

Strategic Fleet Consultation

Personal Submission by Mick Handcock, Chief Engineer, M.N.I.

In support of:

Offshore Windfarm Construction and Support Vessel Proposal

[Link To Strategic Fleet Consultation Terms of Reference](#)

Based on the authors reading of the Strategic Fleet Enquiry TOR, the enquiry might consider looking at the potential future inclusion into strategic fleet operations a wind farm construction vessel, as a part of the Strategic Fleet. Examining this proposal could be justified using the following excerpts from the consultation Terms of Reference:

Consultation Term of Reference Point:

2a. Preferred composition – Although the industry and government discussions are based on the need for a number of what might be termed “traditional” cargo vessels to answer Australia’s sovereign requirements for a strategic fleet, the authors position is this might be considered restrictive. In reporting to the Government about the potential scope and type of vessels that might make the strategic fleet, it is felt that a future Australian flagged wind farm construction vessel would be a positive step change towards the future and thus might be considered.

2c. Industries likely to use the fleet – The wind farm industry is nascent in Australia, but has very significant growth potential. Some 40 GW of wind farm energy is potentially being considered at a range of locations around the southern coasts of Australia and its states. Entering and potentially controlling a section of this growth market in Australian waters with an Australian flagged wind farm construction vessel would signal to the public and the world that Australia and its Government mean business in this industry, whilst potentially attracting investment and significant return to Australia and its people.

2g. Workforce issues – By looking at a future Australian flagged windfarm construction vessel, the enquiry could consider the significant benefit to the maritime industry across the workforce and its skill base. These highly technical vessels, if flagged and operated by Australian seafarers will allow a future continuous development of the workforce skills base in highly technical areas over and above the operation of traditional cargo vessels of all types and trades.

2i. Supporting industry development/trade diversification/reducing carbon emissions – in the Authors opinion all of these points from the terms of reference of the enquiry are worthy of discussion with regard to a potential Australian flagged wind farm construction vessel.

Copenhagen Energy / Leeuwin Offshore Wind Farm¹

1. In writing this submission I have referred to the proposed Leeuwin Offshore Wind Farm by Copenhagen Energy but the submission should be reviewed considering all of the proposed wind farm developments currently under feasibility consideration or development around Australia.
2. The status of the Leeuwin Offshore Wind Farm is that it is currently under early development and out for technical feasibility and further development. Copenhagen Energy are stating that construction should begin in 2026.
3. Current proposal description documentation states that the project “. includes the installation of up to 200 wind turbines, each up to 25 MW.”²
4. The documentation also mentions “Up to 6 Offshore Substation Platforms.”³
5. Further there is a stated proposed requirement for “Substructures and associated seabed foundations for turbines and platforms” and “Inter array cables” and the “Offshore Export Cable.”⁴
6. The project has a proposed maximum project life of 50 years⁵ including a Construction phase being “...nominal 36-month period commencing in 2026 and ending in 2028,”
7. To facilitate the preparatory works and construction of this massive project will require extensive floating self-propelled assets and over the 50-year lifetime of the project.
8. Some of these same assets will be required to service and maintain the assets and at project end be heavily involved in de-commissioning, removal and rehabilitation of the seabed
9. The opportunity exists to leverage off this proposal and operate (potentially build) Australian flagged and operated specialist tonnage.
10. The tonnage could be Government constructed and owned and leased over the life of type to the wind farm operators or Government assistance and backing could be extended to either a wholly Australian private operator or any of the number of Public Private Partnership (PPP) models.
11. With all of these models there are reasonable expectations of significant return to the Australian taxpayer, in the form of Australian jobs and training for jobs, coupled with excellent optics related to commitments to engage in Green Energy proposals, whilst simultaneously assisting to fulfill the needs of Australia with regards to the Strategic Fleet.
12. Further, with possible Australian tonnage construction and operation, and government support, this possible program dovetails with Defense needs and plans for increased/improved Australian Industry Capability in support of the national shipbuilding plan.

¹ [Proposal Description Document](#)

² The Proposal includes the installation of up to 200 wind turbines - [Ibid](#)

³ Up to 6 Offshore Substation Platforms – [Ibid PP2](#)

⁴ Offshore Export Cable - [Ibid](#)

⁵ Up to 50 years (with repowering) – [Ibid PP3](#)

Proposed Vessels

1. Several wind farm installation and service vessels have been constructed or are already under construction to service this multi-billion-dollar international industry
2. In 2020 there were known to be just 16 of these vessels and this fleet is currently expected to “expand to 23 vessels by 2023, of which 7 can handle the largest turbines.”
3. Wind farm construction and service vessels constructed to date have been typically a self-elevating (jack up) design with several propulsion thrusters to transit to the location/field and maintain position (dynamic positioning) during jacking up or keeping position whilst motion compensating crane (s) are used to position and construct wind farm infrastructure including the turbine towers.
4. For these vessels, common propulsion power is provided by internal combustion engines, some of these are powered by diesel fuel, others are proposed to be powered by a variety of greener fuels including LNG/ammonia and in the future, potentially hydrogen.
5. In the author’s opinion, with the right R&D involvement, a modern Wind Turbine Installation Vessel (WTIV) operational power plant green operation profile capability could also benefit / be enhanced by the installation of battery power, and the entire propulsion plant could also be designed and built with the lowest carbon footprint aspect possible as an operational design intent.
6. Links to information and some specification sheets of in-service vessels:
 - a. [Seajacks Scylla](#)
 - b. [Seajacks Zaratan](#)
 - c. [Charybdis](#)

Maritime Workforce and Training Benefits

1. If this proposal is considered there are significant potential benefits to the Australian and states workforces including the creation of jobs and the opening up of ongoing and long-term highly technical engineering and maritime operation type employment and training opportunities.
2. First, if the bold move to begin a construction program here in Australia was undertaken, there is R&D roles as well as Maritime Design and Engineering as well as construction opportunities generated. Included in this would be higher education STEM places and benefits.
3. Secondly, during offshore windfarm construction, operation, maintenance and decommissioning phases, marine crews from the three maritime sectors (Engineers, Deck and Crew – at least) are required – these could come from or be developed from the national current and future workforce.
4. Obviously, a benefit from the employment opportunities is a return to the public in the manner of tax receipts from employment of Australian nationals rather than the likely loss of this revenue to overseas government and corporations.

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“We choose to go to the moon in this decade and do the other things not because they are easy, but because they are hard. Because that goal will serve to organize and measure the best of our energies and skills, because that challenge is one that we’re willing to accept.” Moon Speech – September 12 1962 – President John F. Kennedy