



Minutes

Transformation Design and Operation Working Group – Meeting 12

Time: 10.00am – 11.30pm
Date: 30 April 2020
Venue: Online meeting via teams

Attendees:

Name	Organisation	Name	Organisation
Aden Barker	ETIU	Katie Franklyn	Tersum Energy
Aditi Varma	ETIU	Keelie Hoskin	ETIU
Adnan Hayat	Rule Change Panel Support	Kieran Rayney	ETIU
Alice Hobson Ellis	Thales New Energy	Laura Koziol	Rule Change Panel Support
Alicia Volvricht	AEMO	Mark Riley	AGL
Andrea Albuquerque	Thales New Energy	Matthew Martin	EPWA
Andy Kondola	AEMO	Mena Gilchrist	ETIU
Angeline Ong	ETIU	Michael Harris	
Ashwin Raj	ETIU	Natalie Robins	ERA
Ben Rose		Noel Schubert	
Bobby Ditric	Lantau Group	Oscar Carlberg	Alinta
Brad Huppatz	Synergy	Patrick Peake	Perth Energy
Brooke Eddington	ETIU	Paul Arias	Bluewaters
Chris Wallace	Clean Tech Energy	Peter Huxtable	Water Corporation
Clayton James	AEMO	Rajat Sarawat	ERA
Craig Savill		Rebecca White	ETIU
David Markhan	Bluewaters	Rena Sambrooks	Synergy
Dev Tayal	Tesla	Rhiannon Bedola	Synergy
Dimitri Lorenzo	Western Power	Robert Pulella	ERA
Dora Guzeleva	EPWA	Rodney Littlejohn	Tersum Energy
Drew Harris	Simcoa	Ross Davies	Western Power
Elizabeth Aitken	Perth Energy	Rowan Gallagher	Synergy
Elizabeth Walters	ERA	Sam Lei	Alinta
Emma Rowe	Treasury	Sarah O'Connor	ERA
Erin Stone	Point Global	Sarah Rankin	AGL
Gavin White	ERA	Shannon Hewitt	Clean Tech Energy
Geoff Gaston	Change Energy	Simon Orme	Sapere
Geoff Glazier	Merz Consulting	Stephen Eliot	Rule Change Panel Support
Glen Carruthers	Western Power	Steve Gould	Community Electricity
Graham Pearson	Australian Energy Council	Sue Paul	RBP Consulting
Ignatius Chan	EMCA	Teresa Smit	AEMO
Jai Thomas	ETIU	Tim Robinson	RBP Consulting
Jake Flynn	ERA	Tom Butler	AEMO
Jason Froud	Synergy	Troy Santen	Stellata
Jenny Laidlaw	Rule Change Panel Support	Wendy Ng	ERM

Judy Hunter	Western Power	Wenona Hadingham	ETIU
Justin Ashley	Synergy	Wes Medrana	Synergy
Kang Chew	AEMO		

Meeting minutes should be read in conjunction with meeting slides.

Item No.	Issue
Slide 1 - 3	Jai Thomas (JT) opened the meeting, noted the virtual meeting protocol and requested keeping questions relevant to the topic.
2.	DER Roadmap Update
Slide 5-12	<p>JT presented an overview of the DER Roadmap, noting:</p> <ul style="list-style-type: none"> • The State Government takes a positive view of DER and want to see customer DER continue, while harnessing the benefits correctly. • Imminent system issues presented by DER through decreasing minimum daytime demand, while still being required to manage persistent system maximum load - these challenges will continue and a solution is needed. • Interrelated system and network issues: as the capacity of DER increases, it contributes to increased variability in generation and local network issues (particularly from solar generation), and inequity between customers through cross-subsidies and existing tariffs. • The DER Roadmap is a response under the State Government’s Energy Transformation Strategy, and provides a five-year plan to better integrate DER in the WEM, and complements the Whole of System Plan and Wholesale Market Redesign work. • The Roadmap provides a vision for the WEM by 2025, where DER is integrated (actively) in a way that retains the stability and reliability of the grid, while facilitating more equitable access to DER for all customers. • The Roadmap actions are organised under four themes: <ul style="list-style-type: none"> ○ Technology Integration: actions relating to inverter upgrades, distribution battery storage, integrating DER into dynamic models and load shedding arrangements; enhancements to distribution network visibility; and planning for electric vehicles. ○ Tariffs and Investment Signals: recognising the A1 tariff is not appropriate, and considering and resolving market distortions for installation of DER. ○ DER Participation: comprehensive program to provide for DER to deliver services throughout the value chain, including the evolution and integration of aggregators. ○ Customer Protection and Engagement: consideration of the evolving nature of energy service provision and new business models and the obligations on these businesses; and customer engagement. • The DER Roadmap identifies evolution of existing roles and new opportunities: <ul style="list-style-type: none"> ○ Network operator expands to include Distribution System Operator functions ○ AEMO’s role includes DER in its operations and market ○ Customer interaction changes <p>Elizabeth Aitken (EA) enquired about the aggregate capacity of the PowerBanks recommended in the DER Roadmap. JT responded that the recommended 10 PowerBanks were 105kW/420kWh batteries, and given this relatively small aggregate capacity, it would not provide a solution to system risks from low daytime demand.</p> <p>Mark Riley (MR) asked whether the market impacts of charging and discharging of the community batteries was being considered. JT explained further work was being undertaken in relation to the Electricity Networks Access Code (Access Code) and metering arrangements. JT noted that a range of policy issues will need to be answered over time , including how retailer models fit with aggregator arrangements (e.g. the requirement for multiple trading relationships).</p> <p>MR stated it wasn’t clear how an aggregator of DER devices could interact with the network and provide services. JT noted there is a range of design questions to be answered, including how accreditation, registration, dispatch and transactions will work for these arrangements – at present, he sees AEMO as the</p>

	<p>market operator facilitating dispatch, with aggregators interacting with DER devices. JT noted Western Power should continue to be precluded from participating in energy markets.</p> <p>Shannon Hewitt (SH) enquired about inverter standards and the curtailment of customer DER generation. JT said curtailment is likely in future, likely through aggregators, however, curtailment is just one option in resolving system and network challenges. Further issues relating to equity between customers also a consideration and requiring resolution.</p> <p>Ignatius Chin (IC) enquired about current thinking on the integration of electric vehicles (EVs). JT says he wants to adequately cater for EVs, when they arrive. This includes correct price signals, including through tariffs. For the provision of services by EVs, the Roadmap presents a technology neutral view – if EVs can meet the requirements for accreditation and registration, then there'd be no reason to stop them from providing services.</p> <p>Patrick Peake (PP) enquired about the existing fleet of inverters, and whether they'd need to be replaced following introduction of new inverter standards. JT advised that the approximately 300,000 inverters in place are somewhat “lost” to the opportunity of upgrades, and the Roadmap is not exploring imposing costs to replace them. However, there is work being done with Western Power to explore inverter brands that have latent remotely-upgradable capability and the relevant opportunity for saturated local networks. Short inverter lives means the existing fleet will be replaced over a relatively short period of time.</p>
<p>3.</p>	<p>DER Roadmap WEM Rule Amendments</p>
<p>Slide 13</p>	<p>JT outlined the requirement for AEMO's functions under the WEM Regulations and Rules to be expanded, as existing functions do not provide certainty that AEMO can undertake and recover costs for Roadmap Activities.</p> <ul style="list-style-type: none"> • The proposed WEM Rules changes amend Section 1.20 to expand the functions of AEMO, while ensuring the functions remain limited to only DER Roadmap implementation activities. • In requiring AEMO to undertake new functions, the need for an adapted process for in-period review was identified for these activities. The intention of the changes is to focus the ERA's review on the Roadmap activities, maintaining adequate scrutiny of those costs while not imposing burdensome requirements on AEMO and the ERA, and streamlining the process. • JT outlined the magnitude of costs to AEMO during the AR5 period (i.e. until 2021-22), with estimated Opex of \$4.8m and Capex of \$7.4m – noting these costs relate to the DER Roadmap themes of Technology Integration and DER Participation, and include capex requirements for Project Symphony (a DER orchestration pilot). • DER Register Rule Change: to add Rule 3.24 for AEMO to collect and use data on DER. National DER Register to build out and include WA. Including opex (\$0.04m) and capex (\$1.1m) over 2020-21 and 2021-22. • JT recognised Market Fees would contribute to funding of these costs, while there are a range of benefits from the Roadmap, and seeks to drive a new variety of Market Participants and seeking to ensure as system and market evolves, all participants will be subject to appropriate licensing and registration arrangements. <p>EA asked if the costs are additional to the proposed increases in market fees. JT replied, yes, these are additional costs for the delivery of the Roadmap, which have been asked of AEMO.</p> <p>EA asked if a cost-benefit analysis would be provided as part of the consultation process. JT replied, no, timeframes to undertake full analysis not possible.</p> <p>EA noted three weeks for consultation was extremely short and enquired about the availability of an extension. JT asked EA to reach out to discuss the possibility of extensions.</p> <p>Drew Harris (DH) asked if a causer-pays principle will be applied to cost recovery. JT recognised that DER does not currently act as a market participant – in future, the Roadmap aims to bring DER into scope and contribute. For now, the existing principles in the WEM Rules will be used.</p> <p>EA enquired about the progress of changes to the Access Code. JT said it will be released soon in its own consultation process. EA noted difficulty of assessing the proposed WEM Rule changes without the Access Code changes. JT noted the changes will relate to requirements on WP in how it assesses and procures solutions to network needs.</p> <p>MR asked if the proposed Rules were only for the implementation of the Roadmap. JT noted the focus is currently on AR5 period and work on technical integration activities, however, future state for DER aggregation requires work and WEM Rule redesign later. These future activities will be considered and consulted upon as part of the AR6 process.</p>

	<p>PP asked about access to DER Register information. JT explained the proposed WEM Rules don't deal with data sharing, however, DSO/DMO future may include some sharing. The DER Register is focused on Western Power and AEMO being provided with information to make decisions for network and system operation. The publication of constraints on the distribution network may come in future, but this is a design question to be answered at a later date.</p> <p>Tom Butler (TB) was invited to make comments on behalf of AEMO. He explained that Opex costs are borne by existing market participants through Market Fees, but capex will also be borne by future market participants, which may include new participants. TB noted that there will be a consultation process as part of the ERA review, and further review and consultation with the ERA before Market Fees are finalised.</p> <p>TB also noted he looked forward to building capability that allows aggregators to participate in the market and help resolve some of AEMO's security and reliability concerns. Design and planning is being undertaken within the AR5 period, and further implementation expenditure would be subject to the AR6 process.</p> <p>Noel Schubert (NS) asks if additional costs would be paid by the market participant with the most DER in its customer base. TB said it would be considered in due course.</p>
Slide 42	JT closed the meeting.