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Enquiry / feedback

I wish to lodge to the EIS for Star of the South on behalf of DEECA, our security will not allow the upload to this site.
Please advise.
Thanks
Jayne

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Department of Energy, Environment and Climate Action

PO Box 500, East Melbourne,
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SBR-260200511

Mr Charles Rattray
Chief Executive Officer
Southerly Ten

info@southerlyten.com.au

Dear Mr Rattray

DEECA Submission – Star of the South Offshore Wind Farm – Commonwealth EIS

I am pleased to forward the enclosed submission on behalf of Victoria's Department of Energy, Environment and Climate Action (DEECA) to the draft Impact Statement considering the environmental impact of the proposed Star of the South Offshore Wind Farm. The draft Impact Statement was prepared under the *Environment Protection and Biodiversity Conservation Act 1999* as exhibited on the Star of the South's website.

DEECA brings together Victoria's energy, environment, water, agriculture, resources, climate action, and forest fire management functions into a single department. This maximises connections between the environment, community, industry, and economy to deliver positive outcomes for Victorians.

DEECA would be pleased to expand on any of the matters outlined in the enclosed submission, including matters relating to Victoria's energy policy objectives and commitments.

If you have any questions, please contact [REDACTED] Regional Director, Port Phillip Region, DEECA, at [REDACTED]

Yours sincerely

[REDACTED]
[REDACTED]

29/06/2026

DEECA Submission

Star of the South Offshore Wind Farm

Commonwealth Environmental Impact Statement (EIS)

June 2026

Contents

Executive Summary	3
1.0 Legislative and policy context – Energy & Climate Action	5
1.1 Victoria’s transition to renewable energy future.....	5
1.2 Victoria’s climate action	6
2.0 Legislative and policy context – Environment	6
3.0 DEECA Key Considerations	7
4.0 Detailed Submission – Environment	8
4.1 Native Vegetation - Terrestrial.....	8
4.2 Native Vegetation Offsets.....	9
4.3 Threatened Flora.....	9
4.3 Threatened Fauna.....	10
5.0 Marine Environment	11
5.1 Marine Mammals & Turtles	11
5.2 Fish & Invertebrates	13
6.0 Avifauna (birds and bats) – Collision Risk.....	13
6.1 Summary	13
6.2 Orange-bellied Parrot	13
6.3 Swift Parrot	14
6.4 Threatened Bats	14
6.5 Recommendations	14

Executive Summary

This submission to the Star of the South Offshore Wind Farm Commonwealth Environmental Impact Statement (EIS) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is provided in the context of the statutory and legislative obligations and policy commitments for which the Victorian Minister for Environment, Minister for Climate Action, Minister for Energy and Resources and Secretary of the Department of Energy, Environment and Climate Action (DEECA) are responsible. This submission is made on behalf of the Secretary of DEECA.

This submission can be referenced as the DEECA submission and has been prepared with input from the following DEECA Groups, ensuring their relevant statutory interests have been appropriately considered:

- a) Regions, Environment, Climate Action and First Peoples (RECAFP) Group, responsible for administering the legislative and policy frameworks relevant to the environmental effects of this proposal and from which DEECA's advice has been provided through the Environment Effects Statement (EES) and EIS development process
- b) Energy Group - Offshore Wind Energy Victoria, responsible for providing advice in relation to the proposal's context within Victoria's renewable energy transition, offshore wind industry and Victorian Government energy policy objectives

DEECA recognises that the Star of the South Offshore Wind Farm project is the most advanced offshore wind farm proposal in Victoria, and the substantial work undertaken by the Proponent in this emerging industry.

As part of the Victorian environmental assessment process under the Victorian *Environment Effects Act 1978*, and broadly consistent with the EIS scope within Victorian jurisdiction, DEECA was represented on the Star of the South Offshore Wind Farm Technical Reference Group (TRG) from 2021. As a TRG member, DEECA undertook a site inspection of the project area, attended TRG meetings and where requested, provided advice on biodiversity matters during the preparation of the project's Victorian EES.

DEECA had limited involvement in reviewing and providing advice on the EIS during its development and has not had the opportunity to review the full suite of documents prior to exhibition of the EIS.

DEECA recognises the available relevant scientific evidence base is still evolving, given offshore wind is an emerging development activity in Commonwealth waters. Notwithstanding, DEECA is generally satisfied that the EIS has adequately described and characterised potential impacts the project could have on threatened biodiversity values.

DEECA is also satisfied that the mitigation hierarchy (avoid, minimise and then offset impacts) has largely been applied.

However, DEECA provides recommendations to strengthen the proposed mitigation measures given the uncertainty the project could have on some biodiversity values.

The following recommendations, if implemented, should allow the proponent to adequately consider the project's potential impacts on native vegetation and threatened flora and fauna. A summary of these matters include:

- a) Updates to refine and reduce potential impacts through measures outlined in the project's draft Environmental Management Framework (EMF), including:

- i) Additional survey work, construction no-go zones, targeted micro-siting, and the implementation of environmental mitigation measures, which will support ongoing efforts to avoid and minimise adverse effects to native vegetation and threatened flora and fauna throughout the project's development.
- ii) An adaptive management framework for monitoring, mitigating and offsetting potential impacts to threatened avifauna, including species-specific measures for Bass Strait migrants, Orange-bellied Parrot, Swift Parrot, and threatened bats.
- iii) Ensuring entanglement, noise and collision risks in the marine environment are adequately monitored and managed.
- iv) Updating the Construction Underwater Noise Management Framework to ensure it verifies modelling and includes an adaptive management framework and apply it to State waters by including in the Victorian EMF.
- v) Inclusion of EMF FFM-M015 in the Commonwealth EMF document.

1. Legislative Policy Context – Energy & Climate Action

1.1 Victoria's transition to a renewable energy future

- 1) DEECA recognises the significant role that offshore wind can play in supporting the decarbonisation of Victoria's electricity system and in contributing to the achievement of the State's emissions reduction objectives.
- 2) Victoria, alongside other east coast states that form the National Electricity Market, is experiencing a once-in-a-generation transformation of its energy landscape and how the market sources and distributes energy.
- 3) The Victorian Government has committed to delivering an affordable, reliable and secure electricity system for all Victorians, helping us to keep the lights on as coal-fired power generation closes, to reduce the impacts of climate change, and to deliver cheaper renewable energy to homes and businesses across the state. It has also committed to creating opportunities for Victorians, including through partnerships with Traditional Owners and First Peoples, job creation, and local supply chain development.
- 4) The Victorian Government has legislated renewable energy generation targets to guide the decarbonisation of Victoria's economy and transition of the energy system. Victoria's legislated renewable generation targets are 40 per cent by 2025, 65 per cent by 2030 and 95 per cent by 2035.
- 5) Victoria is making good progress on achieving its renewable generation targets with the latest annual progress report tabled in the Victorian Parliament confirming that the 2025 target was exceeded with 44.6 per cent of the State's energy coming from renewable energy generation.
- 6) Supporting these targets, the Victorian Government has also legislated offshore wind energy generation targets – targeting 9GW of offshore wind energy generation by 2040.
- 7) Wind generation has a critical role in contributing to Victoria's renewable energy targets and supporting emissions reductions goals. Between now and 2035, Victoria is expected to require at least an additional 11.6 GW of new grid-scale renewable energy generation capacity, with offshore wind generation forming a critical part of this capacity. Offshore wind will diversify Victoria's renewable energy mix and enhance the security and reliability of Victoria's energy system, keeping electricity costs down. Crucially, its energy generation profile is complementary to solar and onshore wind, as it generates strongly in the evening peak and during winter.
- 8) As Australia's most advanced offshore wind zone with shallow waters, some of the world's strongest and most consistent offshore wind resources, and proximity to existing 500 kV transmission, Gippsland is at the centre of offshore wind development opportunities.
- 9) The Victorian Government is committed to ensuring that the establishment of offshore wind energy brings sustainable and long-term opportunities for Victorian workers and businesses. Through community benefit sharing initiatives, offshore wind projects have potential to foster long-term, positive social value, tailored to local and host community needs.
- 10) Victoria's energy workforce will scale with project delivery, with demand growing as projects move into construction and operations across the state. Significant long-term opportunities will be created, particularly in the regions closest to offshore wind sites, generating investments that develop future capability and local content across innovation, workforce, infrastructure and supply chain.

- 11) Workforce projections developed for the 2026 Victorian Energy Jobs Plan project that from 2035 onwards, an average of about 2,100 construction, operations and maintenance jobs will be needed each year to help deliver Victoria's pipeline of 9 GW of offshore wind generation by 2040. The projections are informed by the Australian Energy Market Operator's 2024 Integrated System Plan's Step Change Scenario.
- 12) The Victorian Government continues to actively consider how regional workers transitioning away from fossil fuel industries can be supported, and how opportunities can be created for traditionally under-represented groups, including First Peoples and women.

1.2 Victoria's Climate Action

- 13) The Victorian Government should have regard to climate action in accordance with section 20 of the *Climate Action Act 2017* (Vic) (CA Act). Section 20 states:
"The Government of Victoria will endeavour to ensure that any decision made by the Government and any policy, program or process developed or implemented by the Government appropriately takes account of climate change if it is relevant by having regard to the policy objectives and the guiding principles."
- 14) Policy objectives and guiding principles are outlined in sections 22 to 28 of the CA Act and include:
 - a) To reduce the State's greenhouse gas emissions consistently, with the long-term emissions target (net zero) and interim emissions reductions targets; and
 - b) To build the resilience of the State's infrastructure, built environment and communities through effective adaptation.
- 15) The exhibited EIS indicates that Star of the South is expected to generate up to 2.2 GW of renewable energy, meeting approximately 20 per cent of Victoria's current electricity demand which is enough to power around 1.2 million homes annually. This equates to an annual saving of 7 million tonnes of carbon dioxide equivalent (Mt CO₂-e), if displacing black coal generation.
- 16) This project will support the achievement of Victoria's legislated emissions targets through increasing renewable electricity generation and facilitating the displacement/retirement of Victorian coal-powered electricity generation.

2. Legislative Policy & Context – Environment

- 17) Matters for which the Minister for Environment and the Secretary to DEECA are responsible include those relevant to the *Flora and Fauna Guarantee Act 1988* (**FFG Act**), *Marine and Coastal Act 2018* (**MC Act**), *Planning and Environment Act 1987* (**PE Act**), *Crown Land (Reserves) Act 1978* (**CL Act**), *Forests Act 1958* (**Forests Act**) and *Land Act 1958* and can be generally summarised as matters relating to native vegetation, threatened species, fire authority considerations, and Crown land status and management.
- 18) DEECA's statutory obligations relevant to the scoping requirements for Star of the South Offshore Wind Farm are:
 - a) On behalf of the Minister for Environment as land manager for Crown Land (Woodside H28 Bushland Reserve and Darriman H33 Bushland Reserve), Coastal Crown Land including the seabed (McLoughlin's Beach Seaspray Coastal Reserve), unnamed waterway UFI4282679 and numerous proclaimed government roads under DEECA management.

- b) On behalf of myself as the Secretary to DEECA as the relevant fire authority for national parks, state forest and other protected public land under Section 62(2) of the Forests Act.
 - c) For any future planning permit application, on behalf of the Secretary to DEECA pursuant to Section 55 and 52 of the PE Act
 - i. As recommending referral authority under Clause 66.02-2 (Native Vegetation) of the Wellington Planning Scheme, which requires a permit:
 - To remove, destroy or lop native vegetation in the Detailed Assessment Pathway as defined in the *Guidelines for the Removal, Destruction or Lopping of Native Vegetation* (DEECA, 2025 V1.1) (the Guidelines).
 - Seeking views of DEECA under Clause 42.01 (Environmental Significant Overlay Schedule 2 – Wetlands).
- 19) DEECA's regulatory responsibilities to the Star of the South Offshore Wind Farm on behalf of the Secretary to DEECA relevant to the scoping requirements for the proposal include:
- a) To provide advice and assistance (including technical advice and assistance) to enable a proper preparation of a statement or a supplementary statement required under the EE Act for the works, pursuant to section 8G of the Act in relation to:
 - i. Marine and terrestrial flora and fauna
 - ii. Threatened and migratory birds
 - iii. Any other key biodiversity matters which should be considered as part of assessments for environmental impacts.
- 20) Under delegation from the Minister for Environment, DEECA is the delegated authority for:
- a) the *Marine and Coastal Act 2018* for coastal Crown land which is the outer limit of Victorian coastal waters (3 nautical miles) and 5 kilometres inland of the high-water mark to a depth of 200 metres below the surface of the land
 - b) the FFG Act to enable and promote the conservation of Victoria's native flora and fauna and the management of potentially threatening processes on public land including Victorian state waters.
- 21) Noting the above, DEECA have focused on matters that it considers helpful and relevant to the scope of EIS assessment in the below submission, while providing some state-specific assessment (e.g. FFG Act listed species) for context.

3. DEECA Key Considerations

- 22) The key considerations relevant to DEECA RECAFP in relation to the exhibited EIS:
- a) Onshore Ecology – Native Vegetation:
 - i. This submission responds to the consideration of biodiversity impacts consistent with State policy broadly described as advancing and protecting ecological systems.
 - b) Onshore ecology
 - i. Flora and fauna listed under the EPBC Act, noting some species are also listed under the FFG Act
 - ii. Ramsar Wetlands

- iii. Migratory species
- c) Marine environment & marine protected areas:
 - i. Marine environment (biodiversity):
 - ‘Protecting Victoria’s Environment - Biodiversity 2037’ (Bio2037) is the Flora and Fauna Guarantee Strategy under the FFG Act. Statewide Targets under Bio2037 include ‘*A net gain in the overall extent and condition of habitats across terrestrial, waterway and marine environments.*’
- d) The Environmental Management Framework

4. Detailed Submission – Environment

4.1 Native Vegetation - Terrestrial

- 23) The proposed maximum loss of native vegetation from the Star of the South Offshore Wind Farm project is 19.317 hectares (ha) including 119 large trees. DEECA is aware that three onshore grid-connection route options have been assessed and understands that removal of the 19.317 hectares (ha) including 119 large trees is associated with the ‘worst case scenario’ route of the three options. The final route will be selected at the detailed design stage.
- 24) The mitigation hierarchy is a tool that is used to limit the amount of damage that development and other activities have on the environment, ensuring there is no net loss to biodiversity. Each step in the hierarchy must be followed in order, and to the maximum extent practicable before the next step can be contemplated. Any avoid, minimise or mitigation measure to be incorporated into developments to manage impacts on the environment and biodiversity, including threatened species, should be based on the best available information. Following that, an offset can be considered to compensate for the biodiversity impact.
- 25) A combination of Vegetation Quality Assessment and DEECA modelled Native Vegetation data was used to determine the extent of impact (under a worst-case scenario).
- 26) The proponent has implemented adequate avoid and minimise measures to reduce loss of native vegetation. DEECA supports the proposed EMF measures to further avoid and minimise impacts on native vegetation and biodiversity values during the detailed design and construction phase. It also recommends clarification of all ecological values in the project area prior to construction, in consultation with DEECA (in particular FFM-M001, FFM-M002 and FFM-M005).
- 27) To strengthen the EMF measures and minimise impacts to native vegetation from the project, DEECA recommends the following updates to the EMF:
 - a) Update FFM-M001 to include further detail, including:
 - i. mapping of native vegetation (including threatened ecological communities);
 - ii. identification of threatened flora and fauna habitat;
 - iii. targeted survey for threatened flora and fauna (or assume presence in suitable habitat for mobile species and species with a limited seasonal survey period);
 - iv. identify tree notional rootzones of all native trees to be retained in accordance with the Assessor’s Handbook (DEECA 2025);
 - v. undertake further design to identify opportunities to avoid and minimise impacts to ecological values, prioritising areas such as Lyons Road, Woodside H28 Bushland

Reserve, waterways and hollow bearing trees to minimise impacts to high quality native vegetation and threatened fauna habitat and minimise habitat fragmentation. This should include exploring whether trenchless design is possible in high value areas;

- vi. update the mapping in the Biodiversity Impact Assessment to include the outcomes of the additional surveys, no go zones, updated construction footprint and tree protection zones; and
- vii. verify site condition scores by a DEECA accredited assessor when they are more than three years old for grassy, heathland, shrubland ecosystems and five years for forest ecosystems.

4.2 Victorian native vegetation offsets

- 28) It is a requirement at Section 6.4 of the Guidelines that an offset statement is included in an application. The statement provides that an offset that meets the offset requirements for the native vegetation to be removed has been identified and can be secured in accordance with the Guidelines.
- 29) The exhibited EES has identified that up to 8.170 general habitat units with a minimum strategic biodiversity score of 0.3943 and 119 large trees, are required to offset the losses of native vegetation associated with the project.
- 30) The proponent has identified and provided evidence that third-party offset sites within the local area meeting these obligations are available to be secured for the required native vegetation offsets.
- 31) Clause 6.12 of the exhibited Incorporated Document ensures that, prior to the removal of native vegetation, offsets are provided in accordance with the Guidelines and evidence of the required offsets are secured are provided to the satisfaction of DEECA.

4.3 Threatened Flora

- 32) DEECA has a key interest in threatened flora matters, particularly for those listed under the FFG Act.
- 33) The EIS considers the following EPBC Act listed species have the potential to occur within the project footprint following targeted surveys, including orchids (noting some species are also listed under the FFG Act):
 - a) Thick-lip Spider Orchid (*Calandenia tessellate*, EPBC Act – Vulnerable)
 - b) Dense Leek-orchid (*Prasophyllum spicatum*, EPBC Act – Vulnerable and FFG Act – Critically Endangered)
 - c) Spiral-leaved Sun-orchid (*Thelymitra matthewsii*, EPBC Act – Vulnerable and FFG Act – Endangered)
- 34) For context, the exhibited EIS also identifies FFG Act listed flora species as either recorded or having the potential to occur within the project area during surveys:
 - a) Pale Swamp Everlasting (*Coronidium gunnianum*, FFG Act – Critically Endangered)
 - b) Coastal Grey-box (*Eucalyptus boisistoana*, FFG Act – Endangered)
 - c) Dune Wood-sorrel (*Oxalis basisfoana*, FFG Act – Endangered)
 - d) Cobra Greenhood (*Pterostylis grandiflora*, FFG Act – Endangered)
- 35) DEECA is satisfied that threatened flora species have been adequately assessed for the purposes of informing the EIS assessment, as presence has been assumed where necessary

(e.g. where land hasn't been subject to targeted surveys but broader assessment indicates presence is a possibility).

- 36) The impact to individuals and the effect on local populations has not been adequately described in the EIS for the purpose of informing whether impacts and associated mitigations are appropriate to achieve an acceptable level of impact. This is reflected in the proposed EMF measures that will require the proponent to undertake further targeted surveys for threatened flora prior to construction. DEECA supports the proposed EMF measures, particularly:
- a) FFM-M015 to undertake further targeted surveys for threatened flora prior to construction to confirm presence and to help inform any required FFG Act permit application
 - b) FFM-M001 to explore opportunities to further avoid and minimise through detailed design
 - c) FFM-M005 to ensure retained threatened flora will be protected during construction and operation.
- 37) It is recommended that targeted surveys should be conducted on land proposed to be impacted by the transmission line which have not yet been surveyed for threatened flora species, noting the exhibited EIS indicates it is plausible that threatened flora species may be present.
- 38) This work should include an assessment of the EPBC Act listed Natural Damp Grassland of the Victorian Coastal Plains Community against the condition thresholds for patches which may represent this community to confirm the conclusion of no presence. This community has not been described in the report or assessed as present.
- 39) It is noted that EMF Measure FFM-M015 is included in the Victorian Environmental Management Framework but has not been included in the Commonwealth Environmental Management Framework document and should be incorporated accordingly.
- 40) If threatened species are identified in any areas that have not been assessed as part of the EIS, it is presumed that EMF Measures FFM-M001 and FFM-M005 applies, and it's noted that any unavoidable impacts to FFG-Act listed flora on Crown land should be included in an FFG Permit application.
- 41) It is noted that a permit will be required to take Protected Flora from public land (includes freehold land vested in a public authority) under the FFG Act. DEECA issues FFG Act permits for Protected Flora, and this will be managed as a secondary consent considering the outcomes of the EES and EIS processes.

4.4 Threatened Fauna

- 42) DEECA has reviewed the potential impact of the project to threatened fauna and is generally satisfied that the EIS has identified threatened fauna species likely to be present, and potential impacts have been adequately assessed, avoided and minimised as far as possible, at this stage.
- 43) DEECA considers that appropriate mitigations can be applied to ensure any residual risk and impacts will be adequately managed through the effective implementation of the EMF (particularly FFM-M001, FFM-M005 and FFM-M006), subject to the below recommended updates to the EMF and included in the Flora and Fauna Management Plan:
- a) Include management protocols for any threatened fauna species detected during pre-construction surveys/during construction, with species-specific mitigations for Glossy Grass Skink (*Pseudemoia rawlinsoni*, FFG Act – endangered, EPBC Act – Vulnerable, EPBC Act listing after referral decision) and Swamp Skink (*Lissolepis Coventry*, EPBC Act and FFG Act - endangered, EPBC Act listing after referral decision).

- i. Glossy Grass Skink was detected during targeted surveys at one unnamed waterway and habitat presumed present in other areas. The species is considered likely to occur adjacent to waterways, drainage lines or vegetated farm dams. However, the surveys are not sufficient to clearly identify the extent of suitable habitat occupied by the species that will be removed and how individuals will be managed.
 - ii. Swamp Skink was not detected during targeted surveys undertaken for the EIS, but suitable habitat is present in the project area. The species is highly cryptic and may still be present, even if undetected in surveys, therefore contingency measures should be included in the EMF should the species be detected during pre-construction surveys/ during construction.
- b) Targeted surveys for Martin's Toadlet (*Uperoleia martini*, EPBC Act and FFG Act - endangered, EPBC Act listing after referral decision) were insufficient to detect the species. DEECA notes this is also the case for the Southern Toadlet (*Pseudophryne semimarmorata*, FFG Act - endangered). Undertake surveys for breeding habitat for these species within the project footprint to inform the Flora and Fauna Management Plan, and demonstrate that breeding habitat can be retained and disturbance avoided.
 - c) Include management protocols to reduce disturbance risk (such as works buffer distances during nesting/breeding periods) to Orange-bellied Parrots (*Neophema chrysogaster*, EPBC Act and FFG Act - critically endangered) and White-bellied Sea-eagle (*Haliaeetus leucogaster*, FFG Act – endangered, EPBC Act – marine) during the construction phase of the project. DEECA notes that this is also recommended in the EES submission for Little Eagle (*Hieraaetus morphnoides*, FFG Act - vulnerable), and it would be beneficial for management protocols for these species to be developed together.
 - d) The Woodside H28 Bushland reserve and adjacent intact native vegetation provide high quality habitat for many threatened species. DEECA acknowledges the effort that has been put into avoiding the majority of the Woodside H28 Bushland reserve. However, to further ensure potential impacts (particularly fragmentation) are minimised to the greatest extent possible, DEECA recommends opportunities to use directional drilling below the reserve are explored, and if not possible then early rehabilitation should be prioritised, as recommended in the native vegetation section above.
 - e) Prioritise the retention of hollow bearing trees, high quality native vegetation breeding habitat and prevention of habitat fragmentation at the detailed design stage to further avoid impacts to native vegetation and threatened fauna habitat.
 - f) Should additional threatened fauna species be detected, consultation is to occur with DEECA prior to impacts to fauna habitat to review the Flora and Fauna Management Plan and whether additional mitigations are required.

5. Marine Environment

5.1 Marine Mammals & Turtles

- 44) DEECA recognises that this proposal is the first of its kind off the Victorian coast, and accordingly, the available scientific evidence base for the marine environment is still evolving. DEECA does not hold subject-matter expertise on all aspects of the marine environment. However, it can provide general expertise to this assessment.
- 45) DEECA is generally satisfied that the exhibited EIS has adequately identified and assessed potential impacts to marine species. The proponent has applied the principles of avoidance and

minimisation, particularly in areas of high biodiversity and ecological value, where practicable. It is reasonable to conclude that the residual risks and impacts can be appropriately managed through targeted refinements to mitigation measures specific to the marine environment.

- 46) While the proposal does include some potential risk of entanglement and/or vessel strike, during the construction and operation phase of the project, DEECA supports the proposed EMF measures to minimise potential impacts to marine mammals and turtles, including the preparation of a Marine Mammal and Turtle Monitoring and Management Plan in consultation with DEECA, prior to construction, as well as VES-M10 which limits vessel speed through the Southern Right Whale reproductive Biologically Important Area (BIA).
- 47) In relation to noise exposure, DEECA notes that the updated *Technical Report D – Marine Mammals and Turtles* introduces significant underwater noise modelling, including animal (movement-based) modelling and revised exposure thresholds aligned with current international guidance. While the proponent concludes that residual risks for noise exposure are low following mitigation for underwater noise, DEECA considers that this conclusion is highly dependent on the assumed effectiveness and implementation of mitigation measures such as a double big bubble curtain (DBBC), hydro sound damper (HSD), modified hammer system (MHS), soft-start procedures and real-time adaptive management, which has been used in other parts of the world but will be a first in Victoria and any jurisdiction in Australia.
- 48) The interaction of underwater noise fields, turbine infrastructure, and increased vessel traffic has the potential to create effective avoidance zones, even where individual impacts are assessed as moderate. Such combined effects may influence whale movement patterns, migration pathways and habitat use at a broader scale than considered in the assessment. However, DEECA is comfortable that this risk can be managed through the implementation of the below recommended EMF updates.
- 49) The report also identifies overlapping offshore development activity (2028–2035), with potential for cumulative noise exposure. The exhibited EIS doesn't clearly define how cumulative noise limits will be managed and enforced during future coordination.
- 50) The EMF (including the Construction Environmental Management Plan (CEMP) and Operational Environmental Management Plan (OEMP)) along with Construction Underwater Noise Management Framework should include a cumulative impact assessment that is adaptive to future offshore development activity.
- 51) DEECA recommends the following updates to the Commonwealth EMF and Victorian EMF (where relevant) to address potential impacts to marine mammals and turtles:
 - a) Include a mitigation measure to reduce the risk of entanglement (including temporary moorings not to have slack lines and to be regularly inspected), a monitoring schedule to check for entanglements and commit to actions to be undertaken should an entanglement event occur.
 - b) That measures be amended to clarify that the Remedial Burial Strategy to be developed will outline methods to address potential risks of cables becoming loose to address marine fauna entanglement risk.
 - c) That UWN-M06 be amended to adopt the appointment of a dedicated Marine Fauna Observer (MFO) as a trained and experienced individual to monitor and address collision risk, in addition to training general crew members as MFOs.
 - d) Update the Commonwealth Construction Underwater Noise Management Framework to State waters by including to include verification methods and process for the underwater noise model and a clear adaptive management framework should there be differences

between the modelled and verified noise assessments (i.e. to identify and manage any differences between predicted and actual noise risks).

5.2 Fish & Invertebrates

- 52) DEECA acknowledge that risks to fish and invertebrates have been identified in the exhibited EES. To minimise potential impacts, DEECA recommends the EMF be updated to include:
- a) That no works or movement is to occur within one kilometre of Ninety Mile Beach Marine National Park (or other Marine Parks as per study area) and appropriate controls are to be established to mitigate any indirect impacts from works occurring within three kilometres of Ninety Mile Beach Marine National Park.
- 53) DEECA notes that the project has the potential to trigger the requirement for a FFG permit should listed fish species to be present and impacted by the project.

6.0 Avifauna (birds and bats) – Collision Risk

6.1 Summary

- 54) The *Offshore Ornithology and Bats Technical Report* (Technical Report E and associated appendices) is a high-quality assessment that has been reviewed by DEECA during the EES process. However, the *Seabird Monitoring and Management Framework* (EIS Attachment IV) was not previously provided for review prior to exhibition. This framework is high-level in nature and outlines the intended structure for a future monitoring and adaptive management plan.
- 55) The exhibited documentation identifies the highest residual risk as relating to Bass Strait migratory species. While Technical Report E concludes that collision impacts are unlikely to be significant at a population level for any species, this conclusion does not fully account for key knowledge gaps, particularly regarding flight paths across Bass Strait and the use of the offshore environment by bats. Given these uncertainties, DEECA considers that a precautionary, adaptive management approach to monitoring and mitigation will be necessary to appropriately manage residual risks.
- 56) The framework currently relies on the use of remote sensing technologies (e.g. camera and radar equipment) for the monitoring of activity (and impacts). DEECA is not aware that this technology has been proven effective for this purpose. DEECA supports the use of remote sensing technologies provided it is supported by a robust evaluation and adaptive management approach.

6.2 Orange-Bellied Parrot

- 57) The Orange-bellied Parrot population is recovering and expanding its non-breeding range across Victoria and South Australia. However, detection rates remain low, with typically only 10–15% of the population observed during the non-breeding season. As such, absence of records cannot be interpreted as absence of the species, and unknown habitat use remains likely.
- 58) Given the critically low population size, DEECA considers that any impact to Orange-bellied Parrot would be highly significant at both state and national levels. Accordingly, the residual collision risk may be higher than currently assessed as “very low,” and a precautionary approach is warranted.
- 59) DEECA is aware of research currently being undertaken to track the flight paths of Orange-bellied Parrots. The Seabird Monitoring and Adaptive Management Plan could include

consideration of integration with, or contribution to, existing tracking programs to improve understanding of migration pathways.

6.3 Swift Parrot

- 60) Observations of Swift Parrots (*Lathamus discolor*, EPBC Act and FFG Act - critically endangered) in East Gippsland, particularly on Raymond Island, suggest that the Gippsland area may represent an important first landfall site for at least part of the migrating population. Records indicate arrivals as early as February, supported by BirdLife East Gippsland observations and Victorian Biodiversity Atlas data.
- 61) While migration pathways across Bass Strait remain uncertain, there is sufficient evidence to suggest that some individuals may travel directly to the Gippsland coast. Given the endangered status of the species and small population size, DEECA considers that any project-related impact would be significant.
- 62) The current Seabird Monitoring and Management Framework proposes that detection of Swift Parrot or Orange-bellied Parrot would trigger a population risk assessment and adaptive response or offsets. However, DEECA considers that more robust and clearly defined adaptive management triggers should be established upfront, given the potential severity of impacts on the species populations.

6.4 Threatened Bats

- 63) The exhibited Seabird Monitoring and Management Framework does not outline mitigation measures for potential impacts to threatened bats. DEECA considers it plausible that bats, including Grey-headed Flying Fox (*Pteropus poliocephalus*, EPBC Act and FFG Act - vulnerable), Eastern Bent-wing Bat (*Miniopterus orianae oceanensis*, FFG Act – critical endangered), and other species, may traverse the offshore wind farm area or be attracted to lighting infrastructure.
- 64) There is also limited survey data for offshore islands, including in Tasmanian waters, to determine the presence of roosting sites. Accordingly, there remains an unknown but credible risk of collision impacts to bats. DEECA considers that bats should be explicitly included in monitoring and adaptive management frameworks, with appropriate survey effort and mitigation measures developed.

6.5 Recommendations

- 65) To address the above-raised matters, DEECA recommends that the Seabird Monitoring and Adaptive Management Plan be prepared for Minister for Environment (Cwth) approval in consultation with DCCEEW and DEECA and include:
 - a) An adaptive management framework for monitoring, mitigating and offsetting potential impacts to threatened avifauna, including species-specific measures for Bass Strait migrants, Orange-bellied Parrot, Swift Parrot, and threatened bats.
 - b) Adaptive management frameworks include clear, robust triggers for action, particularly for Orange-bellied Parrot and Swift Parrot, recognising that any impact to these species would be significant.
 - c) If untested technology is proposed to be used, it must be demonstrated how the effectiveness of the technology will be tested and adaptive management applied depending on the effectiveness.
 - d) The monitoring program be designed to evolve over time, incorporating new technologies and emerging scientific knowledge to ensure timely implementation of mitigation measures.

