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By email to Sebastian.Roberts@aer.gov.au and aerinquiry@aer.gov.au

16 August 2021

Reinforcing the NSW Southern Shared Network RIT-T: Notice of Dispute

Dear Mr Roberts,

In accordance with clause 5.16.5 of the NER (Disputes in relation to application of regulatory investment test for transmission) this notice disputes the Reinforcing the NSW Southern Shared Network (HumeLink) Conclusions Report (PACR) in relation to the application of the regulatory investment test for transmission (RIT-T).

The PACR's preferred option is three new 500 kV lines between Wagga, Maragle and Bannaby, arranged in an electrical loop configuration. The PACR fails to identify that there are at least two distinct configurations of this option; each having materially different route lengths, geographic or environmental risks, construction costs and network benefits. These options also differ significantly in their relationship to existing assets.

Figure 1: Topology C representation in PACR.

This representation is misleading. It is not consistent with any possible double-circuit construction, and demonstrates the incorrect premise of the PACR that different options can have the same costs, risks and benefits.

Figure 2: Low-diversity option.

The low-diversity 3C configuration includes routing the Wagga – Bannaby circuit via Maragle. This option has limited diversity potential as all new circuits travel through the same forested areas and parallel existing 330kV circuits in areas of known storm and fire danger using the corridors which have been investigated by the proponent. Although it is not communicated in the PACR, the proponent's actions to date indicate that this is the favoured option.

Figure 3: High-diversity option.

This option may result in a lower cost due to a similar or lower total circuit length, and a single corridor through forested areas. It would keep the Wagga-Bannaby circuit out of the forested areas around Maragle and provides multiple diversity opportunities. This includes options to avoid paralleling existing 330kV circuits in high-risk areas, consistent with the TAPR and the intent of HumeLink to increase the resilience of the network.

NER clause 5.15.2(b) requires a RIT–T proponent to consider all options it could reasonably classify as credible options, and that the number of credible options that a RIT–T proponent assesses for meeting a particular identified be proportionate to the magnitude of the likely costs of any credible option. With the scale of the HumeLink project, and the biodiversity and land acquisition costs constituting 30% of the PACR project cost estimate, it is critical that the proponent properly identify the characteristics of the proposed routes and evaluate all credible options.

The proponent advises that *In the case of new transmission line investments, the RIT-T does not address line route specifics* (PACR p10) and planning would be granted *following extensive, genuine community and stakeholder consultation*. Further, on p30: *Final decisions regarding route diversity for the preferred option will be based on an assessment of network risks and mitigation strategies, having regard to the relative cost of diversity options, that sits outside of the RIT-T process.*

It is understood that the RIT-T doesn't identify specific corridors, but it is the appropriate mechanism to identify and evaluate different options, including where they materially impact the ability of the solution to manage the probability and consequences of high-impact, low probability (HILP). A good example is the HumeLink PADR (p.6), where the proponent estimated the load at risk to be $450 million and used this to justify selection the preferred option due to its multiple route diversity solutions. Current corridors parallel existing 330kV circuits so it is possible that the load at risk is further increased compared to the PADR evaluation.

Adding further concern to the lack of treatment of route diversity in the PACR is that on the 13th of August the proponent advised landowners that the corridor required for the high-diversity option the project will not be used. This raises serious doubts that any meaningful evaluation or consultation on these aspects is possible if not addressed in the RIT-T.

Another aspect of the insufficient treatment of diversity in the PACR and the high proportion of biodiversity offset costs is that once the route specifics are identified and proper consideration given to diversity benefits, the NPV ranking of low-diversity 3C option (figure 2) and PACR option 2C may be reversed.

Separate to the failure to identify all credible options, the late change to double circuit construction and lack of visibility on any aspect of the route alignment raises several questions:

- Are the corridors used for costing different options optimised for double circuit construction?
- Are previously investigated corridors intended for single circuit construction likely to be utilized due to time and / or budgetary pressure? Are these routes optimised for length and other considerations in the proposed double-circuit option?
- Has there been sufficient industry consultation, given that the proposed solution was never previously presented?
- How can consumers be satisfied the proposal represents a sound investment, when there is no visibility on the line length proposed? Similarly, when there is no indication of the types of terrain and vegetation, especially when biodiversity offset costs represent 28% of the project budget?

A copy of this Notice has been sent to the project proponent TransGrid.

Yours sincerely

Lee Kingma

Director