

20 December 2018

Ms Audrey Zibelman
Chief Executive Officer
Australian Energy Market Operator
Level 22, 530 Collins Street
Melbourne VIC 3000

E-mail: DERProgram@aemo.com.au

Re: NEM Virtual Power Plant (VPP) Demonstrations Program Consultation Paper

Dear Audrey,

Energy Networks Australia welcomes the opportunity to provide a submission to the Australian Energy Market Operator's (AEMO) Draft Rule Determination on the 'NEM Virtual Power Plant (VPP) Demonstrations Program Consultation Paper'.

Energy Networks Australia is the national industry body representing businesses operating Australia's electricity transmission and distribution and gas distribution networks. Member businesses provide energy to virtually every household and business in Australia.

As you know, Energy Networks Australia in conjunction with our members have been actively engaged, either directly or indirectly through trials and/or other research, in contributing to knowledge in the design and operation of VPPs. In addition, the joint AEMO/Energy Networks Australia 'Open Energy Networks' program is proving to be a constructive and mature collaboration, with implications for VPP design and operation within the NEM.

It is within this context that we make the following key points:

- » Energy Networks Australia supports the intent of the program, to demonstrate the capability of VPPs to deliver services in energy and frequency control ancillary service (FCAS) markets;
- » The role of networks in the operational scenario has not been adequately identified, as networks are managers of network constraints (not simply monitors and communicators); and
- » AEMO needs to ensure it allows inputs from other projects, such as the Open Energy Networks project, and other trials and consultation processes that will provide key insights on regulatory and operating frameworks influencing VPP utilisation.

Support for the VPP demonstration program

Energy Networks Australia supports the need for AEMO to coordinate VPP trials from a national market perspective and to work with stakeholders to consider the operational and regulatory framework implications of such aggregation of distributed

energy resources (DER). The AEMO VPP demonstrations program will inform how VPPs could provide frequency control and other market services, and what provisions would need to be established to enable this. As such, these trials are foundational to any of the future market models contemplated in Open Energy Networks.

Energy Networks Australia would also recommend that AEMO should consider inclusion of traditional demand response resources and electric vehicles within the VPP, as DER that could provide additional services, including services for future network services markets.

NSPs are network constraint managers

The Consultation Paper refers to the role of distribution network service providers (DNSPs) in the depicted operational scenario as monitors and communicators of network constraints. Energy Networks Australia considers the role of DNSPs within such a scenario as a manager of constraints, to optimise the value of DER and VPPs. DNSPs clearly need to manage network constraints operationally, not simply to monitor and communicate to AEMO. Depending on the scenarios currently being explored within the Open Energy Networks program, in future are likely to be required to actively manage network constraints, as per the models being explored as part of the Open Energy Network project.

The Consultation paper and proposed trial appears to have no consideration for networks constraint management requirements, including the connected location of the assets within the VPP. As constraint managers, both transmission network service providers (TNSPs) and DNSPs need ownership, or unencumbered access to, data relating to DER and VPP specifications, location and operation.

In designing the proposed application programming interface (API), Energy Networks Australia suggests that AEMO consider the need for DNSPs to access to the captured data to inform modelling of potential implications of increased DER and VPP penetration on low voltage (LV) and medium voltage (MV) network management. Energy Networks Australia also seeks clarity on the ongoing use of this API, whether it is solely for the purpose of the demonstration program, or will be used thereafter, as its intended future may influence investment decisions for all relevant market participants, such as DNSPs and Aggregators, recognising the industry should be trying to converge around a single API.

Open Energy Networks outcomes should be considered

Energy Networks Australia believes that AEMO needs to better recognise that the Open Energy Networks project will also touch on regulatory and operating frameworks, not simply detail network constraint analysis. Recommended regulatory and framework elements of the Open Energy Network program will be informed by exhaustive stakeholder input, and as such should be considered within the work of the AEMO VPP demonstration program.


Additional complementary work is currently being undertaken, such as State-level VPP trials and the Australian Energy Market Commission (AEMC) wholesale demand response review process. Energy Networks Australia recommends that AEMO acknowledge the inter-relationships of the proposed AEMO VPP demonstrations with

all such complementary work, especially when working with stakeholders to consider operational and regulatory framework design.

Finally, whether a separate piece of work, or to be included into the AEMO VPP demonstration program, Energy Networks Australia looks forward to continuing to work with AEMO to explore and demonstrate the role of networks in managing constraints to optimise DER and VPP value.

For further information, please contact myself or Heath Frewin, Head of Distribution, 02 62721531 or hfrewin@energynetworks.com.au

Yours sincerely,

A handwritten signature in black ink, appearing to be "S. Johnston", written over a horizontal line.

Dr Stuart Johnston
General Manager, Network Transformation