SUBMISSION

TASMANIAN PARLIAMENT JOINT SELECT COMMITTEE: INQUIRY INTO ENERGY MATTERS IN TASMANIA

2 FEBRUARY 2024

The Energy Users' Association of Australia (EUAA) is the peak body representing Australian commercial and industrial energy users. Our membership covers a broad cross section of the Australian economy including significant retail, manufacturing, building materials and food processing industries. Combined our members employ over 1 million Australians, pay billions in energy bills every year and in many cases are exposed to the fluctuations and challenges of international trade.

Thank you for the opportunity to make a submission to the Joint Select Committee on Energy Matters in Tasmania. As the Terms of Reference (ToR) of the inquiry are quite broad, our responses will be equally broad and based more on policy principles rather than specific detail. Before we address the ToR, to provide some context for our responses in this submission we have provided some background to our approach to the transition of the NEM and net zero policy more generally.

TRANSITION OF THE NEM

As we transition from a highly centralised generation system dominated by dispatchable thermal resources to a highly decentralised system dominated by Variable Renewable Energy (VRE) resources a number of key challenges are becoming apparent.

Traditional dispatchable fossil fuelled generators that to date have provided energy users with a bundle of services that were folded into the provision of energy including, energy (MWh), dispatchability, system strength and inertia, is rapidly exiting the market. Some estimates indicate that all traditional dispatchable generation would have exited the NEM by 2040 or even sooner.

While the provision of zero emission energy is of great value, VRE alone is not currently required (or able) to provide a number of these services vital to the reliable and efficient operation of the energy system. From an energy system perspective, 1MWh of energy from VRE is less valuable than 1MWh of energy from traditional sources.

Overall we believe Tasmania is well placed to play an expanded role in the NEM with its substantial hydro resources able to provide many of these services, which is the intent of the battery of the nation strategy. That said, the NEM will need much more of these services (i.e. dispatchability, system strength, demand response etc) than Tasmania could ever provide so significant additional investment will be required into the future.

A significant part of this future investment will be the construction of up to 10,000km on new transmission lines[1].

[1] The Australian Energy Market Operator's (AEMO) 2022 Integrated System Plan (ISP), published 30 July 2022, shows we need more than 10,000 km of new transmission lines and 9 times the large-scale renewable generation we currently have.

The AEMO ISP and state based REZ planning are largely dictating where these assets will go and when they should be built. However, significant planning and community engagement issues are becoming material and threaten to slow down the proposed timing and even location (i.e. route selection) of these assets. We observe that Tasmania is no exception to this and it will require thoughtful engagement with impacted communities if significant community social license issues are to be avoided. Better coordination between state and federal planning schemes will also be needed.

We are also observing a significant issue with capital cost escalation and supply chain constraints raising questions about the net benefits of many new transmission assets and the ability of them to be built anywhere near the proposed deadlines. This issue is also impacting the cost and timing of new generation and other assets that are vital to the operation of the NEM. This situation is not unique to the energy sector with all major infrastructure projects suffering similar issues. These issues have already had a significant impact on Marinus Link and we anticipate similar issues with on island grid augmentation and new VRE generation.

All of this is adding pressure to what we describe as customer social license for the continued transition of the NEM. If total energy bills continue to escalate and/or the energy system is failing (i.e. reducing reliability, increasing number and frequency of rolling blackouts) then consumers will quickly reject the transition to a near net zero energy system. As our member companies are committed to reaching net zero and/or have significant ESG aspirations, this situation is highly undesirable as they seek a stable, forecastable energy system and an affordable net zero transition.

We would also highlight the critical role large loads play in maintaining a reliable and stable energy system. For example, in addition to requiring large volumes of energy that underpin generation investment, large loads can offer a range of services and functions which support the network over varying weather, network demand and operating conditions. This includes Reliability and Emergency Reserve Trader (RERT) and Frequency Control Ancillary Services (FCAS). Large loads that can offer fast-acting interpretability also help secure and restore stability to the network before and after contingencies occur.

Large loads are increasingly being called upon to support grid stability and reliability as the challenges in managing a grid with growing variable renewable energy increase. For example, during May and June 2022 Tomago Aluminium provided 32 hours of modulation across 18 events which were a mixture of RERT and responding to high market price. This response by Tomago supported AEMO to manage a complex and challenging system and maintain supply to domestic customers. Additionally, many large loads are increasingly offering rights in relation to the short-term reduction of volume at times of peak demand via contractual arrangements[2].

The critical role that large loads play is not often recognised, and we believe it would be in the long-term interests of the state to be doing all it can to ensure the future of these large loads is assured from both an energy security and economic/employment perspective.

[2] https://www.agl.com.au/about-agl/media-centre/asx-and-media-releases/2023/august/portland-smelter-contract- renewal-finalised.

EUAA AND NET ZERO

The EUAA support the pursuit of net zero targets by 2050 with many member companies putting in place their own net zero or ESG targets. We are also supportive of the new emissions reduction target of 43% reduction below 2005 levels by 2030. Importantly we support reaching net zero at least cost, not at any cost. We also support an approach to reaching net zero targets that is equitable for all energy users, not just those who are in a position to be an active participant.

We highlight the fact that a majority of member companies have underwritten significant deployment of new renewable energy resources through long-term PPA's, the most recent example being Rio Tinto's $1B deal with the Calliope Solar Farm in Queensland[3]. EUAA member companies clearly see the benefits of renewable energy, however they are also highly conscious of ensuring that all elements of the energy system are aligned to meeting the long-term interests of consumers.

The enhanced federal safeguard mechanism is also having an impact. EUAA member companies are responsible for 56 safeguard facilities, 35 of which would be classified as manufacturers or non-resource extraction facilities with a number of these based in Tasmania. Many EUAA members face significant technological limitations in terms of what can be achieved in the period to 2030 and beyond.

Almost without exception all 56 facilities could be classified as operating in "hard to abate" sectors where deployable low or zero emissions technology simply isn't available and is unlikely to emerge in the period to 2030, despite the best endeavours of many who are working daily on specific decarbonisation strategies for their liable facilities. Faced with this uncertainty, a reliable, sustainable and affordable energy system will continue to be a cornerstone of their ongoing operations.

TERMS OF REFERENCE

Terms of Reference	EUAA Response
Challenges related to energy supply in Tasmania including: (i) structure and operations of State-owned energy entities; (ii) energy requirements; (iii) expansion of State-owned renewable energy generation including associated community and economic benefits; (iv) private energy generators; (v) energy generation, storage and transmission capacity; and (vi) energy security considerations.	☐ The EUAA does not have any particular issue with the structure and operation of state-owned utilities in Tasmania. As always, transparency and accountability and a focus on the long-term interests of consumers are non-negotiable elements. ☐ Recently, a number of EUAA members have expressed concern that they have been unable to secure additional supply of electricity in order to facilitate an expansion of operations or to de-carbonise aspects of their business. While we understand this is a complex issue associated with water rights and/or allocations that impact the operation of hydro generators, it is still disappointing that good economic and environmental outcomes are being lost as a result. While we have been advised that with the energisation of Marinus Link and

[3] https://www.theaustralian.com.au/business/renewable-energy-economy/rio-tinto-to-drive-giant-solar-farm/news-story/a7e2d78c0bd69d4233b8da47f105385f

	additional wind energy capacity will help to alleviate these issues, this is many years away. We would welcome a discussion on alternative generation such as increasing capacity of natural gas and/or bio methane powered generation. This would alleviate some short-term supply issues while providing useful strategic assets for both Tasmania and the NEM as a whole (i.e. increased dispatchable capacity to compliment VRE generators and system strength) once Marinus is energised • The issue of expanding state-owned assets is complex. Whilst open, competitive markets are more likely to deliver positive outcomes for consumers we are progressively finding that a level of government "involvement" in the transition may be advantageous. Therefore, we are not opposed to the concept of additional state-owned investment provided that it is filling a genuine gap not being met by non-government participants and subsequently it does not crowd out private investment in the Tasmanian energy system. • We welcome additional private investment in the energy system. However, there are many circumstances where connecting assets (i.e. regulated transmission) are being built to facilitate market entry of new generators. We are of the firm view that additional connecting assets (i.e. REZ and associated transmission) should be first funded by connecting generators who subsequently recover this cost through wholesale energy contracts of the spot market. • We would encourage a diverse range of generation and system security resources to be developed including batteries and gas fired power generation (i.e. bio methane). In our experience, high reliance on narrow list of options creates unnecessary market and system security risks.
Opportunities related to energy supply in Tasmania including: (i) structure and operations of State-owned energy entities; (ii) energy requirements; (iii) expansion of State-owned renewable energy generation including associated community and economic benefits; (iv) private energy generators; (v) energy generation, storage and transmission capacity; and (vi) energy security considerations.	• The EUAA does not have any particular issues with the structure and operation of state-owned utilities in Tasmania. As always, transparency and accountability and a focus on the long-term interests of consumers are non-negotiable elements. The possibility that greater wholesale competition can be created by increased non-government investment is something large energy users will watch with interest • The energisation of Marinus Link and additional wind energy capacity is hoped to alleviate supply constraints of large energy users in Tasmania. However, as this is a number of years away (Marinus Stage 1 expected to be energised in 2030) we would welcome a discussion on alternative generation that can be deployed quickly such as increasing capacity of natural gas and/or bio methane powered generation. This would alleviate

	some short-term supply issues while providing useful strategic assets for both Tasmania and the NEM as a whole (i.e. increased dispatchability capacity to compliment VRE generators and system strength) once Marinus is energised
Operation of the National Electricity Market including: (i) current and future energy demand for participants; (ii) costs, benefits, opportunities and risks associated with the renewable energy transition; and (iii) Tasmania's past and future participation in the National Electricity Market including costs and benefits to Tasmania and resource opportunity;	As previously stated, a number of EUAA members have raised concerns that they are unable to increase energy consumption to either expand operations or to reduce emissions through electrification. This is a wasted opportunity for increased employment and economic productivity and reducing scope 1 emissions of facilities covered by the safeguard mechanism. Based on what we observe today, it is likely to be in the long-term interests of Tasmanian energy users to be part of an integrated NEM. The AEMO ISP clearly points to long-term consumer benefits of doing so as does the extensive modelling for Marnius Link. Balancing this of course is the escalating costs of construction and the cost allocation between Tasmania and the other NEM jurisdictions. While full details have not been released, we are led to believe that the arrangements between the Tasmanian, Victorian and Commonwealth governments regarding Marinus Link are aimed at mitigating these negative impacts. Greater transparency of these arrangements would be worthwhile such that consumers would have confidence that this is the case. It would also provide greater assurances for Tasmanian business who are seeking to invest in future plant and equipment. At this point a degree of "faith" is required which is not ideal.
Marinus Link Pty Ltd and associated energy power developments (Battery of the Nation and North West Transmission Development) including: (iv) likely beneficiaries; (ii) funding arrangements, including the potential for private sector contribution; (iii) impact on Tasmanians' energy bills and concessional pricing arrangements; and (iv) alternative options and associated costs and/or benefits to Tasmania including costs and cost of a 'do nothing approach'.	If Marinus Link leads to increased energy supply for Tasmanian energy users, then we are likely to see a degree of economic growth in Tasmania. Of course, energy users will be just one of many beneficiaries of this. Primary beneficiaries will be new connecting generation (i.e. wind farms in the North West) and existing government assets run by Hydro Tasmania. It is our view that the costs associated with new transmission infrastructure (including REZ) should be shared across all beneficiaries and not just left to consumers to carry all cost and asset utilisation risk that would occur under current regulatory approaches. We are led to believe that the arrangements between the Tasmanian, Victorian and Commonwealth governments go some way to minimising the costs for all consumers and in particular Tasmanian consumers. However, in the absence of transparency of these arrangements it is impossible for consumers to make a value judgment. Alternative approaches to funding are discussed in the next section.

ALTERNATIVE APPROACHES TO FUNDING

We made the following recommendations on alternative approaches to funding transmission assets in our August 2023 submission to the National Electricity Amendment (Accommodating Financeability in the Regulatory Framework) Rule Consultation paper (Consultation Paper)[4].

These recommendations are in addition to our earlier suggestion that all beneficiaries of new transmission assets pay their fair share. In particular that new generation assets pay for REZ and associated transmission assets and recover these costs via market contracts etc.

Industry (Transmission Businesses).

We refer you to the suggestions made by CEPA in their analysis for the first rule change derogation that was rejected by the AEMC and repeat the statement that:

> *… in a period of investment and expansion, it is likely that network businesses will need to rely more heavily on finance from equity investors relative to the benchmark assumption in order to maintain the benchmark credit rating. In less capital-intensive periods, revenues may support the benchmark credit rating under a structure more reliant on debt relative to the benchmark assumption. Changes to capital structure of this nature can be considered consistent with a competitive market, in which growth is typically financed by calls on equity and recovered over time. These and other options, which are outside the regulatory framework and which can help to finance new large capital-intensive projects, would be expected to be pursued by regulated entities like TNSPs.*

Restructuring financial arrangements is not unusual and in the case of regulated assets where returns on equity are guaranteed, not excessively risky. We are not convinced and have not received any evidence that the proponents have undertaken all possible options to restructure their financial arrangements to manage an issue that will likely resolve itself with 2-3 regulatory cycles.

We would also argue that for transmission assets that are proving troublesome for the host TNSP to fund (which, as we are told is an issue for the TNSP and its equity holders) that the host TNSP gives up their right to build these assets and they are made contestable. This is already the case in Victoria and we have already seen that NSW Roadmap REZ are fully contestable transmission assets.

Government

We believe Rewiring The Nation (RTN) should be reconfigured to bring about a material reduction in Transmission Use Of System (TUOS) charges faced by consumers over the coming 10-15 years, reflecting the public goods associated with the ISP projects.

The 2022 AEMO ISP states that 10,000Km of new transmission will be required to achieve a net zero energy system. This will place significant pressure on final energy bills. RTN funding is designed to get transmission built and

[4] https://www.aemc.gov.au/sites/default/files/2023-08/EUAA_Submission_Accomodating%20Financeability%20in%20the%20Regulatory%20Framework%20ERC0348_3%20August%202023%20-%20V3_0%20%282%29.pdf

reduce consumer bills. The degree to which the significant increase in TUOS will be mitigated will depend on how RTN funding is delivered.

The following analysis shows that low cost loans have negligible impact on the TUOS that consumers will pay. EUAA and ECA commissioned Boardroom Energy to undertake some indicative analysis of the consumer benefit of concessional finance as a grant compared to debt.

If RTN followed an equity injection or an equity own and transfer approach (capital recycling) then consumer benefits are far greater as they reduce TUOS payments for a period of time and would reflect the public goods associated with the project. Concessional finance as debt may help the project proponent to secure finance but it has limited positive impact on consumers.

Type	Impact on government finances	Capital recycling?	Impact on TNSP	Impact on customers (no change to NER/NEL)	Impact on customers with change to NER/NEL
Grants	Expenditure - direct hit to bottom line	No	Reduce financing requirement	Reduce (TUoS) charges	Reduce charges
Equity injections	Balance sheet item - may eventually need to be written down depending on future returns	Yes	Reduce financing requirement	None	Reduce charges
Own and transfer	Temporary balance sheet item	Yes	Reduce financing requirement, but may have to share ownership with government	Reduce charges	Reduce/defer charges
Low cost loans	Balance sheet item - may eventually need to be written down depending on future returns	Yes	Cheaper finance	None	Moderately reduce charges
Deferred interest loans	Balance sheet item - may eventually need to be written down depending on future returns	Yes	Deferred cashflow	None	Moderately deferred charges

Source: Boardroom Energy analysis

Table 3: Indicative savings

Reference	Item	Value
A	new asset value ($m)	3300
B	asset life (years)	50
C = (A/B)	annual depreciation ($m)	66
Indicative rate of return		
D	RoD	4%
E	RoE	6%
F	gearing	60%
G = D*F + E*(1-F)	allowed return	4.8%
H = G*A	initial year return ($m)	
J	Component that is concessional finance	750
Scenario 1: concessional finance as grant		
K = J/B	Depreciation saved	15
L =J * G	return on capital saved	36
M =K + L	Annual savings if asset covered by grant	51
Scenario 2: concessional finance as debt finance is at 200bp below market		
N = D – 2%	concessional interest rate	2%
P = N *F + (1-F)	cost of capital	3.6%
Q =L – (J * P)	**Annual savings**	**9**

If concessional finance is the preferred method, then in order to resolve the claimed issues faced by TNSP's the Commonwealth could consider:

1. Increasing the amount of debt, they contribute to the project. i.e. Assuming a benchmark debt to equity ratio of 60-40 the split would be 40% equity, 30% Commonwealth debt, 30% non-government debt,
2. Scaling Commonwealth cash flows (in both return of debt and return on debt) to ensure the risk profile of non-government debt providers is sustainable (i.e. cash flows to non-government debt providers is given priority).
3. Debt provided at a substantial discount to commercial debt providers.

Essentially this would mean Commonwealth debt is subordinate to non-government debt while the Commonwealth seeking a lower return on capital (perhaps a zero-margin bond rate) and of capital (a shaped repayment schedule) reflects the "public good" aspects of these projects. Given the issues seem to revolve around non-government debt providers, as a quid-pro-quo, equity would need to demonstrate that they have made all attempts to re-structure their own financial arrangements to minimise the likelihood that the commonwealth is not simply taking on equity risk as well.

CONCLUDING REMARKS

While Tasmania is well positioned to play an important future role in a highly decarbonised NEM, it is not immune from the challenges facing all energy industry participants. Rising costs, supply chain constraints, a lack of skilled workforce, social licence concerns and a disjointed planning scheme to name but a few of the challenges.

As previously stated, we are not opposed to ongoing government ownership and further participation provided it works to strengthen the case for non-government investment. Facilitating, not competing should be the goal. We would also encourage you to think about policy approaches that ensure the cost of risk of grid expansion is shared more equitably. In particular we would encourage an approach where new connecting generators pay for grid augmentation (i.e. REZ) which is then recovered via the energy market, not the regulated transmission bill.

Do not hesitate to be in contact should you have any questions.

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