

10 August 2018

To: AEMO/ Energy Networks Australia

Re: Open Energy Networks Consultation

Dear Sir/ Madam

We thank you for the opportunity to comment on the Open Energy Networks Consultation, an initiative that shows an impressive level of foresight and evidences Australia's leadership in delivering an energy transformation that can offer more affordable and cleaner power for all.

We support the guiding principles that the consultation has set out for guiding highly complex market, regulatory, technical and social decisions. We commend the comprehensive analysis that underpins the paper.

We have restricted our comments to the area that is our primary focus so as not to add noise to areas where we know other stakeholders will be offering deep insights.

What informs our input

emhTrade is delivering transactive energy solutions to consumers to engage their flexible demand and resources and reward them for their participation. We see consumer engagement rates with the "transactive energy app" at 80% and cost conscious consumers making double digit demand shifts. In other words, we know people engage with transactive energy.

Our business was spun out of a proprietary energy trading firm and, in 2016, delivered one of the world's first peer to peer electricity retail platforms. We are deeply involved in the regulatory process in New Zealand and hope that by being part of the conversation in Australia we can take further steps towards our mission of enabling a better power society.

Overarching comments

We believe it is very important in designing solutions that necessarily must deliver a secure and reliable power system and efficient markets, the solution needs also to consider what drives and motivates consumers today and in the emerging sharing economy so that we maximise the available pool of resources and participation of those resources.

Market design can balance the need for control and certainty (for networks and market efficiency) with the needs for flexibility and simplicity to maximise the available resources and their participation (thus feeding liquidity and lower costs).

This needs to address two areas: consumer centric engagement models and ensuring flexibility on approaches to active DER management.

Consumer centric engagement models

We believe that commercial innovation and social evolution - such as the emergence of the sharing economy - means

- a. the value realised by DERS will be shared with consumers in different ways in the future, and
- b. that some consumers will derive non monetary value from their participation (i.e. that they are doing their bit to help the planet, that they simply feel good by being smart and capable in the use of their DERs).

We note this as it is important that technically efficient and economically rational outcomes may not always be achieved without considering evolving consumer psychology and related marketing/ consumer solution design.

Flexibility on approaches to active DER management.

Consistent with the principles set out in the paper, we simply note here that active curtailing of passive DER is a last resort in a tiered set of actions.

This needs to start with solutions that encourage the maximum participation of consumers and their DERs through easy to participate in, optional active DER programmes or offers. These may look quite different from existing retail electricity or aggregator contracts as we learn from other consumer industries and the sharing economy. Whilst limited visibility on individual consumers and no direct control by networks at first seem to devalue this option, experience of the diversity of consumer behaviour evidence that on a portfolio basis significant capacity can be achieved with confidence. Developing and managing these DERs, including the needed consumer relationships and motivators, again require the system to take a consumer centric approach to how it makes available the value realised from DER.

Between this and the needed mandated “emergency control”, a series of more structured, higher commitment and direct control based solutions - that will have lower participation rates but high confidence of delivery - provide actively managed DERs. These pools of resources enable the networks and markets to operate efficiently and directly access resource after benefiting from the after diversity contribution of less controlled flexible demand.

We support the proposed piloting and testing needed to

- evaluate what motivates consumers,
- how their participating can be tiered to maximise available resources and
- what opportunities exist to ensure complex and dynamic pricing signals can come from markets and networks to
 - offer real value to engaged consumers for their DERs

- but be packaged in simple, rewarding consumer solutions to secure participation.

Yours faithfully

**Jamie Silk
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emhTrade Limited**