

**INQUIRY INTO IMPACT OF RENEWABLE ENERGY  
ZONES (REZ) ON RURAL AND REGIONAL  
COMMUNITIES AND INDUSTRIES IN NEW SOUTH  
WALES**

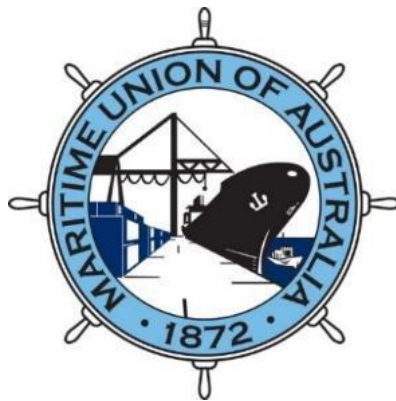
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**Inquiry:**  
**Impact of Renewable Energy Zones (REZ)**  
**on rural and regional communities**  
**and industries in New South Wales**

**Submission from the Maritime Union of Australia**



**February 10 2025**

*Portfolio Committee No. 4 - Regional NSW*

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## Background

This submission has been prepared by the Maritime Union of Australia (MUA) which represents approximately 14,000 workers in the shipping, offshore oil and gas, stevedoring, port services and commercial diving sectors of the Australian maritime industry. This includes coal export terminals. The MUA is an affiliate of the 20-million-member International Transport Workers' Federation (ITF). The MUA is also part of the Offshore Alliance (with the AWU) which represents workers on offshore oil and gas facilities.

MUA members currently handle components for onshore renewable energy in ports. The MUA is a member of the ITF's Offshore Wind Task Force which coordinates the work of unions representing workers in offshore wind globally. MUA members will work in offshore renewable energy on board vessels installing offshore wind turbines, on maintenance vessels and in offshore wind port terminals handling offshore wind components being prepared for installation at sea.

## Summary

The Maritime Union of Australia welcomes the opportunity to make a submission to this inquiry.

The MUA strongly supported the designation of the Renewable Energy Zones in the Hunter and the Illawarra due to the potential for offshore wind in both of those areas. We have been actively involved in the consultation processes that were part of formally declaring each offshore wind area, representing the views of thousands of members – and their families and communities – who stand to benefit from the development of offshore wind, through both the reduction of greenhouse gas emissions and the billions of dollars of investments and jobs that offshore wind will bring to regional areas. There are more details below on how we developed this position within our unions, and the membership we represent in each area.

We support the development of offshore renewable energy in Australia as it has the potential to create quality jobs for maritime workers that will last long into the future, especially those working in coal export ports, coal fired power stations, and in the offshore oil and gas industry. The development of offshore renewable energy must be used as an opportunity to deliver a just transition to energy workers and their communities.

We also support the designation of Renewable Energy Zones due to the need to take action to address climate change. Our members have been on the front lines of horrifying rescues from fires and floods. Increasing numbers of days with extreme temperatures and exposure to bushfire smoke affects us on the job. We understand the need to limit global heating to 1.5°C.

The urgency of the climate crisis means that we must take full advantage of the opportunity to build offshore renewable energy in our regions. Offshore wind will provide the renewable energy to keep regional manufacturing and energy-intensive industries operating long into the future. This means an economic injection into regions across the country that depend on well-paid, union jobs that we all know leads to a stronger local economy.

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## Regional benefits of investment in offshore wind

*(a) current and projected socioeconomic, cultural, agricultural and environmental impacts of projects within renewable energy zones in New South Wales including the cumulative impacts*

We strongly supported the declaration of the Renewable Energy Zones in the Hunter and Illawarra, and the declaration of offshore renewable energy zones in Commonwealth waters off the coast of the Hunter and Illawarra. The energy transition poses an immense challenge to the state of NSW, particularly in maintaining quality secure jobs that our members rely on in and around the Port of Newcastle and Port Kembla/Wollongong.

The development of offshore wind in NSW is critical to providing a clear path to a just transition for workers and communities in the Hunter, Central Coast and Illawarra. Newcastle is the world's largest export port for thermal coal, and the region needs urgent diversification. The long-term future operations of the Port Kembla steel mill depend on providing a bulk source of consistent renewable energy, as does Newcastle's heavy industry including aluminum smelters and alumina refineries.

Our union is working on securing good quality jobs and as much local content as possible for the offshore wind projects that will connect to the Renewable Energy Zones in the Hunter and Illawarra. Our members currently handle renewable energy components and large batteries passing through NSW ports.

In addition to the electricity supply, each offshore wind project will bring very considerable investment and diversification opportunities – something in the order of \$10 billion per project, with potentially two projects in the Newcastle-Hunter area and one project in the Illawarra (so far only one feasibility licence has been awarded in each area).

Our union has been working vigorously to ensure that workers and communities benefit from these projects, including securing commitments from both offshore wind developers and all levels of government on how these projects will deliver quality local jobs and investment. In NSW, the Renewable Energy Sector Board Plan has been developed to ensure domestic economic returns and quality jobs from these developments.

We support the development of an offshore wind strategy from NSW government to maximise the benefit to the state from the construction of offshore wind, including from the huge investment in offshore wind now taking place in Victoria. Victoria does have such a strategy.<sup>1</sup>

It is profoundly concerning to maritime workers in Newcastle, the Hunter and the Illawarra that an internationally coordinated disinformation campaign has been weaponised against offshore wind projects. To give just one example, fake scientific journal articles were created

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<sup>1</sup> Victorian Government, [Offshore Wind Energy](#), accessed October 2024.

and distributed in NSW coastal communities, on the threat of offshore wind to whales.<sup>2</sup> This began in roughly mid-2023, in many cases drawing from the USA and linked to political networks associated with Donald Trump's declaration of a full-throated campaign against offshore wind, fuelled by inaccurate and misleading statements.<sup>3</sup> For the record, this threat is not scientifically credible.<sup>4</sup>

Politicians have jumped on the bandwagon, with the result that these considerable investments and the opportunities they may bring for jobs, electricity supply, and emissions reduction, have been considerably undermined.

### **Onshore renewable energy and NSW Ports**

NSW freight infrastructure will play an important role supporting the decarbonisation of the whole economy. The construction of onshore renewable energy and new transmission to new renewable energy zones requires very significant large infrastructure to pass through ports and along roads, particularly large wind turbine, battery, and transmission components. Domestic manufacture of components can significantly increase the domestic economic return and benefit to the state of NSW.

### **Future of the Port of Newcastle**

We are supportive of efforts to diversify trades and jobs in the Port of Newcastle, particularly given its reliance on coal exports and the future decline of those exports as the global economy decarbonises.

One overdue improvement to the port freight infrastructure would be the separation of passenger and goods lines, with the introduction of a dedicated freight line with capacity for 1,200m trains to directly access the port. Our understanding is that there is an existing rail corridor that could be used for this. This should be pursued. There are on-dock rail connections to all parts of the port that could be connected to such a dedicated freight line.

We support the development of a Newcastle container terminal but not one that is 'highly-automated', as the Port of Newcastle has said it is seeking. Highly-automated container handling equipment has proven to be slower and less efficient than manually operated machines, with lower return to the community in terms of employment.<sup>5</sup>

There are also very substantial opportunities for the Port of Newcastle in handling onshore renewable energy components, including both wind turbines and batteries.

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<sup>2</sup> Adam Morton, Jordyn Beazley and Ariel Bogle, [How a false claim about wind turbines killing whales is spinning out of control in coastal Australia](#), 12 November 2023.

<sup>3</sup> Oliver Milman, [Trump pledges to scrap offshore wind projects on 'day one' of presidency](#), 13 May 2023.

<sup>4</sup> Joseph Palmer, Impact on whales of offshore wind farms exaggerated by Australian opponents, experts say, AFP Fact Check, January 2024. Greenpeace Australia Pacific, The Low-Down On Whales And Wind Farms, November 2023.

<sup>5</sup> MUA submission, Review of the Port Botany Landside Improvement Strategy, 2024.

We support the development of facilities for the production of renewable hydrogen and ammonia. Careful safety planning must take place.

The construction of floating offshore wind turbines will take a substantial area of the port, which must be planned for. This type of turbine is constructed in the port area, and then towed out to sea (unlike fixed bottom wind turbines which are assembled at sea).

The NSW government should also be taking the opportunities to maximise the manufacturing opportunities for renewable energy components in the port area.

### Future of Port Kembla

The NSW government must make the most of the location of Port Kembla adjacent to the steelworks.

Wind tower manufacturing has been identified as an important renewable energy manufacturing opportunity for NSW, with a report from UTS and SGS Economics calling for the development of “wind tower manufacturing capacity and the local steel supply chain for the \$20 billion-plus Australian market.”<sup>6</sup> However, Bluescope Steel in Port Kembla has had to put plans for this on hold due to the lack of road transport infrastructure.<sup>7</sup> The NSW government must take every step to overcome these obstacles, including upgrades to port infrastructure and to the onshore road connections to inland renewable energy zones. Wind turbine components for onshore and offshore wind could also be manufactured in Port Kembla and transported by ship around the Australian coast and to New Zealand.

The Maldon Dombarton rail link should be completed to improve freight access to the port.

Port Kembla and components manufactured in Port Kembla could play a significant role in the construction of offshore wind in Victoria, which will have a much larger offshore wind sector than NSW.

### Reduced fire risk of offshore wind

*(b) current and projected considerations needed with regards to fire risk, management and containment and potential implications on insurance for land holders and/or project proponents in and around Renewable Energy Zones*

We note the Committee’s concern about the risk to onshore renewable energy infrastructure from fire. Locating wind turbines at sea virtually eliminates the risk that high temperatures and bushfires pose to onshore electricity generation infrastructure, adding to energy security.

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<sup>6</sup> SGS Economics and UTS Institute for Sustainable Futures, [Towards a Renewable Energy Superpower. Industry opportunities for Australia to embrace the clean energy revolution](#) (full report), p.25-27.

<sup>7</sup> Rachel Williamson, [Low motorway bridges defeat Bluescope’s plans to make wind towers at Port Kembla](#) *Renew Economy*, Nov 22, 2023,



## Land use changes and footprint of REZs

*(g) projected impact on visitation to regional areas with renewable energy zones resulting from changes to land use*

We understand that some feel that onshore renewable energy may have too large a footprint, or that government energy planning processes, for example AEMO's Integrated System Plan, may be overestimating the potentially desirable footprint of onshore renewable energy.

We encourage the Inquiry to examine the potential reduction in land use required for renewable energy generation through the use of offshore wind. This is an important reason why the Victorian government has implemented a 9 GW target for offshore wind.

## Complementarity of offshore wind to onshore wind and solar

*(h) suitable alternatives to traditional renewable energy sources such as large-scale wind and solar*

Offshore wind offers important benefits to the electricity system needed to underpin energy supply in NSW. It can be built near the existing electricity grid along the coast in areas with available capacity, reducing the need for new transmission.<sup>8</sup> Offshore wind is stronger and more consistent than onshore wind (Figure 2), with higher capacity factors as a result.

The reliability and consistency of offshore wind 'reduces the need for investment in other dispatchable capacity, including investment in combined-cycle gas turbines (CCGTs).<sup>9</sup> Offshore wind is generally strong at evening peak demand times, and is complementary to other forms of renewable energy generation (Figure 1).

The declared Hunter and Illawarra offshore wind zones offer approximately 5.4 GW of near-term generation capacity, and potentially much more.<sup>10</sup>

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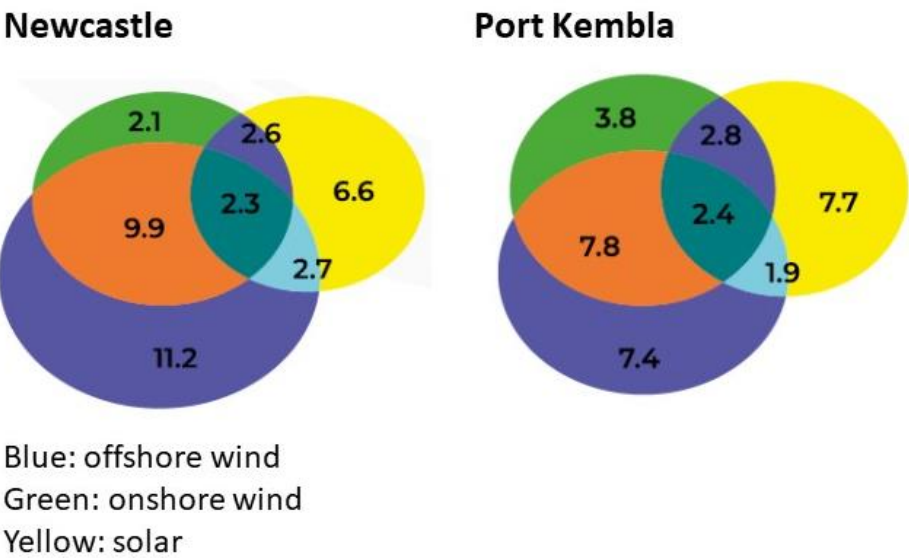
<sup>8</sup> AEMO says there is currently 1 GW of currently available transmission capacity on the Illawarra coast, and 5.5 GW of available capacity on the Hunter coast. See AEMO, [Appendix 3. Renewable Energy Zones](#), Appendix to 2022 ISP for the National Electricity Market, June 2022, p.93 and 94.

<sup>9</sup> International Energy Agency, [Offshore Wind Outlook](#) 2019, p.12, 21, 44.

<sup>10</sup> The Declared Hunter offshore renewable area includes 925 km<sup>2</sup> on the continental shelf (less than 200m deep), and the proposed Illawarra offshore renewable area has 418 km<sup>2</sup> on the continental shelf. AEMO assumptions are that 80% of offshore wind areas can be developed, at 5MW/km<sup>2</sup>. This which would mean 3.7 GW for the Hunter and 1.7 GW for the Illawarra. There is substantial additional capacity available in deeper waters and in other adjacent coastal areas.

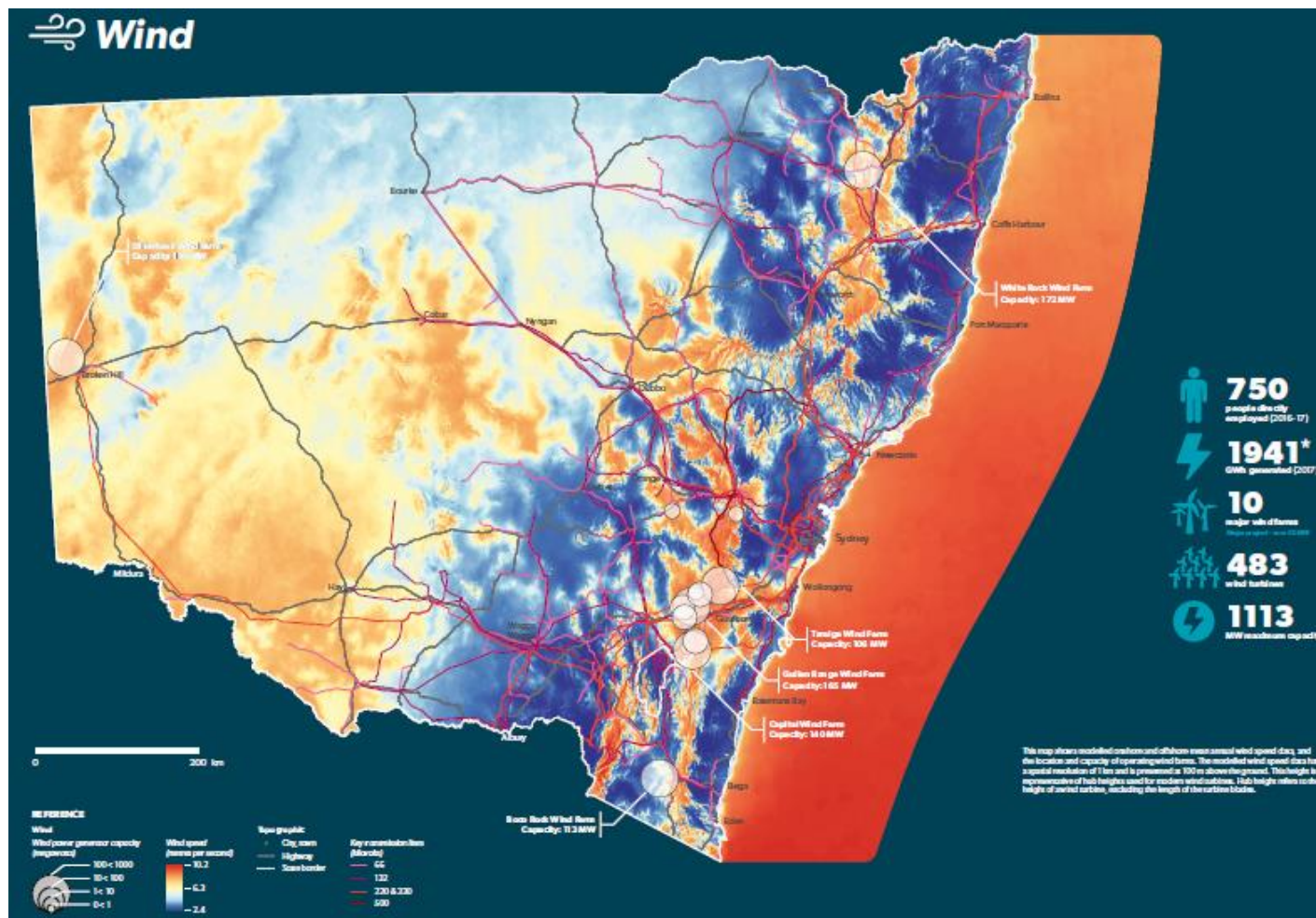
**Figure 1:** Complementarity of different forms of renewable energy generation in NSW.

Percentage of hours during the year during which each form of generation operates at high capacity (>50%), while others operate at low (<25%) capacity. The offshore wind locations are compared to the output from the Goulbourn wind farm and the Darlington Point Solar Farm.



**Source:** Briggs, C., M. Hemer, P. Howard, R. Langdon, P. Marsh, S. Teske and D. Carrascosa, 2021. [Offshore Wind Energy in Australia, P3.20.007 – Final Project Report](#). Hobart, TAS: Blue Economy Cooperative Research Centre, p.63.

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



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

## Cost of Offshore Wind

(c) the historical, current and projected future financial costs associated with construction and maintenance of large scale projects within Renewable Energy Zones

We note that ongoing rigorous analysis by the CSIRO and AEMO find that the cost of constructing offshore wind is cheaper than nuclear power plants and peaking gas plants (Figure 3). The Gencost authors explain that “Offshore wind is higher cost than onshore wind but competitive with other alternative low emission generation technologies and its higher capacity factor could result in lower storage costs.” Because offshore wind is more consistent, and stronger at evening peak times, it could result in savings in the use of pumped hydro, gas peaking and batteries.

**Figure 3:** Comparison of costs of different energy generation technologies.

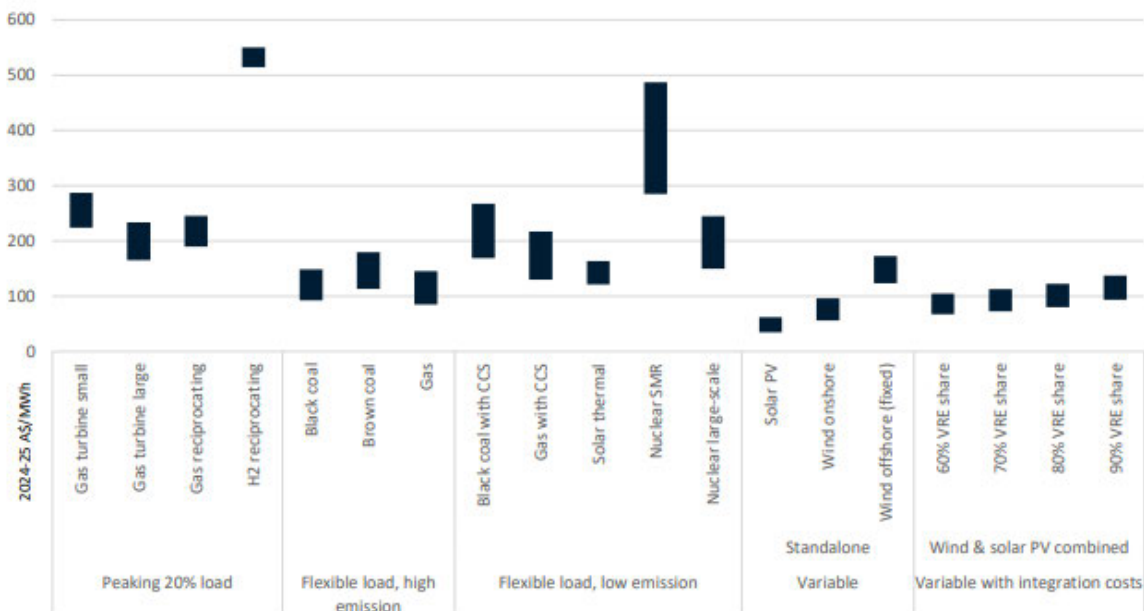


Figure 6-4 Calculated LCOE by technology and category for 2030

Source: [GenCost 2024-25: Consultation draft](#), Dec 2024, p.66.

## The consultation process

(i) adequacy of community consultation and engagement in the development of Renewable Energy Zones, and associated projects.

Two offshore wind areas have now been declared in Commonwealth waters off the NSW coast. These consultation processes were advertised through normal channels for federal government consultation including:

- a formal notice of consultation as required under the *Offshore Electricity Infrastructure Act 2021*

- an online consultation hub featuring background and technical documentation
- publication on DCCEEW's website and social media pages, in-person consultation
- DCCEEW also letterboxed residents in all areas

It is our strong belief that the consultation process has been sufficient for this stage in the offshore wind process, with the government listening to communities throughout this process and adjusting the size of the areas in line with community feedback. In some areas, particularly NSW, the government's response to community feedback has resulted in quite small declared areas. In the Hunter only one licence has been granted for an area which can hold two. Further analysis of NSW's renewable energy needs will need to evaluate whether current areas and licences are actually sufficient to meet electricity demand.

The next steps in the approvals processes will provide an opportunity to continue consultation with communities – and will be crucial to ensuring that these projects deliver good jobs and training in each of the regions where the developments will be located.

### Maritime Union of Australia position on offshore wind

The MUA's position in support of the development of renewable energy and offshore wind in Australia was put to government after an extensive internal consultation process. We are a vigorous member-based organization, with committees of active members in each workplace who elect union officials every four years. Each branch also has an active Branch Committee made up of rank-and-file members, and also hosts monthly meetings open to every member each month where the union's work in all areas, including offshore wind, is reported and debated.

In NSW we have three branches with an elected leadership for each: Newcastle/Northern NSW, Sydney, and Port Kembla/Southern NSW.

The MUA's support for offshore wind and the development of Australian legislation to allow for it to be constructed was formally established by the MUA National Council in February 2019. Union-wide elections for branch and national positions were held later in 2019, and support for offshore wind was affirmed through motions passed at our National Conference in March 2020, with representation from hundreds of delegates from all around Australia. Union-wide elections were again held in 2023, and a National Conference in February 2024 again upheld our support for renewable energy and offshore wind. Throughout this period, the union carried out substantial work at a state and national level in support of offshore wind and to ensure that the regulatory framework would provide safe and secure jobs and a just transition for our members. This was reported to members every month at our monthly meetings.

### Importance of community benefits and Renewable Energy Sector Board Plan

*(d) proposed compensation to regional New South Wales residents impacted by Renewable Energy Zone transmission lines:*

- (i) adequacy of compensation currently being offered for hosting transmission lines*
- (ii) adequacy of the shared benefits being offered to neighbours of large scale renewable*



projects

(iii) *financial impact of compensation on the state's economy*

(iv) *tax implications resulting from compensation received by impacted residents*

(f) *current and projected supply and demand levels of manufactured products, raw materials, and human resources required for completion of Renewable Energy Zones and their source*

The workforce, materials and manufacturing opportunities for renewable energy in NSW have been mapped out in the study *Employment, Skills and Supply Chains: Renewable Energy in NSW – Final* produced by the Institute for Sustainable Futures at UTS.<sup>11</sup> It also maps out steps forward, which have been incorporated into the Renewable Energy Sector Board Plan. This plan should be supported, and proper enforcement and compliance must also be ensured.

Climate action must be joined to a just transition. This means ensuring that projects and policies delivering the energy transition maximise the number and quality of jobs and community and First Nations benefits that they provide, and that there is a clear path for the workforce and communities from old industries to new industries. Regional and national Energy Transition Authorities with strong powers are needed to support workers, plan for diversification, and ensure the right training is available.<sup>12</sup>

It was an important step for the Commonwealth government to insert an assessment of offshore renewable energy projects' 'impact on, and contribution to, the Australian economy and local communities, including in relation to regional development, job creation, Australian industries and the use of Australian goods and services' (*Offshore Electricity Infrastructure Regulations 2022*, s.26(4)(a)). The MUA has advocated that all offshore renewable energy projects are required to contribute to the Australian economy and local communities by:

- a. maximising the use of **locally produced** and supplied goods and services.
- b. maximising the **employment of suitably qualified local workers**, including energy workers, engaged under registered industrial instruments, agreed between relevant unions and employers.
- c. providing for the **training and skills development** of local workers, minimum requirements for trainees and apprentices, worker transition opportunities from industries facing closure, and the employment of workers from groups underrepresented in the workforce.
- d. ensuring projects are aligned with the **First Nations Clean Energy Network Best Practice Principles** for Clean Energy Projects, including employment and income opportunities.
- e. ensuring quality jobs through the implementation of labour standards, to be applied across government-funded projects.

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<sup>11</sup> Briggs, C., Gill, J., Atherton, A., Langdon, R., Jazbec, M., Walker, T., Youren, M., Tjondro, M., Rutovitz, J., Cunningham, R., Wright, S. and Nagrath, K., 2022. [Employment, Skills and Supply Chains: Renewable Energy in NSW – Final](#) Report. Sydney: University of Technology Sydney and SGS Economics and Planning.

<sup>12</sup> ACTU, *Energy Transition Authority: What Workers Need*, January 2023.

Similar provisions were included in the US 2022 Inflation Reduction Act.<sup>13</sup> The language suggested above also aligns with the NSW *Electricity Infrastructure Investment Act 2020*, and the NSW Renewable Energy Sector Board Plan released in 2022.<sup>14</sup>

Proper investment in securing the development of local supply chains is critically important as about eight times more jobs are created in manufacturing components for offshore wind than are created in the construction of projects.

## Decommissioning of offshore wind

*(j) how decommissioning bonds are currently managed and should be managed as part of large scale renewable projects*

Decommissioning of offshore renewable energy is regulated through the *Offshore Electricity Infrastructure Act 2021*. This is a robust process that builds on the experience of the Commonwealth in regulating and enforcing the removal of offshore oil and gas infrastructure, which is currently taking place. Unlike for oil and gas, licence holders building offshore renewable energy infrastructure are required to set aside financial assurance to cover the full costs of decommissioning their infrastructure at the beginning of their projects. This is a higher standard.

However, we do note that that as wind is an infinitely renewable resource, the infrastructure and sites for offshore renewable energy are likely to have a much longer useful life than infrastructure related to coal, oil or gas extraction, where deposits are finite. Wind turbines can be repowered with the latest generation technology, and towers themselves can be replaced as needed.

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<sup>13</sup> The White House, [Inflation Reduction Act](#), 19 August 2022.

<sup>14</sup> NSW Office of Energy and Climate Change, [NSW Renewable Energy Sector Board's Plan](#), September 2022