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14 April 2025

Australian Energy Market Operator
Level 12, 171 Collins Street
Melbourne VIC 3000

Submitted by email (ISP@aemo.com.au)

Dear ISP Team,

Re: Draft ISP methodology

Marinus Link Pty Ltd (**MLPL**) welcomes the opportunity to make this submission in response to AEMO's draft ISP methodology as AEMO works towards the publication of its 2026 ISP.

As you know, Project Marinus[1] is expected to deliver significant net economic benefits to the National Electricity Market by providing firming capacity to support the growth in renewable generation that is essential for Australia to meet its emission reduction targets. Project Marinus has been identified as an actionable project in each of the ISPs from July 2020 onwards. The project will be delivered in two stages, with the first 750 MW link expected to be operational by late 2030 while the optimal timing of the second stage is uncertain. Stage 1 is progressing towards a final investment decision in the coming months.

In this context, MLPL would like to raise the following matters for AEMO's consideration as it finalises its ISP methodology:

- Providing flexibility and guidance on optimal project staging;
- Clarity on the process for determining hydrogen load minimum utilisation factors;
- Support for AEMO introducing imperfect foresight for storage in operational timeframes; and
- Support for proposed improvements for AEMO's gas sector modelling.

We address each of these points in turn.

[1] Project Marinus refers to Marinus Link, which is being progressed by MLPL, plus the North West Transmission Developments project, which is being progressed by TasNetworks.

1. Providing flexibility and guidance on project staging

Marinus Link has been a classified as an actionable ISP project over three successive ISPs. In the 2020 ISP, the project was described in the following terms:[2]

> "Marinus Link is a multi-staged actionable ISP project to be completed from 2028-29, with early works recommended to start as soon as possible and with further stages to proceed if their respective decision rules are satisfied."[3]

AEMO reconfirmed Marinus Link as an actionable project in its 2022 ISP, removing the decision rules:[4]

> "Marinus Link is a single actionable ISP project, without staging between the first and second cables. The optimal delivery in Step Change is 2029-30 for cable 1, and 2031-32 for cable 2. Any delay reduces net market benefits in all scenarios but the unlikely Slow Change.

In the 2024 ISP, AEMO confirmed that Project Marinus remains actionable without decision rules.[5] The classification of Project Marinus as an actionable ISP project in the 2024 ISP is also consistent with MLPL's RIT-T update published in April 2024[6], which concluded that the 1500 MW project delivered in two stages remains the preferred option, consistent with the Project Assessment Conclusions Report (**PACR**). In that RIT-T update report, MLPL noted that the optimal timing of the second cable should remain under review – noting that the same observation was made in the PACR:[7]

> "As explained in the PACR, the timing of the second cable will depend on future ISPs which will be informed by actual events and new information that will emerge with the passage of time. It is not necessary to commit now to a specific timeframe for the construction of the second cable. Instead, the project plan is to proceed with the first cable as soon as practicable and to undertake the required work to facilitate the construction and commissioning of the second cable in accordance with the optimal timeframe which will be identified by AEMO in a future ISP."

While Project Marinus is currently defined as single actionable 1500 MW project, comprising two 750 MW stages, from a practical perspective it will soon become necessary to consider the second stage of the project as distinct from the first stage. In particular, MLPL notes that:

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2 AEMO, 2020 Integrated System Plan, July 2020, page 82.

3 'Decision rules' are conditions that must be met in order for a multi-staged actionable ISP project to proceed to the next stage.

4 AEMO, 2022 Integrated System Plan, June 2022, page 73. It should be noted that AEMO's references to Marinus Link are references to Project Marinus.

5 AEMO, 2024 Integrated System Plan, June 2024, page 14.

6 MLPL, RIT-T-update, April 2024.

7 AEMO, 2022 Integrated System Plan, June 2022, page 73. It should be noted that AEMO's references to Marinus Link are references to Project Marinus.

- Construction in relation to Stage 1 of Project Marinus is likely to commence in 2026, at which point Stage 1 of the project will be a 'committed' project in AEMO's final ISP, while Stage 2 will remain 'actionable';

- In November 2024, MLPL submitted its Revenue Proposal to the AER in relation to the construction costs associated with Stage 1, and proposed that Stage 2 should be subject to a separate contingent project application; and

- MLPL and TasNetworks are likely to undertake 'early works' expenditure in relation to Stage 2, update the RIT-T and complete the feedback loop before committing to Stage 2.

Given the emerging distinctions between Stage 1 and Stage 2 of the project, MLPL considers it important that AEMO's ISP methodology has sufficient flexibility to provide guidance on the optimal timing of Stage 2. In effect, this means splitting the single 'actionable' 1500 MW project into a committed project in relation to Stage 1 and an actionable project in relation to Stage 2, where AEMO is able to provide guidance on the optimal timing of Stage 2 for the benefit of all stakeholders. MLPL notes that AEMO appears to be cognisant of this need in making the following comments in its draft ISP methodology regarding the need for flexibility:[8]

> "The ISP can add optionality to actionable ISP projects, adding flexibility to projects with more uncertain benefits. This includes options such as staging the overall size or timing of the project (splitting a project into smaller sizes, and retaining the flexibility to deliver subsequent stages if and when needed), using non-network options that manage the immediate need (and enable ISP projects to be delivered if and when needed in future), and undertaking early works (to enable rapid delivery in future if required). Decision rules may also be introduced to assist in identifying the ongoing need of staged or delayed projects."

MLPL supports flexibility in the ISP methodology so that AEMO is able to provide guidance on the optimal timing of actionable ISP projects, such as Project Marinus, that are capable of being staged. MLPL's position is that AEMO is uniquely placed to provide this guidance in its ISP so that stakeholders understand the process for identifying the preferred timing and the process for progressing Stage 2 of this important project.

2. Hydrogen

MLPL supports AEMO's updated approach to hydrogen load modelling in the ISP. We especially endorse the introduction of minimum utilisation factors and the recognition of practical storage constraints. These adjustments, in our view, will enhance the precision of hydrogen modelling and provide a more accurate depiction of hydrogen's contribution to the energy transition in the 2026 ISP.

While hydrogen minimum utilisation factors are covered in the updated ISP Methodology, we believe the methodology should provide greater guidance on how these factors are determined. To this end, we

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8 AEMO, Draft ISP methodology, March 2025, page 88

reiterate recommendations made in our submission to Stage 2 of the Draft 2025 Inputs, Assumptions and Scenarios Report (IASR) regarding hydrogen minimum utilisation factors:

- AEMO's hydrogen load minimum utilisation assumptions should closely align with CSIRO's actual utilisation in their multi-sectoral modelling of least-cost decarbonisation pathways.
- The assumed decline in hydrogen load minimum utilisation should not occur until hydrogen load enters the NEM in material volumes, most likely not before 2030-31.
- The decline in hydrogen minimum load utilisation should only occur to new hydrogen load as it enters the market, not to existing hydrogen load.

3. Imperfect foresight

MLPL supports AEMO's endeavours to improve modelling results by introducing imperfect foresight to energy storage in operational timeframes. Given the crucial role storage plays in the energy transition, it is essential that it is modelled in a way that accurately mirrors real-world behaviours and limitations. By improving the representation of storage dynamics, this approach will enhance forecasting, planning, and policymaking, ultimately leading to better investment and system outcomes.

In line with this perspective, we support AEMO's efforts to address the limitations of perfect foresight, including through the introduction of headroom and footroom requirements and introducing 'energy planning with error'. Given the novelty of its proposals in this area, we recommend AEMO provide stakeholders with additional information on the impact of these methodology changes on its modelling results.

4. Gas

MLPL previously submitted to AEMO that it should consider the long-term risks to adequate gas supply to gas-powered generators, and whether cost premiums should be included to ensure these generators have reliable access to gas supply. To this end, we support AEMO's proposal to consider different gas sector development paths for each ISP scenario, and to consider gas price premiums for development paths that require greater supporting infrastructure.

We also support the methodology change between draft and final 2024 ISPs to limit annual growth in gas-powered generator capacity and consider daily limits to gas supply for gas-powered generation.

Closing

MLPL looks forward to working with AEMO as it finalises its ISP methodology and prepares its draft 2026 ISP. As explained in this submission, MLPL is particularly focused on the need for flexibility in AEMO's ISP methodology so that AEMO provides meaningful guidance to all stakeholders on the optimal timing of actionable ISP projects that are capable of being staged, such as Project Marinus. If you have any queries on this submission, please contact me by email at prajit.parameswar@marinuslink.com.au.

Yours sincerely,

Prajit Parameswar
Chief Commercial Officer