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### **Submission to the RiT-T Project Assessment Draft Report**

UPC/AC Renewables (UPC) welcomes the opportunity to provide feedback on the RiT-T Project Assessment Draft Report (PADR).

UPC considers that TasNetworks has provided an extensive analysis of the market benefits that Marinus Link can provide, but also as part of the business case, highlights the significant value proposition through jobs and economic activity Marinus Link can deliver for both Tasmania and Victoria.

We see the process of achieving a successful RiT-T outcome and finalising the “who pays “ question are the key activities to realising the development of Marinus Link. If both of these activities are completed successfully (the latter ensuring equitable cost sharing for interconnectors), it is likely that Marinus Link will be developed. In fact, once the revenue stream has been defined, then project financing will be realistic and many third party investors and developers would be more than willing to progress the development of Marinus Link.

While we are pleased that the analysis is overwhelmingly supportive of developing Marinus Link, we are concerned the preferred timing considered could impact value for the Tasmanian community. While the analysis is comprehensive, it is idealistic and the reality of the NEM is when trying to develop any infrastructure just in time, presents the risk the development will actually be, just too late. Based on this we consider Marinus Link being developed earlier provides both risk mitigation and option value to managing some of the high impacts events that may materialise earlier than the central/base case analysis.

In this submission we will outline some areas for consideration in finalising the PADR to assist with ensuring the case presented in the PADR is robust and provides a realistic basis to progress Marinus Link.

We also offer an insight into the “who pays question” outlined as part of this work.

The following sections outline some areas of interest and hopefully will assist TasNetworks in finalising the PADR for Marinus Link.

### **Timing of Marinus Link**

UPC considers the timing of Marinus Link should be as early as possible and that the current earliest timing is very conservative. Four years for the environmental approvals and reaching Financial Investment Decision (FID) by 2023 can be reduced. UPC as a developer considers that the environmental approvals should be able to be done quicker than the 4 years in the PADR and 3 years is achievable. This can be achieved if there is a focus and commitment to delivering to this timing.

We also feel the 4 years construction timing is conservative. We note the current developments overseas that seem to be as large or larger (i.e. longer), indicate a delivery time of around 3 years. These examples include Viking link (1400MW and is over 700km) and North Sea Link (1400MW and around 700km).

The concept of “shovel ready” as indicated in AEMO draft 2020 ISP should be progressed as fast as possible so that Marinus Link is closer to being ready to be built if circumstance change. Given the changing environment that could include earlier retirement of coal generation, delays in major projects like Snowy 2.0 or the potential closure of significant load in Tasmania, there could be additional value in having Marinus Link ready to go earlier.

As a developer, we consider that early 2025/2026 is very achievable for the first 750 MW and that TasNetworks should aim to deliver the link on this timing. Further, once started the second stage should follow soon after to take advantage of the economies of scale and effort for implementing a project of this scale.

## **Cost of link**

UPC consider the current costing again seems conservative for Marinus Link. While we appreciate there needs to be a degree of conservatism included due to the stage of the development, the costs still seem to be too high. While the results of the PADR means this is less an issue due to the overwhelming benefits of Marinus Link, antidotally UPC understand the high cost of Marinus Link is working against the project when it is compared to Energy Connect and other interconnectors. We also note a lower capital cost can bring forward Marinus Link preferred timing as demonstrated in the sensitivity analysis. We would encourage TasNetworks to look to refine the cost estimate to provide both more confidence to the market but also look to reduce costs were possible.

On this topic the current large HVDC projects occurring in Europe seem to be relatively lower cost than Marinus Link. The two key examples at this time are:

- Viking link is expected to cost \$3.4 billion for a 740km DC link (1400 MW) between Denmark and England; and
- North Sea link, 730km, 1400 MW cable is expected to cost \$3.2 billion.

While no two cases are directly comparable, these numbers would indicate there maybe opportunities to reduce the cost of Marinus Link.

## **Alignment with ISP**

One key concern is the current misalignment with both the outcomes and assumptions in the draft 2020 ISP. While the draft 2020 ISP supports the development of Marinus Link, it tends to be later than the current PADR analysis by TasNetworks for Marinus Link. UPC considers that unless there is consistency in terms of at least the central case of the ISP then this may create issues when the Australian Energy Regulator (AER) assesses the final RiT-T. We feel that the main discrepancies are driven by differing assumptions to that used by AEMO that tend to discount the Tasmanian opportunities. UPC have written to AEMO in regard to this and we would encourage TasNetworks to advocate for a change that assesses the Tasmania opportunities in a more holistic manner.

Ultimately though, TasNetworks should be attempting to align the RiT-T assumptions for Marinus Link and AEMO 2020 ISP assumptions to reduce complexity and areas of dispute for the final RiT-T determination.

### **Assessing the Tasmania opportunity in a coordinated way**

As with the Draft 2020 ISP outcomes, UPC considers that a less than optimal outcome occurs when the Tasmanian projects are assessed in a piecemeal manner. Examples are evident in the AEMO draft 2020 ISP where Marinus Link is built and then limited wind or pumped hydro follow (in some case Victorian pumped hydro is developed instead ?). This is even despite AEMO highlighting Tasmania wind projects being the lowest cost options available in the NEM and the Hydro Tasmania pumped hydro equally being considerable lower cost than mainland options in the draft 2020 ISP.

As indicated in the modelling coordinating pumped hydro with the second stage at 2028 shows an additional \$537M benefit. This illustrates the point above about greater value in a coordinated manner and UPC considers additional benefit from wind can be achieved. Again the results of a sensitivity of 500 MW early adds \$53M to the benefits.

UPC would advocate a more coordinated modelling of Tasmanian development as its clear once Marinus Link is built, wind development will occur and pumped hydro development is likely to be timed to match Marinus Link being operational.

### **Earlier closure of Yallourn**

One of the key option values for Marinus Link being developed as early as possible is to align its operations with the closure of Yallourn Power station in Victoria. Current modelling has the Yallourn Power Station closure late 2020/early 2030. There is a risk however that this power station could close in the mid 2020's aligned to its technical operational life. If Marinus Link was operational when this occurred, it would allow a low cost capacity and energy option for Victoria. It could also assist with a lower emission outcome for Victoria helping it meets its 2030 carbon emissions targets.

As the modelling indicates, Marinus Link being brought forward to be ready by 2027 can add \$85M, if Yallourn closure is brought forward to 2027.

### **Snowy 2.0**

The inclusion of Snowy 2.0 seems an anomaly as it does not meet some of the AEMO "committed project" criteria (i.e. planning approvals or connection agreements). While UPC considers that pumped hydro will be important in the NEM in the future, the timing of Snowy 2.0 seems optimistic for such a large and complex project based on recent budget increases and challenges.

It would appear the timing, need and likelihood of Snowy 2.0 has not been questioned or tested to any real extent. We note that the sensitivities include a combination of major projects not proceeding (i.e. Snowy 2.0, Energy Connect, Hume Link and Kerang Link) but its likely that some of these will be more positive (i.e. Kerang link) and mask the potential downside of some of these projects. It would

be good to test either a 5 year delay or no development of Snowy 2.0 (and subsequent transmission developments like Hume Link) by itself as this will likely show a significant value and impact the timing for Marinus Link.

### **Cost to accelerate**

In the analysis there is a basis for a cost to accelerate. This seems to be interesting as it is pitched at the need for additional funding to progress earlier whereas the analysis is a lower net benefit overall not a change in cost. In fact whether its 2027/2028<sup>1</sup> or 2028/2032 the cost is likely to be the same but incurred in different years. The key basis for the RiT-T is to assess if the benefits exceed the costs of the infrastructure being proposed. This is generally due to the customers only pay the costs of the project in exchange for receiving greater benefits. How this \$149M would be treated in the RiT-T analysis is questionable as it could equally be an annualised payment rather than a once of grant<sup>2</sup>.

It is also unclear how the AER would then consider the development time line (i.e. does it really control the ultimate timing of operations). Or would the AER be more focused on whether the development of Marinus Link delivers greater benefits than the costs rather than exact timing. Hence if the RiT-T is successful, the timing aspect would likely become one for the developers and owners of the link.

While bringing the development forward will mean the annualised cost will be paid for by the customer sooner, there is also benefits that the customer will receive (given the net benefits are still very positive). Potentially if the Commonwealth and Tasmania governments are the owners then \$149M could be part of their equity contribution to the development of Marinus Link.

### **Who pays ?**

A key question for developing Marinus Link is the question of who pays for the cost of the link. As has been indicated by the Tasmanian Government, they will not support the project if Tasmanians pay more than their fair share. Under the current cost allocation methodology which is primarily based on the location of the assets, Tasmanian customers are likely to pay more than their fair share and hence the need to change the methodology.

As way of an example even if Tasmanian customers paid for 40 percent of the costs, as Tasmania has the lowest demand in the NEM this would mean a disproportionately higher transmission cost compared to the benefits of the development. Assuming Victorian pay for 60 percent of the annualised cost this would mean Tasmanians paying \$7.4/MWh compared to Victorian customers

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<sup>1</sup> Note change the timing to 2026/2028 is only another \$1M and this would seem to be in the error bounds of the analysis and UPC would advocate this to be the better option for comparison.

<sup>2</sup> Although the grant would be a more straightforward approach.

paying less than \$3/MWh<sup>3</sup>. Then given Tasmania consumption is twice as much as Victorian household consumption it means a typical Tasmania household bill would increase by approximately \$60 per annum versus a Victorian typical household bill going up less than \$15 per annum<sup>4</sup>.

If a beneficiary pays model was used or a post stamp approach<sup>5</sup> then these methods would better reflect the value proposition in the electricity market. In the beneficiary pays model, as outlined in the PADR, the relative cost impacts for Victorian customers would be just over \$2/MWh and NSW customers just over \$1/MWh<sup>6</sup>. Compare this to the average retail price paid in these states of approximately \$280/MWh<sup>7</sup> shows a very low increase in costs for the value of greater reliability and access to lower cost energy. Also given the rigorous and detailed analysis expected in the RiT-T, the beneficiaries should be able to be allocated from this process.

While a post stamp approach could be adopted and this may have a lower impact on Tasmania, it would be assumed this would apply for other interconnectors like Energy Connect, VNI West, QNI medium such that the cost burden on Tasmanian customers would grow without any subsequent benefit. If this was simply applied for Marinus Link then the expected cost to Tasmanian customers (and all customers) would be approximately \$1/MWh. This method would be more justified if interconnector flows were likely to be relative balanced but the reality is the new interconnectors could be used to tap into lower cost resources (i.e. Tasmania, South Australia, Queensland) for the benefit of the importing states.

UPC would strongly advocate the beneficiaries pays principle is adopted to ensure a fair and equitable approach for cost allocation of interconnectors. It is understood that one issue raised on this is the potential for the beneficiaries to change over time. This issue could be managed similar to the current AER regulatory revenue approach by continual review or review on material change in circumstances (i.e. new interconnectors developed, material change in flows on interconnectors, etc).

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<sup>3</sup> Using the \$193M annualised cost as outlined in the PADR.

<sup>4</sup> Note there is likely to a potential decrease in prices due to more renewables being developed in Tasmania that would reduce this typical household cost impact.

<sup>5</sup> Post stamp approach would allocate cost across all states in the NEM based on different states consumption

<sup>6</sup> Note this assumes no change in wholesale cost which is unlikely and the expectation is building the lower cost Tasmanian generation will counteract this increase and actual show a positive overall impact on a typical household bill in these states.

<sup>7</sup> This is based on 2018 AEMC typical bill and consumption data - AEMC RESIDENTIAL ELECTRICITY PRICE TRENDS 2019.

## Conclusion

UPC welcomes the opportunity to provide feedback on the PADR. UPC hopes that this feedback is useful and can help assist in presenting a robust PADR as part of the RiT-T process and looks forward to this being finalised and assessed by the AER.

As always, we are happy to discuss these concerns and suggestions with you at your convenience.

Yours sincerely,

A handwritten signature in dark ink, appearing to read "Michael Connarty". The signature is fluid and cursive, with a large initial "M" and a stylized "C".

Dr Michael Connarty  
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UPC/AC Renewables Australia