

Gross market benefit assessment of Project Marinus - Addendum to Report dated 4 September 2025

Marinus Link Pty Ltd

5 November 2025



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Release Notice

Ernst & Young ("EY") was engaged on the instructions of Marinus Link Pty Ltd ("Marinus Link", "MLPL" or the "Client") to undertake market modelling of system costs and benefits to forecast the gross market benefit of the proposed Marinus Link interconnector (the "Project"), in accordance with the service order dated 12 May 2025 and the revised service order dated 15 October 2025.

The results of EY's work, including the assumptions and qualifications made in preparing the report are set out in both EY's report dated 4 September 2025 (the "Main Report", originally published 10 July 2025) and this report dated 31 October 2025 (the "Addendum Report"). This Addendum Report is an addendum to the Main Report and has been prepared at the specific request of Marinus Link to present further market modelling outcomes associated with updated assumptions to the scenarios described in the Main Report. This Addendum Report must be read in conjunction with the Main Report. The Main Report and Addendum Report should be read in their entirety including this release notice, the applicable scope of the work and any limitations. The Main Report and the Addendum Report are hereinafter collectively referred to as the Report and a reference to the Report includes any part of the Main Report or Addendum Report.

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Our work commenced on 5 May 2025 and was completed on 17 October 2025. No further work has been undertaken by EY since the date of the Report to update it. Therefore, our Report does not take account of events or circumstances arising after 17 October 2025 and we have no responsibility to update the Report for such events or circumstances arising after that date.

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Readers are advised that the outcomes provided are based on many detailed assumptions underpinning the scenarios, and the key assumptions are described in the Report. These assumptions were selected by the Client. The modelled scenarios represent three possible future options for the development and operation of the National Electricity Market, and it must be acknowledged that many alternative futures exist. Alternative futures beyond those presented have not been evaluated as part of the Report.

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Table of contents

1.	Executive summary	1
2.	Background	4
3.	Input Assumptions	4
3.1	Differences in assumptions from the Main Report	7
3.2	Differences in assumptions from the 2025 IASR	9
4.	Forecast gross market benefit outcomes	11
4.1	Summary of forecast gross market benefit outcomes	11
4.2	Forecast benefits from emissions	15

1. Executive summary

Marinus Link Pty Ltd engaged EY to undertake further market modelling of system costs to forecast the gross market benefits of Project Marinus from 1 July 2026 to 30 June 2051 (the “Modelling Period”, as selected by the Client). Project Marinus involves approximately 255 kilometres of undersea High Voltage Direct Current (HVDC) cable, approximately 90 kilometres of HVDC cable in Victoria and converter stations in Tasmania and Victoria. These components will be delivered by Marinus Link Pty Ltd. Project Marinus also includes the North West Transmission Developments (NWTd) component which is being progressed by TasNetworks. The NWTd include new and upgraded overhead transmission lines that will link Cressy, Burnie, Sheffield, Staverton, Hampshire, and East Cam in Tasmania. These new and upgraded transmission lines are required to support the interconnector capacity to be provided by Marinus Link. References to the gross market benefits of Marinus Link in this report should be interpreted as the gross market benefits of Project Marinus.

This Addendum Report provides additional market modelling based on updated assumptions, consistent with the Australian Energy Market Operator’s (AEMO’s) Final 2025 Inputs, Assumptions, and Scenarios (Final 2025 IASR) workbook¹ (dated 28 August 2025), as applied to the modelled scenarios outlined in the Main Report and an additional ‘Accelerated Transition’ scenario which was not included in the Main Report. Therefore, readers are advised to read this Addendum Report in conjunction with the Main Report to get a complete understanding of the context, background, applicable base assumptions, modelling methodology and qualifications. In the Final 2025 IASR, the Progressive Change scenario was recast as the Slower Growth scenario and Green Energy Exports was recast as Accelerated Transition. The scenario names presented in this Addendum Report are consistent with the Final 2025 IASR scenarios names.

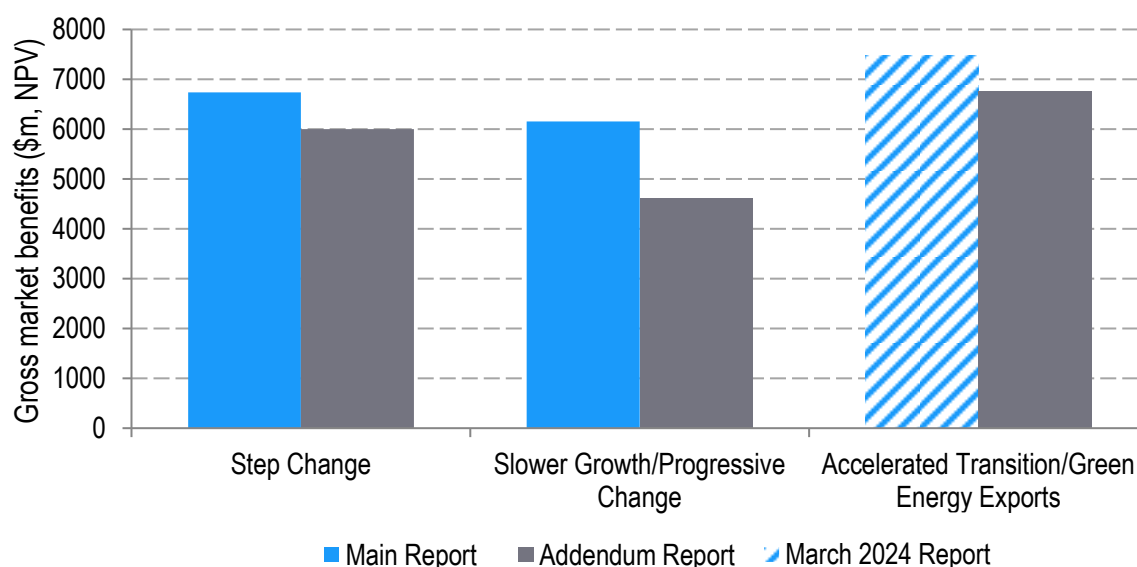
The forecast gross market benefits of Marinus Link in the three modelled scenarios are summarised in Table 1. As shown in Figure 1, although the forecast gross market benefits remain substantial they have decreased overall for Step Change and Slower Growth (previously Progressive Change) scenarios compared to the Main Report. The difference in forecast benefits between the two scenarios is also wider. The forecast gross market benefits of each scenario must be compared to the cost of Marinus Link to determine the forecast net economic benefit of each option. This evaluation is not part of our scope and hence has not been included in the Main Report or in this Addendum Report.

Table 1: Overview of forecast gross market benefits of Marinus Link over the Modelling Period discounted to 1 July 2025, excluding the value of emissions savings. All dollars are presented in \$million, real June 2025.

Marinus Link size	Marinus Link timing	Step Change	Slower Growth	Accelerated Transition
1,500 MW	Stage 1 2030 & Stage 2 2034	\$6,001	\$4,607	\$6,754
750 MW	Stage 1 2030	\$5,126	\$3,430	\$6,251

¹ AEMO, 28 August 2025, *2025 Inputs and Assumptions Workbook v7.4*. Available at: <https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-iasr>. Accessed 15 October 2025

Figure 1: Forecast gross market benefits of Marinus Link Stage 1 (2030 commissioning) and Stage 2 (2034 commissioning) over the Modelling Period discounted to 1 July 2025. All dollar values are presented in \$million real June 2025².



The Accelerated Transition scenario was not modelled for the Main Report, so in Figure 1 a comparison is instead made to the previous assessment of the Green Energy Exports scenario in March 2024.³ The March 2024 forecast gross market benefits for Green Energy Exports were reported in June 2023 dollars discounted to July 2023 and were assessed over a modelling period of 2024-25 to 2049-50 for assumed Marinus Link Stage 1 and 2 commissioning of 1 October 2029 and 1 July 2033 respectively.

The main drivers for these movements in gross market benefits in relation to AEMO's updates to the input assumptions are outlined below:

- While Tasmanian wind capacity remains the highest capacity factor wind resource in the NEM, the competitiveness of Tasmanian wind capacity has decreased relative to the mainland, due to increased assumed wind capacity factors for the mainland and mixed increases and decreases throughout Tasmania. Overall, less renewable capacity is required to meet demand and policy targets, and more of the forecast new entrant renewable capacity is built on the mainland. Consequently, the benefits of Marinus Link associated with a forecast deferral of investment in new renewable capacity on the mainland have also reduced relative to the Main Report.
- There is significantly more renewable capacity and storage forecast to be commissioned on the mainland in all cases and scenarios due to updates to policy constraints and additional committed and anticipated units. This committed forecast capacity is expected to reduce the amount of capacity that can be avoided or deferred with Marinus Link. The effect of this change is most prominent in the Slower Growth scenario where assumed demand is lower and so additional committed and new entrant capacity meets a larger proportion of demand.

² Dollar values of outcomes from the Main Report and Green Energy Exports scenario have been adjusted for Consumer Price Index (CPI) changes to June 2025 dollars and discounted to July 2025 to be broadly comparable. However, because the Modelling Period and Marinus Link entry dates differ for the Green Energy Exports scenario from the March 2024 Report, caution is required when making this comparison.

³ EY, 28 March 2024, *Gross market benefits assessment of Marinus Link*. Available at: <https://www.marinuslink.com.au/wp-content/uploads/2024/04/EY-report-Project-Marinus-Gross-Benefits-28-March-2024.pdf>. Accessed 16 October 2025

- Assumed hydrogen demand has decreased for Tasmania relative to mainland demand across all years. All else being equal, this change leads to higher benefits as more mainland build can be avoided in place of Tasmanian build when Marinus Link unlocks Tasmanian generation. However, the other changes listed above outweigh the impact of this change resulting in an overall reduction in gross market benefits.

As discussed, the Accelerated Transition scenario was not modelled in the Main Report and comparison is instead made to higher demand and faster decarbonisation scenarios modelled in earlier assessments of Marinus Link gross market benefits.⁴ Consistent with those previous studies, gross benefits are forecast to be higher in the Accelerated Transition scenario than in the Step Change and Slower Growth scenarios.

As in the Main Report, forecast emissions benefits are a byproduct of avoided thermal generation, when Tasmanian hydro and wind capacity are forecast to be unlocked with Marinus Link. Potential emissions savings are valued according to Australian Energy Regulator's Valuing emissions reduction documentation⁵, calculated as a post-process to the optimisation. The potential emissions benefits vary between the scenarios due to differences in assumed carbon budget and demand.

Table 2 shows the forecast gross benefits with associated emissions savings for Marinus Link over the 25-year Modelling Period for the modelled scenarios.

Table 2: Overview of scenarios with associated emissions benefits for Marinus Link over the Modelling Period discounted to 1 July 2025. All dollars are presented in \$million, real June 2025

Marinus Link size	Marinus Link timing	Step Change	Slower Growth	Accelerated Transition
1,500 MW	Stage 1 2030 & Stage 2 2034	44.92	71.95	9.15
750 MW	Stage 1 2030	26.98	19.47	2.70

In all scenarios, the carbon budget is binding, meaning that both the with and without Marinus Link cases produce the same overall amount of emissions in Mt from 2026-27 to 2049-50. For the Slower Growth scenario, this represents a significant reduction in emissions outcomes from the Progressive Change forecast in the Main Report, where the emissions budget was not binding, allowing room for a decrease in total forecast emissions with Marinus Link which led to large forecast emissions benefits of \$3,835m⁶. This change in emissions outcomes from the Main Report is attributed to the reduction in emissions budget in the Final 2025 IASR of 727 Mt CO₂-e from 797 Mt CO₂-e in the Draft 2025 IASR Stage 2. Binding carbon budgets allow less difference in coal generation between cases with and without Marinus Link, reducing the opportunity for Tasmanian generation to displace coal generation on the mainland with Marinus Link. In the Main Report, there are higher levels of emissions-intensive brown coal generation in the Base Case, which are partially avoided with Marinus Link. This was not the case in the updated modelling due to the carbon budget binding in both cases.

⁴ EY, 28 March 2024, *Gross market benefits assessment of Marinus Link*. Available at: <https://www.marinuslink.com.au/wp-content/uploads/2024/04/EY-report-Project-Marinus-Gross-Benefits-28-March-2024.pdf>. Accessed 16 October 2025

⁵ AER, May 2024, *Valuing emissions reduction AER guidance and explanatory statement*. Available at: <https://www.aer.gov.au/system/files/2024-05/AER%20-%20Valuing%20emissions%20reduction%20-%20Final%20guidance%20and%20explanatory%20statement%20-%20May%202024.pdf>. Accessed 24 June 2025

⁶ Real June 2024 dollars

2. Background

Marinus Link Pty Ltd engaged EY to undertake further market modelling of system costs to forecast the gross market benefits of the Marinus Link interconnector from 1 July 2026 to 30 June 2051 (selected by the Client) (the “Modelling Period”). This Addendum Report provides additional market modelling based on updated assumptions, consistent with the Australian Energy Market Operator’s (AEMO’s) Final 2025 Inputs, Assumptions, and Scenarios (IASR) workbook⁷ (dated 28 August 2025), as applied to the modelled scenarios outlined in the Main Report and an additional ‘Accelerated Transition’ scenario which was not included in the Main Report. Therefore, readers are advised to read this Addendum Report in conjunction with the Main Report to get a complete understanding of the context, background and applicable base assumptions, and qualifications. In the Final 2025 IASR the Progressive Change scenario was renamed Slower Growth and Green Energy Exports was renamed to Accelerated Transition. We have used the new scenario name in this Addendum Report.

3. Input Assumptions

The modelling presented in the Main Report was based on market information and input assumptions available at the time of the modelling, as selected by the Client. Many input assumptions selected by the Client were from AEMO’s Draft 2025 Input, Assumptions and Scenarios (IASR) workbook⁸. For this Addendum Report, the Client requested EY to conduct modelling in line with assumptions derived from the 2025 Final IASR workbook, released 28 August 2025⁷. The key input assumptions are summarised in Table 3. The remainder of this section provides further detail on the differences in assumptions to the Main Report, divergences from the 2025 IASR workbook⁷ and differences between the with and without Marinus Link cases.

Table 3: Overview of key input parameters in the Step Change, Slower Growth and Accelerated Transition scenarios

Input parameter	Scenarios		
	Step Change	Slower Growth	Accelerated Transition
Underlying consumption	2024 ES00 ⁹ - Step Change Hydrogen demand based on 2025 IASR Workbook ⁷ - Step Change.	2024 ES00 ⁹ - Progressive Change Hydrogen demand based on 2025 IASR Workbook ⁷ - Slower Growth.	2024 ES00 ⁹ - Green Energy Exports Hydrogen demand based on 2025 IASR Workbook ⁷ - Accelerated Transition.
Committed and anticipated generation	▪ July 2025 Generation Information ¹⁰ .		

⁷ AEMO, 28 August 2025, *2025 Inputs and Assumptions Workbook v7.4*. Available at: <https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-iasr>. Accessed 15 October 2025

⁸ AEMO, 28 February 2025, *Draft 2025 Inputs and Assumptions Workbook v7.2*. Available at: <https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-iasr>. Accessed 15 October 2025

⁹ AEMO, *National Electricity and Gas Forecasting*. Available at: <https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-planning-data/electricity-forecasting-data-portal>. Accessed 15 June 2025

¹⁰ AEMO, 1 August 2025, *NEM July 2025 Generation Information*. Available at <https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-planning-data/generation-information>. Accessed 15 August 2025

Input parameter	Scenarios		
	Step Change	Slower Growth	Accelerated Transition
	1,241 MW of CIS Tender 4¹¹ wind and solar generators committed as new entrant capacity for Queensland. This was not been considered committed in the IASR Workbook v7.4⁷ as Tender 4 winners were announced after publication.		
New entrant capital cost and FOM for wind solar PV, SAT, OCGT, CCGT, PHES large-scale batteries	2025 IASR Workbook ⁷⁷ - Step Change.	2025 IASR Workbook ⁷⁷ - Slower Growth.	2025 IASR Workbook ⁷⁷ - Accelerated Transition.
Retirements of coal-fired power stations	July 2025 Generation Information¹⁰ for announced retirements or earlier if economic or driven by decarbonisation objectives. QEJP coal retirements have not been considered in the modelling scenarios.		
Gas and coal fuel price	2025 IASR Workbook ⁷⁷ - Step Change.	2025 IASR Workbook ⁷⁷ - Slower Growth.	2025 IASR Workbook ⁷⁷ - Accelerated Transition.
Emissions factors	2025 IASR Workbook ⁷⁷ - Step Change: includes gas biomethane blending factors.	2025 IASR Workbook ⁷⁷ - Slower Growth: includes gas biomethane blending factors.	2025 IASR Workbook ⁷⁷ - Accelerated Transition: includes gas biomethane blending factors.
NEM carbon budget to 2030	2025 IASR Workbook ⁷⁷ : 418 mega ton (Mt) CO ₂ -e 2026-27 to 2029-30.		
NEM long- term temperature-linked carbon budget	2025 IASR Workbook ⁷⁷ - Step Change: 583 Mt CO ₂ -e from 2026-27 to 2049-50.	2025 IASR Workbook ⁷⁷ - Slower Growth: 727 Mt CO ₂ -e from 2026-27 to 2049-50.	2025 IASR Workbook ⁷⁷ - Accelerated Transition: 303 Mt CO ₂ -e from 2026-27 to 2049-50.
Federal renewable energy target	82% share of renewable generation by 2029-30. Consistent with the 2025 IASR Workbook ⁷⁷ .		
Capacity Investment Scheme (CIS) generation target	15.1 GW new entrant renewable capacity in the NEM by 2029-30 including tender winners with minimum generation capacity targets set by state where relevant. Inclusive of new large-scale solar, onshore and offshore wind. Consistent with the 2025 IASR Workbook⁷⁷.		
CIS clean dispatchable capacity target	11.23 GW/ 45.03 GWh NEM new entrant storage capacity by 2029-30 including eligible tender winners. Minimum dispatchable capacity targets for New South Wales, South Australia and Victoria. Inclusive of new pumped hydro and batteries with a duration greater or equal to 2 hours. Consistent with the 2025 IASR Workbook⁷⁷.		

¹¹ Department of Climate Change, Energy, the Environment and Water, 9 October 2025, *Capacity Investment Scheme Tender 4 to deliver 6.6GW of clean energy*. Available at: <https://www.dcceew.gov.au/about/news/cis-tender-4-deliver-6-6gw-clean-energy>. Accessed 21 October 2025

Input parameter	Scenarios		
	Step Change	Slower Growth	Accelerated Transition
Victoria policies	Victoria Renewable Energy Target (VRET) - 40% by 2025, 65% by 2030 and 95% by 2035 Victoria Energy Storage Target - 2.6 GW by 2030 and 6.3 GW by 2035 Victoria Offshore Wind Target - 2 GW by 2032, 4 GW by 2035 and 9 GW by 2040 Consistent with 2025 IASR Workbook ⁷⁷ .		
Tasmanian Renewable Energy Target (TRET)	100% by 2022, linear trajectory from the mid-2020s to 150% available renewable generation by 2030 and 200% by 2040 as a percentage of 2020 demand in Tasmania. Inclusive of energy spilled in order to achieve a solution in the no Marinus case. The trajectory can be exceeded if part of the least cost solution. Consistent with 2025 IASR Workbook ⁷⁷ .		
NSW Electricity Infrastructure Roadmap	NSW Roadmap, with at least the same amount of electricity as 8 GW in New England, 3 GW in the Central West Orana (CWO) REZ and 1 GW of additional capacity and 2 GW of long duration storage (8 hrs or more) by 2029-30. 28 GWh of storage capacity by 2033-34. Consistent with 2025 IASR Workbook ⁷⁷ .		
South Australia policy	South Australia net renewable generation target - 100% net renewable energy generation in 2026-27 formulated as net export flows greater than or equal to fossil-fuel generation. Consistent with 2025 IASR Workbook ⁷⁷ .		
Victorian SIPS	300 MW/450 megawatt-hour (MWh), 250 MW for SIPS service during summer. In the summer months the remaining 50 MW can be deployed in the market on a commercial basis, in the winter months the full capacity is available. From April 2032 the full capacity is available to the market. Consistent with 2025 IASR Workbook ⁷⁷ .		
EnergyConnect	Commissioned by July 2027 based on 2025 IASR Workbook ⁷ .		
Western Renewables Link	Commissioned by July 2027 based on Transmission Augmentation Information December 2024 ¹² .		
HumeLink	Commissioned by July 2029 based on 2024 ISP ¹³ .	Commissioned by July 2030 based on 2024 ISP ¹³ .	Commissioned by July 2029 based on 2024 ISP ¹³ .
Central-West Orana REZ Transmission	Commissioned by 1 Aug 2028 based on Transmission Augmentation Information December 2024 ¹² .		
New-England REZ Transmission	Earliest in service date advised by proponent:		

¹² AEMO, 13 December, *NEM Transmission Augmentation information December 2024*. Available at <https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-planning-data/transmission-augmentation-information#:~:text=The%20Transmission%20Augmentation%20workbook%20contains%20information%20for,%28ESOO%29%20and%20Inputs%2C%20Assumptions%20and%20Scenarios%20Report%20%28IASR%29.> Accessed 15 October 2025

¹³ AEMO, 26 June 2024, *2024 Integrated System Plan*. Available at <https://aemo.com.au/energy-systems/major-publications/integrated-system-plan-isp/2024-integrated-system-plan-isp> Accessed 15 October 2025

Input parameter	Scenarios		
	Step Change	Slower Growth	Accelerated Transition
	- New England REZ Transmission Link 1 commissioned by 1 July 2032 - New England REZ Transmission Link 2 commissioned by 1 January 2034 Transmission Augmentation Information December 2024 ¹² .		
Marinus Link	As per MLPL assumptions. The first stage of Marinus Link commissioned by 1 January 2030 and the second stage of Marinus Link commissioned by 1 July 2034		
Queensland-New South Wales Interconnector (QNI) Connect	Commissioned by July 2034 based on 2024 ISP ¹³¹³ .		
Victoria-New South Wales Interconnector (VNI) West	Commissioned by December 2029 based on Transmission Augmentation Information December 2024 ¹²¹² .	Commissioned by July 2034 based on 2024 ISP ¹³¹³ .	Commissioned by July 2030 based on 2024 ISP ¹³¹³ .
Discount rate	7% real, pre-tax		

3.1 Differences in assumptions from the Main Report

The input assumptions used for modelling in the Main Report were primarily based on the Draft 2025 IASR Stage 2¹⁴. Since publication, AEMO has released the Final 2025 IASR¹⁵. This Addendum Report incorporates updates from the Final 2025 IASR¹⁵ deemed to have the most material impact on gross market benefits due to the magnitude of change and/or relevance to mainland and Tasmania interactions in the model. Where there are differences in assumptions from the Final 2025 IASR, these are outlined in Section 3.2.

In addition, there were some new assumptions introduced in the Draft 2025 IASR Stage 2¹⁴ not captured in the Main Report modelling due to time constraints which are now included. The differences in assumptions are summarised in Table 4 ordered based on estimated magnitude of impact from highest to lowest.

Table 4: Differences in assumptions from the 4 September 2025 Main Report

Input parameter	Overview of differences
Renewable generator availability profiles	Increases in wind capacity factors on the mainland. Mixed changes in Tasmania with an increase in capacity factor for North West Tasmania and decreases for Central Highlands and North East Tasmania.

¹⁴ AEMO, 28 February 2025, *Draft 2025 Inputs and Assumptions Workbook v7.2*. Available at: <https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-iasr>. Accessed 15 October 2025

¹⁵ AEMO, 28 August 2025, *2025 Inputs and Assumptions Workbook v7.4*. Available at: <https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-iasr>. Accessed 15 October 2025

Input parameter	Overview of differences
Hydrogen load	- Modelled with minimum utilisation factors and accounts for capex cost aligned with Alkaline Electrolyser in the 2025 IASR workbook¹⁵. - Annual hydrogen consumption updated - including new desalination component; increased hydrogen demand in the NEM, decrease in Tasmania in the short term.
Committed and anticipated generation	- Additional committed and anticipated units as per AEMO July 2025 Generation Information¹⁶. 1,241 MW of CIS Tender 4¹⁷ wind and solar generators committed as new entrant capacity for Queensland. This was not considered committed in the IASR Workbook v7.4¹⁵ as Tender 4 winners were announced after publication.
Tasmania REZ model	Tasmania REZ transmission limits and optional expansion cost updates. Changes include: - Central Highlands (T3) REZ initial transmission limit updated to 702 MW from 527 MW (summer). - No optional expansion of REZ transmission capacity for Central Highlands or North West Tasmania without Marinus since Marinus Stage 1 is a prerequisite. - No increase in Central Highlands REZ transmission capacity with Marinus Link Stage 1. The Main Report increased limits by 690 MW from 1 July 2029. Changes in costs for optional transmission expansion with Marinus: - Central Highlands \$0.40m/MW for up to an additional 555 MW \$0.76m/MW for up to an additional 690 MW - North West Tasmania \$0.31m/MW for up to an additional 800 MW \$1.03m/MW for up to an additional 800 MW
Victoria REZ model	New entrant generator capex, transmission limits and modifiers and transmission augmentation costs, renewable generator availability profiles updated to reflect Victorian Transmission Plan as represented in the 2025 IASR Workbook ¹⁵ .
Optional transmission expansion	Transmission expansion cost trajectories vary annually according to IASR 'REZ cost forecasts' sheet and upper build limits set by 'REZ augmentations options' sheet.
Queensland Renewable Energy Target (QRET)	QRET removed.
NEM carbon budgets	Overall reduction in carbon budget.
Technology costs	Updates to capex costs, locational factors, FOM and VOM NEM wide.
REZ renewable resource limits	Increases in Central-West Orana (N3) and South West NSW (N5) resource and land limits.
CIS clean dispatchable capacity target	Expanded target and new committed and anticipated projects added to count towards the target. Removed trajectory to 2030 with single year target.
NSW Electricity Infrastructure Roadmap	- Removal of trajectory to 2030 with single year target. - Updates to constraint calculations to include consideration of new committed and anticipated units.

¹⁶ AEMO, 1 August 2025, *NEM July 2025 Generation Information*. Available at <https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-planning-data/generation-information>. Accessed 15 August 2025

¹⁷ Department of Climate Change, Energy, the Environment and Water, 9 October 2025, *Capacity Investment Scheme Tender 4 to deliver 6.6GW of clean energy*. Available at: <https://www.dcceew.gov.au/about/news/cis-tender-4-deliver-6-6gw-clean-energy>. Accessed 21 October 2025

Input parameter	Overview of differences
Cost of thermal plant retirement	Increase in thermal retirement cost.
Generator maintenance	Decreased maintenance rates for OCGTs.
Forced outage rate	Increased coal forced outage rates.
Technology auxiliaries	New entrant renewables and storage now have auxiliaries, updates to other technologies' auxiliaries.
New entrant battery degradation rate	Increased new entrant battery annual degradation rates.
Value of Customer Reliability (VCR)	Updated to new values - generally decreased.

3.2 Differences in assumptions from the 2025 IASR

The input assumptions outlined in Table 5 are a deviation from the 2025 IASR Workbook¹⁸. Several of the input assumptions are consistent with those outlined in the Main Report. This approach was used to facilitate comparison with earlier modelling and to address limitations of the five-node model detailed in the Main Report. Demand assumptions (with the exception of hydrogen load) were not updated from the 2024 ESOO to the more recent 2025 ESOO because half-hourly data for the 2025 ESOO has only been published by AEMO to 30 June 2036.¹⁹

Table 5: Differences in assumptions from the 2025 IASR

Input parameter	Scenarios		
	Step Change	Slower Growth	Accelerated Transition
Underlying consumption	2024 ESOO ²⁰ - Step Change Hydrogen demand based on 2025 IASR v7.4 ¹⁸ - Step Change.	2024 ESOO ²⁰ - Progressive Change Hydrogen demand based on 2025 IASR v7.4 ¹⁸ - Slower Growth.	2024 ESOO ²⁰ - Green Energy Exports Hydrogen demand based on 2025 IASR v7.4 ¹⁸ - Accelerated Transition.
Group Constraints considering intraconnectors: CQ1, SQ1, MN1, SEVIC1, SWNSW2 and SWQLD1	NQ2, NQ3 modelled instead of CQ1 and SQ1 based on 2022 ISP inputs and assumptions workbook v3.4 ²¹ . MN1 modelled based on 2022 ISP inputs and assumptions workbook v3.4 ²¹ .		

¹⁸ AEMO, 28 August 2025, *2025 Inputs and Assumptions Workbook v7.4*. Available at: <https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-iasr>. Accessed 15 October 2025

¹⁹ AEMO, 21 August 2025, *Electricity Statement of Opportunities: 2025 ESOO Model*. Available at: <https://www.aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-reliability/nem-electricity-statement-of-opportunities-esoo>. Accessed 16 October 2026

²⁰ AEMO, *National Electricity and Gas Forecasting*. Available at: <https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/forecasting-and-planning-data/electricity-forecasting-data-portal>. Accessed 15 June 2025

²¹ AEMO, 30 June 2022, *2022 ISP Inputs, assumptions and scenarios workbook*, Available at: <https://aemo.com.au/energy-systems/major-publications/integrated-system-plan-isp/2022-integrated-system-plan-isp>. Accessed 16 October 2025

Input parameter	Scenarios		
	Step Change	Slower Growth	Accelerated Transition
	SEVIC1 based on 2024 ISP 2024 inputs and assumptions workbook v6.0 ²² . SWNSW2 constrains VIC-NSW instead of WNV-SNSW. SWQLD1 constraint excluded.		
CIS Tender 4 Queensland winners	1,241 MW of CIS Tender 4 ²³ wind and solar generators committed as new entrant capacity for Queensland. This has not been considered committed in the IASR Workbook v7.4 ¹⁸ .		
REZ optional transmission	Wide Bay and Darling Downs optional transmission expansion and transmission limits based on 2022 ISP inputs and assumptions workbook v3.4 ²¹ . Gippsland Onshore based on 2024 ISP inputs and assumptions workbook v6.0 ²² .		
REZ capacity factors	Solar PV single axis tracking capacity factors based on the Draft 2025 IASR v7.2 ²⁴ .		
Reference years	Not incorporating reference years from 2019-20 onwards due to unavailability of matched hydro generation data.		
REZ model	DREZs omitted.		
REZ dispatch constraints	New committed and anticipated BESS units not added to LHS of REZ dispatch constraints due to high computational cost.		

²² AEMO, 26 June 2024, *2024 ISP Inputs and Assumptions workbook*. Available at <https://aemo.com.au/energy-systems/major-publications/integrated-system-plan-isp/2024-integrated-system-plan-isp>. Accessed 16 October 2025

²³ Department of Climate Change, Energy, the Environment and Water, 9 October 2025, *Capacity Investment Scheme Tender 4 to deliver 6.6GW of clean energy*. Available at: <https://www.dcceew.gov.au/about/news/cis-tender-4-deliver-6-6gw-clean-energy>. Accessed 21 October 2025

²⁴ AEMO, 28 February 2025, *Draft 2025 Inputs and Assumptions Workbook v7.2*. Available at: <https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-iasr>. Accessed 15 October 2025

4. Forecast gross market benefit outcomes

4.1 Summary of forecast gross market benefit outcomes

The forecast gross market benefits of Marinus Link in the three modelled scenarios are summarised in Table 6.

Table 6: Overview of forecast gross market benefits of Marinus Link over the Modelling Period discounted to 1 July 2025, excluding the value of emissions savings. All dollars are presented in \$million, real June 2025.

Marinus Link size	Marinus Link timing	Step Change	Slower Growth	Accelerated Transition
1,500 MW	Stage 1 2030 & Stage 2 2034	\$6,001	\$4,607	\$6,754
750 MW	Stage 1 2030	\$5,126	\$3,430	\$6,251

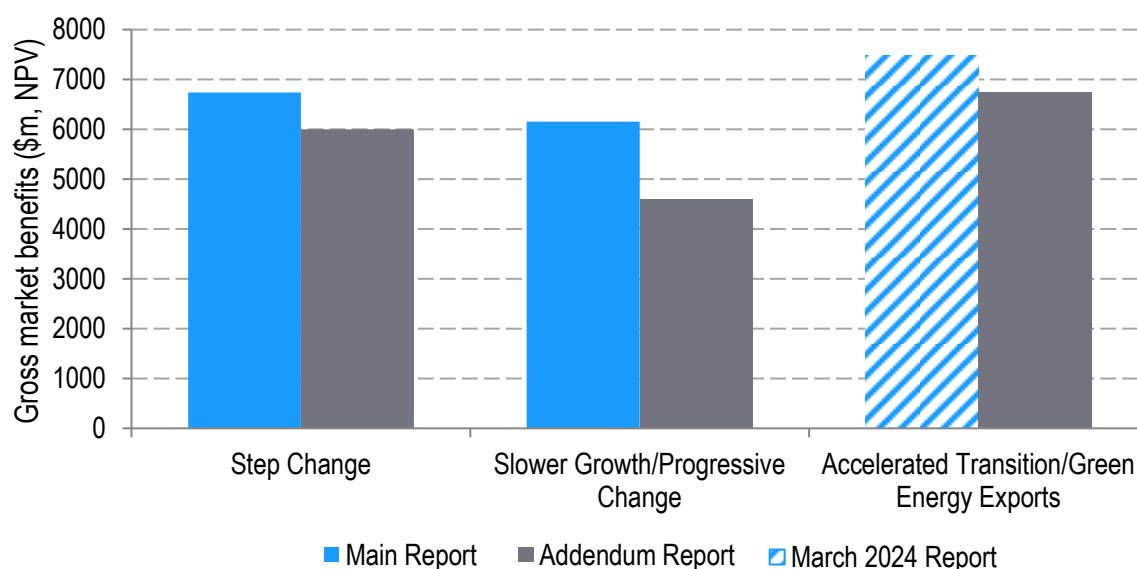
The forecast gross market benefits of each scenario must be evaluated by comparison to the cost of Marinus Link to determine the forecast net economic benefit of each option. This evaluation is not part of our scope and hence has not been included in the Main Report or in this Addendum Report.

Although the forecast gross market benefits remain substantial, they have decreased for the Step Change and Slower Growth (previously Progressive Change) scenarios compared to the Main Report. As shown in Figure 2, the difference in forecast benefits between the two scenarios is also bigger. In Figure 2, the forecast gross market benefits from the Main Report have been adjusted for CPI from June 2024 dollars to June 2025 dollars and discounted to July 2025.

The Accelerated Transition scenario was not modelled in the Main Report, so in Figure 2 a comparison is instead made to the previous assessment of the Green Energy Exports scenario in March 2024²⁵. The March 2024 forecast gross market benefits for Green Energy Exports were reported in June 2023 dollars discounted to July 2023 and were assessed over a modelling period of 2024-25 to 2049-50 for assumed Marinus Link Stage 1 and 2 commissioning of 1 October 2029 and 1 July 2033 respectively. In Figure 2, these values have been adjusted for CPI to June 2025 dollars and discounted to July 2025 to be broadly comparable. However, because the Modelling Period and Marinus Link entry dates differ, caution is required when making this comparison.

²⁵ EY, 28 March 2024, *Gross market benefits assessment of Marinus Link*. Available at: <https://www.marinuslink.com.au/wp-content/uploads/2024/04/EY-report-Project-Marinus-Gross-Benefits-28-March-2024.pdf>. Accessed 16 October 2025

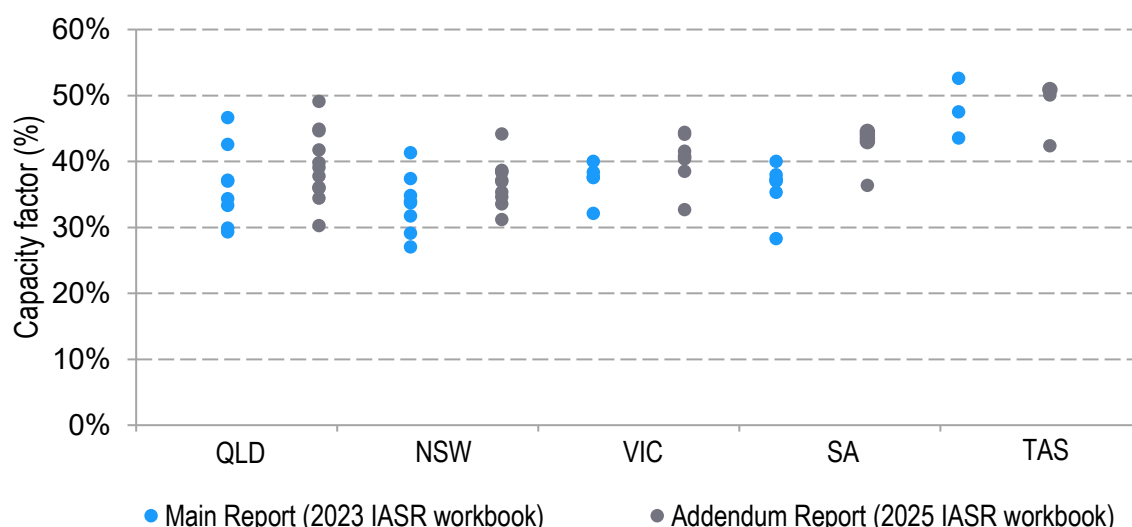
Figure 2: Forecast gross market benefits of Marinus Link Stage 1, in 2030 and Stage 2, in 2034 over the Modelling Period discounted to 1 July 2025. All dollar values are presented in \$million real June 2025



The main drivers for these movements in benefits in relation to updates to the input assumptions in AEMO's Final 2025 IASR are outlined below:

- One of the sources of benefits of Marinus Link identified in previous assessments is high capacity factor wind resource in Tasmania. This resource is captured through capacity built to meet TRET that is able to be exported to the mainland with Marinus Link and offsets the need for higher cost mainland renewable capacity. Relative to the assumptions in the Main Report, the assumptions in the Final 2025 IASR (which have been adopted in this Addendum Report) mean that mainland wind has been assumed to increase in competitiveness relative to Tasmanian wind due to increased capacity factors for wind in most mainland REZs compared to mixed increases and decreases in Tasmania. This is shown in
- Figure 3. Tasmanian wind remains the highest capacity wind resource but by a smaller margin than in previous modelling studies. With these changes, less renewable capacity is required to meet demand and policy targets, and more of the renewable capacity is built on the mainland. Consequently, the forecast benefits of Marinus Link associated with reducing or deferring investment in new renewable capacity on the mainland has also reduced relative to the Main Report.

Figure 3: Distribution of the average capacity factor over 9 reference years for new entrant of the wind high technology in all REZs in each region^{26,28}



- There is significantly more renewable capacity and storage forecast to be commissioned on the mainland in all cases. Firstly, there are additional committed and anticipated renewable and storage units on the mainland. Furthermore, there is significant additional new capacity forecast to meet the assumed CIS 2030 minimum generation capacity targets, CIS 2030 dispatchable capacity target and the New South Wales 2030 long-duration storage target.
 - The scale of this difference is depicted in Figure 4 for the Slower Growth/Progressive Change scenario where the change is most apparent. The CIS region-based minimum generation targets were newly introduced compared to the Draft Stage 2 IASR Workbook²⁷ and the CIS dispatchable capacity target has also increased from 7.59 GW in the Draft Stage 2 IASR Workbook²⁷ to 11.23 GW in the 2025 IASR Workbook²⁸.
 - Additional assumed new entrant renewable capacity on the mainland reduces the amount of capacity that can be avoided or deferred with Marinus Link. This effect is especially prominent in the Slower Growth scenario as it has the lowest forecast share of renewables out of all scenarios. The amount of additional committed capacity is proportionally larger for Slower Growth due to its lower assumed demand. This additional committed renewable and storage capacity is the principal driver of the reduction in forecast gross market benefits in the Slower Growth scenario relative to the Progressive Change scenario in the Main Report.

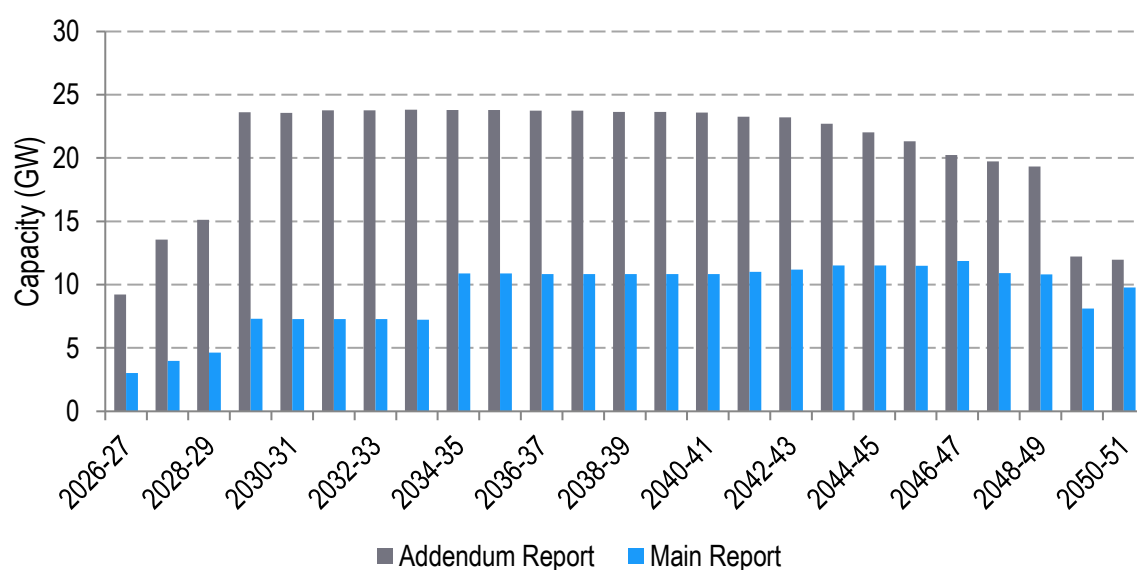
²⁶ AEMO, 8 September 2023, *2023 IASR Assumptions Workbook v5.2*. Available at: <https://www.aemo.com.au/consultations/current-and-closed-consultations/2023-inputs-assumptions-and-scenarios-consultation>. Accessed 15 October 2025

²⁷ AEMO, 28 February 2025, *Draft 2025 Inputs and Assumptions Workbook v7.2*. Available at: <https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-iasr>. Accessed 15 October 2025

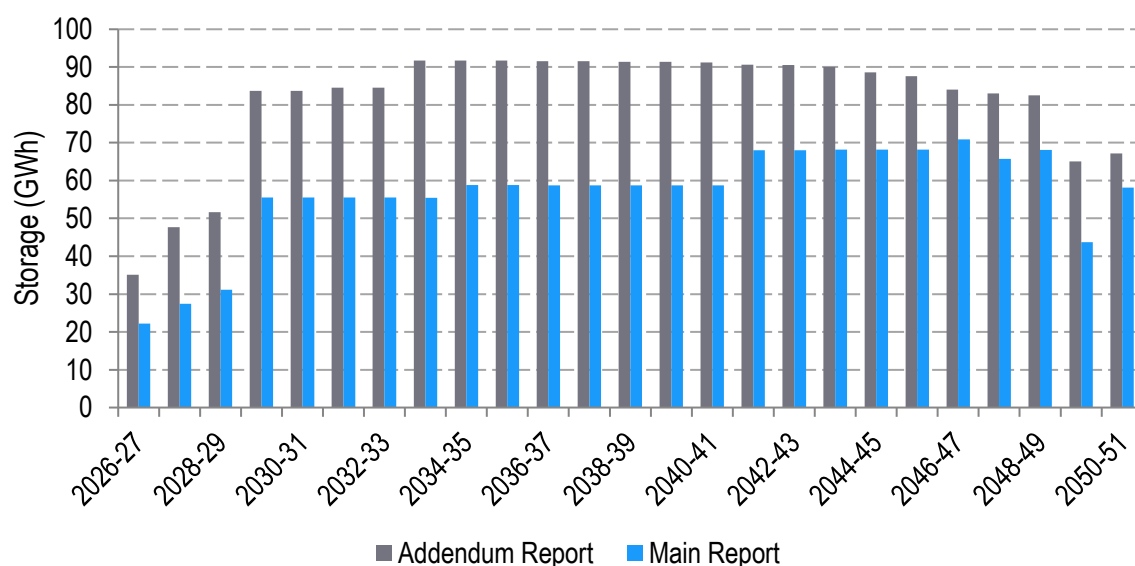
²⁸ AEMO, 28 August 2025, *2025 Inputs and Assumptions Workbook v7.4*. Available at: <https://www.aemo.com.au/consultations/current-and-closed-consultations/2025-iasr>. Accessed 15 October 2025

Figure 4: Comparison of mainland grid BESS and PHES capacity for the Slower Growth/Progressive Change scenario in the Marinus link Stage 1 and 2 case excluding Snowy 2.0 and Borumba.

a) Installed capacity



b) Energy capacity



- Assumed hydrogen demand has decreased for Tasmania relative to mainland demand across all years. This change leads to higher benefits than otherwise as more mainland build can be avoided in place of Tasmanian build when Marinus Link unlocks Tasmanian generation. However, the other changes listed above outweigh the impact of this change resulting in an overall reduction in gross market benefits.

The Accelerated Transition scenario was not modelled in the Main Report. However, higher demand and faster decarbonisation scenarios have been modelled in earlier assessments of Marinus Link

gross market benefits²⁹. Consistent with those previous studies, gross benefits are forecast to be higher in the Accelerated Transition scenario than in the Step Change and Slower Growth scenarios.

4.2 Forecast benefits from emissions

As in the Main Report, forecast emissions benefits are a byproduct of avoided thermal generation, when Tasmanian hydro and wind capacity are unlocked with Marinus Link. The forecast emissions savings are valued according to AER's *Valuing emissions reduction* documentation³⁰, calculated as a post-process to the optimisation. The emissions benefits vary between the scenarios due to differences in assumed carbon budget and demand.

Table 7 shows the forecast gross benefits with associated emissions savings for Marinus Link over the 25-year Modelling Period from 2026-27 to 2050-51 for the modelled scenarios.

Table 7: Overview of scenarios with associated emissions benefits for Marinus Link over the Modelling Period discounted to 1 July 2025. All dollars are presented in \$million, real June 2025

Marinus Link size	Marinus Link timing	Step Change	Slower Growth	Accelerated Transition
1,500 MW	Stage 1 2030 & Stage 2 2034	44.92	71.95	9.15
750 MW	Stage 1 2030	26.98	19.47	2.70

In all scenarios, the carbon budget is binding, meaning that both the with and without Marinus Link cases produce the same overall amount of emissions in Mt from 2026-27 to 2049-50. This represents a significant reduction in forecast emissions benefits for the Slower Growth scenario relative to the Progressive Change forecast in the Main Report, where previously the emissions budget was not binding, allowing room for a decrease in total forecast emissions with Marinus Link which led to large forecast emissions benefits of up to \$3,835m. This change in emissions outcomes from the Main Report is attributed to the reduction in emissions budget in the 2025 IASR of 727 Mt CO₂-e from 797 Mt CO₂-e in the Draft 2025 IASR Stage 2. Binding carbon budgets allow less flexibility in coal generation between cases with and without Marinus Link, reducing the opportunity for Tasmanian generation to displace coal generation on the mainland with Marinus Link. In the Main Report, there are higher levels of emissions-intensive brown coal generation in the Base Case, which are partially avoided with Marinus Link. This was not the case in the updated modelling due to the carbon budget binding in both cases.

²⁹ EY, 28 March 2024, *Gross market benefits assessment of Marinus Link*. Available at: <https://www.marinuslink.com.au/wp-content/uploads/2024/04/EY-report-Project-Marinus-Gross-Benefits-28-March-2024.pdf>. Accessed 16 October 2025

³⁰ AER, May 2024, *Valuing emissions reduction AER guidance and explanatory statement*. Available at: <https://www.aer.gov.au/system/files/2024-05/AER%20-%20Valuing%20emissions%20reduction%20-%20Final%20guidance%20and%20explanatory%20statement%20-%20May%202024.pdf>. Accessed 24 June 2025

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