TasNetworks
Delivering your power

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28 February 2020

Mr Patrick Wu
Australian Energy Regulator
GPO Box 520
Melbourne 3001

Via email

Dear Patrick

RE Demand management innovation allowance mechanism

I refer to your email to transmission network service provider (**TNSP**) regulatory managers of 17 February 2020 requesting information about the type, cost and scale of demand management projects for which TNSPs might seek funding via the Demand Management innovation allowance mechanism (**DMIAM**).

From a network operator perspective, TasNetworks envisages that in addition to 'traditional' demand management measures like load curtailment, TNSPs' efforts to avoid the need for network augmentation in the future are likely to focus on measures that enable more demand – and more generation – to be supported by their existing network infrastructure. TasNetworks has been a pioneer of dynamic line rating, which has enabled TasNetworks to increase its transmission capacity by using weather stations and telemetry to take the prevailing ambient conditions into account when loading transmission lines. Not only has this created the scope for generators to increase their output (and more generators to be connected), but in some cases it has supported an increase in demand from major industrial customers, all without the network having to be augmented.

In the context of the DMIAM, we expect that other TNSPS, as well as TasNetworks, will look to the scheme for support in developing systems that enable them to increase the thermal loading of conductors, better control frequency and provide voltage support without the need for network augmentation. TasNetworks is currently investigating a number of projects along these lines, such as the Tasmanian Integrated System Protection Scheme and an expansion of the Adaptive Under Frequency Load Shedding Scheme as more wind generation is connected to the network. We also anticipate that in the future there will be the need for a system to trip the load associated with pumped hydro developments, in order

to reduce the need for Frequency Control Ancillary Services and reduce network constraints, while reducing network costs to customers.

We also envisage that there will be opportunities to explore measures such as automatic load control, or meeting demand through generation located closer to major load centres, including energy delivered from battery storage.

In the absence of any specific projects, however, it is hard to quantify the sort of costs and timelines that the Australian Energy Regulator might expect to see put forward by TNSPs seeking research and development funding via the DMIAM.

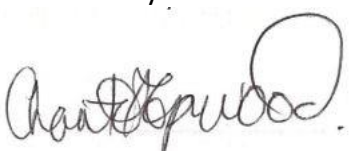
Lastly, we can also see that the DMIAM may open up opportunities for TNSPs to work collaboratively with their customers to research ways in which individual customers might be able to better modulate their demand in real time. The insights that this work could provide has the potential to reduce the reliance on load shedding for the purposes of demand management (and the associated disruption to business activity) while at the same time leading to a reduction in the customer's electricity costs through reduced energy consumption and/or peak demand.

TasNetworks has already undertaken a demand management research project involving residential customers, the Consort Bruny Island Battery trial, which was funded by the Australian Renewable Energy Agency. In that case our objective was to work with our customers to identify cost effective demand management solutions that would allow TasNetworks to defer the replacement of an ageing submarine cable supplying Bruny Island and reduce the island community's reliance on back-up diesel generators at times of peak demand.

We envisage that a similar collaborative approach involving customers connected to the transmission network would deliver benefits for both the customers involved and the network, and reduce long term network costs, and that the research and development effort involved would be a good fit with the objectives of the DMIAM.

TasNetworks has previously indicated its support for the development of a demand management innovation allowance for TNSPs and we welcome the implementation of the arrangements encapsulated in the Australian Energy Market Commission's rule determination. If you wish to discuss any matter raised in this letter, please contact William (Billy) Godwin, Revenue and Price Regulation Team Leader, on [redacted] or at [redacted]

Yours sincerely



Chantal Hopwood
Leader Regulation