

Paris Session
2022



CONTRIBUTION-6, Q6

Ancillary Services Provision by Wind and Solar Aggregators

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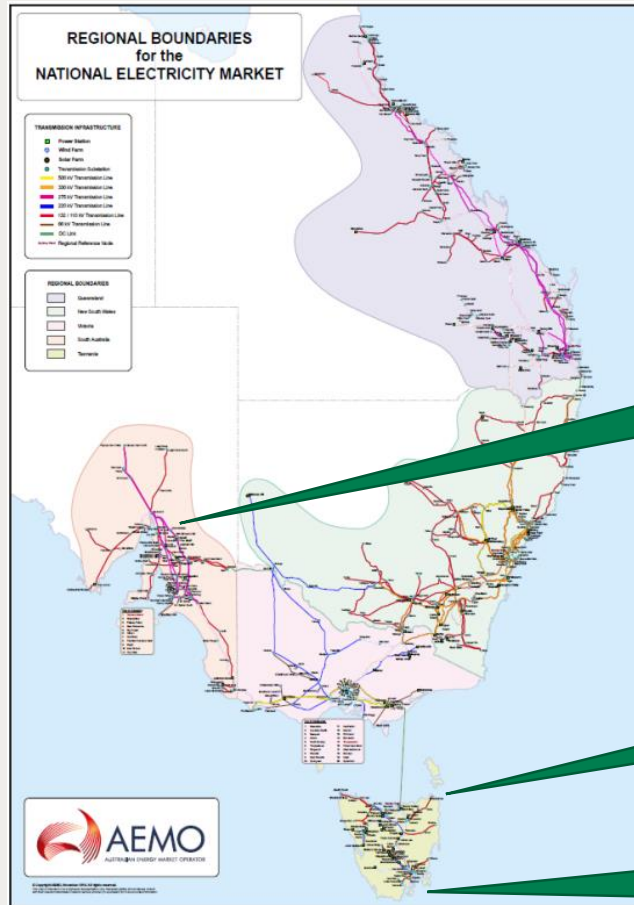


QUESTION-6:

Are other jurisdictions experimenting with the potential for wind and solar (including distributed PV) providing ancillary services directly or via aggregators?



Australian National Electricity Market Trial Sites



Hornsedale Wind Farm Trial, in-market technical demonstration of a wind farm providing Frequency Control Ancillary Services (FCAS)

Musselroe Wind Farm Trial, demonstrate the ability of an existing wind farm to deliver FCAS and summarise the commercial and economic assessment of FCAS market participation

Bruny Island Battery Trial, demonstrate the ability of a hybrid solar/battery aggregator to provide network support services

Trial Outcomes

- Confirmation that inverter-connected wind plant can provide frequency control services in accordance with the requirements of the Market Ancillary Service Specification (**MASS**).
- Viability of hybrid models utilising Battery Energy Storage Systems (**BESS**) to operate in the FCAS market.
- Confirmation of wind and solar/battery hybrid generators ability to provide both regulation and contingency FCAS.
- Trial outcomes have highlighted the commercial and economic benefits for including inverter connected sources in ancillary services market participation.
- There are now numerous wind and solar aggregators providing ancillary services in the Australian National Energy Market (**NEM**).

Current State

Based on the success of the relevant trials there is now in every jurisdiction of the NEM either wind plant or solar aggregators registered to operate in the FCAS market. Providing a resounding ‘Yes’ response to the question - *Are other jurisdictions experimenting with the potential for wind and solar (including distributed PV) providing ancillary services directly or via aggregators?*

Australian jurisdictions have been experimenting with the potential for wind and solar to provide ancillary services for some time and we are seeing evidence now of progression to typical implementation.

Group Discussion Meeting

Participant	Station Name	Region	Generation Type
Enel X Australia Pty Ltd	ENOC MASP NSW	NSW	Embedded Network Operator Customer
Energy Locals Pty Ltd	VPP Energy Locals NSW 2	NSW	Virtual Power Plant
sonnen Australia Pty Limited	VPP sonnen NSW 1	NSW	Virtual Power Plant
sonnen Australia Pty Limited	VPP sonnen NSW 1	NSW	Virtual Power Plant
Enel X Australia Pty Ltd	ENOC MASP QLD	QLD	Embedded Network Operator Customer
Hydro-Electric Corporation	VPP HT QLD 1	QLD	Virtual Power Plant
AGL South Australia Pty Ltd	VPP AGL SA 1	SA	Virtual Power Plant
Discover Energy Pty Ltd	DiscoverEnergy VPPSA	SA	Virtual Power Plant
Enel X Australia Pty Ltd	ENOC MASP SA	SA	Embedded Network Operator Customer
Energy Locals Pty Ltd	Energy Locals SA VPP	SA	Virtual Power Plant
Energy Locals Pty Ltd	VPP Energy Locals SA 1	SA	Virtual Power Plant
HWF 2 Pty Ltd	Hornsedale Wind Farm 2	SA	Wind
HWF1 Pty Ltd	Hornsedale Wind Farm	SA	Wind
HWF3 Pty Ltd	Hornsedale Wind Farm 3	SA	Wind
Shine Hub Pty. Ltd.	VPP ShinHub SA 1	SA	Virtual Power Plant
Simply Energy	VPP Simply SA 1	SA	Virtual Power Plant
Hydro-Electric Corporation	Musselroe Wind Farm	TAS	Wind
Enel X Australia Pty Ltd	ENOC MASP VIC	VIC	Embedded Network Operator Customer
Energy Locals Pty Ltd	VPP Energy Locals VIC 2	VIC	Virtual Power Plant