clean energy finance, should require a union agreement. See reference above, Dr. John Falzon, p. 21-22. Some very minimal standards have been introduced in Victoria. Problems with current global funding models for renewable energy are explored in detail in Trade Unions for Energy Democracy, [TUED Working Paper #10: Preparing a Public Pathway Confronting the Investment Crisis in Renewable Energy](#), November 2017,

⁶ Stephen Letts, [Renewable energy investment looks to be going from boom to bust as prices collapse](#), ABC, 26 April 2019; ETU Victoria, [The Titanic RCR disaster that we all saw coming: ETU Victoria is still standing by hundreds of displaced workers left high and dry by the collapse of RCR Tomlinson, Whilst top executives have walked away with multi-million dollar payouts](#) March 2019; ETU Queensland and NT, [RCR administration announcement a timely reminder of privatisation's failures, union calls on developers to ensure workers' entitlements are paid in full](#), 22 November 2018.

⁷ ABC, [Port Augusta solar thermal power plant scrapped after failing to secure finance](#), 5 April 2019.

⁸ 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.

⁹ Darryn Snell, 'Just transition solutions and challenges in a neo-liberal and carbon-intensive economy' in 'Morena, E., Krause, D. and Stevis, D. (eds), 2019 forthcoming, *Just Transitions in the Shift Towards a Low-Carbon Economy*. London: Pluto Press.

Peter Sheldon, Raja Junankar, Anthony De Rosa Ponello. [*The Ruhr or Appalachia? Deciding the future of Australia's coal power workers and communities*](#), October 2018. IRRC Report for CFMMEU Mining and Energy Division.

ACTU, [*Climate, Energy and Just Transition Policy 2018*](#).

ACTU, 2016, [*Sharing the challenges and opportunities of a clean energy economy: A Just Transition for coal-fired electricity sector workers and communities*](#).

Dr. John Falzon, [*Goodbye Neoliberalism: Restoring democracy, supporting trade unions, protecting workers' rights*](#), December 2018.

IndustriALL, [*Just Transition – An idea whose time has come*](#), 16 May 2019.

There is widespread agreement that a Just Transition involves 'mitigating the adverse impacts of coal power station closures on regional workforces and communities'.¹⁰

Even more important is the task of ensuring that these workers and others in emissions-intensive industries have good unionised jobs to go to in low-emissions industries.¹¹ Ensuring that every affected worker and community can make such a transition is a significant task that will require union and community campaigning, the establishment of Transition Authorities (such as the LaTrobe Valley Authority, but also at a state and national level), and very significant government investment. Such a transition needs to be developed in close consultation with unions in both high and low emissions industries in order to gain the trust of workers and communities and avoid divisive backlash.

Unfortunately, the history in Australia is that industrial transitions have increased inequality, with only one half to one third of displaced workers finding equivalent employment.¹²

The MUA is in the process of developing a campaign and report titled *Putting the 'Justice' in 'Just Transition': Tackling inequality in the new renewable economy*, which focusses on how the Star of the South offshore wind project planned for construction off the coast of Gippsland could provide a model for a just transition.

A just transition requires a forward-looking plan to ensure good jobs in new low-emissions industries. Transition Authorities should play a key role in ensuring these measures are implemented, but the actions listed below will need to be taken across many other government departments and sections of the economy. All new renewable energy projects must involve:

¹⁰ Labor, *A Fair Go for Australia: Labor National Platform*, point 37.

¹¹ Australia is a signatory to the Paris Agreement, which describes "the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities." UNFCCC, [*Report of the Conference of the Parties on its twenty-first session*](#), held in Paris from 30 November to 13 December 2015, p.21.

¹² ACTU, 2016, [*Sharing the challenges and opportunities of a clean energy economy: A Just Transition for coal-fired electricity sector workers and communities*](#).

1. **Maximising local jobs.** Detailed procurement plans must be developed for the sourcing of materials and equipment that maximise Australian production capacity and potential production capacity.
2. **Ensuring good union jobs.** The government should ensure that procurement rules with good employment conditions, union agreements and responsible contracting policies are in place across the industry.
3. **A job guarantee and no forced redundancies** for workers from fossil fuel industries, allowing for direct transition into employment in low emission industries. An examination of how the German job guarantee model could be implemented in Australia should be carried out.¹³
4. **Detailed skills and training assessments** should be carried out and local training providers must be put in place and appropriate training funded to ensure the workforce is prepared. Training should be provided through local TAFEs rather than privately.
5. **Reducing inequality.** Ensure that low-emissions industries have apprenticeship programs in place with minimum ratios, and include recruitment of workers from disadvantaged backgrounds, including women and Aboriginal workers.
6. **Ensuring community engagement and development,** to ensure that local communities benefit in the broadest possible sense.
7. **Safety and Training.** Work with Safe Work Australia and relevant training agencies to develop safety codes of practice and qualifications for low emission industries at a national level. Establish industry training centres in TAFEs to ensure they are publicly accessible and accountable.

There are a number of useful international transition examples to examine.

The German government appointed a multidisciplinary Commission on Growth, Structural Change and Employment in June 2018, including trade union representation from the union IG BCE. The Commission considered expert evidence, visited affected areas and completed its final meeting and report with recommendations in January 2019.¹⁴ The report recommends:

- Phasing out coal-fired power and brown coal mines by 2038, but conditional on the creation of quality jobs and clear transition pathways for workers.
- Includes a job guarantee with no forced redundancy for any worker. The goal is to ensure that for each direct job loss, a good new job is created and that this process is

¹³ Commission on Growth, Structural Change and Employment, *Final Report*, January 2019, see p.97-98 for details of the job guarantee scheme.

¹⁴ Commission on Growth, Structural Change and Employment, *Final Report*, January 2019, see p.97-98 for details of the job guarantee scheme; IndustriALL, Just Transition – An idea whose time has come, 16 May 2019, <http://www.industrial-union.org/just-transition-an-idea-whose-time-has-come>.

covered by a collective agreement. There will be a plan and a pathway for every single directly employed worker in coal-fired power plants and lignite/brown coal mines, including employment in new jobs with training, income bridging, and bridging to pensions for older workers.

- If a job disappears, the affected worker will be placed in a new, decent job, and will be compensated in a lump sum payment for any difference in salary between the old and the new job.
- Allocates €40 billion over 20 years for regional development, including infrastructure and rehabilitation of mining areas and plants.

New York State has set emissions reduction targets, and also taken the following important actions:

- Developed a comprehensive Offshore Wind Master Plan, including studies on workforce planning and training, port infrastructure, vessel availability, and environmental baseline studies.¹⁵
- Set a target to build 9,000 MW of offshore wind projects by 2035.
- Made a requirement for union agreements on prevailing wages on all offshore wind projects, as well as local procurement.¹⁶ The state is also building an offshore wind training centre and will invest \$200 million in port upgrades.¹⁷

The New York Government has been able to take these actions despite a Federal Government hostile to climate action, and with offshore wind farms being sited in Federal waters.

The Queensland government has also taken some important actions, including:

- establishing a new public renewable energy generator called CleanCo.¹⁸ Any employees transferring to CleanCo from generators CS Energy or Stanwell will maintain their

¹⁵ New York State Energy Research and Development Authority, 2018, *New York State Offshore Wind Master Plan*, see <https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-in-New-York-State-Overview/NYS-Offshore-Wind-Master-Plan>.

¹⁶ The Worker Institute, *State Commitment to Wind Industry Workers is Historic, Skinner Says*, 12 November 2018, Industrial and Labor Relations School, Cornell University, <https://www.ilr.cornell.edu/worker-institute/news/state-commitment-wind-industry-workers-historic-skinner-says>.

¹⁷ New York State, *FY 2020 Executive Budget Briefing Book*, pg. 312-14, pg. 326-7, <https://www.budget.ny.gov/pubs/archive/fy20/exec/book/briefingbook.pdf>. New York State, 2019 Justice Agenda, 2019 State of the State Budget Address, <https://www.ny.gov/programs/2019-state-state-budget-address>.

¹⁸ The Honourable Dr Anthony Lynham, *CleanCo: Queensland's newest electricity generator*, February 26 2019, <http://statements.qld.gov.au/Statement/2019/2/26/cleanco-queenslands-newest-electricity-generator>. Cleanco website, <https://cleancoqueensland.com.au/>

existing conditions, including no-forced redundancies or relocations, and any new CleanCo employees will also be on the same terms and conditions as any transferring employees. The Queensland Government will initially invest \$250 million in the construction of new, public renewable energy generation assets like solar, wind and hydro.¹⁹

- The Queensland Government has also established a Just Transition Group, which will be developing a transition plan for the state.²⁰

The Socialist-led Spanish Government increased its votes by 6%, and won up to 50% of the vote in mining regions, after running on a Green New Deal in April 2019 elections and signing a Just Transition plan in October 2018. The plan commits €250 million in investment to cover the closure of 10 privately-owned mines, and was negotiated with mining unions and employers. It includes substantial redundancy payments for younger workers, and workers from age 44 being entitled to a pension of 2- 3 times the minimum wage for the rest of their life. An action plan will be made for each mining community, including plans for developing renewable energy and improving energy efficiency, and investing in and developing new industries and the regeneration of former mining sites. Money will be set aside to upgrade facilities in the mining communities, including waste management, recycling facilities and water treatment plants, utilities infrastructure and distribution for gas and lighting, forest recovery, atmospheric cleansing and reducing noise pollution.²¹

The Canadian government *Final Report by the Task Force on Just Transition for Canadian Coal Power Workers and Communities* has been issued. \$35 million was spent visiting 15 affected communities and holding extensive consultations, and the Task force estimates “hundreds of millions of dollars” may be required. Those made forcibly redundant get a top of up to 75% of their former wage, but this is limited to 2 years. Principles include:

- respect for workers, unions, communities, and families
- worker participation at every stage of transition
- transitioning to good jobs
- sustainable and healthy communities
- planning for the future, grounded in today’s reality
- nationally coherent, regionally driven, locally delivered actions
- immediate yet durable support²²

¹⁹ Queensland Treasury, *Queensland’s new Cleanco*, <https://www.treasury.qld.gov.au/growing-queensland/queenslands-new-cleanco/>

²⁰ Queensland Department of Employment, Small Business and Training, *Just Transition*, <https://desbt.qld.gov.au/employment/transition-programs/just-transition>

²¹ IndustriALL, [Spanish coal unions win landmark Just Transition deal](#), 2 November 2018; [Spain’s socialists win election with Green New Deal platform](#), 1 May 2019; [Spain’s Socialists Make Gains in 3 Elections](#), *New York Times*, 26 May 2019.

²² Task Force on Just Transition for Canadian Coal Power Workers and Communities, [Final Report](#).

New industries and employment opportunities that can be created in the regions

The Star of the South offshore wind project off Gippsland, Victoria is the first offshore wind project to be built in Australia. It is an important opportunity to implement a just transition focussed on the creation of good secure union jobs, and to provide direct transition opportunities for regional workers in high-emissions industries, including the LaTrobe Valley.

The Star of the South project was given exploration approval in March 2019, and still needs to gain separate construction approval. It includes:

- A 2,000 megawatt increase in Victoria's renewable energy generation capacity, with 250 wind turbines built 10-25km off the east coast of Gippsland. This could supply up to 18% of Victoria's current electricity demand.
- A large reduction in greenhouse gas emissions from electricity generation.
- The company projects 2,000 direct construction jobs, with construction spread over a number of years, and 300 ongoing jobs. Offshore wind turbines also need to be replaced about every 25 years.
- An injection of infrastructure and resources into the Gippsland region, with substantial community benefits. The project is estimated to cost \$8 billion.
- A renewed future for the Latrobe Valley's energy transmission assets.

Regulation of offshore wind in Australia

The Maritime Union of Australia is an advocate for the broader development of offshore wind energy in Australia. This industry can offer good transition jobs for workers currently working in the offshore oil and gas industry, and could also employ workers from other parts of existing regional fossil fuel industries.

The Star of the South project has been dealt with as a one-off special case by the Department of Energy, and there is still no broader regulatory framework for offshore wind in place. We would like to see the Commonwealth Government develop an Offshore Wind Master Plan for Australia to map the best locations for offshore renewable energy, including floating offshore wind, and establish a plan to facilitate the speedy development of the industry. New York State has recently completed such a planning process.²³ Offshore wind needs to be planned as part of the development of the electricity grid so the responsible authorities should include the Department of Energy, the Australian Renewable Energy

²³ New York State Energy Research and Development Authority, *NYS Offshore Wind Master Plan*, 2018.

Agency, the COAG Energy Council, and the work of the Australian Energy Market Operator in developing an Integrated System Plan.

It is our view that the development of offshore wind should be kept separate from the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA). The regulation of the energy grid is already extraordinarily complex and fragmented. We do not need to bring in another agency which does not have experience in the electricity grid, and whose experience is in the very different oil and gas industry. Instead, the necessary maritime and environmental expertise should be brought into an agency that is already involved in the electricity grid. Moreover, the cash bid auction process used for offshore oil and gas is not a good model to follow for offshore wind. In the last round of cash bids companies paid between \$2 million and \$5 million for rights to undertake exploration in a specific area.²⁴ One of the advantages of offshore wind is that land is not privately owned, so this aspect of costs can be reduced, compared with onshore wind.

It is also important to us that workers in new offshore renewable industries have the same Work Health and Safety rights as other seafarers and shoreside workers, and not be subject to the poorer provisions of the OPGGS Act. The recent Inquiry into the Work health and safety of workers in the offshore petroleum industry documented the significant problems that exist with the OPGGS Act.²⁵

Given the urgency of emissions reduction, the complexity of developing an offshore wind industry, and the challenges caused for the electricity grid with the closure of power stations, we believe the Commonwealth government should play a direct role in developing offshore wind. This could be done through Snowy Hydro, which has expanded to become 'an integrated energy business' wholly owned by the Commonwealth, and operating power stations across NSW, Victoria and South Australia. Large offshore wind projects could be built to minimise the need for augmentation of the grid. Projects can be built to a large scale, with integrated storage, and attached to the grid in the same places as power stations. For example, the Star of the South project will have a 2,000 MW capacity, and plug into the grid at the LaTrobe Valley. A similar project could be built off coastal NSW and plug into the Hunter Valley grid.

The Department of Energy, the Australian Renewable Energy Agency, the Australian Energy Market Operator, and the COAG Energy Council need to reassess the viability of offshore wind in Australia, and work together to develop a Master Plan for how it can be developed and integrated into Australia's electricity system and marine areas.

²⁴ Department of Industry, Innovation and Science, 2018 Offshore Petroleum Acreage Release cash bidding results, 22 February 2019.

²⁵

https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/WHSinoffshorepetroleum/Report

Why offshore wind?

A significant advantage of offshore wind projects is that they can be built at a bigger scale than onshore projects, with taller masts reaching stronger winds and supporting larger and more powerful turbines: in 2018 turbine sizes of up to 8.8kW were used. This means that each individual turbine can produce more power. Projects can be built in areas of greater and more consistent wind strength than are available onshore, which leads to a higher capacity factor. Daily wind patterns can provide overall stability for the grid and reduce the need for storage. For example on the US east coast, wind offshore is strongest in the evening, when power demand peaks and solar power is not usually effective. This also means that production is greatest at the time of highest energy prices.

With the bulk of Australia's population located near the coast, offshore wind farms can also be sited close to sources of energy demand, reducing transmission costs.

By the end of 2018, 23 GW of offshore wind had been installed globally, and 4,543 grid-connected offshore wind turbines were built in Europe.²⁶ In 2017 the average size of a grid-connected European wind farm was 493 MW, built at an average depth of 27.5m, with an average distance to shore of 41km.²⁷ Projects are increasingly being built at greater water depths and distances offshore, allowing them to access stronger wind resources and to operate more efficiently. In 2018 a number of European offshore wind projects were built at depths of 30-55m and 40-90km offshore. This has lifted capacity factors for European offshore wind to an average of 50%.²⁸

The first floating offshore windfarm (Hywind Scotland) has been built off Scotland by Equinor, at depths of 95-120m. It had an extraordinary 65% capacity factor during the winter months.²⁹ Approximately 50 more floating offshore wind projects are planned worldwide.³⁰ Floating offshore wind makes the construction of offshore wind viable in many more areas – for example, in deeper waters off the major population centres of NSW and in the very high wind coastal areas of Tasmania.

Offshore wind construction is growing in many other countries:

- Japan has recently amended its laws to facilitate offshore wind and has a target to build 10GW of offshore wind by 2030.
- Taiwan has a target of 10-17 GW of offshore wind by 2030.³¹
- South Korea's government is building transmission infrastructure to facilitate offshore and onshore wind, and looks likely to build about 13 GW of offshore wind by 2030.

²⁶ Global Wind Energy Council, [Global Offshore Wind Report: sector has potential to grow to 200GW of capacity by 2030](#), 26 June 2019; Wind Europe, [Offshore Wind in Europe: Key trends and statistics 2018](#).

²⁷ Global Wind Energy Council, *Global Wind 2017 Report*, p.56-7.

²⁸ IRENA, *Renewable Power Generation Costs in 2018*, p.49, p. 52.

²⁹ Mark Klippenstein, *World's First Floating Offshore Wind Farm Achieves 65% Capacity Factor After 3 Months*, Greentech Media, March 01, 2018

³⁰ Wind Europe, *Floating Offshore Wind Energy: A policy blueprint for Europe*. 2018, p.2

³¹ Global Wind Energy Council, *Global Wind 2017 Report*, p.59.

- The first US offshore wind project has been built in Rhode Island. New York State has developed an *Offshore Wind Master Plan*, and aims to build 9,000 MW of offshore wind by 2035. Massachusetts utilities are required by law to procure 1.6 GW of offshore wind by 2027. New Jersey and North Carolina are also making plans for offshore wind.
- In India, large offshore wind developments may be built in coastal Gujarat and Tamil Nadu.

In Australia, offshore wind has so far been dismissed as too expensive. However, we believe these cost assessments rely on outdated assumptions,³² and the real problem is a lack of research, planning and any regulatory pathways for the development of offshore wind. There is also a lack of long-term vision. Australia is in an enviable position to take advantage of our abundant energy resources to create competitive industries that will deliver substantial economic benefit, both in terms of jobs and technological development. However, it needs investment to support these infant industries to allow them to grow. The development of a low carbon energy industry would place Australia as the ideal location for low carbon energy-intensive manufacturing.

The only published study we are aware of to examine offshore wind potential in Australia was published in 2009. It identified a number of potential locations for offshore wind, but this research needs to be updated in light of the development of offshore wind technology.³³

More recently, CSIRO scientist Dr. Mark Hemer has carried out assessments of the potential for offshore wind and other ocean energy sources such as tidal, wave, and floating solar. He finds that wind turbines in much of Australia's coastal waters can be expected to have a capacity of 0.4 to 0.5, with some areas around Tasmania, Victoria, Western Australia and northern Queensland with a capacity factor up to 0.6.³⁴ Hemer estimates that 3600 TWh/yr could be generated from offshore wind in places within 50km of the current electricity grid, and in water depths of less than 50m (which reduces the cost and technical challenges).³⁵ Expanding to locations with depths up to 200m, which would mostly require floating offshore wind installations, there is 5611 TWh/yr of potential power available from offshore wind in locations less than 50km from the current electricity grid. Electricity generation in Australia in 2014-15 was 252 TWh/yr.

³² For example, we believe there are a number of flawed assumptions in the GHD report *AEMO Costs and Technical Parameter Review*, produced in 2018. Details available on request.

³³ Eleonora Messali and Mark Diesendorf, 2009, 'Potential Sites for Offshore Wind Power in Australia', *Wind Engineering* 33(4): 335-348.

³⁴ Calculated using the minimum wind strength recorded over a recent 10-year period. Assumes one wind turbine per square kilometre and uses the published power curves for an 8MW Leanwind turbine, similar to a Vestas V164. See Mark Hemer, 2018, *Australia's offshore renewables: Where do the opportunities lie?* Presentation to Australian Ocean Renewable Energy Symposium, November 2018, p.13. Unpublished powerpoint presentation.

³⁵ Mark Hemer, 2018, *Australia's offshore renewables: Where do the opportunities lie?* Presentation to Australian Ocean Renewable Energy Symposium, November 2018, p. 18.

Good jobs in offshore wind

A just transition requires good jobs in new industries. One major advantage of offshore wind is that it provides more skilled, long term jobs than onshore wind – estimates are 2.5 to 3 times more jobs.³⁶ Conversely, offshore wind turbines are more efficient at producing electricity and other costs are reduced. Offshore wind projects are sited on areas of the seabed that are publicly owned, which avoids the need to make significant payments to individual private landowners required for onshore projects. Turbines and masts can be constructed in port precincts and loaded directly onto purpose-built vessels, avoiding the civil works to build new roads on-site, and costs of road transport of wind turbine parts over long distances to remote sites, including high load escorts, main road approvals, live line lifts (driving under powerlines), and the costs of specialised cranes and trucks.

A significant number of jobs in offshore wind are ongoing maintenance jobs. Detailed jobs estimates for 2.4GW of offshore wind to be built in New York state (and assuming some support is provided for a further 5.6 GW built in the NE US region) provide for 1,830 ongoing NY jobs in operation and maintenance, mainly in service and maintenance of turbines. However the total number of jobs created in offshore wind projects will depend significantly on the effort put into maximising local manufacturing of offshore wind components. In scenarios where local content is maximised, a further 470 installation and commissioning jobs and 2,250 manufacturing jobs are created in New York. Where such efforts are not made, only 200 installation and commissioning jobs and 90 manufacturing jobs are created.³⁷

Australia's remote location, the availability of raw materials, the necessity of transitioning our skilled workforce and the very large and delicate nature of wind turbine components mean that there is good reason to ensure that wind turbine manufacture is further expanded in Australia.³⁸ However, this will require an ongoing pipeline of local projects. This will require planning and firm expectations from all levels of government. Experience in the UK shows that without strong transition plans involving requirements for local procurement and good jobs, workers do not transition, and fewer jobs are created.³⁹

Another important measure to maximise jobs and provide a just transition is to ensure that jobs are permanent, stable jobs with good rosters, reasonable hours of work, good leave

³⁶ European Wind Energy Association, [Green Growth: The impact of wind energy on jobs and the economy](#), April 2012, p.34.

³⁷ BVG Associates, *New York State Offshore Wind Master Plan: The Workforce Opportunity of Offshore Wind in New York*, December 2017, p.62, Prepared for New York State Energy Research and Development Authority.

³⁸ Keppel Prince manufacture wind towers in Portland, Victoria, and global wind company Vestas announced in February 2019 that they will be establishing a wind turbine manufacturing and maintenance facility in the former Ford plant in Geelong.

³⁹ Scottish Trade Union Congress, [Trade unions back radical action on climate and jobs](#), 17 April 2019, Scottish Trade Union Congress, [Fife 'Ready for Renewal' campaign swings into action](#), 22 May 2019.

ratios, and union agreements. The Maritime Union of Australia is committed to achieving this outcome.

Australia is home to many seafarers currently working in the offshore oil and gas industry, who have highly developed skills in the construction and maintenance of large maritime oil and gas projects. There is a significant overlap of skills between the offshore oil and gas industry and offshore renewables industries.

Offshore wind projects also have their own electrical substation that needs to be installed, operated and maintained, much like the electricity substations ashore in the LaTrobe Valley coal fired power stations.

Other transition opportunities include the potential for Newcastle to be a future site for a floating offshore wind port terminal and manufacturing hub for New South Wales. The Port of Newcastle does have access to significant portside land area. Seafarers and workers from coal terminals, coal fired power stations and other parts of the thermal coal industry could transition to those jobs. Projects could connect to the existing high-energy grid connections that exist in the Hunter area, just as the Star of the South is connecting to the LaTrobe Valley grid.

Transitioning fossil fuel workers to the renewable energy industry must be a part of a just transition in the Australian economy as a whole.

Tidal and wave energy

The CSIRO has identified appropriate sites for tidal energy in:

- coastal north Queensland,
- the Northern Territory,
- northwest WA.
- between King Island and Tasmania
- between the Furneaux Islands in Tasmania and Wilson's Promontory in Victoria.⁴⁰

The CSIRO has also identified significant potential for wave energy across southern Australia, with Albany, WA having some of the best potential energy resources. They identify a potential for 94 TWh/year could be generated from wave energy in places within 50km of the current electricity grid, and in water depths of less than 50m (which reduces the technical challenges).⁴¹

Recommendation: The Commonwealth Government must urgently develop an Offshore Wind Master Plan for Australia to map the best locations for offshore renewable energy and

⁴⁰ Mark Hemer, 2018, *Australia's offshore renewables: Where do the opportunities lie?* Presentation to Australian Ocean Renewable Energy Symposium, November 2018, p.14 and 15.

⁴¹ Mark Hemer, 2018, *Australia's offshore renewables: Where do the opportunities lie?* Presentation to Australian Ocean Renewable Energy Symposium, November 2018, p.12 and 18.

establish an agency to facilitate the speedy development of the industry. Offshore wind needs to be planned as part of the development of the electricity grid so the responsible authorities should include the Department of Energy, the Australian Renewable Energy Agency, and the work of the Australian Energy Market Operator in developing an Integrated System Plan. The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) should not have responsibility for the development of offshore wind to avoid further fragmentation of the management of the electricity system and the influence of vested interests from the petroleum industry. Workers in offshore renewables must have the same Work Health and Safety rights as other seafarers and shoreside workers, and not be subject to the poorer provisions of the NOPSEMA and the OPGGS Act.

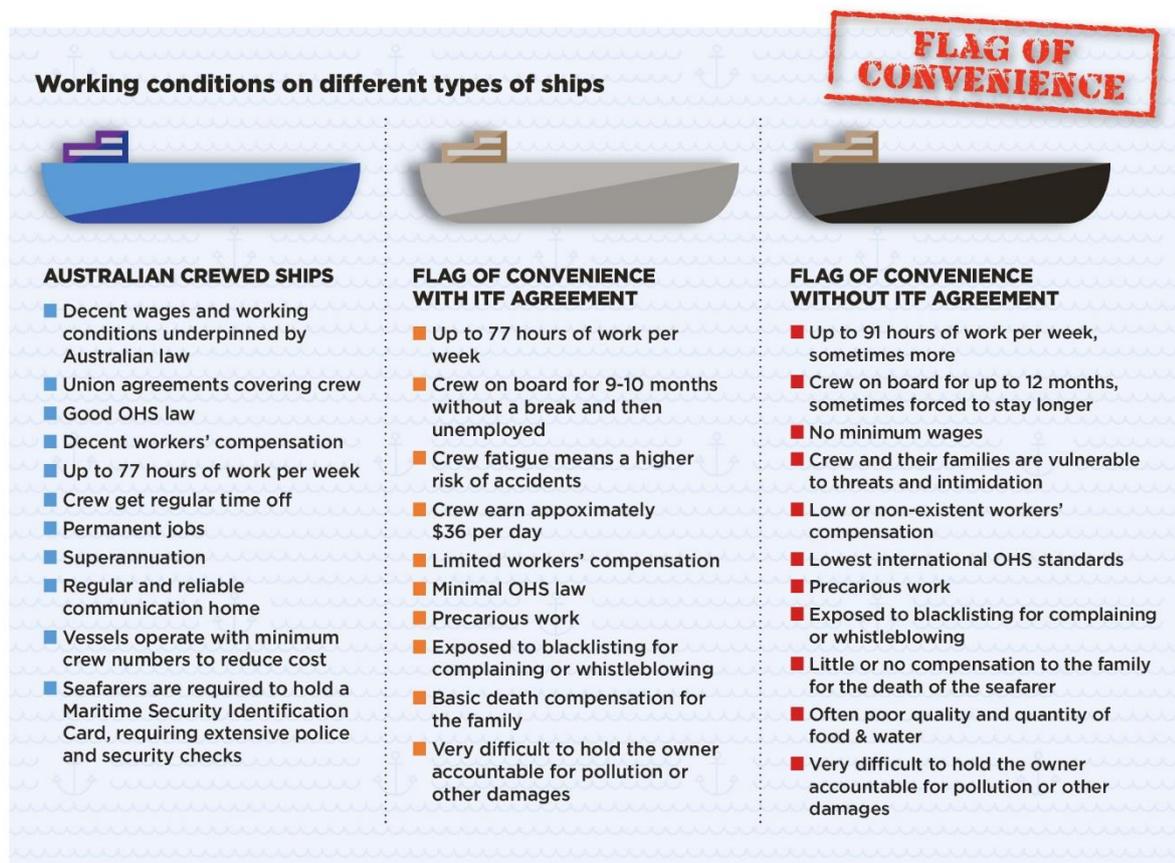
The use of renewable resources in Northern Australia to build a clean energy export industry to export into Asia

The MUA has previously made a submission to the current National Hydrogen Strategy Taskforce. Hydrogen made from renewable energy has significant potential to reduce greenhouse gas emissions and establish a new industry and significant jobs in Australia.

Hydrogen is a dangerous, experimental and high-value cargo. We urge the committee to require that hydrogen exports from Australia take place on Australian flagged and crewed ships, governed by Australian WHS and fatigue standards. The costs of this are minimal in comparison to the value of the cargo, and the importance of safely establishing the industry.

There is too much at stake to leave the safe regulation and rapid development of the industry to other flag state authorities, or to flag of convenience shipping and crews. Figure 1 gives a comparison of working conditions on various types of ships.

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



Source: Maritime Union of Australia and International Transport Workers Federation

Ensuring that hydrogen export vessels are Australian flagged and crewed will also ensure that the economic value of the transport directly contributes back to the Australian economy. This happens both through the vessel's management in Australia, but also the income taxes crew pay in Australia back to the Australian government, and the wages they spend in their (often regional) communities.

In the LNG export industry, four Australian-flagged and crewed vessels have been operating for 30 years to transport LNG from the North West Shelf (NWS) LNG Joint Venture project, with no industrial issues during that time.

Safety of the hydrogen industry

Working with hydrogen will be hazardous, and somewhat experimental as new processes and technologies develop. Measures to ensure good secure jobs in the hydrogen industry will also significantly increase the safety of the industry. Australia's process-based safety laws rely on the participation of Health and Safety Representatives and full consultation with the workforce. Workers can only participate in these processes properly and with

confidence if they are in secure work, are not fatigued, and have the support and protection of a union. Good secure permanent jobs with decent wages are imperative to ensure the safety of the hydrogen industry.

Casualisation of work significantly undermines safety, and this should not be allowed to develop in the hydrogen industry or it will significantly undermine the community confidence needed for the speedy development of the industry.

A new hydrogen industry must aim for best practice employment and WHS processes.

A hydrogen safety working group should be established through Safe Work Australia, and include the Australian Council of Trade Unions, unions from relevant industries including maritime unions, and the Australian Maritime Safety Authority. The Australian Maritime Safety Authority will need to be involved in the development of maritime regulation, and can play a role in the development of regulation at the International Maritime Organisation. This will be needed to support the development of international hydrogen shipping.

Problems with market-based electricity systems

The fragmented and corporatised or privatised ownership of Australian electricity systems, along with the market structure of the National Electricity Market, is becoming an increasing barrier to a just transition.⁴² 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 never deliver. For example, Australia's privatised airports are very profitable, yet refuse to spend those profits on upgrades or extensions - they insist on public subsidies.

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.

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

⁴² 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.

public ownership and financing. Governments can build at lower cost due to their ability to access cheaper financing. Superannuation investment in democratically controlled renewable projects should be facilitated through government-issued bonds intended specifically to fund these projects.⁴³

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

Conclusion

A focus on lowest-cost and market-led emissions reduction cannot achieve the speed and scale of emissions reduction we need, and will not do it without increasing inequality and generating significant political backlash, particularly in regional Australia.

We urgently need a step-change in government actions to address the climate crisis, to include strong government planning, action and very significant investment to ensure that every step taken to reduce emissions also includes measures to reduce inequality, and to ensure that workers have good union jobs to go to in the new low-emissions economy.

⁴³ 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.