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Submitted via email to RIT@aer.gov.au

Dear Peter,

Regulatory investment test application guidelines draft determination

Thank you for the opportunity to provide feedback on the AER's regulatory investment test application guidelines draft determination. AEMO is committed to working with the AER and other ESB members to consider how to adapt the regulatory framework to give effect to an orderly transition.

Investment tests are a common feature of international transmission planning frameworks. They have an important role in ensuring that identified network needs are met at least cost. However, the appropriate nature and design of the investment test is contingent upon the broader regulatory context, for instance, whether the decision to invest is being made by a network owner, an independent system operator or the regulator.

In the case of the NEM, the level of autonomy granted to the network owners in making investment decisions is high compared to many international models. As a result, it has been necessary to adopt a relatively prescriptive process, featuring checks and balances which have acted to make the RIT-T process more cumbersome. To provide context for the broader range of issues requiring consideration, AEMO has engaged FTI Consulting to undertake a review of international approaches to investment tests. A copy of their report is attached.

The RIT-T application guidelines review is being undertaken within the context of the existing National Electricity Rules (Rules), which were designed for a time when the primary driver of network investment was incremental demand growth. In contrast, we are now facing the transformation of our power system driven by technological and behavioural change. AEMO's Integrated System Plan (ISP) models these diverse drivers of change in order to establish an optimised strategic plan for power system development.

The COAG Energy Council has asked the AER, AEMC and AEMO to come together under the auspices of the Energy Security Board (ESB) to develop a work program to convert the ISP into an actionable strategic plan. AEMO agrees that "there may be a further need to update the RIT-T application guidelines once the ISP framework is formalised".[1] We recommend that the AER makes it clear that it will undertake a further review of the RIT-T application guidelines after the ESB completes its work, in order to ensure that the guidelines

[1] AER, *Explanatory Statement – Review of the application guidelines for the regulatory investment tests*, July 2018, pg 37.

remain fit for purpose in the context of broader changes to the transmission planning framework.

This submission provides feedback both on the incremental improvements to the RIT-T application guidelines contemplated by the current review, and the more fundamental changes to the RIT-T framework that will be addressed by the ESB review.

1. Incremental improvements to RIT-T application guidelines

AEMO welcomes the AER's work to clarify the guidelines with respect to quantifying high impact, low probability (HILP) events, the application of the value of customer reliability and option values.

Climate change means that the power system is exposed to unprecedented conditions with increasing frequency, and there is a need to take into account risks that were previously treated as too unlikely to warrant investment expenditure. We believe there would be value in considering further how to establish the weightings for HILP events, particularly in cases where the event has not happened before.

Alternatively, there may be scope for more qualitative assessments in the case of investments with multi-objective criteria (such as providing resilience in the face of extreme weather events). In practice, a qualitative explanation of the risks associated with various options has the potential to be more transparent than an approach that relies on judgement calls to attribute probabilistic weightings. We would like to consider the decision making framework for these more strategic assessments as part of the broader ESB review of the transmission planning framework (see section 2 below).

With respect to option values, we would like further clarity on how to establish the cost of land associated with a proposed transmission corridor (and in particular, whether the market value of the land is the appropriate value). A further matter that requires consideration is the need for additional RIT-Ts. If a RIT-T finds that a staged investment process is optimal, and market outcomes fall within the range of outcomes anticipated in the original RIT-T, should the TNSP be required to undertake further RIT-Ts for subsequent stages of the project?

We agree with the AER that external funding contributed by government should be treated as a reduction in the costs associated with a project for the purposes of the RIT-T. In addition, there may be merit in treating generator contributions as external funds as this reduces the costs borne by customers and creates a mechanism whereby market signals inform transmission planning decisions. However, we recognise that under the current open access regime, generators will not necessarily have an incentive to contribute towards transmission costs.

2. Issues requiring further consideration as part of the ESB review

We look forward to working with the AER to address the broader issues that are the subject of the ESB review. A critical issue that will need to be addressed via the ESB review is how to ensure that the benefits of strategic planning are able to be captured, while also ensuring that each component of the strategic plan is delivered efficiently.

The draft RIT-T application guidelines will require further updates following the ESB review to allow them to support system-wide strategic planning. Under the draft determination, each project must be justified on a case by case basis. In contrast, the ISP models the least cost pathways for the system as a whole where each link in the chain is required to deliver the anticipated benefits.

A simplified example might be a case where, in order to get the benefit of a new transmission line that provides access to a new Renewable Energy Zone (REZ), it is necessary to also upgrade an interconnector to allow the additional renewable energy to be exported to a region where it will displace higher cost generation. In the absence of the new interconnector, the network extension to the REZ might not be justified.

The draft guideline effectively requires the TNSPs to re-prove the ISP for each option. In particular, the requirement for TNSPs to classify ISP network development path projects as a "modelled project" entails that the TNSPs must re-prosecute and duplicate all the modelling of the ISP. We are also concerned that the broad caveats in section 3.4.1 are likely to undermine TNSPs' confidence in their ability to rely on ISP modelling for the purposes of the RIT-T. These features are likely to perpetuate the current issues where the diversity of potential outcomes results in a cumbersome evidentiary burden for TNSPs undertaking RIT-T modelling.

As part of the ESB review, it would be preferable to establish a transparent, consultative and streamlined process that clearly articulates how the ISP can become actionable and complementary to the RIT-T process so that transmission is developed in an efficient and timely manner in the interests of consumers.

We also consider that the current guidelines do not adequately recognise the full range of benefits associated with transmission in the context of the energy transformation. Going forward, transmission investments are likely to be driven by the need to:

- Manage diversity in renewable resources in terms of both location and fuel source,
- Access efficient new sources of electricity supply to maintain reliability as a major proportion of our current fleet retires, and
- Manage an increased prevalence of extreme weather events, and
- Reduce wholesale market price outcomes through better use of supply and demand assets through congestion reduction.

As part of this, it would be appropriate to revisit the question of whether the investment criteria of maximising the net benefits to all who transport, produce or consume electricity remains appropriate, or whether a more customer-focussed test would deliver better outcomes.

The issue of generator retirements is particularly acute given the discrepancy between the amount of notice likely to be provided by generators, and the amount of time required to plan and build the power system to provide replacement supplies at least cost. It will be necessary to efficiently manage the uncertainty regarding the timing of generator closures, while recognising that ultimately, a substantial proportion of the generator fleet is reaching the end of its technical life. AEMO is currently working to enhance its understanding of the likely timing of generator retirements by undertaking an assessment of the revenue sufficiency of generators.

There would also be merit in establishing a clearer process for how AEMO incorporates public policy initiatives into the ISP in order to ensure that public policies are efficiently and transparently integrated into the NEM framework. This framework should include consideration of how costs are allocated between customers and taxpayers.

To the extent that these issues are beyond the scope of the AER's RIT-T application guidelines it will be necessary to undertake a further round of amendments following the

broader ESB review. We look forward to working with you and our AEMC and ESB colleagues to resolve these matters. If you have any questions regarding any aspects of this submission please do not hesitate to contact Jess Hunt on 08 8201 7315.

Yours sincerely

Nicola Falcon

Acting Executive General Manager, Planning & Forecasting

Attachments: FTI report on Investment Tests for Transmission Networks