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5 November 2015

Australian Energy Market Commission  
PO Box A2449  
Sydney South NSW 1235

Submitted electronically

Dear Sir/Madam,

### **Re: Integration of Energy Storage – Regulatory Implications**

Red Energy (Red) and Lumo Energy (Lumo) welcome the opportunity to respond to the Australian Energy Market Commission (the Commission) on the Integration of Energy Storage – Regulatory Implications Discussion Paper (the Discussion Paper).

Red and Lumo are 100% Australian owned subsidiaries of Snowy Hydro Limited. Collectively, we retail gas and electricity in Victoria and New South Wales and electricity in South Australia and Queensland to approximately 1 million customers.

This submission will focus on the retail and network aspects of the Discussion Paper, with impacts of storage on the contestable wholesale market to be discussed by our parent, Snowy Hydro Limited.

### **Introduction**

Broadly speaking, Red and Lumo agree with the position reached by the Commission that storage is not inherently different to other technologies, and can be accommodated within the existing regulatory frameworks. In saying this however, we believe that strong regulatory controls must be in place to allow the efficient and competitive development of this emerging technology.

For the storage market to be successfully implemented, there must be significant and effective ring-fencing guidelines that outline how a distribution or transmission business (NSP) can access the benefits of storage (if any) for their network, and we strongly support a prohibition on network businesses owning behind the meter storage technology.

NSP's have the potential to significantly impact the competitiveness of this sector due to their entrenched market position. Regulated revenues aside, NSP's have access to consumption, site, and customer data necessary for running a network, however this information places them at a competitive advantage when entering contestable markets.

## **Appropriate models of ownership**

We support NSP's using storage as a substitute for a traditional network only where it is efficient to do so, as long as this does not significantly displace competitive energy storage. It seems appropriate that in a market-led, contestable market, a monopoly businesses can only directly own a storage asset as part of its network should there be no appetite amongst competitive businesses to own that asset. In all other circumstances, an NSP should contract for the services it needs as an element of their operational expenditure.

In the rare instance in which an NSP owns an asset directly, this storage device must primarily be used to achieve the network augmentation benefits it was implemented to obtain. The NSP must only be allowed to obtain revenues from trading in the spot market as a subsequent benefit to the operation of the battery in its intended purpose.

We strongly agree with the Commission's view that NSP's must not be allowed to own behind the meter storage unless through a fully ring-fenced entity as the risk of businesses inappropriately using their monopoly assets to their competitive advantage is too great.

## **Barriers to a rollout of small-scale behind the meter storage**

The Commission rightly points out that the most successful business models in a contestable storage market will be those that capture the most material benefits of that device.

Storage devices behind the meter have a broad range of potential benefits that under the current framework may be difficult to realise. These include:

- Demand management and load shifting can be managed by the end user to reduce their grid consumption at peak times
- Allowing an end user to retain energy produced from microgeneration that would otherwise have been fed back into the grid at a low feed in tariff rate
- The potential to reduce peak network demand at a transformer or substation level with sufficient market saturation
- Allowing an end user access to the spot and ancillary services markets if the storage is discharged (and measurable) when demand is high

The type of business that has control or ownership over the storage unit will determine the ease in which these benefits are able to be realised, however market evolution has the potential to modify accessibility without the need for regulatory intervention. Today, a market customer has access to the spot market so could potentially discharge the storage device back into the grid for a return when the price is high, however it would be more difficult for that same business to receive a return by reducing the load on a constrained network transformer. Similarly should an NSP control a battery for the purposes of load control, end users may not have access to the demand management and load shifting capabilities of the device.

Red and Lumo supports the Commissions view that "consumer choice will require service providers to package multiple benefits in a way that is attractive...but also

consumer friendly".<sup>1</sup> Under a retailer-controlled model retailers would sell the benefits of storage to consumers interested in pursuing this as a technology option, be it for self-consumption, to help manage their energy costs or to access new services enabled by these devices. Once there is sufficient storage penetration in a localised network constrained area, a retailer on behalf of its customers could approach the distributor and offer, subject to consumer consent, access to the aggregated storage capacity of installed devices to assist with the deferment of network augmentation.

Whilst this is one of the multiple scenarios that may eventuate, Red and Lumo consider that this shows the ability of the competitive framework to deliver consumers with the most efficient outcomes, considering that it is consumers that ultimately will fund these devices.

## Ring-fencing

An effective ring-fencing regime must be enforceable so as to ensure compliance. In today's market, we have varying levels of ring-fencing for distribution businesses in each state, with the Australian Competition and Consumer Commission setting out the requirements for transmission businesses (TNSP's). For obvious reasons this is not efficient in a nationalised energy market.

Red and Lumo strongly believe the current ring-fencing requirements are insufficient, with a greater onus on separation of interests required in future iterations of any guidelines. While we accept that there can be no prohibition on NSP's owning storage assets, this ownership must be more tightly regulated. For example, the requirement on TNSP's to earn less than 5% of their revenue from generation seems too high. We believe that TNSP's should only generate revenue from a storage unit supplementary to its operation as a network device for which it was installed so as to minimise perverse incentives that may impact competitive markets.

NSP's should use storage as an alternative to network augmentation only when it satisfies the RIT-T or RIT-D tests. We disagree however that a significant option value is created by an NSP installing a storage asset as a result of this test.

## Connecting to the network

In our experience, connecting small, behind the meter storage to the grid has been a relatively straightforward process, however we foresee there could be significant difficulties in the future if connection procedures are not harmonised nationally. Harmonised procedures allow national retailers to promote behind the meter storage without the additional risk or cost caused by inefficient processes.

Red and Lumo believe the currently drafted changes to AS4777 have the potential to mitigate some of the issues that arose in the past during the advent of solar should the intent of the standard be enforced. Previously, we experienced a number of new solar installs being rejected by distribution businesses in areas where saturation had the potential to impact the stability and safety of the grid. We believe the amendments to demand management in the proposed standard will allow for a much higher saturation of batteries and PV in an area without impacting this stability should an event occur. It is imperative however that this standard is not used by network businesses to the

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<sup>1</sup> AEMC , Integration of Storage: Regulatory Implications, Draft report, 9 October 2015, Sydney, pg. 64

detriment of consumers. If the control is used inappropriately, this has a significant potential to impact the viability of non-NSP led business models, especially if the NSP has “a competing business interest in pursuing network-controlled storage”<sup>2</sup>.

To conclude, Red and Lumo believe the current framework to be sufficient to promote a competitive rollout of storage devices, provided the ring-fencing guideline the Australian Energy Regulator is required to release in the coming year carefully sets out the ability of monopoly NSP’s to operate in this space. There are small changes that could be made to encourage greater realisation of storage benefits, however it is important that these changes do not come at the expense of stability in the market. Participants must feel confident that should they choose to enter a storage market early, they will not be retrospectively impacted by over-regulation in the future.

Red and Lumo thank the Commission for the opportunity to respond to the Discussion Paper. Should you have any further enquiries regarding this submission, please call Ben Barnes, Regulatory Manager on 03 9425 0530.

Yours sincerely

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

**Ramy Soussou**  
General Manager Regulatory Affairs & Stakeholder Relations  
**Red Energy Pty Ltd**  
**Lumo Energy Australia Pty Ltd**

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<sup>2</sup> Ibid