Gippsland Offshore Wind Farm Marine Survey Investigations

Application Number: 01984

Commencement Date: 24/08/2023

Status: Locked

1. About the project

1.1 Project details

1.1.1 Project title *

Gippsland Offshore Wind Farm Marine Survey Investigations

1.1.2 Project industry type *

Energy Generation and Supply (renewable)

1.1.3 Project industry sub-type

Wind Farm

1.1.4 Estimated start date *

01/02/2024

1.1.4 Estimated end date *

31/03/2032

1.2 Proposed Action details

1.2.1 Provide an overview of the proposed action, including all proposed activities. *

Orsted Offshore Australia 1 Pty Ltd (Ørsted) are proposing the construction and operation of the Gippsland Offshore Wind Farm Project. The proposed offshore wind farms (OWFs) are Ørsted's contribution to providing clean energy and green growth to the region. Ørsted is proposing two adjoining offshore wind farms known as GIP01 and GIP02 (the Project). The key components of the Project include:

- Wind turbines, inter-array cables an offshore substations (Offshore Transformer substation (OSS) and Reactive Compensation Stations (RCS) in the ocean off the south coast of Gippsland).
- Subsea cables to connect the wind farms to the Gippsland coast.
- Transmission lines and onshore substations.

This EPBC referral is intended to cover the marine field investigations that include:

- the marine geophysical (GP) and geotechnical (GT) surveys to be undertaken within the offshore marine environment. This will inform the impact assessments and approvals for the Project as well as the engineering design for the Project.
- the marine surveys required to inform the impact assessments.
- wind measurement surveys using Floating LiDAR (buoy/uncrewed surface vessel (USV)) to establish turbine locations for optimum Annual Energy Production (AEP).

Marine surveys are expected to commence once a feasibility licence is gained for the project and continue over a two-year period at various times of the year with a focus on collecting summer and winter season data and key species activities (i.e. breeding, migration). Geophysical and geotechnical surveys may span up to a eight-year period, with reconnaissance surveys occurring within the initial three-year period to support the submission of the impact assessment report to DCCEEW and detailed surveys occurring in the remaining five years of this eight-year period to provide information for Project construction.

The wind turbines and offshore substation are located in an area of approximately 140,000 ha (1400 km²), (the Project Area).

The marine Survey Area (refer to Attachment 1 – Gippsland Offshore Wind Farm Marine Survey Investigations EPBC Referral Area) includes the Project Area plus a larger survey area and a buffer area. The Survey Area, which is 830,100 ha (8301 km²) including buffer area, is significantly larger than the area required for turbines (Project Area); this is to accommodate potential cabling alignments which are yet to

be confirmed. This area will be refined as the Project development progresses.

The following specific activities are proposed (a summary can be found in **Attachment 2 – Gippsland Offshore Wind Farm Marine Survey Investigation Plan, Section 3, pp 13-16**):

- Geophysical Surveys (GP): The site and export cable route GP campaigns will provide input to concept and planning of future surveys as well as identifying possible geohazards. These surveys are undertaken to investigate the optimal type of landfall solution e.g., Horizontal Directional Drilling (HDD), micro-tunnelling, or trenching. Due to the likely presence of cemented sediments or calcarenite the GP survey may include an optional seismic refraction component. Refer to details in Section 5.2, pp 22-23 of the above attachment.
- Geotechnical Surveys (GT): Data from the site and ECR geotechnical surveys will provide representative geotechnical parameters for site specific soil unitisation and integrated with the GP reconnaissance data to form the ground model of the site. Refer to details in Section 5.3, pp 24 of the above attachment.
- Marine Baseline Surveys: The marine baseline monitoring program is being developed and expected to include targeted surveys of:
 - Benthic habitat and communities (reef and soft sediment). Refer to details in Section 6, pp 25-26 of the above attachment.
 - Surveying of shellfish and fish, using a range of methodologies, such as eDNA sampling and trapping. Refer to details in Section 8, pp 32-38 of the above attachment.
 - Remote underwater video based quantification of fish communities.
 - Species specific targeted surveys (e.g. cetacean and other marine megafauna, seabirds, shorebirds) using boat based, aerial and/or acoustic techniques. Refer to details in Section 8, pp 32-38 of the above attachment.
 - Collection of water quality and sediment quality data. Refer to details in Section 7.2-7.3, pp 29-31 of the above attachment.
 - Underwater noise. Refer to details in Section 9.4.2, pp 44 of the above attachment.
- Wind Measurement Surveys: This will be done using a Floating LiDAR (buoy/USV) campaign at 2 different locations within the survey area. It is proposed to use an uncrewed surface vessel (USV) to carry out measurements for the Project. The proposed USV is Ørsted's wind USV; a robust, remotely supervised vehicle that was designed for long endurance operations at anchor for metocean measurements. Refer to details in Section 7.1, pp 30-32 of the above attachment.

The surveys will be carried out in a staged approach and are expected to last over 8 years. The initial stage will gather preliminary information at a high-level before more detailed surveys are carried out later. It is expected that once these surveys are carried out, Ørsted will be able to resolve key risks and make progress on relevant designs related to wind farm foundation (choice, design and installation), offshore substations and cables (design and installation), as well as confirm the Project area.

Geophysical survey methodologies are summarised below:

- MultiBeam EchoSounder (MBES): utilised for seafloor mapping (bathymetric data).
- Sub-Bottom Profiler (SBP): to image sub-seabed geology (soil units) down to approximately 100 metres below the seabed.
- Sparkers/boomers: sound sources used to understand sub-seabed geology down to approximately 10 metres below the seabed.
- Magnetometer (MAG): used to detect shipwrecks, debris or other buried objects (which has metal content).
- Seabed Imaging Sonar (SIS): used for seafloor imaging for seabed classification and to detect objects exposed on the seafloor.

• Acoustic Refraction Surveys (ARS): These may be employed if initial geophysical findings indicate the likely presence of cemented sediments or calcarenite.

Geotechnical survey methodologies are summarised below:

- Cone Penetration Test (CPT): this is used to determine the geotechnical engineering properties of soils (soil strength/ behaviour) and delineating soil stratigraphy.
- Seismic (SCPT) is performed to obtain soil stiffness parameters for geotechnical design..
- Downhole PS logging is performed to obtain soil stiffness parameters for geotechnical design.

Marine baseline survey methodologies will be continuously refined and in line with relevant guidance and survey guidelines. With the best practice approach in mind, the current planning is as follows:

- Vessel based benthic habitat surveys
- · Vessel and aerial based seabird surveys
- Vessel and aerial marine mammal surveys
- Vessel, bait station and pot-based fish surveys
- Vessel based water and sediment quality surveys
- Multi-station underwater noise monitoring

There are several sources of risk of environmental harm associated with the marine field investigations. However, it is considered that the potential for them to cause significant impact is considered minor.

Potential environmental impacts from marine survey work are discussed in detail in **Attachment 2 – Gippsland Offshore Wind Farm Marine Survey Investigation Plan, Section 9.4, pp 42-47.** The main impacts are summarised below:

- Potential creation of underwater noise from geophysical activities and, to a lesser extent, geotechnical activities and vessel transit, that may interfere with marine fauna. Refer to details in Section 9.4.2, pp 44-45 of the above attachment.
- Entanglement of marine fauna in equipment cabling or anchorage. Refer to details in Section 9.4.3, pp 45 of the above attachment.
- Vessel strike of marine fauna during vessel transit causing injury to marine fauna. Refer to details in Section 9.4.4, pp 45 of the above attachment.
- Marine pollution due to vessel oil or waste spill. Refer to details in Section 9.4.5, pp 45 of the above attachment.
- Disturbance of the seabed through taking shallow sediment samples, geotechnical survey activities or anchoring equipment deployed to the seafloor. Refer to details in Section 9.4.6, pp 46 of the above attachment.

Environmental protection measures that will be implemented to ensure the field work is undertaken in a manner that does not cause environmental harm as per Ørsted's environmental management framework and Quality, Health, Safety and Environmental (QHSE) policy.

Due to the Project currently being in its initial design stage, the future works for installing infrastructure and operation of the OWF are excluded from this Referral. Ørsted will make a separate referral for the OWF Project.

1.2.2 Is the project action part of a staged development or related to other actions or proposals in the region?

Yes

1.2.3 Is the proposed action the first stage of a staged development (or a larger project)?

Yes

1.2.5 Provide information about the staged development (or relevant larger project).

This Referral is the first part of a broader set of referrals required for the Project. A 'whole of Project' referral (i.e. the offshore wind farm and associated infrastructure) will be submitted later. The results of the marine investigations will inform the Project's detailed design based on the data collected.

1.2.6 What Commonwealth or state legislation, planning frameworks or policy documents are relevant to the proposed action, and how are they relevant? *

Australian Government

Offshore Electricity Infrastructure Act 2021

The Offshore Electricity Infrastructure Act 2021 (OEI Act) and associated regulations stipulate the framework to enable construction, operation and decommissioning of offshore electricity infrastructure projects in Commonwealth waters. The framework applies to offshore locations from 3 nautical miles off the coast to the boundary of the EEZ, with coastal waters up to 3 nautical miles remaining the responsibility of the relevant State government.

A feasibility licence will be required for the Project in order to conduct certain site feasibility studies. Proponents will also be required to submit management plan(s) to the Offshore Infrastructure Regulator (OIR) for assessment.

Environment Protection and Biodiversity Conservation Act 1999

Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), it is an offence to take an action that has, will have or is likely to have a significant impact on:

- Matters of National Environmental Significance (MNES) or
- The environment in a Commonwealth marine area,

unless approval has been granted or the Minister has determined that the action can proceed without approval.

Scientific Research Permits

Part 8A Permit, EPBC Act

To obtain biological resources from a Commonwealth area for the purpose of research on any genetic resources, or biochemical compounds, comprising or contained in the biological resources, a permit under Part 8A of the *Environment Protection and Biodiversity Conservation Regulations 2000* (the Regulations) will be required. It is anticipated that a Part 8A permit will be required to access genetic resources as part of the eDNA survey work and species identification.

Cetacean Interference Permits, EPBC Act

It is a requirement to obtain a permit under the EPBC Act to take, keep, move, interfere with (harass, chase, herd, tag, mark or brand) a cetacean. A cetacean permit is not sought at this time, as surveys will be undertaken by aerial survey and passive acoustic monitoring that cause minimal disturbance.

Underwater Cultural Heritage Act 2018

The Underwater Cultural Heritage Act 2018 (UCH Act) legislates the protection of Australia's shipwrecks, sunken aircraft and other types of underwater cultural heritage which includes Aboriginal and Torres Strait Islander Underwater Cultural Heritage in Commonwealth waters. The UCH Act clarifies the existing and ongoing jurisdictional arrangements for protecting and managing Australia's underwater cultural heritage, as agreed

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upon in the 2010 Australia Underwater Cultural Heritage Intergovernmental Agreement. This includes establishing protection zones around identified underwater cultural heritage and permits for traversing a protection zone or interacting with cultural heritage.

A permit is required for the Project in order to conduct certain site geotechnical and geophysical surveys in or across identified protection zone(s). The Proponent will be required to specify the following when applying for a permit:

- The protected underwater cultural heritage or protected zone which the permit applies
- Identify which persons the permit applies to
- The conduct authorised
- The period for which the permit is in force
- Conditions (if any) imposed by the grantee of the permit (the Minister) to which the permit is subject to

Key environmental factors for offshore windfarm environmental impact assessment under the EPBC Act Guidance document (July 2023)

This guidance has been prepared by Department of Climate Change, Energy, the Environment and Water (DCCEEW) to provide consolidated information to offshore renewable energy proponents on the key environmental factors for consideration when developing projects in the Australian marine environment under the EPBC Act.

Biosecurity Act 2015

This Act empowers authorities to quarantine goods, vessels and people to prevent the introduction, establishment or spread of diseases or pests affecting human beings, animals, or plants.

Protection of the Sea (Prevention of Pollution from Ships) Act 1983

This Act and relevant Australian Maritime Safety Authority (AMSA) Marine Orders. This Act regulates ship-related operational activities and invokes certain requirements of The International Convention for the Prevention of Pollution from Ships (MARPOL convention) (Annexes I, II, III, IV, V and VI) relating to discharge of oil, noxious liquid substances, sewage, garbage, air pollution, etc.

Protection of the Sea (Harmful Antifouling Systems) Act 2006

This Act regulates the use of harmful antifouling systems on boats in relation to their effects on the marine environment. This is observed in the selection of vessels for the surveys. Vessels will be required to have a hull antifouling system in place and will be subject to this Act, in particular Part 2 Application or use of a harmful antifouling system and Part 3 Antifouling certificates and antifouling declarations.

National biofouling management guidelines for commercial vessels (Guidance document, 2009)

These voluntary guidelines aim to help operators of commercial vessels minimise the risk of translocating and introducing marine pests. This document outlines operational procedures and provides information for operators of commercial vessels to follow to assist in the prevention of marine pest introductions and translocations. It is critical that marine pest issues associated with the industry are clearly understood and that practical and effective management solutions that build on existing industry actions are implemented.

Draft National Guidelines for the Survey of Cetaceans, Marine Turtles and the Dugong

These guidelines, while in draft form, provide best-practice survey techniques for determining the presence, absence, abundance and distribution of cetaceans, marine turtles and the dugong.

EPBC Act Policy Statement 2.1 – Interaction between offshore seismic exploration and whales (Industry Guidelines)

These guidelines were prepared in 2008 with the goal of minimising the likelihood of injury or hearing impairment to whales from offshore seismic surveys, traditionally undertaken by the oil and gas industry in Australia. It does acknowledge that whales in the vicinity of seismic surveying will avoid the immediate area due to intrusive noise, however this avoidance mechanism should also prevent whales from approaching closely enough to cause acoustic injury. It suggests that at the scale of a seismic survey, temporary displacement is unlikely to result in any biological cost to whales unless the interaction occurs during critical behaviours. These guidelines are relevant for seismic activity in the marine environment only; there are currently no Australian guidelines for other forms of underwater noise associated with geophysical or geotechnical surveys. The guidelines recommend in areas where Biologically Important Areas (BIAs) are present, proponents should consider additional protection measures when undertaking seismic activity.

Victorian Government

Environment Protection Act 1970

This Act provides for the control of discharges and emissions (air, water) to the environment within Victoria (including state and territorial waters). It gives the Environment Protection Authority (EPA) powers to control marine discharges and to undertake prosecutions. As part of the survey is in Victorian State waters it is subject to this Act.

Offshore Wind Policy Directions Paper (March 2022)

The Directions Paper confirms that Victoria has a world class offshore wind resource. At least 13GW from OWF including the waters off Portland is identified. The Victorian Government is committed to developing a pipeline of offshore wind projects in the coming years that includes Portland and Gippsland.

Victoria's Renewable Energy Action Plan (2018)

The Renewable Energy Action Plan outlines the actions that the State Government is taking to encourage investment in our energy sector and to ensure Victorians continue to benefit from a renewable, affordable, and reliable energy system into the future. A priority under Victoria's Renewable Energy Action Plan is strengthening our affordable, reliable, and resilient energy system.

State Planning Policy

The OWF Project will provide a positive, locally significant contribution to the achievement of State and local planning policies, particularly those related to Victoria's energy transition. The OWF Project would give effect to the following State planning policies contained in the Glenelg Planning Scheme: Clause 19.01-1S Energy Supply

Aboriginal Heritage Act 2006 (Vic)

This Act protects Aboriginal cultural heritage within Victoria's coastal waters. Ørsted is aware that there may be locations within the offshore investigation area that are culturally sensitive. Ørsted will continue to work closely with Traditional Owners as marine surveys are conducted.

Heritage Act 2017 (Vic) and Heritage (Underwater Cultural Heritage Regulations) 2017

These establish protected zones around certain shipwrecks in Victoria's coastal waters.

Pollution of Waters by Oil and Noxious Substances Act 1986

This Act implements the MARPOL convention in Victorian waters and protects the sea from pollution by oil and other noxious substances. The Act requires reporting of marine pollution incidences and restricts the discharge of oil and noxious substances as defined by the Act into Victorian state waters. These restrictions have been considered in this referral.

Marine and Coastal Act 2018 (Vic)

The *Marine and Coastal Act 2018* (MACA) provides for an integrated and coordinated approach to planning and managing the marine and coastal environment. The Act enables protection of the coastline and the ability to address the long-term challenges of climate change, population growth and ageing coastal structures. It also includes new guiding principles that specifically recognize climate change and Traditional Owners as well as Victoria's first marine spatial planning framework.

1.2.7 Describe any public consultation that has been, is being or will be undertaken regarding the project area, including with Indigenous stakeholders. Attach any completed consultation documentations, if relevant. *

Authentic and respectful partnerships and consultation with Traditional Owners and all stakeholders will form an integral and vital role in the development of the Project. In particular, Ørsted acknowledges the Gunaikurnai people's spiritual connection to their lands, waters and sky and further embraces the legacy of their ancestors by valuing the resilient culture they have maintained for thousands of years. Together with the Indigenous stakeholders, Ørsted aims to build an authentic relationship that enables their direct benefit.

Ørsted has been in discussions with community leaders and stakeholder groups about:

- Traditional owner partnership with Gunaikurnai .
- Job opportunities for the project:
 - Upskilling opportunities
 - Apprenticeships and partnering with local institutions
 - Ensuring, diversity equity and inclusivity in jobs.

- Benefit sharing from the offshore wind farm.
- Supply chain information events for interested businesses.
- Co-existence with fisheries and understanding the local fishing industry.
- Sharing knowledge on offshore wind best practices around the world.

Ørsted has developed information to be provided to the community and stakeholders. This is followed by consultations and the incorporation of feedback via surveys. Ørsted understands the importance of engaging with stakeholders (including the community). Significant effort will be put to improve communication and engagement between stakeholders and the Project teams as the Project progresses.

At this stage, Ørsted has carried out the following stakeholder engagements, noting that the Project is still in its initial phase:

- Wellington Shire Council (in-person and virtual on 31 August 2023, 5 September 2023, and 27 September 2023)
- Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) (in-person on 4 September 2023)
- Seafood Industry Australai (Virtual on 7 September 2023)
- VR Fish (Virtual on 7 September 2023)
- South East Trawl Fishing Industry Association (SETFIA) (in-person on 4 September 2023)
- Department of Energy, Environment and Climate Action (DEECA) (in-person and virtual on 7 September 2023)

The Project team will carry out extensive consultation with relevant stakeholders. These stakeholders include host landholders, proximal landholders and communities, ocean users, Traditional Owners, local and State government agencies, universities, local business and service providers, community and development groups and environmental groups.

1.3.1 Identity: Referring party

Privacy Notice:

Personal information means information or an opinion about an identified individual, or an individual who is reasonably identifiable.

By completing and submitting this form, you consent to the collection of all personal information contained in this form. If you are providing the personal information of other individuals in this form, please ensure you have their consent before doing so.

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The Department of Climate Change, Energy, the Environment and Water (the department) collects your personal information (as defined by the Privacy Act 1988) through this platform for the purposes of enabling the department to consider your submission and contact you in relation to your submission. If you fail to provide some or all of the personal information requested on this platform (name and email address), the department will be unable to contact you to seek further information (if required) and subsequently may impact the consideration given to your submission.

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Confirm that you have read and understand this Privacy Notice *

1.3.1.1 Is Referring party an organisation or business? *

Yes

Referring party organisation details		
ABN/ACN	20093846925	
Organisation name	AECOM Australia Pty Ltd	
Organisation address	Wurundjeri and Bunurong Country, Tower 2, Level 10, 727 Collins Street, Melbourne VIC 3008, Australia	
Referring party details Name	Victoria Conlon	

Job title	Associate Director	
Phone	+61415381814	
Email	victoria.conlon@aecom.com	
Address	Collins Square Level 10 Tower Two 727 Collins Street Melbourne VIC 3008, Australia	

1.3.2 Identity: Person proposing to take the action

1.3.2.1 Are the Person proposing to take the action details the same as the Referring party details? *

No

1.3.2.2 Is Person proposing to take the action an organisation or business? *

Yes

Person proposing to take the action organisation details		
ABN/ACN	663760209	
Organisation name	ORSTED OFFSHORE AUSTRALIA 1 PTY LTD	
Organisation address	Ashurst, Level 16, 80 Collins Street, South Tower, Melbourne, VIC 3000	
ABN/ACN Organisation name Organisation address	663760209 ORSTED OFFSHORE AUSTRALIA 1 PTY LTD Ashurst, Level 16, 80 Collins Street, South Tower, Melbourne, VIC 3000	

Person proposing to take the action details		
Name	Sarah Wang	
Job title	Regional Consent Lead - APAC Environment & Permitting	
Phone	+886905529016	
Email	sarwa@orsted.com	
Address	Ashurst, Level 16, 80 Collins Street, South Tower, Melbourne, VIC 3000	

1.3.2.14 Are you proposing the action as part of a Joint Venture? *

No

1.3.2.15 Are you proposing the action as part of a Trust? *

No

1.3.2.17 Describe the Person proposing the action's history of responsible environmental management including details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against the Person proposing to take the action. *

Orsted Offshore Australia 1 Pty Ltd is a newly established entity for the development of the Gippsland 01 and Gippsland 02 offshore wind farm projects. This entity has not previously developed, constructed or operated energy infrastructure within Australia. Therefore, this entity does not have a history of past environmental management within Australia.

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However, internationally, Ørsted has experience in performing site investigation activities across Europe, United States, and Asia Pacific. To ensure a standardized approach is taken in managing environmental aspects in these varying regions, Ørsted has adopted ISO 31000: Risk Management as their global standard to execute risk management. Ørsted's management system is also certified with ISO 14001: Environmental Management, which demonstrates a robust approach to environmental management.

Ørsted has an excellent record of responsible environment management internationally and does not have any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against them.

1.3.2.18 If the person proposing to take the action is a corporation, provide details of the corporation's environmental policy and planning framework

The person proposing to take this action is a corporation. The details of the corporation's environmental policy and planning framework can be found in **Attachment 3 - Ørsted_QHSE_Policy_Single Page_V1_2024_01_29.pdf**. Ørsted incorporates quality, health, safety and the environment in decisions and actions. For the Marine Surveys, the contractor will have to issue a HSE plan 8 weeks prior to vessel mobilization. The offshore HSE requirements, which will be adhered to, are provided in **Attachment 3 - Ørsted_QHSE_Policy_Single Page_V1_2024_01_29.pdf**.

1.3.3 Identity: Proposed designated proponent

1.3.3.1 Are the Proposed designated proponent details the same as the Person proposing to take the action? *

Yes

Proposed designated proponent organisation details		
ABN/ACN	663760209	
Organisation name	ORSTED OFFSHORE AUSTRALIA 1 PTY LTD	
Organisation address	Ashurst, Level 16, 80 Collins Street, South Tower, Melbourne, VIC 3000	
Proposed designated proponent details		
Name	Sarah Wang	
Job title	Regional Consent Lead - APAC Environment & Permitting	
Phone	+886905529016	
Email	sarwa@orsted.com	
Address	Ashurst, Level 16, 80 Collins Street, South Tower, Melbourne, VIC 3000	

1.3.4 Identity: Summary of allocation

Confirmed Referring party's identity

The Referring party is the person preparing the information in this referral.

ABN/ACN	20093846925	
Organisation name	AECOM Australia Pty Ltd	
Organisation address	Wurundjeri and Bunurong Country, Tower 2, Level 10, 727 Collins Street, Melbourne VIC 3008, Australia	
Representative's name	Victoria Conlon	
Representative's job title	Associate Director	
Phone	+61415381814	
Email	victoria.conlon@aecom.com	
Address	Collins Square Level 10 Tower Two 727 Collins Street Melbourne VIC 3008, Australia	

Confirmed Person proposing to take the action's identity

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN	663760209
Organisation name	ORSTED OFFSHORE AUSTRALIA 1 PTY LTD
Organisation address	Ashurst, Level 16, 80 Collins Street, South Tower, Melbourne, VIC 3000
Representative's name	Sarah Wang

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Regional Consent Lead - APAC Environment & Permitting
+886905529016
sarwa@orsted.com
Ashurst, Level 16, 80 Collins Street, South Tower, Melbourne, VIC 3000

Confirmed Proposed designated proponent's identity

The Person proposing to take the action is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

1.4 Payment details: Payment exemption and fee waiver

1.4.1 Do you qualify for an exemption from fees under EPBC Regulation 5.23 (1) (a)? *

No

1.4.3 Have you applied for or been granted a waiver for full or partial fees under Regulation 5.21A? *

No

1.4.5 Are you going to apply for a waiver of full or partial fees under EPBC Regulation 5.21A?

No

1.4.7 Has the department issued you with a credit note? *

No

1.4.9 Would you like to add a purchase order number to your invoice? *

No

1.4 Payment details: Payment allocation

1.4.11 Who would you like to allocate as the entity responsible for payment? *

Referring party

2. Location

2.1 Project footprint



2.2 Footprint details

2.2.1 What is the address of the proposed action? *

Offshore of the Gippsland region of Victoria

2.2.2 Where is the primary jurisdiction of the proposed action? *

Commonwealth Marine

2.2.3 Is there a secondary jurisdiction for this proposed action? *

Yes

2.2.4 Where is the secondary jurisdiction of the proposed action? *

Victoria

2.2.5 What is the tenure of the action area relevant to the project area? *

The majority of the area to be surveyed (i.e. the wind farm component and the subsea transmission cable) is located within Commonwealth Waters. The subsea transmission cable area that will be surveyed is also partially located in Victorian waters.

The onshore component has not been finalised and will be the subject of a further referral.

It is possible that landfall will occur close to Giffard (Attachment 1 - Gippsland Offshore Wind Farm Marine Survey Investigations EPBC Referral Area).

This is land zoned as farmland, is sparsely populated and likely to be freehold.

3. Existing environment

3.1 Physical description

3.1.1 Describe the current condition of the project area's environment.

The Survey Area is located within the Southeast Shelf Transition in the Bass Strait which is characterised by shallow waters and weak tidal currents in comparison to surrounding marine areas. The Survey Area sits within an area of cool nutrient rich waters between Victoria and Tasmania . The dominant substrates are a mix between sand and shell with potentially small areas of rocky reefs. Water depth within the Survey Area range between 48 – 64 m below Mean Sea Level (MSL), with an average 59 below MSL.

The shortest distance to the shore from the closest proposed Project components is approximately 60 km.

3.1.2 Describe any existing or proposed uses for the project area.

A number of other uses exist in the Survey Area, including commercial fishing, oil and gas extraction, vessel navigation and recreational activities.

Fishing is the primary activity that is currently occurring within the Survey Area. There are at least 24 commercial fisheries within the Survey Area or nearby surroundings including the important Rock Lobster Fishery which spans the length of the Victorian coast. Within Commonwealth waters these include the southern and eastern Scalefish and Shark Fishery, the Bass Strait Central Zone Scallop Fishery, the Small Pelagic Fishery, Southern Squid Jig Fishery, the Eastern Tuna and Billfish Fishery, and Southern Bluefin Tuna Fishery. State waters along the coastline adjacent to the Survey Area also host several state fisheries including and eel fishery, giant crab fishery, octopus fishery, rock lobster fishery, scallop fishery, sea urchin fishery and Wrasse fishery.

The proposed use for the Project Area is an offshore wind farm, including fixed wind turbines, substations, connecting turbine cables and the main transmission line connection to the mainland.

3.1.3 Describe any outstanding natural features and/or any other important or unique values that applies to the project area.

Key features of the marine area include the islands of the Hogan, Kent and Furneaux Groups which provide significant habitat for marine fauna including seals and seabirds, as well as the Beagle Marine Park, Nooramunga Marine and Coastal Park.

Ninety Mile Beach Marine Park is located close to the survey area, but a buffer of 500 m has been placed around the Marine Park and it will not form part of the survey area.

Beagle Marine National Park

The Survey Area is approximately 2.13km from the Beagle Marine National Park. The seabed is characterised by soft sediments with some areas of low-rocky profile reef and sponge gardens. Sponges are the most dominant organism with some representatives from cnidarians, bryozoans and ascidians recorded in a 2021 monitoring survey (Barrett *et al.* 2021). The Beagle Marine National Park is also an important foraging area for seabirds that breed on the Kent islands within the park (Australian Marine Parks 2022). The Kent Islands are a cluster of five granitic islands in Bass Strait, which also have Tasmanian Marine Protected Areas covering all waters up to three nautical miles around them.

Ninety Mile Beach Marine National Park

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Ninety Mile Beach Marine National Park is excluded from the study area to avoid direct impacts, with a 500m buffer provided from its boundary. It has been declared to protect its unique sandy environment, which supports a significant diversity of marine invertebrates which in turn supports marine fauna including the white shark (Parks Victoria 2006). Low calcarenite reefs are also found which support invertebrates, including sponge gardens. Eight hundred and sixty different species have been discovered within a 10 square metre area, including tube building worms, small molluscs, and crustaceans (Park Victoria 2023a). In addition, the coast provides habitat for shore birds, including the threatened hooded plover. The area is popular for recreational activities and welcomes visitors for swimming, boating, snorkelling and diving. All forms of extraction are prohibited within the marine park, including recreational and commercial fishing.

Kent and Hogan Island Groups

There are two Bass Strait Island groups in close proximity to the Survey Area both located to the west of the Survey Area.

The Kent Island Group (approximately 17.6 km from the Survey Area) is made up of a group of islands and inlets, it's three main islands are Erith, Dover, and Deal. On Deal Island is an isolated national park, the Kent Group National Park. The islands host a breeding colony of Australian fur seals (*Arctocephalus pusillus*), Judgement rock is home to the largest colony in Tasmania. They are also an important refuge for seabirds, including common diving petrels (*Pelecanoides urinatrix*), fairy prions (Pachyptila turtur), short-tailed shearwaters (*Ardenna tenuirostris*), little penguins (*Eudyptula minor*), sooty oystercatchers (*Haematopus fuliginosus*), cormorants, and terns. Little penguin, short-tailed shearwater, pacific gull, and sooty oystercatcher are known to breed on Erith Island.

The Hogan island Group is made up of seven islands, the largest of which is Hogan Island. Among these islands are Boundary Islet and Seal rock which support colonies of Australian fur seal. There have also been several threatened bird species recorded including short-tailed shearwater, fairy prion, shy albatross (*Thalassarche cauta*), Buller's albatross (*Thalassarche bulleri*) (Carlyon *et al.* 2011).

Nooramunga Marine and Coastal Park

The Nooramunga Marine and Coastal Park is close to but falls outside of the western boundary of the survey area and plays a crucial role in conversation efforts for migratory and resident shorebirds. Primarily established to protect the habitat of migratory and resident shorebirds, the park encompasses extensive mudflats along the shoreline serving as vital breeding and feeding grounds for these species. Notable resident listed shorebird species nesting along the shoreline of the area include the Hooded Plover (*Thinornis cucullatus*) and Little Tern (*Sternula albifrons*).

The South-East Marine Region Profile describes the areas diverse benthic infauna communities, which includes the listed Ghost Shrimp. The profile further emphasises the importance of the expansive mudflats that support the substantial feeding areas for both resident and migratory birds.

Historical records have also suggested that the area may serve as habitat for the Orange-bellied Parrot (*Neophema chrysogaster*) and Ground Parrot (*Pezoporus wallicus*) however, these records are both dated and sparse. This potentially warrants further investigation into the presence of these species and the conservation of the Nooramunga Marine and Coastal Park.

3.1.4 Describe the gradient (or depth range if action is to be taken in a marine area) relevant to the project area.

Water depth within the Survey Area range between 48 – 64 m below Mean Sea Level (MSL), with an average 59 below MSL. Actions as part of the marine investigations will involve the following known depth ranges:

- Remote sensing will be undertaken where water visibility permits (expected to be intertidal and nearshore environments only to a depth range of approximately 20 m).
- Seabed grab samples will be taken to characterise the substrate material this will be of surface material only (up to 1m in depth) and will be a small sample e.g. 0.5m3.

3.2 Flora and fauna

3.2.1 Describe the flora and fauna within the affected area and attach any investigations of surveys if applicable.

Open Water Benthic Habitat

There are limited surveys of the seafloor habitats within deeper open waters of Bass Strait. A detailed marine geophysical survey was undertaken for the CarbonNet project (Victoria Government, 2018), adjacent to the Survey Area. An area approximately 1.2 km to 15 km offshore was surveyed, with the following findings:

- Isolated and sparse seagrass beds were identified.
- Isolated occurrences of sponge gardens and soft corals were identified.
- A small patch of low-profile reef was identified at around the 30 m contour, which was dominated by sponges and ascidians.
- There is a high diversity of a wide range of invertebrate groups, although these are widely distributed across Bass Strait.

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- The area has very low numbers of scallops (including commercial species) at a density of less than 10 scallops per 100 m.
- Low numbers of southern rock lobsters (*Jasus edwardsii*) were identified at likely habitat sites and mapped reefs.
- Around 43 species of fish were identified; the most abundant was the barber perch (Caesiaperca razor).
- Zooplankton species collected were dominated by copepods, cladocerans, salps and the dinoflagellate Noctiluca scintillans. Generally, there was a high diversity and abundance of zooplankton, typical of similar temperate coastal waters.
- No lobster or scallop larvae were present in samples taken.

Nearshore Marine Environment

The Assessment of the Values of Victoria's Marine Environment Atlas (Victorian Government 2019) provides some further information on the nearshore environment within or in the immediate surroundings of the Survey Area:

- The open sea pelagic environment around Wilson's Promontory is important for the conservation-listed juvenile great white shark, southern right whale, humpback whale, killer whale (*Orcinus orca*), bottlenose dolphin (*Tursiops truncatus*), common dolphin (*Delphinus delphis*), leopard seal (*Hydrurga leptonyx*), leatherback turtle (*Dermochelys coriacea*) and green turtles (*Chelonia mydas*).
- The marine environment exhibits habitats including:
 - Seagrass: Zostera spp. and Ruppia spp. Beds
 - Invertebrates: high-density feather star (Cenolia sp.)
 - Sessile invertebrates: non-reef forming epibiota assemblages dominated by sponge mounds
 - Low complexity circalittoral rock.
- Sandy beaches provide breeding habitat for hooded plover, other shorebirds and seabirds including Caspian tern, crested tern (*Thalasseus bergii*), fairy tern and pied oystercatcher.
- Port Albert to Lakes Entrance sandy plains contain the most diverse benthic infauna communities recorded, include ghost shrimp *Biffarius arenosus* and *Trypaea australiensis*.
- Patchy, low profile reefs periodically covered by sand dominated by sessile invertebrates can be found.
- Endemic seastar (*Coscinasterias muricata*) occurs in large numbers, with rare crab *Halicarcinus* sp., opisthobranch *Platydoris galbana* also occurring.
- Soft coral (Pseudogorgia godeffroyi) that only occurs in Victoria between McGuarans and Delray beaches is contained in the Survey Area.

Marine Fauna Species

The Survey Area is a biologically important area (BIA) for the following marine species:

- A distribution, foraging and breeding area (transmission line only) for the white shark (Cacharodon carcharias).
- Distribution and foraging area for the pygmy blue whale (*Balaenoptera musculus brevicauda*).
- Migration and core range for the southern right whale (Eubalaena australis).
- Foraging area for a number of seabird species including the short-tailed shearwater (*Ardenna tenuirostris*), wandering albatross (*Diomedea exulans*), white-faced storm petrel (*Pelagodroma marina*), common diving petrel (*Pelecanoides urinatrix*), buller's albatross (*Thalassarche*

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bulleri), Indian yellow nosed albatross (*Thalassarche chlororhynchos bassi*), black-browed albatross (*Thalassarche melanophris*), Campbell albatross (*Thalassarche melanophris impavida*) and shy albatross (*Thalassarche cauta cauta*).

A BIA is an indication that an area has a high level of importance for a species, either threatened or migratory under the EPBC Act. They are also an indication that a higher level of mitigation should be undertaken during marine survey work where BIAs are present and there is a potential risk to a species of importance.

A number of other marine species also utilise the area including fur seals, whales, dolphins, sharks and turtles.

3.2.2 Describe the vegetation (including the status of native vegetation and soil) within the project area.

Not applicable for this referral as marine investigations are offshore.

3.3 Heritage

3.3.1 Describe any Commonwealth heritage places overseas or other places recognised as having heritage values that apply to the project area.

Several underwater cultural heritage sites have been identified within and adjacent to the Survey Area. Within the Survey Area itself there are six shipwrecks protected under the *Underwater Cultural Heritage Act 2018* (Commonwealth): SS Glenelg (Shipwreck ID 6231), Sarah (Shipwreck ID 6589), Struan (shipwreck ID 6629), Victoria (Shipwreck ID 6769), Unidentified: 22 Miles south-east of Seaspray (Shipwreck ID 6700) and Magnolia (Shipwreck ID 6386). Shipwrecks that are deemed historic shipwrecks in Australian waters and are the responsibility of Australian Federal Government under this legislation. Refer to Attachment 2 – Marine Survey Investigation Plan, Section 4.5, pp 18.

SS Glenelg has a declared shipwreck protection zone (500 m radius from the wreckage) around it that is 78.5 hectares in size. A permit may be required to enter the protected zone and the following activities are prohibited within the zone without a permit:

- 1. Allowing a vessel to become stationary
- 2. Underwater activities
- 3. Anchoring or mooring vessels
- 4. Fishing including trawling, netting, dredging and pot or trap fishing.

This shipwreck protection zone has been factored into the Survey Area and all survey activities shall avoid this area.

As stipulated in the *Underwater Cultural Heritage Act 2018* Part 2, Division 1, Section 7, the following is prohibited within a protection zone without a permit:

- the entry of persons or vessels into the area
- the movement of persons or vessels within the area
- trawling or fishing in the area
- conducting underwater activity within the area
- · anchoring or mooring of vessels in the area
- the release or deposit of objects or materials in the area.

Seabed surveys will identify if any materials remain in situ of other potential shipwrecks if a risk assessment identifies there is a high risk of archaeological material being identified. These surveys would be undertaken by sub-bottom profilers or magnetometer surveys which would not disturb shipwrecks.

3.3.2 Describe any Indigenous heritage values that apply to the project area.

The field work will occur within the sea country of the Gunaikurnai people. This area has been utilised by Aboriginal people in various ways over a long period of time, and it is possible that tangible and intangible cultural heritage does exist within the marine environment.

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The survey work will include some echo sounding and sub-bottom profiling surveys to confirm the presence of any cultural heritage material. It is noted that the techniques employed will have no physical disturbance to any items of cultural heritage.

The low impact nature of the surveys proposed means that the risk of harm to any previously unidentified cultural heritage is likely to be low. If any heritage is identified, the Project will comply with its obligations under the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* and/or the *Underwater Cultural Heritage Act 2018* (Cth), as applicable.

3.4 Hydrology

3.4.1 Describe the hydrology characteristics that apply to the project area and attach any hydrological investigations or surveys if applicable. *

The referral area is located offshore and does not cross or interfere with any onshore hydrological features. Onshore, the main watercourses are Bruthen, Monkey and Merriman Creeks which are small creeks discharging into Mcloughlins Beach. Carrs Creek discharges into Lake Reeve first and then into Mcloughlins Beach.

The referral area is located on the continental shelf east of the Bass Strait. The waters here are characterised by shallow water and tidal currents. There is a slow easterly flow of waters in Bass Strait and a large anticlockwise circulation. The shallowness of the water means that these waters more rapidly warm in summer and cool in winter than other waters of the region.

The water depth in the adjacent Beagle Marine National Park is stated to be 50 - 70 m deep.

Corner Inlet Ramsar Area:

The Survey area does not include Corner Inlet Ramsar area.

Corner Inlet is a large tide-dominated embayment located to the west of the Survey Area. It adjoins Wilson Promontory and extends east to Ninety Mile Beach National Park.

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The inlet comprises a submerged plain covered by sand or mud flats, sand islands (such as Snake and Sunday Islands) extensive seagrass beds. A radiating system of deeper channels supports the tidal exchange over the flats.

Corner Inlet plays a substantial hydrological role in the natural functioning of a major coastal system through its protection from oceanic swells, providing habitat of wetland development, receiving and channelling the flow of rivers and creeks within the South Gippsland Basin.

Corner Inlet is an example of a near natural wetland which continues to function in an almost natural way.

Source: RAMSAR Information Sheet, Number 216 Corner Inlet, February 2020). Corner Inlet Ramsar Information Sheet (dcceew.gov.au).

Mainland drainages that flow into the site (but which are not part of the Ramsar site) include Bruthern Creek, Neils Creek, Tarra River, Albert River, Muddy Creek, Nine Mile Creek, Shady Creek, Agnes Creek, Franklin River, Bennison Creek, Stockyard Creek, Poor Fellow Me Creek, Dead Horse Creek, Silver Creek, Golden Creek, Cow Creek, Barry Creek Chinaman Creek and Tin Mine Creek, (Australian Government, Corner Inlet Ramsar Site, Ecological Character Description June 2011).

Source: Corner Inlet Ramsar Information Sheet (dcceew.gov.au)

Gippsland Lakes

The Survey Area does not include the Gippsland Lakes. The Survey area is located seaward from Lake Reeve, the western most of the Gippsland Lakes.

Lake Reeve can be fed by Merriman's Creek during times of high flow (generally August September).

Lake Reeve is separated from Bass Strait by a beach ridge and sand dunes. This barrier is maintained by small tidal ranges, abundant sand supply and very slow or no relative sea level change.

Lake Reeve is a shallow coastal lagoon and saltmarsh complex.

Lake Reeve is periodically inundated with saline water and then dries out to form an intermittently wet and dry saltmarsh environment. The saline water enters from Lake Victoria, located to the east of Lake Reeve.

Only the eastern end of Lake Reeve contains permanent water, the western end, (located closest to the Survey area) is shallow and usually dries up by early summer.

Source : Gippsland Lakes Ramsar Site Ecological Character Description

Source: Information Sheet on Ramsar Wetlands

4. Impacts and mitigation

4.1 Impact details

Potential Matters of National Environmental Significance (MNES) relevant to your proposed action area.

EPBC Act section	Controlling provision		Reviewed
S12	World Heritage	No	Yes
S15B	National Heritage	No	Yes
S16	Ramsar Wetland	Yes	Yes
S18	Threatened Species and Ecological Communities	Yes	Yes
S20	Migratory Species	Yes	Yes
S21	Nuclear	No	Yes
S23	Commonwealth Marine Area	Yes	Yes
S24B	Great Barrier Reef	No	Yes
S24D	Water resource in relation to large coal mining development or coal seam gas	No	Yes
S26	Commonwealth Land	No	Yes
S27B	Commonwealth Heritage Places Overseas	No	Yes
S28	Commonwealth or Commonwealth Agency	No	Yes

4.1.1 World Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

4.1.1.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.1.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no world heritage areas within proximity of the area in which Marine Surveys will occur.

4.1.2 National Heritage

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

4.1.2.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.2.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no National Heritage places within proximity of the area in which Marine Surveys will occur.

4.1.3 Ramsar Wetland

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Ramsar wetland
No	Yes	Corner Inlet
No	Yes	Gippsland Lakes

4.1.3.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.3.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

Because the surveys occur over the marine environment, there will be no direct impact to the Gippsland Lakes Ramsar wetlands as a result of survey work.

The Survey area does not include Corner Inlet Ramsar area, however it is located adjacent to the Survey Area.

It is possible that an indirect impact could occur from a spill of contaminants/fuel from survey vessels. This is considered to have a low risk of occurrence and if it did occur would be unlikely to be large enough a volume that could cause a significant impact to Ramsar values of Corner Inlet.

4.1.3.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

4.1.3.6 Describe why you do not consider this to be a Significant Impact. *

There are no direct impacts that are anticipated at this stage, though a few indirect impacts may be present. All these indirect impacts to the Ramsar wetlands are considered to be insignificant. Impacts are mainly expected to be in the form of aerial surveys. All surveys will be undertaken in accordance with relevant bird survey guidelines.

4.1.3.7 Do you think your proposed action is a controlled action? *

No

4.1.3.9 Please elaborate why you do not think your proposed action is a controlled action. *

The survey work closer to the land is less vigorous and minor in nature, involving survey work that will be undertaken in a manner that does not cause disturbance to any species occurring within the Ramsar Wetland sites. The Ramsar sites are located at a distance from where the survey works will occur. All surveys will be undertaken in accordance with relevant bird survey guidelines.

4.1.3.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

There are no avoidance or mitigation measures proposed.

4.1.3.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures.*

There are no proposed offsets as the residual impacts considered to be minor once relevant controls are in place.

4.1.4 Threatened Species and Ecological Communities

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Threatened species

Direct impact	Indirect impact	Species
No	No	Amphibromus fluitans
No	No	Antechinus minimus maritimus
No	No	Anthochaera phrygia
Yes	Yes	Balaenoptera borealis
Yes	Yes	Balaenoptera musculus
Yes	Yes	Balaenoptera physalus
Yes	Yes	Botaurus poiciloptilus
No	No	Caladenia tessellata

Direct impact	Indirect impact	Species
Yes	Yes	Calidris canutus
Yes	Yes	Calidris ferruginea
No	Yes	Calidris tenuirostris
No	No	Callocephalon fimbriatum
No	No	Calyptorhynchus lathami
Yes	Yes	Carcharodon carcharias
Yes	Yes	Caretta caretta
Yes	Yes	Centrophorus harrissoni
Yes	Yes	Centrophorus uyato
Yes	Yes	Charadrius leschenaultii
Yes	Yes	Charadrius mongolus
Yes	Yes	Chelonia mydas
No	No	Climacteris picumnus victoriae
No	No	Commersonia prostrata
No	No	Dasyurus maculatus maculatus (SE mainland population)
No	No	Delma impar
Yes	Yes	Dermochelys coriacea
No	No	Dianella amoena

Direct impact	Indirect impact	Species
Yes	Yes	Diomedea antipodensis
Yes	Yes	Diomedea antipodensis gibsoni
Yes	Yes	Diomedea epomophora
Yes	Yes	Diomedea exulans
Yes	Yes	Diomedea sanfordi
No	No	Dodonaea procumbens
Yes	Yes	Eubalaena australis
No	No	Falco hypoleucos
Yes	Yes	Fregetta grallaria grallaria
No	No	Galaxiella pusilla
Yes	Yes	Galeorhinus galeus
No	No	Glycine latrobeana
No	No	Grantiella picta
Yes	Yes	Halobaena caerulea
No	No	Heleioporus australiacus
Yes	Yes	Hirundapus caudacutus
Yes	Yes	Hoplostethus atlanticus
Yes	Yes	Lathamus discolor

Direct impact	Indirect impact	Species
No	No	Lepidium hyssopifolium
Yes	Yes	Limosa lapponica baueri
No	No	Lissolepis coventryi
No	No	Litoria aurea
No	No	Litoria raniformis
Yes	Yes	Macronectes giganteus
Yes	Yes	Macronectes halli
No	No	Melanodryas cucullata cucullata
Yes	Yes	Neophema chrysogaster
Yes	Yes	Neophema chrysostoma
Yes	Yes	Numenius madagascariensis
Yes	Yes	Pachyptila turtur subantarctica
No	No	Petaurus australis australis
Yes	Yes	Phoebetria fusca
No	No	Potorous tridactylus trisulcatus
No	No	Prasophyllum frenchii
No	No	Prasophyllum spicatum
Yes	Yes	Prototroctes maraena

Direct impact	Indirect impact	Species		
No	No	Pseudomys novaehollandiae		
Yes	Yes	Pterodroma leucoptera leucoptera		
No	No	Pteropus poliocephalus		
No	No	Pterostylis chlorogramma		
Yes	Yes	Pycnoptilus floccosus		
Yes	Yes	Rexea solandri (eastern Australian population)		
Yes	Yes	Rhincodon typus		
Yes	Yes	Rostratula australis		
No	No	Senecio psilocarpus		
Yes	Yes	Seriolella brama		
No	No	Stagonopleura guttata		
Yes	Yes	Sternula nereis nereis		
Yes	Yes	Thalassarche bulleri		
Yes	Yes	Thalassarche bulleri platei		
Yes	Yes	Thalassarche carteri		
Yes	Yes	Thalassarche cauta		
Yes	Yes	Thalassarche chrysostoma		
Yes	Yes	Thalassarche eremita		

Direct impact	Indirect impact	Species
Yes	Yes	Thalassarche impavida
Yes	Yes	Thalassarche melanophris
Yes	Yes	Thalassarche salvini
Yes	Yes	Thalassarche steadi
No	No	Thelymitra epipactoides
No	No	Thelymitra matthewsii
No	No	Thesium australe
Yes	Yes	Thinornis cucullatus cucullatus
Yes	Yes	Thunnus maccoyii
No	No	Xerochrysum palustre

Ecological communities

Direct impact	Indirect impact	Ecological community	
No	No	Natural Damp Grassland of the Victorian Coastal Plains	
No	No	Subtropical and Temperate Coastal Saltmarsh	

4.1.4.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.4.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters. *

Potential direct and indirect impacts to threatened species and ecological communities are summarised below. Potential impacts are identified and detailed in Attachment 2 - Gippsland Offshore Wind Farm Marine Survey Investigation Plan, Section 9.4, pp 42-46.

Underwater noise from geophysical survey and geotechnical acoustic equipment, drilling (boreholes) and the survey vessels may cause localised and temporary behavioural disturbance (direct impact) to noise sensitive marine fauna including whales, dolphins, sharks, crustaceans, cephalopods and fish. Specifically, underwater noise may directly impact 4 whale species, 3 sharks, 3 turtle, and 6 fish protected or conservation dependent species.

Entanglement risk from surveying equipment may directly impact marine mammals that transit through the marine environment, particularly larger species which include 4 whale, 3 sharks and 3 turtle protected species. Entanglement in towed survey equipment may result in a direct impact through injury or death. However, the likelihood of entanglement is relatively low due to 'taut' lines attached to vessel equipment and trained vessel crew.

Vessel collision may result in potential injury or death of marine fauna (direct impact). Threatened whale species (4), sharks (3), turtles (3) may be at risk from vessels undertaking survey work. Generally slower moving species (turtles and whales) are at a higher risk of vessel strike.

Marine pollution has the potential impact all marine fauna due to contamination of the marine environment.

Habitat disturbance will be minimised wherever possible however disturbance of small areas of benthic habitat may be required which may cause an indirect impact to fisheries values (5 fish species) and other marine fauna that forage in the area.

Introduction of pest species may cause direct and indirect impacts to all marine fauna, for example, through habitat alterations, changes to food sources and introduction of new diseases.

Refer to Attachment 2 – Gippsland Offshore Wind Farm Survey Investigation Plan, Section 9.4, pp42-46 for further information.

4.1.4.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

No

4.1.4.6 Describe why you do not consider this to be a Significant Impact. *

There may be some direct and indirect impacts to threatened marine species. The survey work that is the subject of this has been designed to use non-intrusive methods where possible, and the scale of survey is not at a scale or intensity that would cause a significant impact to any species or ecological communities. Potential impacts to all threatened marine species could involve entanglement with anchorages, underwater noise from vessel traffic, vessel strike or aerial disturbance. However, given the minor level of physical disturbance to the environment, and with appropriate controls in place (refer to the **Attachment 2 - Gippsland Offshore Wind Farm Marine Survey Investigation Plan, Section 9-10, pp 42-54)** as it includes an environmental management details) it is unlikely works would have a significant impact on any threatened species or other protected matters.

The key environmental management measures to be undertaken during field work include:

- where instrumentation is deployed, it will be undertaken in a manner that minimises the disturbance of benthic habitat or the risk of entanglement e.g. taut lines etc.
- no fauna or flora samples are proposed to be taken or interfered with.
- sediment samples will be taken from areas where there is no observable benthic habitat.
- all vessels will be required to follow the procedures outlined in the Australian National Guidelines for Whale and Dolphin Watching (Commonwealth Government, 2017).
- all vessels will be required to maintain their equipment and vessel in good working order to minimise the risk or spills, waste generation or marine pests.
- any aerial surveys will be undertaken by licensed operators, and in accordance with the procedures outlined in the Australian National Guidelines for Whale and Dolphin Watching (Commonwealth Government, 2017).
- Bird surveys (i.e. aerial surveys) to use methods that minimise disturbance of birds in accordance with the *Survey guidelines for Australia's threatened birds* (Australian Government, 2010).
- Biosecurity monitoring and management of all vessels coming from non-Australian waters. The potential Biosecurity risks escalating will be mitigated through adherence to the Australian Ballast Water Management Requirements (DAFF 2017) to meet the Australian requirements under the *Biosecurity Act 2015* and National Biofouling Management Guidance (Commonwealth of Australia 2009). No introduction and establishment of IMS is predicted and therefore there will be indirect impacts to existing benthic communities.
- In addition to acoustic surveys, vessels and other geotechnical/geophysical surveys also produce noise, however these tend to be lower frequency and continuous, confined to the localised area. With control measures (such as the provision of Marine Mammal Observers during any surveys relying on sparker/boomer or single mini airgun sound sources), the underwater noise impact from survey work is considered low, being temporary (less than three months) and in close proximity to a moving vessel (i.e. the vessel is only stationary for short periods, therefore not impacting a location for any period of time), Furthermore, the underwater noise is not expected to be higher than existing noise from shipping traffic in the nearby major navigational route.
- Drilling fluids shall be environmentally friendly and biodegradable.

4.1.4.7 Do you think your proposed action is a controlled action? *

No

4.1.4.9 Please elaborate why you do not think your proposed action is a controlled action.*

Given the minor level of physical disturbance to the environment, the use of non-intrusive survey techniques and with appropriate controls in place (refer to **Attachment 2 - Gippsland Offshore Wind Farm Marine Survey Investigation Plan, Section 9-10, pp 42-54)** it is unlikely works would have a significant impact on any threatened species or other protected matters and therefore, is not considered a controlled action.

4.1.4.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

A detailed document outlining the key controls in place are attached with this referral (refer to **Attachment 2 - Gippsland Offshore Wind Farm Marine Survey Investigation Plan, Section 10, pp 47-54)**. The key environmental management measures to be undertaken during field work include:

• where instrumentation is deployed, it will be undertaken in a manner that minimises the disturbance of benthic habitat or the risk of entanglement e.g. taut lines etc.

- no fauna or flora samples are proposed to be taken or interfered with.
- sediment samples will be taken from areas where there is no observable benthic habitat.
- all vessels will be required to follow the procedures outlined in the Australian National Guidelines for Whale and Dolphin Watching (Commonwealth Government, 2017).
- all vessels will be required to maintain their equipment and vessel in good working order to minimise the risk or spills, waste generation or marine pests.
- any aerial surveys will be undertaken by licensed operators, and in accordance with the procedures outlined in the Australian National Guidelines for Whale and Dolphin Watching (Commonwealth Government, 2017).
- Bird surveys (i.e. aerial surveys) to use methods that minimise disturbance of birds in accordance with the *Survey guidelines for Australia's threatened birds* (Australian Government, 2010).
- Biosecurity monitoring and management of all vessels coming from non-Australian waters. The potential Biosecurity risks escalating will be mitigated through adherence to the Australian Ballast Water Management Requirements (DAWR 2017) to meet the Australian requirements under the *Biosecurity Act 2015* and National Biofouling Management Guidance (Commonwealth of Australia 2009). No introduction and establishment of IMS is predicted and therefore there will be indirect impacts to existing benthic communities.
- In addition to acoustic surveys, vessels and other geotechnical/geophysical surveys also produce noise, however these tend to be lower frequency and continuous, confined to the localised area. With control measures (such as the provision of Marine Mammal Observers during any surveys relying on sparker/boomer or single mini airgun sound sources), the underwater noise impact from survey work is considered low, being temporary (less than three months) and in close proximity to a moving vessel (i.e. the vessel is only stationary for short periods, therefore not impacting a location for any period of time), Furthermore, the underwater noise is not expected to be higher than existing noise from shipping traffic in the nearby major navigational route.

4.1.4.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

There are no proposed offsets as the residual impacts considered to be minor once relevant controls are in place.

4.1.5 Migratory Species

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Species
Yes	Yes	Actitis hypoleucos
Yes	Yes	Apus pacificus
Yes	Yes	Ardenna carneipes
Yes	Yes	Ardenna grisea
Yes	Yes	Arenaria interpres
Yes	Yes	Balaenoptera bonaerensis
Yes	Yes	Balaenoptera borealis
Yes	Yes	Balaenoptera edeni
Yes	Yes	Balaenoptera musculus
Yes	Yes	Balaenoptera physalus
Yes	Yes	Calidris acuminata

Direct impact	Indirect impact	Species
Yes	Yes	Calidris alba
Yes	Yes	Calidris canutus
Yes	Yes	Calidris ferruginea
Yes	Yes	Calidris melanotos
Yes	Yes	Calidris ruficollis
Yes	Yes	Calidris tenuirostris
Yes	Yes	Caperea marginata
Yes	Yes	Carcharhinus longimanus
Yes	Yes	Carcharodon carcharias
Yes	Yes	Caretta caretta
Yes	Yes	Charadrius bicinctus
Yes	Yes	Charadrius leschenaultii
Yes	Yes	Charadrius mongolus
Yes	Yes	Charadrius veredus
Yes	Yes	Chelonia mydas
Yes	Yes	Dermochelys coriacea
Yes	Yes	Diomedea antipodensis
Yes	Yes	Diomedea epomophora

Direct impact	Indirect impact	Species
Yes	Yes	Diomedea exulans
Yes	Yes	Diomedea sanfordi
Yes	Yes	Eubalaena australis
Yes	Yes	Gallinago hardwickii
Yes	Yes	Gallinago megala
Yes	Yes	Gallinago stenura
Yes	Yes	Hirundapus caudacutus
Yes	Yes	lsurus oxyrinchus
Yes	Yes	Lagenorhynchus obscurus
Yes	Yes	Lamna nasus
Yes	Yes	Limosa lapponica
Yes	Yes	Limosa limosa
Yes	Yes	Macronectes giganteus
Yes	Yes	Macronectes halli
Yes	Yes	Megaptera novaeangliae
No	No	Monarcha melanopsis
No	No	Motacilla flava
No	No	Myiagra cyanoleuca

Direct impact	Indirect impact	Species
Yes	Yes	Numenius madagascariensis
Yes	Yes	Numenius minutus
Yes	Yes	Numenius phaeopus
Yes	Yes	Orcinus orca
No	No	Pandion haliaetus
No	No	Philomachus pugnax
Yes	Yes	Phoebetria fusca
Yes	Yes	Physeter macrocephalus
Yes	Yes	Pluvialis fulva
Yes	Yes	Pluvialis squatarola
Yes	Yes	Rhincodon typus
No	No	Rhipidura rufifrons
Yes	Yes	Sternula albifrons
Yes	Yes	Thalassarche bulleri
Yes	Yes	Thalassarche carteri
Yes	Yes	Thalassarche cauta
Yes	Yes	Thalassarche chrysostoma
Yes	Yes	Thalassarche eremita

Direct impact	Indirect impact	Species
Yes	Yes	Thalassarche impavida
Yes	Yes	Thalassarche melanophris
Yes	Yes	Thalassarche salvini
Yes	Yes	Thalassarche steadi
Yes	Yes	Tringa brevipes
Yes	Yes	Tringa glareola
Yes	Yes	Tringa nebularia
Yes	Yes	Tringa stagnatilis
Yes	Yes	Xenus cinereus

4.1.5.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.5.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters.*

There may be some direct and indirect impacts to migratory marine species. Potential impacts to all migratory marine species could involve entanglement with anchorages, underwater noise from vessel traffic, vessel strike or aerial disturbance. However, given the minor level of physical disturbance to the environment, and with appropriate controls in place (refer to **Attachment 2 - Gippsland Offshore Wind Farm Marine Survey Investigation Plan, section 9-10, pp 42-53)**, it is unlikely that the marine investigation works would have a significant impact on any threatened species or other protected matters.

There is no important habitat for a listed migratory species that would be substantially modified, destroyed, or isolated as a result of the surveys.

The action has the potential to directly, or indirectly, impact migratory whale (10), shark (3), turtle (3) and dolphin (1) species.

Please refer to response to Section 4.1.4.2 for further information on direct and indirect impacts to threatened species. Migratory species would be subject to the same threatening processes i.e. underwater noise, vessel strike, entanglement, introduction of pest species, spill of contaminated substances or benthic habitat disturbance.

Refer to Attachment 2 – Gippsland Offshore Wind Farm Survey Investigation Plan, Section 9, pp42-53 for further information.

4.1.5.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

No

4.1.5.6 Describe why you do not consider this to be a Significant Impact. *

The marine investigations that is the subject of this referral has been designed to use non-intrusive methods where possible, and the scale of survey is not at a scale or intensity that would cause a significant impact to a species.

Given the minor level of physical disturbance to the environment, and with appropriate controls in place (refer to the **Attachment 2 - Gippsland Offshore Wind Farm Marine Survey Investigation Plan**, **Section 9-10**, **pp 42-55**) as it includes environmental management details) it is unlikely works would have a significant impact on any threatened species or other protected matters.

The key environmental management measures to be undertaken during field work include:

- where instrumentation is deployed, it will be undertaken in a manner that minimises the disturbance of benthic habitat or the risk of entanglement e.g. taut lines etc.
- no fauna or flora samples are proposed to be taken or interfered with.
- · sediment samples will be taken from areas where there is no observable benthic habitat
- all vessels will be required to follow the procedures outlined in the Australian National Guidelines for Whale and Dolphin Watching (Commonwealth Government, 2017).
- all vessels will be required to maintain their equipment and vessel in good working order to minimise the risk or spills, waste generation or marine pests.
- any aerial surveys will be undertaken by licensed operators, and in accordance with the procedures outlined in the Australian National Guidelines for Whale and Dolphin Watching (Commonwealth Government, 2017).

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- Bird surveys (i.e. aerial surveys) to use methods that minimise disturbance of birds in accordance with the *Survey guidelines for Australia's threatened birds* (Australian Government, 2010).
- Biosecurity monitoring and management of all vessels coming from non-Australian waters. The potential Biosecurity risks escalating will be
 mitigated through adherence to the Australian Ballast Water Management Requirements (DAWR 2017) to meet the Australian requirements
 under the *Biosecurity Act 2015* and National Biofouling Management Guidance (Commonwealth of Australia 2009). No introduction and
 establishment of IMS is predicted and therefore there will be indirect impacts to existing benthic communities.
- In addition to acoustic surveys, vessels and other geotechnical/geophysical surveys also produce noise, however these tend to be lower frequency and continuous, confined to the localised area. With control measures (such as the provision of Marine Mammal Observers during any surveys relying on sparker/boomer or single mini airgun sound sources), the underwater noise impact from survey work is considered low, being temporary (less than three months) and in close proximity to a moving vessel (i.e. the vessel is only stationary for short periods, therefore not impacting a location for any period of time), Furthermore, the underwater noise is not expected to be higher than existing noise from shipping traffic in the nearby major navigational route.
- Drilling fluids shall be environmentally friendly and biodegradable.

4.1.5.7 Do you think your proposed action is a controlled action? *

No

4.1.5.9 Please elaborate why you do not think your proposed action is a controlled action. *

Given the minor level of physical disturbance to the environment, the use of non-intrusive survey techniques and with appropriate controls in place (refer to **Attachment 2 - Gippsland Offshore Wind Farm Marine Survey Investigation Plan, Section 9-10, pp 42-54**) it is unlikely works would have a significant impact on any migratory species or other protected matters and therefore, is not considered a controlled action.

4.1.5.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

A detailed document outlining the key controls in place are attached with this referral (refer to **Attachment 2 - Gippsland Offshore Wind Farm Marine Survey Investigation Plan, Section 10, pp 47-54**). The key environmental management measures to be undertaken during field work include:

- where instrumentation is deployed, it will be undertaken in a manner that minimises the disturbance of benthic habitat or the risk of entanglement e.g. taut lines etc.
- no fauna or flora samples are proposed to be taken or interfered with.
- sediment samples will be taken from areas where there is no observable benthic habitat.
- all vessels will be required to follow the procedures outlined in the Australian National Guidelines for Whale and Dolphin Watching (Commonwealth Government, 2017).
- all vessels will be required to maintain their equipment and vessel in good working order to minimise the risk or spills, waste generation or marine pests.
- any aerial surveys will be undertaken by licensed operators, and in accordance with the procedures outlined in the Australian National Guidelines for Whale and Dolphin Watching (Commonwealth Government, 2017).
- Bird surveys (i.e. aerial surveys) to use methods that minimise disturbance of birds in accordance with the *Survey guidelines for Australia's threatened birds* (Australian Government, 2010).
- Biosecurity monitoring and management of all vessels coming from non-Australian waters. The potential Biosecurity risks escalating will be mitigated through adherence to the Australian Ballast Water Management Requirements (DAWR 2017) to meet the Australian requirements under the *Biosecurity Act 2015* and National Biofouling Management Guidance (Commonwealth of Australia 2009). No introduction and establishment of IMS is predicted and therefore there will be indirect impacts to existing benthic communities.
- In addition to acoustic surveys, vessels and other geotechnical/geophysical surveys also produce noise, however these tend to be lower frequency and continuous, confined to the localised area. With control measures (such as the provision of Marine Mammal Observers during any surveys relying on sparker/boomer or single mini airgun sound sources), the underwater noise impact from survey work is considered low, being temporary (less than three months) and in close proximity to a moving vessel (i.e. the vessel is only stationary for short periods, therefore not impacting a location for any period of time), Furthermore, the underwater noise is not expected to be higher than existing noise from shipping traffic in the nearby major navigational route.
- Drilling fluids shall be environmentally friendly and biodegradable.

4.1.5.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

There are no proposed offsets as the residual impacts considered to be minor once relevant controls are in place.

4.1.6 Nuclear

4.1.6.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.6.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

Survey work does not involve undertaking a nuclear action.

4.1.7 Commonwealth Marine Area

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

Direct impact	Indirect impact	Commonwealth marine area
No	Yes	EEZ and Territorial Sea

4.1.7.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

Yes

4.1.7.2 Briefly describe why your action has a direct and/or indirect impact on these protected matters.*

Field works will occur within Victorian and Commonwealth waters, however the works proposed are non-intrusive, and will not involve the taking of, or interference with any flora or fauna. Potential impacts may involve:

- Underwater noise from geophysical and geotechnical surveys causing disturbance or harm to marine fauna.
- Moving vessels/equipment strike or cause noise that disturbs or harms marine fauna.
- Fuel leakage from vessel whilst at sea or loss of fuel while refuelling.
- Introduction of pest species on vessels and/or equipment to the marine environment.

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- Loss of habitat from collection methods (such as sediment sampling and boring- however, significant efforts will be made to mitigate harm to ecosystems).
- Marine fauna become entrapped or tethered in instrumentation or other floating equipment.
- Vessel based marine pollution.

These activities are not expected to have a significant impact on Commonwealth Marine waters. Significant effort will be placed to ensure that the impacts are managed to As Low As Reasonably Possible (ALARP) and an Acceptable Level. This is achieved by identifying the source of impact, pathway through which impacts may be realised, and defining potential receptors to then inform the basis for assessing the relative consequence, likelihood and residual impacts in accordance with ISO3100 and HB 203.

4.1.7.4 Do you consider this likely direct and/or indirect impact to be a Significant Impact? *

No

4.1.7.6 Describe why you do not consider this to be a Significant Impact. *

A risk assessment for the significant impacts has been undertaken. To undertake the risk assessment, guidance has been taken from the *Environment Plan Decision Making* Guidelines N-04750-G11721 A524696 (NOSEMA, 2021). Guidelines for how to prepare environmental management plans for offshore wind project field works has not yet been released by the Regulator, however it is assumed that a similar process will be required. This assessment as well as the mitigation measures that are employed is also provided as an attachment with the referral (Attachment 2 - Gippsland Offshore Wind Farm Marine Survey Investigation Plan, section 9-10, pp 42-55).

In summary, the works are minor in nature and of short duration. They are unlikely to result in a substantial change to the population of a marine species, important habitat, air quality, water quality or heritage values. Any indirect impacts can be readily addressed through standard mitigation measures. With mitigation measures, all the identified risks to Commonwealth Marine areas are expected to have a risk rating of medium or lower.

4.1.7.7 Do you think your proposed action is a controlled action? *

No

4.1.7.9 Please elaborate why you do not think your proposed action is a controlled action.*

The proposed action is in an area of open ocean where any discharges will be consistent with standard maritime activities (MARPOL 73/78 Annex I, AMSA Marine Order Part 91: Marine Pollution Prevention – Oil and International Convention for the Prevention of Pollution from Ships for sewage, grey water, putrescibles, and deck drainage) and will be rapidly diluted and dispersed. Vessels operate in the area routinely and the presence of the survey vessel does not increase the risk to MNES. The acoustic sources are all low power in comparison with other marine acoustic surveys, which have been assessed and approved for other parts of the region. Significant mitigation measures as detailed in **Attachment 2 - Gippsland Offshore Wind Farm Marine Survey Investigation Plan, Section 10, pp 48-54** are used to reduce noise impacts from acoustic activities. Localised seabed disturbance will not affect MNES or other matters protected under the EPBC Act.

4.1.7.10 Please describe any avoidance or mitigation measures proposed for this action and attach any supporting documentation for these avoidance and mitigation measures. *

A full description of the proposed mitigation measures in addition to the ones discussed above are provided in **Attachment 2 - Gippsland Offshore Wind Farm Marine Survey Investigation Plan, Section 10, pp 48-54**.

4.1.7.11 Please describe any proposed offsets and attach any supporting documentation relevant to these measures. *

There are no proposed offsets as the residual impacts considered to be minor once relevant controls are in place.

4.1.8 Great Barrier Reef

4.1.8.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.8.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The Study Area is not within proximity of the Great Barrier Reef.

4.1.9 Water resource in relation to large coal mining development or coal seam gas

4.1.9.1 Is the proposed action likely to have any direct and/or indirect impact on this protected matter? *

No

4.1.9.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

The project does not involve large coal mining or coal seam gas.

4.1.10 Commonwealth Land

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

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4.1.10.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.10.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

Proposed surveys will not occur on commonwealth land.

4.1.11 Commonwealth Heritage Places Overseas

You have identified your proposed action will likely directly and/or indirectly impact the following protected matters.

A direct impact is a direct consequence of an action taken – for example, clearing of habitat for a threatened species or permanent shading on an ecological community as the result of installing solar panels.

An indirect impact is an 'indirect consequence' such as a downstream impact or a facilitated third-party action.

4.1.11.1 Is the proposed action likely to have any direct and/or indirect impact on any of these protected matters? *

No

4.1.11.3 Briefly describe why your action is unlikely to have a direct and/or indirect impact. *

There are no commonwealth heritage places overseas impacted by the proposed survey works.

4.1.12 Commonwealth or Commonwealth Agency

4.1.12.1 Is the proposed action to be taken by the Commonwealth or a Commonwealth Agency? *

No

4.2 Impact summary

Conclusion on the likelihood of significant impacts

You have indicated that the proposed action will likely have a significant impact on the following Matters of National Environmental Significance:

None

Conclusion on the likelihood of unlikely significant impacts

You have indicated that the proposed action will unlikely have a significant impact on the following Matters of National Environmental Significance:

- World Heritage (S12)
- National Heritage (S15B)
- Ramsar Wetland (S16)
- Threatened Species and Ecological Communities (S18)
- Migratory Species (S20)
- Nuclear (S21)
- Commonwealth Marine Area (S23)
- Great Barrier Reef (S24B)
- Water resource in relation to large coal mining development or coal seam gas (S24D)
- Commonwealth Land (S26)
- Commonwealth Heritage Places Overseas (S27B)

• Commonwealth or Commonwealth Agency (S28)

4.3 Alternatives

4.3.1 Do you have any possible alternatives for your proposed action to be considered as part of your referral? *

No

4.3.8 Describe why alternatives for your proposed action were not possible. *

<u>Surveys</u>

The survey methodology chosen complies with all relevant guidelines. A range of survey methods have been considered, however, those that are as non-intrusive as possible (using aerial or satellite technology) have been preferred wherever possible to minimise impacts to the marine environment.

These surveys are required for the feasibility assessment of the proposed OWFs. It is extremely important to ensure that the data collected can be used to inform feasibility decisions and the surveys proposed are considered to be the best options to allow the relevant data to be collected.

Alternative offshore sites

Alternative offshore wind sites within Australia have been identified and explored. This area was selected after the consideration of several options along the Gippsland coastline. This also included the consideration of a range of factors including potential environment and social effects, potential grid connection opportunities, as well as constructability and design issues.

The proposed survey areas lie within the area that was declared by the Commonwealth Government as suitable for offshore wind energy.

<u>Timeline</u>

The timeline for the proposed surveys has been developed to allow the impact assessments to occur to gain Project approval by 2027. The timeline includes two years of marine surveys which is typical to inform the proper project developments particularly in the offshore wind industry.

5. Lodgement

5.1 Attachments

1.2.1 Overview of the proposed action

	Туре	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 1 - Gippsland Offshore Wind Farm Marine Survey Investigations EPBC Referral Area.pdf Referral Project Location	17/10/2023	No	High

1.3.2.17 (Person proposing to take the action) Proposer's history of responsible environmental management

	Туре	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 3 - Ørsted QHSE Policy and Offshore HSE Requirements.pdf Proponent HSE Policy	17/10/2023	Yes	High
#2.	Document	Attachment 3 - Ørsted_QHSE_Policy_Single Page_V1_2024_01_29.pdf Orsted's external QHSE Policy Document	29/01/2024	No	High

3.1.1 Current condition of the project area's environment

	Туре	Name	Date	Sensitivity Confidence
#1.	Link	https://www.dcceew.gov.au/sites/default/files/documents/south-east-		High
		marine-region-profile.pdf		
		https://www.dcceew.gov.au/sites/default/files/do		

3.1.3 Natural features, important or unique values that applies to the project area

https://epbcbusinessportal.aw e.gov.au/dashboard/print-application/?id=639369a1-2b42-ee11-a81c-000d3a7941b5

	Туре	Name	Date	Sensitivity	Confidence
#1.	Document	Attachment 2 - Marine Survey Investigation Plan.pdf Referral Investigations	17/10/2023	No	High

3.4.1 Hydrology characteristics that apply to the project area

	Туре	Name Date	Sensitivity Confidence
#1.	Link	https://rsis.ramsar.org/RISapp/files/533/documents/AU269ECD.pdf https://rsis.ramsar.org/RISapp/files/533/documen	High
#2.	Link	https://rsis.ramsar.org/RISapp/files/RISrep/AU269RIS.pdf https://rsis.ramsar.org/RISapp/files/RISrep/AU26	High
#3.	Link	https://www.agriculture.gov.au/sites/default/files/documents/stateofparks1112.pdf https://www.agriculture.gov.au/sites/default/fil	High
#4.	Link	https://www.dcceew.gov.au/sites/default/files/documents/13-ris.pdf https://www.dcceew.gov.au/sites/default/files/do	High
#5.	Link	https://www.environment.gov.au/cgi-bin/wetlands/ramsardetails.pl? refcode=13# https://www.environment.gov.au/cgi-bin/wetlands/	High

4.1.4.6 (Threatened Species and Ecological Communities) Why you do not consider the direct and/or indirect impact to be a Significant Impact

	Туре	Name	Date	Sensitivity Confidence
#1.	Link	https://drillingcontractor.org/dcpi/2009/july-		High
		aug/ahead/Biofouling_Guidance_Petroleum_26-May-2009.pd		
		https://drillingcontractor.org/dcpi/2009/july-au		

#2.	Link	https://www.agriculture.gov.au/sites/default/files/documents/australian- ballast-water-management-req https://www.agriculture.gov.au/sites/default/fil	High
#3.	Link	https://www.dcceew.gov.au/sites/default/files/documents/aust-national- guidelines-whale-dolphin-watch https://www.dcceew.gov.au/sites/default/files/do	High
#4.	Link	https://www.dcceew.gov.au/sites/default/files/documents/survey-guidelines- birds-april-2017.pdf https://www.dcceew.gov.au/sites/default/files/do	High

4.1.7.6 (Commonwealth Marine Area) Why you do not consider the direct and/or indirect impact to be a Significant Impact

	Туре	Name	Date	Sensitivity Confidence
#1.	Link	https://www.nopsema.gov.au/search?keys=environmental+plan+decision		High
		https://www.nopsema.gov.au/search?keys=environme		

5.2 Declarations

Completed Referring party's declaration

The Referring party is the person preparing the information in this referral.

ABN/ACN

20093846925

Organisation name	AECOM Australia Pty Ltd
Organisation address	Wurundjeri and Bunurong Country, Tower 2, Level 10, 727 Collins Street, Melbourne VIC 3008, Australia
Representative's name	Victoria Conlon
Representative's job title	Associate Director
Phone	+61415381814
Email	victoria.conlon@aecom.com
Address	Collins Square Level 10 Tower Two 727 Collins Street Melbourne VIC 3008, Australia

Check this box to indicate you have read the referral form. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

By checking this box, I, Victoria Conlon of AECOM Australia Pty Ltd, declare that to the best of my knowledge the information I have given on, or attached to this EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

Completed Person proposing to take the action's declaration

The Person proposing to take the action is the individual, business, government agency or trustee that will be responsible for the proposed action.

ABN/ACN

Organisation name	ORSTED OFFSHORE AUSTRALIA 1 PTY LTD
Organisation address	Ashurst, Level 16, 80 Collins Street, South Tower, Melbourne, VIC 3000
Representative's name	Sarah Wang
Representative's job title	Regional Consent Lead - APAC Environment & Permitting
Phone	+886905529016
Email	sarwa@orsted.com
Address	Ashurst, Level 16, 80 Collins Street, South Tower, Melbourne, VIC 3000

Check this box to indicate you have read the referral form. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

I, Sarah Wang of ORSTED OFFSHORE AUSTRALIA 1 PTY LTD, declare that to the best of my knowledge the information I have given on, or attached to the EPBC Act Referral is complete, current and correct. I understand that giving false or misleading information is a serious offence. I declare that I am not taking the action on behalf or for the benefit of any other person or entity. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

Completed Proposed designated proponent's declaration

The Proposed designated proponent is the individual or organisation proposed to be responsible for meeting the requirements of the EPBC Act during the assessment process, if the Minister decides that this project is a controlled action.

Same as Person proposing to take the action information.

Check this box to indicate you have read the referral form. *

I would like to receive notifications and track the referral progress through the EPBC portal. *

I, Sarah Wang of ORSTED OFFSHORE AUSTRALIA 1 PTY LTD, the Proposed designated proponent, consent to the designation of myself as the Proposed designated proponent for the purposes of the action described in this EPBC Act Referral. *

I would like to receive notifications and track the referral progress through the EPBC portal. *