

Energy Markets Transformation Project Team

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Energy Storage Registration Consultation Paper

The Australian Energy Council welcomes the opportunity to make a submission to the COAG Energy Council Secretariat (the Secretariat) for the consultation paper on Energy Storage Registration.

The Australian Energy Council is the industry body representing 21 electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia and sell gas and electricity to over 10 million homes and businesses.

The Energy Council believes that it is important to get the right balance of costs and benefits in determining the parameters of a registry for energy storage devices to facilitate an efficient and secure operation of the Australian energy market.

The Cost Benefit Analysis (CBA)

We commend the Secretariat for commissioning a CBA. It is good regulatory practice to quantify as far as possible the cost and benefits of a proposed policy as a cross-check that it is worth proceeding with. We recognize that it has not been an easy task for Jacobs to construct a robust CBA.

Retailers and wholesale market participants are missing from the list of parties for whom storage information could have value. Needless to say the NPV is positive without this. Of greater concern is that most of the value or benefit accruing to parties, such as AEMO or DNSPs, is predicated on understanding battery *behaviour*. What drives charge and discharge activity, including wholesale price sensitivity (and network tariff response) is what matters, as this provides each party with an appropriately activated view of when *behaviour* happens.

Our fear is that the CBA may be flawed, as it is costing a static collection process, but valuing the benefits of having dynamic information.

The need for an energy storage register

There are a range of stakeholders that have differing interests on energy storage data, including market analysts and/or observers who are interested in further understanding how the market is developing. In particular, the Australian Energy Market Operator (AEMO) is seeking data to improve market operations and load forecasting.

What is essential to this understanding is the net load profile of customers. That is the net impact of energy use, solar output and battery activity. The individual components only matter to the extent they are useful to understand and anticipate the patterns of net system load.

Metered data at appropriate granularity has at its key the rollout of digital meters. Customers relevant to the battery and storage discussion are those with solar and batteries. Where these relevant customers do not have digital metering, the installation of digital metering would be a better investment in understanding the net load profiles of customers sought by stakeholders.

It is also the case that battery usage is not independent of the activities of the parties seeking the information. Battery usage can be an alternative to network capex if the DNSP is contracting it for network support services

and if it is making investment decisions with confidence about the demand profiles. If this occurs then the DNSP can and will get relevant data as part of the contract for network support, and a separate registry is not relevant. Conversely, a registry, which is simply a list of what batteries/PV are located where and some static information about intended use may not in itself be sufficient to give a DNPS confidence that actual usage will allow it to defer or avoid investment. It should be noted that the Clean Energy Regulator (CER) already keeps a database of solar installations that continues until at least 2020, and that battery installations are still at very low volume.

Data and access

A central data repository into which meter data goes and gives each party what they need, appropriately aggregated or de-identified to manage privacy concerns, would provide AEMO with the avenues to collect information on distributed energy storage devices that they require to assess the impact of these devices on the power system.

Meter data represents the best way to measure and monitor the effects of storage and generation services on the distribution system, as no one party in the storage services supply chain is systematically able to capture ongoing information about the battery behavior. This is because in any given instance, it may be the customer, their retailer, their NSP or another third party service provider that controls the battery behavior.

Similarly, AEMO can get better visibility of storage that is effectively participating in the wholesale market by ensuring that the storage is actually participating, for example by scheduling its price/volume bids. A current rule change process is looking at the scheduling requirements for load and non-scheduled generation and this may mitigate the need for the registry.

In our view, the augmentation of the CER's existing collection processes to include battery installation data would be most preferable.

Emergency Services

The consultation paper also states that emergency services could use the register data to ensure they are properly equipped to attend to emergencies where energy storage devices, mainly lithium-ion batteries, are present at those premises.

These are secondary benefits. First responders manage comparable risks around hazardous equipment at premises, such as stored liquid fuels, chemicals and LPG canisters without registries. A more pragmatic approach may be signage obligations at property access points.

Overall, we do not consider a robust case has been made for developing a battery registry, as opposed to other initiatives that would more directly address the needs of stakeholders. If the secretariat does decide to recommend the establishment of a registry, we agree that it should provide national consistency and utilize existing data collection processes so as to not increase reporting burden on participants.

Any questions about our submission should be addressed to David Markham, Corporate Affairs by email to david.markham@energycouncil.com.au or by telephone on (03) 9205 3111.

Yours sincerely,



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