



Meredith Mayes

Director

Australian Energy Market Commission

Submitted online: www.aemc.gov.au

24 November 2016

Dear Ms Mayes,

Re Replacement expenditure planning arrangements, Consultation Paper

AGL Energy (**AGL**) welcomes the opportunity to respond to the Australian Energy Market Commission's (**Commission**) Replacement expenditure planning arrangements (**Rule Change Proposal**), Consultation paper (**Consultation Paper**), October 2016.

AGL is one of Australia's leading integrated energy companies and largest ASX listed owner, operator and developer of renewable generation. Our diverse power generation portfolio includes base, peaking and intermediate generation plants, spread across traditional thermal generation as well as renewable sources. AGL is also a significant retailer of energy, providing energy solutions to over 3.6 million customers throughout eastern Australia.

In 2015, AGL established a New Energy division, with a dedicated focus on distributed energy services and solutions. AGL New Energy works with customers of all sizes (residential, business and networks) to understand their energy requirements and design tailored solutions. We offer customers 'beyond the meter' energy solutions, new and emerging technologies including energy storage, electric vehicles, solar PV systems, digital meters through our ring-fenced subsidiary business Active Stream, and home energy management services delivered by digital applications. We are also working with customers to develop a network services capability involving load management solutions.

There is significant uncertainty regarding future patterns of network demand, and rapid technological developments are a contributor to this uncertainty. Energy efficiency improvements combined with increased availability and cost declines associated with technologies such as electric vehicles, distributed solar and storage systems, energy management systems and smart inverters are changing how customers use electricity and engage with the grid. These same developments are simultaneously expanding the range of circumstances and scenarios in which a non-network solution may be a viable alternative to a traditional network solution.

It is important that the network planning and investment framework be flexible enough to accommodate these kinds of evolutions in patterns of demand and technology availability as they occur. Assumptions that non-network solutions will not be suited to particular applications may, in time, be challenged by these developments. We are seeing this already where, in the current environment of flat or declining network demand, the existing focus of the Annual Planning Report (**APR**) and Regulatory Investment Test (**RIT**) on augmentation expenditure – combined with the very high \$5 million application threshold – significantly limits the number of projects that fall to be considered within this framework.

Accordingly, AGL is very supportive of this rule change proposal. As network capital expenditure is increasingly related to the replacement or refurbishment of aging infrastructure, it is important that non-network solutions are assessed alongside network options when such expenditure decisions are being made. Non-network solutions may be particularly well suited in the context of derating and replacement decisions as there will already be established customers on the relevant part of the network who can be engaged in the design and delivery of a non-network solution.

We note also that, in contrast to the lumpy nature of investment in network assets, non-network solutions are often more easily able to be incrementally adjusted to meet different and changing capacity requirements. This is likely to be increasingly advantageous at a time when technological advancement and changing consumer preferences are making future patterns of network demand and use difficult to predict. In this way, greater deployment of non-network solutions will better assure the efficiency of network investment in the long term interests of consumers and may even lower the risk of asset stranding.

In AGL's view, there are other ways in which the RIT should be strengthened to reflect the changing realities of network investment and utilisation and rapid technological evolution and changing customer preferences. Technology cost declines and the growing penetration of distributed energy solutions mean that the present value of the deferral of far less than \$5 million of capex would still be significant enough to support a robust demand management program. As network service providers (**NSPs**) and non-network solution providers alike accrue increasing experience in the RIT process, the associated administrative burden will also decline. Accordingly, AGL considers there is a strong case for a material reduction in the applicable thresholds that trigger the RIT process.

APRs occur annually and RITs occur as the need arises, however it is five-year regulatory determinations that govern the allocation of funds to operational and capital expenditure over the forthcoming period. This may produce a reluctance in NSPs to substitute opex for capex during the regulatory period and bias the assessment of competing solutions. It is important that incentive, accounting and cost allocation mechanisms be reviewed with a view to neutralising this bias as far as possible.

Finally we note that there are a number of other rule change proposals that are currently at various stages of advancement that deal with issues that are closely related to this Rule Change Proposal. Most notably these include the proposal to introduce a System Limitations Report¹, a rule change launched by the COAG Energy Council on the contestable provision of energy services and a rule change launched by the Australian Energy Council (**AEC**) on the implementation of demand response and network support services. The AEC rule change includes proposed changes to the RIT-D to ensure competitive non-network solutions are considered for the widest practicable range of investment decisions. These are complementary developments that should combine to promote greater use of non-network solutions, delivered by the competitive market, to lower overall costs of network investment and operation to the long term benefit of consumers.

Our responses to individual questions posed in the Consultation Paper are set out in the attachment.

Should you have any questions in relation to this submission, please contact Eleanor McCracken-Hewson, Policy and Regulatory Manager, New Energy, on 03 8633 7252 or myself on 03 8633 6836.

Yours sincerely,

¹ AEMC 2016, Local Generation Network Credits, Draft Rule Determination, 22 September 2016, Sydney



Stephanie Bashir

Head of Policy & Regulation New Energy

Attachment: Responses to specific questions posed in Consultation Paper

Question 1

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

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

Non-network solutions are likely to be a viable alternative to replacing network assets, but this will naturally depend on the particular circumstances.

In fact, non-network solutions are likely to be a viable alternative to a network solution in the case of replacement expenditure more often than is the case with respect to augmentation expenditure. This is because there will already be established customers on the part of the network that is being replaced who can be engaged in the design and delivery of a non-network solution. Where an augmentation relates to supply in a new area and to new customers, it may be less clear what discriminatory curtailable load or on-site generation will be available to contribute.

Another issue that can inhibit the deployment of non-network solutions in the case of some augmentation expenditure is that it is the developer of a new suburb that usually funds the deep augmentation costs and these are passed on to future buyers into the area through purchase prices. Accordingly, the developer itself has little incentive to minimise augmentation expenditure or engage with a non-network solution provider to realise savings. This issue does not arise in the case of replacement expenditure.

Question 2

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

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

The current annual planning reporting requirements in the NER are relevant and likely to be useful for replacement expenditure.

It would be helpful to non-network solution providers if annual planning reports more clearly defined the electrical boundaries down to the street level (and side of the street), as well as the feeder and zone-substation switching configurations. Without knowing exactly where the demand reductions are required it can be difficult to target the right customers in the design and delivery of a non-network solution.

Some of this more intricate knowledge may be able to be gained through active and collaborative engagement between NSPs and non-network solution providers. AGL considers that this form of meaningful engagement between NSPs and non-network solution providers is likely to be as important as the information provided in the APRs.

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?

No comment.

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?

The information proposed to be reported in the APRs would, along with the System Limitation Report (if introduced),² enable non-network service providers to build a stronger picture of where network constraints are emerging, their nature and thus the needs that a non-network solution would be required to address. This will better position non-network service providers to engage with NSPs and to design and deliver non-network solutions that are a reliable and lower-cost alternative to a network option.

Question 5

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

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

In AGL's view it is appropriate that the information extend to planned asset deratings as non-network solutions are well suited to managing associated impacts on local network capacity. With this information reported in the APR, non-network solution providers can better anticipate and design appropriate solutions.

We would expect NSPs to already report this information internally. Accordingly, requiring external reporting should not represent too great an administrative burden.

Question 6

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

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

There may be some asset replacements for which a non-network solution is unlikely to be a potential substitute and it may be appropriate for these not to be reported on in as much detail in the APR as other replacement expenditure. Such assets might include protection equipment and switchgear.

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?

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 to make and review an AER guideline?

AGL considers that there may be merit in introducing a guideline which sets out how network businesses must report on asset retirement decisions in the APR and the asset types to be reported on. This would promote consistency in reporting across NSPs and ensure reporting is targeted to information that is of practical use to non-network solution providers.

The guideline should be flexible enough to accommodate any technological evolutions that have the effect of opening up the potential to deploy a non-network solution in circumstances or for the replacement of assets where not currently considered possible.

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?

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

² AEMC 2016, Local Generational Network Credits, Draft Rule Determination, 22 September 2016, Sydney

In AGL's view it is likely to be better to leave reasonable discretion to NSPs to judge when assets would most appropriately be replaced, de-rated or retired according to their asset management processes for optimising the life and return on assets. However, overarching principles may offer a useful guide and enhance the predictability of retirement decisions.

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?

It seems likely that NSPs would already capture this information and report on it internally.

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?

In AGL's view, extending the RIT to replacement capital expenditure will benefit electricity consumers in general by promoting the consideration of and investment in non-network solutions where that would be a more efficient solution to a network constraint arising from a need to replace a network asset than a traditional network solution. Non-network solutions may be particularly well suited in the context of replacement decisions as there will already be established customers on the relevant part of the network who can be engaged in the design and delivery of a non-network solution.

In contrast to the lumpy nature of investment in network assets, non-network solutions are often more easily able to be incrementally adjusted to meet different and changing capacity requirements. This is likely to be increasingly advantageous at a time when technological advancement and changing consumer preferences are making future patterns of network demand and use difficult to predict. In this way, greater deployment of non-network solutions will better assure the efficiency of network investment in the long term interests of consumers and may even lower the risk of asset stranding.

In addition, the particular customers involved in the delivery of a non-network solution will benefit more immediately by gaining a better understanding of their own capability to optimise energy use and the satisfaction of participating in a solution with broader grid benefits. As an example, customers participating in AGL's demand respond trial, hosted on the United Energy network, recorded a 100% satisfaction rating.³

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?

The RIT should also apply to maintenance and refurbishments, subject to the current carve-out for work that is required to address an urgent and unforeseen network issue that would otherwise put at risk the reliability of the distribution network.

Question 12 Should the cost thresholds for asset replacement projects be the same as cost thresholds for network augmentation projects?

In AGL's view there is a case for reconsidering the cost thresholds applying to both replacement and augmentation projects. The current environment of flat demand growth and historical network overbuild means that there will only be very few projects in a regulatory period (whether replacement or augmentation) that meet the \$5 million threshold.

Technology cost declines and the growing penetration of distributed energy solutions mean that the present value of the deferral of far less than \$5 million of capex would still be significant enough to support a robust demand management program. Furthermore, non-network solutions are often very well suited to small, bespoke demand management programs impacting network assets as far down as the kiosk transformer level.

³ <https://www.agl.com.au/about-agl/media-centre/article-list/2016/march/agl-trials-impacts-of-emerging-technologies-on-the-grid-and-energy-bills>

There should be serious consideration given to reducing the applicable threshold for both types of project with a view to capturing a greater portion of network capital expenditure. One possible measure might be to determine a minimum proportion of capital expenditure to be covered by asset reporting, with a focus on those where non-network solutions are more likely to represent a viable alternative.

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?

A NSP may not have sufficient knowledge of relevant technological developments or evolution in customer demand management capabilities to be able to determine without error that there is no non-network solution capable of being deployed instead of a particular like-for-like replacement. Nor may a NSP have the same incentives to find creative solutions to network needs. Particularly when the trigger remains as high as \$5m, AGL considers that all projects above this threshold should be subjected to the RIT without exception.

If this exception is to be included, then it is fundamentally important to also require the NSP to publish an exemption report in the case it is determined there is no alternative to like-for-like replacement.

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?

Yes. The requirement to publish an exemption report provides an important opportunity for interested stakeholders to challenge a decision that is made and to bring to the NSP's attention the potential for non-network solutions that may indeed be a suitable alternative to a like-for-like replacement. Without such a requirement there will be no effective means to scrutinise an NSP's decision and analysis.

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?

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

The exemption report should resemble the current screening report required for augex RITs and include details such as the costs that would be involved in producing a RIT, the process that the NSP followed to find alternative solutions and, to the extent alternative solutions were identified, the basis on which they have been ruled out. The exemption report should include the methodologies and assumptions used.

AGL agrees that the NSP should provide a summary of the exemption report to AEMO and interested stakeholders as proposed, as well as the proposal for AEMO to publish the report.

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?

AGL considers that a formal dispute process is necessary to motivate discipline in adherence to process and in undertaking critical analysis of potential options. The proposed timeframes for raising a dispute seem reasonable.

On balance AGL considers that, if an exemption report is determined by the AER to be non-compliant, then the NER should explicitly exclude an NSP from relying on the report to carry out a like-for-like replacement. This forms part of the overall checks and balances governing the process. Although there is a risk that some immaterial non-compliances are captured, it avoids the greater risk of incorrect judgements about the materiality or importance of a particular omission or error in process or analysis.

Question 17 (specific to Victoria)

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?

As the body responsible for transmission planning in Victoria, AEMO would seem to be the most appropriate body to undertake the additional reporting requirements.

AusNet Services is likely to be the most appropriate body to apply the RIT-T for replacement expenditure as it is responsible for efficient network investment and operation. Alternatively this might be a joint endeavour.

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?

AGL considers that the additional changes proposed by the AER are appropriate. However, it may be sufficient for reporting on asset management approaches to be undertaken at longer intervals (e.g. three years) or following the occurrence of a significant event (such as the toppling of transmission towers that recently occurred in South Australia).

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?

In AGL's view it is important that NSPs transition to the new requirements as expeditiously as possible because replacement expenditure is likely to constitute the main source of capital expenditure by NSPs in coming years.

A broader issue relates to addressing any underlying reluctance on the part of NSPs to substitute opex for capex during a five-year regulatory period. It is important that incentive, accounting and cost allocation mechanisms be reviewed with a view to neutralising this bias as far as possible.