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**Response from EnerNOC to AEMC’s consultation paper: National Electricity Amendment (Replacement expenditure planning arrangements) Rule 2016 (ERC0209)**

EnerNOC is a global provider of energy intelligence software and demand response services. We work with commercial and industrial end users to offer their demand side flexibility into wholesale capacity, energy, and ancillary services markets, as well as demand response options made available by retailers and network service providers. Locally, EnerNOC is a market participant in the Wholesale Electricity Market (WEM), the National Electricity Market (NEM) and the New Zealand Electricity Market (NZEM). EnerNOC’s regional head office for Asia-Pacific is located in Melbourne.

EnerNOC is grateful for the opportunity to provide comment on the Commission’s replacement expenditure planning arrangements consultation paper. In the context of electricity networks, EnerNOC is a past and future proponent of non-network demand management solutions, where such solutions are technologically feasible and economically efficient. EnerNOC has delivered dispatchable demand management projects to TNSPs and DNSPs in the NEM in the past. In general, EnerNOC is supportive of the AER’s proposed rule change. The proposed rule change should lead to critical enabling information being provided to non-network service providers, increased participation in RIT-T and RIT-D, and an increased likelihood that efficient investment decisions are made. Below we provide comment on some of the questions posed in the Commission’s consultation paper.

**Question 1**

*a) Are non-network solutions a viable alternative to replacing network assets on a like-for-like basis?*

In some situations, yes. Traditionally, consideration of non-network solutions has been associated with network *augmentation* projects and an NSP’s need to control/reduce peak demand in a portion of a network, in order to forgo a (capex intensive) network augmentation. Many credible non-network options have been identified and proposed in various RITs over the years in the augmentation context. Very few non-network options have been selected as the “preferred

option” at the end of the RIT process. This is a consequence of the regulatory structure and design of the RIT (and the natural incentives faced by NSPs), rather than a shortcoming of the technical capability and cost competitiveness of non-network options. Non-network options including demand management (DM) can provide equally viable solutions in the *replacement* context because the fundamental principle is the same as in the *augmentation* context: it can sometimes be more efficient to invest in managing demand or generation within a network, than investing in network infrastructure. For example, the most efficient replacement expenditure scenario for a piece of network infrastructure in area A might be not a like-for-like asset replacement, but rather a reconfiguration of the network. A reconfiguration might have the potential to create increased demand on the network in area B, but it might be highly cost-effective to manage this risk through a non-network DM programme in area B. Similarly, the network reconfiguration might cause voltage issues in area B, or min-demand issues in area C, that can be viably addressed by a non-network distributed generation or storage solution provided by a third party.

In the rule change request, the AER correctly notes that the value of DM is likely to increase in times of uncertain or flat demand, based on the ‘option value’ provided by DM: i.e. the value of deferring major sunk investments, and avoiding stranded assets<sup>1</sup>. EnerNOC considers that option value is likely to be a significant component of the benefit of any credible non-network option under consideration in a RIT, in that investments in non-network options (for example, a demand response programme) are more flexible than investments in network assets. This is because demand response programmes can be designed and implemented relatively quickly, their size and scope can be changed flexibly as needs require, and they are reversible (i.e. they can be cancelled if they are no longer required). Conversely, once a network asset is constructed, ratepayers are locked-in to finance its existence in the following decades.

EnerNOC acknowledges that there are some types of asset replacements that are unlikely to be addressed with non-network solutions, i.e. switching relays and the like. We consider that that AER’s proposed guideline is a suitable instrument to determine for which categories of assets it is important to consider non-network options.

*b) How does this differ from the potential for a non-network solution to provide a viable alternative to augmenting the network?*

As above

## **Question 2**

*a) Are the current annual planning reporting requirements in the NER relevant and likely to be useful for replacement expenditure?*

The current requirements are not fully useful for third-party non-network service providers. The AER’s rule change request correctly notes that chapter 5 of the NER requires that APRs provide only cursory information on upcoming asset retirement/replacement situations. The information in APRs today does not provide third-party non-network service providers like EnerNOC with

<sup>1</sup> AER, Request for Rule Change p7

enough information to enable the commitment of time and resources to researching, designing, and proposing non-network solutions for asset replacements.

*b) If any, where are the gaps in the current annual planning reporting requirements in the NER for replacement expenditure?*

While planned asset retirements and replacements may be briefly listed today, there is no requirement to list network needs that arise from the retirement scenario. Is it less likely that a non-network solution will be proposed as a direct replacement for the asset being retired, and more likely that non-network solutions will be proposed to address the related network need. As such, it is important that the APR include details of network needs that may arise from retirement decisions.

### **Question 3**

*a) What do NSPs currently do to plan for asset replacement in practice?*

*b) To what extent does this address the perceived problems identified by the AER?*

### **Question 4**

*To what extent would the proposed information to be reported in the APRs be useful for energy market stakeholders, including non-network service providers, network service providers, connection applicants and the AER, and why?*

Non-network service providers have no insight into a NSP's network (and any forthcoming constraints, augmentations, replacements, etc) beyond the information that an NSP publishes. It is a difficult proposition for non-network service providers to commit resources to reading APRs for all NSPs in the NEM (and analysing those APRs further, and developing proposals, etc) if those APRs don't contain sufficient information on upcoming network investment. The AER's rule change request notes that an increasing proportion of network investment falls in the replacement category – as such, non-network providers need robust information about upcoming replacements so that they can evaluate and propose efficient non-network options.

It is particularly valuable that the AER has proposed that APRs must, having identified a network need arising from a planned retirement/replacement/de-rating, specify "what technical characteristics a non-network solution would be required to address". This information is critical for non-network solution providers, and requiring NSPs to provide it up-front in a consistent format will reduce the time and effort that non-network providers expend in vetting and proposing solutions.

### **Question 5**

*a) Is it appropriate that the scope of the new reporting requirements include planned asset de-ratings as well as planned retirements?*

Yes, as a de-rating might lead to a network need (perhaps in a different part of the network) that can be efficiently addressed by a non-network solution.

*b) To what extent does this add to the administrative burden for NSPs?*

#### **Question 6**

*a) Should all assets be reported on by NSPs in their annual planning report or are only certain asset types relevant?*

There may be asset types where there is truly no option other than direct replacement – where a non-network solution will never be viable. We consider that the AER is well placed to make such determinations in their proposed guideline. The guideline can be flexibly revised in the future, should new non-network technologies arise that warrant reclassification of a formerly “not relevant” asset type.

*b) What types of asset should be subject to reporting requirements by NSPs and what should not?*

#### **Question 7**

*a) Is the proposed AER network retirement reporting guideline the appropriate means of requiring NSPs to report on certain asset types and not others or would an alternative mechanism be more appropriate?*

The guideline seems like a suitable instrument through which to specify reporting requirements, and the AER best placed to administrate it. Using a guideline should provide increased flexibility versus hard coding the requirements into the NER. Mandating a periodic review cycle and consultation process (say, every 2-3 years) should provide industry with a change to improve the guideline over time.

*b) If an AER guideline is appropriate, what should it contain and how should the AER be guided in its development?*

*c) In addition, what would be the appropriate process be to make and review an AER guideline?*

#### **Question 8**

*a) Should the AER guideline also set out principles and a broad approach that NSPs must follow in deciding whether to plan to retire assets?*

If the AER is to publish principles and ‘best-practice’ approaches in the guideline, then the AER should consult with NSPs in developing the principles. Even if individual NSPs approach retirements using their own principles and methodologies, the most important thing is that the NSP provide some visibility into their employed principles and methodologies in their APR.

*b) What should these principles and the broad approach be?*

**Question 9**

*Compared to the current arrangements, how much additional reporting by NSPs would be required under the AER's proposal? What would be the impact on NSPs?*

**Question 10**

*Will extending the regulatory investment tests to replacement capital expenditure benefit energy market stakeholders, including non-network service providers, network service providers and the AER, and why?*

Yes, for aforementioned reasons, and also because the RIT process provides crucial publicity and detail concerning the proposed investment.

The increased publicity from the announcement of a RIT ensures that non-network solution providers are aware of the upcoming investment, and ensures the maximum number of solution providers propose credible options. Some non-network service providers may not have the resources to analyse each NSP's APR and propose solutions based on the APR alone. It may be the case that non-network service providers only start tracking investments when they go to RIT. Further, the uncertainty of proposing "early stage" non-network solutions (i.e. based only on an NSP's published APR) means that most non-network service providers will only commit analytical resources once a (more certain) RIT-T process has been initiated.

The increased detail provided by the RIT process is also critical for non-network providers, as is the certainty that their proposed solutions will be assessed using a transparent methodology (noting that the RIT methodology itself is far from perfect).

Ensuring the maximum possible number of proposals from non-network solutions providers should increase the likelihood that the most efficient option is considered and chosen.

**Question 11**

*Should the regulatory investment tests also apply to maintenance and refurbishment expenditure or should these categories of expenditure continue to be exempt from the tests?*

**Question 12**

*Should the cost thresholds for asset replacement projects be the same as cost thresholds for network augmentation projects?*

**Question 13**

*Is it appropriate for a regulatory investment test to not be required where an NSP considers a like-for-like replacement of the asset is the only option to address the problem?*

The exemption process described in the AER's rule change proposal seems appropriately robust. NSPs are provided an option to forgo the RIT in situations where they consider like-for-like

replacement to be the only option. The AER will monitor each exemption report. Industry will have a chance to review the report and raise objections and pursue dispute resolution if they feel a non-network option can and should be considered.

#### Question 14

- a) *Is the proposed requirement for NSPs to publish an exemption report where there is no alternative to like-for-like replacement appropriate?*
- b) *Do the benefits of this mechanism outweigh the administrative costs that it may impose?*
- c) *Is there an alternative mechanism which would be more appropriate?*

#### Question 15

- a) *What information should NSPs be required to provide in an exemption report?*
- b) *Is it appropriate that an NSP has to provide a summary of an exemption report to AEMO within five business days and to interested parties, on request, within three business days?*

Yes. Once the report has been drafted and published, the incremental administrative burden of sending it to AEMO (for wider distribution) and any parties who may inquire – should be negligible. Ensuring delivery to AEMO is the best way to ensure the exemption report reaches a wide industry audience and receives the requisite amount of scrutiny.

- c) *Do stakeholders agree that AEMO must publish the exemption report on its website within three business days?*

Yes – this is consistent with AEMO’s obligations under the current RIT, so the administrative burden should be minimal.

#### Question 16

- a) *Is it appropriate that parties can raise a formal dispute with the AER on the conclusions of an exemption report published by an NSP?*
- b) *Is 30 business days, as proposed, the appropriate timeframe for allowing interested parties to raise a dispute with the AER?*
- c) *Is 31 business days after publication of an exemption report the appropriate timeframe for an NSP to wait to undertake a like-for-like replacement where no dispute is raised?*
- d) *If an exemption report is determined by the AER to be non-compliant, should the NER explicitly exclude an NSP from being relying on the report to carry out a like-for-like replacement?*

No – but it should require the proposed investment to go through the RIT. It may be that the proposed network investment is indeed most efficient (and thus it would be inefficient to prevent the NSP from pursuing it) – but this can only be determined by applying the RIT.

**Question 17**

- a) *Would AEMO or AusNet Services be the most appropriate body to report on the proposed additional annual reporting requirements at the transmission level in Victoria and why?*
- b) *Would AEMO or AusNet Services be the most appropriate body to apply the RIT-T for replacement expenditure in Victoria and why?*

**Question 18**

- a) *Are the additional changes proposed by the AER appropriate and useful to stakeholders?*
- b) *What compliance burden would arise for NSPs?*
- c) *As these requirements currently apply in a limited way in the NER, how useful have they been to date?*

**Question 19**

*What transitional arrangements should be put in place to allow NSPs and the AER to be able to comply with the proposed rule if it were to be made?*

Thank you for the opportunity to comment on the AER's proposed rule change. EnerNOC hopes these comments are useful to the Commission. Please do not hesitate to contact me if you have any queries.

Regards,



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