



VPP Demonstrations Onboarding Checklist

January 2021

Virtual Power Plant Demonstrations

Important notice

PURPOSE

This documents has been prepared by AEMO's VPP Demonstrations team to assist with the onboarding process and updating enrolment process for the Virtual Power Plant Demonstrations. This is intended as a guide only and may not be an exhaustive list of all requirements applicable to all prospective participants.

DISCLAIMER

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VERSION CONTROL

Version	Date	By	Reviewed	Approved	Changes
# 1.0	15/07/2020	AV	JM	Yes	Initial checklist
#2.0	28/01/2020	AV	JM		Updates to the "Updating an existing VPP enrolment checklist" to align to post 1 December 2020 requirements.

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1. Summary

This document includes a step by step process to guide prospective and current VPP Demonstration participants through the onboarding and updating enrolment process. This checklist is not a compulsory component of enrolment process for the Virtual Power Plant Demonstrations and has been developed for the purpose of assisting completion of enrolment only.

Where prompted, participants will need to access relevant detailed guides as available on the [Virtual Power Plant Demonstrations webpage](#).

For further information, or feedback on the VPP Demonstrations please contact DERProgram@aemo.com.au.

2. Onboarding Checklist

The following is a step by step guide to the VPP Demonstration onboarding process

Requirement

- I have read and understood the [VPP Demonstration Final Design](#) document

- I understand the knowledge sharing commitments (highlighted in section G3 of the [Enrolment form T&Cs](#)) that form part of the VPP Demonstrations (section 1.5 – page 7 of the [VPP Demonstration Final Design](#) document)

- I have read and understand how VPPs will operate in the energy market (section 3.2 – page 13 of the [VPP Demonstration Final Design](#) document)

- I understand that all aspects of the enrolment process must be adhered to in order to successfully become a VPP participants

- I have read and understood the relevant sections of the [National Electricity Rules](#) (NER) that would impact my participation in the NEM as a VPP

- I have registered or am currently registering as a *Market Customer* or *Market Ancillary Service Provider* – further details can be found on AEMO's [Registration](#) page

- If I am registered as a Market Ancillary Service Provider then I understand that I can't classify a scheduled load as an Ancillary Service Load or be registered as a Small Generation Aggregator (SGA)

- I have read through the [VPP Demonstrations Participant Onboarding Guide](#) to gain an overview of what needs to be done to enrol.

- I have completed the [Enrolment Form](#) (following reading the [enrolment guide](#))

- 1. I understand and have completed the section regarding my enrolment scenario

- 2. I have completed the relevant Applicant details and have gained appropriate signatories on the application from someone in an executive management position

- 3. Contact details have been provided and will be maintained throughout the enrolment and participation period

- 4. I have provided all details relevant to the VPP

- 5. I have provided information on the Market Ancillary Service Loads as outlined on page 5 of the [application form](#)

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6. I have provided information on the control equipment used as part of the VPPs as outlined on page 7 of the [enrolment form](#).
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7. I have read and understood the Enrolment Form Terms and Conditions and recognise that not complying with these requirements is a breach of the agreement and may result in termination of the VPP demonstration
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- I have read and understood the requirements for FCAS provision as outlined in the [VPP Demonstrations FCAS Specification](#) document
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1. I have completed the lab test successfully
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2. I have completed the VPP wide test successfully
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3. I have agreed on a FCAS verification method with AEMO
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- I have contacted AEMO's VPP Demonstrations team (via VPPEnrolment@aemo.com.au) in the event that any of the information provided is unclear or requires further clarification
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- I have demonstrated that the VPP meets the specified metering and technical requirements
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- I have reviewed the [Data Specification](#) document and understand:
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1. How to provide data to AEMO (via APIs)
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2. What type of data needs to be provided (Enrolment, FCAS, Operational data and Telemetry Data)
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- I have completed the [Cyber Security Questionnaire](#) and have contacted AEMO's Cyber Security team via AEMO's [SupportHub](#) if I had any questions or concerns.
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- I have sent the following documents to AEMO as a formal application to the VPP Demonstrations:
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- Registration Application to be a Market Customer (MC) or Market Ancillary Service Provider (MASP) (as required)
 - [VPP Enrolment form](#)
 - Documents outlined under section G3.2 (VPP Enrolment form terms & conditions – marketing materials and contractual information provided to VPP consumers)
 - Completed [Cyber Security Questionnaire](#)
 - Certificate Signing request & keys (for APIs – as required)
 - Third-party authority (as required)
 - This information has been sent to VPPEnrolment@aemo.com.au and original hand signed copy to:
Australian Energy Market Operator Ltd.,
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Attention: Onboarding team,
Level 2, 20 Bond Street, Sydney NSW 2000

Note – the VPP Demonstrations Participant Onboarding document will be useful during the processes up until AEMO's confirmation (step 15)

- I have received signed certificates from AEMO and confirmed VPP ID & DUID, along with confirmation of registered VPP capacity.

 - I have reviewed the [Guide to AEMO's VPP Demonstration APIs](#)

 - I have built the Enrolment data API and am ready to send data to AEMO.

 - I have prepared the FCAS response verification data and am ready to send this data to AEMO.

 - 1. I understand that I cannot integrate with AEMO's APIs until I have submitted the VPP enrolment form and have received a VPP ID and DUID from AEMO's Registration team

 - 2. I understand that during enrolment I will need to submit data via API as outlined in [the guide](#)

 - 3. I have set up the systems required to provide the enrolment and operational data to AEMO via API

 - 4. I have referred to the [Guide to AEMO's e-Hub APIs](#) to run through getting set up on AEMO's API portal and related information, contacting AEMO in the event that anything is unclear.

 - 5. I have shared and gained agreement from AEMO regarding when the operational and telemetry API development will be completed (operational data within 1 month of registering; telemetry data within 2 months of registering)

 - 6. I have acknowledged that if the operational and telemetry APIs are not available from registration timing, that any data provided will be back-dated to the date that registration commenced.

 - 7. I have set up an internal organisation reminder to update my password to the API portal every 90 days
Note – AEMO does not have an automated notification of password expiry

 - I have provided additional information as requested by AEMO and sent the enrolment data

 - AEMO have confirmed my participation in the VPP demonstrations

 - I have shared with AEMO the relevant marketing and contractual information (such as standard terms) provided to VPP consumers in connection with my organisation's participation in the VPP Demonstrations
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- My organisation has implemented processes to monitor the experience of VPP consumers and have acknowledged that information and insights gained from monitoring VPP consumers will be shared with AEMO through a written report that does not compromise any personal information
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- I understand that I will need to submit valid enrolment, FCAS verification, operational and telemetry data to maintain registration in a VPP Demonstrations capacity
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- I have commenced on-going Operational and Telemetry data provisions via API
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- I understand that I must contact at least 75% of my VPP consumers regarding a consumer survey or related study regarding VPP consumer experience and outcomes which will be conducted by a third-party service provider as nominated by AEMO within 30 days of receiving a request to do so by AEMO
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- I understand that AEMO have an obligation to share insights and learnings from the VPP Demonstrations and will support their requests for information where this does not involve commercially sensitive information
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3. Updating an existing VPP enrolment - Checklist

Note: The following checklist has been amended to align to the post 1 December 2020 requirements that allows only increases in VPP size using the same technology within the same region – Scenario 4 outlined in the enrolment form.

The following is a step by step guide to the VPP Demonstration process to update an existing VPP.

Requirement

- I understand that updates to the enrolled VPP must utilise the same technology as already included in the VPP and is for the purpose of increasing the size of the VPP in the same region in MW intervals only, or to maintain 1 MW.

- I have recompleted the VPP wide test with the updated portfolio (new and currently enrolled) and received approval of the technical requirements from the VPP Demonstrations team.

- I have submitted an updated list of NMIs to AEMO via API.

- I have submitted an updated [VPP Demonstrations Enrolment form](#) to VPPenrolment@aemo.com.au.

- I understand the knowledge sharing commitments (highlighted in section G3 of the [Enrolment form T&Cs](#)) and have provided any additional or updated content (including content as outlined in section G3.2).

- I have received confirmation from AEMO that the correct information has been received to comply with the T&Cs of the program.

- I have received confirmation that the additional loads have been classified under the NER via email from AEMO's registration team.

- I have received approval from the Participant Registration Committee delegate.

- I have received confirmation of the increase in portfolio size from AEMO's registration team.

4. References

AEMO's VPP Demonstrations Website - <https://aemo.com.au/initiatives/major-programs/nem-distributed-energy-resources-der-program/pilots-and-trials/virtual-power-plant-vpp-demonstrations>

VPP Demonstrations Final Design Document - https://aemo.com.au/-/media/files/electricity/nem/der/2019/vpp-demonstrations/nem-vpp-demonstrations_final-design.pdf?la=en&hash=1E195878890DE12B4E5EA16174AA9052

VPP Demonstrations Enrolment Form - <https://aemo.com.au/-/media/files/electricity/nem/der/2019/vpp-demonstrations/vpp-demonstrations-enrolment-form.docx?la=en&hash=806A6B2661EDB1EB5C4094489B14A4CA>

VPP Demonstrations Enrolment Guide - <https://aemo.com.au/-/media/files/electricity/nem/der/2019/vpp-demonstrations/vpp-demonstrations-enrolment-guide.pdf?la=en&hash=58B5DD352998B7E2ECFBC3A2E8B9B007>

VPP Demonstrations Frequency Control Ancillary Services (FCAS) specification - <https://aemo.com.au/-/media/files/electricity/nem/der/2019/vpp-demonstrations/vpp-demonstrations-fcas-specification.pdf?la=en&hash=35E31F52BD6973005E03F0279421F98E>

VPP Demonstrations Data Specification - <https://aemo.com.au/-/media/files/electricity/nem/der/2019/vpp-demonstrations/vpp-demonstrations-data-specification.pdf?la=en&hash=E0257A82E020B1F2E05D3C2CAFB314BB>

Cyber Security Questionnaire - <https://aemo.com.au/-/media/files/electricity/nem/der/2019/vpp-demonstrations/vpp-demonstrations-cyber-security-questionnaire.xlsx?la=en&hash=0B07CBCD85CF3D48EA29BDC880EFDDEF>

VPP Demonstrations Participant Onboarding Guide – <https://aemo.com.au/-/media/files/electricity/der/2020/vpp-demonstrations-participant-onboarding.pdf?la=en>

VPP Demonstrations API Guide - <https://aemo.com.au/-/media/files/electricity/der/2020/guide-to-aemo-vpp-demonstration-apis.pdf?la=en>