

06 April 2018

Mr Peter Adams  
General Manager, Wholesale Markets  
Australian Energy Regulator  
GPO Box 520  
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Sent via email to: [RIT@aer.gov.au](mailto:RIT@aer.gov.au)

Dear Mr Adams

## Review of the application guidelines—Regulatory Investment Tests

SA Power Networks welcomes the opportunity to comment on the Australian Energy Regulator's issues paper on the Application Guidelines (**the Guidelines**) for the Regulatory Investment Tests applying to distribution (RIT-D) and transmission (RIT-T).

We support applying RITs to identify solutions that best promote customers' long-term interests, including via non-network solutions. We have undertaken a number of RITs under former and current regulation, developing considerable experience in undertaking cost-benefit analyses and engaging with non-network service providers and customers. It is imperative that in seeking to amend the current Guidelines to assist industry, that the AER avoids any over-prescription that might risk:

- impeding business and asset management flexibility in responding to circumstances that will vary across the industry—localised complexities limit the extent to which solutions can be prescribed; or
- increasing the costs of running already expensive RIT-Ds without commensurate benefit.

As detailed in this submission, we do not consider that further extensive guidance is required on how RIT-Ds should be undertaken. We recommend that the AER limit amendments to:

- the RIT-D itself and / or to the approach to the Value of Customer Reliability (VCR) should the AER seek to better cater for High Impact Low Probability (HILP) events;
- clarifying that the base-case for replacement expenditure is a credible 'business-as-usual' option;
- allowing potential new market benefit categories, particularly to reflect the value of distributed generation to the National Electricity Market (NEM);
- providing further worked and non-binding examples on the notional calculation of option value; and
- clarifying that all external financial contributions are to be treated equally regardless of whether they are provided from parties inside or external to the NEM.

We would be happy to discuss our submission further. If you have questions on any matter we have raised, please contact Bruno Coelho on 08 8404 5676

Yours sincerely

A handwritten signature in blue ink, appearing to read "Richard Sibly".

Richard Sibly  
**Head of Regulation**

## Incorporating uncertainty

### High Impact Low Probability (HILP) events

The Guidelines do not require worked examples on how extreme scenarios should be considered, as these scenarios are already expected to be weighted by their low probability of occurrence.<sup>1</sup>

However, for the RIT-D to address CoAG's apparent desire for HILP events to be given 'better weight' according to public expectations regarding significant system security events<sup>2</sup>, the AER should consider:

- amending the wording of clause 6(a)(ii) of the RIT-D to remove the need to weight each scenario solely by the probability of it occurring. While the AER intends to limit its review to the Guidelines, the current wording of the RIT-D itself inhibits the application of higher weights to scenarios based on policy or customer desirability; and / or
- engaging with network businesses and broader stakeholders on whether to make amendments to the Value of Customer Reliability (VCR) so that a specific VCR can apply to HILP events with potential for wide-spread disruptions.<sup>3</sup> This might be via a VCR multiplier, as previously suggested by AEMO.<sup>4</sup>

### Option value

Consideration of the option value that non-network options afford when compared with network options, is relevant to the RIT-D and the Demand Management Incentive Scheme. However, prescription on calculating option-value should be avoided given:

- this is a nascent concept; and
- the potential for non-network options to defer / negate the need for network options will likely depend on the specific circumstances of the RIT-D under consideration.

However, there appears to be benefit in amending the Guidelines to:

- acknowledge that option value may in some instances go beyond scenario analysis; and
- provide a more informative (and non-binding) worked example calculation for the industry's benefit.

### Scenario and sensitivity analyses

Further detail is not required on how networks should develop scenarios, as flexibility must be afforded to develop and consult on scenarios that are most relevant to the particular RIT-D under consideration.

With respect to sensitivities applied to scenarios, the AER should avoid prescribing how many permutations of sensitivities should be undertaken, given that:

- it already appears to be industry practice to vary more than one sensitivity parameter at a time;
- the number of parameters and sensitivity permutations cannot feasibly be determined on an ex-ante basis via the Guidelines and must instead depend on:
  - the relevance of particular parameters to the circumstances of the RIT-D being considered;
  - the overall materiality of the 'identified need', noting the significant administrative costs involved in undertaking voluminous numbers of different sensitivity permutations; and
  - the materiality of the impact that different sensitivities would likely have on analysis outcomes.

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<sup>1</sup> AER, *Regulatory Investment Test for Distribution—Application Guidelines*, p.35.

<sup>2</sup> COAG EC's comments were made in specific context of a review of the RIT-T but could equally apply to RIT-Ds as distribution system security issues are increasingly also relevant. We understand that the AER's issues paper also seeks comment on the treatment of HILP events within a RIT-D. COAG EC, *RIT-T review*, February 2017, pp.4-6.

<sup>3</sup> We note the CoAG Energy Council has submitted a rule change to transfer responsibility for developing and updating VCR estimates to the AER. This rule change is listed as pending on the AEMC's website at the time of this submission.

<sup>4</sup> AEMO, *Consumer Forum Meeting Pack 5 August 2016: Regulatory Investment Test for Transmission (RIT-T) Improvements*, p. 3.

## Replacement expenditure

There is no apparent need for further guidance on how to apply a RIT-D to network asset replacements (replacement expenditure, repex). The new National Electricity Rules (NER) extending the RIT-D to repex are sufficiently clear. Further, extensive guidance was already provided via the AEMC's engagement with industry<sup>5</sup> on these rule changes and its rule determination documents.<sup>6</sup>

We provide our views below on two key matters pertaining to repex for which the AER's intended treatment is somewhat unclear.

### Base-case selection

The current Guidelines provide flexibility to select any option as the base-case, i.e. a 'base case credible option', and refer to a 'do-nothing' base case as well as a 'base case in which no credible option is implemented by a DNSP'.<sup>7</sup>

It appears, from the AER's issues paper and discussion at its public forum, that the AER might be considering requiring the base-case for repex to be 'business as usual' unless failure to replace would violate applicable reliability standards. However, it is unclear if the AER interprets 'business as usual' as being 'running assets to failure'.

In our view, 'business as usual' should reflect a credible option, in order to avoid having to develop strictly hypothetical and unrealistic cases. Further, we recommend that the AER maintain the current flexibility for networks to define 'business as usual' as appropriate for the specific RIT-D being considered, noting that:

- a 'do-nothing' scenario does not necessarily equate to 'running to failure' but rather to 'business as usual' which should capture activities we would undertake in the absence of making additional asset investments.
- 'business as usual' could include:
  - situations where a network increases reactive maintenance (as old assets fail more frequently) with increasing unserved energy; or
  - situations where a network undertakes repex when the risk of asset failure reaches a certain level, and where repex upon asset failure is impractical.
- The Guidelines should not prejudge a network's particular asset management practices. This sentiment was reflected in the AEMC's final determination on the repex rule change, which concluded that the AER should not be prescribing asset management practices (or guidance), on account of there being a variety of best practices (that can change over time as well as the network business being best placed to make asset management decisions).<sup>8</sup>

### Treatment of ongoing work programmes

The AEMC's repex rule change determination was sufficiently clear on the treatment of ongoing work programmes (such as pole replacement), noting that primacy is on describing a relevant 'identified need'.<sup>9</sup>

Our view is that the NER do not expect that ongoing asset replacement programmes involving minor works (for example, pole replacement programmes undertaken on an ongoing whole of network pole population forecast and visual inspection basis) would be subject to a RIT-D. The exception is where the 'identified need' involves potentially replacing poles along the entire length of a particular network line.

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<sup>5</sup> The AEMC ran a number of workshops with industry in developing the new rules.

<sup>6</sup> AEMC, *Final rule determination—National Electricity Amendment (Replacement expenditure planning arrangements) Rule 2017*, 18 July 2017.

<sup>7</sup> AER, *Final RIT-D Application Guidelines—September 2017*, pp.35-37.

<sup>8</sup> AEMC, *Final rule determination—(Replacement expenditure planning arrangements) Rule 2017*, 18 July 2017, p.52.

<sup>9</sup> AEMC, *Final rule determination—(Replacement expenditure planning arrangements) Rule 2017*, 18 July 2017, pp.67-68.

## Market benefits

### Other potential market benefits

The NER contain a list of classes of market benefits that can be considered in a RIT–D, and allow the AER to include other classes it deems relevant. The AER’s view reflected in the Guidelines is that the current list is sufficient. The AER should provide for / not rule out the potential inclusion of further classes of market benefit that might increasingly become relevant. Two particular issues appear most relevant:

#### 1. The value of distributed generation for the broader NEM:

- The ability of customers with distributed generation (e.g. solar PV) to connect (under an open access connection framework) and export into the distribution network and NEM will be of increasing focus as network assets begin to face technical constraints (e.g. voltage or thermal capacity limits) in relation to the connection of such devices.
- Going forward, various measures might need to be examined as to how export access should be managed and perhaps constrained off and on in the right places and times, in order to not exceed short-term physical network constraints. In doing so, a value might need to be placed (perhaps on the same notional basis as the VCR) on the contribution that distributed generation (as a whole across a network and over a forecast period) might have on the wholesale market, or some other means of determining ‘value’. This is noting that the VCRs are by design only applied to outages affecting consumption of electricity and not the generation of electricity.
- The Guidelines should allow consideration of the impact of distributed generation on the wholesale market (e.g. generation dispatch). These impacts might have historically been immaterial, but this no longer holds true given the volumes of Distributed Energy Resources connecting to distribution networks—as passive or smart devices, working independently or as a collective Virtual Power Plant.

#### 2. The value of network and wholesale market access for groups of customers:

- We understand that CoAG is considering the AEMC’s recommendations following its review of the Western Power rule change.<sup>10</sup> Conceivably, in future a RIT–D might be put to evaluating the relative costs and benefits of replacing old network assets (particularly on remote network fringes) against providing customers (individuals or as a community) with an off-grid power system.
- Consideration will be needed as to the type of benefit that a community and the broader market might derive from that community maintaining network and NEM connection. These issues will be difficult to consider definitively ahead of any further CoAG reform. However, the Guidelines should not rule out other potential market benefit classes to avoid requiring update in the near future.

### Interaction with capital and operating expenditure rules

The Guidelines should reiterate that NEM market benefits can be accommodated within the capex objectives and factors in the NER, noting that:

- In undertaking a RIT–D and in applying for incentives under the DMIS, networks can consider the costs incurred and benefits derived via other parts of the NEM supply chain, i.e. market benefits. However, the NER capex objectives and factors do not explicitly refer to market benefits.
- We view market benefits as included in the scope of the capex objectives and factors via the National Electricity Objective in the National Electricity Law, which refers to the national electricity system.<sup>11</sup>
- There might be future cases where a distribution network’s initiative / investment might derive greater benefits to the broader market than to the distribution network via avoided capex. For example, this could include a distributor interacting with energy consumption, storage or generation devices connected to the distribution network, but with the aim of solving a market challenge for AEMO.

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<sup>10</sup> AEMC, *Final rule determination: Alternatives to grid-supplied network services—Rule 2017*, 19 Dec 2017.

<sup>11</sup> NEL, Section 7, National Electricity Objective.

## Stakeholder engagement

### RIT–D process

RIT-Ds have typically been of most interest to third-parties wishing to put forward non-network alternatives to be considered. RIT-Ds might increasingly have broader interest, particularly if they cover issues with potentially wide-spread impacts on customers. We are open to hearing from stakeholders as to how current RIT-D engagement efforts could be improved. However, further AER guidance does not appear warranted noting that:

- The RIT-D and Distribution Annual Planning Report (DAPR) rules already outline formal requirements to publish key documents and provide information for stakeholders.
- Any additional RIT-D stakeholder engagement should ideally be tailored (scaled up or down) to the circumstances of a particular RIT-D. We would expect that, the nature and number of any workshops and forums run and additional (to what is required) information provided, would depend on factors such as whether the RIT-D:
  - is likely to have non–network potential;
  - is addressing a discrete identified need or one that could affect customers more broadly;
  - is material noting the likely administrative costs of running extensive engagement programs;
  - has unique issues of risk to customers; and / or
  - unique visual amenity issues.
- Guidance on stakeholder engagement expectations in the Guidelines would detract from current AER engagement guidelines.<sup>12</sup> The AER’s current principles-based engagement guidelines are sufficiently broad to apply to all regulatory processes including RIT-Ds. This view seems broadly accepted by stakeholders as evident from the AER’s RIT public forum.
- It appears that the principal area in which consumer representatives feel engagement is somewhat lacking, pertains to ‘contingent projects’ and the extent to which these are sufficiently detailed in the AER’s distribution and transmission determination process.

Our RIT-D for the Kangaroo Island undersea cable (2016) represents one of the more extensive engagement examples. The administrative costs for this RIT-D amounted to circa \$1.3 million. Extensive engagement was appropriate given the significant materiality of the project options<sup>13</sup>, the extent of potential non-network alternatives, and the risk that the Island could be separated from the NEM under certain scenarios. Our engagement included:

- publishing on our website, all documents required under the RIT-D rules, including the: Non-Network Options Report (NNOR), and the Draft and the Final Project Assessment Reports;
- all RIT-D required documents were notified to third-parties via our Demand-Side Engagement Register open to all parties.<sup>14</sup> The documents were also provided to energy market bodies (the AER and AEMO);
- a large public forum was run before publishing our NNOR to assist third parties looking to provide submissions to the RIT-D; and
- we further facilitated third party involvement in our RIT-D by running tours to key sites relevant to the RIT-D analysis; and
- offering bilateral sessions with key stakeholders such as the local council.

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<sup>12</sup> AER, *Consumer engagement guideline for network service providers*, November 2013.

<sup>13</sup> For example, the total cost of the 8 options considered ranged from approximately \$25 to \$100 million. SAPN, *Final Project Assessment Report (FPAR)—Kangaroo Island Submarine Cable*, 23 December 2018, p.46.

<sup>14</sup> Parties can be added to our register via our website: [<http://www.sapowernetworks.com.au>].

## Other issues

### External financial contributions

We do not agree with the AER's intended treatment of external financial contributions. In our view:

- All external financial contributions received by a RIT-D proponent should be counted as an offset to the cost of a project being considered, and should these lower the cost of a project to below the RIT-D threshold then a RIT-D should not be required. This is regardless of whether the contribution is made by a party within the NEM (e.g. generator) or outside the NEM (e.g. government).
- As the RIT-D assesses options as to the regulated investment needed to solve an 'identified need', the cost of options being considered must be compared on the basis of having deducted any contributions that effectively lower the cost of the project (ultimately reflected in regulated network charges).
- To not off-set the required regulated investment by any external contribution, might mean that projects for which the benefits outweigh costs will not proceed.
- Off-setting regulated investments by external contributions is distinct from the issue of considering second round interactions as to the transfer of surplus between consumers and producers, which rightly should be excluded from the RIT-D analysis.<sup>15</sup>

### Application of discount rates

The AER's issues paper raises a concern that differing discount rates might be applied to compare network and non-network options thereby biasing the analysis outcome. We do not accept that this is a real concern and further prescription or guidance is not required, given that:

- the purpose of using discount rates is not to address differences in perceived risk between different options within a given RIT-D;
- it does not appear to be common practice to use different discount rates to reflect differing risk, and this has certainly never been our practice in undertaking RITs; and
- project risks are more appropriately addressed by way of the development of scenarios; and

### Value of Customer Reliability (VCR)

We support the AER's apparent position that the choice of VCR estimate may vary depending on the RIT-D. The Guidelines could be amended to explicitly identify that the choice of VCR must be fit-for-purpose and consider factors relevant to a particular RIT-D which could include:

- whether a potential outage is temporary or prolonged, and likely to affect a wide or narrow area; and
- the types of customers likely to be affected by any outage.

As noted above, it is also worth considering if a VCR could be developed to apply specifically to HILP events.

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<sup>15</sup> Clause 9 of the RIT-D – AER, *Regulatory Investment Test for Distribution*, 23 August 2013.