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Mr Warwick Anderson General Manager Network Regulation Australian Energy Regulator GPO Box 3131 Canberra ACT 2601

Dear Mr Anderson

ElectraNet Draft Decision and Revised Revenue Proposal 2013-2018

TransGrid appreciates the opportunity to make a submission on the AER's draft decision and ElectraNet's revised revenue proposal for its 2013-2018 regulatory control period. The submission addresses a number of matters relating to forecast expenditure.

TransGrid considers it of prime importance that ElectraNet be "provided with a reasonable opportunity to recover at least the efficient costs" incurred in providing network services, as required in the National Electricity Law's revenue and pricing principles. This will allow ElectraNet to work towards efficiently investing in and operating its network in order to provide electricity services for the long term interests of consumers, as per the National Electricity Objective. As set out below, TransGrid supports a number of the arguments in ElectraNet's revised revenue proposal which seek to include revenue in the final determination to allow ElectraNet to recover the efficient costs of providing network services.

Capital Expenditure - Replacement and Refurbishment Projects

The AER has made two adjustments to ElectraNet's replacement and refurbishment expenditure based on advice from EMCa. The first is a reduction of an estimated \$50 million, "to account for capex/opex trade-off benefits arising from the implementation of the integrated asset management framework." The second is a "prudency adjustment" of 7 per cent across replacement and refurbishment expenditure. TransGrid believes that both adjustments are not reasonable as made in the draft decision, and would not allow ElectraNet to recover its efficient costs.

With regard to the capex/opex trade-off related to the implementation of the new asset management framework, TransGrid questions the suitability of the time period considered for this adjustment. In its technical review, EMCa effectively expects the entire cost of ElectraNet's new asset management system to be offset by benefits within a single five-year regulatory control period. TransGrid proposes that this is not reasonable given electricity transmission assets have lives in the order of 45-55 years.

Furthermore, the use of a five-year period is inconsistent with other guidelines published by the AER regarding economic evaluation. Notably, the RIT-T guideline suggests that an evaluation period of less than five years is unlikely to adequately reflect the benefits of a particular option and that a longer evaluation period, such as 20 years or more, may be necessary when considering long-lived and high-cost investments.

TransGrid submits that the AER's decision should be consistent with these principles.









With regard to the "prudency adjustment" of 7 per cent across replacement and refurbishment expenditure, TransGrid questions EMCa's rationale and extrapolation of its findings based on a limited number of projects, for two reasons.

Firstly, EMCa has assumed that as a project progresses through its life cycle, gains will be possible through the application of prudent decision making. It has not explicitly considered the converse scenario, in which ElectraNet may find that the application of prudent decision making during a project life cycle results in justifiably higher costs rather than gains. This unbalanced and opportunistic approach biases EMCa's analysis.

Secondly, in Appendix B of its technical review EMCa described the selection of projects it has reviewed in detail, being:

- A substation replacement and transformer upgrade;
- > A substation upgrade; and
- A unit asset replacement project.

EMCa has proposed that the level of efficiency and prudency gain it has formed an opinion on from three projects should be applied to ElectraNet's total proposed replacement and refurbishment capex. However, EMCa has not substantiated that the projects it has reviewed in detail are a representative sample of ElectraNet's total proposed replacement and refurbishment capex. Prima facie the projects reviewed appear to be generally higher value projects amongst the portfolio, and the particular aspects of these projects on which EMCa has formed its opinion are unlikely be applicable to other types of projects in the portfolio.

Therefore, TransGrid does not believe the AER has provided sufficient justification for its "prudency adjustment".

Capital Expenditure - Contingent Projects

Contingent projects are an important component of the National Electricity Rules' (NER) "uncertainty regime". As the AEMC advised in its final determination on the economic regulation of NSPs Rule change in November 2012, "An appropriate uncertainty regime will contribute to efficiency of investment by allocating risks to the party best able to deal with them, including appropriately sharing the risks of external events". What that uncertainty regime will look like is currently the subject of the AER's Better Regulation guideline development program.

TransGrid considers the contingent project mechanism to be an appropriate risk management tool for mitigating the impact of uncertainty on project investment decisions on both electricity consumers and Transmission Network Service Providers (TNSPs). Contingent projects ensure that where particular capital expenditure is not certain, TNSPs have a mechanism to trigger the capital works if necessary but electricity consumers do not bear the costs unless the work is triggered. Given the length of time between submission of a revenue proposal and conclusion of the regulatory control period to which it applies, contingent projects facilitate responsive and efficient investment decision making where investment drivers change during this time. In doing so they uphold the National Electricity Objective.

The AER appears to have taken a more conservative interpretation and application of the requirements for contingent projects in its draft decision than is prescribed in the NER. TransGrid



suggests that the AER could appropriately relax its requirements for contingent projects while still meeting the requirements of the NER and upholding the National Electricity Objective.

EMCa's technical review appears uncertain on the suitability of market benefits projects as contingent projects. While market benefits projects are not explicitly addressed in the capital expenditure objectives, the NER does not preclude the AER from accepting them as contingent projects. TransGrid believes as market benefits contribute to the National Electricity Objective, the AER should regard them as suitable for consideration as contingent projects.

Capital Expenditure - Cost Estimating Risk Factor

In its draft decision the AER disallowed the cost estimating risk factor for replacement and refurbishment capex. This is on the basis that replacements or refurbishments occur in environments that are known, and therefore do not encounter the uncertainty associated with a new project.

TransGrid disagrees with the AER's assessment. Replacement and refurbishment projects are subject to uncertainties, albeit of a different nature to new developments. Most notably, replacement and refurbishment projects are generally done in an "in service" environment in which the substation and other connected services must remain operational during the work. Such projects can be as complex as full in-situ substation rebuilds, and have challenges associated with staging, outage co-ordination and potentially outage re-scheduling for prudent reasons to benefit the NEM or otherwise due to factors outside a network service provider's control.

In principle, the AER should apply the cost estimating risk factor to all project types within the scope of review that determined the cost estimating risk factor.

Operating Expenditure - General Efficiencies

The AER has applied a 2.5 per cent efficiency factor to ElectraNet's entire forecast operating expenditure on the basis of aspirational identified efficiencies that ElectraNet could achieve. TransGrid does not believe this is consistent with the incentive based regulation regime in the NEM and does not believe that EMCa's rationale, on which the AER has relied, is sound.

EMCa has proposed in its technical review that part of the assessment of efficient costs is, "to consider how efficiency is likely to improve over time." However, this is counter to the incentive based regulation regime for electricity transmission established in Chapter 6A of the National Electricity Rules. The incentive based regulation regime provides commercial incentives for TNSPs to pursue efficiencies through ex-ante revenue cap decisions and the operation of an Efficiency Benefit Sharing Scheme (EBSS). Under this arrangement a TNSP has a commercial incentive to reveal its efficient costs because the commercial benefits of doing so are enjoyed by both itself and electricity consumers, in a ratio determined by the AER in the design of the EBSS.

The premature removal of an amount from forecast operating expenditure in anticipation of aspirational efficiencies would change the ratio of efficiency benefit sharing determined by the AER in the design of the EBSS, and in doing so significantly weaken the properties of the incentive framework.

For this reason alone, the AER should not apply an aspirational efficiency factor to ElectraNet's opex. However, there are two other aspects of EMCa's rationale that are equally concerning.



Firstly, EMCa has proposed that in the experience of its team members, opex efficiencies are more readily available than capex efficiencies. Consequently, as ElectraNet has proposed a capex efficiency factor in its proposal, EMCa believes an opex efficiency factor is therefore reasonable. Notably EMCa has provided no justification supporting its general assertion, and TransGrid strongly questions the relevance of its general assertion to ElectraNet. The National Electricity Rules applying to ElectraNet's revenue determination require the AER to consider, "the costs that a prudent operator in the circumstances of the relevant Transmission Network Service Provider would require to achieve the capital expenditure objectives." Considering an operator in the circumstances of ElectraNet, the regulatory framework applying to it has historically featured stronger incentives on operating expenditure efficiency than capital expenditure efficiency, in the form of the operating expenditure EBSS in addition to the ex-ante revenue cap regime. That is, ElectraNet has had stronger incentives to pursue operating expenditure efficiencies than capital expenditure efficiencies. This is the opposite scenario to that considered by EMCa.

Secondly, ElectraNet's aspirational efficiencies cited in EMCa's technical review are related to routine maintenance activities only. It is unreasonable for EMCa to infer from this that ElectraNet could also achieve operating expenditure efficiencies in other categories, particularly given the differences in the nature of expenditure categories, sourcing arrangements and other factors. TransGrid submits that EMCa's rationale for imposing an efficiency allowance across all opex is ill-founded, insufficiently justified and opportunistic, and that the AER should not impose the efficiency allowance.

Operating Expenditure - 'Start of Life' Defects

In its draft decision, the AER reduced ElectraNet's forecast for corrective maintenance. In doing so the AER considered incoming defect rates and 'start of life' defects observed as part of the 'bathtub effect'. The AER, based on advice from EMCa, posed that, "modern substation equipment generally minimises this effect because it is modular, prefabricated and pretested and therefore reduces 'start of life' defects. Also, warranty provisions may provide for the supplier or contractor to bear the costs of any 'start of life' defects."

The AER's decision is flawed and errant in two respects.

Firstly, there is no evidence in international or Australian asset management peer groups of modern substation equipment minimising 'start of life' defects or the 'bathtub effect'. In fact, the concept is counter to the experience of many utilities including TransGrid. As tolerances and margins used in modern manufacturing have tended to decrease, the incidence of 'start of life' defects has continued. In recent years TransGrid has experienced 'start of life' defects including:

- > Transformer bushings with insulation defects, that have been detected by online condition monitoring systems and replaced prior to catastrophic failure:
- Circuit breakers and disconnectors with design or quality issues requiring TransGrid effort to troubleshoot and repair;
- Faulty control system power supply modules due to manufacturing defects with capacitors, that required replacement of capacitors on site in all power supplies of the type when the manufacturer could not supply the required quantity of replacement power supplies;
- > Firmware bugs in protection relays that required updated firmware provided by the manufacturers to be installed; and



> Faulty optical fibre terminal equipment that required TransGrid effort to troubleshoot.

'Start of life' defects such as those above are not unique to a particular manufacturer or type of equipment. In particular, while EMCa cited solid state devices as an example of 'pre-tested' equipment, these devices have been regularly subject to firmware updates from manufacturers to address bugs such as those found in practice.

Secondly, the assertion that warranty provisions may provide for the supplier or contractor to bear the costs of any 'start of life' defects is flawed. A supplier or contractor will seek to recover its costs incurred in providing its service, and therefore an increase in the scope of warranty provisions is likely to be passed back to the customer via a premium on tender prices. Notably, a network service provider's internal costs to investigate and resolve the issue, such as labour costs, are not covered by warranty provisions and form part of the efficient costs of meeting obligations under the National Electricity Rules.

The matter of 'start of life' defects was similarly contentious in TransGrid's revenue determination for its 2009-2014 regulatory control period. In this instance, following the AER's final decision to disallow operating expenditure for 'start of life' defects, TransGrid referred the decision to merits review. Upon its review the Australian Competition Tribunal found that, "the AER was wrong to:

- a) Exclude defect maintenance in respect of new growth assets;
- b) Proceed on a basis that TransGrid would incur zero defect expenditure in respect of new growth assets; and
- c) Assume that the existing pool of ageing assets, that is, assets other than the new growth assets, would have the same level of defects as in the base period."

This decision by the Tribunal should be instructive for the AER when considering the matter in the final decision for ElectraNet.

Provisions

In the draft decision the AER rejected the inclusion of capitalised provisions.

The AER's rejection of provisions is inconsistent with its own submission guidelines, which state that:

(c) "The regulatory information requirements should be completed according to applicable Australian accounting standards except where these guidelines or other AER guidelines prescribe otherwise or no relevant Australian accounting standard exists."

ElectraNet's treatment of capitalising labour costs is considered consistent with accounting practice, legal precedence and established business practices. The approach is reflective of general costs incurred to bring assets into service. The question of the costs being incurred is one which is reasonably supported as is highlighted through the legal definition which has been stated as having a broader interpretation than just when the costs are paid. It is understood under the rules the AER are obliged to allow recovery of efficient costs incurred by an entity. As the employee related costs are unavoidable it is reasonable to assume that they should be recovered as efficient costs.



Should you wish to clarify any matters raised in this submission, please feel free to contact Andrew Kingsmill on 0419 617 340.

Yours faithfully,

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