



Marinus Link Pty Ltd

Submission to Joint Select Committee on Energy Matters in Tasmania

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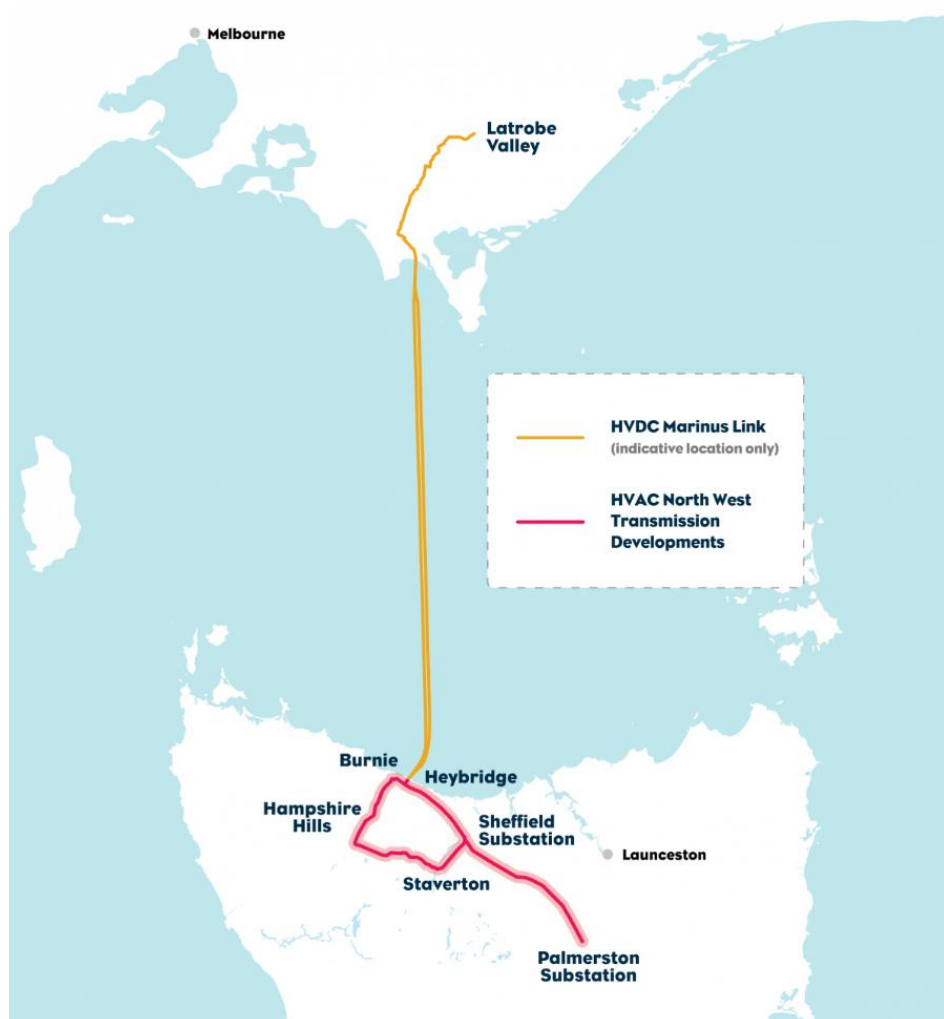


Marinus Link Pty Ltd (**MLPL**) appreciates the opportunity to provide a submission to the [Joint Select Committee on Energy Matters in Tasmania](#).

Background

Marinus Link is a proposed two stage 1500 MW electricity interconnector project of national significance, which is critical to Tasmania's energy security and will ensure that downward pressure can be exerted on energy prices.

The High Voltage Direct Current (**HVDC**) interconnector will run 255km undersea from Heybridge (east of Burnie) to Waratah Bay in Victoria, and a further 90km inland to Hazelwood, in the Latrobe Valley.





MLPL plans to build the increased transmission capacity in two 750 MW stages, with each stage consisting of a separate HVDC cable and converter station. Marinus Link will be supported by High Voltage Alternating Current (**HVAC**) transmission network developments in North-West Tasmania, known as the North-West Transmission Developments (**NWTD**). Collectively, these two projects are known as 'Project Marinus'.

Project Marinus is included as a "fully actionable project" that should "progress as urgently as possible" as determined by the Australian Energy Market Operator's (**AEMO**) 2022 Integrated System Plan (**ISP**)¹ and reaffirmed in the Draft 2024 ISP² and has passed the Regulatory Investment Test for Transmission (**RIT-T**).³

Marinus Link will play a key role in supporting stability, reliability and energy affordability across Tasmania, Victoria and the broader National Electricity Market (**NEM**), as the market evolves from centralised coal-fired power generation to a highly diverse system dominated by variable renewable energy and distributed energy resources requiring storage and dispatchable capacity.

AEMO's Draft 2024 ISP calls for close to 10,000 kilometres of new transmission lines and upgrades to existing networks by 2050, which is projected to deliver \$17 billion in consumer benefits (relative to if those transmission projects are not delivered). AEMO notes in the report that the lowest cost pathway to replacing retiring coal-fired generation is from renewable energy, connected by transmission, supported by storage, and backed up by flexible gas-fired-generation.

¹ Attachment 1: Australian Energy Market Operator's (AEMO) 2022 Integrated System Plan

² Attachment 2: Australian Energy Market Operator's (AEMO) Draft 2024 Integrated System Plan

³ Attachment 3: Project Marinus PACR (summary)



Both the ISP and RIT-T analysis illustrate that Project Marinus will play a critical role in delivering Australia's clean energy future at the lowest possible cost. Marinus Link has also been included as a high priority project by both Infrastructure Australia⁴ and Infrastructure Victoria.⁵

In December 2023, the Australian Energy Regulator determined that MLPL's expenditure for early works is both prudent and efficient.⁶

MLPL is currently sourcing cable and converter equipment through an International competitive tender process, whilst simultaneously undergoing assessment and approvals across the Commonwealth, Victorian and Tasmanian jurisdictions. MLPL is in a live procurement process and has invited expressions of interest for converter and land cable associated civils packages.

MLPL has been granted transmissions licences from the appropriate regulators to operate in Tasmania and Victoria.

MLPL is working towards a Final Investment Decision (**FID**) to be delivered by the end of 2024, with construction of Marinus Link Stage One (cable one) to commence in 2025, in anticipation of being in service and transmitting energy from Financial Year 2030.

Approach to Committees' Terms of Reference

MLPL notes that the matters the Committee is seeking to inquire into are wide, as reflected in the Terms of Reference. In the interests of addressing these matters in the most efficient manner possible for the committee's benefit, MLPL's approach to this submission is to focus on matters directly relevant to the Marinus

⁴ https://www.infrastructureaustralia.gov.au/sites/default/files/2021-03/IFA_301237_2021%20Infrastructure%20Priority%20List%20FA2%20Navigable%20WEB%20Flat%20EXT%20FINAL_update.pdf

⁵ <https://assets.infrastructurevictoria.com.au/assets/Resources/1.-Victorias-infrastructure-strategy-2021-2051-Vol-1.pdf>

⁶ Attachment 4: AER Revenue Determination – Marinus Link Stage 1 Part A (Early works)



Link project.

In calculating its material benefit to the Tasmanian community, consideration must be given to the wider benefits associated with the commissioning of Marinus Link, including;

- Support of new and existing local jobs;
- Reduction in household energy bills;
- Generating direct and in-direct/induced economic stimulus;
- Helping to protect Tasmania's energy security;
- Unlocking additional investment in renewable energy generation;
- Increasing telecommunications data capacity and redundancy.

This submission intends to elaborate on a number of these key considerations.

Unlocking economic activity in Tasmania

MLPL has recently commissioned Ernst and Young (**EY**) to provide an updated independent analysis of the economic contribution of Marinus Link and the NWTD.⁷

Their analysis is a comprehensive consideration of the direct and indirect jobs expected to be supported by Marinus Link and the NWTD projects in both Tasmania and Victoria. It also applies an economic multiplier to capture the flow-on ('indirect' and 'induced') effects of the project's construction and operating phases, such as that offered through more jobs and greater investment in the supply chain, as well as in the wider community.

The report finds that Marinus Link and the NWTD, is expected to support approximately 1,400 additional jobs per year in Tasmania at peak construction of Stage One, which is currently assumed to be 2025 to 2027.

⁷ Attachment 5: Ernst and Young - The economic contribution of Project Marinus



Additionally, the report finds that both stages (cables one and two) are expected to support approximately 1,600 additional jobs per year in Tasmania at peak construction of stages one and two combined, which is currently assumed to be 2027 to 2029.

Analysis		Notes
Tasmanian jobs supported (Stage One)	1,423 jobs	Direct and indirect/ induced at Stage One peak construction (2025 to 2027).
Tasmanian jobs supported (Stages One and Two combined)	1,645 jobs	Direct and indirect/ induced at Stage One and Stage Two peak construction (2027 to 2029). <i>NB - does not factor telecommunications/ or data component of ML, which could support further additional jobs.</i>
Tasmanian economic stimulus (cable one)	\$1.3B in economic stimulus	Total value add supported in Tasmania as part of construction and operations of the Marinus Project (2026 to 2032). \$2023 dollars.
Tasmanian economic stimulus (cables one and two combined)	\$1.8B in economic stimulus	Total value add supported in Tasmania as part of construction and operations of the Marinus Project (2026 to 2032). \$2023 dollars.

The construction and operations of Marinus Link and associated network augmentation, coupled with induced investment is expected to support jobs across a wide range of industries, education levels and occupations. These include workers physically involved in the building and installation process, such as carpenters, electricians, plumbers, welders, metal workers and support workers.

Indirect jobs in the building and installation process include, but are not limited to: cost estimators, engineers, financial advisors, technicians, construction managers, surveyors, architects, safety and support staff.

Core jobs in the operations phase include safety staff, operations and maintenance managers, plumbers, welders and other maintenance staff, corporate and financial



staff and asset managers.

Additionally, Marinus Link is expected to support the attraction of potential new advanced manufacturing loads. These potential investors need confidence there is adequate clean energy supply to proceed to market and Marinus Link is well placed to provide this certainty by supporting the continued development of variable and dispatchable clean energy resources, and enhancing reliability in the national power system.

Helping provide energy security for Tasmania and the nation

Marinus Link will enable access to least-cost energy for consumers through a cost-effective combination of Tasmanian variable and dispatchable renewable generation, and energy exchanged with mainland Australia.

For example, when there is ample wind capacity in Tasmania, Marinus Link can export this excess energy to mainland Australia via the NEM. However, when Tasmanian weather conditions are not conducive to wind or solar generation, Marinus Link can import excess clean energy from mainland Australia, whilst not needing to draw down on its hydro storage capacity.

Marinus Link can therefore support to keep the lights on in Tasmania and mainland Australia when the wind drops, the sun goes down and batteries have depleted.

Reducing energy prices for Tasmanian households

MLPL has recently commissioned FTI Consulting (**FTI**) to provide an independent analysis of the expected consumer benefits of Marinus Link and the NWTD.⁸ FTI's analysis indicates that average electricity prices in every NEM region would be lower

⁸ Attachment 6: FTI Consulting - Project Marinus: analysis of NEM consumer benefits



with Marinus Link in place than they otherwise would be without it, with the impact being most significant in Tasmania and Victoria.

With both stages of Marinus Link in place, average wholesale electricity prices between 2031-2050 are estimated to fall by about \$21 per MWh for Tasmania, and \$19 per MWh for Victoria, from what they would otherwise be without Marinus Link in place.

With Stage One of Marinus Link in place, average wholesale electricity prices are expected to reduce by about \$13 per MWh for both Tasmania and Victoria from what they would otherwise be without Marinus Link in place.

The effect of the reduction in electricity prices for electricity consumers is expected to equate to an average annual reduction in the wholesale energy component of the power bill of \$148 to \$165 in Tasmania for both stages, and \$90 to \$97 for Stage One only. Taking these savings into account and network costs calculated by TasNetworks, a typical residential consumer is therefore expected to save on average a total of between \$35 and \$40 annually from their household energy bills⁹, once Marinus Link Stage One is in place, compared to what they would otherwise be without Marinus Link in place. Stage Two is expected to deliver further additional savings for Tasmanian consumers, in addition to further renewable investment.

World Without Marinus Link

As indicated above, typical Tasmanian residential consumer will have lower annual electricity bills on average in a future with Marinus Link, compared to a future without it.

⁹ https://www.tasnetworks.com.au/config/getattachment/a7b4e2c9-57f2-4773-9abb-2aed068e84cf/TasNetworks_Marinus_Link_NWTD_Media_Release_20_Nov_2023.pdf



Analysis undertaken by TasNetworks, based on consumer connection enquiries, indicates a significant increase in future Tasmanian energy load growth, which is expected to double by 2032,¹⁰ necessitating additional on-island network upgrades. This is backed up by AEMO's 2023 Electricity Statement of Opportunities¹¹ and also evidenced in the Step Change scenario (central scenario) in AEMO's Draft 2024 ISP. These upgrades will be required regardless of whether Marinus Link is commissioned or not, however in the event that Marinus Link does not proceed, these network upgrades would not benefit from being offset by the commercial gains that Marinus Link is expected to unlock, nor will they benefit from the concessional finance that has been offered by the Clean Energy Finance Corporation (**CEFC**).

Modelling commissioned by MLPL indicates that Tasmania could incur additional system costs of up to \$200m per annum without Marinus Link in place. This would be equivalent to an approximate increase of \$100 per typical household, if these costs were passed on to distribution connected consumers. These Tasmanian system costs include the aforementioned forecast increased load growth, as well as potential impacts of climate change, and impacts from extreme drought, leading to additional import at higher prices and increase in Tasmanian gas-powered generation.

Independent verification of this modelling also highlighted the 2016 Tasmanian energy crisis as an example of operating the system under significant stress, with low storage levels and higher risk of unserved energy under various credible outage scenarios.

This presents, we believe, significant energy security risks to the State with increased dependency on the existing Basslink Interconnector and continued reliance on the Tamar Valley Power Station and its more carbon-intensive generation and cost

¹⁰ <https://www.tasnetworks.com.au/config/getattachment/a06436d3-a427-42f5-9bbc-230ee85ebd5c/annual-planning-report-2022.pdf>

¹¹ https://aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/nem_esoo/2023/2023-electricity-statement-of-opportunities.pdf



exposure to the volatile gas market. It also places in doubt Tasmania's net zero emissions target, as well as the State's legislated commitment to 200 per cent renewable generation by 2040.

Environmental Benefits

Across the nation and indeed the world, the way that electricity is generated is changing. Fossil fuels will play a much smaller role, with coal-fired generation to progressively shut down in the coming decades. Renewable generation¹², such as wind, solar and hydro, is the lowest cost new energy and becoming a much larger part of our energy mix. This transition requires transmission infrastructure to transfer energy from renewables to where it is needed. Storage capacity in the network will also be crucial, to enable excess generation to be held until needed. This is confirmed by AEMO's recently released Draft 2024 ISP modelling.

Marinus Link and the NWTD will help Australia's transition to a low emissions future by unlocking Tasmania's high-quality wind and hydro resources, providing access to long-duration energy storage capacity, and by providing dispatchable energy when it is required. Tasmania's deep storage capacity provides approximately 30,000 times that offered by Victoria's Big Battery, which at a storage capacity of 450 MWh¹³, is one of the largest of its kind in the world.

Marinus Link and supporting transmission developments are a critical component to delivering Tasmania's legislated commitment to achieve 200 per cent renewable generation by 2040. Without Marinus Link in place, this commitment is difficult to achieve.

Marinus Link will enable reliable clean energy generated in Tasmania to be delivered to consumers in the NEM, and will also enable excess energy generated

¹² <https://www.csiro.au/en/research/technology-space/energy/energy-data-modelling/gencost>

¹³ <https://www.hydro.com.au/home/EnergyInStorageCurrentPdf/>



on the mainland to be stored in Tasmania's hydro storages. This storage will benefit all consumers across the NEM at times when demand outstrips supply. Once the 1500MW is fully operational, Marinus Link will have the capacity to transport renewable power for up to 1.5 million homes.

Supporting reliability of Tasmania's telecommunications

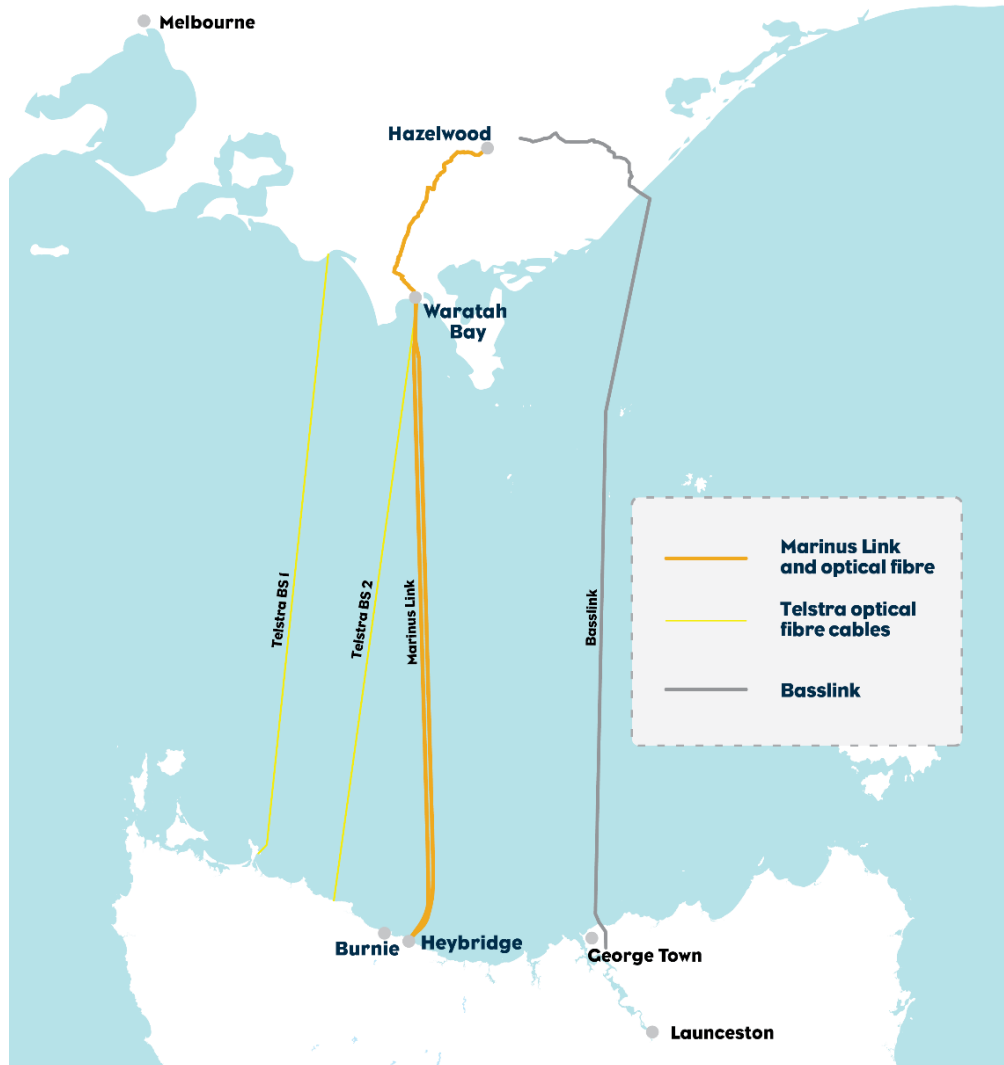
While the core function of Marinus Link is as an electricity transmission interconnector, Marinus Link will be bundled with optical fibre cable, which is required to control the operation of power transmission.

These optical fibre cables will include capacity that can be released to market to increase telecommunications capacity across Bass Strait and provide a competitive, commercialised telecommunications service.

Preliminary discussions with the telecommunications industry have revealed significant interest in its commercialisation and it is expected to earn a commercial rate of return which will not be cross-subsidised by electricity consumers.

The additional capacity will improve our telecommunications connectivity to mainland Australia, providing greater resilience and allowing more data capacity to flow. Tasmania is currently connected over Bass Strait to the mainland via three fibre optic connections. All terminate between Tasmania and Victoria (i.e. no separate connection currently exists from Tasmania direct to any other state, or international destination).

Of these, two are owned by Telstra and the third is connected to the Basslink electricity interconnector (as shown in map overleaf).



The extra optical fibre capacity offered by Marinius Link will be significant, which is calculated by Marinius Link to be in excess of 150 times the combined capacity of all three current Bass Strait connections. The network connection points will be at each end of Marinius Link (i.e. Heybridge and Latrobe Valley), where it will join the national optic fibre backbone.

While no decisions have yet been made in regards to the commercialisation model that MLPL will offer to market, it will seek to maximise the potential value of this



important infrastructure for Tasmanians. Additionally, further connectivity would be expected to exert downward pressure on connectivity charges.

International Tender

Following approval by shareholding Ministers, MLPL issued a tender to pre-qualified tenderers for the supply of HVDC cables in December 2022, and in January 2023 issued a tender to pre-qualified tenderers for converter stations. Between May 2023 and July 2023, multiple compliant submissions from pre-qualified tenderers were received for both tenders.

Following the conclusion of HVDC cable Capacity Reservation Agreement (**CRA**) contract negotiations, MLPL entered into a CRA with pre-qualified tenderer Prysmian Group based in Europe, in August 2023 and an underwrite agreement with the Commonwealth.

This CRA ensures reservation of manufacturing and offshore installation capacity for Stage One, with negotiations continuing to finalise contracts. Contracts are conditional upon the successful conclusion of the commercial negotiations and the project's FID, expected by the end of 2024.

MLPL is now in a live procurement process for converters and for has invited expressions of interest for associated civils packages.

MLPL's procurement process has been overseen by probity advisors O'Connor Marsden (**OCM**) Their support in addition to legal and commercial advice, resulted in a strict plan and framework being implemented. The tender evaluation panel consists of internal MLPL resources across commercial, technical and finance teams, as well as external representatives and observers from Consumer Advisory Panel (**CAP**), the Australian Energy Regulator (**AER**) and representatives of OCM.



Current and future ownership

MLPL, is currently a wholly owned subsidiary of TasNetworks and is the entity responsible for the planning, development and delivery of Marinus Link, with funding support from the Australian and Tasmanian governments.

MLPL has its own Board of independent non-executive directors, an Executive team and operational staff, which are responsible for its day-to-day operations and decision making. Key decisions, including Marinus Link's forthcoming change of ownership and its Final Investment Decision currently require approval from TasNetworks, and ultimately the state of Tasmania.

In April 2022, an MOU and Project Agreement was executed between the Australian and Tasmanian governments, providing \$75M through an Australian Government grant and matched funding from the Tasmanian Government to complete the Design & Approvals (**D&A**) phase for Project Marinus. This took total funding for the D&A phase to \$244M, of which \$190.5M has been allocated directly to develop Marinus Link.

In October 2022, the Australian, Tasmanian and Victorian governments signed a Letter of Intent which outlined agreement for the delivery of the project, including a joint ownership model, concessional financing and cost allocation agreement for Marinus Link (in addition to arrangements for NWTD and Battery of the Nation), based off costs as they were understood at the time and before MLPL had released tenders to the international market.

In September 2023, the Australian, Tasmanian and Victorian governments agreed to new arrangements which saw the Australian Government increase its equity share in the project to 49 per cent, and Tasmania's equity share reduced to approximately 17.7 per cent. Victoria's equity share remained at 33.3 per cent. The agreement also provides access to deep concessional financing from the CEFC for the project.



This means Tasmania's total investment in the project to date is estimated to be between \$106M and \$117M¹⁴, based on a total project cost of between \$3.1B and \$3.3B for Stage One.

As matters of future ownership have been decided, there is no requirement for private sector contributions to be sought at this time.

TasNetworks will continue to develop and own the NWTD, and will also receive deep concessional financing from the CEFC to assist in its funding.

AER revenue decision for early works costs

In 2023, MLPL submitted a revenue proposal for early works expenditure to the AER. Via a public process, the AER determined that the proposed expenditure for early works is prudent and efficient.

MLPL will follow a similar process for the AER to determine the prudent and efficient construction costs.

Business Case

The cost-benefit economics of Mariner Link and the NWTD to the NEM are demonstrated by the RIT-T and AEMO's ISP highlighting the projects' significant net benefits.

Mariner Link is also currently engaged in Tasmania's whole-of-state business case,

¹⁴ https://www.premier.tas.gov.au/site_resources_2015/additional_releases/massive-mariner-win-for-tassie



which will consider the financial, economic and social impacts of Marinus Link, NWTB, and its associated energy projects.

As previously discussed, the economics of Marinus Link are bolstered by the agreement reached between the Tasmanian, Victorian and Australian governments in October 2022, subsequently amended in September 2023, which ensures Tasmanian consumers pay only a fair and reasonable share of the overall transmission charges, as well as access to deep concessional finance from the CEFC.

Fair cost allocation has been considered by a number of energy market bodies and government reviews, including most recently by the Energy National Cabinet Reform Committee. We believe this has now been addressed by the Australian Government through its Rewiring the Nation fund, which will help progress key projects for Australia's clean energy transition.

This fund will provide concessional debt to fund Marinus Link and the NWTB, which is expected to reduce the revenue that will be recovered from consumers and is therefore expected to be passed on to consumers through lower charges.

The current standard transmission cost allocation/pricing rules do not properly reflect the consumers of Marinus Link and the NWTB and would have resulted in Tasmanian consumers paying a disproportionate share of the transmission charges for the project.



Conclusion

We hope you find our submission useful, which has been provided in good faith. We eagerly look forward to working with the Australian and State governments in making Marinus Link part of the success story of the Nation's transition to clean energy.

Should the committee require further information, or wish to further discuss the views expressed in this response, please feel free to contact me on [REDACTED], or Ben Gourlay, Head of Government Relations via email at [REDACTED].

Yours faithfully

A black rectangular box redacting the signature of Caroline Wykamp.

Caroline Wykamp
Chief Executive Officer - Marinus Link Pty Ltd

