## Offshore Clean Energy Infrastructure Consultation:

## Joint submission from the Maritime Union of Australia and the Electrical Trades Union



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Department of Industry, Science, Energy and Resources

Submitted by email: offshorewind@industry.gov.au

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## Introduction

This submission has been prepared by Maritime Union of Australia (MUA) and the Electrical Trades Union (ETU).

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 plays a leadership role in the ITF's Offshore Task Force, and its Offshore Wind Committee, where unions representing workers in offshore wind globally are able to share their experiences.

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.

In a future offshore renewables industry, MUA members would work on offshore renewables construction vessels as maritime crew, catering crew, crane operators and divers. During operations, MUA members would work as maritime crew for maintenance vessels.

The Electrical Trades Union of Australia (ETU) is the Electrical, Energy and Services Division of the Communications, Electrical, Electronic, Energy, Information, Postal, Plumbing and Allied Services Union of Australia (CEPU). The ETU represents over 61,000 electrical industry workers around the country and the CEPU as a whole, represents over 101,000 workers nationally, making us one of the largest trade unions in Australia.

In a future offshore renewables industry, ETU members would be performing all electrical work associated with the offshore generation, transmission and distribution infrastructure during construction, installation, testing and operations both on shore and at sea.

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## Summary

The MUA and ETU support science-based emissions reduction efforts to address the current climate crisis, including the need to limit global heating to 1.5°C. An offshore renewables industry, particularly offshore wind, could make an important contribution to reducing emissions in the Australian electricity sector. We wholeheartedly support the development of offshore renewable energy in Australia.

Currently, Australia has no legislative provisions to deal with the exploration, construction or operation of offshore renewable energy resources. The proposed Offshore Clean Energy Infrastructure Bill (Offshore Clean Energy Bill) is essential to the development of this potential energy source, particularly for projects located more than 3 nautical miles from the coast, out to 200nm offshore (the Exclusive Economic Zone).<sup>1</sup>

The effects of climate change including through increased prevalence and severity of natural disaster are combining with a transition in the energy industry which, coupled with increasingly hostile workplace laws, is eroding the energy industry's historical profile of delivering long term, stable and secure jobs. The negative impacts of these combined events are escalating to the detriment of Australian jobs and in particular regional communities.

A future offshore renewables industry could bring many benefits to Australia through jobs, supply chain manufacturing opportunities as well as providing reutilisation to stranded energy assets and delivering a unique generation profile to balance the network. But these opportunities won't happen automatically. A sensible and robust offshore renewable regulatory framework must ensure Australia and Australians realise these benefits.

The government's consultation paper says that offshore wind turbines "can offer large, year round generation capacity, provide network benefits, align better with demand" and "has the potential for significant employment, and billions of dollars of investment, in Australia's coastal economies" (p.1). We agree, and for this reason, believe that the government should be supporting the development of offshore renewables through comprehensive assessments, planning, and directly building offshore renewable energy through publicly owned energy providers.

However, the framework the government proposes is largely an industry-led wait-and-see approach. In our view, the framework should be significantly strengthened to ensure the well-planned and efficient deployment of offshore renewables to assist in a rapid reduction in greenhouse gas emissions in Australia's electricity supply, and a just transition for communities and workers in this difficult process. If this is not possible, the legislation should be drafted in such a way as it allows for a more planned an integrated approach to be taken in the future.

<sup>&</sup>lt;sup>1</sup> Waters less than three nautical miles from shore are in state jurisdiction. Three nautical miles is actually measured from the Territorial Sea Baseline, which includes most islands and cuts across indented bays. More detailed information and maps are available from Geoscience Australia <u>Maritime Boundary Definitions</u>.

A proper framework to incorporate offshore renewables into a transition of the Australian electricity system must include the following elements:

- The development of grid-connected offshore renewable energy must be regulated through an agency that understands the challenges facing an electricity system in the midst of a transition, and is already involved in managing that system. The regulation of the electricity grid is already extraordinarily complex and fragmented.
- The implementation and ongoing regulation of the Offshore Clean Energy Infrastructure Bill should not be tied to the system for petroleum production and regulation. NOPSEMA has no experience in the electricity grid, but instead almost exclusively works in the very different oil and gas industry.
- The framework should not lock in the model of private for-profit development taken directly from the offshore oil and gas industry, where private companies competitively bid against each other to pay very large sums of money for rights to develop projects in particular areas. The framework must allow for and facilitate coordinated public financing and investment on the massive scale that is needed to address the challenge of keeping global heating to 1.5°C.
  - Commonwealth waters are not under private ownership. Expensive competitive bidding will introduce unnecessary costs into offshore renewable development.
  - Offshore wind projects could be built 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.
- WHS regulation in offshore renewables industry should be based on the harmonised WHS system, which could be achieved through a Maritime Sector of a Commonwealth WHS Act. This would provide a single seamless system to cover the construction and operations phase in ports, on construction and maintenance vessels, and on the offshore renewable energy installations themselves.
  - Workers in new offshore renewable industries 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 Offshore Petroleum and Greenhouse Gas Storage Act. NOPSEMA must not be the safety regulator for the industry.
- Clear and direct transition provisions for workers in existing fossil fuel industries must be in place and any legislation must have embedded in it provisions that encourage and facilitate just transitions.<sup>2</sup>
- The Commonwealth Government must 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 research and planning process.<sup>3</sup>

<sup>&</sup>lt;sup>2</sup> An outline of such measures for offshore wind in Australia is in the 2019 report <u>Putting the Justice in Just</u> <u>Transition</u>.

<sup>&</sup>lt;sup>3</sup> New York State Energy Research and Development Authority, NYS Offshore Wind Master Plan, 2018.

- The Australian Renewable Energy Agency and the CSIRO must also play a research and development role.
- The Australian Energy Market Operator (AEMO)'s Integrated System Plan (ISP) process should also carry out a proper assessment of potential offshore renewable energy zones that fully considers the balancing potential of offshore wind and the potential transmission savings of large offshore wind projects being built near coastal cities. Such an assessment has not yet been undertaken.
- The Bill's objectives should include the need to reduce emissions at least in line with the Paris Agreement, and to ensure a just transition in the energy industry.

## Consultation process – lack of transparency

The consultation paper says 'All submissions will be held in confidence' (p.2). This seems unnecessary and contrary to good governance, when the urgent task of emissions reduction is clearly in the public interest.

## PART I: Work Health and Safety in offshore renewables

## The importance of a harmonised approach to WHS

Members of our unions will be the people using their experience in the electricity and offshore oil and gas sectors to build offshore renewables. We have a keen interest in ensuring a robust and seamless WHS framework for this new industry.

Elements of WHS proposed in the government's discussion paper is:

- Safety processes being included as part of the project's management plan, approved as part of the licencing process before the workforce is in place.
- NOPSEMA as the regulator who will approve the safety management plan and ensure ongoing compliance.

However, there is no indication in the paper what WHS legislation will be used in the new Bill.

The most widely recognised and implemented WHS regime in Australia is the harmonised WHS system, implemented through the model WHS Act. For reasons that will be explored further, this system also offers the only possible route to having offshore renewables projects covered by a single WHS process.

The national OHS review initiated in 2008 has been largely successful in bringing together a nationally consistent WHS regime across Australia, through a Model WHS Act that has been replicated in most states and territories.<sup>4</sup> A recent review found that "The harmonisation of WHS laws across the country is an ambitious objective. It has largely been achieved and remains strongly supported." Those consulted in the review urged "other jurisdictions to minimise variations to the model wherever possible. If the harmonisation objective is to be sustained into the future, it is critical that all jurisdictions commit to it."<sup>5</sup>

The harmonised model is a process-based approach designed to be flexible and applicable across all types of workplaces, industries and organisations. It rests on broadly defined duties for 'persons conducting a business or undertaking', and the principle that workers' participation is key to ensuring their safety. Thus it provides for the election of Health and Safety Representatives from the workforce, training and rights for their participation and consultation. It also allows union officials the right to enter workplaces to support HSRs and the workforce on safety matters and in the case of incidents.

WHS regulation in offshore renewables industry could be implemented through a harmonised Maritime Sector of a Commonwealth WHS Act, which could provide seamless cover of ports, vessels, and offshore renewable energy installations.

Until harmonisation can be achieved, the Occupational Health and Safety (Maritime Industry) Act will apply to all vessels (but only vessels) working on offshore renewables projects when on voyages that proceed outside state waters. Harmonisation would be beneficial for all seafarers as the OHS(MI) Act is outdated and has extremely complex

<sup>&</sup>lt;sup>4</sup> National Review into Model Occupational Health and Safety Laws, 2008.

<sup>&</sup>lt;sup>5</sup> *Review of the model Work Health and Safety laws - Final report,* December 2018 (the Boland review).

coverage positions which rely on legislation that is no longer in force (the Navigation Act 1912, see the coverage chart from the Australian Maritime Safety Authority in Appendix 3). There are also appear to be disagreements between the Australian Maritime Safety Authority and the Department of Employment as to the interpretation of coverage.<sup>6</sup> State WHS Acts (which are largely harmonised) will apply to vessels when on voyages in state waters and in ports.

The National OHS Review recommended that OHS in specific industries or in relation to specific hazards "should only be separately regulated where it is periodically and objectively justified." Where there is separate legislation, this should be consistent with the nationally harmonised WHS laws.<sup>7</sup> Our understanding is that this remains government policy, and process of harmonisation is ongoing – for example the bill to harmonise WHS in West Australia is on the verge of passing through the WA parliament.

During the consultation process, NOPSEMA attended the session and expressed a view that separate legislation was needed due to the specific WHS challenges of a new offshore renewables industry. However, this can be easily dealt with through a Code of Practice, which can provide specific practical guidance for workers and employers in particular industries. For example, the MUA has recently been involved with the development of the *Code of Practice: Health and Safety in Shipboard Work, including Offshore Support Vessels* which came into effect on January 2019 (through the Seacare Authority and under the OHS(MI) Act).

Workers in new offshore renewable industries must have the same Work Health and Safety rights as other Australian workers, and not be subject to the poorer provisions of the Offshore Petroleum and Greenhouse Gas Storage Act.

Harmonisation can also ensure consistent regulation for projects which span across State, Commonwealth, and/or International waters.

### 2016 WHS Harmonisation proposal

Efforts to harmonise the OHS(MI) Act into the harmonised WHS system should be stepped up. This is the only way to provide for a consistent WHS system for workers who will be constantly and regularly moving between local ports, vessels and offshore renewable energy sites.

Harmonisation of the maritime industry into the national harmonized WHS regime previously proposed in the Seafarers and Other Legislation Amendment Bill 2016, which has now lapsed. There is widespread consensus on the need to harmonise the Occupational Health and Safety (Maritime Industry) Act into a Maritime Sector of the Commonwealth WHS Act. The Bill did not pass as unfortunately it was tied to detrimental changes to the seafarers' workers compensation scheme (Seacare), and changes to Provisional Improvement Notices (PINs).

<sup>&</sup>lt;sup>6</sup> Based on correspondence the MUA received from the Department of Employment during the 2016 and 2017 consultations into the Seafarers and Other Legislation Amendment Bill 2016.

<sup>&</sup>lt;sup>7</sup> National Review into Model Occupational Health and Safety Laws, Second Report, January 2009. Recommendations 76 a), 17.

## Offshore wind work and operations

Using the OPGGS Act for WHS is completely impractical if you consider the work involved in both operations and construction of offshore wind energy. Offshore renewable energy work is much more vessel-based than offshore oil and gas, where vessels such as drilling rigs and Floating Production, Storage, and Offshore (FPSO) oil tankers can be attached to the seabed for months or years at a time (and operate under NOPSEMA and the OPGGS Act for the duration). In the offshore petroleum industry, vessels shift from being regulated under Australia's maritime safety regulation (the Navigation Act and the Occupation Health and Safety (Maritime Industry) Act) to the offshore oil and gas regulation when they are attached to or detached from the seafloor.

The construction and operations of offshore wind turbines consists mainly of short trips from port out the site, with trips 3-4 days long during construction, and single day trips during operations.<sup>8</sup> Specialised 'jack-up' construction barges would put their 'legs' on to the seafloor while installing wind turbines. Small maintenance vessels used to transport technicians from port out to the wind turbines on a daily basis never make contact with the seafloor. Many other vessels are also likely to work on offshore wind sites without ever making contact with the seafloor. All of these vessels must already be covered by Australia's maritime safety regime while in transit and in port, for significant periods of time due to vessels being much more mobile than those in offshore oil and gas.

Bringing in NOPSEMA and the OPPGS Act will bring in an extra layer of regulatory burden and confusion. It means that a vessel work crew could be subject to three different occupational health and safety regulatory regimes during a single day's work – an unacceptable situation (Table 1).

<sup>&</sup>lt;sup>8</sup> Globally, workers do not live on offshore wind sites during operations (except for in a few extremely remote sites in the North Seas. In Australia, nearshore sites that could be maintained through day trips from port are much more likely to be constructed first.

**Table 1:** Application of different WHS regimes across future offshore renewable energy work sites.

| Activities Associated with Offshore<br>Renewables   | Regulatory Environment   |
|---|--|
| Construction Activity 1: Vessels involved in  | WHS  |
| surveying and ground preparations   | <ul> <li>Occupational Health and Safety<br/>(Maritime Industry) Act (interstate</li> </ul>             |
| <b>Construction Activity 2:</b> Specialised offshore wind construction vessels when       | voyages and voyages in Commonwealth  |
| loading wind turbine parts in an Australian   | <ul><li>waters)</li><li>State WHS Acts (in port, for loading</li></ul>                                 |
| port  | operations, and in state waters)   |
| Construction Activity 3: vessels in transit   | OPGGS Act  |
| from port out to construction grounds   | Maritime Safety  |
|   | • the Navigation Act (with AMSA as an  |
| <b>Construction Activity 4:</b> vessels engaged in offshore renewable energy construction | inspectorate)  |
| activities (OPPGS Act currently applies   | Regulator and Inspectorate   |
| when a vessel is attached to the seafloor -<br>only).                                     | <ul> <li>Navigation Act: the Australian Maritime<br/>Safety Authority (AMSA) through either</li> </ul> |
| <b>Operations Activity 1:</b> when a maintenance  | Port State Control (international vessels) or Flag State Control (Australian                           |
| vessel is in port and loading crew and  | flag vessels).   |
| equipment   | OHS(MI) Act: AMSA  |
| <b>Operations Activity 2:</b> when a maintenance  | NOPSEMA  |
| vessel is in transit to the offshore<br>renewable energy site                             | Other  |
|   | • Proposed Offshore Clean Energy   |
| <b>Operations Activity 3:</b> when a maintenance person climbs from a vessel on to a wind | Infrastructure Bill  |
| turbine to carry out maintenance.   | Energy Regulators  |

## Problems with the OPGGS Act

Workers under the OPGSS Act are denied some of the basic work health and safety rights and protections enjoyed by other Australian workers, for no good cause, when compared the harmonised WHS Acts<sup>9</sup> (and the Occupational Health and Safety (Maritime Industry) Act. We oppose the application of the OPGSS Act to this new industry.

<sup>&</sup>lt;sup>9</sup> Australian Congress of Trade Unions, *Work health and safety of workers in the offshore petroleum industry*, 18 April 2018. Submission to the Senate Inquiry into the Work health and safety of workers in the offshore petroleum industry.

The many deficiencies of the OPGGS Act in relation to harmonised legislation have been systematically documented by the ACTU and by the report of the Inquiry in the work health and safety of workers in the offshore petroleum industry.<sup>10</sup> The recommendations of this inquiry are included in Appendix 1. Following these reports, the ACTU conducted a survey of workers in offshore WHS which was documented in an ACTU submission to the Department of Industry, Innovation and Science.<sup>11</sup> The ACTU's recommendations for the improvement of the offshore safety regime are included in Appendix 2.

The key problem with the OPGGS Act is that it is deficient in the areas that allow for meaningful worker involvement in managing work health and safety, particularly through Health and Safety Representatives (HSRs) and unions. These deficiencies are outlined in Figure 1 and include:

- Lack of mechanisms to allow for workforce, HSR or union consultation in the development of the Safety Case. During the operational phase, there are a lack of provisions to ensure the safety case is reviewed with the workforce, can be accessed by the workforce or HSRs, or that HSRs can be trigger a review or revision process if concerns arise.
- Neither the role of unions or of employer organisations are recognised in the objects of the OPGGS Act (unlike the WHS Act). In practice this means that employers and their organisations are included in governance and consultation, but unions are not. There are no workforce representatives on the NOPSEMA Board.
- The rights, powers and entitlements of HSRs are deficient in comparison to the WHS Act.
- No right of entry for unions for health and safety purposes
- No licencing system for high-risk work.
- No requirement to integrate the work of NOPSEMA with Safe Work Australia.
- No requirement to consult with workers and their representatives when carrying out its health and safety functions.

<sup>&</sup>lt;sup>10</sup> Senate Education and Employment References Committee, Report into Work health and safety of workers in the offshore petroleum industry, April 2018.

<sup>&</sup>lt;sup>11</sup> Offshore Resources Safety Review, Submission by the Australian Council of Trade Unions to the Department of Industry Innovation and Science, 9 August 2019.

**Figure 1:** Major deficiencies of the OPGGS Act in comparison to the main WHS regime covering workers in Australia.

| Offshore Petroleum Industry<br>A comparison between<br>Offshore Petroleum and Greenhouse Gas Storage Act 2006 (Cth)<br>and other Australian OHS legislation |                                  |                    |      |              |     |              |    |     |     |    |
|---|----------------------------------|--------------------|------|--------------|-----|--------------|----|-----|-----|----|
|   | Federal<br>Offshore<br>Petroleum | Federal<br>Onshore | A 34 | NSW          | QLD | Vic          | WA | Tas | ACT | NT |
| Entry Permit Holder<br>- OHS Right of Entry   | X                                | <                  |      | <            | ~   | $\checkmark$ | <  | <   | <   | ~  |
| HSR – statutory<br>entitlement to training  | X                                | 1                  |      | ~            | <   | ~            | <  | <   | <   | 1  |
| HSR has the right<br>to choose the<br>training provider   | X                                | 1                  |      | 1            | <   | 1            | 1  | 1   | ~   | 1  |
| HSR has the right<br>to engage with<br>a consultant   | X                                | 1                  |      | $\checkmark$ | ~   | <            | <  | <   | <   | <  |
| No restrictions on the<br>HSR using a consultant<br>at the workplace  | X                                | 1                  | ~    | <            | 1   | <            | ×  | 1   | <   | 1  |
| Licencing of Workers<br>Performing High Risk<br>Work  | ×                                | <                  | ~    | <            | <   | <            | <  | <   | <   | 1  |

Credit: ACTU, 2015.

The problems caused for workers are well illustrated by the results of the survey conducted by the ACTU of 381 workers employed in the offshore oil and gas industry under the jurisdiction of NOPSEMA and the OPGGS Act:<sup>12</sup>

- 71% said there was not enough protections for HSRs currently
- 40.5% of current and recent HSRs said that the powers of HSRs were not enough to be able to perform the role effectively.
- 30% have experienced backlash or discrimination by the operator or their employer because of their role as an HSR.
- 26.5% said they did not volunteer to be an HSR because they were concerned about backlash from my employer or that it would harm their career going forward.
- 56% of current and recent HSRs did not think training for the role was adequate.
- 31% of current HSRs said they were 'not at all confident' or 'not very confident' about raising a work health and safety issue or concern with NOPSEMA. 34% said they were 'unsure'
- 33% of current and recent HSRs were not aware of NOPSEMA ever having visited their facility.
- 38% were worried or concerned about backlash or discrimination from their employer or the operator if they were to accompany or meet with a NOPSEMA safety inspector.

<sup>&</sup>lt;sup>12</sup> Offshore Resources Safety Review, Submission by the Australian Council of Trade Unions to the Department of Industry Innovation and Science, 9 August 2019. The results of the survey are integrated throughout the submission across multiple pages.

- 31% of current and recent HSRs said that the operator or their employer does not consult with them as an HSR about health and safety issues in their workplace.
- 69% of workers said that casual and labour hire workers do not receive the same work health and safety standards and outcomes as permanent workers.

When offshore workers were asked whether they were aware of existing conditions in their workplace that could cause serious injury or illness to workers if left unaddressed or not properly managed, 46.4% said yes. When asked if the matter was reported to NOPSEMA, 64.95% said it was not, for the following reasons:

- 'As we could lose our jobs'
- 'They are not effective in their response'
- 'Culture of employer'
- 'Fear of losing my job'
- 'I find NOPSEMA a toothless tiger'
- 'Fear of reprisal for being a whistleblower. Also, a lack of confidence in the system in general'
- 'The operator and client do not want to draw attention to the issues'
- 'Complete waste of time'
- 'Because that's a waste of time we need jobs and if you report to "the powers that be" there will be no job'
- 'People afraid'
- 'NOPSEMA have no jurisdiction over cranes or rigging gear and its licensing, they are toothless tigers...'
- 'They don't care'
- 'They don't do a thing about it, only come for there scheduled inspections'
- 'Company avoids contacting if possible'<sup>13</sup>

### Disapplication of maritime safety legislation

The OPGGS Act (s.640) contains a provision that disapplies maritime safety legislation from offshore petroleum vessels once they are attached to the seafloor (or detach from the seafloor. This means that the OHS(MI) Act and the Navigation Act no longer apply to the vessel.

We strongly oppose any disapplication provision for vessels being included into the new Offshore Clean Energy Bill. Because it removes the application of a whole suite of WHS and maritime safety regulations, it means that the new regime would have to recreate new rules for all these areas. The Navigation Act covers wide ranging matters such as the structural integrity of vessels, emergency procedures, and seafarer qualifications.

Such a disapplication provision would need to choose a point at which it would start and end. If attaching to the seafloor was chosen as the demarcation, then it must be remembered that offshore wind construction vessels may spend only a day jacked up and

<sup>&</sup>lt;sup>13</sup> Offshore Resources Safety Review, Submission by the Australian Council of Trade Unions to the Department of Industry Innovation and Science, 9 August 2019, p.40.

building a turbine, before becoming a vessel again and moving to the next turbine. Offshore wind maintenance vessels used during ongoing operations would never attach to the seafloor.

The current disapplication provisions are confusing and dangerous. A member of the MUA, Trevor Moore, was killed in 2008 while an FPSO was detaching from the seafloor in poor weather.<sup>14</sup> Workers onboard the FPSO report that initially there was significant confusion onboard about the relevant regulatory regime to report and investigate. Although NOPSEMA and AMSA are now both clear that NOPSA was the responsible regulator, the Australian Transport Safety Branch investigation spent a significant period of time investigating the regulatory confusion.

#### Proposed Management Plans

'Management plans' will be required for all offshore clean energy licence types, including safety management (as well as environment management, project design, and plans for construction, commissioning, operation and decommissioning (p.6)). These sound very similar to the 'safety cases' required by NOPSEMA under the OPGGS Act for the offshore oil and gas industry, and assessed by them for very substantial fees (hundreds of thousands of dollars).

A significant problem with the safety case regime is that there are challenges for workers to be consulted on these as they are developed before the workforce is in place and there are limited opportunities for review. In many cases, workers are not able to access them. These issues have been documented by the ACTU.<sup>15</sup>

#### **Risk-based regulation**

The government says that regulation will be 'risk-based focussed on higher risk aspects of the industry with no unnecessary regulation for low-risk activities that have minimal impact on other users or the environment' (p.3).

First, risk to the workforce should be considered in addition to other users and the environment.

Second, we are unhappy with the use of a 'risk-based approach' in both NOPSEMA's and AMSA's jurisdiction. The recent draft report reviewing National Transport Regulatory Reform cautions that 'use of a risk-based approach required regulators to have accurate information and data about regulated entities'.<sup>16</sup> This will not be the case for a brand-new industry. There are no indications in the discussion paper that the data gathering or enforcement powers necessary to support such an approach have been contemplated.

<sup>&</sup>lt;sup>14</sup> Australian Transport Safety Bureau, 'Independent investigation into the fatality on board the Australian registered floating storage and offloading tanker *Karratha Spirit* off Dampier, Western Australia, 24 December 2008', p 33-36, 48-49.

<sup>&</sup>lt;sup>15</sup> Offshore Resources Safety Review, Submission by the Australian Council of Trade Unions to the Department of Industry Innovation and Science, 9 August 2019.p 6-10, p.36-37.

<sup>&</sup>lt;sup>16</sup> Productivity Commission, National Transport Regulatory Reform, draft report, November 2019, p.70

## NOPSEMA – Not an effective safety regulator

The proposed framework is very similar to the framework for offshore petroleum development,<sup>17</sup> including using the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) to:

- Operate as the regulator for any new industry, and be responsible for:
  - o Safety
  - o Environment and structural integrity
  - Providing technical advice to the Minster to support decision making.

The problems with the deficiencies in the OPGGS Act extend to and are reflected in the operation of NOPSEMA as an agency. First, there are no offshore industry workers or representatives of workers on NOPSEMA's board, and NOPSEMA has long been criticised for a lack of stakeholder engagement.<sup>18</sup> This runs counter to the principles of the harmonised WHS system that operates across Australia.

The recent Senate inquiry into the Work health and safety of workers in the offshore petroleum industry found that NOPSEMA "was not regarded as a fully effective or engaged regulator by workforce stakeholders in the offshore petroleum industry," and that this "perception had a detrimental effect on work health and safety (WHS) outcomes, with workers not feeling adequately supported by the regulator."<sup>19</sup>

We are also very dissatisfied with NOPSEMA's response to incidents that have killed workers or left them permanently disabled. We explore two of these below in detail: the fatalities on the Stena Clyde and the DOF SubSea rapid diving descent.

### Stena Clyde fatalities

The deficiencies of the OPGGS Act's provisions for union right of entry, and NOPSEMA's lack of adequate provisions for incident investigation and communication with stakeholders were illustrated in the aftermath of the deaths of Barry Denholm and Peter Meddens on the drilling platform the *Stena Clyde* on 27 August 2012. The drill became stuck in the hole deep beneath the seafloor. After a whole series of efforts to free the drill, the published 'statement of facts' records the following:

50. The forces generated by the sudden application of torque resulted in the 4 tonne snatch block failing and the drill pipe with the tong attached spinning out of control.

51. The tong weighing 200 kilograms struck Barry Denholm. Peter Meddens (who was further away and not within the red zone) was struck by the associated rigging.

<sup>&</sup>lt;sup>17</sup> Law firm Allens Linklaters writes that the new framework 'appears to be based on the regulatory framework for offshore petroleum (eg the use of graticular blocks, competitive bid processes, and two phases of licences analogous to exploration and production licences).' Allens Linklaters, <u>Proposed regulation of offshore clean</u> <u>energy infrastructure – what you need to know</u>, 29 January 2020.

<sup>&</sup>lt;sup>18</sup> Australian Congress of Trade Unions, Work health and safety of workers in the offshore petroleum industry, 18 April 2018, p.11-13.

<sup>&</sup>lt;sup>19</sup> Senate Education and Employment References Committee, *Report into Work health and safety of workers in the offshore petroleum industry*, April 2018, p.33.

Both men died as a result of injuries sustained from the impact of the rig tong and associated rigging.<sup>20</sup>

In a teleconference with NOPSEMA and the ACTU on 30 August, the MUA requested access to the *Stena Clyde* to support the rest of the workforce who were traumatised and shaken by the incident, and were being pressured by management to continue working despite the horrific incident that had just taken place. NOPSEMA originally refused access to the MUA, and the MUA had to make an application to the Fair Work Commission to gain access. MUA officials were able to finally access the *Stena Clyde* on 6 September, 10 days after the workers were killed.<sup>21</sup> In contrast, workers and unions ashore are required to give 24 hours notice of entry, but entry is often available at shorter notice, particularly if there has been a fatality in a workplace.

When NOPSEMA arrived on the drilling rig, they met directly with company management. NOPSEMA made no effort was made to meet with the affected workforce or Health and Safety Representatives, or to include them in the investigation.<sup>22</sup> When MUA Victoria Branch Secretary Kevin Bracken was finally allowed on board the *Stena Clyde* on 6 September, he was instructed to stay in a single room. Only MUA members were allowed to meet with him, and had to go to that room to do so. Workers who were not in the MUA jurisdiction were not allowed to meet with Kevin, even though no other union official was able to get out to the drilling vessel.<sup>23</sup>

In the aftermath of the incident, NOPSEMA provided very little in the way of public information, findings, or safety recommendations arising from the incident. In October 2012, a one and a half page summary was published, announcing an investigation. No further detailed information was published until 10 December 2015 – and this was the Summary of Facts submitted to the Magistrates Court of Victoria.<sup>24</sup> As this was a document prepared for court, it is not written in such a way as to provide advice to other operators or workers in the industry to prevent future incidents. No investigation was carried out by any other organisation that we are aware of, and if it was, NOPSEMA has not provided a link to it on their incident summary page. There was never a chance for any worker or their representatives to provide input into any investigation.

In November 2015, Stena Drilling was fined \$330,000 for breaching the breaching the OPGGS Act by failing to implement and maintain safe work systems.<sup>25</sup>

 <sup>&</sup>lt;sup>20</sup> Linda Jane Cutler v Stena Drilling (Australia) Pty Ltd (ACN 116 801 435), <u>AGREED SUMMARY OF FACTS</u>, p.8.
 <sup>21</sup> A detailed timeline is available in <u>Senate Standing Committee on Economics</u>, <u>ANSWERS TO QUESTIONS ON</u> <u>NOTICE</u>, <u>Resources</u>, <u>Energy and Tourism Portfolio</u>, <u>Supplementary Budget Estimates</u>, <u>18 October 2012</u>.

<sup>&</sup>lt;sup>22</sup> This information is from Kyle McGinn, who was a delegate and joint Health and Safety Representative on the Stena Clyde. He is currently a member of the West Australian Legislative Council and happy to discuss details of the incident with any interested parties.

<sup>&</sup>lt;sup>23</sup> Information from MUA member Kevin Bracken who was the Victorian Branch Secretary at the time. Michael Doleman is a retired MUA member who was also closely involved with this process as the Deputy National Secretary of the MUA.

<sup>&</sup>lt;sup>24</sup> The documents produced by NOPSEMA are collected here: NOPSEMA, <u>Major Offshore Incidents – Stena</u> <u>Clyde Fatalities</u>, Bass Strait, 27 August 2012.

<sup>&</sup>lt;sup>25</sup> Stena Drilling Australia fined over worker deaths.

The documents and investigation published by NOPSEMA are a wholly inadequate response to the incident. The actions taken by NOPSEMA in response to the deaths of Barry Denholm and Peter Meddens contrast sharply to the investigation into the death of Andrew Kelly, an MUA member also killed in the offshore oil and gas industry. Andrew Kelly was killed on 14 July 2015 on board the *Skandi Pacific*, an offshore supply vessel which was not under NOPSEMA's jurisdiction (although the vessel was located only 30m from the oil platform when Andrew Kelly was killed). As a result, the Australian Transport and Safety Bureau (ATSB) investigated the fatality and took the following actions:

- Published a detailed 38-page report on 23 November 2016 (16 months after the incident), including detailed timelines, photographs and diagrams. Multiple organisations, other vessel crew, and Andrew Kelly's next of kin were consulted in the preparation of the report, and the initial draft report was amended to reflect their input.<sup>26</sup>
- The report included safety recommendations to both the vessel operator and the wider industry.
- The ATSB published clear Safety Advisory Notice on the risks of working on open Stern OSVs on 26 November 2016, and distributed throughout the industry.<sup>27</sup>

In contrast to the actions of NOPSEMA, these actions by the ATSB had the effect of allowing family and vessel crew to be heard in a timely fashion, and have their views expressed in the official investigation and report. Other people working in the industry were also given a clear indication of safety lessons from the incident to be applied to their own workplaces.

Three years after the deaths of Peter Meddens and Barry Denholm on the *Stena Clyde*, under the jurisdiction of NOPSEMA, there was still no published report on the incident. Michael Borowick, Assistant Secretary of the Australian Congress of Trade Unions made the following comments:

"The families, friends and work mates of Peter Meddens and Barry Denholm have been waiting a long time to find out what happened to their loved ones on that terrible day in 2012."

"We are calling for Federal Government to overhaul NOPSEMA and replace it with a full service regulator who can act quickly to prosecute to ensure the reasons behind an accident are identified without this extraordinary delay."

"The ACTU is also concerned NOPSEMA is too close to the industry to act as an effective regulator."

"Without a full and independent investigation into such tragedies we cannot ensure other workers will not be exposed to similar dangers."

"Offshore safety legislation must be brought into line with national OHS standards – there is no justification for lower standards of protections for offshore workers."<sup>28</sup>

<sup>&</sup>lt;sup>26</sup> Australian Transport Safety Bureau, <u>Fatality on board Skandi Pacific, off the Pilbara coast, Western Australia</u> <u>on 14 July 2015</u>, 23 November 2016.

 <sup>&</sup>lt;sup>27</sup> Australian Transport Safety Bureau, <u>Fatality highlights risks on open stern OSVs</u>, 23 November 2016.
 <sup>28</sup> <u>Stena Clyde Tragedy: Continued Govt Inaction</u>, 27 August 2015.

## Debilitating diving injuries - DOF Subsea rapid descent

A saturation dive took place in late June 2017 in Australian waters. DOF Subsea blew a total of 15 divers down to a depth of 234 metres in two separate groups. It was the deepest occupational diving job in Australian waters. Since that time, some of the 15 divers have presented with symptoms of neurological damage, now known as high-pressure nervous syndrome (HPNS).

The dive was commissioned by Impex, who hired engineering company McDermots International who, in turn, hired DOF Subsea to perform the diving work. The DOF offshore supply vessel, the *Skandi Singapore*, departed from Broome to undertake the dive.

The work took place in the Ichthys gas field located in the Timor Sea, off the north-western coast of Australia. The task was to deal with some clamps and several dozen bolts that where failing.

NOPSEMA subsequently announced its autonomous Investigation Unit would make inquiries into the incident;<sup>29</sup> this is problematic as NOPSEMA's Regulatory Assessment division had given approval to DOF Subsea's Diving Project Plan.<sup>30</sup> DOF Subsea has since stated that the dive was conducted in accordance NOSPEMA's Diving Operations Manual.<sup>31</sup>

We were not able to find any information released about the incident from NOPSEMA, who say 'details of the specifics of an incident are not provided while the matter is under review'.<sup>32</sup>

As a result of these events, any confidence that offshore divers may have had in NOPSEMA's role as a regulator has been significantly eroded. Offshore divers are not confident in NOPSEMA as the safety regulator. They are not confident to report safety incidents to NOPSEMA, and are not confident in NOPSEMA's ability to enforce compliance.

## Ensuring safety in offshore renewables

In addition to ensuring a single harmonised WHS regulatory regime, some practical steps which can be taken to ensure safety in a new offshore renewables industry include:

- Industry stakeholders, including relevant unions, undertaking joint familiarisation with best practice industry operations in other locations, including consultation with local unions. Denmark should serve as a model.
- All projects must have a safety committee in place.
- All projects are required to ensure that Designated Work Groups are small enough that trained and empowered HSRs are in all work locations at all times.
- HSRs are protected by proper legislation, a supportive regulator, and the appropriate union. NOPSEMA and the OPGGS Act are not adequate.

<sup>&</sup>lt;sup>29</sup> NOPSEMA, <u>Media Reporting on Diving Incident</u>, 2 January 2018.

<sup>&</sup>lt;sup>30</sup> John Flint, <u>Australia's deepest ever commercial dive leads to brain injuries, mental scarring</u>, *Perth Now*, April 22, 2018.

<sup>&</sup>lt;sup>31</sup> David Foxwell, DOF divers suffering prolonged high-pressure neurological syndrome, *Offshore Support Journal*, 2 January 2018.

<sup>&</sup>lt;sup>32</sup> NOPSEMA, <u>Media Reporting on Diving Incident</u>, 2 January 2018.

• Danish safety codes of practice should be examined as a model, as they have been used over an extended period of time and workers and unions have been consulted in their development and operation.<sup>33</sup>

**Recommendation 1:** In order to avoid duplication of costs, overlapping regulatory regimes and regulatory uncertainty, the workplace health and safety of all work associated with offshore clean energy should be regulated by the *Work Health and Safety Act 2011* (Cth).

**Recommendation 2:** Recognising this is an emerging industry the heads of agreement act must ensure that the regulator appointed to regulate these activities has adequate resources, skills and knowledge in the inspection, regulation and prosecution under the Commonwealth WHS Act, and that this function is clearly delineated within that regulator so that flexibility is retained, allowing this function to be moved to a dedicated regulator at a future date.

**Recommendation 3:** Due to the lack of experience and knowledge within NOPSEMA of the Commonwealth WHS Act and their historical deficiencies with regards to workforce participation, tripartite governance, lack of timely investigations and reports of critical safety incidents, NOPSEMA should no be the regulator for the offshore clean energy.

**Recommendation 4:** Maritime safety legislation such as the Navigation Act or the OHS(MI) Act should not be disapplied at any point in the Offshore Clean Energy Bill. The relevant maritime safety legislation should apply to all vessels at all times.

<sup>&</sup>lt;sup>33</sup> Based on MUA discussions with a Danish union representing working in this sector (the Danish Meltalworkers Union Maritime Sector).

## PART II: Licencing process for offshore renewable energy

## Role of the Minister and Department

The framework the government proposes says that the 'Australian Government minister with responsibility for energy matters...will make all major decisions under the framework' (p.3).

We are concerned that this will lead to politicisation and delays of projects.

## Decommissioning bond

Offshore renewable developers will be required to lodge a decommissioning bond, 'expected to equal the amount it would cost government to decommission all infrastructure should the licence holder fail to meet its decommissioning obligations' (p. 6).

The Commonwealth government does not currently require offshore oil and gas developers to provide any form of financial security for decommissioning (they are only required to provide internal 'financial assurance'; the Victorian government has its own scheme).<sup>34</sup>

Such bonds would in effect be a tax on renewable developers that does not apply to oil and gas developers. It would be reasonable to say that renewable energy developers should not be made to put up a decommissioning bond's until oil and gas developers are also required to. The social imperative of rapidly reducing emissions from our electricity system also dictates that the construction of renewable energy should be encouraged and supported.

### Fit and proper person test

Renewable energy project proponents will have to pass a 'fit and proper person test' (p.7). The NSW government has complained that there is no such test in the OPGGS Act, and the phrase does not appear on the NOPSEMA website.<sup>35</sup>

Such a test must be carefully examined to ensure that it does not delay or prevent necessary developments. It seems odd to hold renewable energy operators to a high standard than oil and gas operators. The social imperative of rapidly reducing emissions from our electricity system also dictates that the construction of renewable energy should be encouraged and supported.

## **Ministerial Declaration**

We support the concept that the government should put forward and consult on the most appropriate areas for offshore renewables. However, this should take place based on a

<sup>&</sup>lt;sup>34</sup> Department of Industry Innovation and Science, <u>Discussion Paper – Decommissioning Offshore Petroleum</u> <u>Infrastructure in Commonwealth Waters</u>, October 2018, p. 39-44. Allens Linklaters also highlights this difference in <u>their summary</u>.

<sup>&</sup>lt;sup>35</sup> https://www.smh.com.au/environment/conservation/nsw-riled-by-lack-of-fit-and-proper-test-for-offshore-gas-venture-20180413-p4z9hr.html

comprehensive national scientific assessment, involving agencies such as ARENA and the CSIRO and in conjunction with AEMO's Integrated System Plan. It should not be based on the government waiting for individual private companies to approach them with their own particular projects, with consultation then taking place on a piecemeal basis.

The Department says that there will be a role for state governments in making this declaration, and this may be legally/constitutionally required as well.

## **Traditional Owners**

Traditional owners must be consulted in both the Declaration and licensing process.

## **Competitive Interest and Licencing**

Following a declaration of an area as suitable for offshore renewable energy projects, 'the minister 'may open applications to seek competitive interest in a declared area...the proposed regulatory framework provides for the publishing of the criteria and process for assessing competitive interest' (p.4).

The Department says that state governments can play a role in setting the criteria for assessing how different bids are accepted. They indicated that the legislation will include provisions for cash bids and for other criteria, and that policy at the time will determine what measures are used. None of this detail is currently particularised.

To the extent that a competitive bid process is used, the criteria should not be based on a cash bid process, but on the public interest, with measures such as:

- Level of local procurement and investment
- Processes in place to hire and train workers from the fossil fuel industry
- Apprenticeship programs, including for women and aboriginal workers
- The extent to which the project is integrated with the existing ISP
- The projects capacity to facilitate a rapid reduction in energy emissions
- Preference for projects to be operated by Commonwealth- or state-owed energy generators
- Assessment of an applicant's past performance and compliance with various legislative requirements, including in relation to:
  - OH&S laws including prosecutions, incidents, notifications and notices
  - workers compensation laws including an assessment against industry benchmarks
  - $\circ$   $\;$  industrial relations laws including the Fair Work Act
  - o corporations law
  - o taxation law

Enforceable minimum standards in these areas must also be in place for licenses.

### Safety zones

It is anticipated that a licence holder can apply to the regulator for a safety zone to protect infrastructure. Safety zones must not unduly limit other activities in the area, and should allow widespread access to recreational fishers.

## Commercial and non-commercial licences, and cost recovery

Having different structures and cost structures for commercial and non-commercial licences is reasonable. However, we question why there is a need for cost-recovery when there is such an urgent necessity to encourage the construction of renewable energy projects (p.5, p.7).

## Existing transmission infrastructure

It appears to us that the proposed licencing provisions wil impact on existing transmission infrastructure. We are unclear on why this is necessary. In any case, provisions should be made so this does not affect the existing WHS rights of workers on these projects.

## PART III: Building offshore renewables in Australia

## How to encourage construction of offshore renewable energy

There is an urgent need to build new renewable energy infrastructure to reduce emissions from our electricity generation system. The proposed framework means that the government sits back and waits for private companies and investors to prepare proposals to do this. This just isn't good enough. Government needs to play a much more active role in planning what projects are needed, making and facilitating investments where and when they are needed, and ensuring electricity is available to residents at an affordable price.

Commonwealth and state-owned generators such as Snowy Hydro and CleanCo could build offshore wind projects.

AEMO's Integrated System Plan for future transmission and generation development. needs to incorporate much more planning for offshore wind. AEMO's draft 2020 Integrated System Plan only includes a one offshore Renewable Energy Zone, which has been suggested by industry.<sup>36</sup> AEMO's assessment of renewable energy zones only considered onshore resources, as illustrated in the *Multi-Criteria Scoring for the Identification of Renewable Energy Zones*, prepared by DNV-GL for AEMO in April 2018. The ISP process should undertake a comprehensive review of the potential for offshore wind in its planned Renewable Energy Zones, and the MUA and ETU have made submissions to the ISP requesting such a review be undertaken.

Superannuation investment in offshore wind projects could be facilitated through government-issued bonds intended specifically to fund these projects, or a government superannuation agency.<sup>37</sup>

Australia should look to how offshore wind planning and construction is organised in Denmark, which pioneered and continues to lead the development of offshore wind energy<sup>38</sup> and an integrated approach to renewable energy transition.<sup>39</sup> Key aspects include:

- Offshore renewables are planned through the Danish Energy Agency (DEA run by the government's energy department) as part of the electricity system, completely separately from offshore oil and gas.
- The Danish Energy Agency has a tri-partite offshore wind committee (10 employer representative, 10 union representatives, 3 government representatives. There is a separate offshore oil and gas committee.<sup>40</sup>
- An investigation into the success of just transitions to renewable energy in Europe concludes that "In Denmark, one of Europe's leaders in terms of renewable energy,

<sup>&</sup>lt;sup>36</sup> Australian Energy Market Operator, <u>2020 Integrated System Plan</u>.

<sup>&</sup>lt;sup>37</sup> Trade Unions for Energy Democracy, <u>TUED Working Paper #10: Preparing a Public Pathway Confronting the</u> <u>Investment Crisis in Renewable Energy</u>, November 2017, p.61-63.

<sup>&</sup>lt;sup>38</sup> The first offshore wind warm in the world was built in Denmark in 1991. See also Danish Energy Agency, <u>Facts about Wind Power</u>.

<sup>&</sup>lt;sup>39</sup> Danish Energy Agency, <u>The Danish Energy Model</u>. Danish Ministry of Energy, Utilities and Climate, <u>Denmark:</u> <u>Energy and Climate Pioneer</u>, April 2018

<sup>&</sup>lt;sup>40</sup> Based on MUA discussions with a Danish union representing working in this sector (the Danish Meltalworkers Union Maritime Sector).

it is public ownership and control of the grid that made the transition towards renewable energy possible."<sup>41</sup>

- Grid connections for offshore wind projects are "planned, procured, installed, operated and funded by Energinet which owns, operates and develops the transmission networks for electricity and natural gas in Denmark."<sup>42</sup>
- Successful projects get paid a feed-in tariff from the DEA.
- These actions have been supported by government targets to increase renewable energy generation. The Climate Act passed in December 2019 strengthened existing commitments to set a new target to reduce GHG emissions to 70% of 1990 levels by 2030,<sup>43</sup> and this will result in another big renewable energy building boom.
- The government is systematically closing coal-fired power stations, and moving affected workers to other jobs.<sup>44</sup> Unions participate in government advisory groups on the transition process.<sup>45</sup>

In the UK, a detailed proposal has been developed to further increase the speed of investment in offshore wind farms, ensure local manufacturing and invest profits in coastal communities and further decarbonisation.<sup>46</sup>

New York State developed a comprehensive Offshore Wind Master Plan in 2018,<sup>47</sup> and in January 2019 declared a Green New Deal as part of the state budget, which includes building 9,000 MW of offshore wind projects by 2035. As part of this, the Climate Jobs New York union coalition<sup>48</sup> won a requirement for union agreements on prevailing wages on all offshore wind projects, as well as local procurement.<sup>49</sup> The state is also building an offshore wind training centre and will invest \$200 million in port upgrades.<sup>50</sup>

institute/news/state-commitment-wind-industry-workers-historic-skinner-says.

<sup>&</sup>lt;sup>41</sup> Vera Weghmann, <u>Going Public: A Decarbonised</u>, <u>Affordable and Democratic Energy System for Europe: The</u> <u>failure of energy liberalisation</u>, July 2019, p.52, 43, 47.

<sup>&</sup>lt;sup>42</sup> Stuart Smith, *Report by Stuart Smith, 2018 Churchill Fellow: To identify leading global practice in offshore renewable regulation for adoption in Australia*, July 2019, p.68. See also Weghmann p.47.

<sup>&</sup>lt;sup>43</sup> State of Green, <u>During COP25 Denmark passes Climate Act with a 70 per cent reduction target</u>, 9 December 2019.

<sup>&</sup>lt;sup>44</sup> Based on MUA discussions with a Danish union representing working in this sector (the Danish Metalworkers Union Maritime Sector).

<sup>&</sup>lt;sup>45</sup> Vera Weghmann, <u>Going Public: A Decarbonised, Affordable and Democratic Energy System for Europe: The</u> <u>failure of energy liberalisation</u>, July 2019, p.39

<sup>&</sup>lt;sup>46</sup> Fiona Harvey, <u>Labour unveils £83bn state windfarms plan before key climate vote</u>, 24 Sept 2019.

<sup>&</sup>lt;sup>47</sup> New York State Energy Research and Development Authority, 2018, *New York State Offshore Wind Master Plan*, see <u>https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-in-New-York-State-Overview/NYS-Offshore-Wind-Master-Plan</u>.

<sup>&</sup>lt;sup>48</sup> See <u>https://www.climatejobsny.org/</u>, and campaign document here:

https://www.ilr.cornell.edu/sites/ilr.cornell.edu/files/InequalityClimateChangeReport.pdf.

<sup>&</sup>lt;sup>49</sup> The Worker Institute, *State Commitment to Wind Industry Workers is Historic, Skinner Says*, 12 November 2018, Industrial and Labor Relations School, Cornell University, <u>https://www.ilr.cornell.edu/worker-</u>

<sup>&</sup>lt;sup>50</sup> New York State, *FY 2020 Executive Budget Briefing Book*, pg. 312-14, pg. 326-7, <u>https://www.budget.ny.gov/pubs/archive/fy20/exec/book/briefingbook.pdf</u>. New York State, 2019 Justice Agenda, 2019 State of the State Budget Address, <u>https://www.ny.gov/programs/2019-state-state-budget-address</u>.

## Offshore wind potential in Australia

Large offshore wind projects could provide savings by minimising the need for expansion of the grid. Projects can be built to a large scale with integrated storage and could be attached to the grid in the same places as current power stations (particularly those forecast to retire in the coming decade) therefore leveraging existing electrical substation infrastructure that may otherwise become unnecessarily redundant. Such potential benefits cannot be identified or planned for with the current focus on LCOE project-based costing to compare costs of different renewable energy technologies.<sup>51</sup>

Such projects could provide a real opportunity for a just transition for affected communities. 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 using floating offshore wind technology could be built off coastal NSW and plug into the Hunter Valley grid to reduce the impact of the closure of the Liddel power station, scheduled for 2023.

There has been a lack of research on the potential for developing offshore wind in Australia. 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 in Victoria, South Australia, West Australia and Queensland, but this research needs to be updated in light of the development of offshore wind technology that allows floating projects to be built in deeper waters, for example off the coast of NSW.<sup>52</sup>

<sup>&</sup>lt;sup>51</sup> The joint CSIRO-AEMO Gencost project has recognized the limitations of using LCOE cost for planning, and has planned to extend its work to include a more holistic analysis of the costs of transmission and balancing that are essential to higher-level planning of the future of the electricity system.

<sup>&</sup>lt;sup>52</sup> Eleonora Messali and Mark Diesendorf, 2009, 'Potential Sites for Offshore Wind Power in Australia', *Wind Engineering* 33(4): 335-348.

Figure 2: Potential sites for offshore wind in Australia.



**Source:** Wind strength from the IRENA Renewable energy map. Wind turbine sites fixed to ground are from Eleonora Messali and Mark Diesendorf, 2009, 'Potential Sites for Offshore Wind Power in Australia', *Wind Engineering*.

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, which are so far unpublished. 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.<sup>53</sup> In comparison, onshore wind projects have an average global capacity factor of 0.34.<sup>54</sup> 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).<sup>55</sup> 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 grid in 2014-15 was 252 TWh/yr.

In all parts of Australia, wind offshore is stronger and more consistent than wind onshore. This is vividly illustrated by the NSW wind energy map in Figure 3.

<sup>&</sup>lt;sup>53</sup> 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.

<sup>&</sup>lt;sup>54</sup> International Renewable Energy Agency, *Renewable Power Generation Costs in 2018*, p.19.

<sup>&</sup>lt;sup>55</sup> Mark Hemer, 2018, *Australia's offshore renewables: Where do the opportunities lie?* Presentation to Australian Ocean Renewable Energy Symposium, November 2018, p. 18.



Figure 3: 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 (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

# Appendix 1: List of Recommendations: Senate inquiry into the Work health and safety of workers in the offshore petroleum industry, August 2018

### Recommendation 1

3.44 The committee recommends that the *Offshore Petroleum and Greenhouse Gas Storage Act* 2006 be amended to provide for consistency with the *Work Health and Safety Act 2011* in regard to the rights, powers and entitlements of Health and Safety Representatives (HSRs), including but not limited to matters identified in paragraph 3.27 of this report.

### Recommendation 2

3.45 The committee recommends that the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) be required to maintain a register of offshore Health and Safety Representatives which includes:

- the HSR's name, position and contact details;
- the details of the training the HSR has undertaken in the previous 12 months;
- the employer of the HSR; and

- the work group the HSR represents.

#### **Recommendation 3**

3.62 The committee recommends the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* be amended to provide for:

- a requirement for consultation with the relevant unions in the development of the initial safety case;

- a requirement of a review of the safety case to take place with the workforce once hired (and before the commencement of operations, where possible);

- a requirement for HSRs to be provided with a copy of the safety case; including by remote online access; and

- an ability for an HSR to trigger a review and revision of the safety case in certain circumstances.

## **Recommendation 4**

3.73 The committee recommends that a right of entry for work health and safety purposes be established under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*, requiring:

- the operator of the facility to, as soon as possible, facilitate transport for the permit holder for right of entry purposes;

- the cost of transport for the permit holder for right of entry purposes to be recovered from industry by a levy revenue to NOPSEMA; and

- an ability for the permit holder to exercise entry for the purposes of inquiring into multiple suspected contraventions of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006,* including additional contraventions identified during the course of the entry.

### **Recommendation 5**

3.85 The committee recommends that *Offshore Petroleum and Greenhouse Gas Storage Act 2006* be amended to provide for consistency with the *Work Health and Safety Act 2011* in regard to a licensing system for workers performing high risk work.

#### **Recommendation 6**

4.26 The committee recommends that the *Offshore Petroleum and Greenhouse Gas Storage Act* 2006 be amended to provide for equal representation of industry and workforce participants on the National Offshore Petroleum Safety and Environmental Management Authority Board, with the latter representatives to be nominated by the Australian Council of Trade Unions.

#### **Recommendation 7**

4.56 The committee recommends that NOPSEMA carry out regular, unannounced inspections as part of its standard inspection regime.

### **Recommendation 8**

4.57 The committee recommends NOPSEMA and facility operators ensure that HSRs are present and fully engaged when NOPSEMA carries out its inspections by:

- requiring HSRs to accompany NOPSEMA inspectors on their inspections; and

- requiring NOPSEMA inspectors to meet separately and privately with HSRs during inspections.

#### **Recommendation 9**

4.77 The committee recommends that the penalties in the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* be significantly increased to bring them into line with best practice responsive regulation.

# Appendix 2: ACTU recommendations to the Offshore Resources Safety Review, August 2019.<sup>56</sup>

These 45 recommendations aim to close the gap between the harmonised WHS system and the OPGGS Act and NOPSEMA's role as a regulator. In some cases additional measures are required to reflect the remote and isolated nature of offshore work. Recommendations 38, 40, 43 and 44 reflect recommendations that have been made by the Boland review of the harmonised WHS system.

Recommendation 1: That the objects of Schedule 3 of the OPGGS Act be harmonised with the objects of the model WHS laws, particularly in respect to the workforce and their representatives.

Recommendation 2: That the OPGGS regime be amended to require consultation with the relevant unions in the development of the initial safety case.

Recommendation 3: That the OPGGS regime be amended to permit accredited HSRs and union officials to conduct a work health and safety inspection of facilities before commissioning.

Recommendation 4: That the OPGGS regime be amended to require a review of the safety case to take place with a new workforce once hired (and before the commencement of operations, where possible), to ensure the workforce understands the safety case, the hazards and risks they will be exposed to, and the control measures in place to manage them, and to provide for workforce input to continuous review of the safety case.

Recommendation 5: That the OPGGS regime be harmonised with the model WHS laws in respect of the ability of HSRs to trigger a review of a safety management-related document, including a safety case.

Recommendation 6: That the duties in OPGGS Act be amended to be consistent with those in the model WHS laws (including any amendments following the Safe Work Australia Review of the Model WHS Laws), except where objectively justified by reference to the high hazard nature of the offshore oil and gas industry.

Recommendation 7: That the OPGGS regime be amended to implement a licensing system for workers performing high-risk work, similar to that under the model WHS laws.

Recommendation 8: That consideration be given to mechanisms that would achieve better training standards and access for casual and labour hire employees.

Recommendation 9: That the OPGGS Act be amended to expressly define 'health' as 'physical and psychological health'.

Recommendation 10: That the Safety Regulations be amended to deal with how to identify the psychosocial risks associated with psychological injury and the appropriate control measures to manage those risks in the offshore oil and gas industry.

Recommendation 11: That the incident notification provisions in the OPGGS regime be reviewed to ensure that they provide a notification trigger for psychological injuries.

<sup>&</sup>lt;sup>56</sup> Australian Congress of Trade Unions, Offshore Resources Safety Review, Submission by the Australian Council of Trade Unions to the Department of Industry Innovation and Science, 9 August 2019, p.49-53

Recommendation 12: That consideration be given to circumscribing or regulating contracting arrangements to maximise job security in the offshore petroleum industry.

Recommendation 13: That consideration be given to mechanisms that would achieve better work health and safety standards and outcomes for workers in insecure forms of employment such as casual and labour hire, including additional training specific to those employment categories or roving HSRs to assist these types of workers.

Recommendation 14: That consideration be given to circumscribing or regulating rostering arrangements to ensure that workers are not away from their home and family life for extended periods and have sufficient rest time between roster periods; for example, by amending r 95 of the Safety Regulations to require minimum continuous and uninterrupted periods off work and away from the workplace.

Recommendation 15: That consideration be given to requiring a minimum handover period between shift change which must occur during the workers' normal working hours and rostered on period.

Recommendation 16: That the election process clause 26 of Schedule 3 of the OPGGS Act be amended to reflect s 61 of the WHS Act, to provide for workers in the offshore oil and gas industry with equivalent autonomy in determining the manner in which they elect an HSR.

Recommendation 17: That the OPSSG Act be amended to provide for a right for HSRs to attend to work health and safety business during work hours or while on a facility, including a requirement for the operator or employer to provide HSRs time to hold meetings and discussions with workers in respect of work health and safety matters during work hours or while on a facility.

Recommendation 18: That consideration be given to requiring a minimum handover period between HSRs and safety committee members between shifts, which must occur during the workers' normal working hours and rostered on period.

Recommendation 19: That NOPSEMA continue to lead and sponsor the HSR Forum annually.

Recommendation 20: That NOPSEMA establish an online portal for HSRs to communicate with each other confidentially.

Recommendation 21: That the NOPSEMA give consideration to ways to better promote its dedicated NOPSEMA inspector focal point and dedicated hotline number to HSRs.

Recommendation 22: That clause 40(1) of Schedule 3 the OPGGS Act be amended to address any deficiency relative to s 70(1) of the WHS Act.

Recommendation 23: That the OPGGS regime be amended to prescribe an initial period of training of up to five days and an entitlement to refresher training of up to one day per year.

Recommendation 24: That the OPGGS regime be amended to be consistent with the model WHS laws (including any amendments following the Safe Work Australia Review of the Model WHS Laws) in respect of HSR choice of training course and operator requirement to cover reasonable costs.

Recommendation 25: That the OPGGS Act be amended as necessary to ensure that the HSR Forum is accredited for the purposes of clause 30 of Schedule 3 of the OPGGS Act, and provision made for NOPSEMA or the employer or operator to cover the cost of travel and accommodation for HSRs to attend the training.

Recommendation 26: That the OPGGS regime be amended to be consistent with the model WHS laws in respect of HSR membership of the health and safety committee.

Recommendation 27: That the NOPSEMA be required to develop, in consultation with stakeholders including unions and HSRs, an HSR engagement policy.

Recommendation 28: That the OPGGS Act be amended so that the operator is required to maintain an up-to-date list of HSRs and to provide a copy to NOPSEMA as soon as practicable after it is prepared.

Recommendation 29: That the OPGGS Act be amended to require the list to also record the date on which the HSR was elected to the role and the date on which they completed the HSR training.

Recommendation 30: That the OPGGS Act be amended so that the list is required to be displayed at the workplace, in a manner that is readily accessible to the workers.

Recommendation 31: That the OPGGS regime be amended to require HSRs to accompany NOPSEMA on their inspections and to require NOPSEMA inspectors to meet separately and privately with HSRs during inspections (i.e. without the operator or employer or their management representatives present).

Recommendation 32: That the OPGGS regime be amended to be equivalent to the WHS Act regarding consultation with, and participation of, the workforce, and that practical guidance be developed to assist duty holders to fulfil these additional consultation duties.

Recommendation 33: That clause 35 of Schedule 3 of the OPGGS Act be amended to make it clear that the consultant can be a union official, and that consideration be given to how to achieve the policy intention that a union official accessing a workplace to provide assistance to an HSR is not required to hold an entry permit under the Fair Work Act 2009 (Cth) or another industrial law, taking into account the interaction between Commonwealth, state and territory laws.94

Recommendation 34: That the OPGGS regime be amended to provide for a union right of entry for work health and safety purposes, consistent with the model WHS laws (subject to any modifications following the Safe Work Australia Review of the Model WHS Laws and the further modifications outlined below).

Recommendation 35: That any right of entry for work health and safety purposes established under the OPGGS Act provide for:

• the operator of the facility to, as soon as possible, facilitate transport for the permit holder for right of entry purposes;

• the cost of transport for the permit holder for right of entry purposes to be recovered from industry by a levy revenue to NOPSEMA; and

• an ability for the permit holder to exercise entry for the purposes of inquiring into multiple suspected contraventions of the OPGGS Act, including additional contraventions identified during the course of the entry.

Recommendation 36: That the OPGGS regime be amended to require that the workforce be given a copy of the safety case, including by confidential remote online access.

Recommendation 37: That the OPGGS Act be amended to provide for equal representation of industry and workforce participants on the NOPSEMA Board, with the latter representatives to be nominated by the Australian Council of Trade Unions.

Recommendation 38: That the OPGGS Act be amended to provide for an issue resolution process consistent with the model WHS laws (subject to any modifications following the Safe Work Australia Review of the Model WHS Laws).

Recommendation 39: That unions to be given standing to commence prosecutions for contraventions of Schedule 3 of the OPGGS Act.

Recommendation 40: That guidance be developed with examples of health and safety committee constitutions, agendas and minutes.

Recommendation 41: That NOPSEMA carry out regular, unannounced inspections as part of its standard inspection regime.

Recommendation 42: That the OPGGS regime be amended to require duty holders to notify NOPSEMA when a vessel facility is going to be used for a relevant purpose defined under the OPGGS regime, to facilitate compliance monitoring.

Recommendation 43: That the penalties in the OPGGS regime be significantly increased, in line with best practice responsive regulation (and at least in proportion to any increases in the model WHS laws).

Recommendation 44: That the OPGGS Act be amended to provide for a new offence of industrial manslaughter. The offence should provide for gross negligence causing death and should reflect as closely as possible any similar offence that is introduced into the model WHS laws.

Recommendation 45: That consideration be given to whether there should be increased penalties in the OPGGS Act for larger businesses or repeat offenders. This consideration should take account any similar consideration in respect of the model WHS laws.

### Appendix 3: Complex coverage of the OHS (Maritime Industry) Act

Provided to the MUA by the Australian Maritime Safety Authority.

