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17 April 2018

Mr John Pierce  
Chairman  
Australian Energy Market Commission  
Level 5, 201 Elizabeth St  
Sydney NSW 2000

Submitted electronically

Dear Mr Pierce,

### **Re: National Electricity Amendment (Register of distributed energy resources) Rule 2018**

Red Energy (Red) and Lumo Energy (Lumo) welcome the opportunity to respond to the Australian Energy Market Commission (the Commission) on the Register of distributed energy resources (DER) rule consultation paper (the consultation paper).

While not opposed to the concept of a register of DER to improve system security, we question the merits and efficacy of including this as a requirement in the National Electricity Rules (the Rules). We also do not consider the proponents have adequately made the case that the features of the register as proposed are necessary to achieve the benefits and ensure the change meets the National Electricity Objective.

It is important to note that since this rule change request was lodged there have been a number of developments that will lead to a greater understanding of the presence of DER in the NEM. The Clean Energy Regulator has recently amended its procedures for registering Small-scale Technology Certificates (STCs) under the Renewable Energy Target. When registering STC's installers are now required to state whether the installation includes battery storage. Similarly, Energy Queensland has introduced a registration incentive for customers with battery storage, offering \$50<sup>1</sup> to encourage a greater understanding of the storage capacity installed on their network. These unregulated alternative methods of data collection may provide similar benefits as a single regulated solution, at much lower cost.

#### **Data to be collected**

The proponents commissioned Jacobs Group to conduct a cost benefit analysis (CBA) as part of developing the rule change proposal<sup>2</sup>. Red and Lumo do not consider this analysis was adequately robust for the Commission to take at face value.

The CBA utilised a benefit value provided by the Australian Energy Market Operator (AEMO), representing the avoided costs from being better able to predict the needs of the system. While we don't refute that AEMO will benefit from additional data on DER, we urge the Commission to undertake independent analysis, in particular regarding the expected benefits of significantly lesser data than the proponents say is needed, but also on the assumption that elements of the dataset will be either incorrect or unavailable.

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<sup>1</sup> <https://www.energex.com.au/home/control-your-energy/smarter-energy/battery-storage/energy-resource-register>

<sup>2</sup> Jacobs Group, 2017 Cost Benefit Analysis of options to collect and share information about small scale battery storage

The proponents CBA started from an incorrect premise. That is, that the data points listed in table 2.2 of the consultation paper were required, rather than sought. No investigation was undertaken, nor evidence provided, by the proponents or Jacobs prior to the finalisation of the CBA that these pieces of information were necessary (or had the capability) to achieve the benefits purported. Jacobs noted in its final report that these data points needed to be investigated in greater detail in the design phase of the register<sup>3</sup>.

In our submission to the Jacobs CBA consultation, we noted that a number of the data points considered essential were either impossible to obtain, publicly available, variable or unrelated to the purpose it intends. Given these factors, it is critical the Commission critically evaluates the need for any or all of these data points in the rule change request, and undertakes a comprehensive analysis initially to determine the loss of benefits if the data is incorrect or not provided at all, and additionally to determine if the data is required at all. Our concerns with the data requested is attached to this submission in Appendix 1.

### **A targeted register to achieve a purpose**

As noted above, we support in principle the idea of a DER register to improve system security. We agree that a high level register advising of the location and prevalence of DER would provide AEMO better information, improve forward estimates, and reduce costs.

With this target in mind, we consider that further work is needed to determine the minimum amount of information that will achieve the maximum benefit. For example, it is unclear of the benefit of knowing the exact location and NMI of DER to the household, over and above the benefit of understanding the prevalence of DER in a postcode. Similarly, a determination needs to be made as to what is 'material' DER, for the purposes of system security. For example, a home battery with very low or zero average export does not appear material, whereas a large battery in a C&I setting has the potential to impact the system on its own.

We consider there is value in investigating whether there should be a lower size limit for individual system data. Aggregate data appears sufficient for systems below a certain size, with individual system data only necessary for larger systems. These larger systems are much more likely to be actively engaging in demand response and other contractual arrangements that might impact the grid. Registering small batteries in aggregate and large batteries individually will also allow much greater accuracy in the register, decreasing costs and increasing value for all parties. In concert with AEMO's Demand Side Participation Information Guidelines, we consider that AEMO would have adequate information to better forecast the operation of the system, and reduce costs to consumers.

### **Data privacy and use**

We are very concerned with any mechanism that might provide other market participants access to our customers data without their permission. The level of data requested in the rule change proposal is significant, and given this, the risk of it being used improperly is high. The proposal intends for AEMO to manage the register and for it to include personal information. This is concerning given AEMO today does not have access to or hold personal customer information. Significant new systems and processes would need to be developed to ensure data is adequately protected, potentially even legislative changes to ensure that AEMO has the ability to manage customer data.

Of additional concern is the fact that DNSP's are suggesting they require more information than AEMO, and for it to include data the DNSP's do not even hold for other energy customers. Using the development of a DER register to obtain information sought for other purposes is obviously inappropriate.

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<sup>3</sup> *ibid*, pg 27

### **Static data isn't dynamic**

Practically, we do not consider providing static data at the time of installation will achieve the benefits sought. Clearly the operation of DER will change after installation, and any data provided will become increasingly less accurate over time. Technically, the characteristics of DER will also change over time. For example, a battery storage system degrades with use, and while the installation date will be known, removal or decommission dates are highly unlikely to be recorded. As such, the register will contain significantly more DER than is active. Demand side participation will be even more variable, as will the mode of operation. Often, these changes will be made without visibility to any market participants.

When considering the value of the DER register, we suggest assuming that any data inputted will only be correct at time of installation, and will not be updated at any point. Given our experience with solar, it is likely a large percentage of systems will not be registered at all.

### **About Red and Lumo**

We are 100% Australian owned subsidiaries of Snowy Hydro Limited. Collectively, we retail gas and electricity in Victoria, New South Wales and South Australia and electricity in Queensland to approximately 1.1 million customers.

Red and Lumo thank the Commission for the opportunity to respond to this consultation. Should you have any further enquiries regarding this submission, please call Ben Barnes, Regulatory Manager on 0404 819 143.

Yours sincerely

A handwritten signature in black ink, appearing to read "Ramy Soussou".

**Ramy Soussou**

General Manager Regulatory Affairs & Stakeholder Relations

**Red Energy Pty Ltd**

**Lumo Energy (Australia) Pty Ltd**

Att.

## Appendix 1

| Data Category                    | Data requested                              | Concern  |
|----------------------------------|---|--|
| <b>Unobtainable Data</b>         | 1. Performance derating                     | Battery derating depends on operation and depth of discharge. At this stage it is not accurately determined at time of install.  |
|                                  | 2. Decommissioning date                     | We do not envisage decommissioning information to be updated consistently given added costs for no benefit to the consumer impacted. This raises concerns over the validity of the data.   |
| <b>Publically available data</b> | 3. Trip setting (inverters)                 | This is regulated through Australian Standards, and as such is not sufficiently variable to warrant separate inclusion.  |
|                                  | 4. Trip setting (frequency and voltage)     |  |
| <b>Variable data</b>             | 5. Enabled mode of operations (inverters)   | Customers are able to change the mode of operations after installation, making this data point worthless.  |
|                                  | 6. Demand side participation (DSP) contract | In addition to the reasons highlighted in 5, DSP contracts will likely change, possibly frequently, as the market evolves. Capturing the initial DSP contract information will provide no benefit to AEMO or the network in the long term. |
| <b>Unrelated data</b>            | 7. Customer details                         | We see no correlation between network security and the need for individual customer details. The register must not be utilised by regulated monopoly businesses for commercial means.  |
|                                  | 8. Storage kWh                              | In addition to the reasons for 7, while the capacity in KW allows a network and AEMO to predict the impact of discharge, the kWh's stored does not. The register must not be utilised by regulated monopoly entities for commercial means. |
|                                  | 9. Manufacturer, make and model number      | We see no correlation between network security and the need for manufacturer and model details. Technical capability of the battery installation achieves the stated objective.  |