



# DER Market Integration Consultative Forum

6 May 2021

*We acknowledge the Traditional Owners  
of country throughout Australia and  
recognise their continuing connection to  
land, waters and culture.*

*We pay our respects to their Elders past,  
present and emerging.*

# AEMO Competition Law Meeting Protocol

AEMO is committed to complying with all applicable laws, including the Competition and Consumer Act 2010 (CCA). In any dealings with AEMO regarding proposed reforms or other initiatives, all participants agree to adhere to the CCA at all times and to comply with this Protocol. Participants must arrange for their representatives to be briefed on competition law risks and obligations.

Participants in AEMO discussions **must**:

1. Ensure that discussions are limited to the matters contemplated by the agenda for the discussion
2. Make independent and unilateral decisions about their commercial positions and approach in relation to the matters under discussion with AEMO
3. Immediately and clearly raise an objection with AEMO or the Chair of the meeting if a matter is discussed that the participant is concerned may give rise to competition law risks or a breach of this Protocol

Participants in AEMO meetings **must not** discuss or agree on the following topics:

1. Which customers they will supply or market to
2. The price or other terms at which Participants will supply
3. Bids or tenders, including the nature of a bid that a Participant intends to make or whether the Participant will participate in the bid
4. Which suppliers Participants will acquire from (or the price or other terms on which they acquire goods or services)
5. Refusing to supply a person or company access to any products, services or inputs they require

Under no circumstances must Participants share Competitively Sensitive Information. Competitively Sensitive Information means confidential information relating to a Participant which if disclosed to a competitor could affect its current or future commercial strategies, such as pricing information, customer terms and conditions, supply terms and conditions, sales, marketing or procurement strategies, product development, margins, costs, capacity or production planning.

# Today's meeting

Time	Item	Speaker
11:00 – 11:05	Welcome and introductions	Matthew Armitage
11:05 – 11:15	Virtual Power Plant Demonstrations Update	Jacqui Mills
11:15 – 11:25	Customer & Aggregator User Stories – feedback summary	Matthew Armitage
11:25 – 11:40	Project EDGE: <ul style="list-style-type: none"><li>• Local Services Overview</li></ul>	Matthew Armitage/ Nick Regan / John Theunissen
11:40 – 11:55	Q&A	<i>Via Slido.com – use code #MICF</i>
11:55 – 12:00	Future Meetings & Close	Matthew Armitage

# VPP Demo & MASS Consultation update

# VPP update

## **Operationalisation support:**

AEMO have commenced interviews with current participant to understand the support requirements for a smooth transition to ongoing arrangements. To date, meetings have suggested the following will be useful:

- General training on FCAS, bidding and settlements and registering as a participant
- 1:1 meetings with VPPs seeking to register
- Guides and specification documents

If you would like to have input into what training is provided, please get in touch with [DERprogram@aemo.com.au](mailto:DERprogram@aemo.com.au)

- Further details to be provided regarding ongoing arrangements, this is driven by the outcome of the MASS consultation

## **VPP demonstration conclusion update**

AEMO continues to consider and attempt to bring together the various views of industry with regards to the MASS consultation. Any further delays to the MASS consultation may result in further delays to the VPP Demonstrations and will be communicated via email.

## **Knowledge Sharing Reports**

Drafting of the fourth and final knowledge sharing report is well underway, AEMO will be reaching out to relevant participants in June for feedback.

# VPP Update – API discontinuation

From 1 July 2021, AEMO will be decommissioning the APIs associated with the VPP Demonstrations. This decision has been made as a result of participant feedback and reviewing AEMO's internal requirements.

## **Telemetry API**

- Transfer of device level telemetry data is not required outside of the VPP Demonstrations
- Concerns over scalability remain
- VPP FCAS doesn't utilise telemetry data for settlements

## **FCAS API**

- Effort & expense for participants to develop this API (barrier to entry for future VPP participants)
- This feature may be required as VPPs scale, however at the current stage of maturity this is an unnecessary expense to impose on AEMO and the VPP industry

## **Operational API**

- No current NER requirement to collect Operational Forecasting outside of VPP Demonstrations for the purposes of providing contingency FCAS

## **Enrolment API**

- Enrolment/Registration to be supported through the Portfolio Management System being developed for Wholesale Demand Response.

# MASS Consultation Overview



- The draft determination will be likely be delayed further due to some further analysis that needs to be undertaken before a decision on the draft determination can be finalised.
- Communications regarding any further timeline updates will be provided via email once confirmed.





# Customer & Aggregator User Stories

Feedback Summary

# Customer User Stories

DER Wholesale Integration User Stories			Acceptance criteria		
As a...	I want...	So that I...	Solution must...	Reform process	Being addressed?
Customer	Simple choices on how I manage my energy use	Can minimise the amount of time I spend thinking about energy	Prioritise simplicity (whilst balancing risk) at all levels of all solutions	All Reforms	
	To choose who optimises my household energy use (e.g. an Aggregator (who can be a retailer or independent))	Can get the best deal, and control who is utilising my devices. Plus only 1 entity can do a household optimisation	Implement a consumer consent process that provide explicit notification of who is optimising energy use at a CP/NMI	DER Min Tech Standards? Customer protections?	
	Whoever I nominate as the Aggregator to be able to control any of my controllable household devices	Have maximum choice over who utilises my devices	Ensure all smart hardware can act on local control signals from a gateway/EMS	DER Min Tech Standards	
	To be able to churn aggregators as easily as I can churn retailers, without having to install any new proprietary hardware	Can get the best deal from aggregators and have any aggregator capable of controlling my devices	Enable any aggregator to control any device, to minimise costs of churning	DER Min Tech Standards	
	Pay as little as possible for my energy, and get cheaper energy for usage that can be controlled if that means engaging >1 provider for my energy usage	Spend more on other things	Maximise retailer/aggregator competition for my business and enable those that specialise in controllable device management to be exposed to the spot market	2SM	
	My EV to be able to deliver electricity services	Can get a better deal	EV charger capabilities are standardised to be 'smart' and capable of delivering electricity services	DER Min Tech Standards EV Charger Standards	
	Be protected from corporate failure	Am not financially impacted	Ensure appropriate consumer protections apply to providers	AEMC Consumer Protections Review 2SM	

**DISCLAIMER: THIS IS A DRAFT WORKING DOCUMENT AND DOES NOT REPRESENT AEMO'S VIEWS. THE PURPOSE IS TO ARTICULATE AND UNDERSTAND DIFFERENT STAKEHOLDER PERSPECTIVES**

# Customer User Stories – feedback & input

DER Wholesale Integration User Stories			Acceptance criteria		
As a...	I want...	So that I...	Solution must...	Reform process	Being addressed?
Customer	To reduce my carbon footprint by maximising the use of renewables				
	To receive payment for energy and services my DER provide				
	Energy resilience				
	Participate in programs that allow higher uptake of renewables in my community				
	My storage battery asset to have a local control interface that allows access to all battery functionality by an onsite HEMs gateway using industry standard communications interfaces (e.g. Ethernet, RS485) and industry standard control protocols such as Sunspec Modbus. I want this interface to have full control over my battery and not require a round trip to the battery manufacturer's cloud to issue commands to my battery. I want my battery response times to local commands to be the same as that of the battery manufacturer or their representative (Uninhibited control). That is, I want my choice of energy service provider who should have the same range of control and response times as any other energy service provider that provides an offer to me to monetise my battery asset.	I can choose who LOCALLY orchestrates my DER (Solar, Battery, Smart Water Heater, Pool pump, EV Charger etc) and that my battery is locally controlled AND I can choose who monetises my battery asset for grid services	Have Technology neutrality and local access via standardised protocols, Ensure consumers are made aware of battery technology (at point of purchase) that they CANNOT churn to another energy market service provider until such time as local control standards are mandatory	AEMC consumer protection. ACCC Consumer protection. DER Minimum Technical Standards. Government rebate program Minimum technical standards	

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# Aggregator User Stories - feedback & input

DER Wholesale Integration User Stories			Acceptance criteria		
As a...	I want...	So that I...	Solution must...	Reform process	Being addressed?
Aggregator	To be paid for providing valuable data and services (including comms) to AEMO, networks and retailers	Can invest in solutions and incentivise customers to participate in VPPS	Deliver reliable services that offer value		
	To be able to group different asset types into a single DUID	Can give more customers access to aggregation services	Have similar performance characteristics across asset types		
	To be accountable for delivering reliable services from controllable assets without being penalized for uncontrollable customer behaviours	Can stimulate innovation and reduce costs	Be reliable and appreciate the differences between aggregated DER performance and behaviours and traditional generators		
	Accurate long-term forecasts of the revenue available from service delivery	Can invest in solutions and provide customers with up-front incentives to stimulate DER uptake	Support long term contracts and reliable price forecasts		
	To work towards implementing industry standards over time	Can reduce costs and allow greater choice for customers	Develop standards over time considering real-world practical experience. Avoid mandating standards implementation until they are mature enough for companies to invest in.		
	Unify WDR, MASP and other VPP into a single market participant	Offer customers choice and decrease transaction costs	Facilitate market growth and customer choice		
	Standardisation of implemented solutions	Do not have to integrate different grid services projects with different DNSPs	Use standards such as IEEE 2030.5 and protocols such as OpenADR so that all implementation is similar.	DER Min Tech Standards	

# Project EDGE:

- Local Network Services

# Local Network Services

## Local Services considered for testing



### Capex deferral

- Service as alternative to investing in new network capacity
- Increase generation or reduce controlled load at particular locations

### Peak Demand / Generation

- Response during forecast peak demand / generation windows ( $\approx 5$  p.a.), to reduce the risk of asset failure
- Note that this service is less firm and so is likely to be lower cost i.e. it could be a behavioral Demand Response program

### Voltage management

- Reactive power service to manage over/under voltage excursions
- To alleviate binding voltage constraints and unlock further export/import capacity

### Planned Outage

- Service to provide capacity for 1-6 week timeframe, to address planned outages

### Unplanned outage

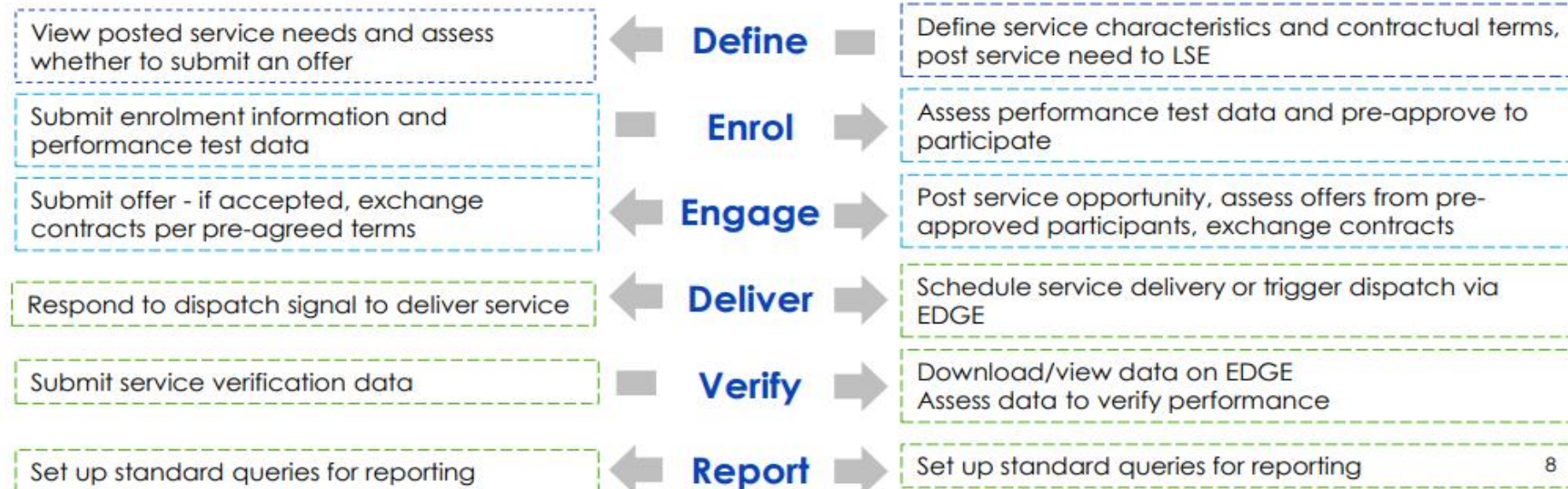
- Used reactively with little or no notice to provide capacity to enable the network to be reconfigured

Primary focus



# Local Services – Proposed process/roles

## Local Services – Proposed process/roles





# Q&A

Join via [slido.com](https://www.slido.com) using code #MICF





# Future Meetings & Close

Next meeting: 3 June

# Future Meetings

- **Thursday, 3 June 2021**
- **Thursday, 1 July 2021**
- **Thursday, 8 August 2021**
- **Thursday, 2 September 2021**
- **Thursday, 7 October 2021**
- **Thursday, 4 November 2021**

## Note:

- Agenda & meeting documents will be provided 5 days prior to meetings.
- Meeting actions will be distributed within 5 days post meetings (as required).
- Non-confidential information will be published on AEMO's website in the month following each meeting.



# Questions & contact

[EDGE@aemo.com.au](mailto:EDGE@aemo.com.au)