

30 August 2018

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Senior Manager Network Development
Electranet

Submission by email to: consultation@electranet.com.au

**South Australian Energy Transformation
RIT-T: Riverlink Project Assessment Draft Report**

Dear Hugo

Snowy Hydro Limited welcomes the opportunity to comment on the Riverlink Draft Report. Snowy Hydro is a producer, supplier, trader and retailer of energy in the National Electricity Market ('NEM') and a leading provider of risk management financial hedge contracts. We are an integrated energy company with more than 5,500 megawatts (MW) of generating capacity and the fourth largest retailer in the NEM.

Snowy Hydro appreciates the important role networks play in delivering competitive priced, reliable and secure energy to consumers. We are supportive of investment in transmission where it is clearly demonstrated that the investment is efficient and customers will realise a net benefit.

Our comments to the Project Assessment Draft Report concerns the co-optimisation of large amounts of energy storage that AEMO's Integrated System Plan (ISP) has identified can be vital to the transition to a lower emissions future. Indeed Electranet recognises this in their public forum presentation on the 18 July by stating in its presentations:

This transformation needs to be supported by large amounts of energy storage and targeted investment in transmission between regions –to minimise costs and enable an affordable, reliable and secure energy system for energy customers now and into the future.

Snowy Hydro welcomes AEMO's inaugural ISP as it provides a valuable strategic blueprint for the development of a truly interconnected NEM. AEMO has rightly stated that the ISP is a dynamic document that will be updated in the future to reflect the changing nature of the power system.

In this regard, we believe there are a couple of aspects of the ISP that need to be reconsidered as a matter of priority and therefore should be incorporated into Riverlink’s assessment of net market benefits. Specifically, they relate to:

- The timing of Snowylink North (the Snowy 2.0 to Bannaby section) of the southern NSW upgrades being prioritised and brought forward to coincide with the retirement of the Liddell Power Station in 2022. This will ensure system security in NSW; and
- The timing of the upgrades for Snowylink South referred to as ‘Kerang Link’ in the ISP) which is stated to be 2034, also being brought forward to no later than 2025. This will ensure that the inter-regional capacity provided by Kerang Link is available to facilitate the orderly transition to renewables and ensure ongoing energy security across the two largest NEM regions of Victoria and NSW.

The identified need for Riverlink if integrated with the above revised timing for the Snowylink North and South transmission projects, seems justified and would support the energy market transition through lowering dispatch costs, facilitating the transition to a lower emissions future, and enhancing security of supply to South Australia and NSW.

Network Options

We support Electranet’s various factors used in determining network options such as independent flow paths, sizing to match parallel interconnector paths and transfer capability and losses. The weighted net market benefits of all scenarios (low, central, and high) appears to justify the Riverlink (Robertstown to Wagga Wagga option). This is shown in the figure below.

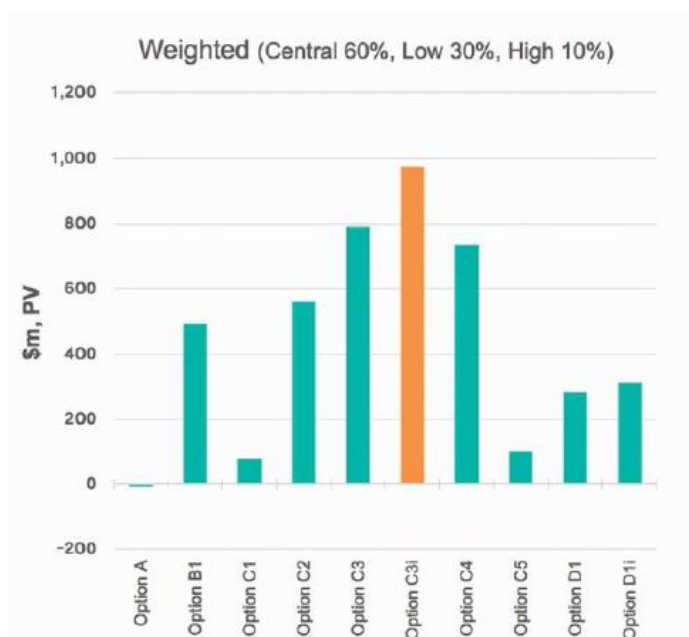


Figure 1 - Net market benefits (source: figure 12, page 85 PADR)

Electranet has asked for feedback on optimising the scope of the preferred solution. Snowy Hydro notes the following points in respect of optimising the route and scope of the preferred solution:

- It is well placed to release renewable resource zones in NE-SA, NW-Vic and SW-NSW
- It integrates with the western VIC renewables RIT-T which is also being progressed by AEMO
- It allows SA producers to firm their renewable energy reserves via Snowy 2.0
- It increases SA system security with a route diverse AC interconnection option
- It increases NSW energy security post Liddell closure with a second southern connection option
- It fits with the locational diversification of renewable resources and the ability to transport them across market regions
- It will increase wholesale competition in SA and assist in bringing price relief to SA consumers
- It integrates with the Southern NSW augmentations suggested in the AEMO ISP

Achieving all the above benefits is reliant on relieving existing intra-regional constraints. Otherwise, there would simply be a wealth transfer between existing generation and the interconnector whenever there is a binding intra-regional transmission constraint. Snowy Hydro therefore raises the following considerations with respect to the timing of the preferred solution:

- Riverlink connects into the Wagga node in SW-NSW and therefore injects power into the Tumut to Yass/Canberra 330 kV cutset which already constrains at times of peak power flow due to VIC exports to NSW and southern NSW generation
- Southern NSW constraints will limit the maximum benefits of Riverlink by obstructing the “path to the load” in NSW
- Riverlink benefits therefore become reliant on the ISP transmission augmentations between southern NSW and the greater Sydney load area
- Coordinating the timing of Riverlink and the ISP Southern NSW augmentations is required to fully realise integrated system benefits. To achieve this ElectraNet should include modelling for:
 - delaying some sections of Riverlink by a couple of years,
 - advancing some Southern NSW augmentations by a couple of years, and
 - include firming capacity provided by Snowy 2.0.

These options would best meet SA system security requirements, NSW energy security requirements, introduce some optionality into transmission approval and construction resources, and allow for capacity uptake in the associated NE-SA, NW-Vic and SW-NSW renewable energy zones.

In summary, Snowy Hydro is of the view that maximisation of integrated system benefits will arise from a coordinated build timeline **with Southern NSW augmentations meeting the Riverlink augmentation at Wagga in 2025.**

The ISP and the RIT-T

The NEM is experiencing unprecedented and transformational changes as we reach an inflexion point that will shape the future of the NEM, being a once-in-a-generation opportunity to secure an orderly transition to truly interconnected and reliable low emission-intensive NEM. Failure to commit to appropriate infrastructure now will cause chaos in the transition which places greater importance on the connection of strategic projects.

The timelines of interconnection for strategic projects is vital with numerous baseload generators reaching their end of technical life by the mid-2020s requiring the need for storage development. Strengthening interconnection between Victoria and New South Wales will improve resource sharing across the NEM and deliver fuel cost savings along with facilitating connection of new renewable energy zones.

The identified need for Riverlink **if integrated** with the Snowylink North and South transmission projects seems justified and supports the energy market transition through:

- Lowering dispatch costs,
- Facilitating the transition to a lower emissions future, and
- Enhancing security of supply to South Australia and NSW.

Strategic projects identified in the ISP such as Snowylink North and South must be implemented in a timely manner to ensure an orderly transition. We request the Riverlink modelling to assess how Riverlink and Snowylink can be developed concurrently to maximise net market benefits.

Snowy Hydro appreciates the opportunity to participate in this RIT-T assessment process. I can be contacted on kevin.ly@snowyhydro.com.au to discuss our submission.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Kevin Ly', with a horizontal line underneath.

Kevin Ly
Head of Wholesale Regulation