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COAG Energy Council Secretariat
GPO Box 9839
CANBERRA ACT 2601

By email: energycouncil@environment.gov.au

Review of the Regulatory Investment Test for Transmission

Thank you for the opportunity to respond to the Consultation paper for the Review of the Regulatory Investment Test for Transmission (RIT-T).

The focus of this submission is limited to addressing one of the consultation questions raised and supports the broader submission submitted by the Energy Networks Association (ENA) that ElectraNet is also party to. The question addressed in this submission is whether transmission businesses are best placed to undertake the assessment of interconnection investments in the changing energy market.¹

It is ElectraNet's strong view that transmission network service providers (TNSPs) remain the best placed to undertake the assessment of transmission investments, including interconnection investments. The key reasons for this position are:

- The long-term interests of customers are best promoted when TNSPs undertake the planning and investment functions. This has been confirmed through multiple successive reviews and reforms of transmission planning arrangements conducted by the Australian Energy Market Commission and Productivity Commission. These reviews have also led to the introduction, or foreshadowing, of enhancements to improve the effectiveness of the current regime;
- The commercial motivation of TNSPs means that financial incentives can be used to align the incentives of TNSPs with outcomes that promote the long term interests of consumers;
- The current coordinated approach to strategic national planning, with regional planning and delivery by TNSPs harnessing their local knowledge of the network and operating conditions, is promoting investment outcomes that meet customer and market needs;

¹ Question 14 of the Review consultation questions.

- Cost efficient investment is already achieved through contestability arrangements applied by local TNSPs while avoiding the additional costs associated with competitive ownership;
- TNSP planning and investment delivers alignment with the allocation of accountability for the overall network performance outcomes that are sought by customers; and
- TNSP planning maintains transparency and independent oversight to ensure that customer interests are protected.

The remainder of this submission expands on these reasons.

The current framework has been the subject of substantial review and reform that has confirmed TNSPs as the best placed to undertake transmission planning that promotes the long-term interests of consumers

The Secretariat's review is being undertaken following a period of substantial review and reform of network planning and investment arrangements. These reviews were undertaken in an environment where changes in customer demand, technology, and climate change policies were known. In the context of this changing environment, recent reviews by the Australian Energy Market Commission (AEMC) and the Productivity Commission have confirmed that TNSPs are the best party to undertake the detailed consideration of interconnector investment. Past reviews have also led to enhancements that further support successful outcomes under that model, namely:

- National coordination of network planning since the publication of the first National Transmission Network Development Plan (NTNDP) by the Australian Energy Market Operator (AEMO) in 2010. A key focus of this plan is on testing the need for further backbone transmission capacity;
- The requirement since August 2010 for all major transmission augmentation investments to pass the RIT-T;
- A last resort planning power (LRPP) conferred upon the AEMC empowering it to direct one or more Registered Participants to apply the RIT-T in relation to a potential transmission project it identifies;
- A new framework for inter-regional transmission use of system charges; and
- Enhanced incentives for transmission businesses to undertake efficient capital expenditure and improve service performance.

Importantly, the planning and investment arrangements were the subject of a recent substantial review by the AEMC, known as the Transmission Frameworks Review (TFR), from which a COAG Energy Council sponsored rule change proposal has been submitted to the AEMC.

The findings of the AEMC, supported by the COAG rule change proposal, suggest that there are no fundamental flaws with the current arrangements or allocation of responsibilities, but some minor enhancements were found to be warranted.

These enhancements, if made into rules, will further support a nationally coordinated planning approach while maintaining the fundamental basis upon which the planning and investment

framework is established. Of note are proposals for TNSPs to have a greater input into the NTNDP and an express requirement for TNSPs to consider arrangements that promote the identification and implementation of network investment options that cross-regional boundaries.²

The commercial motivation of TNSPs means that financial incentives can be used to align the incentives of TNSPs with outcomes that promote the long term interests of consumers

Conferring investment and operational decisions on for-profit organisations, including interconnector investment, is the best approach for promoting outcomes that are in the long-term interests of customers. This is because the commercial motives of regulated TNSPs can be harnessed to align the financial incentives of the business with the outcomes that are sought by customers and the market more broadly. Specifically, under current arrangements the owner and operator of the network is also responsible for planning and investment, allowing it to trade off the relative costs and benefits of operational and investment decisions. In contrast, no mechanism exists to harness the incentives of not-for-profit organisations towards this goal. Further, a lack of profit-motive means there is also an absence of a material feedback loop on the success or otherwise of past decisions.

The advantages of harnessing financial incentives is a position that was clearly supported by the AEMC as part of its TFR. Here it stated that a not-for-profit NEM-wide transmission planner was unlikely to be efficiency enhancing given the absence of financial incentives:³

AEMO currently has a role determining augmentation investments in Victoria, i.e. making investment decisions. AEMO has proposed that this independent transmission planner-decision making role should apply across the NEM. However, we do not support such an approach, since we consider TNSPs are best placed to make investment decisions.

AEMO has questioned the use of financial incentives in transmission investment decision making, suggesting that a body not subject to such incentives might make more efficient decisions. However, we note that all bodies face incentives: financial incentives provide an understandable and transparent approach to influence behaviour. In the Commission's view efficient outcomes can best be promoted by aligning the commercial incentives on businesses with the interests of consumers. Decisions made by an independent transmission planner would be subject to its own perspectives, including those resulting from any other roles it performed. These drivers of behaviour would be less transparent and robust than direct financial incentives.

This view was also supported by the Productivity Commission which indicated in its review of electricity network regulation that commercially motivated entities were most likely to identify the most efficient investment solutions:⁴

Commercially-orientated businesses with strong incentives to cost minimise (once committed to action rather than simply deferral) are more likely to identify efficient options for addressing a given reliability constraint. If these incentives are weakened, or business choices are influenced by other objectives, this will not necessarily be the case.

² COAG Energy Council, 'Transmission Connection and Planning Arrangements, Amendments of the National Electricity Rules – Chapter 2, 5, 6A, and 10, Rule Change Request and Proposal', 23 July 2015.

³ AEMC, Transmission Frameworks Review, Final Report, 11 April 2013, p.46.

⁴ Productivity Commission, 'Electricity Network Regulatory Frameworks, Inquiry Report No. 62, Volume 2', 9 April 2013, p.593.

The current coordinated approach to strategic national planning, with regional planning and delivery by TNSPs, is promoting investment outcomes that meet consumer and market needs

The reforms to the planning process identified above, as well as a number of other enhancements that are currently under consideration by the AEMC as part of the COAG sponsored rule change proposal, work towards delivering effective coordination of national and regional network plans.

ElectraNet considers that the broad framework that applies in the NEM, with the exception of Victoria, delivers a best practice planning approach. This is because it allows for the incorporation of a strategic long-term view of the national grid into the near-term transmission plans of commercially motivated network businesses to deliver the service performance outcomes sought by customers and the electricity market more broadly. The key aspects of the current approach to national planning are:

- A strategic long-term view of the needs for major flow paths, including interconnectors, through the National Transmission Network Development Plan (NTNDP);
- Joint planning between commercially motivated transmission network businesses to translate the strategic plan into an implementable near term regional plan;
- The capacity for review and comment by interested stakeholders, including the National Transmission Planner, on annual network plans published in Transmission Annual Planning Reports and the application of the RIT-T, plus additional oversight by the Australian Energy Regulator (AER) and consultation on investment plans through the periodic revenue setting process;
- The capacity to dispute the TNSP's final assessment under the RIT-T; and
- A protection against the failure to assess important projects through the AEMC's LRPP role.

While strategic planning of national flow paths is necessary, it is important that the ultimate planning responsibility reside with the TNSP. This is because a national planner cannot have the detailed local knowledge necessary to effectively plan augmentations to the network in a way that optimises the use of existing assets, aligns with efficient renewal decisions, and takes into account operating practices.

Further, a body other than the TNSP does not possess detailed knowledge of local conditions for transmission, distribution and generation investment, the condition of the existing asset base, or opportunities to deliver operating services more efficiently through standardised or innovative asset practices. Conversely, all information that is available to a national planner is available to a local TNSP.

The evidence suggests that the current approach is working. TNSPs have successfully undertaken joint planning and considered major interconnector proposals. Most notably, the AEMC has not identified any failures of TNSPs in investigating potential network projects. It is also important to recognise that the success of the framework should not require that network projects proceed.

Interconnectors, in particular, are very significant investments that will impact on customer prices and have the potential to crowd out responses from the competitive demand or supply side.

Therefore, in the context of commercially motivated network businesses, much of the framework is, appropriately, geared towards ensuring that such investments only occur when there is a clear economic or reliability benefit. As identified in the ENA submission, ElectraNet recognises that it is an open question as to whether the current test properly considers all the benefits and costs associated with an investment. However, this question arises irrespective of who applies the test.

Cost efficient investment is already achieved through contestability arrangements applied by local TNSPs while avoiding the additional costs associated with competitive ownership

All major works undertaken by TNSPs are put out for competitive tender or a process for competitive provision. In addition, while TNSPs have internal design teams, this is also a function that is commonly subject to competitive tender. Through this competitive process undertaken by commercially motivated TNSPs the efficient cost of providing the works can be revealed. Further, the RIT-T focuses on a network need rather than a network augmentation and so involves substantial consultation and analysis in order to reveal the best solution to addressing that need. The evidence indicates that TNSPs have been successful in identifying a range of solutions to meet such a need.

The implication of contestability already being a key feature of the way TNSPs do business, combined with the application of RIT-T, is that competition for ownership under a central planning model is unlikely to deliver any additional benefit to customers. However, it would certainly introduce new costs. Some of the likely concerns and costs associated with competitive ownership include:

- There is limited evidence there would be sufficient competition for network ownership such that it would deliver any additional benefits that outweigh the associated costs.
- Responding to tenders involves significant transaction costs. In addition to adding to the overall cost of supply, these transaction costs may be a barrier to alternative providers entering the tender. This could particularly be the case for non-network providers.
- There is the potential under a contestable model that a central planner replaces the role of the economic regulator in determining efficient cost outcomes and so reduces the scrutiny on expenditure and revenue allowances.

TNSP planning and investment ensures alignment with the allocation of accountability for the overall network performance outcomes that are sought by customers

Handing planning responsibilities to a party other than the local TNSP would create the potential for different parties to be responsible for network augmentation, network renewal and operation and maintenance with no party accountable for the overall performance of the network. In the first instance, this inhibits the ability to compare and contrast augmentation proposals with proposed replacement and operating and maintenance expenditure. Further, it also means a split of responsibilities and accountability for service performance. This is problematic given network augmentation, renewal and operating and maintenance expenditure are all substitutes for delivering improved service performance. The implication being that decisions that impact on service performance may not be optimised.

The ability for a commercially motivated TNSP to optimise decisions for achieving service performance targets was highlighted by the Productivity Commission in its review of Electricity

Network Regulation, stating with respect to its preferred model that maintained TNSP planning and investment responsibilities:⁵

Incentives to cost minimise and innovate are maintained. For projects under the chosen threshold, there are strong incentives for a profit-motivated TNSP to seek the least-cost solution to meet the standard. For projects above the threshold, the public RIT-T process should help identify innovative solutions, and as revenues are then determined for specific projects, profit-motivated TNSPs have strong incentives to cost minimise. For both, the retention of planning responsibilities with TNSPs enables them to capture any economies of scope that come with combined augmentation, replacement and maintenance planning.

TNSP planning maintains transparency and independent oversight to ensure that customer interests are protected

Outside of Victoria there is a considerable level of independent oversight of investment plans and decisions. This is achieved through AEMO's NTP role, the AER's role as economic regulator and the AEMC's LRPP. Further, interested stakeholders have the opportunity to input into the investment plans of businesses in the context of Transmission Annual Planning Reports, the revenue reset process, and as part of a RIT-T assessment.

Conversely, in the only jurisdiction with a not-for-profit planner, there is no independent oversight of network plans. In this jurisdiction the AER no longer undertakes revenue determinations for augmentations, or the costs of AEMO in its role as a TNSP in Victoria. This means there is no independent assessment, or third party check, that AEMO's expenditure proposals are efficient and prudent. This lack of oversight also inhibits the capacity for third parties, and customers in particular, to assess and comment on investment proposals in that jurisdiction. The implication of the not-for-profit planner model is that costs can be imposed onto customers with little or no scrutiny of their efficiency.

Should you wish to discuss any aspects of this response, please contact me on (08) 8404 7324.

Yours sincerely



Simon Appleby
Senior Manager Regulation and Land Management

⁵ Productivity Commission, 'Electricity Network Regulatory Frameworks, Inquiry Report No. 62, Volume 2', 9 April 2013, pp.606-607.

Appendix A – List of recent reviews addressing transmission planning

As indicated in the main body of this submission, the planning and investment arrangements for transmission networks is a matter that has been the focus of numerous key reviews and rule change processes since the commencement of the NEM, which have continued to affirm that having TNSPs in the transmission planning and investment role best promotes the NEO. The purpose of this appendix is to summarise the conclusions of major reviews undertaken in more recent times.

Energy Reform, The way forward for Australia, A report to the Council of Australian Governments by the Energy Reform Implementation Group, (ERIG) January 2007

This review included a focus on the delivery of a fully national and efficient electricity grid. The review noted that there was no indication that the market was being denied a major interconnector upgrade and did not propose a change to the roles and functions of TNSPs. One of the key recommendations of this review was the development of the NTNDP through a National Transmission Planner model. Under this model, which reflects the approach that was ultimately implemented in the NEM, the ERIG noted that individual TNSPs should remain responsible for investment decisions and that the model relies on incentives within the regime for that investment to be efficient.⁶

The National Transmission Planner would be charged with the development of an independent strategic national plan outlining the broad development of the power system and the national transmission network with a minimum outlook of ten years updated annually. The planner would have statutory responsibility for the development of the National Transmission Network Development Plan (NTNDP) in accordance with given objectives.

The body would be responsible for formally involving both TNSPs and network users in the development of the NTNDP and to consult on the Plan. It would maintain the resources necessary to develop its own independent assessments. Most importantly, the National Transmission Planner would have an obligation to advise the AER in respect of the appropriateness of capital spending proposals in revenue cap submissions by TNSPs. This would ensure that the NTNDP is given greater relevance by strong links with the regulatory regime. Individual TNSPs would remain responsible for meeting standards and for their investment decisions during the 5 year regulatory period. Importantly, this also means that TNSPs remain accountable for outcomes. The AER would remain responsible for setting revenue caps but would also benefit from additional and more transparent planning information to aid it in setting the ex-ante revenue cap.

The model relies on incentives within the regulatory regime to operate and invest efficiently and minimise the costs of meeting these defined obligations. As a result it also requires links to information generated by a congestion management regime.

National Transmission Planning Arrangements: Final Report (AEMC), June 2008

The AEMC was directed by the then Ministerial Council on Energy to conduct a review with respect to the recommendations made in the ERIG report and the proposed national transmission planning function. In this review the AEMC endorsed a model with strategic planning undertaken by the NTP

⁶ ERIG, 'Energy Reform, The way forward for Australia', January 2007, pp.191-192.

while local planning and investment decisions were undertaken by TNSPs. It also identified the importance of information exchange and consultation between the parties:⁷

The NTNDP and the shorter-term investment planning activities of the TNSPs should work to complement each other in promoting efficient outcomes for consumers. The Commission recommends that the NTP must have regard to the Annual Planning Reports of each TNSP in preparing the NTNDP, and that each TNSP must have regard to the NTNDP in their Annual Planning Reviews. TNSPs must also explain how their investment plans relate to the NTNDP in their Annual Planning Reports, and the NTNDP will also contain a consolidated summary and commentary on the Annual Planning Reports of each of the TNSPs.

Additionally, the Commission recommends that the NTP has the discretion to make submissions to the consultation processes undertaken by each TNSP under the Regulatory Investment Test for Transmission, and by the AER is determining the revenue allowances of each of the TNSPs based on forecasts of required expenditure submitted by the TNSPs. The NTP should make submissions where the proposed investment affects the NTFPs, given that this will be the NTP's area of detailed knowledge and expertise.

Review of Energy Market Frameworks in light of Climate Change Policies (AEMC), September 2009

This review by the AEMC considered whether there was a need for framework change because of climate change policies that were to be introduced or that were already in place. Specifically, the focus was on policies for a price on carbon and the Renewable Energy Target. It found that, broadly, frameworks were robust and there was no evidence that there is a need to move away from the model of strategic national planning combined with regional planning and investment by TNSPs. In its Second Interim Report for the review, which set out the AEMC's assessment of whether frameworks would be sufficiently robust, it indicated that the substantial recent reforms to transmission planning frameworks provide a robust framework to support long term transmission investment:⁸

In recent years there have been substantial reforms in delivering long term transmission capacity. These reforms work together to provide a robust framework supporting long term transmission investment.

The National Transmission Planner (NTP), Last Resort Planning Power (LRPP), AER revenue determinations and the Regulatory Investment Test for Transmission (RIT-T) work together to deliver timely and efficient network investment. The NTP and LRPP provide a safety net to ensure that TNSPs are aware of potential development options and can trigger action if TNSPs are not responding to a material problem in a timely manner. The NTP's National Transmission Network Development Plan (NTNDP) will report on long term efficient development of the power system, including current and future network capability, and will identify suitable development options.

The RIT-T is the new economic test for identifying the most economic transmission project. Some stakeholders raised concerns about delays in investments because of the time required to undertake the RIT-T. However the RIT-T is designed to be a robust but not overly burdensome process and to support efficient planning. It enables the TNSPs to consult earlier in the planning process with market participants on the range of possible options compared to the existing regulatory test. The AER will be tasked with developing the RIT-T and providing guidance on the assessment of costs and benefits. We see this as being an important role, especially regarding methods for valuing market benefits for potential interconnector projects.

⁷ AEMC, 'National Transmission Planning Arrangements, Final Report to MCE', 30 June 2008, p.x.

⁸ AEMC, 'Review of Energy Market Frameworks in light of Climate Change Policies, 2nd Interim Report', 30 June 2009, p.39.

Transmission Frameworks Review (AEMC), April 2013

In April 2010 the then Ministerial Council on Energy directed the AEMC to conduct a review of the arrangements for the provision and utilisation of electricity transmission services and the implications for market arrangements governing transmission investment in the NEM. In this review the AEMC considered a variety of models for transmission planning, including a not-for-profit national planner. As noted in the body of this submission, the AEMC rejected such a model preferring to harness the benefits of commercially motivated TNSPs. In its First Interim Report the AEMC also stated its view on the performance of the current planning arrangements; indicating that it considered that they were working well but there was scope for improvement in the RIT-T in terms of valuing congestion that impacts on generation.⁹

The Commission considers that an efficiently planned transmission network will have the following characteristics:

- delivery of efficient investment to meet load reliability standards (or recognise the value of customer reliability);
- provision of a level of network capacity that reflects the value to generators of being dispatched in the energy market; and
- arrangements that provide confidence that effective co-ordination between generation and transmission investment, as well as between TNSPs in different regions, will be achieved.

In this context, the Commission broadly considers that the current planning arrangements are delivering outcomes that are consistent with these characteristics. There is no evidence to suggest that TNSPs are failing to meet load reliability standards. Scoping studies and a RIT-T have been undertaken or commenced to assess the need for more inter-regional transmission capacity. The NTNDP and TNSPs' Annual Planning Reports (APRs), in combination with the LRPP, promote transparency and accountability.

However, it is not clear whether the RIT-T is being applied to identify efficient investment to relieve congestion faced by generators, or whether the RIT-T appropriately captures the value that generators place on certainty of access.

Electricity Network Regulatory Frameworks, Inquiry Report (Productivity Commission), April 2013

Around the time that the AEMC was completing its Transmission Frameworks Review, the Productivity Commission was tasked with undertaking a review of regulatory frameworks for electricity networks. This included a consideration of the planning arrangements and particularly interconnectors. As identified in the body of the report, the Productivity Commission considered that the primary planning and investment functions should remain with TNSPs. Further, on the matter of interconnection, its finding was that the evidence suggests that the current physical capacity for interconnection was appropriate and the relevant stakeholders were acting to initiate further investment where required:¹⁰

⁹ AEMC, 'First Interim Report, Transmission Frameworks Review', 17 November 2011, pp.41-42.

¹⁰ Productivity Commission, 'Electricity Network Regulatory Frameworks, Inquiry Report No. 62, Volume 2', 9 April 2013, p.679.

Investment in interconnectors to date appears to have provided a reasonably appropriate level of physical capacity to enable trading in power between regions (given current network, generation and demand profiles). That conclusion can be reconciled with the existence of congestion at times because — as the cost–benefit analyses that have been done suggest — in most cases there would be significant net costs from eliminating this congestion. And where net benefits have been identified, such as in an expansion of the Heywood interconnector, the relevant stakeholders are acting to initiate further investment.