CER Data Exchange Industry Co-design

Workshop 3

6 March 2025

Welcome & Introduction

Housekeeping, venue safety and meeting logistics

Housekeeping and venue safety

Emergency Exits

A few requests from the project team

Be open to different perspectives

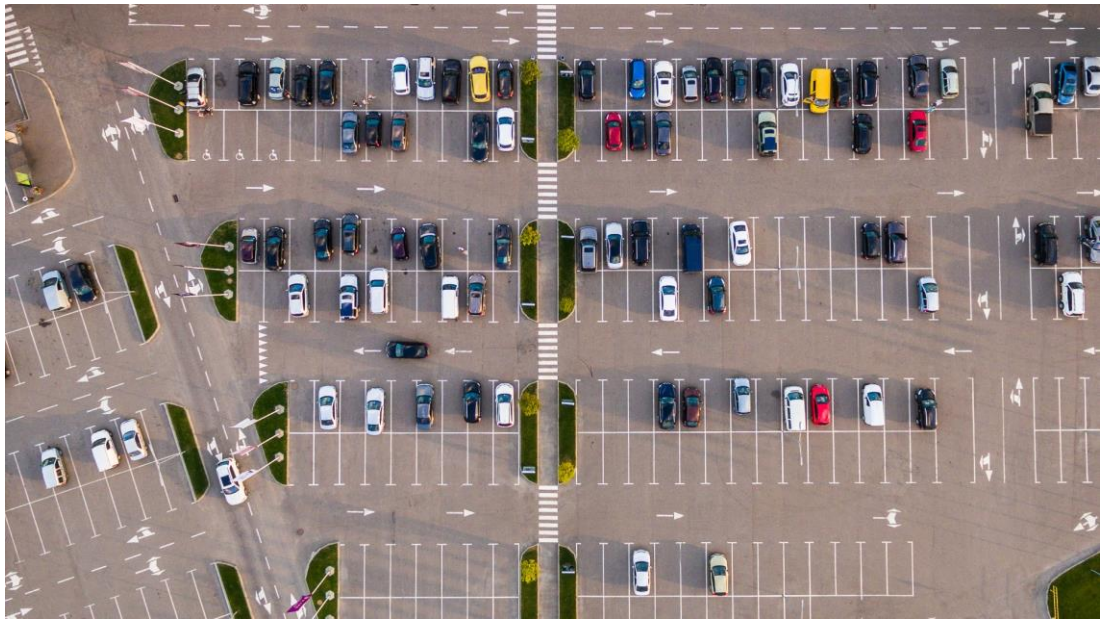
Outcome focused – focus on the problem we are trying to solve, but we can't solve everything

Welcome constructive questions

Please stay at your allocated tables.

Ideas wall and Parking Lot

Capturing all our ideas today

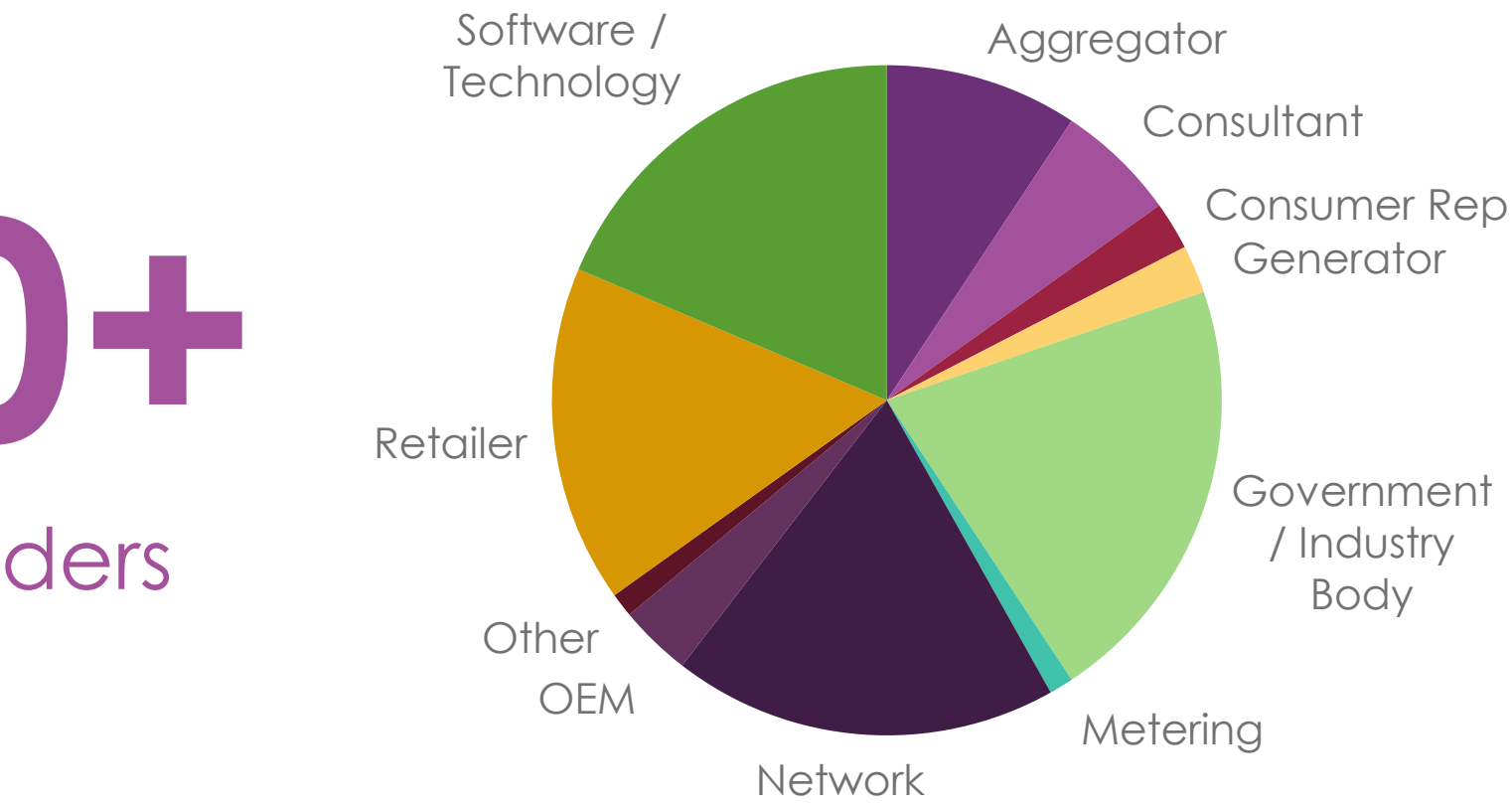


Today's workshop

Who is here today?

100+

Stakeholders



Workshop #3 Agenda

Morning Sessions
Registration
Welcome & Introductions
Part 1: Context *Presentations* • CER National Roadmap • CER Reform Landscape • Project Update *Activity 1a:* Implementation Future Think
Morning Tea Break
Part 2: MVP of Priority Use Cases *Presentation* *Activity 2:* MVP In / Out • Technical – MVP vs Future Evolution • Use Cases 1, 2 & 3
Lunch

Afternoon Sessions
Panel Discussion
Part 2 (cont.): Governance and Accountability *Activity 3:* Governance, Roles & Responsibilities
Part 3: Cost Assessment *Presentation*
Afternoon Tea Break
Part 3 (cont.): Cost Assessment *Activity 4:* Cost Assessment
Part 4: Implementation Considerations *Presentation* *Activity 1b:* Industry input on implementation considerations
Next Steps & Closing Remarks

Part 1: Context

Presentations by:

- Phil Poon – DCCEEW
- Violette Mouchaileh – AEMO
- Anna Collyer – AEMC
- Ed Chan – Mott MacDonald

Mini-Panel

CER Roadmap Update

Phil Poon

Department of Climate Change, the Environment, Energy and Water (DCCEEW)

Australian Government
Department of Climate Change, Energy, the Environment and Water

National CER Roadmap

Presentation to the
CER Data Exchange Workshop #3

Phil Poon
6 March 2025

Background

Australia's energy system is changing

- CER is being increasingly being acquired and deployed by Australians
- Australia has set a target of 82% on-grid electricity supplied from renewables nationally.
- CER is transforming the energy system from a centralised, one-directional system to a decentralised, bidirectional system

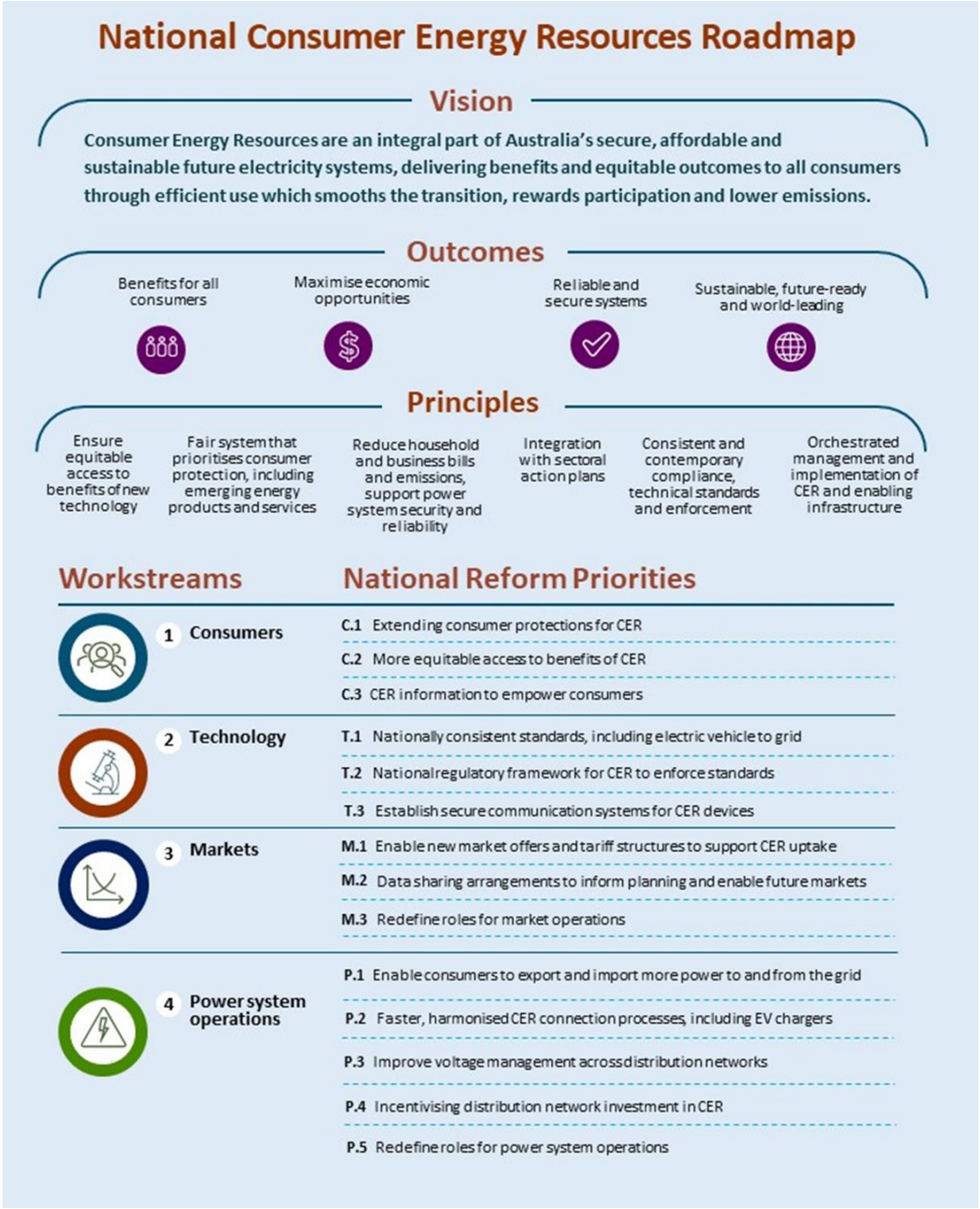
National cooperation is needed

- Jurisdictional roadmaps identify different processes, priorities and timelines for CER integration
- The Roadmap provides a pathway for national CER integration
- The Roadmap sets out a national vision, a series of outcomes and projects required for CER integration

National Consumer Energy Resources Roadmap

- Aims to put downward pressure on bills and overall system costs, reduce emissions & broaden access to CER across consumers
- Includes:
  - New consumer protections
  - Network reforms that allow consumers to export more solar power to the grid
  - Nationally consistent standards in key areas, including to enable vehicle to grid technologies

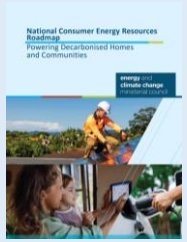
Workstreams & Priorities



How this project fits into the National CER Roadmap

Consumers workstream

[C.1]
[C.2]
[C.3]



Visit National CER Roadmap

CER Taskforce Project (current)

[M.3, P.5] Redefine roles for market and power system operations

Hard & Soft Dependencies

Part of this stream

[M.2] CER Data Sharing Arrangements

Hard & Soft Dependencies

[T.1] Interoperability Standards ecosystem

Some relevant National CER Roadmap initiatives

Distribution level market roles and responsibilities defined

Roles and responsibilities for power system operations defined

Defines which functions are needed and the responsible parties

Data sharing arrangements to inform planning and enable future markets
To enable consumer participation

Bridges functions and devices with enabling data and infrastructure

Interoperability standards developed
Ensures CER devices work as intended, can communicate with each other and maintain cybersecurity

Defines what devices need to be able to do

National CER Roadmap

www.energy.gov.au/energy-and-climate-change-ministerial-council/energy-ministers-publications

Contact us

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dcceew
gov.au

AEMO Landscape and concurrent reforms

Violette Mouchaileh

Australian Energy Market Operator (AEMO)

A message from the AEMC

Anna Collyer

Australian Energy Market Commission (AEMC)

Anna Collyer, Australian Energy Market Commission

Presentation: Project Update

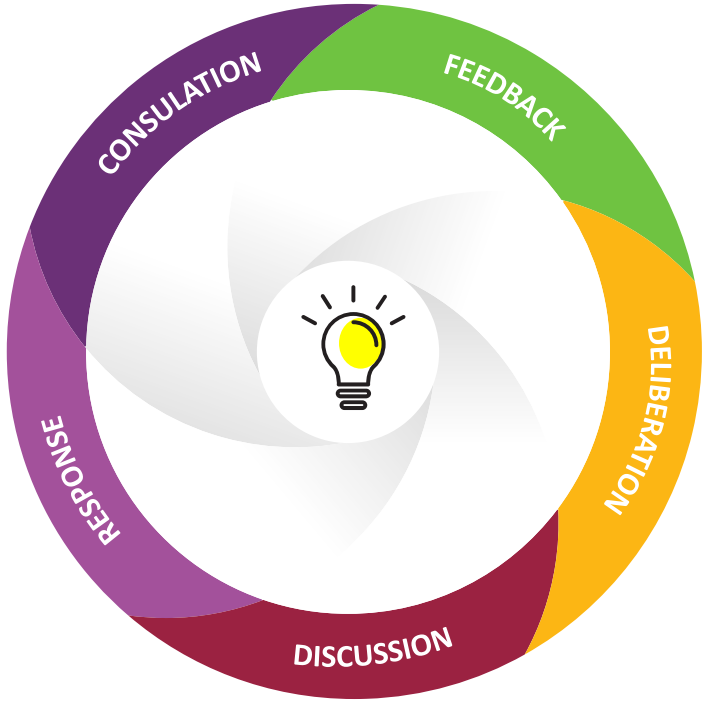
Ed Chan

Mott MacDonald

The CER Data Exchange Co-Design project

Alignment on a high-level design preferences

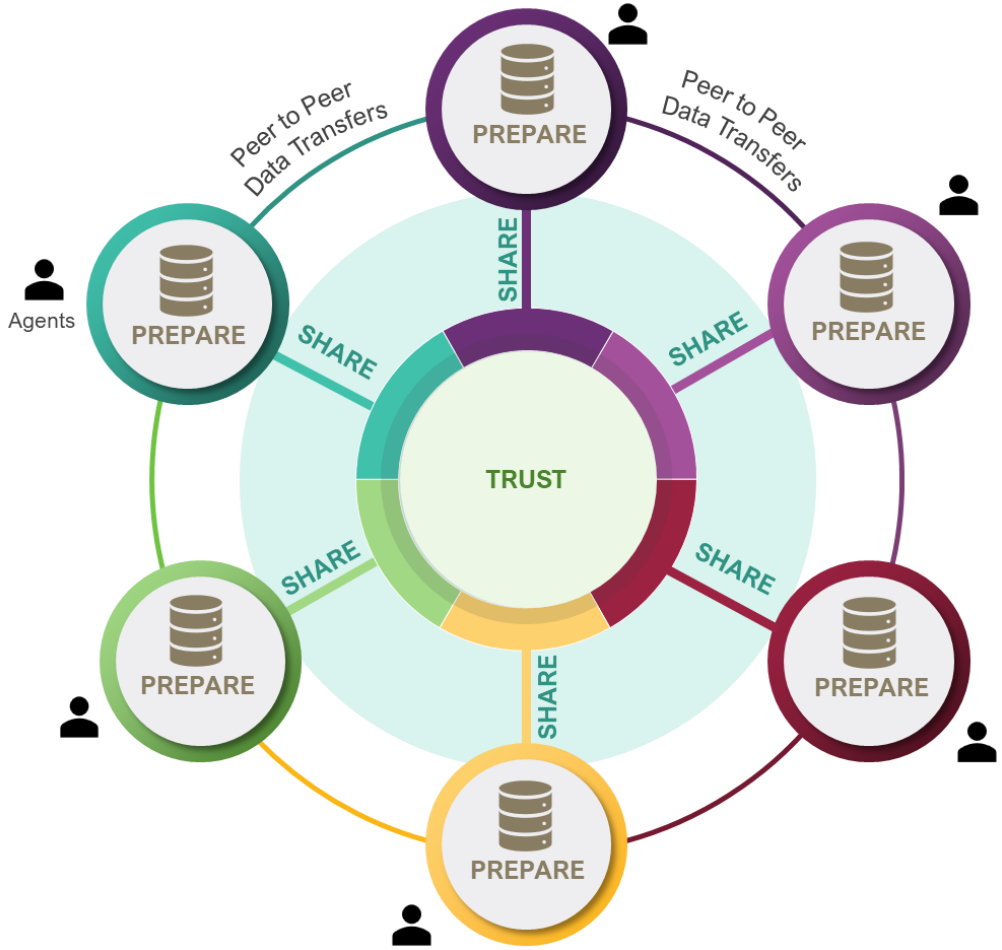
Co-design project with stakeholders



What is the CER Data Exchange?

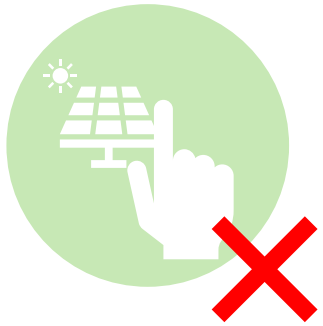
Name: Experiment 626
Nickname: “Stitch”
Origin: Intergalactic Planetary System

What is the CER Data Exchange?



- ✓ Organisation to organisation data and information exchange
- ✓ A streamlined and more efficient way to exchange data
- ✓ Improve information and data accessibility
- ✓ Enables better CER integration and coordination

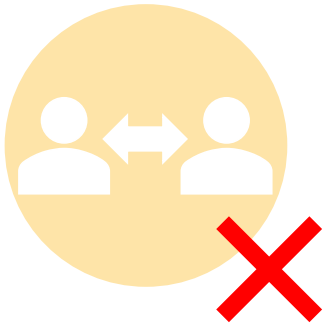
What the CER Data Exchange is not



Directly control customer devices

Take over existing market participant functions

Replace existing efficient processes

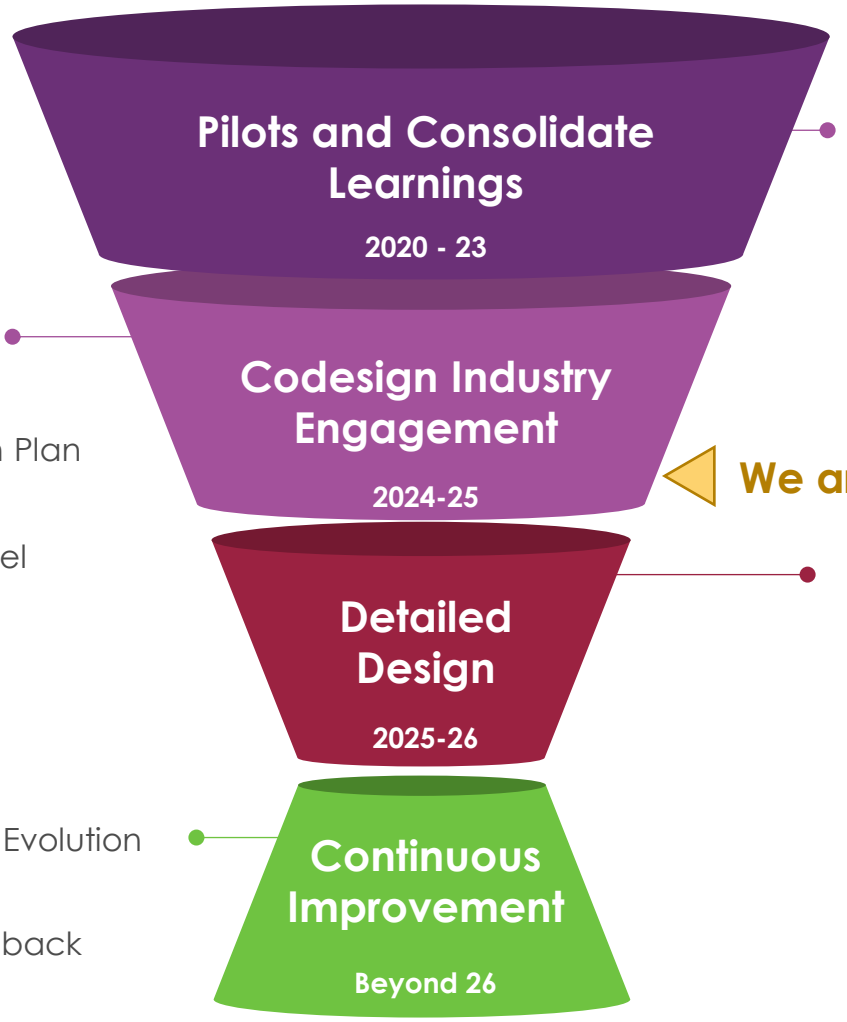


Not the only way to exchange data

Experiment 626 “Stitch”

This has been a long journey

But this project isn't the start of the journey



- UK Digital Spine
- Project Symphony
- Project Edge
- Industry Best Practice

- Market Alignment
- Governance
- Workshops & EWGs
- Implementation Plan
- Cost Assessment
- Operating Model

We are here…

- Architecture
- Schema Standards
- Business Rules
- Investment Case
- Regulatory Reform
- MVP Detailed Design

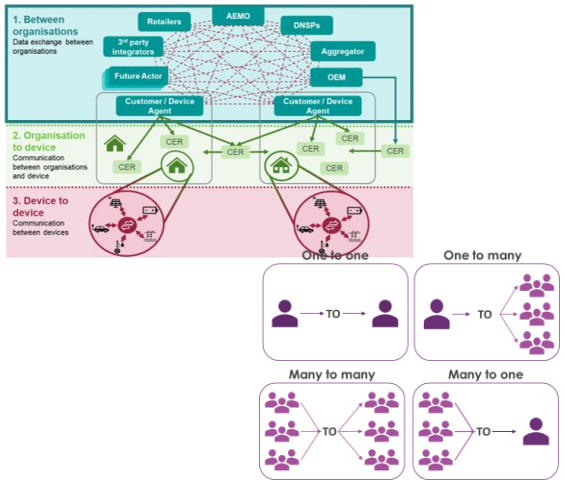
- Scalability
- Use Case Evolution
- AI Automation
- User Feedback

We have worked with stakeholders to develop the key design elements

Why and What → **How, What and Who** → **Confirming the way forward**

Workshop 1

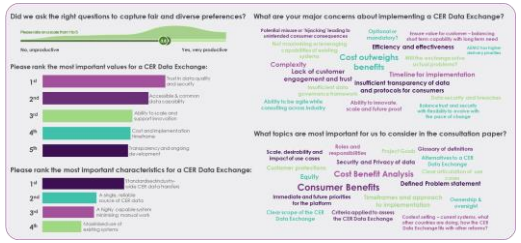
- Exploring the capabilities of the CER Data Exchange through use cases
- Use case categories, patterns and preliminary selection criteria

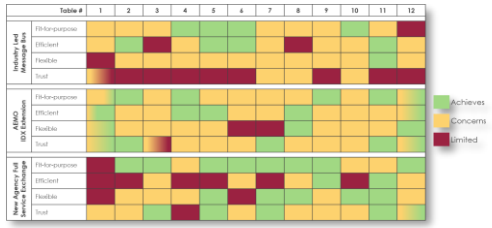


Workshop 1 Summary Report

Workshop 2

- Testing alternative futures to co-define the value of change
- High level design trade-offs (functionality, ownership, oversight)





Workshop 2 Summary Report

Webinar

Webinar Recording

Feedback

Consultation Paper

Test stakeholder perspectives on:

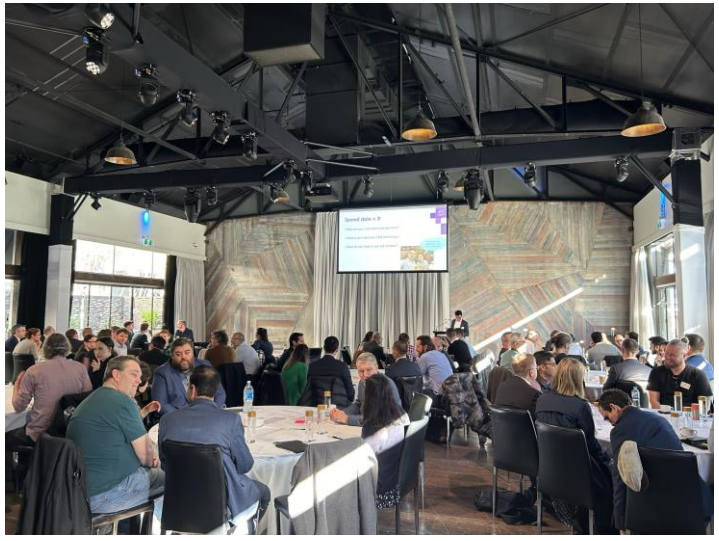
- Use case functionality
- Data sharing capability
- Ownership, operations & oversight
- Data governance
- Implementation considerations

Consultation Submissions Summary Report

- Strong stakeholder support
- AEMO-led
- Leverage existing capabilities
- 3 x priority use cases
- Start small then grow

See Appendix A for summaries of Workshop 1, Workshop 2 and the Consultation Paper.

Many of you joined us on this journey

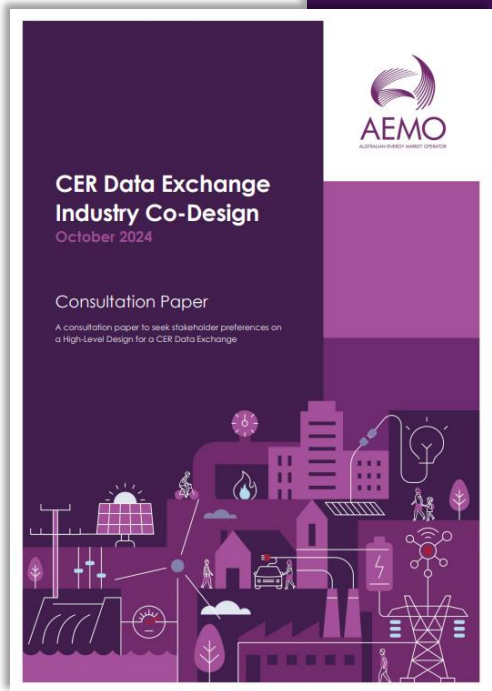


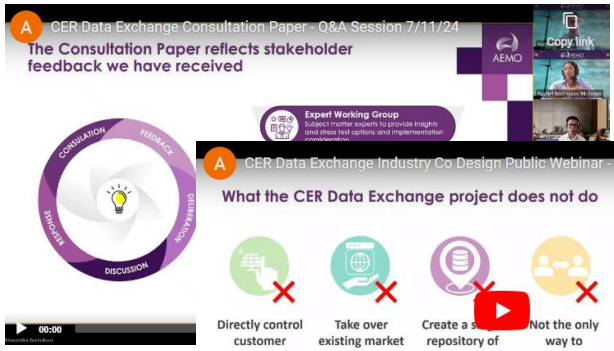
Significant contributions by industry to shape reform

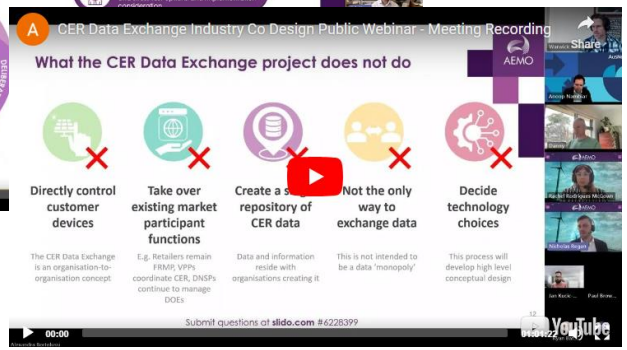
170 People at Industry Workshops

23 Submissions to the Consultation Paper

12 Expert Working Group Meetings







How has stakeholder feedback shaped this process?

AEMO as preferred owner and operator

3 x priority use cases

Leverage existing infrastructure where possible

Start small, then grow

AEMO continue to led co-design process

CER Standing Data, Sharing Network Limits, Network Support + Flexibility Capability Discovery

Leverage the capabilities developed through **MITE**

Focusing on developing 'minimum viable product' for the priority use cases

Market Interface Technology Enhancements (MITE)

Components of MITE

Identity and Access Management (IDAM)

"right people to get right access"

A unified mechanism to authenticate and authorise external identity and entitlements.

Information Data Exchange (IDX)

"exchange for high volume transactions"

A unified data exchange mechanism to support the secure and efficient exchange of data.

Portal Consolidation (PC)

"one stop shop"

A new web and mobile user portal to provide a unified stakeholder experience.

We have come a long way

June 2024

Now

Broad Stakeholder Support

3 x Priority Use Cases

AEMO Preferred Owner & Operator

Build on MITE infrastructure

Start narrow and scale via phased implementation

Key questions to resolve…

WHAT IS THE MINIMUM VIABLE PRODUCT?
Pre-Lunch & EWG Refinement

WHAT IS THE GOVERNANCE MODEL?
After Lunch

HOW MUCH WILL IT INDICATIVELY COST?
After Lunch

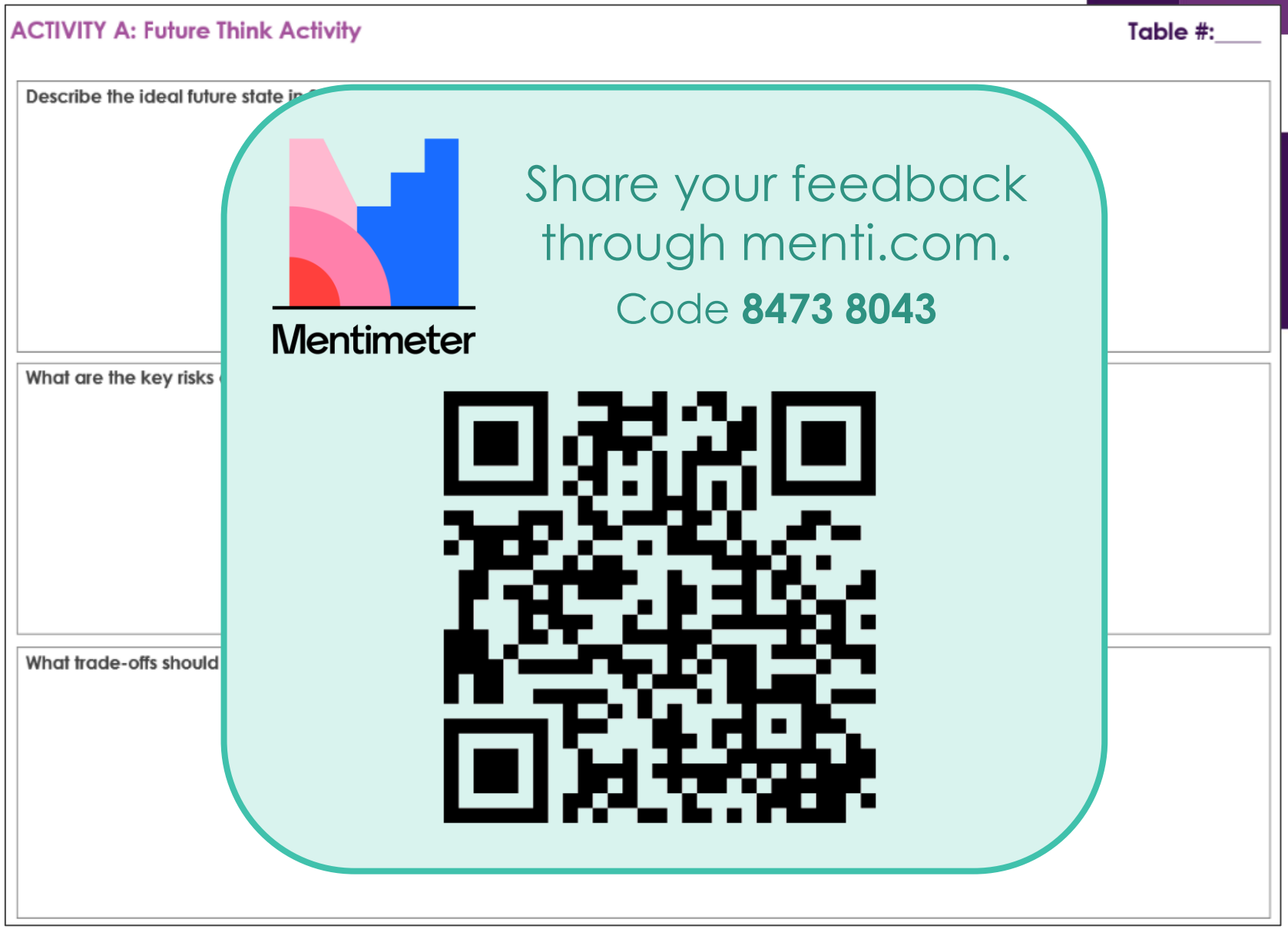
Mini Panel

Phil Poon – DCCEEW
Violette Mouchaileh – AEMO
Ed Chan – Mott MacDonald

ACTIVITY 1: Implementation Future Think

Activity #1 Implementation Future Think

Consider the role and capabilities of the CER Data Exchange in the future.

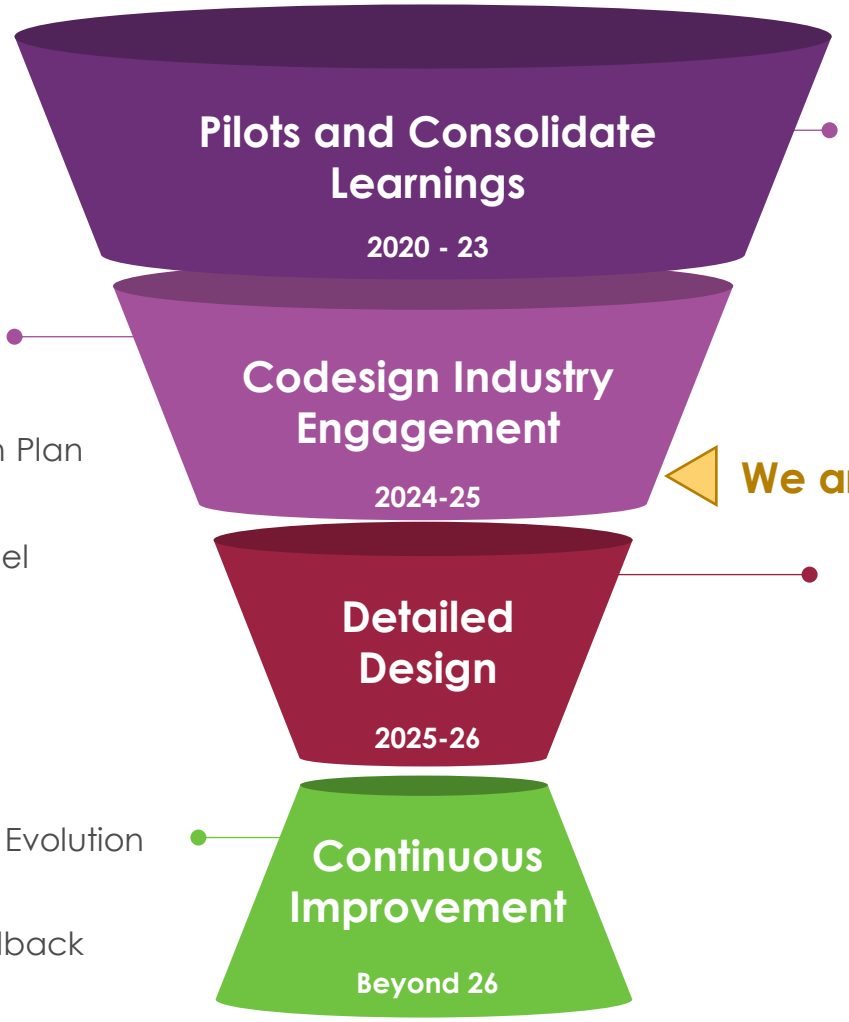


Morning tea break

Part 2a: MVP of Priority Use Cases

Craig Chambers

CER Data Exchange Evolution



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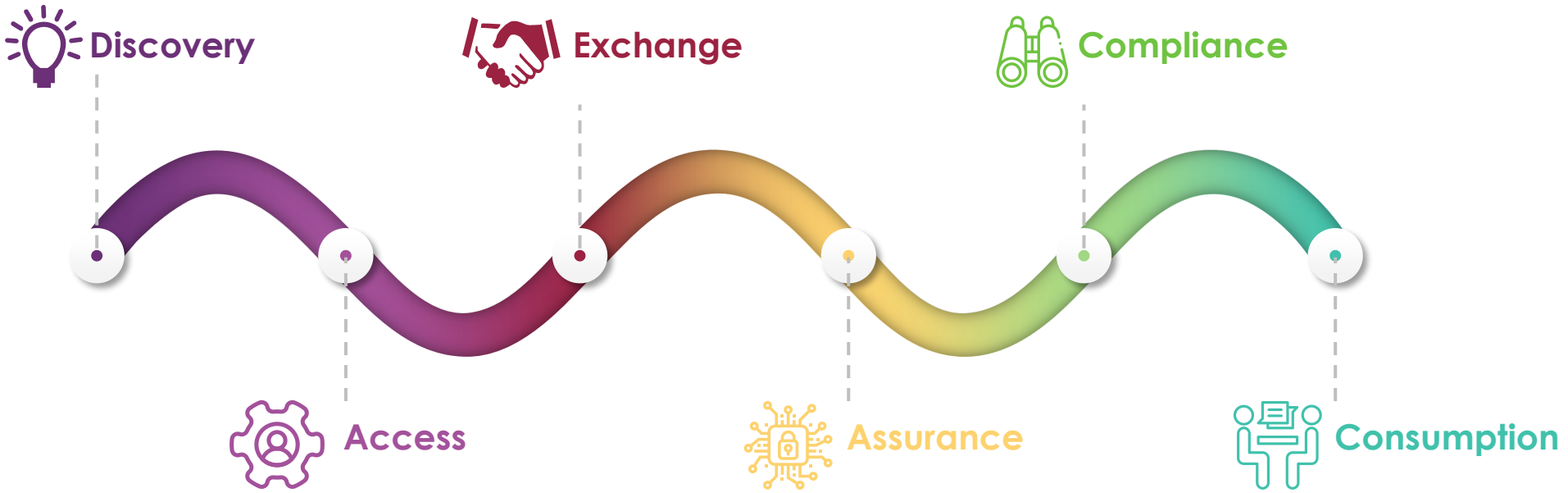
Data Exchange Journey & Services



Security & Role Based Access

Data Processing

Governance & Oversight

User Interface

Coordination & Engagement

Data Integration

Business Logic

Report & Audit

Exchange Operations

Functional & **Operational** Exchange Services

Data Exchange Services

Functional Services

SECURITY & ACCESS
Authentication, encryption, and compliance controls to protect data integrity, ensure authorised access, and enforce regulatory security standards.

DATA INTEGRATION
Standardised APIs, event-driven messaging and multiple access methods to enable reliable and scalable data sharing.

DATA PROCESSING
Validates, transforms, and securely stores data (if required), ensuring data quality and interoperability and accessibility.

BUSINESS LOGIC
Defines and enforces schema validation, business rules and automated governance to maintain consistency & compliance.

USER INTERFACE
User-centric web portals, dashboards and self-service tools to enable stakeholders to interact and monitor data exchange efficiently.

REPORTING & AUDIT
Monitors data interactions through audit logs, automated compliance checks, and self-service reporting tools.

Operational Services

OPERATIONS & MANAGEMENT
Maintains system reliability, scalability, and performance through dynamic monitoring, incident resolution, maintenance protocols, and a sustainable funding mechanisms.

COORDINATION & ENGAGEMENT
Facilitates structured stakeholder engagement, industry co-design, and ongoing alignment with national and international data standards.

GOVERNANCE & OVERSIGHT
Compliance frameworks, transparent governance structures, cost recovery models, and regulatory enforcement mechanisms to ensure the data integrity, transparency and stakeholder confidence.

*MITE provides all this capability for data transmission and access control. Any back-end applications required (e.g. in Use Case #1) will need to be securely built and to leverage the access control services.

Covered by MITE*, minimal incremental costs

Additional cost

Additional cost

MITE & Exchange Assessment

LEGEND
- ☑ Full Covered by MITE
- ➲ Partially Covered by MITE
- ❖ New Build

SECURITY & ACCESS
- ☑ Authentication & RBAC
- ☑ Encryption & Key Management
- ➲ Audit Logging & Monitoring
- ☑ Application-layer role enforcement
- ➲ Audit trail capabilities
- ➲ Cybersecurity & Compliance

DATA INTEGRATION*
- ☑ Standardised APIs
- ☑ Multiple Access Patterns
- ☑ Message Queuing
- ☑ Event-Driven Architecture
- ☑ Flow Control & Connectivity
- ☑ Event-driven functionality
- ☑ Custom API endpoints
- ☑ Interoperability Standards

DATA PROCESSING
- ☑ Data Validation
- ❖ Content-level validation
- ❖ Data Transformation
- ❖ Historical Data Management
- ❖ Data Re-Sends & Recovery

BUSINESS LOGIC
- ❖ Business Rule Enforcement
- ❖ Automated Data Governance
- ❖ Incremental Data Management

USER INTERFACE
- ❖ Audit Logging
- ❖ Self-Service Reporting
- ❖ Self-Service Analytics

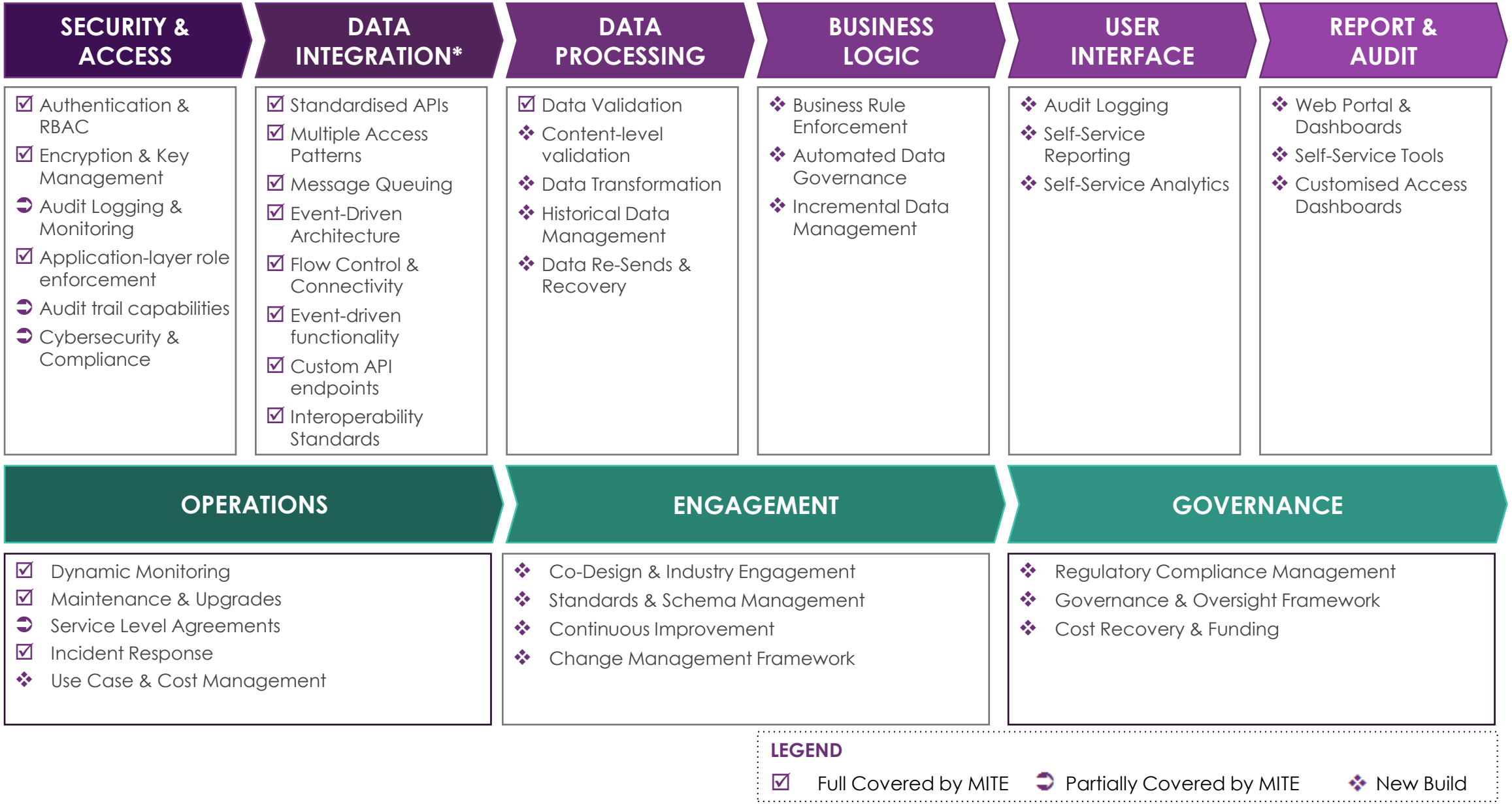
REPORT & AUDIT
- ❖ Web Portal & Dashboards
- ❖ Self-Service Tools
- ❖ Customised Access Dashboards

OPERATIONS
- ☑ Dynamic Monitoring
- ☑ Maintenance & Upgrades
- ➲ Service Level Agreements
- ☑ Incident Response
- ❖ Use Case & Cost Management

ENGAGEMENT
- ❖ Co-Design & Industry Engagement
- ❖ Standards & Schema Management
- ❖ Continuous Improvement
- ❖ Change Management Framework

GOVERNANCE
- ❖ Regulatory Compliance Management
- ❖ Governance & Oversight Framework
- ❖ Cost Recovery & Funding

* Note: Incremental infrastructure may be required to service data volumes required by CER Data Exchange



* Note: Incremental infrastructure may be required to service data volumes required by CER Data Exchange

Co-designed Priority Use Case Overview

1 Broader Access to CER Standing Data

Challenge: Lack of accurate, consistent, and accessible CER standing data which hinders grid planning, market participation, and regulatory compliance.

Objective: Establish trusted, standardised, and dynamic access of CER data.

Outcome: Improved CER data accuracy and consistency, reducing administrative burden, supports interoperability and increasing value for customers.

2 Efficient Sharing of Network Limits

Challenge: Access to network limits is typically limited to agents (e.g. OEMs), Aggregators and Retailers.

Objective: Facilitate the sharing of network limits from DNSPs to other actors who need the information.

Outcome: Reduced integration, registration and compliance challenges, improved operational awareness, and grid performance optimisation.

3 Network Support & Flex Capability Discovery

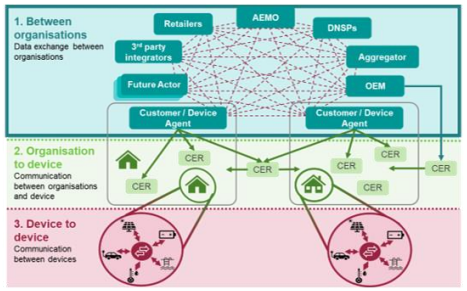
Challenge: Limited visibility into flexibility capability and the value of elevating network constraints restricts efficient CER participation in flexibility markets.

Objective: Enable secure, standardised data exchange between industry and flex service providers.

Outcome: Improved coordination and activation of flexible resources whilst reducing barriers to entry for new market participants

Design Evolution

CONCEPT DESIGN



EDGE Energy Demand & Generation Exchange

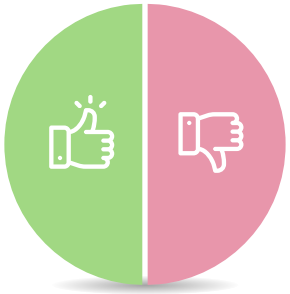
Project Symphony

Digital Spine
Feasibility study

HIGH LEVEL DESIGN MINIMUM VIABLE PRODUCT

- CER Standing Data
- Sharing Network Limits
- Flexibility Services

IN



OUT

DETAILED DESIGN & IMPLIMENTATION

- Ongoing Industry Codesign
- Regulatory Considerations
- Funding Investment
- Detailed Technical Design
- Compliance & Governance
- Agile Staged Implementation

High Level Design Today

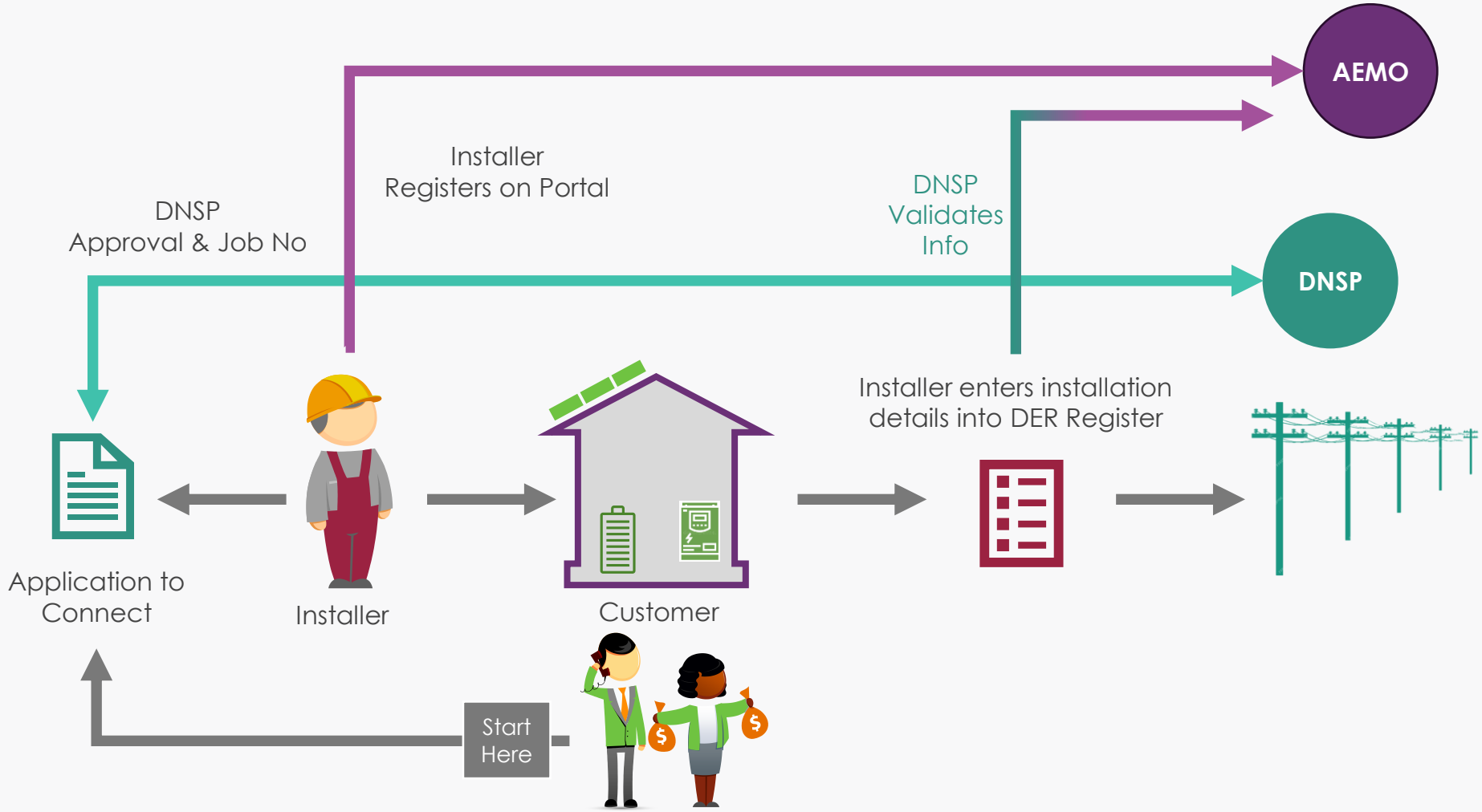
Detailed Design Post Codesign Process

Use Case: Broader Access to CER Standing Data

Use Case: Broader Access to CER Standing Data

Current Data Sharing Process

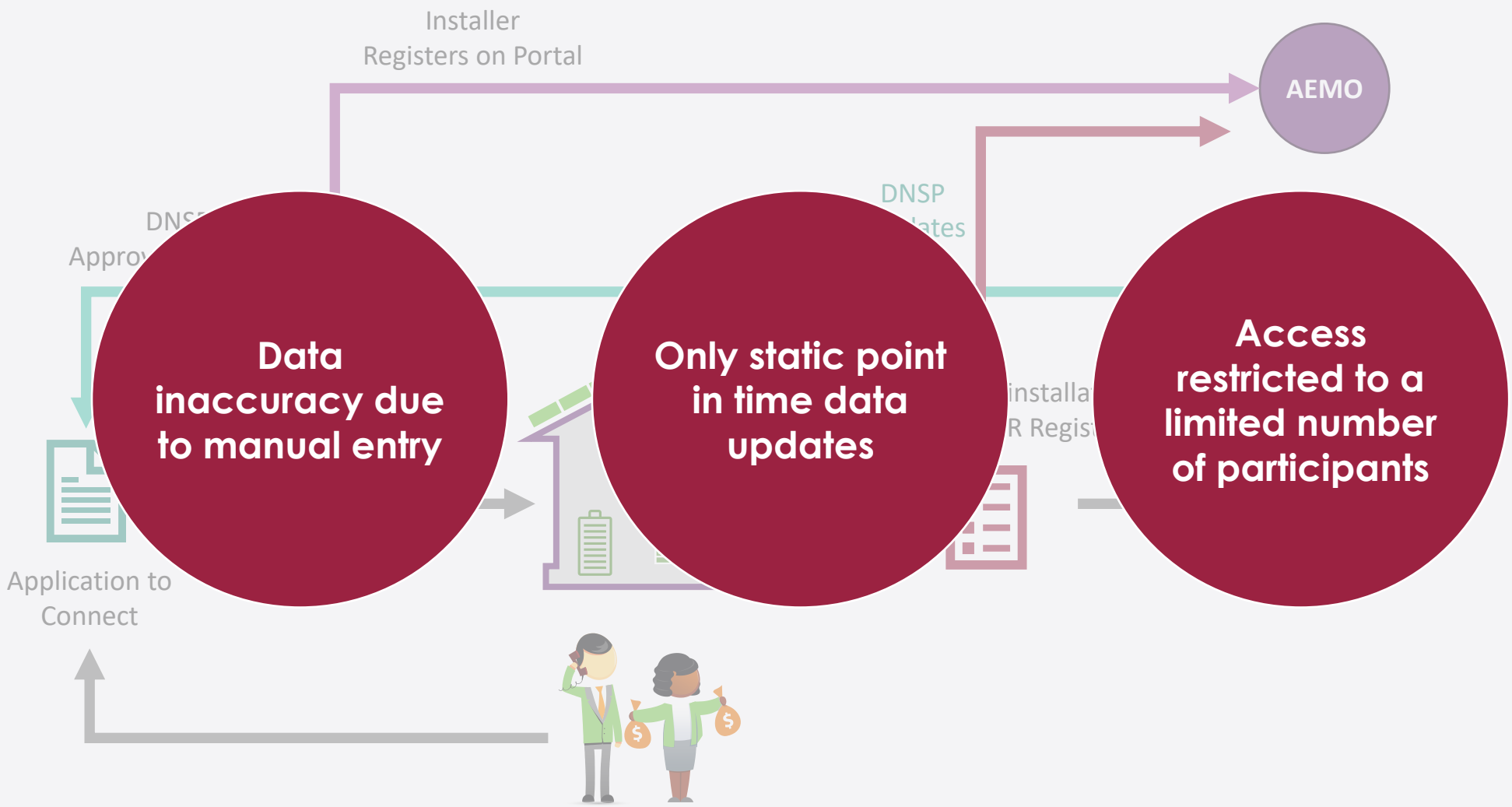
DER Register Today



Use Case: Broader Access to CER Standing Data

Data Sharing Challenges

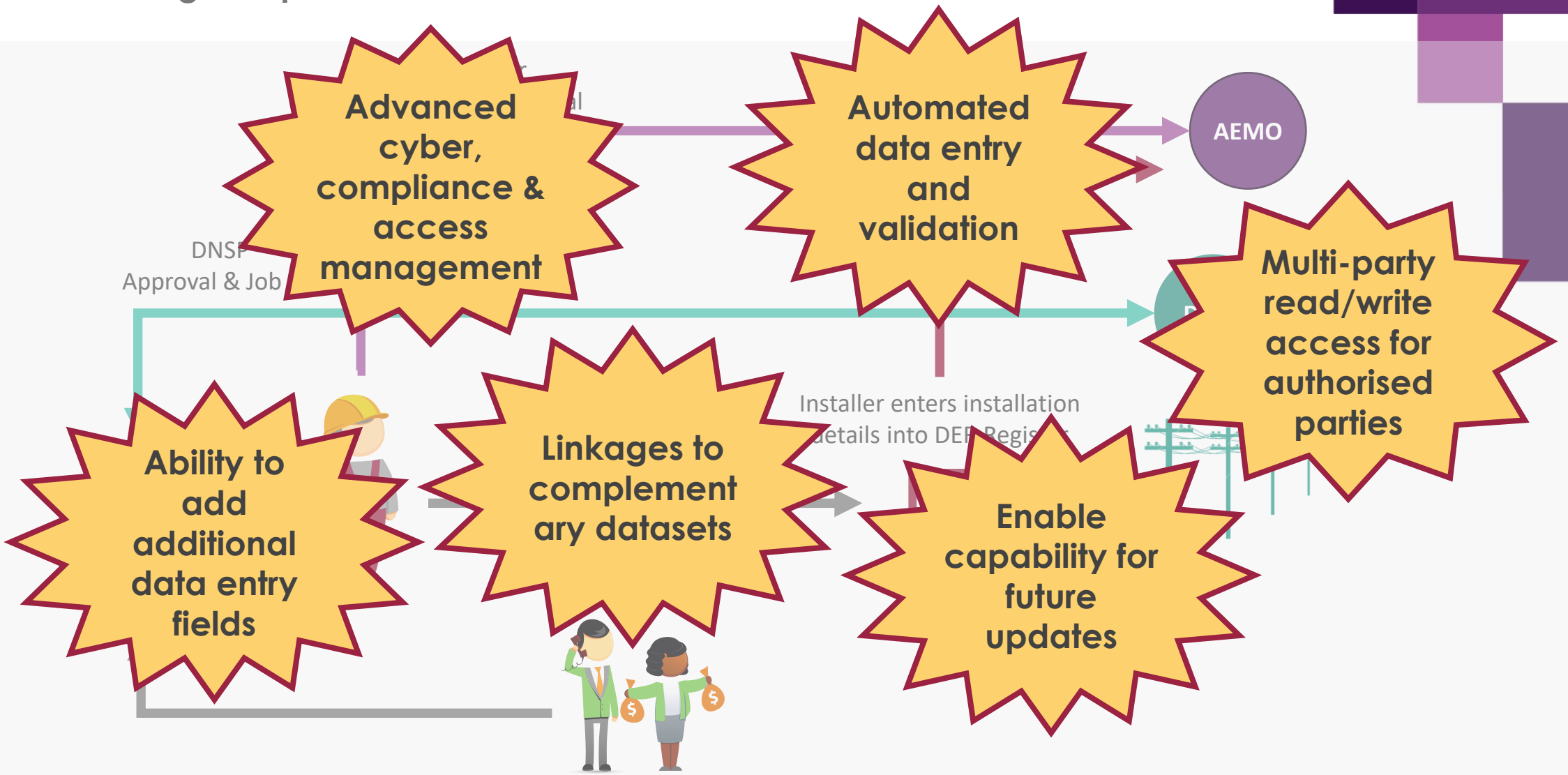
Challenges



Use Case: Broader Access to CER Standing Data

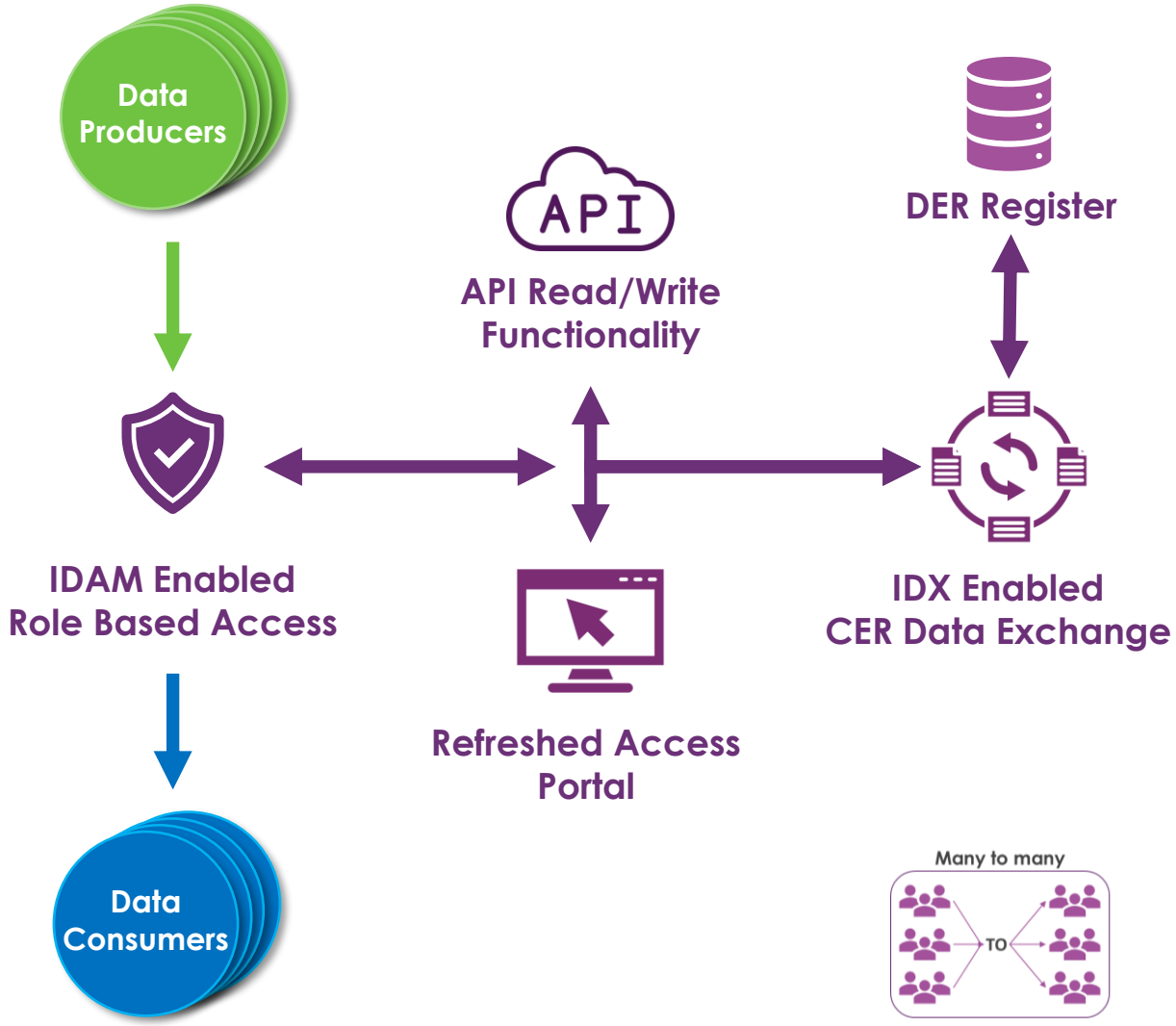
CER Data Exchange Proposed Value Add

Proposed MVP



Use Case: Broader Access to CER Standing Data

Use Case Overview and Co-design Trade-offs



Design Trade-offs	Proposed MVP
Manual vs Automated Data Updates vs **Start Small Hybrid**	Introduce automated data ingestion and validation mechanisms to reduce reliance on manual data entry while maintaining human oversight where necessary.
Historical Static vs Future Updates vs **Start Small Hybrid**	MVP would maintain a point in time historical dataset (BAU) while enabling future updates with validation where feasible.
NSPs and AEMO only vs **Role Based Access**	Enable tiered access control, allowing different levels of access based on role, regulatory/legal requirements, and privacy considerations. This would primarily include customer agents and retailers.
Voluntary vs Mandatory vs **Start Small Hybrid**	Maintain existing mandatory responsibilities however encourage voluntary participation initially by customer agents/retailers, with a pathway to mandatory integration supported by incentives.
Standardisation vs Customisation vs **Start Small Hybrid**	Develop standardised data formats while allowing flexibility for stakeholder-specific extensions.

Use Case: Broader Access to CER Standing Data

Proposed High Level Design

OBJECTIVE

Establishes a common access point for agents to share/update verified CER asset data, ensuring consistency, enabling confident data accuracy, reducing inefficiencies, enabling innovation and supporting improved customer outcomes.

Current State Limitations

Data Accuracy and Completeness

Reliance on manual data entry results in discrepancies and reduced confidence in an up-to-date, accurate CER registry for operational and market use.

Only static point in time data updates

Most Standing Data sets function primarily as a static repository, with updates occurring only when new installations or modifications are made.

Limited Stakeholder Access

Access to most CER Standing Data sets is restricted, preventing key stakeholders from fully leveraging the data. New CER owners cannot access history for their acquired assets.

Proposed MVP (Activity)

Coordination & Engagement	AEMO to facilitate policy and technical working groups to refine, iterate and implement use cases.
Exchange Operations	Infrastructure builds on MITE (IDX & IDAM) including ongoing reliability, redundancy & security mgmt
Governance & Oversight	Multiple access patterns, Interoperability Standards, Flow Control & Connectivity
Security & Role Based Access	Implement IDAM authentication and multi-tiered RBAC permissions for differentiated data access
Data Integration	DER Register, Backstop compliance registers, network limits, PKI, MSATs NMI visibility, regional data portals (e.g. NSW)
Data Processing	Create read and write capability for all parties within quality controls limitation and role definitions.
Business Logic	Schema & interoperability standardisation, within privacy, cyber and CDR limitations
User Interface	Not included in MVP; access is provided through APIs and integrated platforms.
Report & Audit	Encryption management, role enforcement, Compliance Regime to be established.

Functional & **Operational** Exchange Services

MVP Outcomes

- Expanded role-based access to additional authorised parties
- Improved security, standardisation and authentication
- Additional complementary dataset access linkages

Future Evolution

- Automated event-based updates and quality control
- Capturing aggregator linkages to CER asset types
- CER Firmware updates via OEMs
- Expand accountability to include installers, OEMs and customer agents to maintain the data accuracy.
- Expand compliance, assurance validation, business logic and monitoring & reporting
- NMI level visibility & historical log
- Improve data quality standards, compliance obligations and uniform schemas
- Establish a self-service UI

Use Case: Broader Access to CER Standing Data

WORKSHOP ACTIVITY

Use Case: Broader Access to CER Standing Data

Proposed High Level Design

OBJECTIVE	Proposed MVP (Activity)	MVP Outcomes
Establishes a common access point for agents to share/update verified CER asset data, ensuring consistency, enabling confident data accuracy, reducing inefficiencies, enabling innovation and supporting improved customer outcomes.	Coordination & Engagement: AEMO to facilitate policy and technical working groups to refine, iterate and implement use cases. Exchange Operations: Infrastructure builds on MITE (IDX & IDAM) including ongoing reliability, redundancy & security mgmt Governance & Oversight: Multiple access patterns, Interoperability Standards, Flow Control & Connectivity Security & Role Based Access: Implement IDAM authentication and multi-tiered RBAC permissions for differentiated data access Data Integration: DER Register, Backstop compliance registers, network limits, PKI, MSATs NMI visibility, regional data portals (e.g. NSW) Data Processing: Create read and write capability for all parties within quality controls limitation and role definitions. Business Logic: Schema & Interoperability standardisation, within privacy, cyber and CDR limitations User Interface: Not included in MVP; access is provided through APIs and integrated platforms. Report & Audit: Encryption management, role enforcement, Compliance Regime to be established.	• Expanded role-based access to additional authorised parties • Improved security, standardisation and authentication • Additional complementary dataset access linkages
Current State Limitations		**Future Evolution**
Data Accuracy and Completeness Reliance on manual data entry results in discrepancies and reduced confidence in an up-to-date, accurate CER registry for operational and market use. **Only static point in time data updates** Most Standing Data sets function primarily as a static repository, with updates occurring only when new installations or modifications are made. **Limited Stakeholder Access** Access to most CER Standing Data sets is restricted, preventing key stakeholders from fully leveraging the data. New CER owners cannot access history for their acquired assets.		• Automated event-based updates and quality control • Capturing aggregator linkages to CER asset types • CER Firmware updates via OEMs • Expand accountability to include installers, OEMs and customer agents to maintain the data accuracy. • Expand compliance, assurance validation, business logic and monitoring & reporting • NMI level visibility & historical log • Improve data quality standards, compliance obligations and uniform schemas • Establish a self-service UI

Functional & **Operational** Exchange Services

Design Trade-offs	Manual vs Automated Data Updates vs **Start Small Hybrid**	Historical Static vs Future Updates vs **Start Small Hybrid**	NSPs and AEMO only vs **Role Based Access**	Voluntary vs Mandatory vs **Start Small Hybrid**	Standardisation vs Customisation vs **Start Small Hybrid**
Proposed MVP	Introduce automated data ingestion and validation mechanisms to reduce reliance on manual data entry while maintaining human oversight where necessary.	MVP would maintain a point in time historical dataset (BAU) while enabling future updates with validation where feasible.	Enable tiered access control, allowing different levels of access based on role, regulatory/legal requirements, and privacy considerations. This would primarily include customer agents and retailers.	Maintain existing mandatory responsibilities however encourage voluntary participation initially by customer agents/retailers, with a pathway to mandatory integration supported by incentives.	Develop standardised data formats while allowing flexibility for stakeholder-specific extensions.

ACTIVITY B1: USE CASE – CER Standing Data

Table #:____

Proposed MVP Feedback

Provide a list of what you would change in the proposed MVP

Change	Why

Timing

2026	2027	Beyond 2028
☐	☐	☐

Trade-Off Feedback

Provide feedback on the proposed trade-off decisions in the MVP

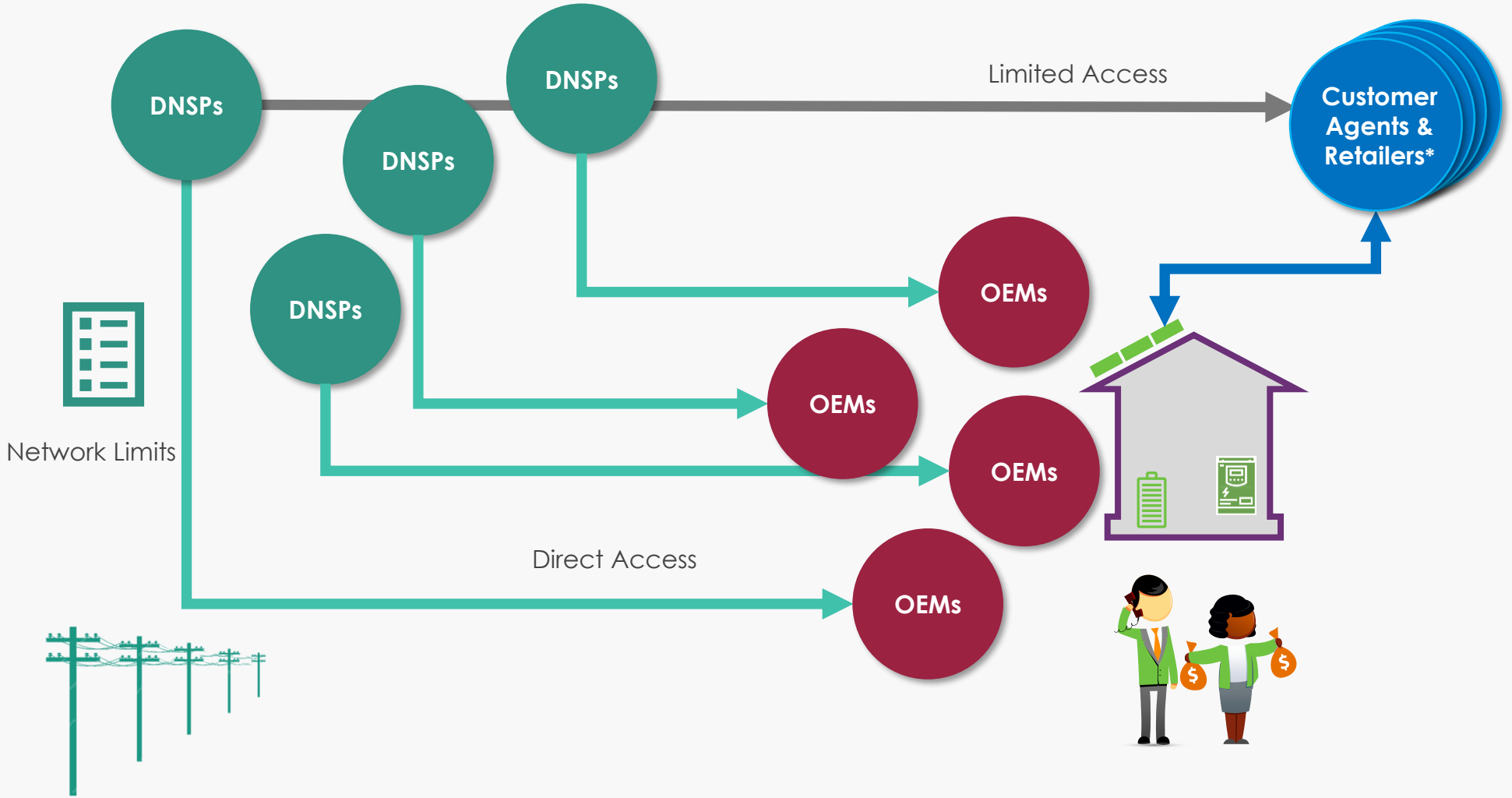
Tradeoff	Y / N / Maybe	Why
Manual vs Automated Data Updates vs **Start Small Hybrid**		
Historical Static vs Future Updates vs **Start Small Hybrid**		
Role Based Access vs only DNSPs and AEMO		
Voluntary vs Mandatory vs **Start Small Hybrid**		
Standardisation vs Customisation vs **Start Small Hybrid**		

Use Case: Efficient Sharing of Network Limits

Use Case: Efficient Sharing of Network Limits

Current Data Sharing Process

Sharing Network Limits Today

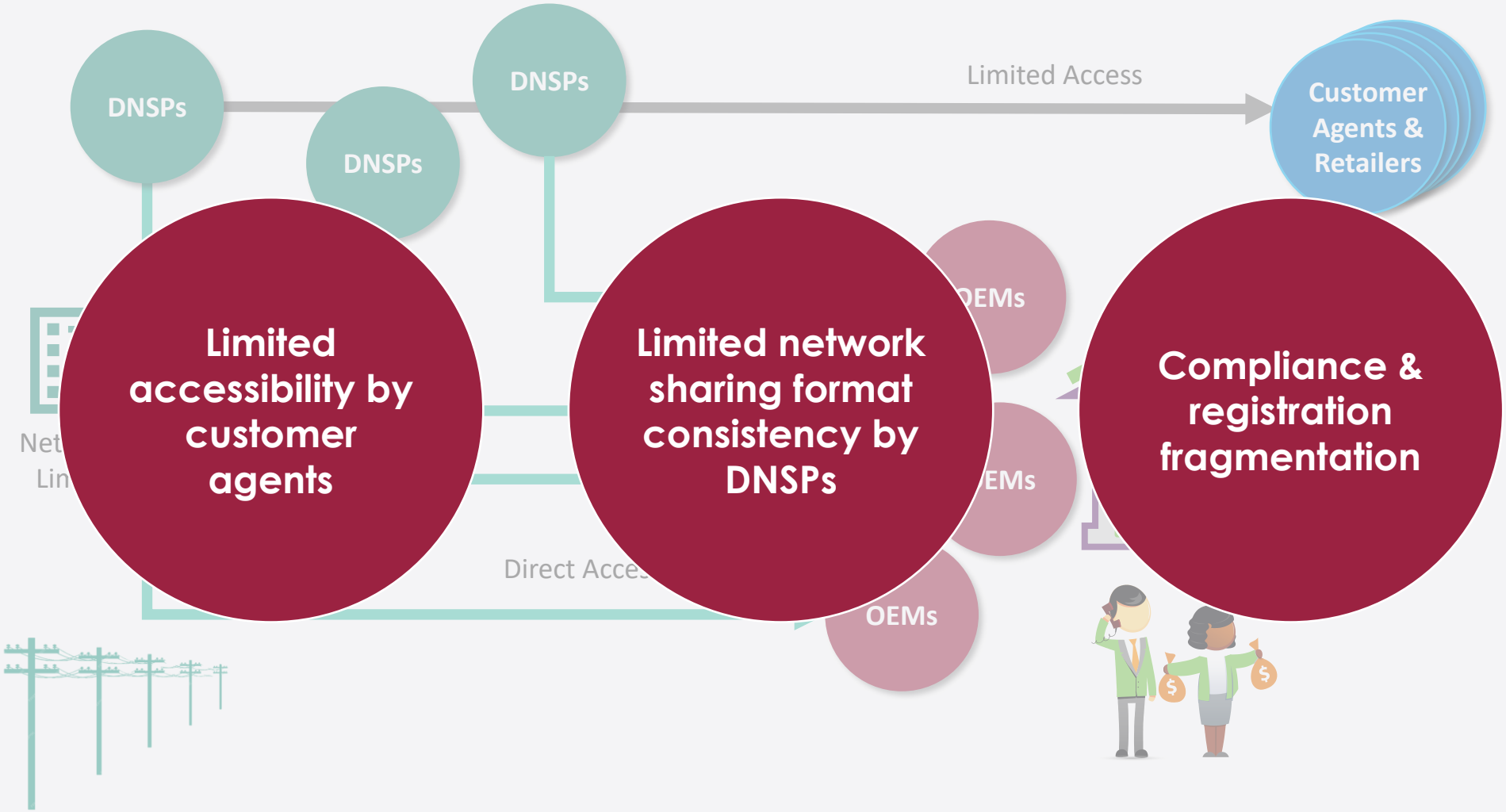


* Note: Customer agents are assumed to include site controllers (i.e. HEMs), aggregators, embedded network operators etc and may include some OEMs.

Use Case: Efficient Sharing of Network Limits

Data Sharing Challenges

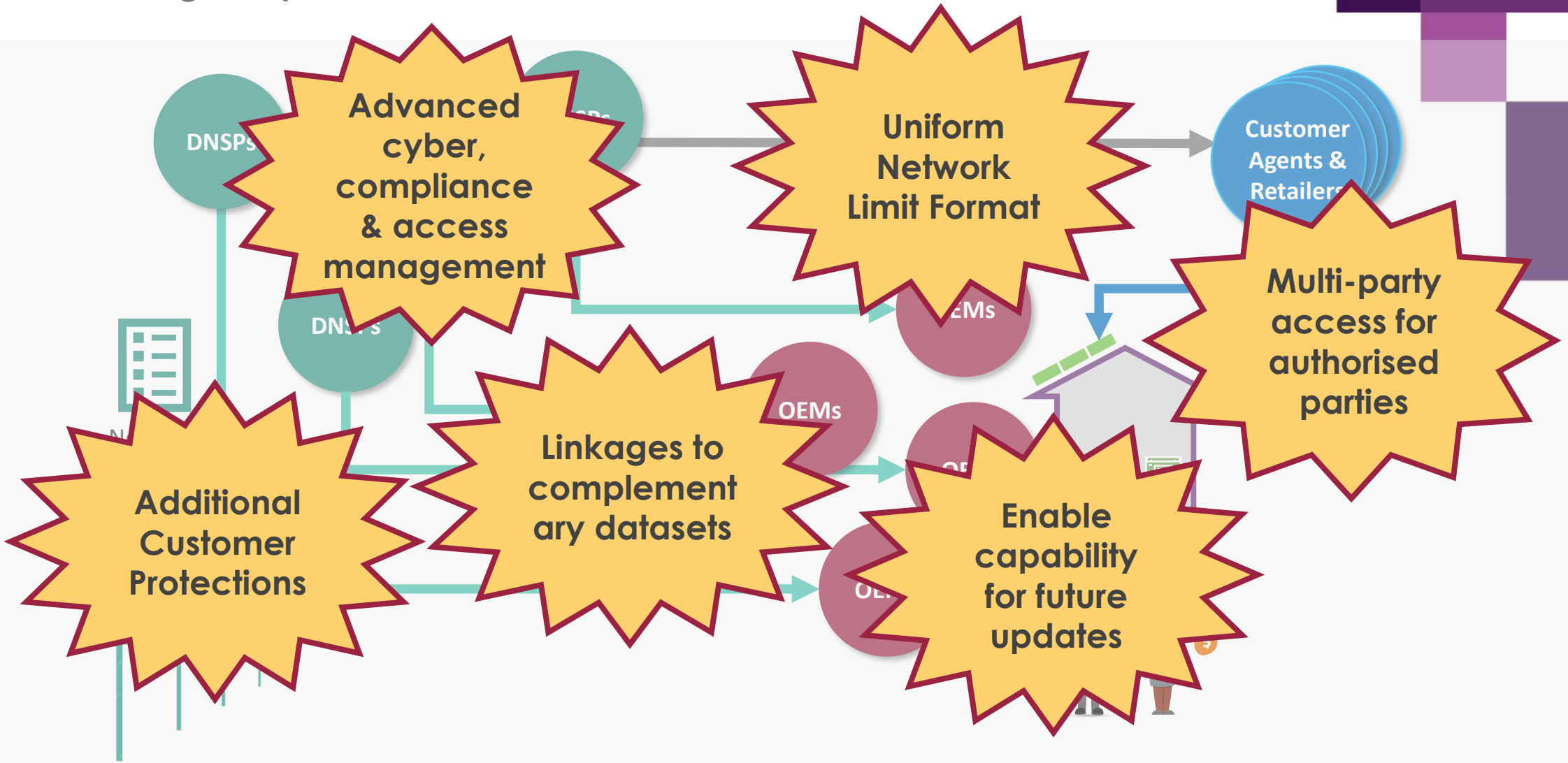
Challenges



Use Case: Efficient Sharing of Network Limits

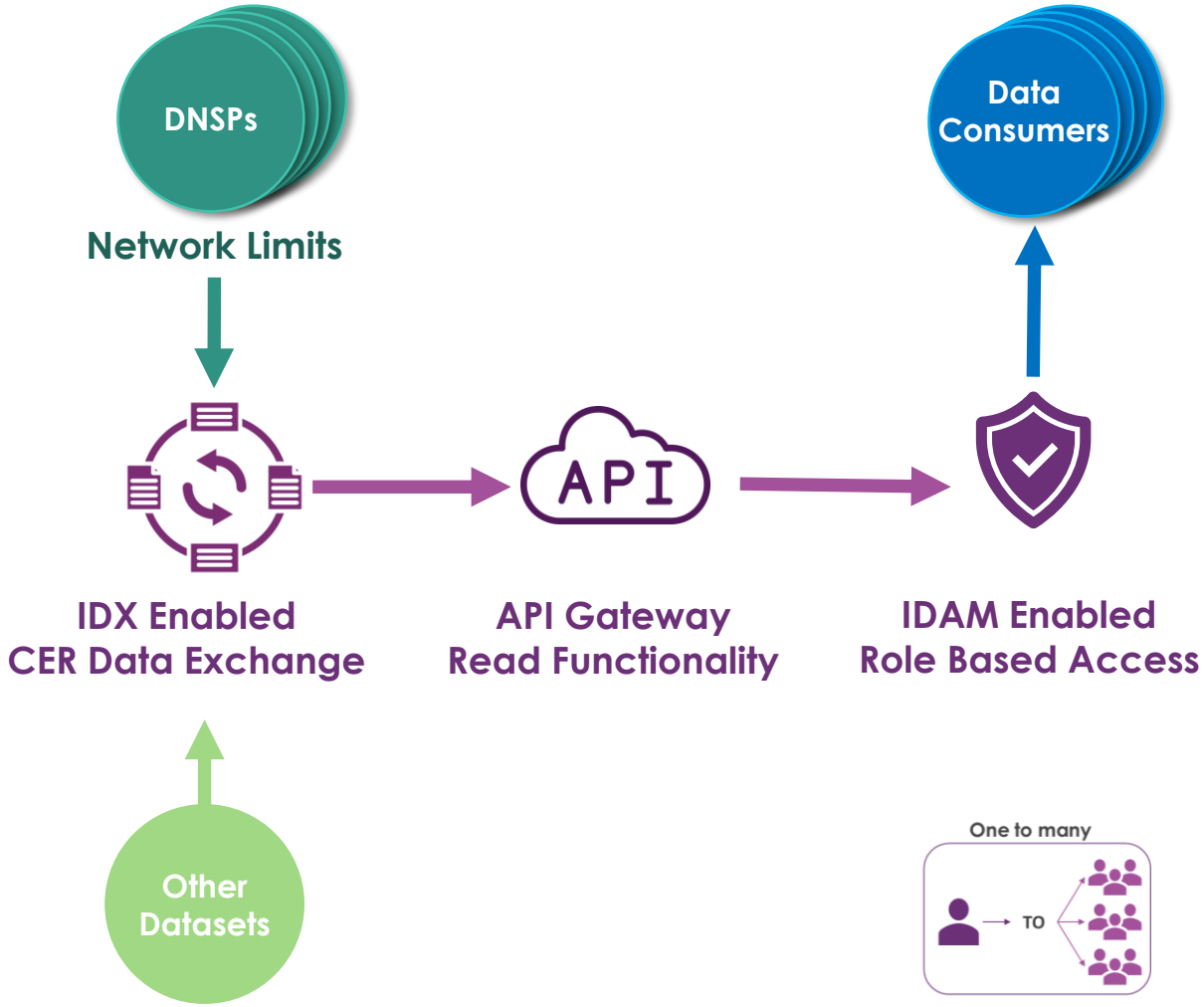
CER Data Exchange Proposed Value Add

Proposed MVP



Use Case: Efficient Sharing of Network Limits

Use Case Overview and Codesign Trade-offs



Design Trade-offs	Proposed MVP
Real-time vs Batch vs **Start Small Hybrid**	Sharing network limits in a batch-based data exchange approach through scheduled updates, with optional real-time updates for critical constraints.
Standardised Format vs **Transformation**	Codesign with DNSPs to determine the best balance between standardisation and flexibility. Implement automated data transformation where necessary while accommodating existing DNSP systems.
Role Based Access vs Open Data	Implement tiered access control, where authorised stakeholders can receive detailed network limit data, and complementary datasets.
Voluntary vs Mandatory vs **Transition**	Start with voluntary adoption for DNSPs whilst transitioning to mandatory usage supported by regulatory reform.
Control Signals vs **Publish Limits Only**	The underlying assumption in the exchange is that it would not be used to provide operational control hence the MVP and future evolution would only include publishing network limits, preserving DNSPs operational independence.

Use Case 2: Efficient Sharing of Network Limits

Proposed High Level Design

OBJECTIVE

Provides authorised agents with visibility of network constraints across jurisdictions, enhancing grid management, operational planning, and market decisions while addressing inefficiencies from limited grid constraint access.

Current State Limitations

Limited Accessibility

Network limit data is not widely accessible, hindering integration and optimised response by stakeholders.

Variable Interpretation

Differences in definitions, measurement units, and validation methods create interoperability challenges.

Compliance & Registration Fragmentation

Inconsistent network limit implementation has led to fragmented compliance tracking across the NEM.

Proposed MVP (Activity)

Coordination & Engagement	AEMO facilitates working groups align data-sharing practices and establish schema standardisation.
Exchange Operations	Leverage IDX and IDAM infrastructure, API-based data exchange of network limits.
Governance & Oversight	Interoperability data sharing standards and establish a common compliance framework.
Security & Role Based Access	IDAM RBAC authentication and multi-tiered permissions for differentiated data access
Data Integration	Enable integration with network limits & CER compliance registers via a uniform data schema.
Data Processing	Data validation or normalisation reprocessing to ensure consistent formatting.
Business Logic	Protocols to ensure consistent formatting, interpretation, and integration.
User Interface	Not included in MVP; access is provided through APIs and integrated platforms.
Report & Audit	Implement compliance tracking, encryption, and audit logging for compliance alignment.

MVP Outcomes

- Expanded network limits sharing to additional authorised parties while preserving DNSP operational independence
- Dataset access linkages (e.g. CER Standing Data, compliance register MSATs NMIs)

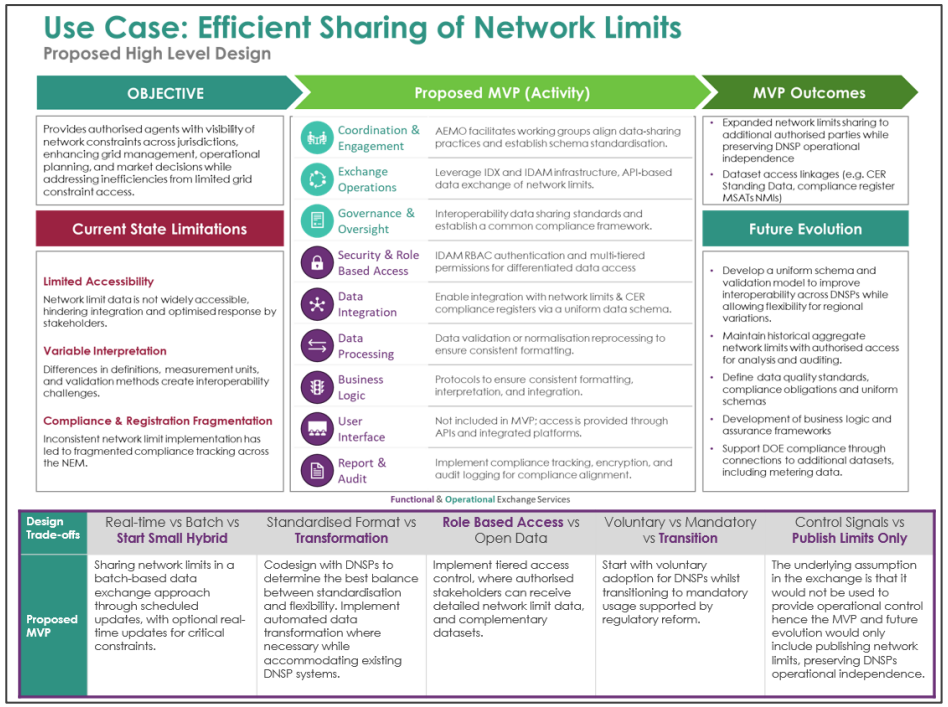
Future Evolution

- Develop a uniform schema and validation model to improve interoperability across DNSPs while allowing flexibility for regional variations.
- Maintain historical aggregate network limits with authorised access for analysis and auditing.
- Define data quality standards, compliance obligations and uniform schemas
- Development of business logic and assurance frameworks
- Support DOE compliance through connections to additional datasets, including metering data.

Functional & **Operational** Exchange Services

Use Case 2: Efficient Sharing of Network Limits

WORKSHOP ACTIVITY



Use Case: Efficient Sharing of Network Limits

Proposed High Level Design

OBJECTIVE	Proposed MVP (Activity)		MVP Outcomes
Provides authorised agents with visibility of network constraints across jurisdictions, enhancing grid management, operational planning, and market decisions while addressing inefficiencies from limited grid constraint access.	Coordination & Engagement	AEMO facilitates working groups align data-sharing practices and establish schema standardisation.	• Expanded network limits sharing to additional authorised parties while preserving DNSP operational independence • Dataset access linkages (e.g. CER Standing Data, compliance register MSATs NMIs)
Current State Limitations	Exchange Operations	Leverage IDX and IDAM infrastructure, API-based data exchange of network limits.	**Future Evolution**
Limited Accessibility Network limit data is not widely accessible, hindering integration and optimised response by stakeholders. **Variable Interpretation** Differences in definitions, measurement units, and validation methods create interoperability challenges. **Compliance & Registration Fragmentation** Inconsistent network limit implementation has led to fragmented compliance tracking across the NEM.	Governance & Oversight	Interoperability data sharing standards and establish a common compliance framework.	• Develop a uniform schema and validation model to improve interoperability across DNSPs while allowing flexibility for regional variations. • Maintain historical aggregate network limits with authorised access for analysis and auditing. • Define data quality standards, compliance obligations and uniform schemas • Development of business logic and assurance frameworks • Support DOE compliance through connections to additional datasets, including metering data.
	Security & Role Based Access	IDAM RBAC authentication and multi-tiered permissions for differentiated data access	
	Data Integration	Enable integration with network limits & CER compliance registers via a uniform data schema.	
	Data Processing	Data validation or normalisation reprocessing to ensure consistent formatting.	
	Business Logic	Protocols to ensure consistent formatting, interpretation, and integration.	
	User Interface	Not included in MVP: access is provided through APIs and integrated platforms.	
	Report & Audit	Implement compliance tracking, encryption, and audit logging for compliance alignment.	

Functional & Operational Exchange Services

Design Trade-offs	Real-time vs Batch vs **Start Small Hybrid**	Standardised Format vs **Transformation**	**Role Based Access** vs Open Data	Voluntary vs Mandatory vs **Transition**	Control Signals vs **Publish Limits Only**
Proposed MVP	Sharing network limits in a batch-based data exchange approach through scheduled updates, with optional real-time updates for critical constraints.	Codesign with DNSPs to determine the best balance between standardisation and flexibility. Implement automated data transformation where necessary while accommodating existing DNSP systems.	Implement tiered access control, where authorised stakeholders can receive detailed network limit data, and complementary datasets.	Start with voluntary adoption for DNSPs whilst transitioning to mandatory usage supported by regulatory reform.	The underlying assumption in the exchange is that it would not be used to provide operational control hence the MVP and future evolution would only include publishing network limits, preserving DNSPs operational independence.

ACTIVITY B2: USE CASE – Sharing Network Limits

Table #:____

Proposed MVP Feedback

Provide a list of what you would change in the proposed MVP

Change	Why

Timing

2026	2027	Beyond 2028
☐	☐	☐

Trade-Off Feedback

Provide feedback on the proposed trade -off decisions in the MVP

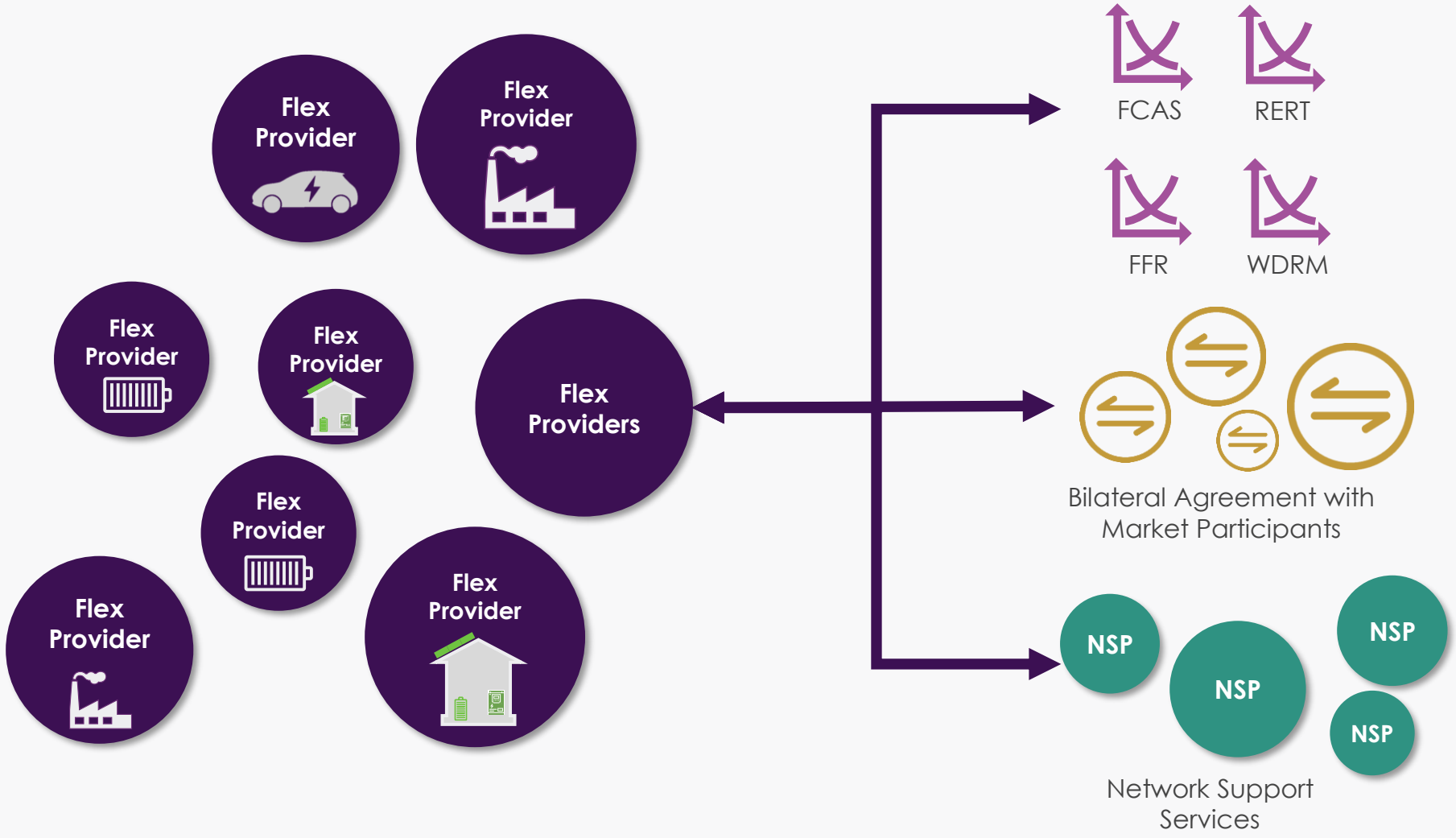
Tradeoff	Y/N/Maybe	Why
Real-time vs Batch vs **Start Small Hybrid**		
Standardised Format vs **Transformation**		
Role Based Access vs Open Data		
Voluntary vs Mandatory vs **Transition**		
Control Signals vs **Publish Limits Only**		

Use Case:
Network Support & Flex Capability Discovery

Network Support & Flex Capability Discovery

Current Data Sharing Process

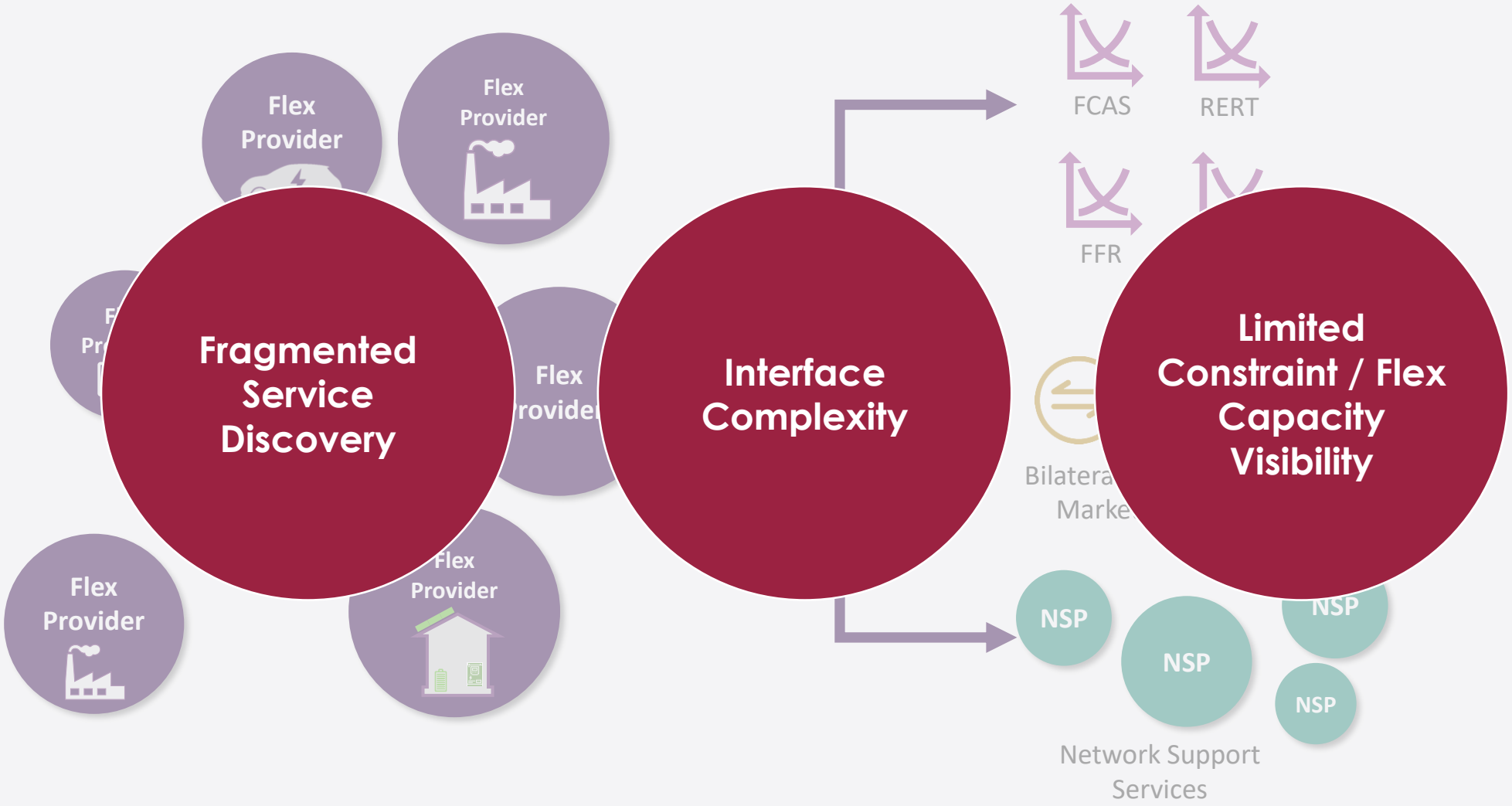
Flex Discovery Today



Network Support & Flex Capability Discovery

Data Sharing Challenges

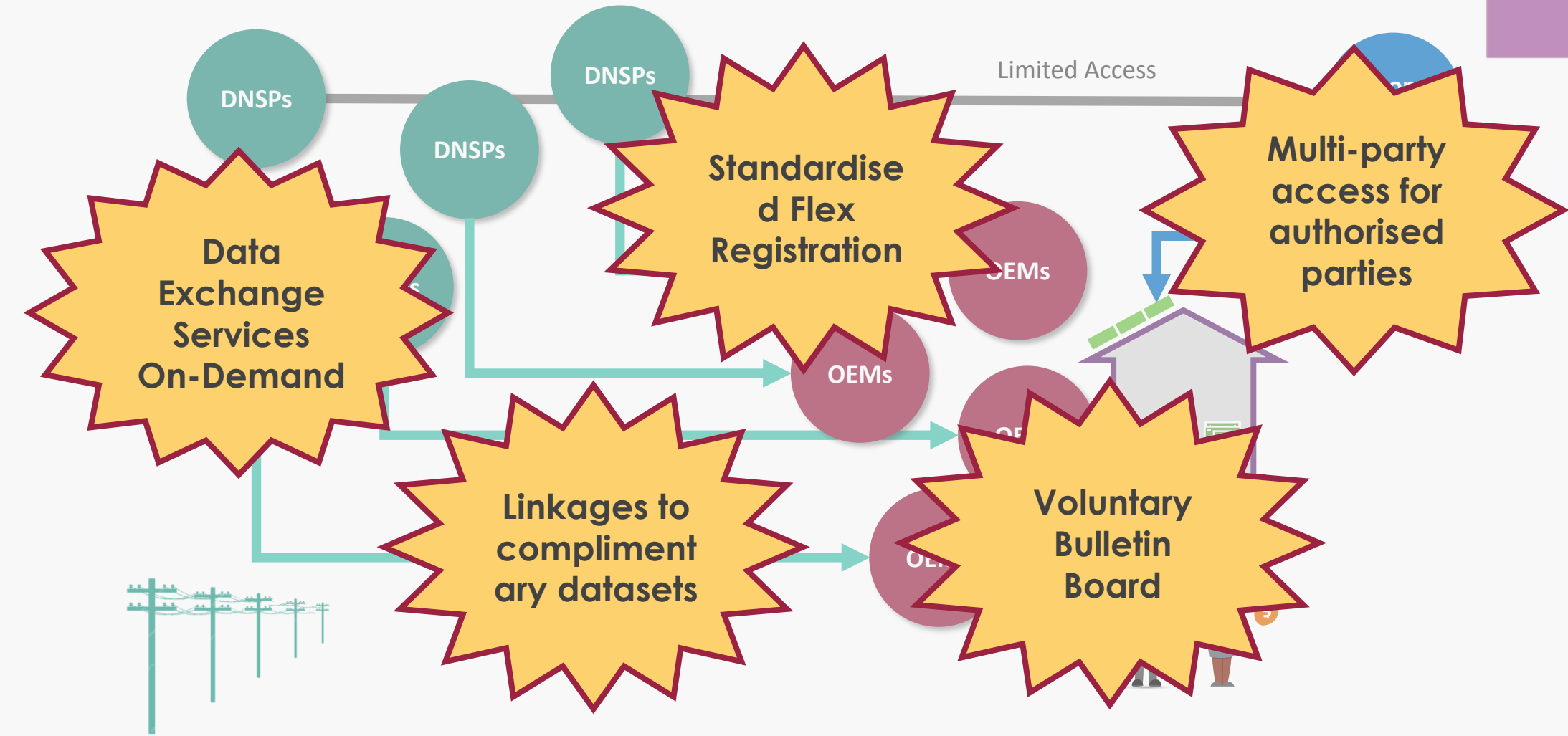
Challenges



Network Support & Flex Capability Discovery

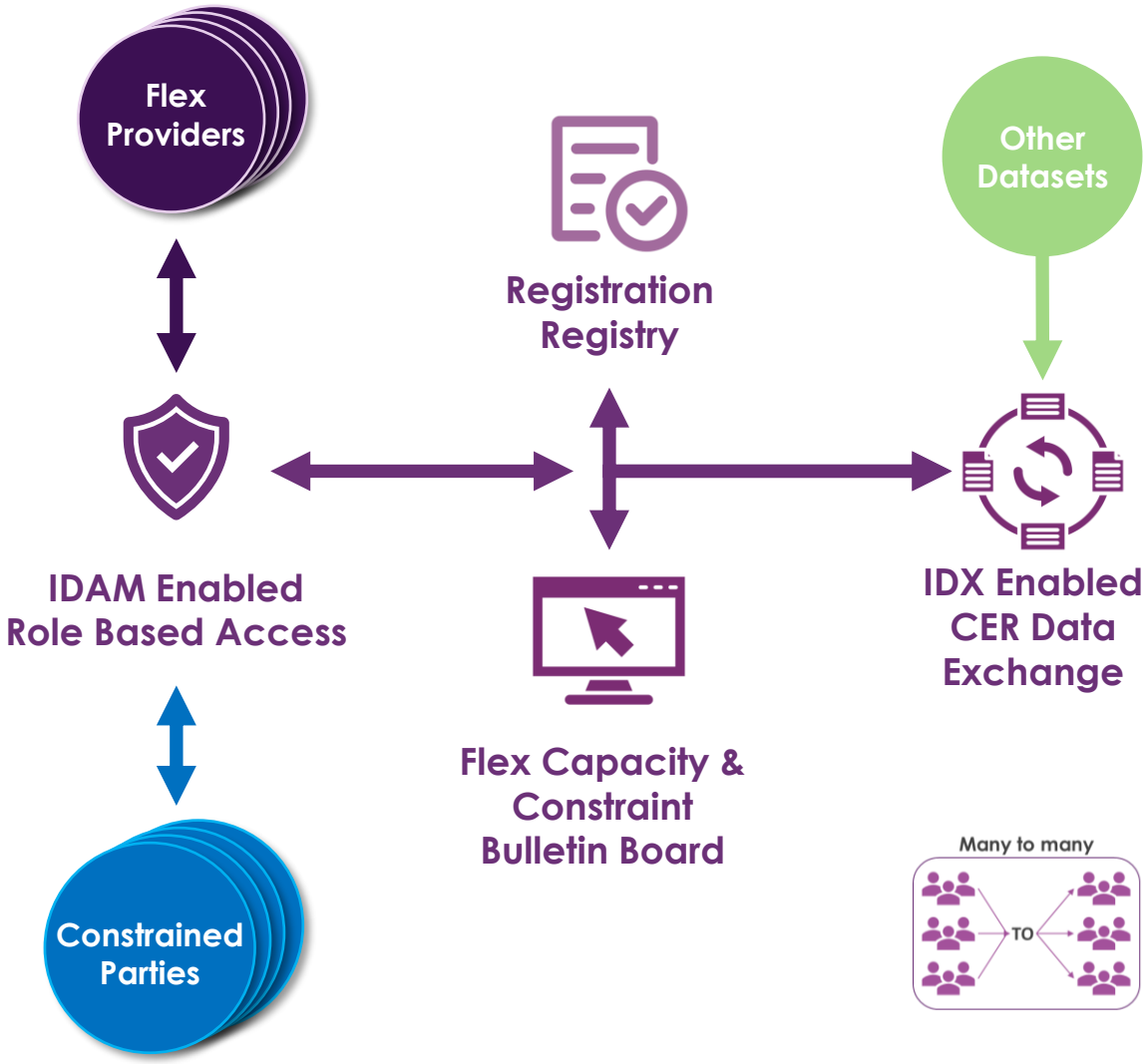
CER Data Exchange Proposed Value Add

Proposed MVP



Network Support & Flex Capability Discovery

Use Case Overview and Codesign Trade-offs



Design Trade-offs	Proposed MVP
Static Only vs Operational Data Sharing	Enable both static with event-driven data updates for different use cases. The MVP is not proposed to include operational data sharing.
Standardised Registration vs Adaptable	Codesign with DNSPs, market participants and flex providers to establish a common registration service discovery framework while allowing flexible implementation.
Role Based Access vs Open Data	Implement tiered access control, where authorised stakeholders receive detailed flexibility service availability/capacity and constraint data.
Voluntary vs Mandatory	Begin with voluntary adoption, for early participants, and assess pathways for alignment as the market matures.
Discovery Only vs Transaction Service	Support bilateral and multilateral data-sharing models to accommodate various flexibility market structures. MVP will not support transaction services.

Use Case: Network Support & Flex Data Sharing Discovery

Proposed High Level Design

OBJECTIVE

Provide on-demand data exchange services through the CER Data Exchange and enhancing constraint and flex service discovery.

Current State Limitations

Fragmented Service Discovery

Industry uses diverse service definitions, protocols, and integration methods which leads to inefficiencies and limited activation.

Interface Complexity

Lack of standardised approach and registration mechanisms, reduces participation and efficient adoption.

Limited Constraint / Flex Capacity Visibility

Flexibility service providers lack consistent visibility into constraints and networks / market participants lack knowledge of flex service opportunities, reducing service request and market/infrastructure efficiency.

Proposed MVP (Activity)

Coordination & Engagement	AEMO facilitates working groups to standardise flex registration.
Exchange Operations	Offer IDX and IDAM infrastructure on-demand
Governance & Oversight	Not included, to be consider in future
Security & Role Based Access	Offer IDAM RBAC authentication and multi-tiered permissions for differentiated data access
Data Integration	Enable integration with market platforms, compliance registers & flex service providers.
Data Processing	Offer structured validation, normalisation, and standardised reporting
Business Logic	Offer common protocols to ensure consistent formatting, interpretation, and integration.
User Interface	Voluntary bulletin board or alternative visibility mechanisms
Report & Audit	Offer compliance, encryption, and audit logging for compliance alignment & performance monitoring.

Functional & **Operational** Exchange Services

MVP Outcomes

- Standardised flex registration
- Voluntary bulletin board or alternative visibility mechanisms
- As demanded data exchange services

Future Evolution

- Establish a national standard for flexibility service registration and activation, to create unified approach to service discovery and delivery.
- Automated service registration and validation workflows to reduce onboarding complexity and costs
- Establish a dynamic flex service registry where providers can opt in based on near-term revenue opportunities
- Potential integration of price signals and clearing mechanisms to support automated, market-driven flexibility procurement.

Use Case: Network Support & Flex Data Sharing Discovery

WORKSHOP ACTIVITY

Use Case: Network Support & Flex Data Sharing Discovery

Proposed High Level Design

OBJECTIVE

Provide ondemand data exchange services through the CER Data Exchange and enhancing constraint and flex service discovery.

Current State Limitations

Fragmented Service Discovery
Industry uses diverse service definitions, protocols, and integration methods which leads to inefficiencies andlimited activation

Interface Complexity
Lack of standardised approach and registration mechanisms, reduces participation and efficient adoption.

Limited Constraint / Flex Capacity Visibility
Flexibility service providers lack consistent visibility into constraints and networks / market participants lack knowledge of flex service opportunities, reducing service request and market/infrastructure efficiency.

Proposed MVP (Activity)

Coordination & Engagement	AEMO facilitates working groups to standardise flex registration.
Exchange Operations	Offer IDX and IDAM infrastructure on-demand
Governance & Oversight	Not included, to be consider in future
Security & Role Based Access	Offer IDAM RBAC authentication and multitiered permissions for differentiated data access
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Data Processing	Offer structured validation, normalisation, and standardised reporting
Business Logic	Offer common protocols to ensure consistent formatting, interpretation , and integration.
User Interface	Voluntary bulletin board or alternative visibility mechanisms
Report & Audit	Offer compliance, encryption, and audit logging for compliance alignment & performance monitoring.

Functional & Operational Exchange Services

MVP Outcomes

- Standardised flex registration
- Voluntary bulletin board or alternative visibility mechanisms
- As demanded data exchange services

Future Evolution

- Establish a national standard for flexibility service registration and activation, to create unified approach to service discovery and delivery.
- Automated service registration and validation workflows to reduce onboarding complexity and costs
- Establish a dynamic flex service registry where providers can opt in based on near-term revenue opportunities
- Potential integration of price signals and clearing mechanisms to support automated, market-driven flexibility procurement.

Design Trade-offs	**Static Only** vs Operational Data Sharing	**Standardised Registration** vs Adaptable	**Role Based Access** vs Open Data	**Voluntary** vs Mandatory	**Discovery Only** vs Transaction Service
Proposed MVP	Enable both static with event-driven data updates for different use cases. The MVP is not proposed to include operational data sharing.	Codesign with DNSPs, market participants and flex providers to establish a common registration service discovery framework while allowing flexible implementation.	Implement tiered access control, where authorised stakeholders receive detailed flexibility service availability/capacity and constraint data.	Begin with voluntary adoption, for early participants, and assess pathways for alignment as the market matures.	Support bilateral and multilateral datasharing models to accommodate various flexibility market structures. MVP will not support transaction services.

ACTIVITY B3: USE CASE – NETWORK SUPPORT & FLEX CAPABILITY DISCOVERY

Table #:____

Proposed MVP Feedback

Provide a list of what you would change in the proposed MVP

Change	Why

Timing

2026	2027	Beyond 2028
☐	☐	☐

Trade-Off Feedback

Provide feedback on the proposed trade -off decisions in the MVP

Tradeoff	Y/N/Maybe	Why
Static Only vs Operational Data Sharing		
Standardised Registration vs Adaptable		
Role Based Access vs Open Data		
Voluntary vs Mandatory		
Discovery Only vs Transaction Service		

Lunch

Panel Discussion

Panel Discussion

Facilitated by **Ed Chan**

"What does a high CER utopia look like from your perspective? What does industry need to do to arrive at that utopia?"

Joo Ean Prasad
Ausgrid

Maxime Di Petta
Clean Energy Council

Saeideh Farzaneh
ENGIE

Luke Barlow
AEMO

Part 2b: Mechanisms to implement the CER Data Exchange

Ed Chan & Rachel Rodrigues McGown

Session Overview: Governance and Accountability

High-level roadmap to implement the CER Data Exchange:

Next phase of the co-design process

What mechanism or forums do you prefer to undertake for the next phase?

Long-term (ongoing)

What mechanism or forums do you prefer for future evolution of the CER Data Exchange?

Next phase of the co-design process

Industry Led

Industry convene and coordinate a Working Group to continue developing the MVP and make recommendations to AEMO on implementation

AEMO Led, under CER Data Exchange Banner

AEMO convenes and coordinates a CER Data Exchange working group (with industry) to continue to develop priority use cases

AEMO-led, under other existing forums

AEMO convenes a sub-group as part of existing processes such as IPRR or IEC

MITE team can provide input, but likely more challenging

MITE team can provide input

IDX/MITE team involvement

What is the best forum to continue progressing use cases design?

Longer term governance

We need an enduring mechanism to manage how the CER Data Exchange will evolve

Two key aspects of any working groups

"Heads of power"

Formal

vs

Informal

Composition

Functional

vs

Technical

Longer term governance

There are different avenues to establish a working group

Formal

Characteristics

- Operation enshrined in rules and/or procedures
- Provide a more enduring presence
- Membership can include a range of stakeholders
- Less agile – need to go through rule/procedure change
- Can be 'sponsored' or led by AEMO

Opt. 1: create new

- A new working group
- Formed specifically to consider CER Data issues

Opt. 2: leverage existing

- Merging under an existing AEMO forum
- E.g. Move within the IEC

Hybrid?

Informal

Characteristics

- Operation guided by Terms of Reference
- More flexible – operations and membership can change to suit changing needs or circumstances
- Can be 'sponsored' or led by AEMO, or by industry

Option: create new

- A new working group
- Formed specifically to consider CER Data issues

Are there existing groups that we could leverage?

Longer term governance

Both functional and technical aspects need to be considered

Formal

or

Informal

Regardless of working group formality, we need separate functional and technical streams.

+

Functional

Technical

We need different people for different streams.

Functional

- Consider strategic and future outlook for CER related data issues
- Future use case development and review
- Consider organisation to organisation touch points
- Consider interactions with other reforms

Technical

- Making it happen in the back end
- Detailed infrastructure and transactions development
- Consider issues such as payload schema
- Consider integration with the broader IT ecosystem

Longer term governance

How do we incorporate the consumer and customer perspective?

Designated membership in (functional) working group (e.g. 2 x consumer representatives)

vs

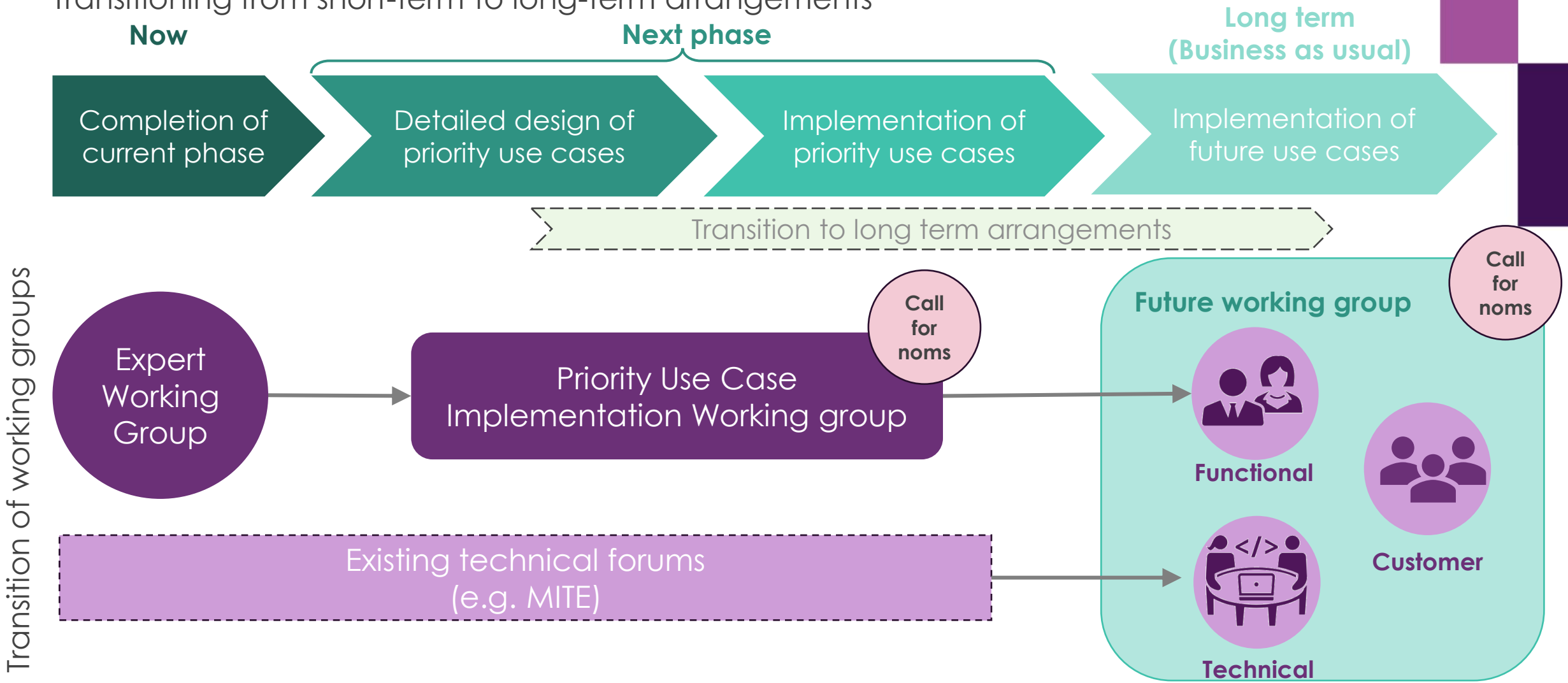
Create an industry wide CER or CER Data specific consultation panel

vs

Consult with existing consumer panels or forum (e.g. AEMO's Consumer and Community Reference Group)

Longer term governance

Transitioning from short-term to long-term arrangements



ACTIVITY 3: Implementation preference setting

ACTIVITY C: Mechanisms to implement the CER Data Exchange

Table #:____

NEXT PHASE
Detailed Design of priority use cases

What is your preferred way of progressing the implementation of priority use cases in the short term?

- ☐ **Option 1:** Industry continue to develop use cases to be provided to AEMO
- ☐ **Option 2:** AEMO coordinate industry to develop MVP under CER Data Exchange Banner
- ☐ **Option 3:** AEMO coordinates utilise existing forums (e.g. IPRR)

Please suggest other options and why they might more suitable?

LONG TERM
Business-as-usual arrangements

What is your preferred mechanism way for the long-term ongoing governance of the CER Data Exchange?

- ☐ **Option 1: Formal/new** – create a new working group through the rules or procedures
- ☐ **Option 2: Formal/existing** – create a new working group under an existing forum (e.g. move under the IEC)
- ☐ **Option 3: Informal/new** – create a new working group through an industry agreed Terms of Reference

Please suggest other options and why they might more suitable? What could a hybrid formal/informal option look like?

Consumer and customer input

What is your preferred mechanism way for the long-term ongoing governance of the CER Data Exchange?

- ☐ **Option 1:** Designated membership in a work group
- ☐ **Option 2:** Create and industry wide CER or CER Data specific panel
- ☐ **Option 3:** Consult with existing forum (AEMO Consumer and Community Reference Group)

Please suggest other options and why they might more suitable?

Part 3: Cost Assessment

Cara Graham

Agenda

1. Recap on the value of co-ordinated CER
2. Purpose and scope of the CER Data Exchange cost assessment
3. Key inputs and costing methodology
4. Cost recovery options
5. Activity

1.
Recap on the value of co-ordinated CER

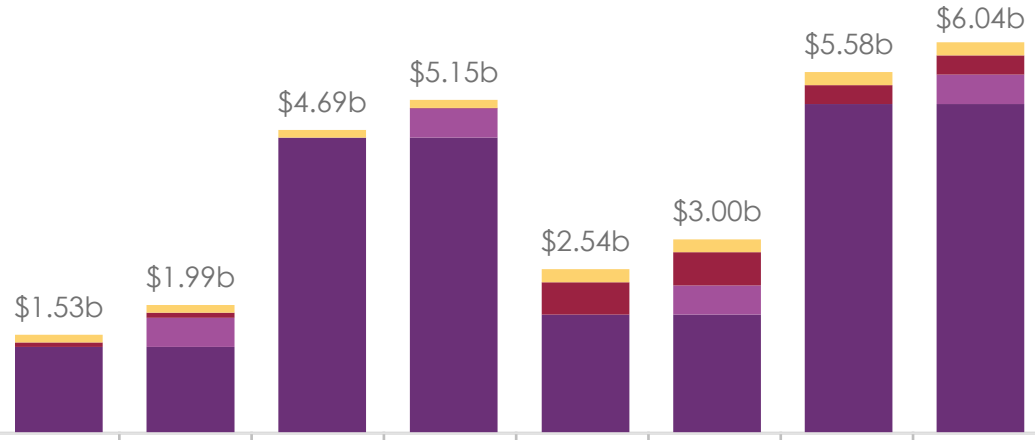
Project Edge

Greater coordination of active DER in the NEM can result in **up to $6b benefits over 20 years**

Benefits are driven by:

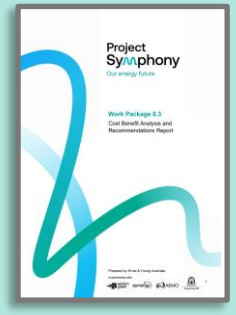
- **DOE configurations** that target maximum utilisation of the distribution network
- **Data hub** approach allows access to a greater scope of service opportunities
- **LSE** providing a scalable and standardised market configuration for DNSPs
- **Visibility of DER** to enable more accurate and less conservative operations across the network

Benefits for incremental vs base case



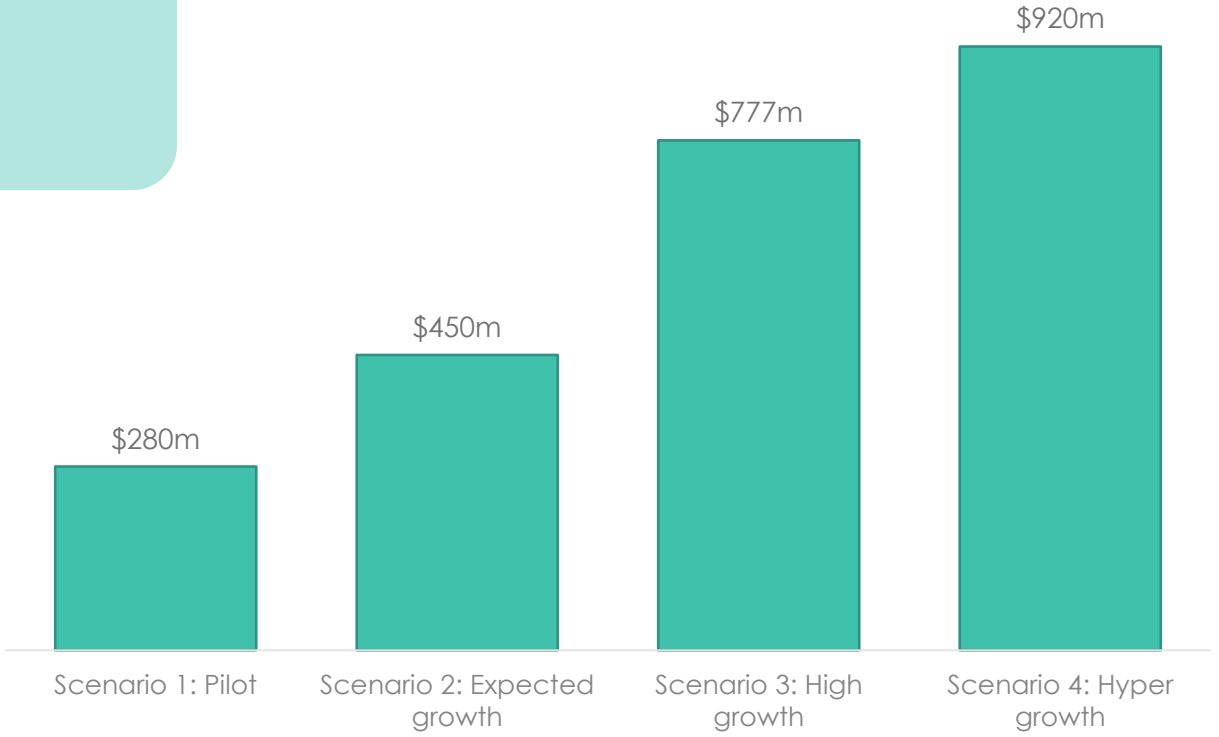
	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 7	Scenario 8	Scenario 9	Scenario 10
DOE	1.33	1.33	4.56	4.56	1.83	1.83	5.08	5.08
Data Hub		0.45		0.45		0.45		0.45
LSE	0.07	0.08		0.01	0.5	0.51	0.29	0.3
Visibility of DER	0.12	0.12	0.12	0.12	0.2	0.2	0.2	0.2

Project Symphony

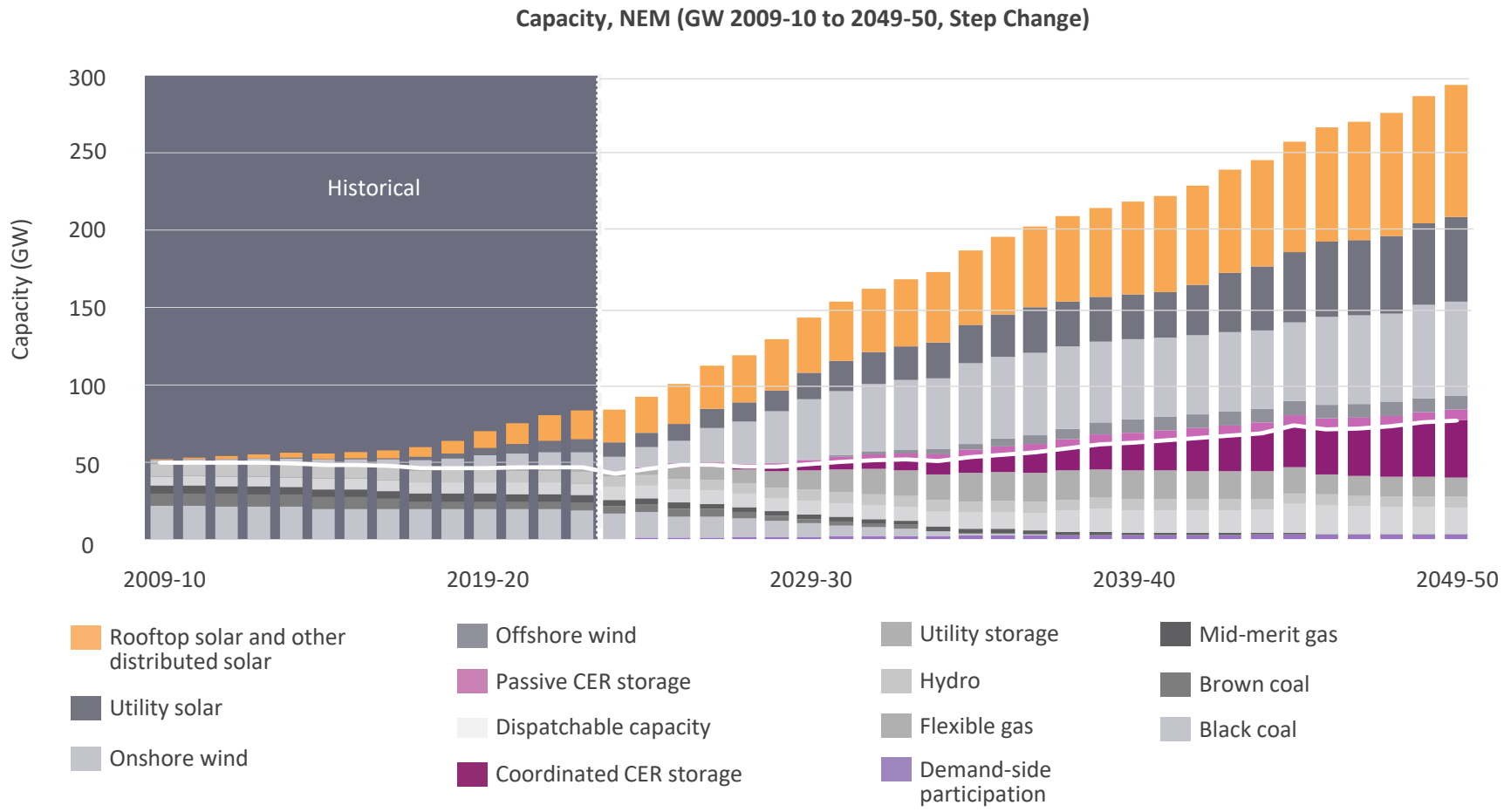


Orchestrating of DER can result in **up to $920m benefits over 10 years**

- ✓ Positive value across all participants when value stacking network and market services in an orchestrated scenario
- ✓ Greater levels of participation = greater value



CER – and co-ordinated CER in particular – has a critical role to play in Australia's energy system



Based on AEMO 2024 ISP, by 2050:

- CER will be the single largest source of electricity capacity in the NEM
- Co-ordinated CER will be the single largest source of dispatchable electricity
- If consumer batteries are well coordinated, it would **avoid up to $4.1 billion being spent on additional utility-scale storage in the NEM.**

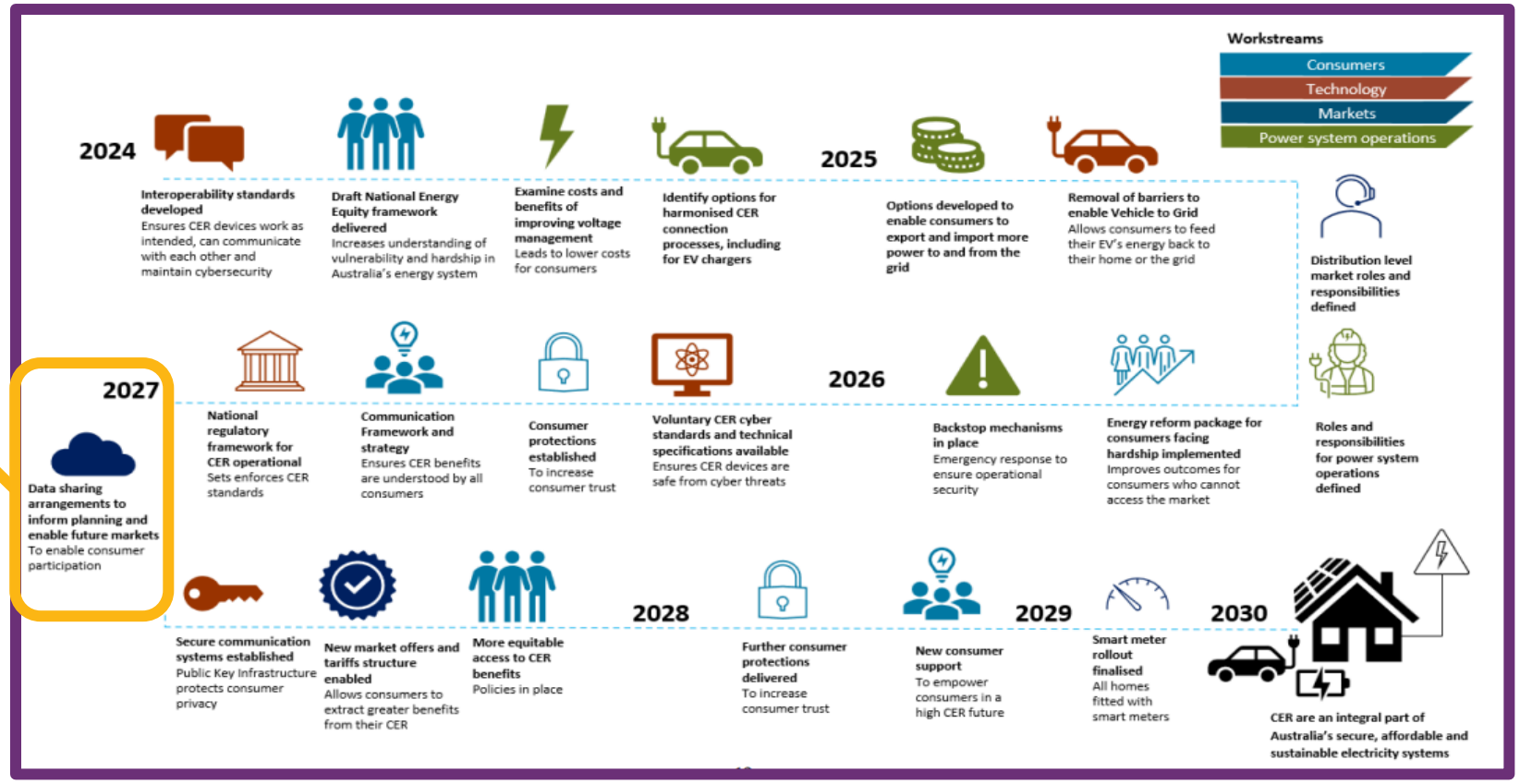
The National CER Roadmap outlines a series of actions to unlock CER benefits

National Reform Priority: M.2 Data sharing arrangements to inform planning and enable future markets

1) Establish data access rights, metrics and processes for collection and sharing of CER and relevant network data

2) …. This includes defining and implementing a CER data exchange to enable markets and services that incentivise consumer participation in CER coordination.

National CER Roadmap



Australia is not alone in thinking about how to unlock CER benefits

UK's Digital Spine Feasibility study

Data sharing infrastructure creates the potential to:

- Reduce costs to consumers and businesses
- Support decarbonisation
- Improve energy system efficiency
- Improve energy system reliability

2.
Purpose and scope of cost assessment

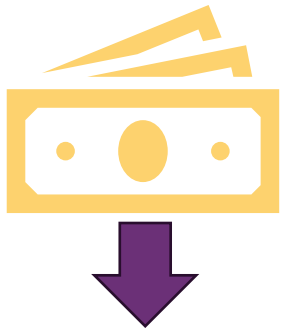
Purpose of cost assessment

The current Co-design and collaboration phase has a number of deliverables:

1. High level design

2. Implementation Roadmap

3. Cost assessment



Purpose of the cost assessment is to estimate the costs to industry of implementing the CER Data Exchange based on the high level design

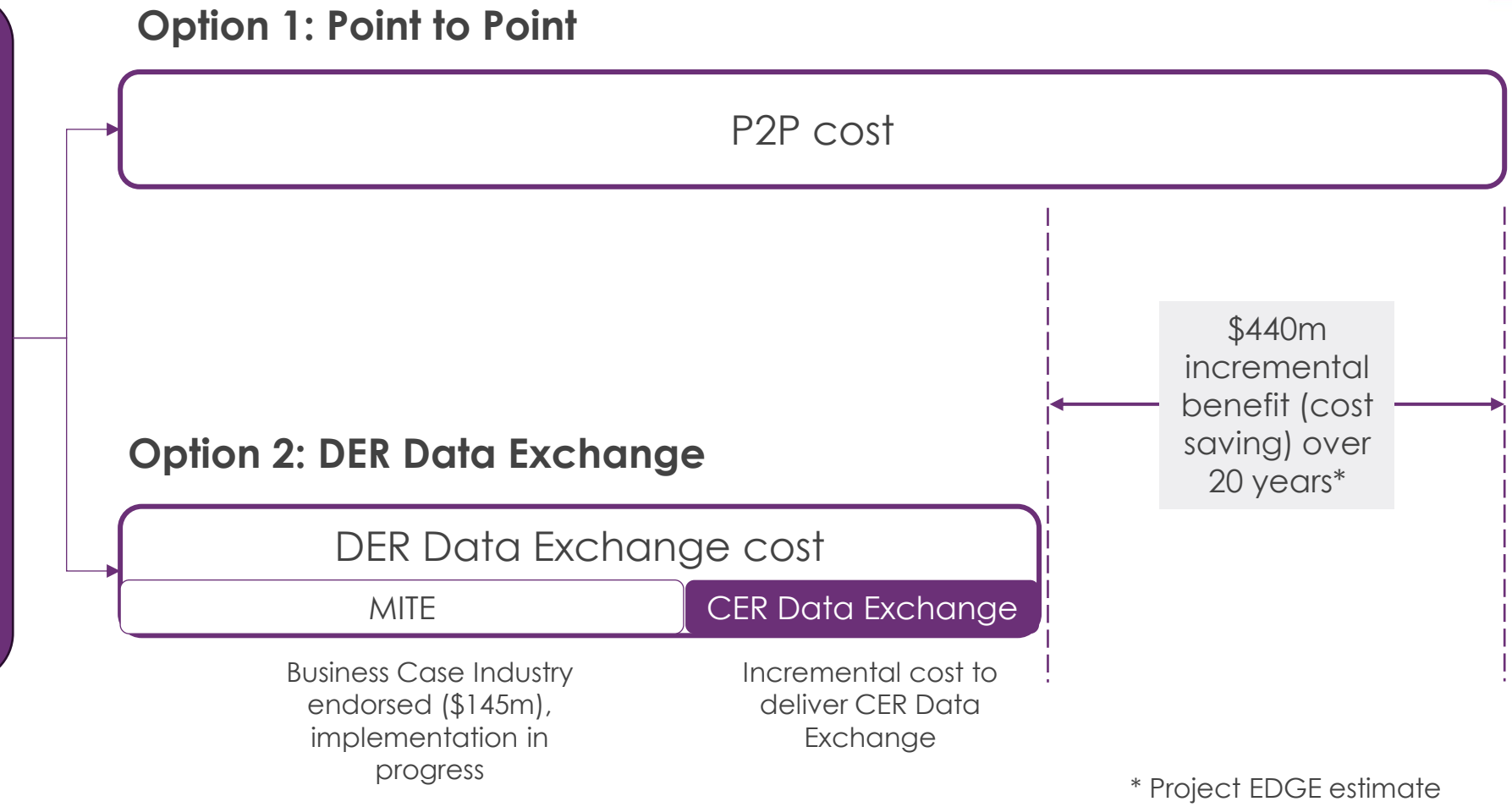
This is not a business case

Scope of cost assessment

Core assumption:

There will be a need to exchange high volumes of DER data in a secure, timely manner: there is no 'do nothing' option.

Participants use the CER Data Exchange as the means of data exchange.



* Project EDGE estimate

Scope of cost assessment (cont)

In scope:

1. **Incremental costs** of CER Data Exchange
   - Incremental costs are costs incurred as a result of the CER Data Exchange being the means by which data is exchanged
   - Costs that would be incurred regardless of how CER data is exchanged are not incremental
     - Eg, DNSPs will need to calculate DOEs regardless of how they are exchanged, so costs associated with calculating DOEs are not incremental. Costs associated with interfacing with the CER Data Exchange to exchange DOEs are incremental.

2. **Minimum Viable Product** (MVP) version of CER Data Exchange for the three priority use cases

3. **Implementation and ongoing support** of MVP use cases

4. **Whole of industry costs** to implement and support MVP use cases

3.
Key inputs and costing methodology

Key inputs

1. Outputs of high-level design of CER Data Exchange
2. MITE functionality
3. Implementation timeline

To determine incremental functionality required by CER Data Exchange

High level design

1 Outputs of high-level design (to understand functionality required)

Phased implementation starting with priority use cases:

- Broader Access to CER Standing Data
- Efficient Sharing of Network Limits
- Network Support & Flex Capability Discovery

Leverage existing infrastructure (through MITE)

Ownership: AEMO
Operation: AEMO
Oversight: Balanced/AER or existing body
Data governance: Industry collaboration with oversight from an established regulator

CER Data Exchange functionality

1 Outputs of high-level design (to understand functionality required)

Functional Services

SECURITY & ACCESS
Authentication, encryption, and compliance controls to protect data integrity, ensure authorised access, and enforce regulatory security standards.

DATA INTEGRATION
Standardised APIs, event-driven messaging and multiple access methods to enable reliable and scalable data sharing.

DATA PROCESSING
Validates, transforms, and securely stores data (if required), ensuring data quality and interoperability and accessibility.

BUSINESS LOGIC
Defines and enforces schema validation, business rules and automated governance to maintain consistency & compliance.

USER INTERFACE
User-centric web portals, dashboards and self-service tools to enable stakeholders to interact and monitor data exchange efficiently.

REPORTING & AUDIT
Monitors data interactions through audit logs, automated compliance checks, and self-service reporting tools.

Operational Services

OPERATIONS & MANAGEMENT
Maintains system reliability, scalability, and performance through dynamic monitoring, incident resolution, maintenance protocols, and a sustainable funding mechanisms.

COORDINATION & ENGAGEMENT
Facilitates structured stakeholder engagement, industry co-design, and ongoing alignment with national and international data standards.

GOVERNANCE & OVERSIGHT
Compliance frameworks, governance structures, cost recovery models, and regulatory enforcement mechanisms to ensure the data integrity, transparency and stakeholder confidence.

MITE business case recap

2 MITE business case

- MITE is designed to address a number of deficiencies and pain points experienced by participants accessing and using current AEMO technology
- MITE is not CER specific, but will provide foundational capability on which new business services/use cases (such as CER-related use cases) can be built
- MITE has three components - IDAM, IDX, PC – summarised below.

	Pain Point	MITE functionality
Identity and Access Management (IDAM)	AEMO's current IDAM services: • Are disparate • Do not meet best practices in cyber security controls • Do not meet new industry obligations	Allows the right people to have access to the right information at the right time
Industry Data Exchange (IDX)	• AEMO's existing data exchange systems use inconsistent standards, protocols and formats across systems, fuels and jurisdictions • AEMO's markets have new data exchange needs	Allows high volume secure data flow
(Portal Consolidation) PC	AEMO browser services require multiple sets of credentials, causing poor user experience	Provide one access point for the data

None of this functionality is CER specific

MITE business case recap (cont)

2

MITE business case

- Through the HLD process, industry agreed that building on the functionality that will be delivered through MITE was the preferred option
- MITE business case has been approved (Foundation element), with an estimate of $145m for industry to implement
- Therefore, this cost assessment is about costing the incremental cost to deliver the 3 priority use cases using the MITE capability.

Total cost of MITE (Foundation): $154m

	AEMO	Industry	Total
Implementation	$47m	$98m	**$145m**
Ongoing	$9m	$0m	**$9m**
Total	**$56m**	**$98m**	**$154m**

CER Data Exchange incremental functionality

1. Outputs of high-level design (to understand functionality required)

2. MITE business case

SECURITY & ACCESS

- ☑ Authentication & RBAC
- ☑ Encryption & Key Management
- ➲ Audit Logging & Monitoring
- ☑ Application-layer role enforcement
- ➲ Audit trail capabilities
- ➲ Cybersecurity & Compliance

DATA INTEGRATION

- ☑ Standardised APIs
- ☑ Multiple Access Patterns
- ☑ Message Queuing
- ☑ Event-Driven Architecture
- ☑ Flow Control & Connectivity
- ☑ Event-driven functionality
- ☑ Custom API endpoints
- ☑ Interoperability Standards

DATA PROCESSING

- ☑ Data Format/Structure Validation
- ❖ Content-level validation
- ❖ Data Transformation
- ❖ Historical Data Management
- ❖ Data Re-Sends & Recovery

BUSINESS LOGIC

- ❖ Business Rule Enforcement
- ❖ Automated Data Governance
- ❖ Incremental Data Management

USER INTERFACE

- ❖ Audit Logging
- ❖ Self-Service Reporting
- ❖ Industry Self-Service Analytics

REPORT & AUDIT

- ❖ Web Portal & Dashboards
- ❖ Self-Service Tools
- ❖ Customised Access Dashboards

LEGEND

- ☑ Full Covered by MITE
- ➲ Partially Covered by MITE
- ❖ New Build

OPERATIONS

- ☑ Dynamic Monitoring
- ☑ Incident Response & Resolution
- ☑ System Maintenance & Upgrades
- ➲ Service Level Agreements
- ❖ Cost Management

ENGAGEMENT

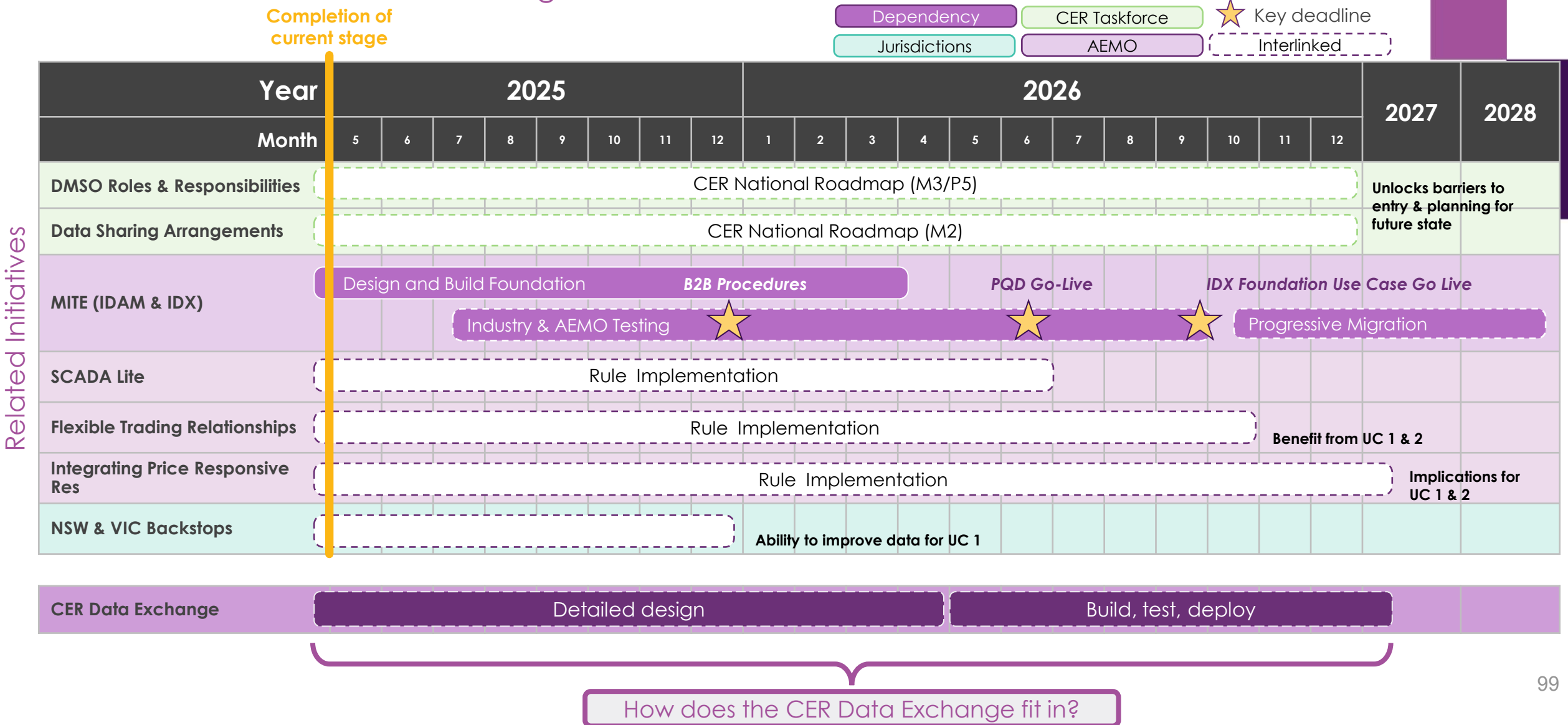
- ❖ Stakeholder Co-Design & Engagement
- ❖ Data Standards & Schema Management
- ❖ Continuous Improvement
- ❖ Implementation & Change Management Framework

GOVERNANCE

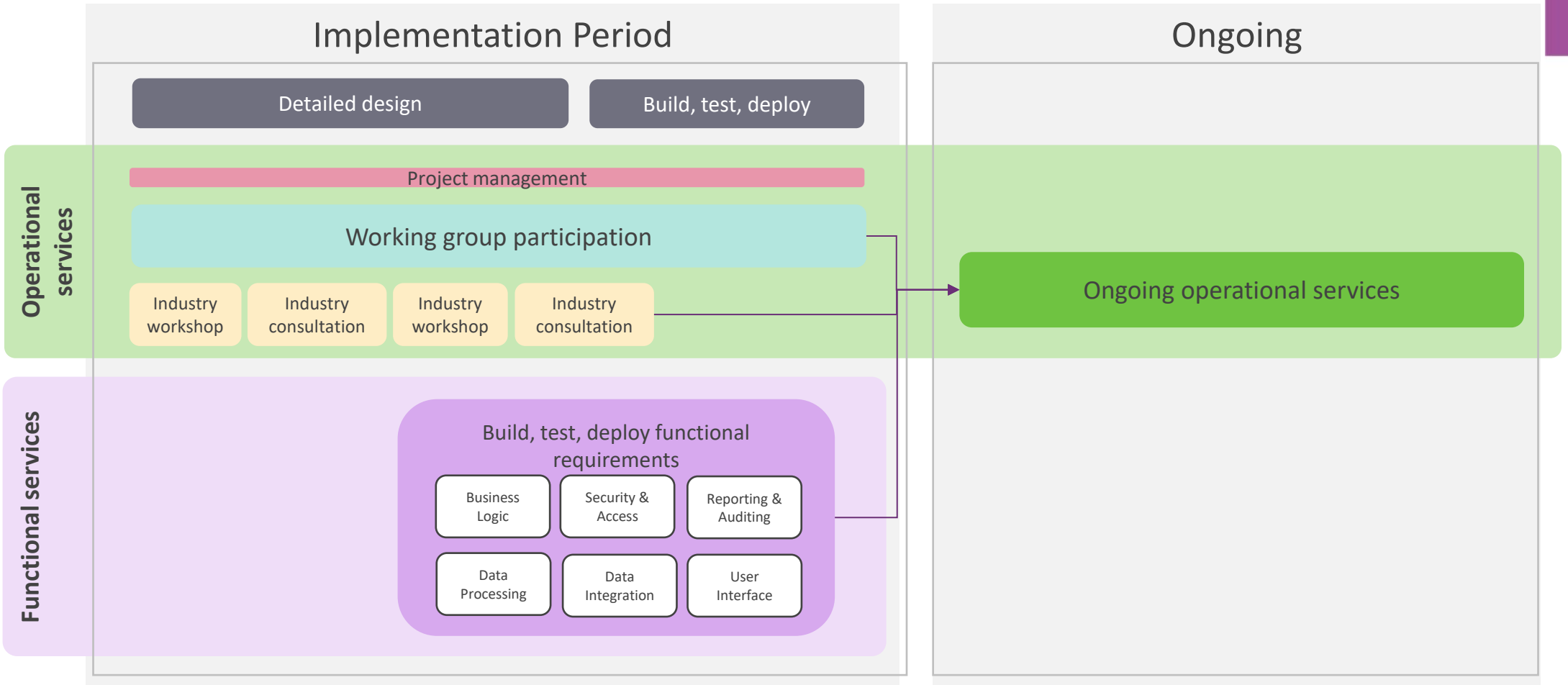
- ❖ Regulatory Compliance
- ❖ Market Governance & Oversight
- ❖ Audit Monitoring & Compliance Enforcement
- ❖ Cost Recovery & Funding
- ❖ Industry & Regulatory Alignment

Implementation timeline

How does the CER Data Exchange fit into the timeframes of related reforms?



Costing methodology



Costing methodology (cont)

Operational Services

- Effort-based estimates
- Effort aligned with:
  - **Project management** (AEMO)
  - **Working group** participation (based on estimated number of participants by category)
  - All **industry workshops** and consultation (all industry)

- Split by participant category
- Standard labour rate applied

Functional Services

- Estimate of t-shirt sized costs for functional build, test and deploy

- Plus other costs such as hosting, storage, licence fees

ACTIVITY 4:
Cost Assessment

Activity #4 Placemat overview

Break into groups (based on your participant type, i.e. DNSPs, retailers/aggregators, other)

1. Share your opinions on the methodology and assumptions

2. Provide details of any additional costs you expect to incur

3. Share your views on the cost to industry

4. Share your views on the cost recovery options

ACTIVITY D: Cost Assessment **Stakeholder group:** _____

Methodology & Assumptions **ACTIVITY TASK:** Were there any aspects of the costing methodology or assumptions that you disagreed with?	**Response**
Additional costs **ACTIVITY TASK:** Are there any specific costs you expect to incur that you would like to raise?	**Response**
Incremental costs **ACTIVITY TASK:** Is the incremental cost about what you expected? If lower than expected, has the MVP been scoped too lean to deliver value?	**Response**
Cost recovery **ACTIVITY TASK:** Do you have any views on the cost recovery options?	**Response**

Afternoon tea break

End-of-Workshop Survey

At the end of the workshop, we will conduct a survey on MS Forms.
Please start thinking about:

Was this a genuine consultation process? | The Project team sought to apply co-design tools, including through EWG meetings and workshop sessions using preference setting exercises. Did you find this a genuine way to draw out stakeholder views and preferences? Did we accurately reflect these results in the slides / summary material?

Is co-design a better way? | AEMO and Project team invested a significant amount of time to undertake this co-design journey. Do you think it was worth it? Do you believe that a co-design process helps to align industry to deliver the best outcome for consumers?

Communication | What issues could have been better communicated (eg, benefits to end consumers, links to IDX)? Was there too much assumed knowledge at the start of the process?

AEMO arm's length? | AEMO adopted a co-design process supported by an independent third-party facilitator, which allowed AEMO to take a step back. Was this helpful? Did you have greater confidence and trust in the outcome?

Part 4: Implementation Considerations

Craig Chambers

What needs to be implemented? And when?

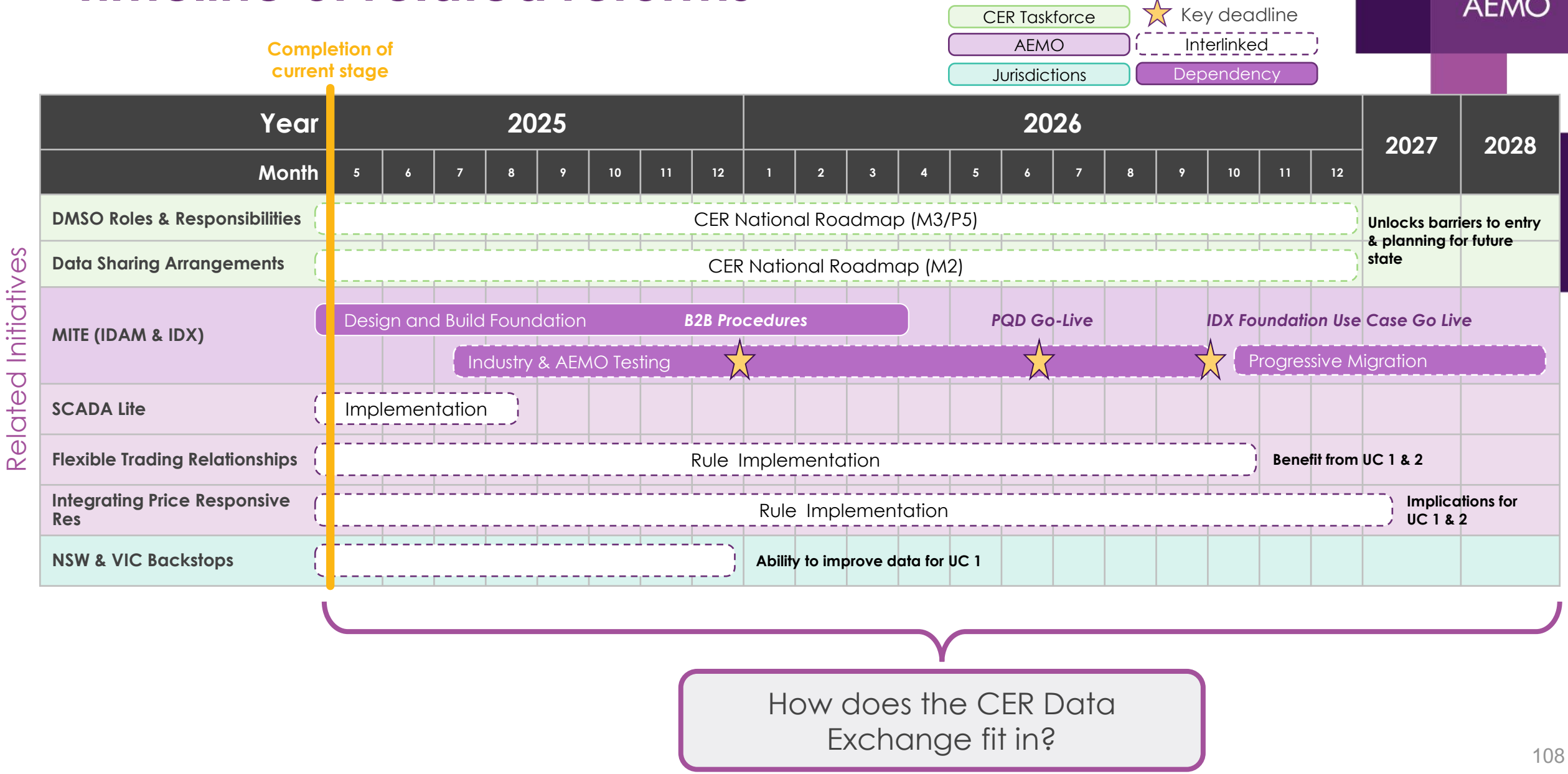
Of the implementation considerations, what you think are the highest priorities to be addressed.

- **Technical** (e.g. data exchange systems, schemas, regulatory barriers, enabling reforms)
- **Engagement** (e.g. forums, industry workshops, communication methods)
- **Governance** (e.g. regulatory barriers, regulations & compliance)
- **Operational** (e.g. risk, business rules, roles and responsibilities)

?

What needs to be resolved sooner rather than later? Where would you like immediate focus / resources dedicated to?

Timeline of related reforms



How does the CER Data Exchange fit in?

Activity #5 Placemat Overview

ACTIVITY E: Implementation Planning

Completion of current stage

CER Taskforce | AEMO | Jurisdictions | Key deadline (i.e. go-live dates) | Interlinked | Dependency

Table #:____

Related Initiatives

Year	2025								2026												2027	2028
Month	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12		
DMSO Roles & Responsibilities	CER National Roadmap (M3/P5)																				Unlocks barriers to entry & planning for future state	
Data Sharing Arrangements	CER National Roadmap (M2)																					
MITE (IDAM & IDX)	Design and Build Foundation								B2B Procedures				PQD Go-Live			IDX Foundation Use Case Go Live						
	Industry & AEMO Testing ★												★			★					Progressive Migration	
SCADA Lite	Rule Implementation																					
Flexible Trading Relationships	Rule Implementation																				Benefit from UC 1 & 2	
Integrating Price Responsive Res	Rule Implementation																					Implications for UC 1 & 2
NSW & VIC Backstops									Ability to improve data for UC 1													

Priority Use Case Implementation & sequencing

Use Case 1:
Tech. Development
AEMO Internal testing
Industry readiness / transition
Industry integration / testing
Deployment / Go-live
Use Case 2:
Tech. Development
AEMO Internal testing
Industry readiness / transition
Industry integration / testing
Deployment / Go-live
Use Case 3:
Tech. Development
AEMO Internal testing
Industry readiness / transition
Industry integration / testing
Deployment / Go-live

Key implementation issues which need to be prioritised:

Issue	Top Priority	Rank	Why
Engagement (e.g. forums, industry workshops, communication methods)	. . .		. . .
Technical (e.g. data exchange systems, schemas, regulatory barriers, enabling reforms)	. . .		. . .
Operational (e.g. risk, business rules, roles and responsibilities)	. . .		. . .
Governance (e.g. regulations & compliance)	. . .		. . .

CER Data Exchange Industry CoDesign Project– Industry Workshop 3

1. Insert what you believe to be highest priority.

2. Facilitators will work with tables to rank the key focus areas.

3. Justify why the issue is a priority. Identify key concerns.

Next Steps & Closing Remarks

We have come a long way

June 2024

Now

Broad Stakeholder Support

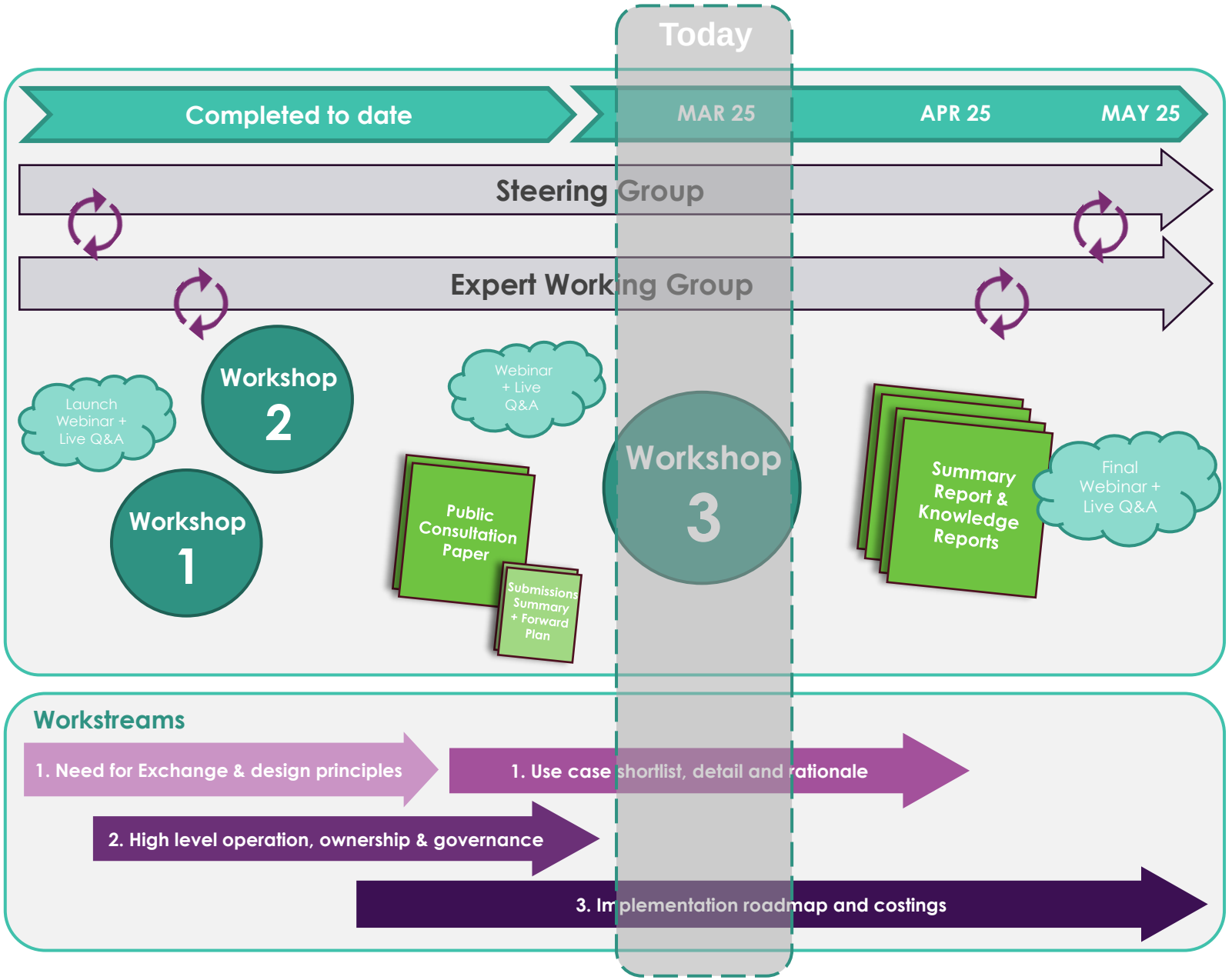
3 x Priority Use Cases

AEMO Preferred Owner & Operator

Build on MITE infrastructure

Start narrow and scale via phased implementation

Where to next?



Remainder of 2025

1. AEMO to move to detail design with industry
2. Build out the three priority use cases
3. Leverage MITE capabilities
4. Implementation from 2026

Rounding out this phase of the CER Data Exchange project

Final deliverables

Outcomes Report

Attachment: Cost Assessment Report

Attachment: High-Level Design Report

Knowledge Sharing Report

Final Public Webinar

Date: Early May

Contact us

cerdataexchange@aemo.com.au