ElectraNet

19 October 2018

Paula Conboy
Chair
Australian Energy Regulator
Level 17, Casselden
2 Lonsdale Street
MELBOURNE VIC 3000

Dear Paula,

Re: Asset retirement planning – draft industry practice application note

ElectraNet appreciates this opportunity to provide a submission on the Australian Energy Regulator's (AER) draft industry practice application note (draft application note) on asset retirement planning, following the AER's stakeholder forum in which ElectraNet participated in Melbourne on 25 September 2018.

ElectraNet strongly supports the application of a transparent risk-based approach to asset management decision making, coupled with robust economic assessments for all significant investments, in the interests of driving affordable and reliable transmission service outcomes for electricity customers.

To this end, we welcome the development of additional guidance on the application of the Rules to replacement expenditure planning for network assets following rule changes in July 2017 that extended the application of regulatory investment tests (RITs) to replacement capital expenditure.[1]

In 2016, as part of our revenue proposal for the 2018-23 regulatory control period, we presented to the AER a risk-cost modelling framework to quantify risk for all replacement and refurbishment projects ('repex projects'). Our framework was well received by the AER and was found to be consistent with good industry practice and generally reflect reasonable inputs and assumptions. We understand this work has helped to inform the development of the AER's draft application note.[2]

In August 2018, we commenced our first Regulatory Test for Transmission (RIT-T) driven by a replacement need which applied our risk-cost framework to quantify asset risk, determine the optimal timing of capital expenditure (capex) and identify a preferred option.[3]

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1 Australian Energy Market Commission, *Rule Determination, National Electricity Amendment (Replacement expenditure planning arrangements) Rule 2017*, 18 July 2017.

2 AER, *ElectraNet transmission determination 2018 to 2023*, *Draft Decision, Attachment 6 – Capital expenditure*, October 2017, p. 4.

3 ElectraNet, *Managing the risk of transformer bushing failure – Project Specification Consultation Report*, 22 August 2018.

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We note that the AER intends for its final application note to accompany the publication of its final RIT Application Guidelines which are currently under review. The AER recognises the complementary nature of these two reviews, and we emphasise the importance of maintaining consistency in the guidance provided, as highlighted in the discussion below.

Risk-cost modelling for projects driven by compliance obligations

The AER's draft application note would benefit from additional guidance on the application of risk-cost modelling to projects where the replacement or refurbishment need is driven by a legal or compliance obligation. The AER's discussion summary of the stakeholder forum acknowledges that "there may be value in differentiating how to apply the economic assessment to black and white areas of the law versus areas based on best endeavours".[4]

We agree that the application of a risk-cost assessment framework may not be well suited to projects required to satisfy 'black and white' legal obligations. ElectraNet is committed to maintaining high standards in meeting compliance obligations in accordance with good electricity industry practice and it would be inappropriate to knowingly breach an obligation on the basis of economic efficiency.

We understand the guidance in the draft application note is intended to explore the extent of efficient compliance costs necessary to avoid non-compliance with mandated obligations based on reasonableness tests or best endeavours. We support this approach provided the guidance is directed towards testing the reasonableness of compliance costs rather than recommending that compliance obligations can be avoided.

Characterising the base case

Issues on characterisation of the base case, captured within the AER's discussion summary[5], included:

- the extent of costs to be included in the base case, including reactive and proactive maintenance; and
- allowing the base case to reflect a credible option where the base case would otherwise be unviable.

Characterisation of the base case for repex projects is an issue that is being specifically addressed as part of the AER's review of the RIT Application Guidelines, and has been the subject of considerable discussion in submissions. It is important that the AER's application note is consistent with its final guidance for RITs and carefully considers suggestions for additional guidance provided in submissions.

Both the draft application note and draft RIT Application Guidelines characterise the base case for repex projects as a 'business as usual' (BAU) base case. The AER's draft RIT application guidelines state that:

> *"… the base case must incorporate the operational and maintenance expenditure required to allow the ageing element to remain in service as effectively as possible for as long as possible. The 'BAU' base case may include credible BAU expenditure relating to the deteriorating asset to manage safety risk, environmental risk and equipment protection to the extent this expenditure meets legal obligations or is consistent with efficient industry practice".*[6]

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4 AER, *AER asset replacement forum: Discussion summary*, p. 3.

5 AER, *AER asset replacement forum: Discussion summary*, pp. 1-2.

6 AER, *Draft regulatory investment test for transmission application guidelines*, July 2018, pp. 14-15; and AER, *Draft regulatory investment test for distribution application guidelines*, July 2018, p. 14.

ElectraNet is party to a submission from Energy Networks Australia on the RIT Application Guideline review. That submission supports the AER's additional guidance regarding selection of an appropriate base case and suggests three amendments are made to allow the BAU base case for repex projects to:

- include 'risk costs' consistent with those estimated using a risk-cost assessment methodology;
- include minor capex (below the RIT threshold) to allow the replacement of parts within an ageing asset in order to prolong asset life and/or manage safety and environmental risks; and
- reflect a credible option in some circumstances, for example, when replacing secondary systems or other assets where there are legislative redundancy requirements.[7]

The first amendment proposed above is consistent with the guidance in the AER's draft application note.

The inclusion of minor capex, as suggested in the second amendment, as well as reactive and proactive maintenance, in the BAU base case would also be consistent with the AER's draft guidance for RITs that the base case include credible BAU expenditure to the extent it meets legal obligations or reflects efficient industry practice.

The remainder of this submission addresses an issue related to the third amendment above regarding accounting for network redundancy within a risk-cost modelling framework.

Accounting for redundancy

The consequences of delaying a decision to replace assets, such as protection systems, required to meet redundancy requirements in the Rules are often not immediate and associated costs, including increased unserved energy or safety risk costs, are difficult to quantify using a risk-cost assessment methodology.[8]

Delaying the replacement of redundant assets increases the risk of concurrent asset failure and the application of joint and conditional probability, as included in the draft application note[9], can be difficult to apply, particularly when considering a replacement program for protection systems operating within a network with redundancy requirements.

For these types of assets, operating within a transmission network where mandated minimum restoration periods do not allow run-to-failure as a viable asset management strategy, risk-cost modelling is further complicated by the inability to perform routine inspections to assess asset condition or accurately predict failure rates.

In addition, considering the short technical life of these assets, stranded asset risk, one of the key issues that the draft application note seeks to address, is not material, and non-network solutions typically cannot be considered as credible options.

Most importantly, performance of risk-cost modelling is unlikely to affect the replacement decision and does not limit the consideration of any of the alternative credible option variants provided within the draft application note.[10]

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7 Energy Networks Australia, *Draft application guidelines for the RITs – Submission to the Australian Energy Regulator*, 7 September 2018, pp. 8-10.

8 For example, S5.1.9(c) of the Rules which requires the provision of sufficient primary and back-up protection systems.

9 AER, *Draft industry practice application note: asset replacement planning* (draft application note), 6 September 2018, pp. 59-61.

10 For alternative credible options variants see: AER, Draft application note, pp. 27-8.

As suggested above, it is preferable to allow a BAU base case to reflect a credible option for these types of asset replacements where there are legislative redundancy requirements, thereby avoiding the need to model unrealistic outcomes.

ElectraNet welcomes further engagement with the AER on developing this guidance, and would be happy to discuss any aspects of this submission further.

Please direct any queries in relation to this submission to Simon Appleby in the first instance on (08) 8404 7324.

Yours sincerely

Rainer Korte
Executive Manager Asset Management