

10 August 2018

Energy Networks Australia  
Unit 5, Level 12, 385 Bourke Street  
Melbourne VIC 3000

By online submission - [info@energynetworks.com.au](mailto:info@energynetworks.com.au)

Dear sir/madam

### **Open Energy Networks Consultation Paper**

Hydro Tasmania appreciates the opportunity to provide a response to the Open Energy Networks consultation being conducted by Energy Networks Australia (ENA) and the Australian Energy Market Operator (AEMO).

The National Energy Market (NEM) is experiencing rapid and unprecedented transformation through changes in the generation mix, as well as a variety of market reforms. Throughout the last decade, installations of behind-the-meter technologies such as solar PV and battery storage have increased exponentially. This trend is expected to persist as the costs of Distributed Energy Resources (DER) continue to fall, and newer technologies such as electric vehicles are more widely adopted.

While the efficient and effective integration of these technologies with the grid is complex in nature, an appropriate framework successfully implemented should provide significant benefits to the market as a whole. Hydro Tasmania supports the Open Energy Network consultation, as we see this as an important step in transitioning to the required, two-way energy system. Attachment I highlights our views on the questions/sections raised throughout the consultation paper.

We look forward to ongoing engagement with ENA and AEMO in relation to this work. If you would like further information on any aspect of this submission, please contact me at [tony.field@hydro.com.au](mailto:tony.field@hydro.com.au) or on (03) 6230 5115.

Yours sincerely



Tony Field  
Tasmanian Opportunities Manager

## **Attachment I – Hydro Tasmania’s responses to Consultation Questions**

### **1. Are these sources of value comprehensive and do they represent a suitable set of key use-cases to test potential value release mechanisms?**

The potential magnitude of distributed energy storage represents a significant value proposition in terms of wholesale energy markets, provision of market ancillary services and network support. The optimisation of these value streams has the potential to reduce costs for consumers through minimising the need for network capacity expansion, as well as a reduction in wholesale energy costs through capacity support. An effective platform capable of liberating market value is necessary to support investment in active DER. If successfully realised, we believe this will facilitate the development of attractive consumer offers and deliver market-wide benefits.

### **3. Maximising Passive DER Potential**

Where possible, a key objective of this consultation should be to develop a framework that avoids placing limitations on passive DER (predominantly solar). Hydro Tasmania understands that this is already occurring in some network areas due to very high penetration of solar. As these measures are undertaken to directly manage network security, active control by network operators is likely the most pragmatic solution, as opposed to making incremental changes to solve short term security issues. The Open Energy Networks consultation should seek to provide the medium to long term market structure necessary to drive the use of active DER resources (including both demand response and energy storage). Hydro Tasmania believes that this will be integral to optimise longer term network and energy market outcomes. Use of “passive” DER may include voltage control mechanisms by price signal. Providing market signals to drive response from active DER should reduce longer term requirement for constraining passive DER while maintain system security.

### **4. Maximising active DER potential**

A market approach will be required to optimise each of the services that active DER is capable of providing. We believe these services can contribute to, or provide:

- Wholesale market value;
- Contingency and regulation frequency control ancillary services; and
- Network support including voltage and thermal control.

Such an approach would support an AEMO dispatch process (Option 1) considering FRMP (retailer) bids, DNSP bids on network constraints and NEMDE dispatch instructions.

The approach will require network pricing signals associated with demand, voltage settings (or such signals that will reduce need for network capacity augmentation) and drive longer term network cost reductions to consumers.

It is important that appropriate frameworks are developed and implemented prior to the market adopting larger penetrations of distributed storage and the operation of virtual power station. If these resources are not well coordinated, there is potential to create adverse network outcomes. Subsequent implementation of constraints for system security reasons may result in suboptimal outcomes for consumers and investors in DER assets.

#### **5. Frameworks for DER optimisation within distribution network limits**

Hydro Tasmania supports the proposed process for detailed investigation including economic analysis of each of the proposed models. Hydro Tasmania's preference is the Single Integrated Platform (AEMO central platform). This model can be applied consistently across each region in the NEM and would be founded on an independent governance structure.