

Australian Energy Market Operator (AEMO)
Via email: DERProgram@aemo.com.au

21 December 2018

To Whom It May Concern:

NEM Virtual Power Plant (VPP) Demonstrations Program

ActewAGL Retail (ActewAGL) welcomes the opportunity to respond to the '*NEM Virtual Power Plant (VPP) Demonstrations Program Consultation Paper*', published during November 2018.

ActewAGL is an electricity, gas and solar retailer operating in the ACT and parts of South-Eastern NSW. Through its customer base, ActewAGL has direct access to a progressive and engaged customer base with some of the highest levels of battery storage adoption (per capita) in Australia.

ActewAGL maintains a continued focus on innovating beyond its current suite of distributed energy services and energy management solutions for customers. ActewAGL's behind-the-meter solutions incorporate new and emerging technologies relevant to energy storage, electric vehicles, solar photovoltaic systems, smart meters, Demand Response Enabling Devices (DREDS) and home energy management products and services.

ActewAGL has been advised by AEMO that it is currently the only participant in the National Electricity Market (NEM) who has demonstrated the VPP capabilities to provide Frequency Control Ancillary Services (FCAS), by meeting all Market Ancillary Services Specification (MASS) requirements. However, through its registration process, ActewAGL (as a Market Customer) was not permitted to seek classification of both negative and positive flows from the connection point as part of its ancillary services load, based on AEMO's interpretation of the National Energy Rules (NER) and the MASS.

ActewAGL is interested in actively participating in AEMO's Demonstrations Program to access and share the value of VPP technologies and related offerings with retail customers. ActewAGL has the existing systems, processes and capabilities to capture consumer insights and ensure a positive customer experience; and would welcome the opportunity to collaborate with AEMO for mutually beneficial outcomes.

ActewAGL's responses to specific questions noted through the Consultation Paper are attached; refer [Attachment One – ActewAGL responses to Consultation Paper questions](#).

If you require further information, please contact Mr Todd Eagles, Manager Energy Efficiency and Renewable Energy Programs on 02 6248 3116 or email todd.eagles@actewagl.com.au.

Yours sincerely

A handwritten signature in black ink, appearing to read 'R Forster', written in a cursive style.

Russell Forster
Manager, Pricing and Market Development
ActewAGL Retail

Attachment One – ActewAGL responses to Consultation Paper questions

Question 1.1: The primary focus of these trials is to demonstrate VPP aggregating battery storage systems. Do intending participants envisage incorporating demand response resources into your aggregated portfolios, and should this be incorporated into the VPP Demonstrations?

Conceptually, a VPP can use various behind the meter Distributed Energy Resources (DERs) to provide a range of services; including dispatchable energy, peak capacity, flexibility or ramping services, network congestion relief and ancillary services such as FCAS. Other demand response resources could include appliances such as appropriately controllable air-conditioners, which can provide the same result by reducing consumption. It is ActewAGL's view that these alternative demand response resources should not be excluded from AEMO's program.

Question 2.1: Are these objectives logical and achievable? Should any other objectives be considered for these VPP Demonstrations?

ActewAGL considers the objectives defined through the Consultation Paper reasonable. ActewAGL and its technology provider are already demonstrating advanced control and coordination through the FCAS lower services already being provided in the market.

With regard to 2.1 (2), the Consultation Paper references the "systems and capabilities to provide AEMO with operational visibility". ActewAGL will continue to maintain open communication with AEMO to achieve this objective for the FCAS services already being undertaken (as it would also do through an expanded suite of services through the VPP Demonstrations Program).

Regarding 2.1 (3), ActewAGL considers that while it is reasonable to ensure that regulatory approaches facilitate the efficient and effective operation of the market, it is worth noting that ActewAGL is already providing services in accordance with the existing NER and MASS frameworks.

As noted in the letter, ActewAGL has demonstrated to AEMO that it meets the technical requirements outlined in the MASS, including that high-speed metering requirements can be achieved at every site in a commercially viable way. Unnecessary changes to current requirements could lead to errors in the FCAS measurement and verification process. Accordingly, ActewAGL recommends the current metering requirements specified in the MASS remain in place for the VPP Demonstrations Program.

Question 2.2: How can projects involved in the VPP Demonstrations better capture consumer insights and improve customer experience and outcomes?

ActewAGL recognises the broad benefits of VPPs and distributed battery storage, including the value these technologies can provide in supporting the reliability of the grid. ActewAGL also recognises the value that can be shared with consumers through the existing relationships it has with consumers.

It is ActewAGL's view that retailers are best placed to offer these services to consumers, rather than a third party provided with an exemption. This is because ActewAGL and its processes, procedures and systems are already subject to the regulatory regime defined through the National Energy Customer Framework (NECF). This ensures firm consumer protections are in place and monitored.

Providing a third party with access to these services in the absence of a requirement to comply with arrangements including (but not limited) to NECF, could create customer exposure relative to consumer protection arrangements.

Question 2.3: Is AEMO's high-level approach to the VPP Demonstrations appropriate? What other arrangements could be tested under the VPP Demonstrations framework?

ActewAGL intends to actively participate in the VPP Demonstrations Program in the non-energy services through both the raise and lower services.

The recently-published AEMC Rule Change Request which would enable consumers to engage as demand response aggregators (in addition to the Financially Responsible Market Participant (FRMP) at the same connection point), is a cause for concern. ActewAGL considers that appropriately authorised and certified retailers, who are subject to appropriate regulatory customer frameworks, are best placed to draw on the benefits of demand response resources and then share these with consumers through a structured approach.

Question 4.1: AEMO would like the aggregated VPP dataset to be refreshed every five minutes to align with its operational forecasting function. Are VPP operators able to provide this data on a 5-minute refresh basis?

AEMO's paper states that it currently has no visibility of VPPs operating behind the meter, and that one of the major concerns around integrating VPPs into the NEM is the rapid response times of batteries (in that they can inject power into the market so swiftly that it can't effectively be traced or managed by AEMO). ActewAGL believes that data issued at 5 minute intervals (as currently proposed) would not accurately represent the

actual operation of VPPs (in particular, the rapid changes in the system initiated by batteries). Capturing high resolution data (potentially as frequently as every 30 seconds to 1 minute), would provide greater insights and value to datasets.

Question 4.3: What is the appropriate frequency for VPP operators to submit the device level dataset to AEMO? Is there a material difference in resources required to upload the data on a daily, weekly, or monthly basis?

As part of the Next Generation Energy Storage Program in the ACT, ActewAGL and its technology partner provide individual site 5-minute operational data to a central Repository. There would be no major issues or obstacles for ActewAGL to provide this same data set to AEMO as part of its VPP Demonstrations Program.

Question 4.4: Are there any regulatory or other obstacles to participants facilitating the data sharing arrangements contemplated in this section?

ActewAGL is already undertaking these activities and does not consider there are any regulatory or other obstacles that would prevent participants from facilitating the data sharing arrangements contemplated.