Networks Advisory Group Meeting 4 Briefing Formation

Wednesday 14 April 2021 | 2.30 – 4.00pm AEDST













Agenda



Item	Lead	Timing
Welcome, Acknowledgement of Country and Safety Moment	John Theunissen	5 min
Project status, reflections from Meeting 3, and the focus for Meeting 4	John Theunissen	10 min
Overview of the proposed Local Services Exchange process which underpins the procurement and delivery of network services via the DER marketplace	Sean Cumpston / John Theunissen	15 min
Introducing the proposed network services to be tested in EDGE, followed by a closer look at the most "familiar" services and how they are defined	Sean Cumpston / John Theunissen	15 min
Introducing the discussion topics	John Theunissen	5 min
Interactive session – NAG member inputs/guidance/insights on local services exchange process and service definition	All – Facilitated by Nous	30 min
Wrap up and the look ahead	John Theunissen (AST)	5 min



Safety moment

Ground asset inspection teams



Improving the safety of employees and contractors having to work in high risk environments

Risk Control Hierarchy





Project Status, reflections on Meeting 3 and the focus for Meeting 4

Project Status



Current position

- DERMS procurement finalised
- Various stakeholder engagements undertaken
- Hume 1 operating envelope algorithm developed
- Network services definition in progress
- Hume 1 customer sign-ups initiated

Key upcoming activities

- Technology vendor on-boarding
- Appointment of Knowledge Sharing Partner and further development/ refinement of knowledge sharing plan
- Architecture and data prep work

Reflections/summarised outputs from Meeting 3



Reflections

- General appreciation for the level of sharing and open discussion around the details of the proposed market operating models to be tested
- Suggestion to have a "base case" with rudimentary/pseudo-static operating envelope limits
- Consider testing how network pricing guides/shapes active DER behaviour this was seen as valuable evidence that could support future Tariff reform
- Reliance on "complete" network data and AMI measurements for the calculation of operating envelopes may be problematic for scaling, and have limited application for non-Victorian DNSPs – it would be advantageous if simplified analytics could also be tested with minimal data requirements
- Assessing the impact of network-side "levers" (e.g. voltage regulation) on the DER marketplace is supported and worthy of consideration
- A continued thread of simplicity in design is encouraged e.g. over-allocate network access
 capacity knowing there will be some diversity. This may simply address potential under-utilisation and
 reduce constraints for Aggregators

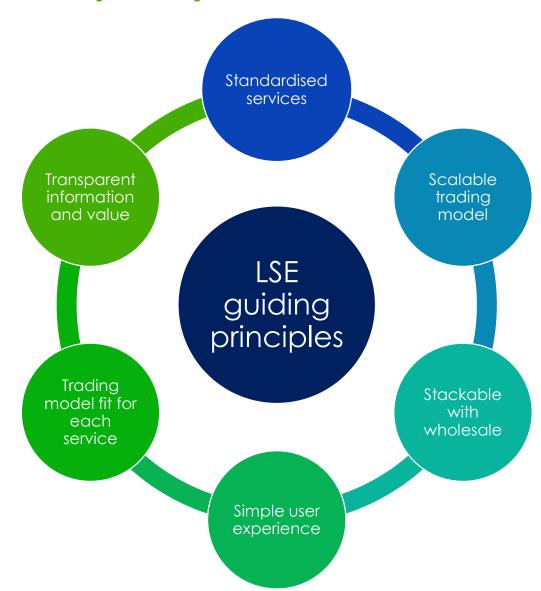
Key outputs

- Strong support to include/broaden the scope of network pricing/tariffs in the models to be tested
- Where possible, provide evidence that aligns with a progressive (from simple to sophisticated)
 operating model approach, so that differences in outcomes can be assessed, informing practical
 next steps for industry

Overview of the proposed "Local Services Exchange" process in EDGE



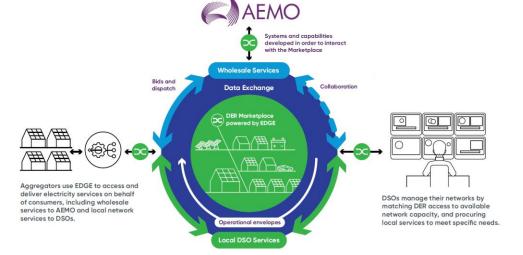
Local Service principles



Local Services – Proposed process/roles







Distribution System Operator

View posted service needs and assess whether to submit an offer

D

Define

Define service characteristics and contractual terms, post service need to LSE

Submit enrolment information and performance test data

Enrol



Assess performance test data and pre-approve to participate

Submit offer - if accepted, exchange contracts per pre-agreed terms

Engage



Post service opportunity, assess offers from preapproved participants, exchange contracts

Respond to dispatch signal to deliver service





Schedule service delivery or trigger dispatch via FDGF

Submit service verification data





Download/view data on EDGE Assess data to verify performance

Set up standard queries for reporting







Set up standard queries for reporting

Proposed network services to be tested in EDGE, with a focus on the definition of some of the more "familiar" 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 (≈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

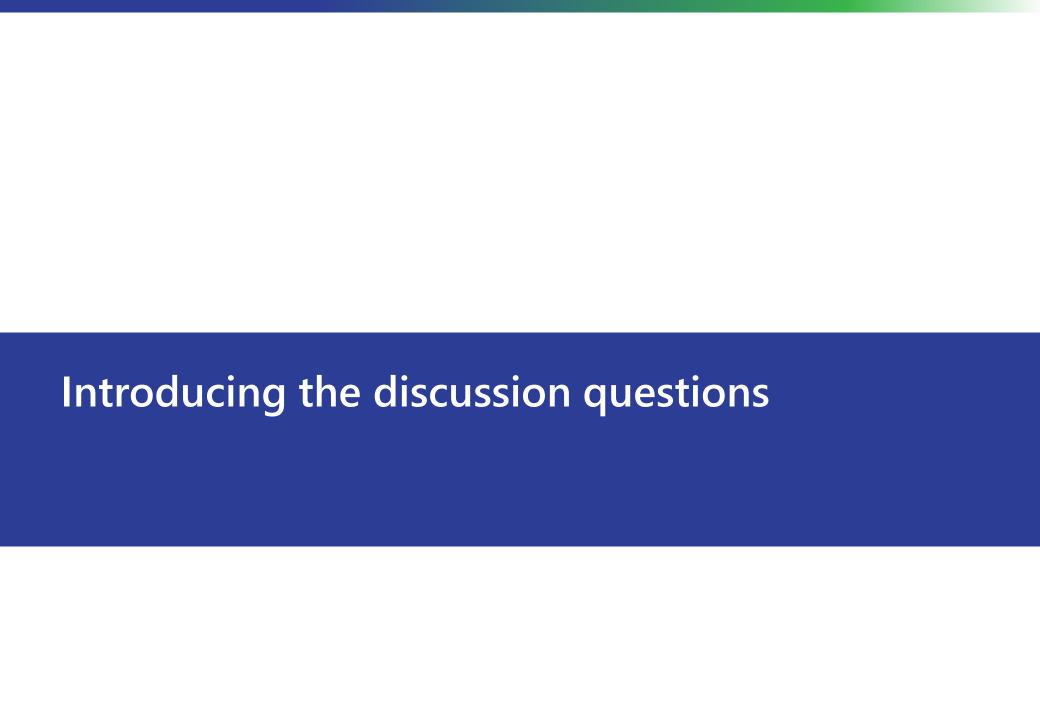
Planned Outage

• 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

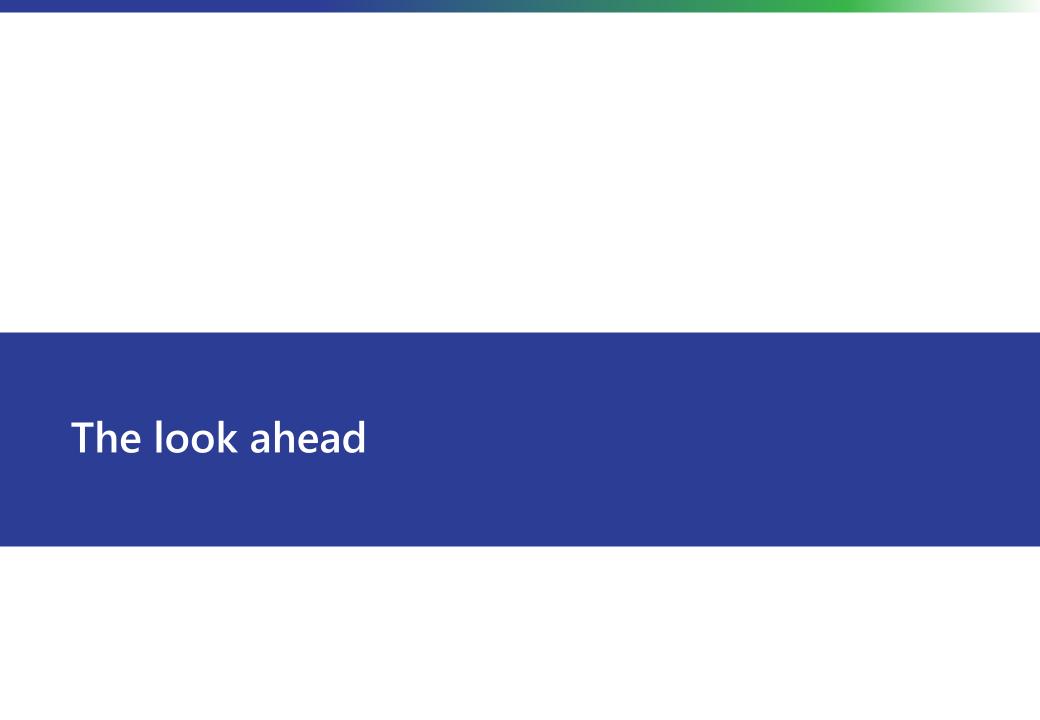


Suggested topics to ponder and discuss



- Reflections on the proposed Local Services exchange process? How might it be improved/simplified/made easier to implement and operationalise?
- The proposed individual local network services to test are specified in terms of levels of "firmness". What other categorisation could be used that might be more suitable?
- What suggested techniques or methods could be used to "value" the respective local network services that are to be procured from the market?
- We foresee challenges in measuring/validating the delivery of certain types of local network services (e.g. involving baselining). How might this be simplified, and what guidance could be offered for the testing within the trial?
- Reflections on the proposed definition of the local network services what other approaches might be attractive to test for the industry?





Anticipated future Advisory Group focus



Q1 2021

Q2 2021 Q3 2021 Q4 2021

2022/3

Operating envelope allocation methods

What to test – coordination with other projects/work

Operating envelope calculation (engine)
Context of leveraging AMI

Local services definition and functionality

- Services/scenarios to be considered
- Forecasting of need
- Valuing the service (setting the reserve price)
- Service performance evaluation/validation

DER-Network-Market optimisation

How to achieve optimal outcomes from network-side activities that influence DER access and market conditions (dynamic voltage management, network reconfiguration etc.)

Option analysis and cost-benefit assessment

- Baseline market outcomes before market + DSO
- Incremental market outcomes under Dynamic OE
- Incremental market outcomes with wholesale integration (no local market)
- As above with whole integration + local market (single/multiple aggregators)

Wholesale energy market services operating models Aligning DSO functions to

operating model designs

Treatment of network services as well as local services that are energy market related (local procure/supply transactions to alleviate local constraints)

Local services

operating model/s