Stakeholder Workshop Voluntarily Scheduled Resources Guidelines – DNSP & TNSP Focus

Integrating Price Responsive Resources into the NEM reform (IPRR)

1 May 2025

1. Welcome

Jen Hardman (AEMO)

We acknowledge the Traditional Custodians of the land, seas and waters across Australia. We honour the wisdom of Aboriginal and Torres Strait Islander Elders past and present and embrace future generations.

We acknowledge that, wherever we work, we do so on Aboriginal and Torres Strait Islander lands. We pay respect to the world's oldest continuing culture and First Nations peoples' deep and continuing connection to Country; and hope that our work can benefit both people and Country.

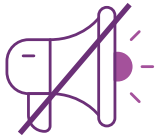
'Journey of unity: AEMO's Reconciliation Path' by Lani Balzan

AEMO Group is proud to have delivered its first Reconciliation Action Plan in May 2024. 'Journey of unity: AEMO's Reconciliation Path' was created by Wiradjuri artist Lani Balzan to visually narrate our ongoing journey towards reconciliation - a collaborative endeavour that honours First Nations cultures, fosters mutual understanding, and paves the way for a brighter, more inclusive future.

Read our RAP

General Housekeeping

1. Please mute your microphone.

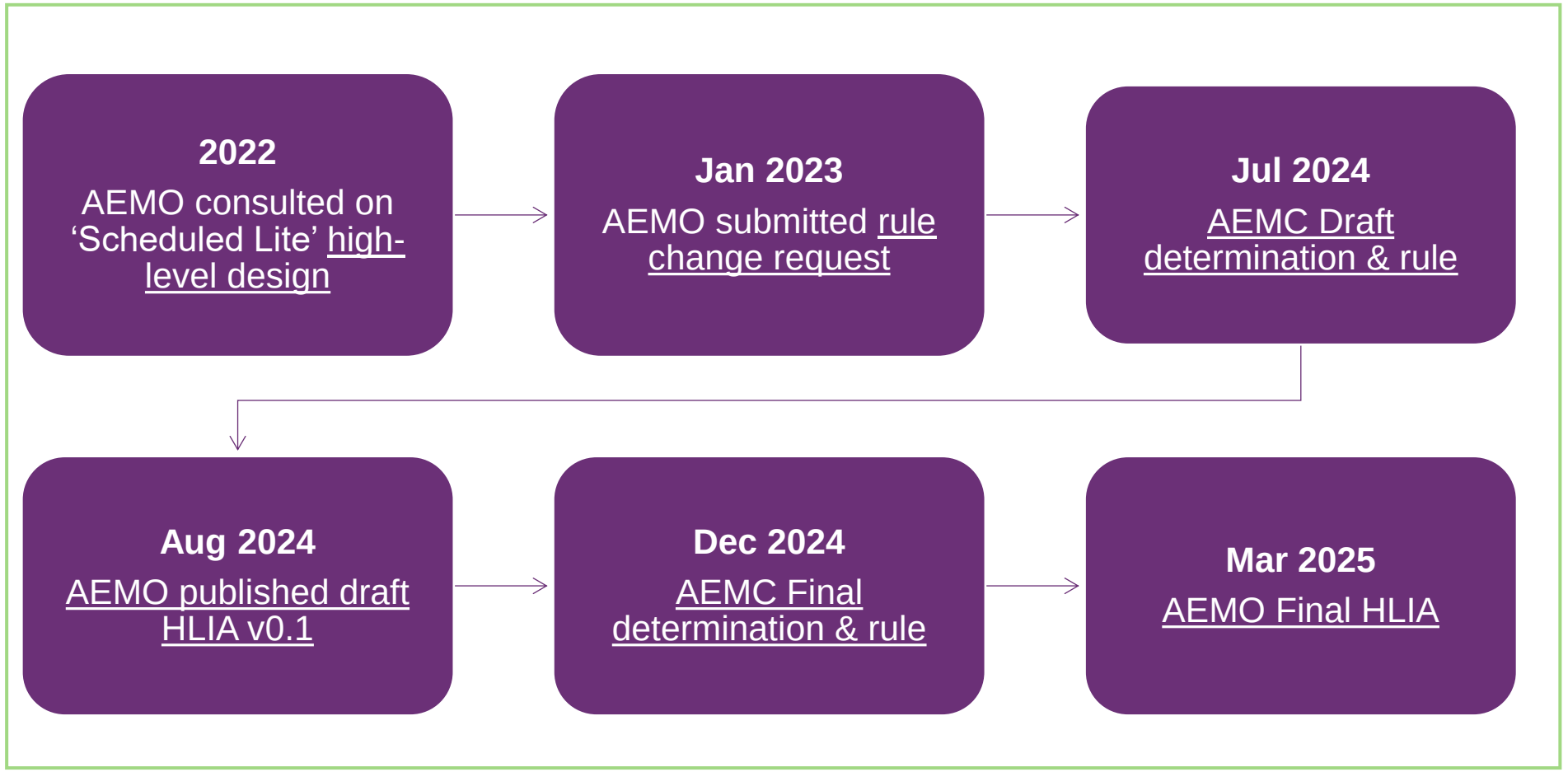


2. We look forward to your feedback and questions. Use the ‘Chat’ function to ask any questions or comments throughout the session.
   - AEMO SMEs are on the call and will attempt to respond to questions in the chat.

3. In attending this meeting, you are expected to:
   - Contribute constructively.
   - Be respectful, both on the call and in the chat.

Participants are asked to familiarise themselves with AEMO’s Competition Law Meeting Protocol as outlined in Appendix A and at AEMO’s website.

IPRR reform to date - recap



The IPRR high-level implementation assessment (HLIA) provides an indicative and preliminary view to participants on how the IPRR rule may be implemented by AEMO.

For more information visit:

nemreform@aemo.com.au

AEMO | NEM Reform | IPRR

AEMC | IPRR rule development

Agenda

#	Time (AEDT)	Topic	Presenters
1	1:00-1:05 PM	**Welcome**	Jen Hardman **(AEMO)**
2	1:05-1:10 PM	**Session objective**	Jen Hardman **(AEMO)**
3	1:10-1:20 PM	**IPRR rule and VSR guidelines background and context**	Istvan Szabo **(AEMO)**
4	1:20 - 1:30 PM	**Related reforms (10 mins)**	Emily Brodie **(AEMO)**
5	1:30 - 1:55 PM	**VSR zones (25 mins)**	Louise Bardwell **(AEMO)**
6	1:55 -2:15 PM	**Data and information sharing (20 mins)**	Istvan Szabo **(AEMO)**
7	2:15-2:20 PM	**Next steps & close (5 mins)**	Jen Hardman **(AEMO)**

Prereading:

- AEMC Final Rule: Integrating Price Responsive Resources into the NEM (IPRR)
- AEMO's v1.1 IPRR High Level Implementation Assessment
- AEMO's Voluntary Scheduled Resources Guidelines Consultation Paper
- AEMO's IPRR Project Webpage: Integrating Price Responsive Resources into the NEM (IPRR)

Appendix A AEMO Competition Law - meeting protocol

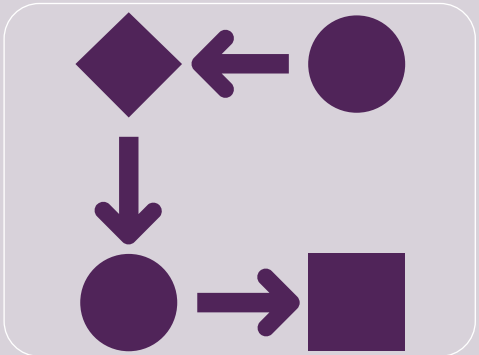
Appendix B Glossary

"Please note that this meeting will be recorded by AEMO and may be accessed and used by AEMO for the purpose of notetaking. By attending the meeting, you consent to AEMO recording the meeting and using the record for this purpose. No other recording of the meeting is permitted"

2. Session objectives

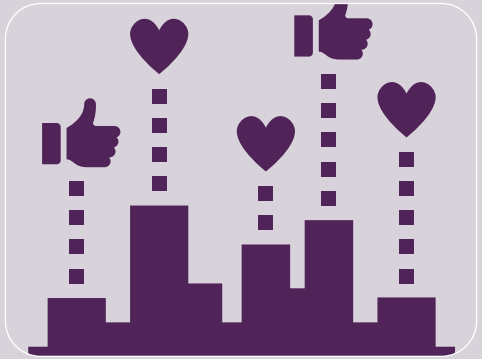
Jen Hardman (AEMO)

Objectives of today's session



1

Provide background and context to the VSR Guidelines consultation



2

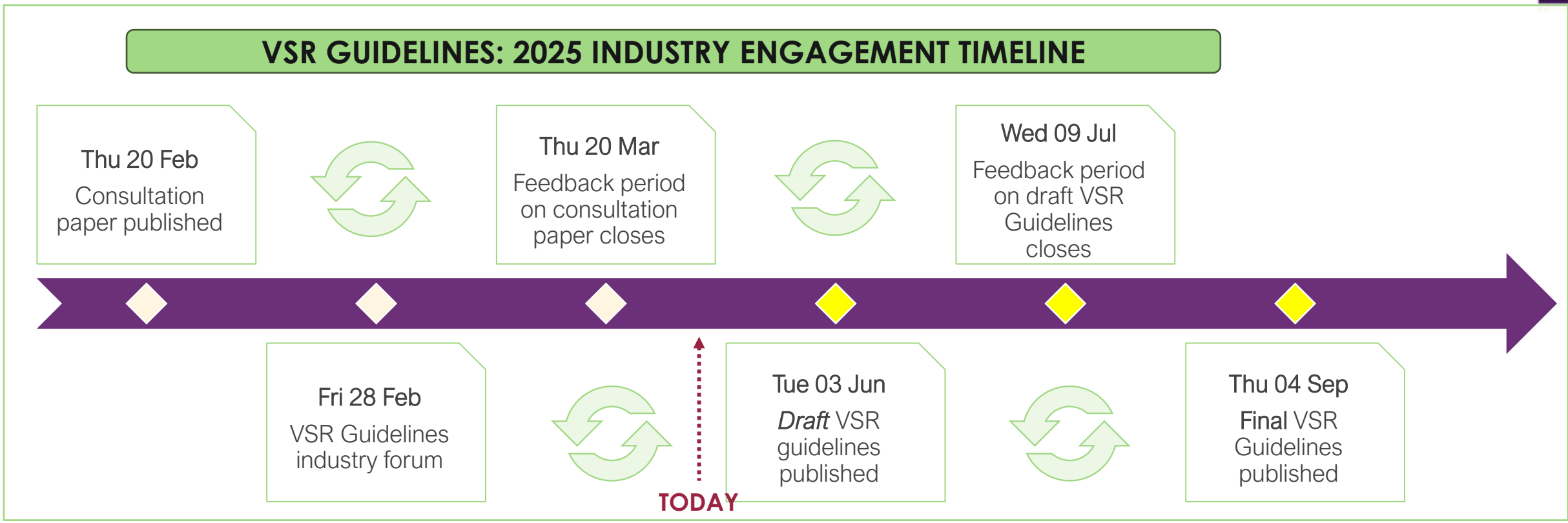
Share the stakeholder feedback received so far

3

Further explore key issues to better understand NSPs perspectives

Scene setting: 'Green fields'

- Today is part of the broader stakeholder consultation and industry collaboration on the VSR guidelines.
- The content we will cover today is to further explore what we have heard so far from network service providers.
- We want to continue hearing from all our stakeholders over the coming months about what the best solutions could be e.g. via formal submission or in formats that suit, such as 1to1s or targeted focus group sessions.



3. IPRR rule and VSR Guidelines background and context

Istvan Szabo, Business Lead (AEMO)

Background: IPRR rule refresher

Three components to IPRR rule, each with new supporting document

1. Dispatch mode

- **Problem**: Small distributed resources cannot participate in central dispatch easily.
- **Solution**: New *VOLUNTARY* "Dispatch mode" to integrate presently unscheduled price-responsive energy resources into NEM scheduling processes.

TODAY'S FOCUS

→ VSR GUIDELINES
Establishes the technical and operational characteristics of VSRs.

2. Incentive framework

- **Problem:** Being scheduled does not always provide the scheduled participant with benefits.
- **Solution**: New time-limited incentive mechanism (tenders) to encourage participation in dispatch mode. Up to $50m, with potential top ups from external bodies.

→ VIM PROCEDURE
Specifies a range of matters to support operation of the VIM, including "participation payments".

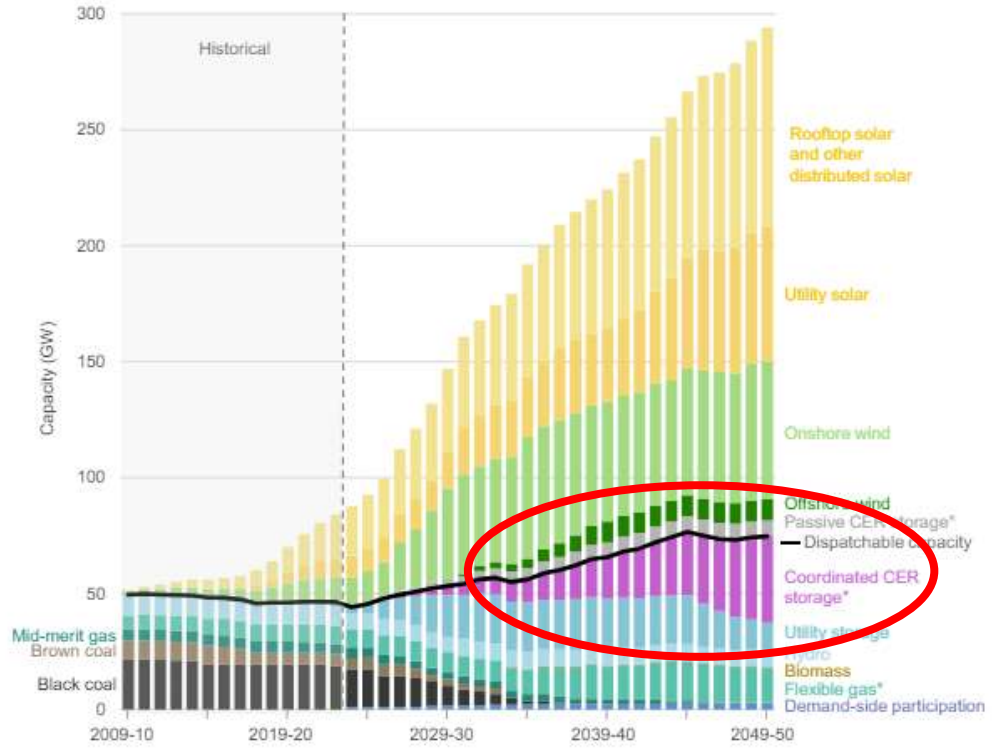
3. AEMO monitoring & reporting framework

- **Problem:** Price sensitivity is not currently used by AEMO as an input for demand forecasting.
- **Solution**: New framework to understand and manage the impact of unscheduled price-responsive energy resources on operational demand forecasting processes and market outcomes.

→ AEMO PRICE RESPONSIVE REPORTING GUIDELINES
How AEMO will meet its annual & quarterly reporting obligations.

What could happen if we don't integrate these resources?

Figure 2 **Capacity, NEM** (GW, 2009-10 to 2049-50, *Step Change*)



Notes: "Flexible gas" includes gas-powered generation and potential hydrogen capacity.
"CER storage" means consumer energy resources such as batteries and electric vehicles.
Projections for "Rooftop solar and other distributed solar" and "CER storage" are forecast based on unit costs, consumer trends and assumptions about payments received to participate in the electricity market.

- Forecast rapid growth in unscheduled price responsive resources is expected.
- These resources are already being aggregated and operated dynamically to respond to NEM price signals – to a great extent, outside of NEM's planning and operating functions.
- AEMC's published benefits analysis indicates $1.5 to $1.8b in potential cost reductions (net value between 2025 and 2050) from undertaking the IPRR reform, compared with doing nothing.

REFERENCE: AEMO, 2024 Integrated System Plan p.11.

Key terms to support today's discussion

Term	Meaning
Price responsive resource 	Small to medium sized assets across renewable generation, storage and flexible demand that: • cannot presently be scheduled in the NEM • do or could respond (individually or as part of an aggregation) to market price signals.
Voluntarily scheduled resource (VSR)	An aggregation of price responsive resources that can be scheduled and dispatched in the NEM (once the IPRR rule is implemented and has commenced).
Voluntarily scheduled resource provider (VSRP)	The operator of a VSR. Must be the financially responsible market participant (FRMP) for the connection point/s nominated as a VSR.
Dispatch mode	The new voluntary framework set up by the IPRR rule to allow VSRs to participate in the NEM
VSR participation modes	• ACTIVE – full VSR participation in dispatch mode • INACTIVE – partial VSR opt out of dispatch mode • HIBERNATED – full VSR opt out of dispatch mode (available for a minimum of 30 days to a maximum of 18 months)
VSR zones	Qualifying resources for an aggregated VSR must be contained within a VSR Zone.

For more information visit:	nemreform@aemo.com.au	AEMO | NEM Reform | IPRR	AEMC | IPRR rule development

Purpose of the VSR Guidelines

- IPRR rule provides the framework for dispatch mode.
- VSR Guidelines operationalise dispatch mode by establishing:
  - → Detailed technical and operating parameters for VSRs
  - → Other requirements for VSRPs, DNSPs, metering service providers, AEMO. NER 3.10A.3 specifies the elements that the Guidelines must contain, including:

• Requirements for nominating qualifying resources into VSRs	• Requirements and process for aggregation of VSRs	• Framework for testing the capabilities of qualifying resources
• Types of data to be submitted	• Dispatch conformance criteria	• Zonal aggregation requirements
• Telemetry & communications requirements	• Acceptable types of metering installations	• Deactivation and temporary hibernation requirements
• Thresholds for participation	• DNSP and (where relevant) TNSP data sharing requirements	• Any other information AEMO considers reasonably necessary.

Maximising participation while preserving system security

- The NER places obligations on AEMO to:
  - → "facilitate ease of participation in central dispatch for VSR" (NER 3.10A.3(d)(2))
  - → apply restrictions on VSRs in central dispatch "only to the extent reasonably necessary for AEMO to manage power system security and reliability" (NER 3.10A.3(d)(3))

- AEMO agrees with the intent of these provisions. In developing the VSR Guidelines, AEMO is seeking to maximise VSR growth and participation within the bounds necessary to allow the secure and reliable operation of the power system.

Managing system security risks as VSRs grow

- At the commencement of the IPRR reform, the small number/capacity of VSRs will mean the risks to system security are relatively low. However, the risks will increase as the number and capacity of VSRs grows.
- In recognition of this, the framework includes a review of the Guidelines after three years to ensure settings remain appropriate as the market develops.
  - VSR Guidelines review to take place by May 2030 (NER 11.180.3(c))
  - Reviews can occur at other times using the NER 8.9 ‘Rules consultation procedures’

Industry response to VSR Guidelines consultation paper

PARTICIPANT TYPE	# SUBMISSIONS	STAKEHOLDER
Aggregator	1	• Enel X
DNSP	3	• Ergon & Energex • Jemena • SAPN
TNSP	1	• Powerlink
Customer & generator	1	• SA Water
Gentailer	2	• AGL • Energy Australia
Retailer	1	• Red & Lumo Energy
Industry peak body	1	• EEC
Vendor	2	• SwitchDin • Incite Energy

KEY ISSUES highlighted in the 12 submissions:

→ Importance of setting VSR zones and VSR minimum size to support participation and uptake, especially in the early days

→ Interaction between VSRs and distribution network areas, including impact of network constraints, dynamic operating envelopes (DOEs) and NMI level visibility

→ Interaction between timings of the VSR guidelines, VIM procedure and technical specifications to support industry.

4. Related reforms

Emily Brodie (AEMO)

Related reforms and VSR Guidelines scope

For CER/DER to be managed on networks by NSPs and integrated into the NEM by AEMO, many elements need to come together, as articulated in the National CER Roadmap.

In relation to developing the VSR Guidelines under IPRR, we have heard that key elements of CER/DER management include:

What data needs to be shared and how it will be exchanged e.g. for sharing of network limits (such as DOEs).

Defining the roles & responsibilities of distribution level market and operation.

Control hierarchy, and guidance for VSRPs on the hierarchy for commands received from DNSPs & AEMO.

The following slides show the development timeframes for these elements, separate to the IPRR implementation.

National CER roadmap workstreams

Establish arrangements necessary for **operational CER data** including **flexible operating envelopes**, network management and reliability and market exchange.

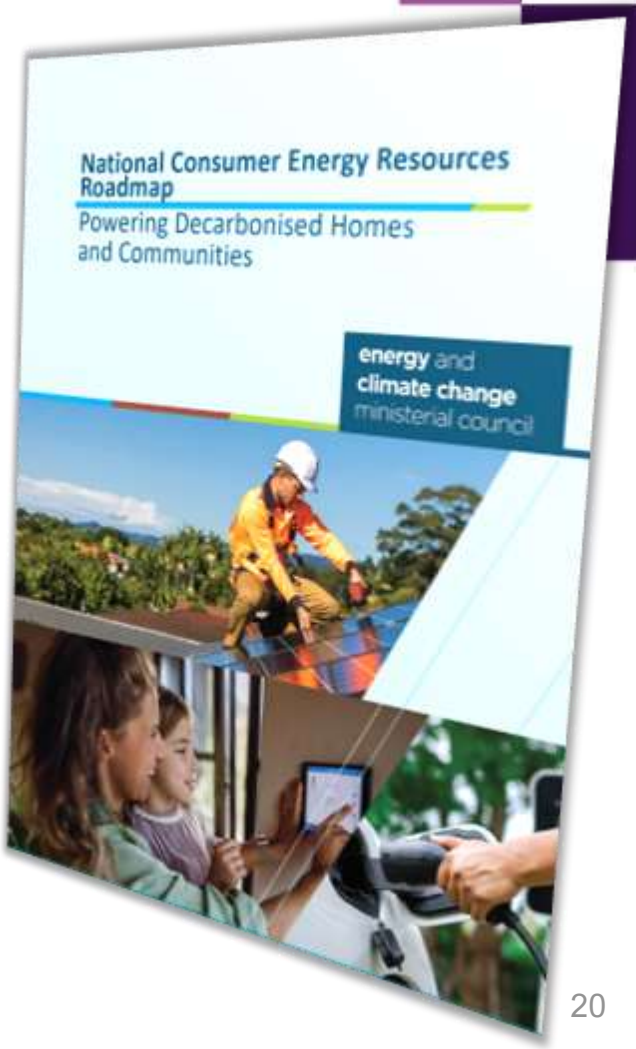
National CER Roadmap workstreams		
Consumers	C1	Extending consumer protections for CER
	C2	More equitable access to benefits of CER
	C3	CER information to empower consumers
Technical	T1	Nationally consistent standards including vehicle to grid
	T2	National regulatory framework for CER to enforce standards
	T3	Establish secure communications systems for CER devices
Markets	**M1**	**Enable new market offers and tariff structures to support CER uptake**
	M2	**Data sharing arrangements to inform planning and enable future markets**
	M3	**Redefine roles for market operations**
Power system operations	**P1**	**Enable consumers to export and import more power to and from the grid**
	P2	Faster harmonized CER connections processes including EV chargers
	P3	Improve voltage management across distribution networks
	P4	Incentivising distribution network investment in CER
	P5	**Redefine roles for power system operations**

IPRR allows for aggregated CER to be dispatched and scheduled in the NEM which improves market access and visibility

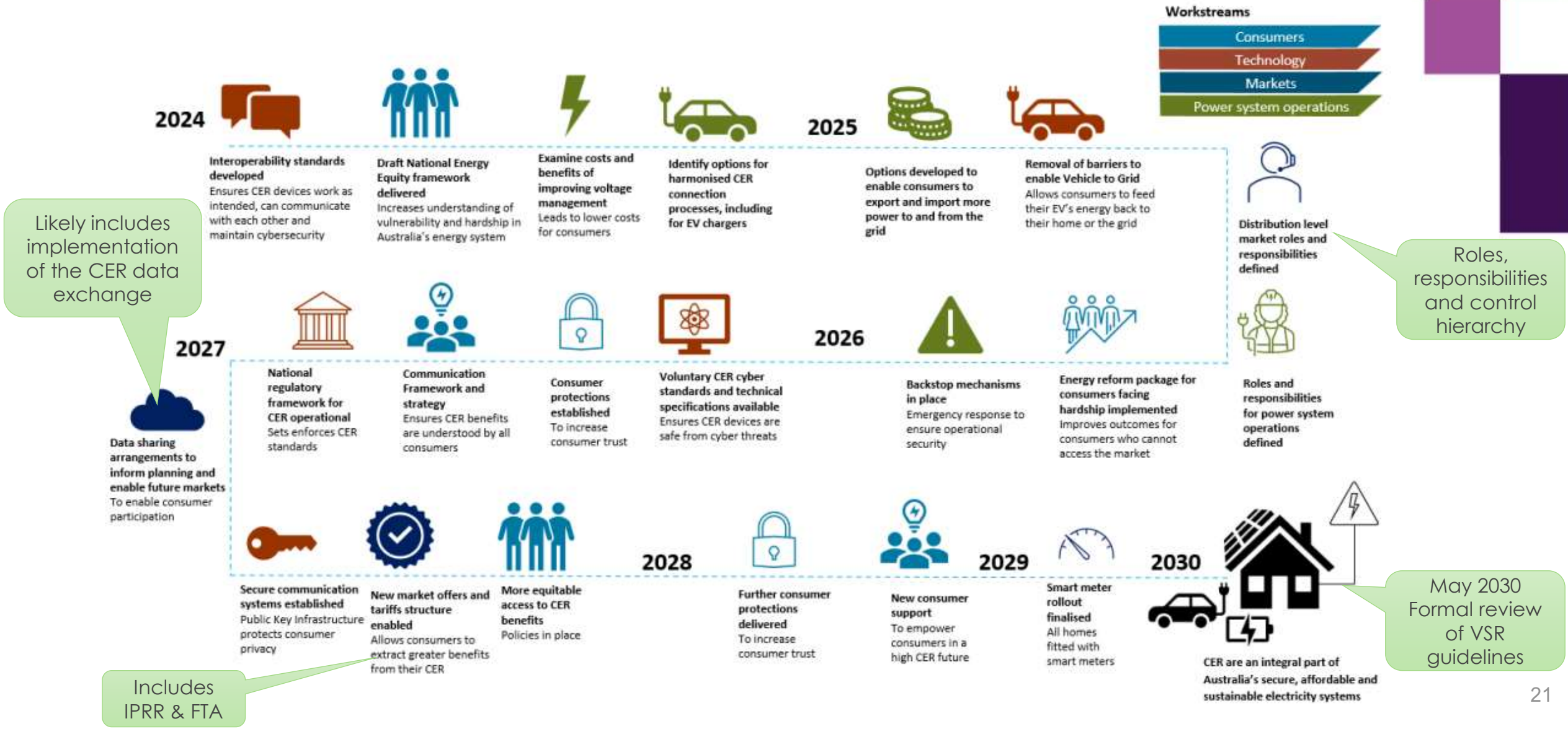
FTA allows consumers (and their agents) to manage flexible CER separately from inflexible or passive energy use through secondary settlement points.

Fast track implementation of **flexible exports component of DOEs** by network operators to enable increased CER flexibility, third party participation and maximise benefits to the system and customers.

Define the **roles and responsibilities for distribution level market and system operation** including clear control hierarchy and guidance on interaction of different parties interacting with CER



National CER roadmap on a page



What to expect

Future roles & responsibilities workstream (DSMO M3/P5) Objectives and Scope

KEY GOALS:

- Define the **distribution system operational functions** and **market functions** to deliver the maximum value from CER that occur now and need to occur in future as penetration increases.
- **System and market operation interactions** with respect to generators, operators (network, system, and market), retailers, other participants, and consumers.
- Identify **existing or upcoming gaps in capabilities and roles** and assign capabilities to most appropriate actor.
- Identify **potential reforms, evolution, and changes to governance** to achieve better integration of CER.

RELEVANCE TO IPRR:

- Defining the **roles and responsibilities for improving visibility and predictability of CER**, including the need for **centralised, real-time data, monitoring of power flows on LV network and forecasting**.
- **Control hierarchy**, and guidance for customer agents (VSRPs) on the **hierarchy for commands received from DNSPs and AEMO**.

The workstream considers IPRR design when defining capabilities for power and market system operation.

CER data sharing workstream (M2) Objectives and Scope

KEY GOALS:

- Recommend a **national CER data sharing arrangement** required across devices, actors and between actors to perform their recommended roles.
- Deliver **evidence-informed decision options** for Governments, reflecting best practice where possible, regarding the components of the data sharing arrangements that should be prioritised to enable CER.
- Identify **possible implementation pathways and recommendations** on further work to build and uplift the necessary components with supporting rationale and evidence.

RELEVANCE TO IPRR:

- Defines **what data needs to be shared and how it will be exchanged for different use cases** (e.g. for sharing of network limits).

The workstream considers IPRR design when identifying data sharing capabilities for different use cases.

PUBLIC CONSULTATION (July 2025)

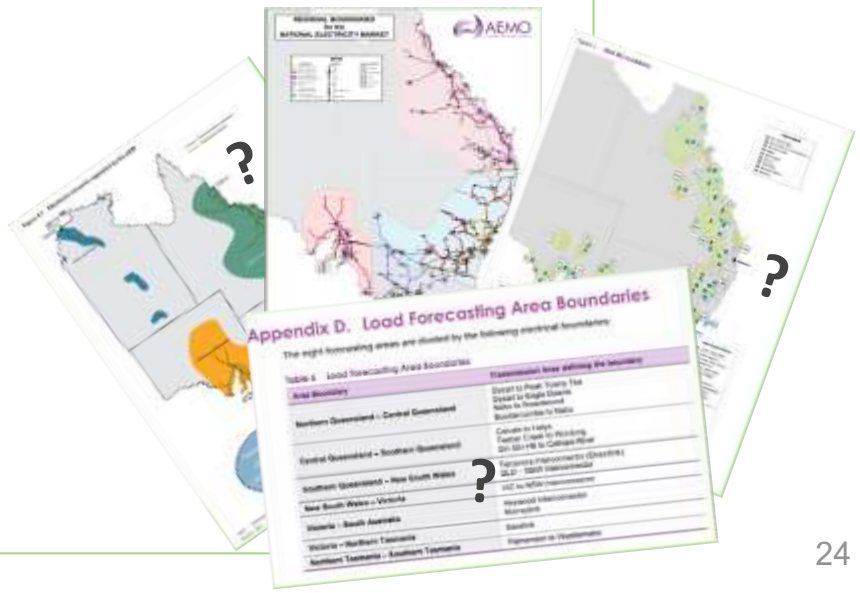
FINAL REPORT and Recommendations for ECMC considerations and next steps (Q4 2025)

5. VSR zones

Louise Bardwell (AEMO)

What is a VSR zone?

- Refers to the network boundaries, on the network, within which the connection points of the qualifying resources for an aggregated VSR must be contained.
- A key factor for enabling participation in, implementing, and operating dispatch mode.
- Could be based on existing NEM zonal classifications or a new approach.
- Factors to consider and balance:
  - Size and ease of participation
  - Support effective management of the power system
  - Effective integration into the load forecasting process
  - Minimisation of changes in VSR zones
  - Support future DOE integration



How and when would zones be reviewed?

- VSR zones cannot change for the first three years
  - NER 11.180.5
- A review of VSRs zones can occur via:
  - VSR Guidelines review, to take place by May 2030
  - Subsequent reviews using the NER 8.9 ‘Rules consultation procedures’
- If AEMO and industry are considering changes to VSR zones, AEMO will provide guidance for VSRPs and other stakeholders on the processes and timing for implementing these changes, including a minimum lead time before changes would take effect.

Initial proposals in AEMO's consultation paper

- Could be option to commence with NEM regions to support initial uptake
- However over time as VSR volumes increase, using NEM regions as the basis of VSR zones could compromise the effective management of power system congestion.
- AEMO's early view is that using congestion modelling zones as VSR zones would best support managing power system needs (security, reliability, congestion and stability), but note that their size could compromise VSR development in the early years.
- Other NEM zonal classifications would not be appropriate as the basis of VSR zones, including distribution network areas. For distribution network areas:
  - Size and ease of VSR participation would likely be affected by the smaller size of some distribution networks areas, particularly in Victoria.

What we heard:
VSR Zones and distribution network areas

Congestion zones could increase the complexity of managing NMIs within VSRs that cross distribution network boundaries

Distribution networks will need to use common DOE formats to support VSR operations

Could be opportunity to contract with VSRs to resolve local transmission (if the capability can be summated to a TNI) or distribution level concerns.

Would like to know detailed information around the control hierarchy and how it will relate to NMIs (including CER) within a VSR

What we heard:
VSR Zones and distribution network areas

Congestion zones could increase the complexity of managing NMIs within VSRs that cross distribution network boundaries

Distribution networks will need to use common DOE formats to support VSR operations

CER Data Exchange

Establishment of effective systems and/or processes

Could be opportunity to contract with VSRs to resolve local transmission (if the capability can be summated to a TNI) or distribution level concerns.

Would like to know detailed information around the control hierarchy and how it will relate to NMIs (including CER) within a VSR

DSMO project

Further information: Reasoning for congestion-based VSR zones

Congestion zones:

- Are used in constraint equations/NEMDE to manage congestion in a particular area
- Allow for zone demand forecast, which is available in the Demand Forecasting System (DFS)
- Are widely used in AEMO by other teams as well as externally by NSPs
- In comparison, NEM regions do not accurately reflect the correct limitation in the network for the areas where congestion presents

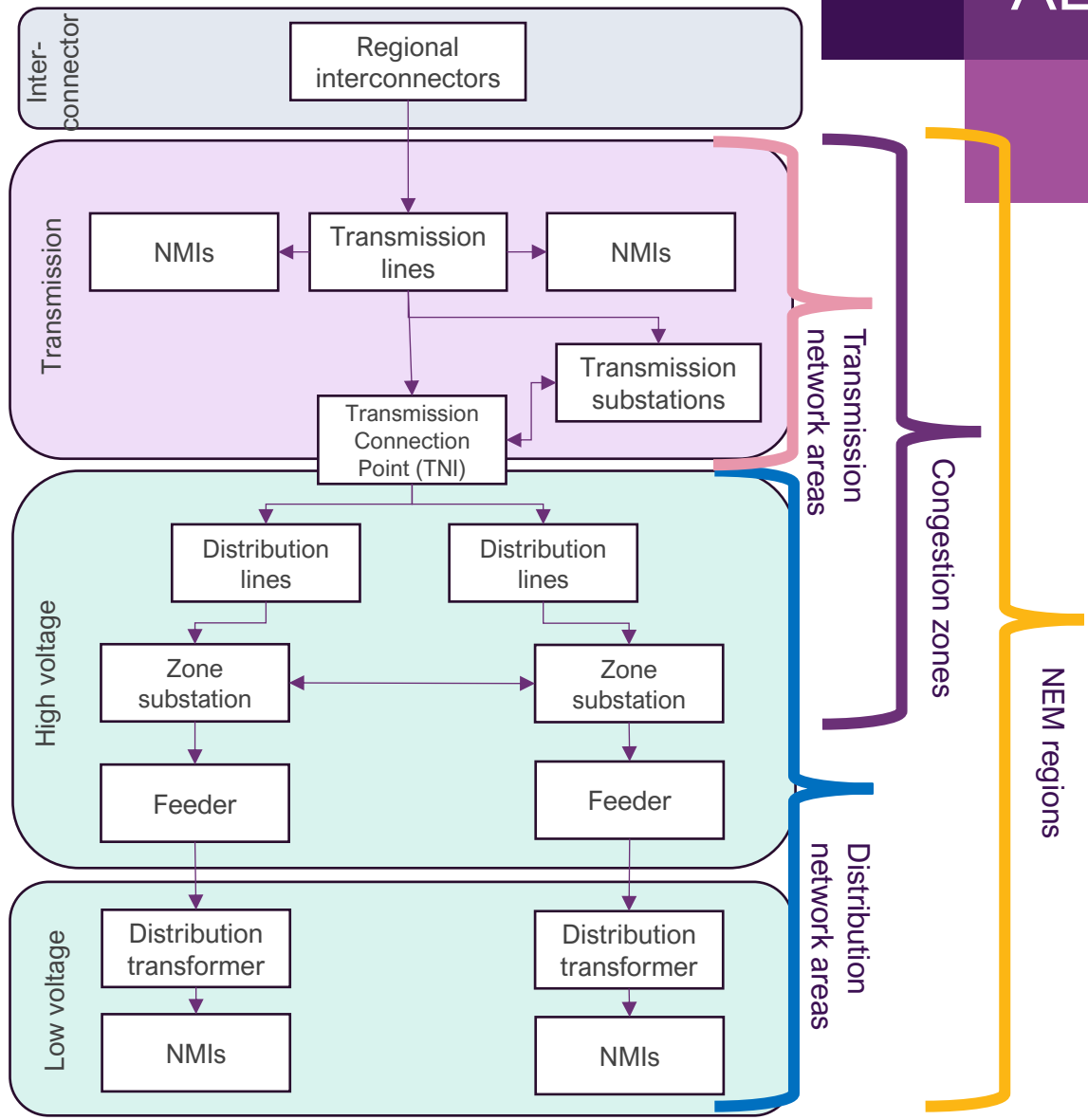
Using congestion-based VSR zones means:

- Congestion would be managed correctly and accurately using constraint equations
- AEMO can avoid time consuming and resource-intensive changes to its systems to incorporate VSRs into constraint equations/modelling
- Starting with NEM regions and then switching to congestion-based zones would require updating of every constraint equation and updating models

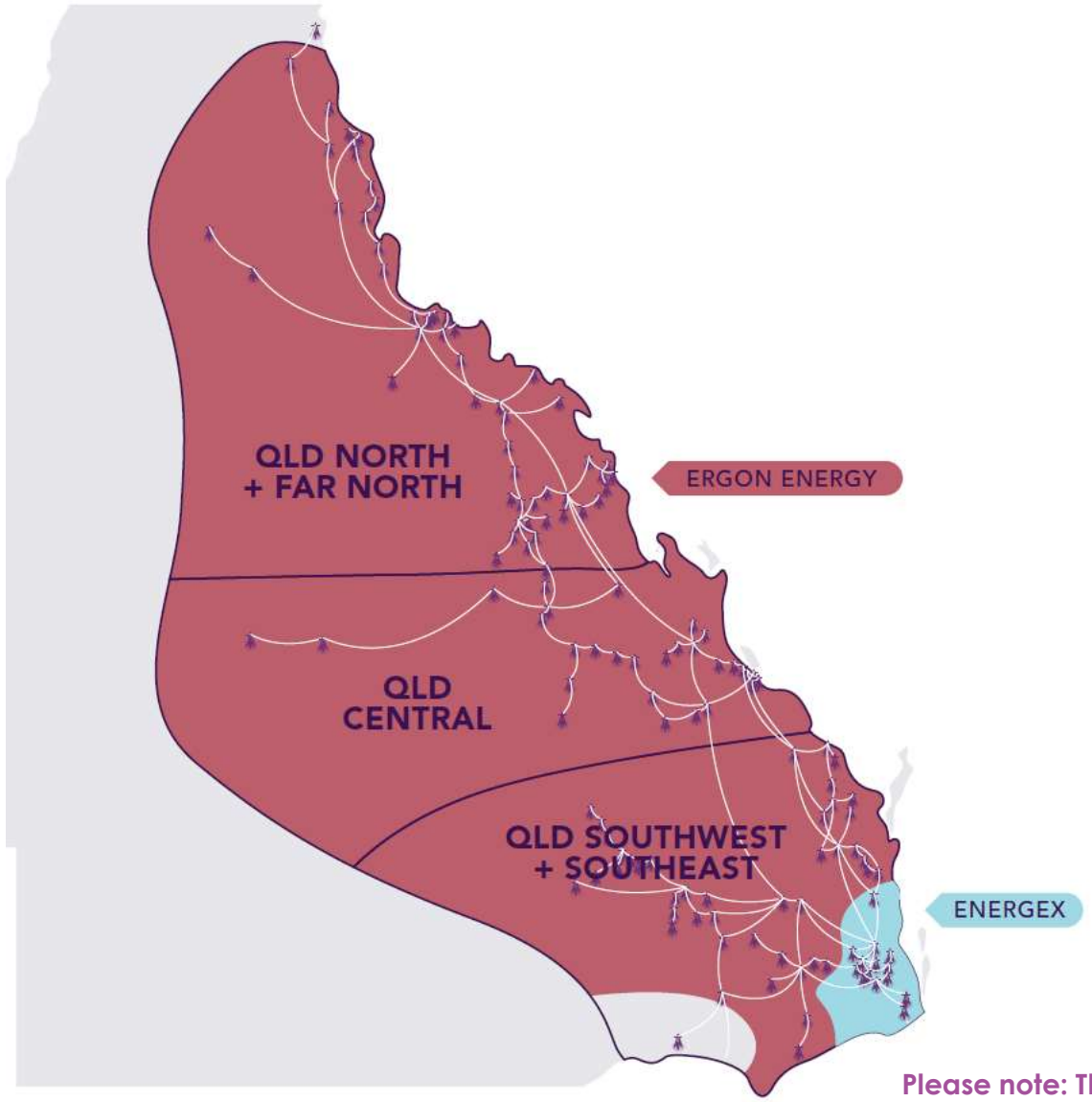
Requirements to make congestion-based VSR zones work

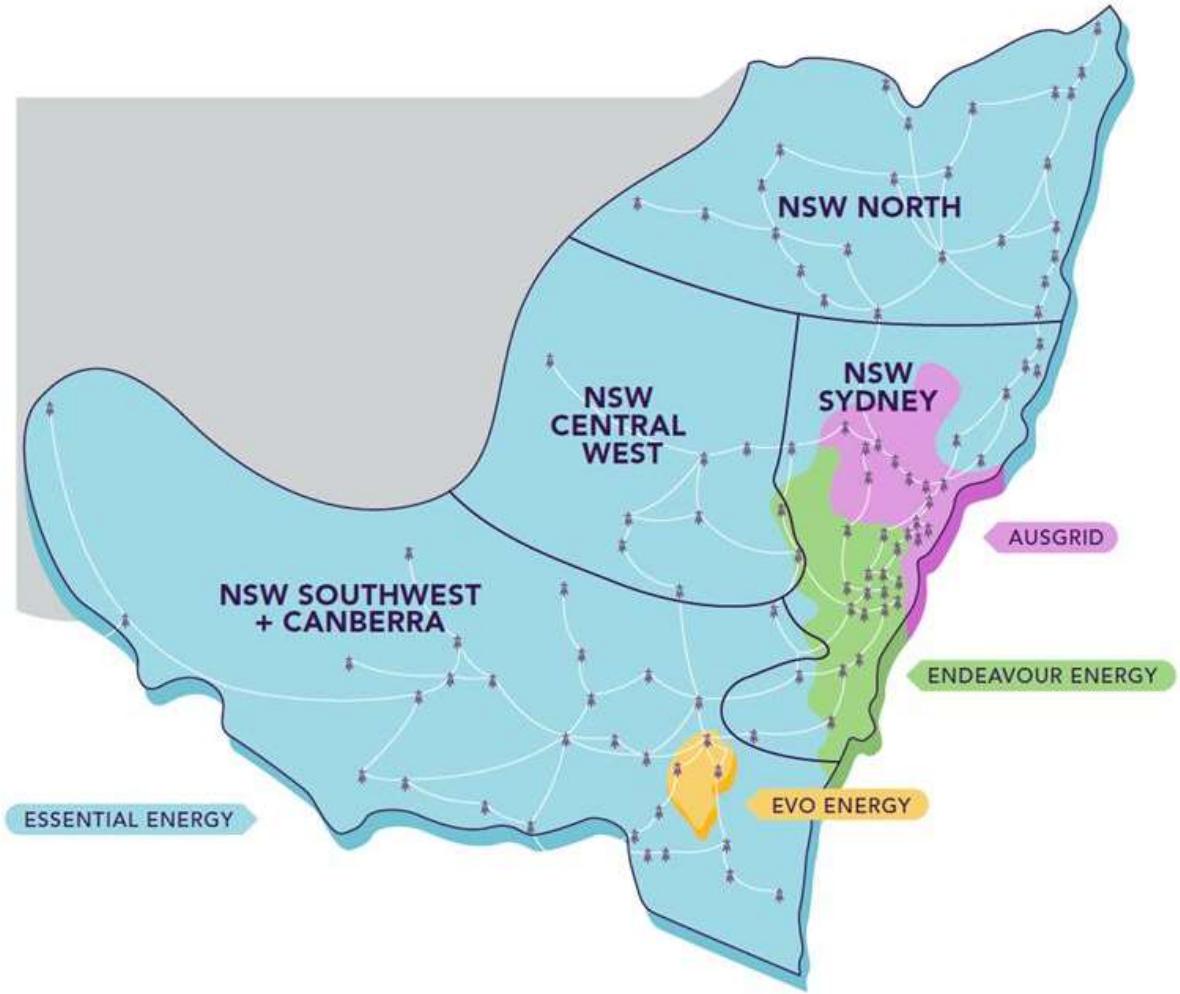
- We understand that for congestion-based VSR zones to be workable:
  - VSRPs/FRMPs will need to know the zone NMIs (in a VSR) are in to know which zone to register in
  - DNSPs will need to know the zone NMIs (in a VSR) are in to understand and monitor the active components in their network
- Need to consider how this information will be available to stakeholders to manage VSRs
- VSRPs will need to establish processes to manage NMIs within a VSR that are across distribution network areas for VSR zones that are either congestion-based or are NEM regions

To allow above, need to understand the different network and geographical boundaries/definitions associated with the congestion-based VSR zones



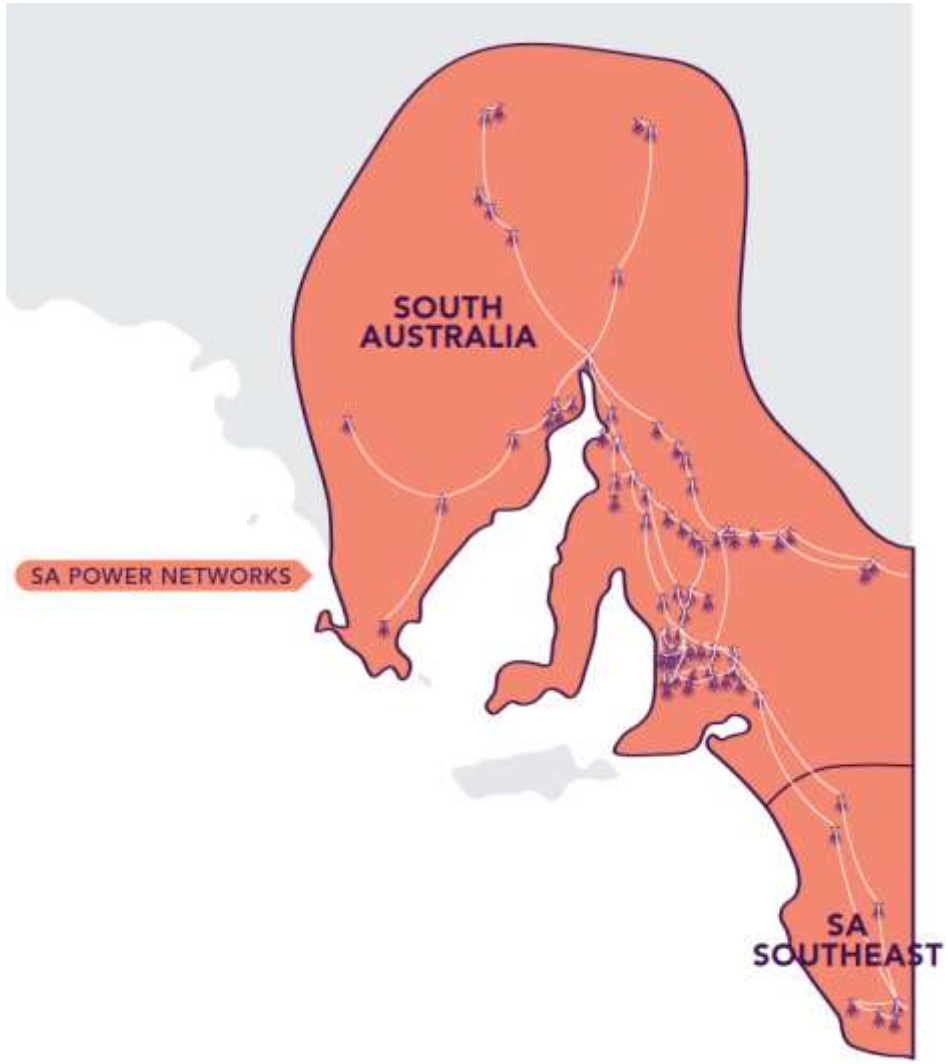
VSR zones & distribution network areas





Please note: These maps are still a 'Work in progress' and are a stylised representation

VSR zones & distribution network areas



Please note: These maps are still a 'Work in progress' and are a stylised representation

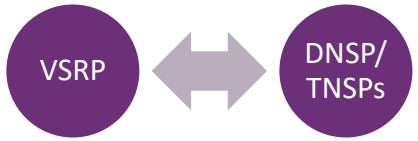
6. Data & Information Sharing

Istvan Szabo (AEMO)

Data & information sharing

IPRR rule requires AEMO to establish the following data and information sharing processes in the VSR Guidelines.

- Next slide indicates types of data & information sharing for consultation
- Particularly interested in supporting DNSPs to appropriately:
  - Manage and estimate the individual market connection point responses for a VSR in their network.
  - Manage DOE calculations.



Industry and AEMO considering how data sharing may align with other current reform initiatives, including:

- MITE program
- CER Data Exchange

Data we have considered in the consultation paper includes:

- NMIs (including SSPs) within a VSR
- VSR zone NMI in a VSR is in
- VSR mode (active, inactive, hibernated)
- VSR DUID
- Bid quantity (submitted by VSRP)
- Final dispatch quantity
- Final dispatch price
- Ramp rates

What we heard:
Data and information sharing

Granular VSR information will be needed (if distribution network areas not used as zones), tagged to the relevant DNSP area

Interest in understanding the individual and coordinated impacts of NMIs in a VSR, as behaviour of a particular NMI in a VSR will have impact at local network level (e.g. through sharing NMI-level forecast VSR bid quantities)

Changes in the VSR/VSRP/Zone level as near real time as possible to DNSP to assist in network assessment

What we heard:
Data and information sharing

Granular VSR information will be needed (if distribution network areas not used as zones), tagged to the relevant DNSP area

VZR zones won't change dynamically. Will have to go through formal Rules consultation process, and will include minimum lead time of at least 6 months

Changes in the VSR/VSRP/Zone level as near real time as possible to DNSP to assist in network assessment

Other considerations for data sharing under the IPRR rule framework

- IPRR is about facilitating direct access to the wholesale market (bidding, dispatch, scheduling etc), not a framework for DER/CER to provide local network services to DNSPs which they can do via separate agreements with DNSPs
- Focused on managing transmission system congestion, by incorporating VSRs into AEMO's transmission level constraints processes
- As such, all requirements on VSRs are at the aggregate DUID-level, including:
  - Bid quantity and targets
  - Aggregated telemetry requirements
  - Dispatch conformance framework

What we will do to provide DNSPs with necessary data

- Will be important for networks to have full visibility of what VSR is doing in their network area.
- Networks will have access to the following to achieve this visibility:
  - ✓ NMIs in their network that are within a VSR DUID
  - ✓ Access to standing data for VSR (including VSR mode)
  - ✓ Visibility, alongside VSRPs and AEMO, of five-minute metering data
- VSR pre-dispatch targets could be more useful than bids, but both are currently confidential to the participant and the IPRR rule kept this unchanged - NER 3.8.20(j).

AEMO is interested in discussing the extent to which:

- NSPs need DUID level forecasts and how this changes over time i.e. necessary in early days of IPRR?
- Voluntary provision of forecasts from VSRPs to NSPs would be feasible/helpful.

(j) Subject to clause 3.8.20(b), the following *pre-dispatch* outputs relating specifically to a *scheduled resource* or an *ancillary service unit* must be made available electronically to the relevant *Market Participant* on a confidential basis:

(1) the scheduled times of *commitment* and *decommitment* of individual *slow start generating units*;

(2) scheduled *trading interval* or *30-minute period* *loading level* (as applicable) for each *scheduled resource* or *ancillary service unit*;

Aggregated telemetry requirements for VSRs/VSRPs

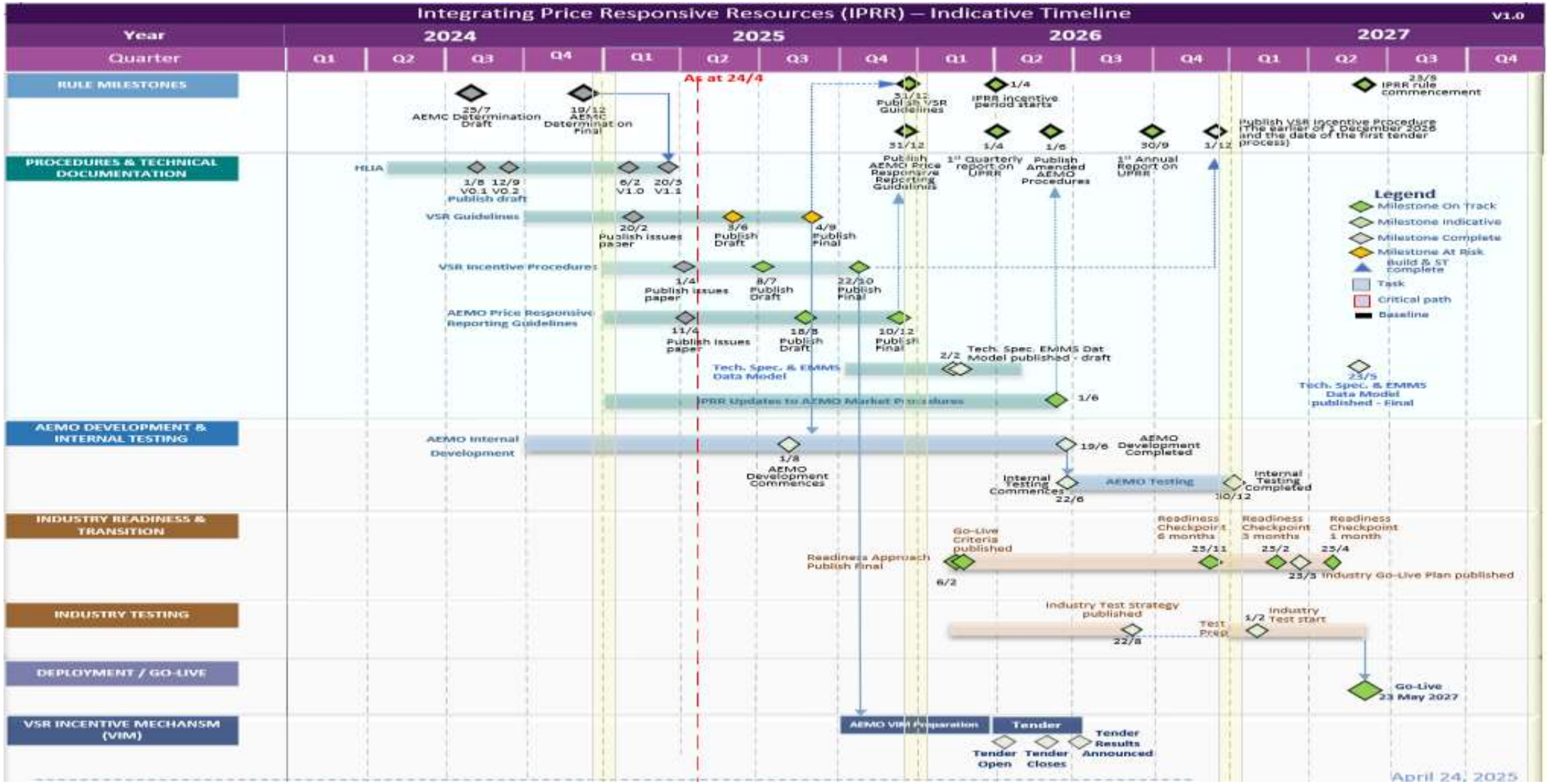
Under the IPRR final rule:

- VSRPs are **not** required to provide accurate NMI-level bid data
- Requirements only on VSRPs to provide aggregate (DUID-level) VSR data.
  - AEMO is not mandating telemetry requirements for each qualifying resource, but a fair and accurate representation of the aggregation (DUID)
  - VSRP at discretion and responsible for benefit, risk and cost assessment related to how they calculate aggregated telemetry data and the level of maturity they invest in.
  - E.g. could use:
    - ❑ Sampling
    - ❑ Detailed metering
    - ❑ Automated outputs (e.g. if price goes x, portfolio does y)
    - ❑ Forecasts (if VSRP comfortable to take on that risk)
- AEMO expects that NMI-level dispatch forecasts may be inaccurate as:
  - May be managed in real-time across the VSR, with flexibility within the VSR's capacity used to address variability and meet targets. NMI dispatch may therefore change dynamically.
  - No conformance framework to assess the accuracy of data provided at the NMI-level

7. Next steps & Close

Jen Hardman (AEMO)

IPRR indicative timeline



IPRR upcoming consultations: Proposed delay to draft VSR Guideline milestone

AEMO is proposing a small delay in publishing the draft VSR guidelines:

- To support a higher quality document
- Owing to the volume, quality and complexity of submissions received and subsequent stakeholder discussions
- Submissions due date also to be adjusted to allow same response time (25 days)
- Final publication date will still be well ahead of the 31 Dec 2025 NER deadline.

Stakeholders are invited to raise any concerns with this approach, particularly if there are impacts to their implementation programs by Wed 14 May, via: NemReform@aemo.com.au

STAGE	CURRENT	PROPOSED
Draft	Thu 22 May	Tue 03 Jun
Submissions due	Thu 26 Jun	Wed 09 Jul
Final	Thu 28 Aug	Thu 04 Sep

How to get involved

Forums	Forum focus	Cadence	Approach
Executive Forum	Program overview and status update	3 per Year	Nomination
Reform Delivery Committee (RDC)	Long term implementation planning perspective	Quarterly	Nomination
Program Consultative Forum (PCF)	Inflight initiatives status & co-ordination	Monthly	Open
Implementation Forum	Implementation of reforms	Monthly	Open
Electricity Wholesale (EWCF) & Electricity Retail (ERCF) Consultative Forums	Procedures working groups	Monthly	Open
Industry Testing Working Group	Testing	Monthly	Open
Working Groups	Inflight	As appropriate	As appropriate

Focus / working groups for inflight initiatives include:

- Initiative working groups
- Market Integration Technology Enhancement WG (IDX/IDAM/PC)
- Industry Testing Working Group (ITWG) – IT technical implementations

To learn more, please visit:

- AEMO | NEM Reform Program Forums
- AEMO | NEM Reform Program Initiatives
- AEMO | Industry Meetings Calendar
- or contact the program at NEMReform@aemo.com.au.

Subscribe to the NEM Reform Newsletter here

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For more information visit

NEMReform@aemo.com.au

AEMO | NEM Reform initiatives | IPRR

Appendix A – AEMO Competition Law Meeting Protocol

AEMO Competition Law - Meeting Protocol

AEMO is committed to complying with all applicable laws, including the Competition and Consumer Act 2010 (CCA). In any dealings with AEMO, all participants agree to adhere to the CCA at all times and to comply with appropriate protocols where required to do so.

AEMO has developed meeting protocols to support compliance with the CCA in working groups and other forums with energy stakeholders. Before attending, participants should confirm the application of the appropriate meeting protocol.

Please visit: https://aemo.com.au/en/consultations/industry-forums-and-working-groups

Appendix B –Glossary

Glossary

TERM	DEFINITION
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
API	Application Programming Interface
ARENA	Australian Renewable Energy Agency
B2B	Business to business
B2M	Business to market
BDU	Bidirectional Unit
CER	Consumer Energy Resources
COAG	Council of Australian Governments
CRMP	Cost recovery market participant
DER	Distributed energy resources
DNSP	Distribution network service provider
DOE	Dynamic Operating Envelope
DRSP	Demand response service provider
DSP	Demand side participation
DUID	Dispatchable unit identifier

TERM	DEFINITION
ERI	Enhancing reserve information
ESB	Energy Security Board
EV	Electric vehicle
FCAS	Frequency control ancillary service
FEL	Flexible export limit
FPP	Frequency performance payments
FTA2	Unlocking benefits of CER through flexible trading
FRMP	Financially responsible market participant
HLIA	High level implementation assessment
IESS	Integrating energy storage systems
IDAM	Identity access and management
IDX	Industry data exchange
IPRR	Integrating price responsive resources
IRP	Integrated resource provider
ISP	Integrated system plan
MASS	Market ancillary services specification
MSL	Minimum System Load

TERM	DEFINITION
MITE	Market interface technology enhancement
NEM	National electricity market
NEMDE	National electricity market dispatch engine
NEO	National electricity objective
NER	National electricity rules
NMI	National metering identifier
NSP	Network service provider
PASA	Projected assessment of system adequacy
PMS	Portfolio management system
PoL	Predictability of load
REZ	Renewable Energy Zones
SCADA	Supervisory control and data acquisition
ST PASA	Short Term Projected Assessment of System Adequacy
V2G	Vehicle-to-grid
VPP	Virtual Power Plants
VSR	Voluntarily scheduled resource
VSRP	Voluntarily scheduled resource provider
WDRM	Wholesale Demand Response Mechanism

- A comprehensive glossary of terms (and measurements) can be found at AEMO's website: https://aemo.com.au/learn/industry-terminology
- For rules terms, see the relevant industry rules on the AEMC website > Energy rules.