



Department of Climate Change, Energy, the Environment and Water
Ngunnawal Country
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To the Offshore Renewable Energy Team

Hunter Consultation Offshore Renewable Energy

Thank you for the opportunity to comment on the future offshore renewable energy projects in the off Hunter, NSW. Offshore Wind Farms will have direct and indirect economic, ecological and social impacts to the commercial fishing industry throughout Australia and that is why the Professional Fishers Association (PFA) is responding to this proposal.

PFA is the industry body representing the interests of our Commercial Fishers licensed to operate in New South Wales.

As stated in the summary information provided by the Department of Climate Change, Energy, the Environment and Water (DCCEEW) as part of this public consultation process, future offshore renewable energy projects must share the area with other users and interests. However, in Australia at this stage the development of this new industry is progressing without developed regulations, frameworks, policies and procedures to formally address how this sharing will occur. These regulations, frameworks, policies and procedures need to address the spatial conflict and access with marine users, human safety: risk and liability, habitat/property damage: risk and liability, diminished economic opportunity and ecological resource impacts.

PFA has undertaken some assessments of overseas models and the suggestions of co-existence model in theory seems like the right thing to do, however achieving balanced outcomes is very difficult to implement. PFA strongly recommends that the following key points are considered in the first instance:

1. As part of the pre-assessment stage prior to the release of areas, spatial and temporal analysis of the impacts to the commercial fishing should be undertaken and high productive areas excluded to minimise risks to the fishing industry, and minimise the loss of important habitats and aquatic species.
2. The NSW fishing industry, through the PFA, also needs to be consulted at the pre-assessment stage, prior to public release, when the offshore renewable team seeks comments from government agencies. This will assist the decision-making process and provide a level of transparency to the broader community.
3. Consultation needs to be proportionate to stakeholder commercial interest and not “consultation shopped” by finding unimpacted stakeholders and then planning areas for release in line with the opinion that suits a specific plan.

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4. Cumulative impact assessment must also be analysed during the pre-assessment stage to consider how existing marine users can operate if large areas of waters are already surrounded by marine parks or if the area covers the same footprint as a species distribution range.
5. Policy development needs to include the requirement for a binding agreement between proponents and key stakeholders such as commercial fishers to ensure that negative impacts on existing users are minimised and the exploration, construction, operational and decommissioning activities lie within an agreed framework for the life of the project.
6. There needs to be improved transparency in policy decisions and how decisions will be made when an existing marine use takes priority over another. For example, if no windfarms are permitted in marine parks or shipping lanes etc, then a large section of water is already unavailable for offshore renewable energy.
7. A framework and working model of co-existence needs to be developed, established and agreed upon. This will ensure consistency across Australia and assist the commonwealth in managing a range of competing marine users' interests.

Impact to commercial fishing

The NSW commercial fishing industry contributes more than \$436 million in revenue annually and accounts for around 3,300 full-time jobs. This includes the fishers, service industries, sales and marketing. Tourism and hospitality also benefit as local wild-caught fish, crabs, lobsters and prawns are menu favourites among tourists and locals. Commercial fishers, wholesalers, processors and retailers, work together with the restaurant and catering industry to supply fresh seafood to communities across the State, as well as to interstate and overseas markets.

The current proposed location off Hunter sits within a highly profitable fishing ground for Fish Trawl, Prawn Trawl, Ocean Trap and Line Fisheries and the lobster Fisheries.

These fishing areas feed into the Newcastle's Commercial Fishermen's Cooperative (the largest seafood cooperative in NSW) and into Ulladulla Fishermen's Cooperative, and the Sydney Fish Market. Removal of the grounds that supply these cooperatives will lead to their shutdown (pers. Comm. Mr. Gauta, General Manager of Commercial Fishermen's Cooperative) and significantly impact the Sydney Fish Market and supply of seafood into NSW and Australia.

Our industry wishes to work with the Commonwealth Government to address these issues but, at this point in time, there is very little information regarding the location of the connecting cable(s), the exact size and location of the windfarm(s), their operational configurations and their numbers. Without this information it is difficult to provide comprehensive information. That being said, any cable crossing Stockton Bight would devastate the local Co-op and fishers in Newcastle.

Direct industry impacts from the proposed location include:

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- Tonnage harvested from the proposed area changes from year to year and is seasonal. An estimate of catch would be 50 to 100 tonne per 100km² p.a.
- The Hunter region is a major source of Sydney Fish Market's seafood. CFCL supplied SFM approx. \$7.7mill or 836 tonne of product in the 2022 financial year, which represents around 60% of total catch. Several of the primary target species caught in the Hunter region (including tiger flathead, school prawns, king prawns, and whiting) have consistently been among SFM's top 20 species with the highest sales by volume and value since 2007 (SFM Annual Reports). The Sydney fleet includes four vessels with licences in the Northern Fish Trawl fishery that consistently catch their allocated quota in the proposed region and directly supply SFM. By reducing the size of these fisheries' fishable region, it will likely impact SFM's ability to source some of their top selling species.
- CFCL employs over 50 staff, which doubles over the Christmas period. The secondary employment from suppliers, buyers and other industry connections is countless.
- The location and sheer size of the Hunter wind farms will remove 1/3rd of the Northern Fish Fleet Grounds and the majority of the Tiger Flathead Grounds. This will effectively remove access to the protein source. The largest Quota holder for Tiger Flathead in the Northern Fish Trawl, caught mainly in the proposed area, fishes out of Newcastle. The proposed location and size of the Hunter windfarms will reduce the fishable area by a possible 100%.

Certainly, through the initial information and discussion held to date, there are significant differences in impacts dependent on the location of the connecting cable, whether it is buried, the location of the windfarm plants, shape, size and exclusion zone. In addition, international experiences have demonstrated that the sheer impact of the construction faces can also have a major impact on the local marine ecosystems and therefore reliant industries.

A more preferable option would be to move the proposed location for the offshore windfarms southwards into a pre-existing fishing closure, such as the Telstra closure line at Barrenjoey Point. The industry is willing to negotiate, but it is important to recognise the significant supply of fresh local seafood, a highly valuable protein source, that the Hunter region produces that is then sold across the country and internationally. It is therefore essential to place the windfarms into areas with no or minimal fishing effort.

It is also essential for future negotiations to be conducted through an agreed protocol to ensure that the PFA, NSW SIC and Commercial Fishermen's Cooperative are involved in all discussions. The PFA is aware of previous attempts to negotiate directly with impacted fishers – These tactics are detrimental to both the individual fishers and the seafood supply chain.

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Future energy proponents are using the EPBC Act referral process to influence the area declared, and that should not be allowed to occur. Given that NOPSEMA and the Offshore Renewable Energy Team have published the process and clearly stated that “proponents should exercise caution in planning and referring proposed projects under the EPBC Act where the proposed project location has not been declared under the OEI Act, future energy proponents are still proceeding. This is utilising valuable resources from the commercial fishing industry in undertaking assessment for proposal that may not go ahead and/or that may not go ahead for years making the EPBC Act referral process seemingly out of date.

The recently released two-year research project funded by the FRDC and its research partners: the University of Technology Sydney, the University of Wollongong, ENVision Consulting and Western Research Institute, aimed at evaluating the wide-ranging social and economic contributions that the commercial wild-catch fishing industry makes to NSW coastal communities. A copy of the report can be found at <https://www.uts.edu.au/about/faculty-arts-and-social-sciences/research/projects/valuing-coastal-fisheries>. Findings from the independent UTS “Valuing Coastal Fisheries Project” found:

- 94 per cent of the general public in NSW believes it is important that seafood continues to be produced in NSW
- 96 per cent believe buying local seafood is better for the local community
- 89 per cent of NSW residents expect to eat fresh local seafood when holidaying on the coast, 76 per cent say it is an important part of their coastal visit experience
- 60 per cent of professional fishers have helped out with search and rescue operations in estuaries and coastal waters
- 78 per cent of recreational fishers across the state prefer local bait

If coexistence doesn’t strike the right balance, then the windfarm industry effectively is taking away the fishing rights already granted by the NSW and Commonwealth Government.

Fishing rights have been traded amongst industry in the belief that they have a legal right to exist in the marine environment. Coexistence as stated above is not easy to implement, for example the literature suggests that anchor drop, anchor drag, pot placement and trawling are not compatible with offshore marine windfarm infrastructure. A framework and working model of co-existence needs to be developed, established and agreed prior to the release of any areas, and should be included in the pre-assessment stage.

Impact to ecosystem

This project will impact the benthic communities and habitats, coastal processes, marine environmental quality, marine fauna and marine users. The proposed location for the project supports important habitats and is a highly productive area for commercial finfish species such as flathead, lobster, shark and suites of mollusc and finfish species. Impacts from this proposal and other similar proposed throughout Australia will have significant cumulative impacts.

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A paper by Harsanyi, P. et al (2022) has shown that electromagnetic fields from offshore windfarms impacted lobster and crustaceans at developmental stages which resulted in a significant difference in egg volume, larval deformities and reduced swim speed. Electro sensitivity is also well known for elasmobranch fishes, some bony fishes and some decapod crustaceans, as studies suggest that EMFs cause behavioural effects in marine organisms. Given the scale of the proposal, the impacts from this project are likely to have population level impacts for a range of aquatic species and the livelihoods of commercial fishers who rely on those areas to fish.

Offshore windfarms increase ocean noise and introduce electro-magnetic fields that impact on navigation, predator detection, communication and the ability for fish and shellfish to find mates. Research has demonstrated that offshore wind farms can negatively affect marine mammals, both during construction and operation stages. The physical presence of turbines, the noise during construction, the underwater noise as well as boat and helicopter traffic can disturb mammals causing them to avoid wind farms.

Research (Nils Christiansen et al., 2022) proved that wake turbulences—air vortices caused by wind turbines—change the flow and stratification of the water beneath them. But the climate just above the sea surface is also being permanently changed, as another team led by Dr. Naveed Akhtar (2021) was able to show. The latest study, led by Dr. Ute Daewel, now confirms that these impacts also lead to an altered spatial distribution of marine ecosystem components. This includes the distribution of nutrients, phyto- and zooplankton as well as biomass in the sediment, the food basis for many bottom-dwelling organisms. (Daewel et al., 2022)

Studies of the North Sea Wind Farms have already proven wind changes would lead to a local modification of the primary production of phytoplankton by up to +/- 10%. And this not only in the wind farm areas themselves, but also distributed throughout the southern North Sea. This means that even if the total production in the region changes only very slightly, there is a spatial redistribution of production. This also has consequences for the distribution of zooplankton—the food basis for many [fish species](#). Fish early life stages in particular are often dependent on the availability of zooplankton "at the right time in the right place." (Ute et al., 2022)

Studies overseas have also shown that the electro-magnetic cables do directly disrupt animal behaviours (Scott et al., 2021). For example, Brown crabs (the UK's second most valuable crustacean catch) can't resist the electromagnetic pull of underwater power cables and it's changing their behaviour. Dr Alastair Lyndon, from Heriot-Watt University, said about the study: "Underwater cables emit an electromagnetic field. When it's at a strength of 500 microTeslas and above, which is about five percent of the strength of a fridge door magnet, the crabs seem to be attracted to it and just sit still. That's not a problem in itself. But if they're not moving they're not foraging for food or seeking a mate. The change in activity levels also leads to changes in sugar metabolism - they store more sugar and produce less lactate, just like humans. <https://www.hw.ac.uk/news/articles/2021/underwater-cables-stop-crabs-in-their-tracks.htm>

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Other users in conflict

Not only will the windfarm proposals remove ocean trawling, offshore trapping and line operations, but the proposal places the station in heavy traffic areas for container ships. The Ulladulla to Newcastle offshore region has the heaviest density of container ship and cruise line traffic on the East Coast of Australia – arguably the busiest port in Australia. Already the area has seen significant maritime accidents such as 2 separate incidents of a large amount of lost containers etc. As well as the failed Kingfish sea cage farms off Port Stephens.

The area is also in the migratory path of important species such as southern right whales (one of the most endangered large whale species in the world) and humpback whales.

Commercial Shipping is a significant factor in the proposed area. This proposal will inevitably change the path and direction of shipping which will also have an effect on commercial fishing, that cannot be quantified at this time.

Cumulative Impacts

In the pre-assessment process, it is vitally important that the cumulative impacts are considered and addressed. Given some policy decisions are already defined such as no wind farms can be placed in marine parks, commonwealth and NSW state waters already are heavily constrained.

Transparent assessment of the cumulative impacts should inform decision makers when a limit has been reached. Like other important industries, areas important for food security and the commercial fishing industry, should be protected from wind farms. Offshore renewable energy in the marine environment, unless managed and assessed carefully to find the right balance, poses a significant risk to the commercial fishing industry (jobs, regional economies and food security), habitats and aquatic species.

Compensation

Compensation models for the commercial fishing industry should be the last model utilised in this process. However, it is important that this model has consistencies across Australia and that the outcome is fair, independent, transparent, and equitable. Similar to the above, it should also be developed ahead of any area released. These things can't be left to the Management Plan process, after a feasibility licence has already issued, as marine users may be left trying to negotiate with an energy proponent that can simply say no.

In addition, compensation must be considered for post-harvest and flow on businesses. The area of impact, as previously stated, includes at least 2 commercial fishermen's cooperatives – with the likely closure of the largest and most viable east coast fishermen's cooperative if the current proposal was to proceed, as well as impact to the flow-put of the Sydney Fish Market.

Transparency on the pre-assessment process and policies, should be released as part of public comment period to ensure that the Australia community can understand how these areas are been established. When these processes are hidden within Government, it

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creates unnecessary conflict and a perception of mistruths. The PFA recognises the importance of establishing a renewable energy sector, we just need to take the time to get policy, frameworks and processes in place upfront.

For the Hunter region, with the proposed location for projects supporting important habitats and is a highly productive area for iconic species such as tiger flathead, lobsters and a suite of demersal species. The Tiger Flathead trawl fishery and Lobster fisheries are some of the most valuable fisheries in NSW, so the impacts from the proposals in concentrated area will have significant cumulative impacts and place significant ecological, economic and social impacts to the fishing industry.

Consultation conditions

As a major stakeholder to this process, the PFA is overwhelmed by the sheer amount of engagement and consultation that will be required for these four potential sites. Already fishers from Newcastle, Ulladulla and Eden have contacted the PFA expressing their concern over the impact and loss of fishing grounds that the proposed sites will have on them.

Understanding the information needs, concerns and aspirations of our fishers affected by these proposals is an important component of early and effective community engagement in this process. The PFA is tasked to represent our members and work in the best interest of our seafood community, however the sheer scale of the proposals and our industry engagement needs cannot be met with our existing resources. As a non-for-profit organisation that is funded through voluntary membership, we are unable to provide the resources to meet this task.

However, to not do so would be a failure in meeting the consultation needs of these proposals and needs of our industry to engage in this process. Commercial fishers and other stakeholders have material concern regarding these impacts on the commercial fishing activity, the commercial fishing resource, the food chain and the general marine environment. The process for establishing windfarms is extensive and requires comprehensive consultation. It is NOT an online consultation process. It requires direct engagement with industry.

After the review of public submissions in the initial consultation process, if the Minister is satisfied that an area should be declared, then an area off the coast in Commonwealth waters will be designated with an invitation for submissions from offshore wind developers to apply for a Feasibility Licence. After which, if successful, a Feasibility Licence will allow a company/s exclusive exploration right over its chosen site, which will be an area approximately 500-700 km². These companies will then undertake activities such as environmental surveys, geotechnical investigations, fisheries studies, wind resource studies, engineering design and detailed assessments of key infrastructure in the region for manufacturing and logistics. There are several companies that are interested in putting forward proposals – all requiring engagement with our industry to capture our issues and negotiate solutions.

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Engagement with the fishing industry, and other local industries, will be a critical part of this phase – this requires significant and extensive in-depth consultation with our industry. Of which, the PFA is not adequately resourced to undertake. Effective and ongoing stakeholder engagement enables better planned and more informed policies, projects and services including a greater understanding and management of issues and potential risks. It is to ensure adequate engagement of our industry in these proposals that we seek assistance and support from the Minister for Climate Change and Energy. PFA would like to take the lead in a coordination role for consultation with our industry in going forward but will need resources to do so. We seek assistance from the Federal Government to meet our industry needs.

To be able to engage with commercial fishers and coordinate consultation, the PFA would need to employ a full time Project Officer/s. The position would be required to coordinate meetings and regularly travel amongst fishers in central NSW to southern NSW to consult. As we understand that the full consultation process would run for 6 years up to 2028 and based on salary, travel/accommodation, meeting costs, support and material services we would require \$205,000 per year for the 6 years.

Without this support, the PFA would be unable to meet the consultative requirements of such as significantly important process that has major impacts to our industry in NSW.

In summary, PFA welcome ongoing engagement with the Offshore Renewable Energy Team to ensure the right balance is achieved upfront for offshore wind farms.

Kind Regards

Tricia Beatty

Chief Executive Officer



Relevant Literature

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