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13 October 2016

Mr John Pierce  
Chairman  
Australian Energy Market Commission  
PO Box A2449  
SYDNEY SOUTH NSW 1235

Dear Mr Pierce

**ERC0186 - NATIONAL ELECTRICITY AMENDMENT (DEMAND RESPONSE MECHANISM AND ANCILLARY SERVICES UNBUNDLING) RULE 2015 - DRAFT DETERMINATION**

Ergon Energy Corporation Limited (Ergon Energy) in its capacity as a Distribution Network Service Provider (DNSP) in Queensland welcomes the opportunity to provide comment to the Australian Energy Market Commission on its *National Electricity Amendment (Demand Response Mechanism and Ancillary Services Unbundling) Rule 2015* – Draft Determination (the Draft Determination).

Ergon Energy is broadly supportive of the Draft Determination. In particular we agree that the energy market has already developed innovative solutions to facilitate customers' demand response, and therefore that there is no requirement for the creation of a specific demand response mechanism within the regulatory framework.

We note that the creation of a new market participant, an Ancillary Services Aggregator, will likely further stimulate the demand side market by enabling aggregators to offer loads for both demand management and ancillary service purposes. Ergon Energy acknowledges the potential benefits associated with the increasing evolution of these markets. However, we strongly recommend that any regulatory reforms targeted at stimulating the demand management and ancillary services market are undertaken in consideration of the likely network impacts and a DNSP's ability to comply with its regulatory obligations for the management of its network.

Specifically, a distribution network's ability to absorb large changes in load or generation without impact on power quality or reliability is very dependent on network construction, topology, location, existing uncontrolled generation and load; with the impacts of these especially noticeable in radial networks such as Ergon Energy's. By way of example, if a battery storage system is charging from a solar power system at 3 kilowatts (kW), and an ancillary services event was triggered such that the battery started discharging at 3kW,

the resultant step change of demand per household would be 6kW. Although on its own, 6kW is negligible, high penetrations on a specific feeder could result in step changes of several megawatts which would trigger protection devices and cause outages. Such potential network impact scenarios exist for any controllable device that could be included in a demand management or ancillary services aggregation initiative, such as hot water systems, pool pumps or air-conditioners.

While Ergon Energy acknowledges there is no immediate network risk due to the low volumes of small scale aggregated demand response, medium to long term potential risks do exist especially if residential battery storage becomes common place.

As such, the growing emergence of demand side management in the market coupled with the potential creation of a new Ancillary Services Aggregator, it will be essential that DNSPs are provided visibility of the level of load under control (such as National Metering Identifier and controllable demand). This will enable the risks to be modelled and tracked over time across distribution networks and any areas of specific concern to be identified with the aggregator. Although we note the reference in the Draft Determination that the issue of whether the Australian Energy Market Operator's (AEMO) dispatch process should take into account demand response is being considered in a separate rule change process, we don't believe this would be sufficient to protect DNSPs against the abovementioned risk. Specifically, the AEMO dispatch process would not provide the feeder level detail DNSPs would require to manage localised aggregated control in network constrained areas.

Finally as a member of the Energy Networks Association (ENA) Ergon Energy has contributed to and supports the ENA's submission.

Should you require additional information or wish to discuss any aspect of Ergon Energy's submission, please do not hesitate to contact either myself on (07) 3851 6416 or Trudy Fraser on (07) 3851 6787.

Yours sincerely



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Enc: Ergon Energy's submission