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Neil Howes  
Australian Energy Market Commission  
PO Box A2449  
Sydney South NSW 1235

Dear Neil,

## RES Australia Submission: ERC0209 Replacement planning expenditure arrangements

RES Australia welcomes the opportunity to provide input to the public consultation process for the *ERC0209 Replacement Planning Expenditure Arrangements* rule change request.

RES Australia supports the AER's view that the existing distribution and transmission network planning frameworks do not adequately focus on network replacement. RES' local and international experience has confirmed that emerging technologies such as energy storage are able to substitute or supplement traditional replacement projects; reducing costs and unlocking additional benefits for consumers. RES Australia supports improving the transparency of the replacement planning process by expanding the scope of the regulatory investment tests to include replacement investments and providing efficient and effective means for NSPs to collaborate with interested parties to develop innovative non-network solutions.

We have provided responses to the AEMC's consultation paper questions over the following pages. We invite the AEMC, AER and NSPs to engage with RES to further develop the replacement planning frameworks.

Yours Sincerely,



**Jeremy Moon**

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Question	RES Response
1(a)	<p>We support the notion that non-network solutions are a viable alternative to replacing network assets on a like-for-like basis. The capability and affordability of non-networks options continues to advance, so it is appropriate that these options are considered as alternatives to network investment. Non-network technologies such as energy storage are better suited to replacing particular categories of assets.</p> <p>We also consider it worth noting that in our experience assets are rarely replaced on a like for like basis.</p>
1(b)	<p>The technical requirements of non-network options vary significantly between needs that are driven by asset condition as opposed to needs that are driven by growth in peak demand. To meet needs driven by asset condition, non-network options are inherently required to provide a level of reliability that is commensurate with the competing network alternative. These reliability requirements encompass the physical connection arrangements, response times and the interaction of the network support service with other functions that the non-network technology may provide.</p>
2(a)	<p>The majority of Network Service Providers (NSPs) include information regarding replacement expenditure in their Annual Planning Reports (APRs). The level of detail varies significantly between NSPs. With the information presently available, it is difficult for proponents to undertake an efficient review to identify opportunities to meet identified needs with non-network technologies. There are also significant differences in the terminology NSPs use to describe replacement expenditure.</p> <p>RES recommends that the AEMC or the AER engages with stakeholders to refine and standardise information contained within APRs to enhance efficient market engagement in replacement projects.</p>
2(b)	<p>In reference to 2(a), we propose that the following information would assist efficient market engagement and appraisal of non-network options:</p> <ul style="list-style-type: none"> <li>• Capacity shortfall if the existing asset is retired or de-rated (under system normal and contingency conditions for a defined peak demand forecast)</li> <li>• Indicative costs of network options that have been considered</li> <li>• Description of the network topology</li> <li>• Whether a non-network option would need to supply an islanded system under system normal or contingency conditions</li> <li>• Timing requirements</li> </ul>
3(a)	<p>While we observe there to be significant differences in approaches taken between NSPs for replacement planning, we do note there to be four high level principles employed:</p>

	<p><b>Age based approach</b></p> <p>The retirement age of an asset category may be determined through a risk assessment of the asset category. The retirement timing of each asset within the category is age dependent.</p> <p><b>Condition approach</b></p> <p>The retirement timing of an individual asset is determined by a condition assessment. The NSP defines a number of criteria that must be met for the asset to remain in service. If these criteria are unable to be met, a retirement date is nominated for the asset.</p> <p><b>Risk approach</b></p> <p>The retirement timing of an individual asset is determined by a risk assessment that may include reliability, safety, environmental, financial and reputation risks. The NSP utilises these risk assessment to develop a replacement program to ensure that the riskiest assets are retired as early as practicable.</p> <p><b>Cost benefit approach</b></p> <p>The benefit of a replacement project is quantified by considering the reduction in risk delivered by the expenditure. The replacement option with the best net market benefit is progressed. Under this approach, the replacement timing of the asset is dependent on both the level of risk and the cost of the solution.</p>
3(b)	<p>We support the AER’s position that the existing planning frameworks do not adequately focus on network replacement. The existing framework appears to present as a barrier to involvement of non-network solutions. Indeed we note that there are limited examples of NSPs engaging with proponents to develop non-network options to meet needs driven by asset condition, despite the suitability of technologies such as energy storage to provide cost competitive solutions.</p>
4	<p>We support the AER’s proposed amendments to the NER in relation to the content of APRs to facilitate efficient market engagement and appraisal in developing innovative solutions. We encourage the AEMC and AER to engage further with stakeholders on what information and the required level of detail that would foster non-network solutions.</p>
5(a)	<p>The scope of the new reporting requirements should include planned asset de-ratings. We accept that de-ratings may be reported retrospectively if undertaken as a result of emergency risk mitigation. We also accept that an asset de-rating may not result in an expenditure requirement.</p>
5(b)	<p>The majority of NSPs APRs currently include some detail regarding replacement expenditure. We believe the proposed changes to reporting requirements to improve consistency and clarity would present limited administrative burden in the short term as NSP’s set-up internal procedures, and in the longer term we expect there to be no material difference to the existing cost of providing information. We propose that an exemption rule is established to exclude low value assets from reporting requirements.</p>

6(a)	<p>We propose that assets where the highest cost network option exceeds \$5M are reported on an individual basis and lower cost assets are reported from a program perspective. We note that some of this data is already provided through the Regulatory Information Notices.</p> <p>One possible method that would aid NSP efficiency is to provide replacement expenditure information to stakeholders is through a periodically updated standardised template.</p>
6(b)	<p>We believe as a minimum the reporting requirements should extend to underground cables, overhead lines, transformers and reactive plant. It is unlikely at this stage that non-network options can provide feasible alternatives to the replacement of switchgear or secondary systems; however, for a large group of switchgear, it may be feasible to develop a network / non-network hybrid solution that maximises the net economic benefit to consumers.</p> <p>We propose that the AEMC and AER engage with NSPs and stakeholders to develop a list of asset categories which may be exempt from the reporting requirements for review if and when technologies develop.</p>
7(a)	<p>An alternative option to the proposed network retirement reporting guideline is the inclusion of an appropriate template in the annual reporting RIN. In this option the RIN guidelines would be updated to reflect the change and include guidance to NSPs on expected information.</p>
7(b)	<p>RES has no response to this question.</p>
7(c)	<p>RES has no response to this question.</p>
8(a)	<p>RES has no response to this question.</p>
8(b)	<p>RES has no response to this question.</p>
9	<p>The introduction of clear and consistent replacement expenditure reporting requirements has the potential to bring significant benefits to consumers. We propose that the reporting requirements are reviewed holistically to ensure that the reporting burden is not significantly increased. This should include the consideration of RIN templates and APRs.</p>
10	<p>We support the AER's proposal to extend the application of regulatory investment tests to replacement projects. We propose that this rule is defined to include investments that relate to asset retirements or de-rating.</p> <p>We support the view that the extension in scope of the regulatory investment tests will reduce costs and deliver new benefits to consumers. We are currently working with NSPs to develop a range of non-network solutions to meet needs that have brought to the market via the RIT-T or RIT-D process. Through this work, we have formed the view that similar non-network solutions would be able to either substitute or supplement replacement expenditure to deliver lower costs to consumers and unlock benefits that would not be realised with the network solution alone. We invite the AEMC to engage with RES to discuss this view in more detail.</p>

11	We are not immediately clear on where a non-network option might substitute or supplement maintenance or refurbishment expenditure. This view is formed where refurbishment is a modest expenditure designed to extend the life of an asset and does not include the replacement of primary equipment within an existing building.
12	We support the view that the cost thresholds for asset replacement projects should be the same as augmentation projects. However, this should not preclude NSPs from engaging with proponents to develop non-network solutions for lower cost projects where appropriate.
13	We propose that a more detailed exemption rule is developed because non-network options can substitute some like-for-like replacement projects. Clearly defining the identified need of the asset provides the opportunity of the market to respond. In some cases it may indeed be appropriate for a like-for-like replacements, however the opportunity to enable market innovation would be the test, noting that non-network options can supplement network options to reduce costs and unlock additional benefit streams. Diligent planning and processes on the NSP's part would ensure any burden for review would be minimised. .
14(a)	We support the requirement for NSPs to provide public notification if exemption is sought. We propose that a simplified mechanism such as an exemption register is established with the intent of reducing administrative burden.
14(b)	If implemented efficiently, the establishment and maintenance of an exemption register will ensure that innovative solutions are not excluded from the market on the basis of incorrect assumptions.
14(c)	As per 14(a)
15(a)	<p>We suggest that the following information is provided in an exemption register:</p> <ul style="list-style-type: none"> <li>• Capacity shortfall if the existing asset is retired or de-rated (under system normal and contingency conditions for a defined peak demand forecast)</li> <li>• Description of the network topology</li> <li>• Reasons why non-network options cannot meet the identified need</li> </ul> <p>We suggest that exclusion categories are established with the intent of reducing administrative burden.</p>
15(b)	RES agrees that it is appropriate for AEMO to publish exemption report summaries within a reasonable timeframe.
15(c)	As per 15(b)
16(a)	RES agrees that it is appropriate that proponents can raise a formal dispute with the AER regarding the RIT exemption process.

16(b)	We agree that 30 days is an appropriate timeframe to allow proponents to raise a dispute with the AER.
16(c)	We agree that 31 days is an appropriate time to allow an NSP to undertake a project where no dispute is raised. We also propose that provisions are made to allow NSPs to undertake replacements under emergency conditions where assets have failed.
16(d)	RES supports the view that if an exemption report is determined by the AER to be non-compliant, the NER should explicitly exclude an NSP from being relying on the report to carry out a project that is driven by asset retirement or de-rating.
17(a)	We support the view that AEMO should be responsible for the annual reporting and RIT-T for transmission replacement investments in Victoria. AEMO would be better placed to evaluate market benefits than Ausnet Services due to their experience with the augmentation RIT-T process.
17(b)	As per 17(a)
18(a)	We believe the additional changes proposed are appropriate and useful to stakeholders
18(b)	An observation could be made that an efficient NSP would be interested in its replacement program and that reporting this information would only be procedural. However RES is not sufficiently informed on the internal processes for managing the various NSP's replacement programs.
18(c)	RES has found these requirements to be useful.
19	We propose that projects in excess of \$20M are not afforded any transitional arrangements. Projects exceeding \$5M should be transitioned over a 3 year period.