Networks Advisory Group Meeting 13 Briefing Information

Tuesday 24 May 2022 | 1:30pm – 3:00pm AEDT



Agenda



| Item | Lead | Timing |
|--|---|--------|
| Welcome, Acknowledgement of Country and Safety Moment | John Theunissen | 5 min |
| EDGE Project update | John Theunissen | 10 min |
| Customer Insights Report by Deakin University | Joshua Newton | 30 min |
| Techno-economic modelling of Dynamic Operating Envelope objective functions performed by the University of Melbourne | James Naughton/ Pierluigi Mancarella | 40 min |
| Wrap up and 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.

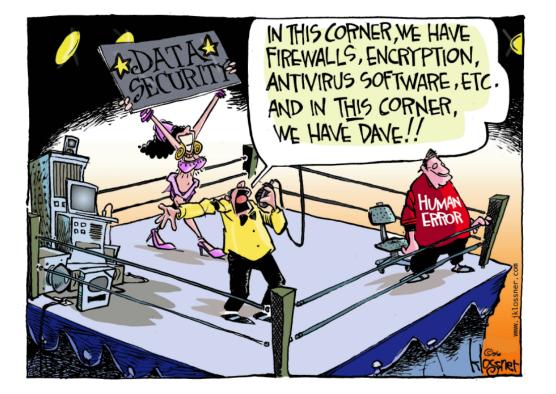
We pay our respects to their Elders past, present and emerging.



Safety moment

Safety item Cyber security – safety in our digital world





How equipped are you personally to respond to cyber attacks, Phishing, SCAMs etc.?

What business policies, procedures and practices does your company live out in this area?

EDGE Project update

Project Update | Program view



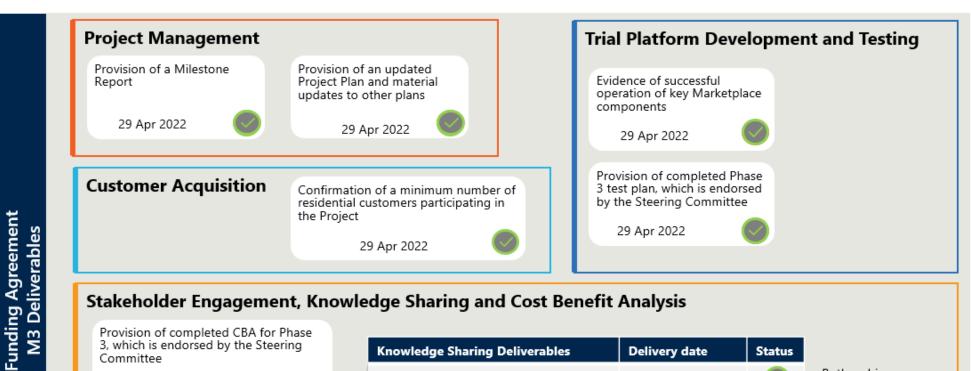
| Jul 20 – Nov 20 | Dec 20 – Oct 21 | Nov 21 – Apr 22 | May 22 – Aug 22 | Sep 22 – Mar 23 |
|--|---|---|---|--|
| Phase 1 Project Establishment | Phase 2 Core platform development | Phase 3 Finish Platform & Capability Testing | Phase 4 Scaled Operational Trials with single Aggregator | Phase 5 Expanded Operational trials with multiple Aggregators |
| Satisfy conditions precedent Develop plans, and establish governance and project Management framework | Complete detailed design, and frameworks tested Build and test Platforms and interfaces for all participants Confirmed customer recruitment locations. Flexible connection agreements with customers (project context not MSO) Knowledge sharing | Demonstrate and test marketplace operation in an off- line capacity, for: • Data exchange between participants • Local services • Wholesale participation Knowledge sharing | | Introduce additional Aggregators and Retailers* Cost benefit analysis Customer insights study Knowledge sharing & recommendations *Additional aggregators may be onboarded earlier |
| We are here ⁷ | | | | |

We are here

Project Update | What's new?



Milestone 3 deliverables submitted to ARENA



Stakeholder Engagement, Knowledge Sharing and Cost Benefit Analysis



Project Update | What's new?



The EDGE marketplace went live on 2 May with basic functionality

| DSO generates and | Aggregator prepares and | DMO calculates and | Telemetry data generated |
|----------------------|-------------------------|--------------------|--------------------------|
| exchanges dynamic OE | submits Boffers to | sends Dispatch | by aggregator and |
| with aggregator | marketplace | instructions | submitted to marketplace |

Aggregator onboarding imminent



Gold for "the award winning" Project EDGE

APEC 2022 Energy Smart Communities Initiative Best Practices Awards Program!

Project Update | What's next?



- Progressive operational release plan for remaining features to be tested in the trial
- Onboarding of new Aggregators
- Execution of operational "modes" to generate data for the CBA scenarios (already in-flight)
- Techno-economic modelling activities to inform the CBA and other analytic assessments (already in-flight)
- Publish Interim Customer insights and engagement study Report and Interim Project Report
- Continue customer acquisition focus on additional C&I customers
- Continue engagement with key stakeholders regarding implementable reform pathway
- Conduct ongoing stakeholder engagement through advisory groups and other bi-laterals

Customer Insights Report – Deakin University



Material to be provided separately by the University on the day or before

Techno-economic modelling of Dynamic Operating Envelope objective functions - University of Melbourne



Material is attached to this information pack

Advisory Group focus

To be shaped by **Advisory Group** member input



| Q3 | Q4 | Q1 | Q2 |
|------|------|------|------|
| 2021 | 2021 | 2022 | 2022 |

Local services definition and functionality

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

Research Plan input

- What are the key questions to answer from a DNSP perspective?
- test plans to provide the evidence that will be needed?

How might one go about designing

Operating envelope

allocation methods Revisit OE work and illustrate

desk-top analysis

Progression DER Fleet Dispatch

Context

Envelopes

Network Services

Cost-Benefit Analysis

CBA scope and how the various project activities align to deliver the Research Plan and CBA outcomes

Insights into the

Aggregator role in EDGE

Implementing Operating

Bi-directional Offer (Boffer)

Customer insights study

- Overview Deakin scope of work •
- Understand how customers are engaging and responding

Operating envelope updates Revisit OE work and share enhancements

CBA Scenarios, Research Plan & Testing

- Share/discuss firmed-up CBA scenarios and linkage with research plan activities
 - Discussion on proposed tests

DER-Network-Market optimisation

Optimising outcomes from network-side activities that influence DER access and market conditions

Techno-economic modelling

Share and discuss relevant material from the modelling work being done by UoM

Presentation and discussion of interim project report Sharing and discussion of content with NAG alongside publication and obtaining feedback

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

Q3+

2022

Trial operation analysis and costbenefit assessment

NAG Activities aligned with the operational stages of the trial and the Research Plan hypotheses / tests

Exposure to vendor/system components within EDGE

- Data identity and data exchange
- Market logic/intelligence
- DSO functionality