



ATTACHMENT 10 INHERENT MITIGATIONS

ATTACHMENT 10: INHERENT MITIGATION

This attachment provides all designed-in project control measures (hereafter ‘inherent mitigation’) that will be applied to reduce environmental impacts of the project, relevant to project phase and area.

Activity	Source of impact (aspect)	Project phase	Project area	Inherent mitigations
Nearshore export cable and shore crossing construction	Anthropogenic noise, vibrations, sedimentation and turbidity due to vessel presence	Construction	Offshore transmission area	Installation activities that require vessels using dynamic positioning in Victorian waters will be avoided between 1 May to 31 October of the same year when southern right whale cow-calf pairs may occur in the coastal reproduction BIA (Seasonal exclusion (PS 2.1 A.1)) unless there are overriding safety concerns or a need to maintain asset integrity. If DP is used during this period, the precaution zone will be extended to 3km for southern right whale sightings. All bridge watch crew are trained crew, that have demonstrated sound understanding of the requirements of the action and have had experience in and demonstrated ability in whale observation, whale identification, distance estimation and reporting (Trained crew (PS 2.1 A.2)). One Senior Marine Mammal Observer (Senior MMO) and one Marine Mammal Observer (MMO) will be present on any project vessel which is using dynamic positioning thrusters (Marine fauna observers (PS 2.1 B.1)). While dynamic positioning thrusters are in use the Senior MMO and MMO: • Will not undertake any other duty while undertaking visual observations. • Will undertake continuous visual observation of the observation and precaution zones to detect, from onboard the project vessel, the presence and direction of movement of any whale, commencing at least 30 minutes prior to the startup of any dynamic positioning thruster (pre-start visual observations (PS 2.1 A3.1) and continuing for the entire duration that any active dynamic positioning thruster. • Will use appropriate technology to detect the presence and direction of movement of any whale within the observation zone or precaution zone during low visibility conditions. • Will reliably document the occurrence of whales in the observation zone and precaution zone including the coordinates, timing, duration, observed behaviours and any measures taken by any project vessel in the referral area to minimise impacts on a whale. • If one or more whale is observed within the observation zone during startup or use of the dynamic positioning thruster, the approval holder must ensure that, as soon as possible thereafter, the Senior MMO and MMO continuously monitor the observation zone and monitor the movements of whales until all whales have left the observation zone or at least 30 minutes have passed since the most recent observation of a whale in the observation zone.

Activity	Source of impact (aspect)	Project phase	Project area	Inherent mitigations
				- If one or more whale is observed within the precaution zone while a DP activity is being undertaken, the approval holder must ensure that any dynamic positioning thruster is not started (start-up delay (PS2.1 A3.3), or any dynamic positioning thruster is powered down to the lowest safe power setting (shut down procedure (PS 2.1 A3.5)), until all whales have left the precaution zone, or until at least 30 minutes has elapsed since the most recent sighting of a whale in the precaution zone. Definitions for terms used: - A Senior MMO means a person who has been trained and has at least 2 years of field experience, including a minimum of 120 days at sea experience, in cetacean identification and behaviour, distance estimation, and is capable of making accurate identifications and observations of cetaceans in Australian waters. - An MMO means a person trained and experienced in cetacean identification and behaviour, distance estimation, and capable of making accurate identifications and observations of cetaceans in Australian waters. - Precaution zone means the area which falls within a 1-km radius of a project vessel with dynamic positioning thrusters in use, including all waters within this area, unless during 1 May and 31 October for southern right whales in which case the precaution zone will be 3 km. - The observation zone means the area which falls between 3-km radius and 1-km radius of any project vessel with dynamic positioning thrusters in use, including all waters within this area. - A whale means any species of whale listed as threatened, migratory or marine under the EPBC Act. - Low visibility means conditions, including night time, rainfall, fog, rough seas and high winds, that would prevent the clear visual detection and identification of any whale the Precaution Zone.
Offshore and nearshore vessel operations	Anthropogenic noise, vibrations, sedimentation and turbidity due to vessel presence	Construction, Operation and Decommissioning	Offshore wind farm area and offshore transmission area	Pre-activity cumulative impacts assurance process will potentially result in the development of a SIMOPS plan prior to the commencement of HSW project activities that will identify if there are any other noise producing activities in the referral area that will overlap with the timing of activities requiring vessels on DP, and determine SIMOPS arrangements such as minimum distances between activities or timing adjustments to ensure impacts are not greater than predicted in the impact assessment for this referral
Offshore and nearshore	Collision with marine fauna	Construction, Operation and Decommissioning	Offshore wind farm area and offshore	Installation activities that require vessels on DP in Victorian waters will be avoided between 1 May to 31 October of the same year when SRW cow-calf pairs may occur in the coastal reproduction BIA unless there are overriding safety concerns or a need to maintain asset

Activity	Source of impact (aspect)	Project phase	Project area	Inherent mitigations
vessel operations			transmission area	integrity If DP is used during this period, the precaution zone will be extended to 3km for southern right whale sightings. - All project vessels are operated by trained crew, that have demonstrated sound understanding of the requirements of the action and have had experience in and demonstrated ability in whale observation, whale identification, distance estimation and reporting. - Application of Part 8, Division 8.1 Interacting with cetaceans, Sections 8.05 (cetaceans) and 8.06 (calves) of the EPBC Regulations 2025 (Cwth) to minimise the risk of collision with a whale or dolphin. - No project vessel travels at a speed greater than 10 knots when undertaking project activities in Victorian waters between 1 May to 31 October of the same year. - No project vessel travels at a speed greater than 6 knots if a cetacean is within 500 metres of the project vessel while undertaking project activities. If a cetacean has been observed, the person taking the Action must ensure that no project vessel exceeds 6 knots until all sighted cetaceans are further than 500 metres from the survey vessel.
Offshore transmission installation	Presence of offshore cable protection	Construction and decommissioning	Offshore transmission area	Installation and maintenance of protection measures around offshore transmission cables where necessary to protect infrastructure.
Offshore transmission installation	Siting offshore transmission cables on or beneath the seabed	Construction	Offshore transmission area	Pre-construction geophysical, geotechnical and benthic surveys would inform cable route selection and micro-siting to avoid sensitive habitats as far as reasonably practicable.
Offshore transmission installation	Electromagnetic field exposure	Construction	Offshore wind farm area and offshore transmission area	Cable burial risk assessment to inform detailed design to determine depth of cable burial requirement for the safety of other marine users, and to minimise exposure of marine fauna to electromagnetic fields.
Onshore construction	Vegetation removal and clearing	Construction and decommissioning	Onshore transmission area	An onshore investigation area has been identified for investigation of suitability to construct transmission infrastructure. Further assessment would be undertaken through the environmental approvals to understand the presence of Victorian ecological vegetation classes (EVCs) and threatened flora and Commonwealth threatened ecological communities (TECs) and threatened flora under the EPBC Act and FFG Act. Where these are present, the project would first aim to avoid and minimise impacts on these values. The width of the area selected for the referrals allows for this flexibility.

Activity	Source of impact (aspect)	Project phase	Project area	Inherent mitigations
				Where avoidance is not possible, vegetation clearance would be managed in accordance with the Guidelines for the removal, destruction or lopping of native vegetation (DEECA 2025) including: - Detailed site assessment by a certified native vegetation assessor. - Offset unavoidable vegetation removal for listed EVCs.
Onshore construction	Waterways impact as result of onshore construction	Construction and decommissioning	Onshore transmission area	- Locate infrastructure outside of key habitat for migratory and other bird species that may use Ramsar sites in the region of the proposed action where possible. - Situate project infrastructure away from any waterways that flow into the Ramsar sites where possible. - Minimise impacts associated with any waterway crossings using measures such as trenchless construction where practicable and erosion and sediment control to manage indirect impacts to waterways.
Onshore construction	All onshore construction	Construction and decommissioning	Onshore transmission area	All onshore construction activities will be carried out in accordance with industry standard best practice guidelines including: - IECA Best Practice Erosion and Sediment Control Guidelines. - EPA Publication 1834; Civil Construction, Building and Demolition Guide. - EPA Victoria Publication 1806; Reducing Risk in the Premixed Concrete Industry. - Onshore Construction noise will be managed in accordance with EPA Victoria Publication 1834.1. - Limit vehicle speeds onsite to minimise the generation of dust in accordance with the EPA Publication 1834.1. - Management of groundwater. A project wide CEMP would be developed outlining the erosion and sediment mitigation measures for the project.
Onshore construction	Machinery noise, dust and potential changes to traffic routes	Construction and decommissioning	Onshore transmission area	- Implement dust management measures during construction, considering: - earthworks, exposed areas and stockpiles - access tracks and haul routes - construction vehicles and equipment - construction materials, transport, handling and storage - waste management, transport, handling and storage. Measures will be informed by EPA Victoria publication 1943 - Guideline for assessing nuisance dust and publication 1820.1 - Guide to preventing harm to people and the environment.

Activity	Source of impact (aspect)	Project phase	Project area	Inherent mitigations
				• Communication with potentially affected road users or residents if required. • Development and implementation of traffic management plans. • Defined work hours. • Application of the Victorian general environmental duty and unreasonable noise duty to manage construction noise as far as reasonably practicable.
Onshore construction	Accidental fuel or chemical spill during construction or maintenance	All	Onshore transmission area	• Application of the Victorian general environmental duty. • Chemicals, fuels and hazardous materials being stored and handles on site in a manner that prevents contamination in accordance with <i>Australian Standard AS1940 Storage and Handling of Flammable and Combustible Liquids</i> and with reference to EPA Victoria Publication 1689: <i>Liquid storage and handling guidelines</i>. • Contingency and emergency response procedures to handle fuel and chemical spills, including availability of on-site spill kits.
Onshore construction	Fauna habitat removal	Construction and decommissioning	Onshore transmission area	An onshore investigation area has been identified for investigation of suitability to construct transmission infrastructure. Further assessment would be undertaken through the environmental approvals to avoid and minimise potential impacts on critical habitat for threatened fauna.
Onshore construction	Fauna injury/mortality during construction and trenching	Construction and decommissioning	Onshore transmission area	• Pre-clearance fauna inspections and fauna relocation away from the construction area, if required. • Fauna ramps or egress points in excavations if any critical habitat would be intersected due to the construction of project infrastructure. • Trench inspections and fauna relocation, if required.
Onshore construction	Soil disturbance / inversion during trenching and cable laying	Construction and decommissioning	Onshore transmission area	• Soil stockpiling controls would be implemented, including soil layer separation. • Requirements under the relevant legislation would be adhered to during onshore construction to reduce potential impacts to contamination or disturbance. • Implement erosion control measures developed with reference to the Best Practice Erosion and Sediment Control Guidelines (IECA, 2008). • Utilise excavation equipment that is suitable for the geological conditions and able to effectively construct the proposed trench profile. • Minimise the duration of open trenches if there are areas susceptible to movement.
Onshore construction	Acid sulphate soil or contamination	Construction and decommissioning	Onshore transmission area	Implementation of management measures in accordance with the National Acid Sulfate Soils Guidance (Shand et al 2018) and Victorian guidelines such as the EPA Publication 655:1: Acid

Activity	Source of impact (aspect)	Project phase	Project area	Inherent mitigations
	disturbance from trenching			Sulfate Soil and Rock and the Victorian Best Practice Guideline for Assessing and Managing Coastal Acid Sulfate Soils (DSE, 2010).
Onshore construction	Dewatering from trenching including surface runoff and groundwater	Construction and decommissioning	Onshore transmission area	• Meeting requirements or duties under the <i>Environment Protection Act 2017</i> (Vic) framework and the general environmental duty. • Dewater to vegetated land. • Implement erosion control measures developed with reference to the Best Practice Erosion and Sediment Control Guidelines (IECA, 2008). • Management of groundwater will be included in the Construction Environmental Management Plan. Requirements under the relevant legislation would be adhered to during onshore construction to reduce potential impacts from trench dewatering, including: – in accordance with the National Acid Sulfate Soils Guidance (Shand et al 2018) and Victorian guidelines such as the EPA Publication 655:1: Acid Sulfate Soil and Rock and the Victorian Best Practice Guideline for Assessing and Managing Coastal Acid Sulfate Soils (DSE, 2010). – undertake a ground water drawdown assessment for areas where dewatering of construction trenches will be required based on detailed design. – include inspections/investigations to identify potential groundwater dependant ecosystems or unregistered groundwater users within the zones of predicted construction dewatering drawdown. – develop and implement methods for HDD or trenchless crossings to prevent ground water movement and contamination.
Onshore construction	Temporary flow disruption or bypass at waterway crossings during cable laying	Construction and decommissioning	Onshore transmission area	• Target low flow periods. • Plan construction to minimise period of disruption. • Investigate trenchless methods e.g. HDD, where appropriate. • Flow bypass if necessary.
Onshore construction	Disturbance (excavation) of bed and bank at waterway crossings during cable laying	Construction and decommissioning	Onshore transmission area	• Reinstatement of bed and bank material and profile, if disturbed. • Rock armour where required for stability.

Activity	Source of impact (aspect)	Project phase	Project area	Inherent mitigations
Onshore construction	Waste production during reinstatement	Construction and decommissioning	Onshore transmission area	Meeting any requirements or duties under the <i>Environment Protection Act 2017</i> (Vic) framework and the general environmental duty.
Onshore construction	Erosion and sedimentation following reinstatement	Construction and decommissioning	Onshore transmission area	Implement erosion control measures developed with reference to the Best Practice Erosion and Sediment Control Guidelines (IECA, 2008).
Onshore construction	Weed growth following reseeding and rehabilitation	Construction and decommissioning	Onshore transmission area	- Weed management. - Cover seeding if required.
Onshore construction and operation	Landowner or land use disruption	Construction, Operation and Decommissioning	Onshore transmission area	Consultation with potentially affected landowners or any properties that may be affected by disruption.
Onshore construction and operation	Introduction and spread of weeds and pathogens	Construction, Operation and Decommissioning	Onshore transmission area	Measures to manage and control biosecurity threats (weeds, pathogens and pest animals), such as: - Cleaning and inspection of plant and equipment for any organic materials would be undertaken before entering and leaving site. - Washdowns would be implemented as required. - Topsoil movement would be minimised where possible. If movement is required covering of loads and storage management (erosion and sediment control) will be implemented. - Cover seeding if required. - Ensure all project personnel understand biosecurity risks and their responsibilities.
Onshore construction, shore	Tunnel erosion and subsidence following cable laying	Construction and decommissioning	Onshore transmission area	Backfill compaction
Shore crossing construction	Low-toxicity drilling fluids for trenchless drilling	Construction	Shore crossing area	Only use drilling additives that are listed on the Definitive Ranked List of Registered Products as Gold, Silver or Group D/E products.

Activity	Source of impact (aspect)	Project phase	Project area	Inherent mitigations
Shore crossing construction	Waste concrete, crushed rock, cuttings and mud	Construction and decommissioning	Onshore transmission area	Meeting any requirements or duties under the <i>Environment Protection Act 2017</i> (Vic) framework and the general environmental duty.
Shore crossing construction and operation	Mud loss to environment during horizontal directional drilling	Construction, Operation and Decommissioning	Onshore transmission area	• Drill fluid selection (non-toxic), such as bentonite clay or xanthium gum. • Returns monitoring would be implemented to minimise the potential for frac-outs to occur. • Emergency response and clean up protocol for any frac-out during drilling.
Vessel operations	Vessel interactions with other marine users	Construction, Operation and Decommissioning	Offshore wind farm area and offshore transmission area	Notification provided to the Australian Maritime Safety Authority (AMSA) Joint Rescue Coordination Centre (JRCC) and Australian Hydrographic Office (AHO) prior to heavy transport, heavy-lift, jack-up, or cable-lay vessels arriving in the project area and following their departure from the activity area.
Vessel operations	Vessel interactions with other marine users, production of artificial light	Construction, Operation and Decommissioning	Offshore wind farm area and offshore transmission area	Vessel navigation lighting and equipment is compliant with: • Marine Order 21 (Safety of Navigation and Emergency Procedures). • Marine Order 27 (Safety of navigation and radio equipment). • Marine Order 30 (Prevention of Collisions). • <i>Navigation Act 2012</i> (Cwth). Aviation obstacle lighting implemented in compliance with the National Airports Safeguarding Framework Guideline D (2012).
Vessel operations	Artificial lighting impact to fauna	Construction, Operation and Decommissioning	All project areas	A seabird rescue program for grounded birds is implemented on vessels used for the action as recommended by the National Light Pollution Guidelines for Wildlife (DCCEEW, 2023b). Wind farm and vessel lighting considers the National Light Pollution Guidelines for Wildlife (DCCEEW, 2023b) where these do not conflict with safety and regulatory lighting requirements of Marine Order 21 (Safety of Navigation and Emergency Procedures), Marine Order 27 (Safety of navigation and radio equipment), Marine Order 30 (Prevention of Collisions) and the <i>Navigation Act 2012</i> (Cwth). For example: • During nighttime, will ensure that no non-essential outdoor lighting is directed overboard from a project vessel undertaking project activities. • non-essential outdoor lighting is switched off when the deck is not in use by marine crew when undertaking project activities.

Activity	Source of impact (aspect)	Project phase	Project area	Inherent mitigations
Vessel operations	Pollution from vessels	Construction, Operation and Decommissioning	Offshore wind farm area and offshore transmission area	Vessels used have current management certificates in place as required under Relevant aspects of the AMSA Marine Orders and Acts: • <i>Protection of the Sea (Prevention of Pollution from Ships) Act 1983</i> (Cwth). • <i>Navigation Act 2012</i> (Chapter 4). • <i>Protection of the Sea (Prevention of Pollution from Ships) (Orders) Regulations 1994</i>. • <i>Marine Order 91 (Marine pollution prevention—oil) 2025</i>. • <i>Marine Order 93 (Marine pollution prevention—noxious liquid substances) 2014</i>. • <i>Marine Order 94 (Marine pollution prevention—packaged harmful substances) 2014</i>. • <i>Marine Order 95 (Marine pollution prevention—garbage) 2018</i>. • <i>Marine Order 96 (Marine pollution prevention—sewage) 2018</i>. • <i>Marine Order 97 (Marine pollution prevention—air pollution) 2022</i>.
Vessel operations	Introduction of invasive marine species	Construction, Operation and Decommissioning	Offshore wind farm area and offshore transmission area	Vessels used will apply the requirements of the following as relevant: • <i>Biosecurity Act 2015</i> • <i>Australian Ballast Water Management Requirements 2017</i>. • <i>National System for the Prevention and Management of Marine Pest Incursions</i>.
Whole of project	Other projects	Construction, Operation, Decommissioning	The whole project area	Undertake a pre-activity cumulative impacts assurance process before the commencement of a new project phase e.g. construction, operation or decommissioning to determine if additional mitigation measures need to be implemented to avoid significant impact as a result of cumulative impacts from this project and other projects that will occur at the same time and same spatial area.
Whole of project	Interaction with stakeholders	Construction, Operation and Decommissioning	All	Stakeholder notifications, including both those required under regulation, and those committed to during consultation with stakeholders for the action, during all aspects of construction and operation of the action. For example: • Notice to Mariners (NtM) and notices to the Joint Rescue Coordination Centre (JRCC) during vessel campaigns. • Notices to Australian Hydrographic Office (AHO) of as-laid positions of offshore infrastructure to allow charting on maps. • Notices to commercial fishermen that operate in the vicinity of the offshore wind farm area or offshore transmission area.