



ERM Power Limited
Level 3, 90 Collins Street
Melbourne VIC 3000
ABN 28 122 259 223

+61 3 9214 9333
ermpower.com.au

Monday, 24 February 2020

Mr Seán Mc Goldrick

Executive General Manager
Major Projects and Network Planning and Operations
TransGrid
180 Thomas Street
Sydney NSW 2000

Dear Mr Goldrick

RE: TransGrid Regulatory investment Test Project Assessment Draft Report - Reinforcing the NSW Southern Shared Network to increase transfer capacity to demand centres (HumeLink)

ERM Power Limited (ERM Power) welcomes the opportunity to respond to TransGrid's Regulatory Investment Test for Transmission (RIT-T) Project Assessment Draft Report - Reinforcing the NSW Southern Shared Network to increase transfer capacity to demand centres (HumeLink) which was published on 10 January 2020.

About ERM Power

ERM Power (ERM) is a subsidiary of Shell Energy Australia Pty Ltd (Shell Energy). ERM is one of Australia's leading commercial and industrial electricity retailers, providing large businesses with end to end energy management, from electricity retailing to integrated solutions that improve energy productivity. Market-leading customer satisfaction has fuelled ERM Power's growth, and today the Company is the second largest electricity provider to commercial businesses and industrials in Australia by load¹. ERM also operates 662 megawatts of low emission, gas-fired peaking power stations in Western Australia and Queensland, supporting the industry's transition to renewables.

<http://www.ermpower.com.au>

<https://www.shell.com.au/business-customers/shell-energy-australia.html>

General comments

ERM Power supports this timely review of options to increase transmission network transfer capacity between the southern border area of New South Wales (NSW) to the central east demand areas located between Wollongong, Newcastle and the Great Dividing Range. The National Electricity Market (NEM) is in the process of change with the announced and forecast future retirements of large blocks of dispatchable generation output located in this Central East NSW electrical sub-region primarily with generation with intermittent output characteristics forecast to locate external to the Central East sub-region.

¹ Based on ERM Power analysis of latest published information.



To ensure that any potential impacts on secure operation of the power system are minimised and to ensure the ongoing supply of reliable energy to consumers in NSW into the future, we believe that increased network transfer capability both within and between NEM regions needs to be considered and implemented when it is demonstrated to be economically efficient to do so via a transparent RIT-T process. This Project Assessment Draft Report (PADR) forms Stage 2 of a RIT-T process. In our view, it is critical that this RIT-T process be conducted in a manner that allows sufficient time for stakeholders to adequately review all associated modelling outcomes and documentation. This need is highlighted by the large size of documents associated with this RIT-T process. In considering this, we believe that TransGrid should also be mindful of the high level of NEM consultations stakeholders are currently expected to review, due to the volume of issues being addressed in the NEM.

Whilst there is no doubt that additional network transfer capacity will be required between the southern border and the Central East electrical sub-region of NSW in the future, we believe the key questions of sizing and timing, remains to be determined. This is critical consideration to ensure that costs to consumers are minimised. The proposed preferred option imposes large and long-lived costs on consumers and whilst the current modelling indicates a net market benefit, this is dependent on a large number of modelling input assumptions actually occurring as set out in the modelling in what is a relatively uncertain future. If actual physical reality regarding future power system developments vary from that set out in the modelling assumptions, then the modelled benefits will potentially evaporate, and consumers would be left with a fifty-year bill with little consumer benefit. In our view, we believe based on observed historical outcomes vs RIT-T and other central planner forecasts, the potential for variation between actual vs modelled power system development outcomes is significant. This variation could result in the preferred option delivering a nil, or negative, market benefit outcome. For this reason, we suggest additional consideration regarding staging of the preferred option from a consumer benefit perspective is warranted.

We note that whilst the RIT-T models a market benefit, this is not the same as a consumer benefit. We recommend that the proponents also consult on and conduct modelling with regards to the changes in consumers and supplier benefits as part of this RIT-T process.

Calculation of market benefits based on co-dependent transmission network projects

We note that the realization of some market benefits associated with this project may require the completion of other as yet uncommitted transmission network augmentation projects, most notably the South Australia to NSW EnergyConnect and Victoria to NSW VNIWest projects, both of which are indicated to connect to the NSW transmission network at Wagga Wagga in NSW.

We note that a recent review of the EnergyConnect project by the Australian Energy Regulator (AER) reduced the modelled net market benefit for the proposed project by 70%, and whilst the project continued to deliver a net market benefit, this will be subject to the calculation of firm project costing by the proponent, where an increase in estimated costs of only 18% would result in no net market benefit.

We believe the inclusion of these additional, as yet uncommitted projects in the benefit assessment for HumeLink results is over stating the market benefit delivered solely by the proposed HumeLink project. Accordingly, we believe that in order to determine a correct forecast market benefit, the modelling should calculate the market benefit using the total calculated estimated cost for all three co-dependent projects, not just the estimated cost of the HumeLink project alone. We also believe that market benefit modelling should be conducted on the HumeLink project in isolation with both the EnergyConnect and VNIWest projects excluded from the transmission network topography included in the modelling. This would demonstrate to stakeholders that the proposed HumeLink project and the combined HumeLink, EnergyConnect and VNI West network augmentations are forecast to deliver an overall net market benefit. This is currently not clear to stakeholders, most notably consumers who will incur the large and long-lived costs for these projects.



We also note that the estimated costs for the project remain subject to significant estimation variation, we recommend that in finalising this RIT-T process that costings as set out in the Project Assessment Conclusion Report be subject to potential variation not greater than +/- 15%. We believe this is a satisfactory threshold of accuracy for such a significant cost project as that proposed and not result in dilution of forecast market benefits due to the impact of a larger cost variation.

Scenario modelling options, assumptions and sensitivities

We note that the scenarios and assumptions used for the modelling are indicated as consistent with the 2019 Integrated System Plan (ISP), as no 2019 was published, we understand this to mean the scenario and assumptions published for the 2020 Draft Integrated System Plan.

We are concerned that the level of energy consumption and maximum demand forecasts as set out in the 2020 ISP are optimistic, in particular with regards to potential large industrial and commercial loads. We note that review of historical data demonstrates that actual consumption and maximum demand generally falls below AEMO's forecasts. Hastened action to construct long-lived network assets based on conservative estimates of forecast demand may result in unnecessarily high and long-lived costs to consumers. As such, we believe modelling of additional sensitivities under all 5 modelled scenarios is warranted. This is particularly the case given that the aluminium industry has publicly stated that ongoing operation of the smelters is not viable under the forecast VRE penetration scenarios due to forecast "firmed" wholesale energy costs.

Improved consideration of staging of the project

It is unclear to ERM Power that sufficient consideration with regards to staging of the project has been applied in the RIT-T process. Staging of the process will result in a significant benefit to consumers as it allows for adjustment of both project line routes and timing for completion of the project as new information in NEM market development are revealed. Also, given the significant number of large transmission network projects indicated as requiring completion in the NEM over the next 4 to 8 years, more efficient staging of projects should reduce the premium associated with trying to complete such a large number of projects in such a relatively limited time period.

It is clear to ERM Power that completion of an initial segment of the proposed project between Wagga Wagga and Bannaby is warranted. This is based on the fact that the current capability of the Snowy Scheme and the Victorian to NSW interconnector is unable to be realised at times of high NSW demand. It is less clear that completion of other elements of the project are required by the proposed date and we believe greater benefits to consumers will be realised by more effective staging of the project.

We believe a revised staging of the preferred option is warranted and would be happy to provide additional detail regarding suggestions in this area in future discussions with TransGrid.

Capacity of the proposed transmission network augmentations

We note the proposed terminus point in NSW of the proposed but yet uncommitted EnergyConnect and VNIWest transmission augmentation projects is Wagga Wagga in southern NSW. Given the total combined forecast transfer capability into southern NSW of these projects, it is unclear if the proposed single transmission line between Wagga Wagga and Bannaby is of sufficient capacity for transfer of energy from the projects, plus the current Snowy Scheme and the proposed 2,000 MW Snowy 2.0 project and if in the future additional transmission augmentation in the Wagga Wagga – Yass – Bannaby corridor will be required to realise the market benefits assumed from this RIT-T process.

With regards to the preferred option, it is unclear why Option 3B requires installation of a phase shifting transformer on Bannaby to Sydney West 330 kV line to control flows across this network flowpath, yet the preferred option which will result in the delivery of higher flows to the 500 and 330 KV Buses at Bannaby does not have this same requirement.



It is also unclear if the preferred option will require completion of the proposed additional 330 KV circuit between Bannaby and Sydney West as set out in Option 4A to accommodate the required higher flows from southern NSW towards the Sydney West switchyard, following the planned retirement of generation in the Hunter Valley and Central Coast electrical sub-regions of NSW to deliver the calculated market benefits set out in the RIT-T.

Independent review by the AER

We believe that a review of this RIT-T process by the AER, similar to the review undertaken by the AER of the proposed EnergyConnect project RIT-T process, would provide additional certainty to consumers that the proposed project will deliver a net market benefit. Based on its relationships with consumers, ERM Power is currently uncertain that consumers are confident a net benefit to consumers will actually be realised over the long term.

Please contact me if you would like to discuss this submission further.

Yours sincerely,

[signed]

David Guiver
Executive General Manager - Wholesale Energy Markets
07 3020 5137 – dguiver@ermpower.com.au