Networks Advisory Group
Meeting 8 Briefing Formation

Thursday 26 August 2021 | 11:00am – 12:30pm AEST

Agenda

Item	Lead	Timing
Welcome, Acknowledgement of Country and Safety Moment	John Theunissen	5 min
Project status, reflections from Meeting 7, and the focus of Meeting 8	John Theunissen	10 min
An introduction to the EDGE data exchange hub and architecture, followed by Q&A/discussion	Energy Web Foundation - Jesse Morris	40 min
Stakeholder feedback on EDGE Research Plan (summarising input received and gathering any remaining feedback before finalisation)	University of Melbourne - Pierluigi Mancarella, - Shariq Riaz	30 min
Review/Wrap up and the look ahead	John Theunissen	5 min

Acknowledgment of Country

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.

Safety moment

Safety item | personal reflection on exposure to hazards during lockdown

LOCKDOWN

I think I'll go for a walk

Time to clean up and rearrange the "shed"

There's this little job around the house that needs fixing
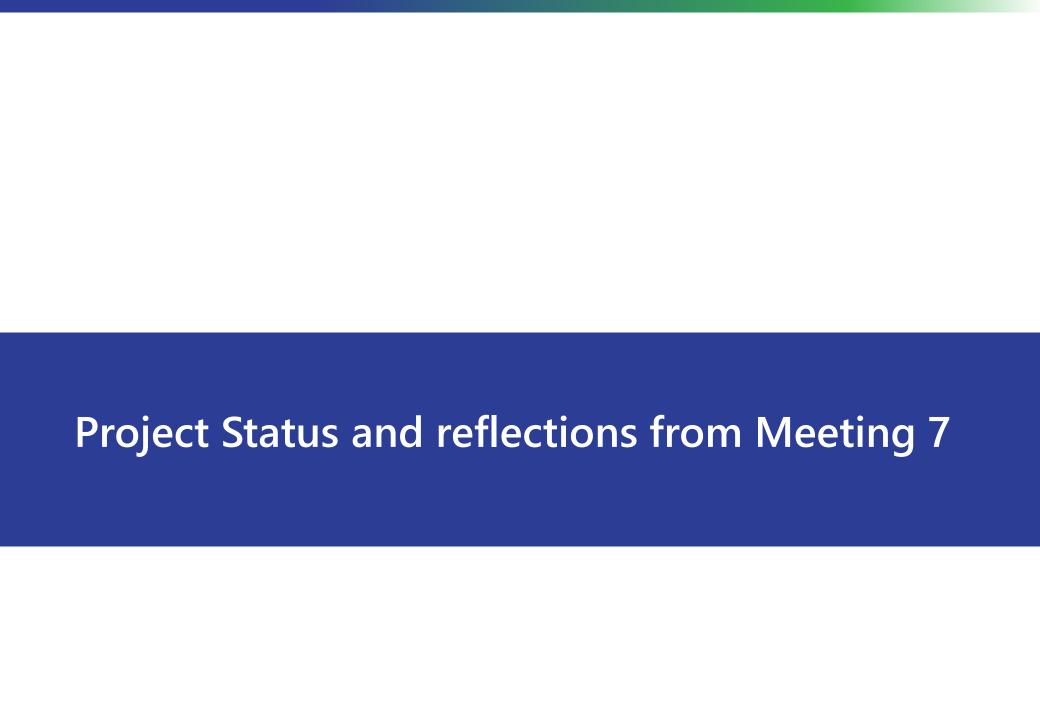
The flip side

Project Status and reflections from Meeting 7

Project Status

Current position

- Progressing key activities along the path to Milestone 2: End-to-end data/information transfer *(calculate and publish OEs from the DERMS, receive and process in the EDGE data exchange hub, send OEs to Aggregator, Aggregator produces a BOFFER, sends to EDGE platform, AEMO issues wholesale energy market dispatch)*

- Project Research Plan being finalised

- Cost-Benefit Analysis partner appointed

- Detailed design activities being progressed

Key upcoming activities

- Architecture build and detailed design to support data flows and required functionality

- Development of test plans

- Preparation for Milestone 2 deliverables
  (October 2021)

Project Schedule (high-level view)

EDGE

- ● Technical Build & Testing
- ● Operational Trailing
- ● Research/Knowledge Sharing Plan
- ● Cost Benefit Analysis Reporting

A. Trial Drop 1	
Offline Single Aggregator	
Description	Bench testing of Basic Marketplace and an LSE service with subset of Mondo portfolio

B. Trial Drop 2	
Online Single Aggregator	
Description	Field testing all use cases & functionality with full Mondo portfolio

C. Trial Drop 3	
Online Multiple Aggregators	
Description	Field testing all use cases & functionality

Research Plan   Data Sharing & Collection Plan   Detailed Trial Plan

A   B   C

May 21 | Jun 21 | Jul 21 | Aug 21 | Sep 21 | Oct 21 | Nov 21 | Dec 21 | Jan 22 | Feb 22 | Mar 22 | Apr 22 | May 22 | Jun 22 | Jul 22 | Aug 22 | Sep 22 | Oct 22 | Nov 22 | Dec 22 | Jan 23 | Feb 23 | Mar 23 | Apr 23

1   2   3

4a – AEMO

4b – AusNet & Mondo

1. Prototype	2. Market Place MVP	3. Full Market Place	4. Service Configuration & Support
Integration / Data Exchange	*Limited Functionality*	*Most Functionality Very Limited Services*	*End April '22*

Reflections/summarised outputs from Meeting 7

Reflections & Takeaways

- *Engaging conversation around reactive power services – encouraged exploration of alternative ways to define and implement*

- *Challenges identified in how to measure/validate local service performance*

- *Questions around AEMO's role and visibility in the LSE – look to clarify in future meetings*

- *Need for service prioritisation in the context of LSE and wholesale energy market*

- *View that "Capacity" trading still needs to be explored (thermal not voltage)*

- *Support for operating envelope standards (data formats and interfaces) but appreciative of the challenges*

- *Prevailing view that OE intervals will ultimately need to be at a 5min interval cadence*

- *Appreciation for the UoM worked example on operating envelope allocation methods and the trade-offs that exist*

- *Research Plan questions appeared to be skewed to networks, expectation was that there might be more focus on the market aspects – feedback taken on board*

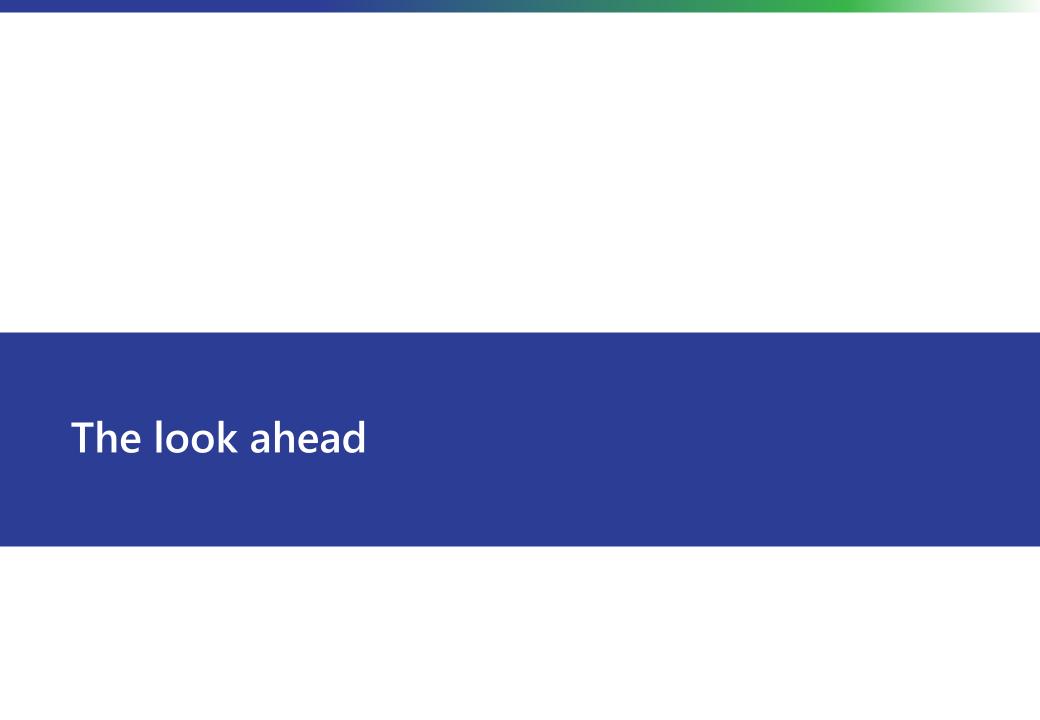# Introduction to the EDGE Data Exchange Hub and architecture

Material to be provided separately by Energy Web Foundation on the day or before

NAG Stakeholder feedback on EDGE Research Plan *(summarising input received and gathering any remaining feedback)*

Material to be provided separately by the University of Melbourne

The look ahead

Advisory Group focus

EDGE

Q1 2021	Q2 2021	Q3 2021	Q4 2021	2022/3

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

Exposure to vendor/system components within EDGE
- *Data identity and data exchange*
- *Market logic/intelligence*
- *DSO functionality*

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.)

Operating envelope allocation methods
What to test – coordination with other projects/work

Operating envelope calculation (engine)
Context of leveraging AMI data

Local services definition and functionality
- *Services/scenarios to be considered*
- *Forecasting of need*
- *Valuing the service (setting the reserve price)*
- *Service performance evaluation/validation*

Flexible customer connection contracts for active DER
How to structure and establish flexibility into customer connection contracts for DER that is actively managed

Check-in on end-to-end design within EDGE
Revisit pertinent aspects within the EDGE detailed design to enhance the value of the trial outcomes

Wholesale energy market services operating models
Aligning DSO functions to operating model designs

Consideration of Dynamic Network Pricing
- *Context*
- *Objectives*
- *Principles*
- *Design*
- *Measurement*

Cost-Benefit Analysis
CBA scope and how the various project activities align to deliver the Research Plan and CBA outcomes

Customer insights study
Overview Deakin scope of work Understand how customers are engaging and responding

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)*

Research Plan input
- *What are the key questions to answer from a DNSP perspective?*
- *How might one go about designing test plans to provide the evidence that will be needed?*

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