ElectraNet

5 March 2018

Audrey Zibelman
Chief Executive Officer
Australian Energy Market Operator
Level 22, 530 Collins Street
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Dear Audrey

re: Integrated System Plan Consultation

ElectraNet welcomes the opportunity to provide this submission to the Integrated System Plan (ISP) consultation paper released in December 2017.

South Australia remains at the forefront of the global energy transformation, with world-leading levels of intermittent wind and solar renewable energy penetration. The move away from a system of centralised, synchronous generation to increasing levels of renewable energy brings both challenges for system security and opportunities as the market transitions. A strong, reliable and more interconnected transmission network is more important than ever to support this energy transformation.

We, therefore, welcome the development of the ISP by AEMO, and fully support its role in strategic planning of the integrated energy supply system, including facilitating the development and connection of Renewable Energy Zones (REZs) across the National Electricity Market (NEM).

ElectraNet is party to Energy Networks Australia's submission, which contains the network sector response to the ISP consultation. This ElectraNet submission provides additional commentary on the following specific aspects, including those relevant to the South Australian region.

Renewable Energy Zones

ElectraNet appreciates AEMO's collaborative approach and engagement with industry in preparation of the ISP consultation document. This industry engagement has led to the identified REZs which cover the geographical extent of the National Electricity Market (NEM). ElectraNet considers the identified REZs to be more than adequate to provide the future energy needs of the NEM and therefore appropriate as a starting point for identifying priority REZs.

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Transmission Development Options

ElectraNet is supportive of the transmission development options identified by AEMO within its ISP consultation paper.

As reflected in the paper, ElectraNet is progressing a number of the priority transmission development options identified by AEMO in its ISP consultation paper through major RIT-T and associated processes that are well advanced. It is important these development options are recognised in the ISP and that their ongoing development and assessment continues to be informed by and closely co-ordinated with the ISP.

Specifically, the three transmission development options which ElectraNet is currently progressing are:

- Increasing interconnection from South Australia to the eastern states – which we are exploring through our 'South Australian Energy Transformation (SAET) RIT-T' assessment;

- Expanding transmission capacity to the Eyre Peninsula – which we are exploring through our 'Eyre Peninsula Electricity Supply Options RIT-T' assessment; and

- Maintaining system strength in the NEM – which we are addressing in response to the Network Support and Control Ancillary Services (NSCAS) gap for system strength in South Australia, declared by AEMO on 13 October 2017.

ElectraNet's analysis is consistent with AEMO's finding from its preliminary modelling that major transmission upgrades such as these are more economic when combined with other major upgrades to create a more interconnected NEM.

In this way, the major transmission projects identified within the ISP consultation paper are more likely to complement each other to deliver greater overall market benefits, rather than compete with each other.

For example, our analysis indicates that the progression of certain network options within AEMO's 'Western Victoria Renewable Integration RIT-T' unlocks additional market benefits associated with options presented within the SAET RIT-T. This is especially the case for the Robertstown – Buronga – Wagga Wagga 330 kV interconnector option, which supports the coordinated "T" shape transmission solution identified in Figure 24 (page 50) of the ISP consultation document.

ElectraNet therefore strongly supports the need for coordinated strategic planning to ensure an integrated approach is taken to inter-regional development options in order to deliver the most efficient long-term infrastructure development for customers.

To this end, ElectraNet is working closely with AEMO on the three projects identified above given the strategic importance of these projects to both the ISP and to supporting reliability, system security and energy transformation towards a lower carbon emissions future.

Progress on these projects is summarised below. Given the urgency of the challenges confronting South Australia and the advanced stage of these three projects, we expect they will be recognised as an integral part of AEMO's ISP.

Project	Status
South Australian Energy Transformation	A RIT-T assessment commenced in November 2016 with the release of a Project Specification Consultation Report. Extensive feedback has been received during consultation to date. We are undertaking additional modelling work and continue to assess the credible options in the context of the changing external environment and are working closely with AEMO to ensure consistency with the Western Victoria RIT-T and Integrated System Plan.
Eyre Peninsula Electricity Supply Options	A RIT-T assessment is well progressed with a Project Assessment Draft Report (PADR) released on 16 November 2017, identifying a new transmission line to be the most cost effective solution. ElectraNet is currently working on responding to submissions received on the PADR with the aim of publishing a Project Assessment Conclusions Report by May 2018.
System Strength	AEMO declared an NSCAS gap for South Australia on 13 October 2017 to address the system strength limitations in the South Australian transmission system. ElectraNet is required to use its reasonable endeavours to provide the system strength services specified by AEMO by 30 March 2018. We are currently assessing the most cost effective solution(s) to address this ongoing requirement over the short and longer-term.

Implementation of the ISP

ElectraNet is generally supportive of the approach to development of the ISP proposed by AEMO. The effectiveness of the ISP could be further enhanced by considering the following:

- The assumptions used for new and disruptive technologies have to be carefully considered, including the range of parameters tested. The range tested in any given year should be wide enough to ensure that next year's expected starting point is well covered within the range tested.

- ElectraNet understands that AEMO's proposed approach relies on the "model picking the solution" based on the chosen scenarios and numerous input parameters. ElectraNet considers this approach could result in suboptimal solutions being identified from a strategic planning perspective. Development of the ISP should allow for the required strategic planning considerations and expert judgement in the choice of the preferred option(s), e.g. the option chosen by the model may not be a "least regret" option – the "second best" option may be more robust over a range of scenarios.

- The ISP should be a sufficiently forward looking document to support the timely development of transmission, including the strategic acquisition of easements.

More broadly, it is also important that the ISP provides a clear framework and guidance for more detailed assessment of identified transmission development priorities by Jurisdictional Planning Bodies.

Given that the ISP will be published in June 2018, an approach that can be readily accommodated under the current regulatory framework would be to allow assumptions and options considered by AEMO in respect of an ISP identified project to provide clearer focus and clarity to the *identified need* for the purposes of the corresponding RIT-T to be undertaken by the relevant TNSPs.

This will help to refine the scope of strategic transmission development options for the purposes of more detailed assessment.

Without this clarity and focus, a RIT-T assessment of potential strategic developments might otherwise be presented with an unbounded challenge of seeking to maximise net economic benefits across an unlimited set of options for the purposes of satisfying the RIT-T.

In this way, ahead of any broader framework improvements that may be contemplated, the ISP could assist the RIT-T process by more clearly defining the identified need.

A natural extension of this would be for the ISP to provide sufficiently prospective or developed REZs with "committed" status for RIT-T purposes. This would then allow an assessment to be undertaken by the relevant TNSPs of the most economic transmission options to unlock the renewable generation potential that is expected to proceed.

ElectraNet looks forward to continuing to work with AEMO on the development of the ISP and in progressing nationally coordinated transmission developments on timely basis to meet the needs of the evolving energy supply system into the future.

Please contact me on 08 8404 7983 if you would like to discuss any aspect of the above.

Yours sincerely

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