Submission: Marinus Link RIT-T (Regulatory Investment Test for Transmission)

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Executive Summary

The Marinus Link project is being advanced through the Regulatory Investment Test for Transmission (RITT) process, promoted as a nation-building investment to connect Tasmania's hydroelectric and renewable resources with Victoria's Latrobe Valley via a 345-kilometre subsea high-voltage direct current (HVDC) cable. It is framed as essential to Australia's net zero commitments and electricity market stability. Yet beneath the political and corporate rhetoric lies a project that is economically unsound, environmentally destructive, and legally precarious. The RITT process, intended as a safeguard to ensure projects align with the National Electricity Objective (NEO) and consumer interests, has instead become an exercise in legitimising flawed cost–benefit analysis, incomplete carbon accounting, and predetermined political outcomes.

This submission demonstrates that Marinus Link does not represent a credible pathway to energy security or genuine decarbonisation. Instead, it constitutes a case of systemic risk in which inflated market benefit modelling exaggerates consumer savings while ignoring systemic costs, Tasmanian communities face disproportionate ecological and social burdens while benefits are largely transferred to mainland markets, remnant forests and biodiversity face irreversible loss, and agricultural productivity is undermined with direct consequences for national food security and international climate obligations (Lenzen et al., 2022; Lindenmayer and Fischer, 2013). Severe public health risks are also present, including PFAS contamination, fire hazards, noise and vibration impacts, and water and air pollution (Guelfo et al., 2024; EPA, 2023). Governance failures have been evident, with the Tasmanian caretaker government prematurely agreeing with the Commonwealth before environmental assessments were undertaken, reflecting regulatory capture and prioritisation of corporate certainty over community rights (Parliament of Tasmania, 2025). Legal risks extend across the Environment Protection and Biodiversity Conservation Act 1999 (Cth), multiple international biodiversity treaties, constitutional property rights protections, and precedents in Indigenous consultation.

Marinus Link cannot be justified as a responsible or sustainable investment under its current design. It reflects the dangers of policy driven by ideological commitment to net zero targets without a balanced evaluation of evidence, economics, and ethics. The cumulative environmental, agricultural, social, and legal impacts are both profound and irreversible. Unless its fundamental flaws are addressed through independent review and genuine community

engagement, the project will stand as a cautionary example of infrastructure development that has prioritised political and corporate agendas over the long-term interests of consumers, ecosystems, and future generations

From a legal perspective, the deficiencies identified in the Marinus Link RIT-T process give rise to significant risks of non-compliance under the *National Electricity Rules*, the *National Electricity Law*, and the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*, as well as relevant Tasmanian and Victorian environmental and planning statutes. These failures are compounded by procedural fairness concerns under administrative law, potential breaches of Indigenous consultation obligations, and exposure to judicial review. Unless these matters are addressed through a transparent, independently verified reassessment, any regulatory approval would remain vulnerable to legal challenge, potentially resulting in delays, cost overruns, or cancellation. Accordingly, it is submitted that the Marinus Link project must be referred under the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* for a controlled action determination, given the likely significant impacts on listed threatened and migratory species, Commonwealth marine areas, and nationally protected matters.

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1. Introduction

The Marinus Link project proposes a 1,500 MW HVDC interconnector across Bass Strait, connecting Heybridge in northern Tasmania to Hazelwood in Victoria's Latrobe Valley (TasNetworks, 2021; AER, 2025). Estimated to exceed $3 billion, the project is marketed as critical to enabling renewable energy exports, stabilising the National Electricity Market (NEM), and advancing Australia's net zero targets.

Tasmania, with a population of just over 570,000 (ABS, 2023), is being asked to shoulder disproportionate ecological and social costs to deliver energy benefits largely to mainland markets. Heybridge and surrounding agricultural communities face land alienation, remnant forest clearance, and the construction of converter stations and transmission corridors. At the Victorian end, Hazelwood—a region scarred by decades of coal mining—is now subject to a new wave of industrialisation through easements, converter stations, and ancillary infrastructure.

The subsea cable crosses Bass Strait, one of the most biodiverse marine environments in southern Australia. Cable laying, trenching, and seabed disturbance threaten seagrass meadows, benthic ecosystems, and marine megafauna, including whales and dolphins, which rely on acoustic environments for migration and breeding (Nowacek et al., 2007). These risks are compounded by the cumulative burden of offshore wind projects, shipping, and coastal industrialisation.

The RIT-T process requires projects to demonstrate net benefits to the market, yet in the case of Marinus Link the process has been distorted into a justification exercise. Benefits are overstated, costs underestimated, and environmental externalities ignored. This submission provides a comprehensive critique of these distortions, structured to assess the economic,

environmental, governance, and legal failures of Marinus Link as a case study in how Australia's energy transition risks becoming unsustainable.

The project must be assessed within the full scope of its statutory and regulatory context. The *National Electricity Rules* require that all credible options be assessed on a transparent and objective basis, yet the Marinus Link process omits reasonable alternatives and understates environmental costs. This omission, together with apparent pre-commitments by government prior to environmental approvals, engages well-established administrative law principles that guard against decisions made without regard to relevant considerations. The legal vulnerabilities identified are not abstract; they have been determinative in past Federal Court and state tribunal decisions that have overturned or modified major transmission projects.

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2. The RIT-T Framework and Its Flaws

The Regulatory Investment Test for Transmission (RIT-T) is overseen by the Australian Energy Regulator (AER). Its purpose is to ensure that major transmission projects are in the long-term interests of consumers by assessing whether the benefits of a project outweigh its costs (AER, 2025a). Benefits typically considered include increased reliability, reduced generation costs, and integration of renewable energy.

In practice, the RIT-T for Marinus Link suffers from several methodological flaws:

2.1 The Regulatory Investment Test for Transmission is the key regulatory tool mandated under the National Electricity Rules to assess whether proposed transmission projects will deliver net market benefits to electricity consumers (AER, 2025a). It requires detailed economic modelling of potential options, comparison of costs and benefits, and consideration of reliability, security, and environmental factors.

2.2 In theory, the RITT should serve as a transparent, evidence-based decision-making framework that places consumer and public interest at its core (Energy Users Association of Australia, 2024). In the case of Marinus Link, however, the process has been applied in a way that departs from its statutory intent. The benefits have been overstated through optimistic and sometimes untested assumptions about wholesale price reductions, system reliability, and renewable integration. Projections rely on high renewable uptake scenarios without adequately considering alternatives such as distributed energy resources or demand-side management.

2.3 Environmental and social costs—essential to a genuine public interest test—are largely absent from the RITT modelling. Biodiversity loss (Lindenmayer and Fischer, 2013), agricultural disruption (Victorian Farmers Federation, 2023), PFAS contamination (Guelfo et al., 2024), and public health risks (EPA, 2023) are excluded from the economic analysis. By ignoring these externalities, the assessment misrepresents the true net benefits.

2.4 Cumulative impact assessment, vital for long-term infrastructure planning, is absent. The project is evaluated in isolation, without modelling the combined effects of concurrent developments such as offshore wind farms and renewable energy zones (CSIRO, 2024). This omission undermines the credibility of the RITT outcome.

2.5 Political interference has further eroded the integrity of the process. The Tasmanian caretaker government's early agreement with the Commonwealth (Parliament of Tasmania, 2025), prior to environmental assessment and public consultation, signalled a predetermined commitment to proceed. Such sequencing inverts the appropriate decision-making order, where regulatory and environmental diligence should precede financial commitments.

2.6 These issues collectively amount to regulatory capture (Ofgem, 2020), where the process serves proponents and political interests rather than acting impartially for consumers and ecosystems. This diminishes public trust, compromises environmental stewardship, and risks establishing a precedent for bypassing scrutiny under the guise of regulatory compliance.

2.7 To meet the intent of the National Electricity Rules, the RITT application for Marinus Link would require independent peer review of modelling, comprehensive inclusion of environmental and social costs, cumulative impact analysis, and stakeholder engagement free from political influence.

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3. Economic Modelling and Market Benefit Assumptions

The RITT process places significant emphasis on economic modelling as the primary determinant of whether a transmission project should proceed. For Marinus Link, the modelling is presented as proof of substantial net market benefits, projecting long-term wholesale price reductions, greater system stability, and improved integration of renewable resources. These claims form the core of the project's justification and underpin its political and regulatory momentum. However, when examined against historical precedents, independent market analyses, and real-world operational data from similar interconnector projects, the reliability of these projections becomes questionable. It is therefore essential to scrutinise the modelling in detail to understand whether the anticipated benefits are realistic, achievable, and commensurate with the significant environmental, social, and financial costs involved.

3.1 The economic justification for Marinus Link is anchored in claims of reduced wholesale electricity prices, enhanced system reliability, and improved integration of renewable energy resources. These assertions are derived from modelling scenarios that adopt highly optimistic assumptions about market conditions, renewable generation performance, and demand growth. However, historic and international experience indicates that such claims are frequently overstated. The Basslink interconnector, for example, was promoted with similar assurances of consumer savings and system stability, yet failed to deliver on these promises, ultimately becoming embroiled in costly legal disputes resulting in a settlement exceeding $100 million (ABC News, 2019). The parallel between Basslink and Marinus Link underscores the inherent risk of relying on projections that have not been stress-tested against adverse or realistic scenarios.

3.2 AEMO's Integrated System Plan (AEMO, 2024) highlights that interconnectors, while facilitating power transfer, do not create additional generation capacity. This means that without adequate firming and storage solutions, they cannot alone address reliability gaps. Internationally, the UK's Hinkley-Seabank project is illustrative of the dangers of underestimated risk. Initially justified on grounds of cost efficiency and improved system security, it ultimately imposed consumer costs nearly double those projected at approval

(Ofgem, 2020). These outcomes raise serious concerns about the robustness and transparency of benefit modelling in the Marinus Link RITT process.

3.3 The emissions reduction benefits attributed to Marinus Link are similarly inflated due to the omission of lifecycle emissions accounting. This omission disregards greenhouse gas outputs generated during the extraction and processing of raw materials, manufacturing of infrastructure components, transportation, construction, maintenance, and eventual decommissioning (Lenzen et al., 2022). In the case of Marinus Link, these lifecycle phases involve high-emission activities including steel tower fabrication, subsea cable manufacturing, and concrete-intensive converter station construction. Furthermore, the clearing of remnant forests and disturbance of marine ecosystems will result in immediate and long-term carbon releases, undermining claims that the project will contribute to Australia's net zero goals.

3.4 The RITT economic framework also fails to account for externalities—costs borne by the public and the environment rather than the proponent. Biodiversity loss, reduced agricultural productivity due to easement constraints, PFAS contamination from construction and operational materials, and public health impacts from noise and vibration are excluded from benefit-cost ratios. These omissions distort the portrayal of Marinus Link as a net-positive investment and obscure the intergenerational costs that will be inherited by rural communities.

3.5 Given these deficiencies, the economic modelling presented within the RITT process for Marinus Link cannot be considered a sound or credible foundation for a multi-billion-dollar infrastructure commitment. A rigorous reassessment is required, one that incorporates realistic scenario testing, comprehensive lifecycle emissions accounting, and the monetisation of currently ignored environmental and social externalities. Without such measures, any assertion of net market benefit is speculative at best and misleading at worst.

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4. Distributional Inequity and Consumer Burden

The Marinus Link project raises significant concerns around the fairness of cost allocation and the disproportionate impact on certain communities. While proponents argue that the interconnector will deliver system-wide benefits, the distribution of these benefits and burdens reveals a stark inequity. The National Electricity Objective (NEO) requires that investment decisions be made in the long-term interests of all consumers, yet the RITT assessment appears to favour aggregate market efficiency over equitable outcomes for different consumer groups.

4.1 The financial burden of Marinus Link is expected to fall disproportionately on Tasmanian households and businesses, despite the majority of energy flow benefits being directed toward mainland markets. The Energy Users Association of Australia (2024) has warned that this cross-subsidisation effectively forces Tasmanians to underwrite infrastructure whose primary gains accrue elsewhere, contradicting the intent of the NEO.

4.2 The Australian Energy Regulator's modelling (AER, 2025b) estimates that household bills in Tasmania could rise by between $20 and $40 annually due to the project. However, this figure does not include potential cost overruns—historically common in large-scale

infrastructure projects—which could significantly amplify the actual consumer impact. International experience, such as the UK's National Grid interconnector projects, demonstrates that post-approval cost escalations frequently result in higher network charges than initially projected (Ofgem, 2020).

4.3 Small businesses, particularly in energy-intensive sectors like aquaculture, manufacturing, and forestry, face the risk of increased operational costs that could erode competitiveness. For industries reliant on thin profit margins, even modest rises in electricity network charges can undermine investment confidence and threaten jobs, especially in regional areas already grappling with economic transition pressures.

4.4 Low-income and vulnerable households are likely to be most affected. Rising network costs compound existing energy affordability issues, with many households already experiencing energy stress. The Australian Council of Social Service (ACOSS, 2024) has highlighted that current hardship support measures are inadequate to offset the impact of higher fixed charges, and that these impacts are regressive—disproportionately affecting those least able to absorb them.

4.5 The project's cost-recovery model also lacks robust mechanisms to protect consumers from bearing the brunt of financial risks associated with project delays, underperformance, or technological obsolescence. Without clear contractual safeguards, the risk is effectively socialised while the profits from operation remain privatised.

4.6 From an equity perspective, the RITT's reliance on aggregate net market benefits obscures the uneven distribution of costs and benefits. This framing allows inequitable outcomes to be justified on the basis that total system benefits outweigh total system costs, without considering the ethical implications of imposing disproportionate burdens on specific communities.

4.7 To align with both the NEO and principles of distributive justice, any decision to proceed with Marinus Link must be accompanied by a revised cost allocation framework, strengthened consumer protections, and targeted support for affected households and industries. Without these measures, the project risks exacerbating regional economic inequality and further eroding public trust in the energy transition.

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5. Environmental and Agricultural Impacts

The environmental and agricultural consequences of the Marinus Link project extend far beyond the immediate construction footprint, with both short-term and long-term implications for Tasmania's and Victoria's natural landscapes, productive farmlands, and ecological resilience. The RITT assessment fails to adequately account for these impacts in its cost–benefit analysis, thereby underestimating the scale of irreversible damage and long-term economic loss.

5.1 Loss of Productive Farmland

Transmission corridors, converter stations, and easements will permanently alienate productive agricultural land. The Victorian Farmers Federation (2023) has warned that such land loss not only reduces immediate agricultural yields but also erodes intergenerational

farm viability. The compensation offered—often a fixed annual payment—cannot offset the ongoing loss of productive capacity, diminished property values, or the stigma attached to land intersected by high-voltage infrastructure.

5.2 Soil Degradation and Hydrological Disruption

Construction activities involving heavy machinery, excavation, and soil compaction disrupt soil structure, leading to reduced fertility, altered water infiltration rates, and heightened erosion risk. Disrupted hydrology can impair irrigation systems, change drainage patterns, and reduce the resilience of farming systems to drought and flood events. These effects are cumulative, particularly where transmission corridors intersect multiple agricultural operations.

5.3 Microclimatic Alterations

Large-scale infrastructure development can create localised heat island effects and alter wind patterns, which in turn can influence crop growth cycles, evapotranspiration rates, and livestock comfort. Over time, such microclimatic changes can necessitate shifts in planting schedules, crop varieties, and farm management practices, adding to operational costs.

5.4 Forced Easements and Farmer Rights

In Victoria, legislative powers granted to VicGrid allow access to private land with significant penalties for non-compliance (The Guardian, 2025). Such powers undermine the rights of landholders to control the use of their property and create ongoing uncertainty for agricultural planning. This form of regulatory overreach risks breaching constitutional protections on property rights and may lead to protracted legal disputes.

5.5 Impact on Agricultural Supply Chains

Reduced land availability and productivity have downstream effects on agricultural supply chains, including reduced throughput for processors, increased costs for consumers, and reduced export competitiveness. In regions where agriculture underpins the local economy, such disruptions can have cascading social impacts, including population decline and reduced regional service provision.

Assessment

The permanent loss of farmland, coupled with soil degradation, altered hydrology, and regulatory encroachment on landholder rights, represents a national food security concern. In a context of climate volatility and global supply chain instability, the protection of high-value agricultural land should be considered a strategic priority. The failure of the RITT process to quantify these risks in economic terms results in a distorted cost–benefit analysis that undervalues the true long-term costs of the Marinus Link project.

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6. Biodiversity, Migratory Pathways, and Marine Risk

The Marinus Link project poses substantial risks to terrestrial biodiversity, avian migratory routes, and marine ecosystems. These risks are both direct—resulting from habitat destruction, physical barriers, and construction disturbance—and indirect, through cumulative effects in conjunction with other major infrastructure projects. The RITT assessment does not fully address these environmental impacts, nor does it adequately

consider Australia's obligations under domestic environmental legislation and international treaties.

6.1 Fragmentation of Remnant Forests

Remnant forests are critical biodiversity reservoirs, supporting high levels of species richness and providing essential ecosystem services such as carbon sequestration and soil stability. The construction of transmission corridors will fragment these forests, isolate wildlife populations, and increase vulnerability to predation and disease. Species such as the koala, greater glider, and swift parrot, already under significant conservation pressure, face elevated extinction risks when their habitats are reduced or severed (Lindenmayer and Fischer, 2013).

6.2 Impacts on Migratory Bird Pathways

Australia's position along the East Asian–Australasian Flyway makes it a critical stopover and feeding area for millions of migratory shorebirds, including species protected under CAMBA, JAMBA, and ROKAMBA agreements. Transmission towers and lines can create collision hazards and cause displacement from critical feeding habitats. Disturbance during key migration periods can result in significant energy deficits for these birds, reducing breeding success and population resilience (Studds et al., 2017).

6.3 Marine Ecosystem Disruption

The subsea cable installation across Bass Strait will involve seabed trenching, anchor placement, and potentially dredging, all of which disturb benthic communities and seagrass meadows. Seagrasses are vital blue carbon ecosystems, acting as nursery grounds for commercially important fish and invertebrates. Disturbance releases stored carbon and can trigger habitat degradation that takes decades to recover (Duarte et al., 2020).

6.4 Acoustic and Vibration Impacts on Marine Megafauna

Marine mammals such as southern right whales, humpback whales, and common dolphins rely on sound for navigation, communication, and foraging. Construction activities, including pile-driving and vessel traffic, as well as the operational hum of the subsea cable, can disrupt these behaviours and, in severe cases, cause strandings (Nowacek et al., 2007). Given that Bass Strait is part of migratory routes and breeding grounds for several whale species, the cumulative effect of Marinus Link alongside other marine developments heightens the risk of significant population-level impacts.

6.5 Marine and Coastal Legislation Compliance Risks – subsea cable works may trigger the *Environment Protection (Sea Dumping) Act 1981 (Cth)*, *Offshore Petroleum and Greenhouse Gas Storage Act 2006 (Cth)*, and *Coastal Management Act 2014 (Vic)*. Failure to obtain permits or address erosion and habitat loss at cable landfalls could invalidate approvals.

6.6 Cumulative and Synergistic Risks

When combined with offshore wind projects, increased shipping, and coastal industrialisation, the ecological impacts of Marinus Link are magnified. The RITT's failure to integrate cumulative impact modelling is a major oversight that undermines the reliability of its environmental risk assessment.

Assessment

The biodiversity and marine ecosystem impacts of Marinus Link are not confined to localised disturbance; they represent systemic threats to ecological connectivity, species survival, and

climate resilience. These impacts also place Australia at risk of breaching its obligations under the Environment Protection and Biodiversity Conservation Act 1999 (Cth) and international agreements aimed at conserving migratory species and marine biodiversity.

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7. PFAS Contamination and Public Health Hazards

The potential for PFAS (per- and polyfluoroalkyl substances) contamination arising from the Marinus Link project is a critical but underrepresented risk in the RITT assessment. PFAS compounds, often referred to as "forever chemicals" due to their persistence in the environment, are widely used in energy infrastructure for purposes such as fire suppression, cable insulation, and protective coatings. Their inclusion in industrial processes and materials associated with high-voltage transmission projects introduces significant contamination risks to soils, waterways, and the broader environment.

7.1 PFAS Use in Energy Infrastructure

PFAS chemicals are integral to many components in renewable energy systems, including turbine blades, solar panels, subsea cables, and lithium-ion batteries, where they are used to enhance durability, heat resistance, and fire retardancy (Guelfo et al., 2024). For the Marinus Link project, PFAS may be present in cable sheathing, gaskets, sealants, and the fire suppression systems at converter stations. These substances can be released into the environment through weathering, wear, accidental discharge, or improper disposal.

7.2 Environmental Pathways and Persistence

Once released, PFAS compounds are highly mobile in soil and water, resisting degradation and spreading over long distances. They can contaminate surface water, groundwater, and agricultural soils, with the potential to accumulate in sediment and biota. Due to their chemical stability, PFAS remain in the environment for decades or centuries, creating a long-term pollution legacy that is exceptionally difficult and costly to remediate (EPA, 2023).

7.3 Human Health Impacts

Scientific evidence links PFAS exposure to a range of serious health outcomes, including immune system suppression, thyroid disease, developmental delays in children, reduced fertility, and increased risks of certain cancers (EFSA, 2020; EPA, 2023). Rural communities living near PFAS-contaminated sites face chronic exposure through drinking water, locally grown food, and dust inhalation.

7.4 Food Chain Contamination

PFAS bioaccumulate in crops, livestock, and aquatic species, entering human diets and posing both domestic and export market risks. International markets, particularly in the EU, have stringent PFAS residue limits for imported food products. A contamination event linked to Marinus Link infrastructure could jeopardise Australia's "clean and green" agricultural brand, threaten trade relationships, and trigger costly recalls and compensation claims.

7.5 Regulatory and Liability Risks

The absence of specific PFAS regulation in Australia's national environmental framework leaves a gap in risk management. If contamination occurs, the financial liability for cleanup may fall on governments and landholders, rather than the project proponents. This shifts the

burden from those profiting from the project to the affected communities, compounding the inequities already present in its cost structure.

Assessment
The RITT's exclusion of PFAS contamination risks is a profound oversight that undermines the integrity of its environmental and economic assessment. Given the known persistence, toxicity, and bio accumulative nature of PFAS, the omission represents a failure to protect public health and environmental safety. Full lifecycle risk assessment, robust regulatory safeguards, and binding liability provisions are essential before any approval is granted.

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8. Fire Risk, Noise, and Vibration

The Marinus Link project introduces multiple operational and construction-related hazards that have significant implications for environmental safety, public health, and the liveability of affected communities. These include increased fire risks from high-voltage transmission infrastructure, chronic noise pollution, and the impacts of ground and marine vibrations. The RITT assessment does not adequately quantify or address these hazards, treating them as minor "nuisance" factors rather than recognising their cumulative and potentially catastrophic consequences.

8.1 Fire Hazards
High-voltage transmission lines and associated equipment are well-documented ignition sources for catastrophic bushfires. Historical precedents, such as Victoria's Black Saturday fires in 2009 and the PG&E wildfires in California, demonstrate the devastating consequences of electrical infrastructure failures (Teague et al., 2010; Mitchell, 2021). The Marinus Link's proposed route will intersect fire-prone landscapes in both Tasmania and Victoria, creating elevated ignition risks in areas already experiencing hotter and drier conditions due to climate change. Vegetation clearance along easements will not eliminate the threat, as mechanical failures, conductor clashing, and lightning strikes on infrastructure remain potent ignition triggers.

8.2 Noise Impacts
Converter stations, transformers, and high-voltage lines produce continuous low-frequency noise, often described as a persistent hum or buzz. Chronic exposure to such noise has been linked to adverse health effects including hypertension, sleep disruption, cognitive impairment, and increased stress levels (WHO, 2022). In rural areas where ambient noise levels are typically low, the introduction of constant industrial noise represents a profound change to the soundscape, affecting both human residents and wildlife behaviour.

8.3 Vibration Impacts
Construction activities such as pile-driving, blasting, and tunnelling can generate significant ground vibrations, impacting structural stability, soil compaction, and subterranean hydrology. For marine ecosystems, the electromagnetic fields and operational hum of the subsea cable can alter behaviour in sensitive species, particularly marine mammals and certain fish species (Popper & Hawkins, 2019). Disruption of echolocation in whales and dolphins can lead to disorientation, avoidance of critical habitats, and even strandings.

8.4 Cumulative Impacts on Communities and Ecosystems
When considered alongside other infrastructure developments in the region, the cumulative effects of increased fire hazards, noise pollution, and vibration-related disruptions present a systemic risk to both ecological resilience and community well-being. The RITT's omission of these combined effects results in an incomplete risk profile.

8.5 Work Health and Safety Obligations – duties under the *Work Health and Safety Act 2011* (Tasmania and Victoria) require foreseeable bushfire ignition risks from electrical infrastructure to be mitigated at design stage. Failure to do so may expose proponents to regulatory prosecution and civil liability, particularly given findings of the 2009 Black Saturday Royal Commission.

Assessment
The hazards associated with fire, noise, and vibration are not peripheral issues; they are central to the long-term sustainability and safety of the project. Without comprehensive mitigation strategies, stringent operational standards, and enforceable accountability measures, Marinus Link risks exacerbating environmental degradation, public health burdens, and community opposition.

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9. Carbon Accounting Failures and Climate Contradictions

The Marinus Link project is promoted as a critical enabler of Australia's net zero emissions target, yet the RITT assessment excludes major sources of greenhouse gas emissions from its analysis. This omission creates a misleading picture of the project's true climate impact and risks advancing a development that is, in net terms, a contributor to atmospheric carbon levels.

9.1 Lifecycle Emissions Excluded
The RITT modelling fails to incorporate emissions generated across the entire lifecycle of the project—construction, operation, maintenance, and decommissioning. Infrastructure projects of this scale require vast quantities of carbon-intensive materials such as steel, concrete, and plastics, each with significant embodied emissions (Lenzen et al., 2022). Additional emissions arise from transport logistics, heavy machinery use, and the disposal of decommissioned components.

9.2 Loss of Natural Carbon Sinks
The clearing of remnant forests, native vegetation, and coastal habitats for transmission easements, converter stations, and subsea cable landfalls will release stored carbon and diminish future sequestration capacity. Soil disturbance from trenching and excavation can also release long-sequestered carbon stored in soil organic matter (Bradford et al., 2019).

9.3 Offshore and Subsea Impacts
Seabed disturbance during subsea cable installation can release blue carbon stored in seagrass meadows and coastal sediments. These ecosystems play a critical role in climate mitigation, yet their degradation is not accounted for in the RITT's emissions profile (Duarte et al., 2020).

9.4 Contradiction with Net Zero Narrative

While Marinus Link is positioned as a tool to integrate renewable energy into the National Electricity Market, the exclusion of lifecycle and ecological emissions undermines the credibility of its climate claims. Without full emissions accounting, the project risks locking in net positive emissions over its operational lifespan.

Assessment

Accurate carbon accounting is essential for evaluating the true climate impact of any energy project. The RITT's failure to address lifecycle and ecosystem emissions renders its climate benefit claims unreliable. A full lifecycle assessment, incorporating both direct and indirect emissions, is necessary to ensure policy decisions are based on an honest appraisal of climate impacts.

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10. Legislative and Regulatory Compliance Gaps

The Marinus Link project must operate within a complex legislative framework that spans federal, state, and international obligations. However, the RITT documentation reveals substantial gaps in the assessment of compliance risks and enforcement mechanisms.

10.1 EPBC Act Compliance

The project traverses ecologically sensitive areas that trigger the Environment Protection and Biodiversity Conservation (EPBC) Act 1999. Despite this, the RITT assessment underplays the potential for significant impacts on listed threatened species, migratory species, and marine ecosystems. Without rigorous and independent environmental impact assessments that meet EPBC standards, the risk of legal challenge remains high.

10.2 State Environmental Laws

In both Tasmania and Victoria, state-based environmental protection laws impose requirements for flora, fauna, and habitat protection. The RITT analysis fails to demonstrate that these obligations can be met given the scale of vegetation clearing and marine disturbance.

10.3 International Treaty Obligations

Australia's obligations under the Convention on Biological Diversity and agreements on migratory species are also relevant. The RITT does not address how Marinus Link will align with these commitments, particularly regarding migratory marine species.

10.4 Enforcement Mechanisms

Even where compliance measures are identified, there is no clear mechanism to ensure enforcement. This raises concerns that mitigation strategies will remain aspirational rather than actionable.

10.5 Procedural Fairness and Judicial Review Risks – noting potential breaches under the *Administrative Decisions (Judicial Review) Act 1977 (Cth)* and state equivalents for failure to consider relevant matters (e.g., cumulative impacts, PFAS contamination) and for political pre-commitment before assessment completion. Cite *Minister for Aboriginal Affairs v Peko-Wallsend Ltd (1986) 162 CLR 24*.

10.6 First Nations Consultation and Cultural Heritage Compliance – obligations under the *Native Title Act 1993 (Cth)* and Aboriginal heritage laws in Tasmania and Victoria, including free, prior and informed consent principles. Cite *McGlade v Native Title Registrar [2017] FCAFC 10.*

10.7 Climate-Related Financial Disclosure – note risks under *Corporations Act 2001 (Cth), s.1041H* and ASIC climate disclosure guidance if proponents' public claims about emissions reductions omit lifecycle emissions. Refer to *Bushfire Survivors for Climate Action Inc v EPA [2021] NSWLEC 92.*

10.8 International Treaty Obligations as Relevant Considerations – application of *Minister for Immigration v Teoh (1995) 183 CLR 273* to show that ignoring migratory species treaties and biodiversity conventions could be grounds for review.

Master Legal Risk Table—Marinus Link

StatutorIGlause Provision	**Requirement**	**Alleged Vulnerability**	**Relevant Precedent**	**Application to** Marinus Link
NER cl.5.16-AB·1 NER cl.5,15.2–3.3	RIT-T must considerenalth crediulle options	Inflated.benefit modelling, eclusion of blodiversity & PFAS costs	*Ofgem Interconnector Rev.* (2620)	RIT-T modelling omits key costs, risking failure to identify true net benefit
NER cl.5,15–18.3	Must consider all creaible *Options*	Clearing remmant habitat for swrit parrot, greater glider	*Tarkine Hinkley–Seabank Reviev* [2015]	Figllure to consider viable alternatives undermines
EPBC Act ss 18/BA	Protect threatened species &	Disruption to Fast Asian–Australasian Plyway	*Booth v Rosworl(l0r* ɷoɪ)	Cross-subsidization could vosa approval
EPBC *Act* εs 20, 20A	Protect mlgrratory species	Seerbed disturbance in Bass Strait	*Wildlite Preservation Society v Minister*	Significant impact' cocuId voide applovaI
Tas. EMPC Act 1994	Full discɪoossure for moịor	*INdeueque* cumulative impact assessment	*Friends of Leadbeaters Possum v Vicrorests*	Could invalidate state ap–provol
EPC/ PB E Act 1987	Protect fargntory species	Loss of threatened flora/ fauna habitat	*Browne v Forestry Tasmania*	Insufficient mitigation measures
Nativeite Act 1993	PNMP for high-impact ɪook	Potential compmtory acquisition without consent	*McGlade v Native Title Registra*	Indigenersus consultation deficiencies
Native Titie Act 1993	Rfm to neg ottate CHMP	Potential disturbance of cultural sites	*Anderson* v Duduta riesemgtisor	Risk of uniawful harm to heritage
Aboriginal (teritage Act 2006-MC)	CHMP- for high impact works.	Potential disturbance ofculural sites	*Anderson v DPP*	Climate claims may be misleading
Corporations Act s 1041H	Not mistelleg g conduct	Potential disturbance of cultural sites	*Anderson* v Duopo APA	Risk of unlauful coastal congents
WHS Acts (Tas & Vic)	Duty to eliminate or minimise risk	Fire ignition risk from infrastructure	*Teague* Royal Commission	No adequate fire provention pian

Assessment
The absence of a robust compliance framework undermines the legitimacy of the RITT findings and exposes the project to legal, reputational, and financial risks.

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11. Governance, Accountability, and Transparency Failures

Governance failures are among the most significant threats to the integrity of large-scale infrastructure projects, and Marinus Link is no exception. The RITT documentation reveals a pattern of selective disclosure, lack of independent oversight, and insufficient public engagement, each of which compromises the project's accountability to the public.

11.1 Selective Disclosure of Information
The RITT materials omit or downplay key risk factors such as lifecycle emissions, PFAS contamination, and cumulative ecological impacts. This selective presentation of information prevents stakeholders from making informed decisions and undermines the principles of procedural fairness.

11.2 Political Influence and Fast-Tracking
The announcement by the Tasmanian Caretaker Government of a signed agreement with the Federal Government ahead of a completed and transparent RITT process suggests political priorities are overriding due process. This raises concerns about whether the project's timing and scope are being shaped to serve electoral or political agendas rather than the long-term public interest.

11.3 Lack of Independent Oversight
There is no evidence that the RITT process for Marinus Link has been subject to independent audit or peer review by experts unaffiliated with the project's proponents. Without independent scrutiny, the potential for bias in modelling assumptions, cost-benefit calculations, and environmental risk assessments is greatly increased.

11.4 Deficient Public Consultation
The public consultation process has been limited in scope and accessibility, with inadequate opportunities for affected communities, First Nations groups, and independent scientists to contribute meaningfully. Consultation materials are often technical and opaque, deterring lay participation and reducing transparency.

11.5 Accountability Gaps
There is no clear framework outlining how proponents will be held accountable for environmental harm, cost overruns, or delivery failures. Without enforceable accountability mechanisms, the risk of cost shifting to taxpayers and affected communities is substantial.

Assessment
Governance, accountability, and transparency are not peripheral considerations—they are foundational to the legitimacy of public infrastructure projects. The shortcomings identified in the Marinus Link process threaten not only the credibility of the RITT but also the public's trust in energy infrastructure planning more broadly. Strengthening governance would require independent oversight, mandatory disclosure of all modelling assumptions, and enforceable mechanisms for environmental and financial accountability

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12. Technical and Engineering Risks

The Marinus Link project involves complex engineering challenges associated with high-voltage direct current (HVDC) transmission over significant terrestrial and subsea distances. The RITT documentation acknowledges some risks but fails to address the full scope of technical uncertainties.

12.1 Subsea Cable Integrity
Subsea cables are vulnerable to damage from anchor strikes, fishing activities, seismic events, and material degradation over time. The RITT lacks a comprehensive analysis of

long-term maintenance and replacement costs, as well as contingency planning for catastrophic failure.

12.2 Converter Station Reliability
Converter stations are critical nodes in HVDC transmission, and their failure could result in prolonged outages. The RITT omits detailed reliability modelling and the potential need for redundant systems.

12.3 Emerging Technology Risks
While HVDC technology is proven, its application in dynamic marine environments presents untested scenarios. This introduces risks associated with thermal loading, insulation breakdown, and electromagnetic field effects on marine life.

Assessment
Without robust engineering risk assessments, the project's reliability and long-term operational sustainability remain in question.

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13. Climate Resilience and Adaptation Failures

Given the lifespan of the Marinus Link project, climate resilience is a core consideration. The RITT process underestimates the risk that climate change impacts—such as increased storm intensity, sea-level rise, and temperature extremes—pose to the project's viability.

13.1 Sea-Level Rise and Coastal Erosion
Landfall points for the subsea cables may be exposed to accelerated coastal erosion and inundation, jeopardising both construction and long-term integrity.

13.2 Extreme Weather Vulnerability
The project's infrastructure will be increasingly exposed to extreme weather events, including heatwaves, heavy rainfall, and cyclones. The RITT fails to model these impacts over the project's operational life.

13.3 Thermal and Mechanical Stress
Temperature extremes can affect conductor performance, insulation materials, and mechanical components, increasing the risk of outages and failures.

13.4 Lack of Adaptive Management Planning
The absence of an adaptive management strategy that integrates climate projections into maintenance and upgrade schedules is a significant oversight.

Assessment
The omission of comprehensive climate resilience planning undermines the project's long-term sustainability and exposes both the infrastructure and connected grid to increased operational and financial risk.

14. Cumulative Impact Assessment Failures

One of the most significant shortcomings in the Marinus Link RITT process is its failure to comprehensively assess cumulative impacts. Infrastructure projects of this scale do not occur in isolation—they intersect with other transmission, generation, and industrial developments, compounding environmental, social, and economic pressures.

14.1 Multiple Energy Infrastructure Overlap

The proposed Marinus Link aligns geographically and operationally with other major transmission and renewable energy projects in both Tasmania and Victoria. This overlap intensifies land-use conflicts, increases habitat fragmentation, and places additional strain on shared natural resources. The RITT fails to account for the combined footprint of these projects, instead treating Marinus Link as an isolated development.

14.2 Ecological Compounding Effects

When considered in combination with other energy developments, the ecological impacts extend beyond direct habitat loss. Species already stressed by one project may be pushed toward local or regional extinction by the cumulative effect of multiple developments. Migratory bird routes, marine mammal habitats, and remnant forests are particularly vulnerable to such layered impacts.

14.3 Cumulative Climate and Emissions Accounting

The RITT's carbon accounting focuses narrowly on the project's own operational emissions, ignoring the aggregate emissions generated when combined with other infrastructure projects in the region. This selective accounting risks underestimating the true greenhouse gas footprint and undermines Australia's climate commitments.

14.4 Socioeconomic and Cultural Impacts

The combined pressures of multiple projects can erode community resilience, increase cost-of-living pressures, and displace traditional land uses such as farming, tourism, and cultural heritage practices. First Nations communities in particular face intensified impacts when multiple developments encroach on cultural landscapes.

14.5 Regulatory Blind Spots

Current regulatory frameworks in Australia do not require comprehensive cumulative impact assessments for interconnected energy infrastructure. The RITT's omission of this critical analysis reflects a systemic gap in governance that allows significant environmental and social harms to go unaddressed.

Assessment

By neglecting cumulative impact assessment, the RITT process provides a misleadingly narrow picture of the project's implications. This omission not only distorts the cost-benefit analysis but also exposes the project to potential legal challenge and loss of social licence.

15. Strategic Misalignment with National Energy Policy

- Detail how failure to model distributed energy resources, demand-side management, or alternative interconnection scenarios is inconsistent with the *NER* requirement to consider all "credible options" (cl 5.15.2).
- Highlight that AEMO's Integrated System Plan identifies least-cost pathways that may not require Marinus Link at current scale.
- Position this as undermining the statutory purpose of the RIT-T.

16. Conclusion

The Marinus Link RITT process presents a project framed as a strategic enabler of Australia's clean energy transition, yet its supporting documentation reveals significant technical, environmental, governance, and social shortcomings. The evidence demonstrates that key risks have been understated or ignored, from engineering vulnerabilities in subsea cable systems to the absence of credible climate resilience planning. Legislative compliance gaps, governance failings, and inadequate cumulative impact assessments further erode confidence in the project's capacity to deliver its stated benefits without imposing unacceptable costs on communities and ecosystems.

The RITT's narrow cost-benefit framing overlooks broader societal and environmental externalities, creating a distorted picture of the project's net value. By not fully accounting for biodiversity loss, cultural heritage disruption, PFAS contamination risks, and the compounding effects of multiple concurrent energy infrastructure developments, the analysis undermines its own credibility and fails to meet the long-term interests of consumers as required under the National Electricity Rules.

A responsible pathway forward requires: (1) comprehensive, independently verified environmental and engineering assessments; (2) transparent, inclusive public engagement processes; (3) rigorous cumulative impact modelling; and (4) enforceable governance and accountability mechanisms. Without these measures, Marinus Link risks locking Tasmania and Victoria into decades of environmental degradation, economic inequity, and escalating operational risks.

In its current form, the Marinus Link proposal does not satisfy the test of being in the long-term interests of consumers, nor does it align with Australia's environmental and international obligations. This submission calls on the Australian Energy Regulator, the Tasmanian and Commonwealth Governments, and the broader policy community to halt the advancement of Marinus Link until its economic, environmental, and legal flaws are transparently and independently addressed.

In legal terms, the combination of flawed modelling, inadequate environmental assessment, governance failures, and procedural irregularities means that Marinus Link, as presently advanced, is unlikely to withstand rigorous judicial or regulatory scrutiny. Comparable cases have been halted or substantially amended on similar grounds, including breaches of the *EPBC Act*, failures to meet the "credible option" test under the *NER*, and deficiencies in consultation with affected communities and First Nations peoples. The prudent and lawful course is to suspend progression under the RIT-T until these deficiencies are rectified through processes that demonstrably comply with statutory obligations and established administrative law principles.

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