



# Stakeholder Information Session

## Voluntarily Scheduled Resources Guidelines | Second Draft

Integrating Price Responsive Resources (IPRR) into the NEM

12 September 2025



# 1. Welcome

Emily Brodie (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, who will attempt to respond in the chat. 
3. Today we will be running through four sections. To make the best use of time, please hold your questions till the end of each section and then raise your hand.
4. 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



For more information visit:



[nemreform@aemo.com.au](mailto:nemreform@aemo.com.au)



[AEMO | NEM Reform | IPRR](#)



[AEMC | IPRR rule development](#)

# Agenda

#	Time (AEDT)	Topic	Presenter/s
1	2:00-2:05 PM	<b>Welcome</b>	Emily Brodie (AEMO)
2	2:05-2:10 PM	<b>Context and session objective</b>	Emily Brodie (AEMO)
3	2:10-3:10 PM	<b>Voluntarily Scheduled Resources (VSR) Second Draft Guidelines - Deep dive</b> <ul style="list-style-type: none"> <li>• Key elements of the VSR Second Draft Guidelines including: <ul style="list-style-type: none"> <li>○ VSR dispatch and energy model</li> <li>○ VSR inactive and hibernated mode</li> <li>○ Changes related to stakeholder feedback</li> <li>○ Potential implementation rule changes</li> </ul> </li> </ul>	Istvan Szabo & Louise Bardwell (AEMO)
4	3:10-3:20 PM	<b>Regulation FCAS &amp; VSRs</b>	Aaron Millican (AEMO)
5	3:20-3:25 PM	<b>Next Steps</b>	Emily Brodie (AEMO)
	3:30 PM	<b>Close</b>	

## Prereading:

- [AEMO's Voluntarily Scheduled Resources Guidelines Second draft](#)
- [AEMO's Voluntarily Scheduled Resources Guidelines draft](#)
- [AEMC Final Rule: Integrating Price Responsive Resources into the NEM \(IPRR\)](#)
- [AEMO's v1.0 IPRR High Level Implementation Assessment](#)
- [AEMO's IPRR Project Webpage: Integrating Price Responsive Resources into the NEM \(IPRR\)](#)



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**Appendix A** AEMO Competition Law meeting protocol

**Appendix B** Glossary

**Appendix C** Additional Matters

## 2. Context and session objective

Emily Brodie (AEMO)

# Objectives of today's session



**Provide a 'deep dive'  
into the differences  
between the first and  
the second draft of the  
Voluntarily Scheduled  
Resources guidelines**



**Invite stakeholder  
feedback on the  
second  
draft Voluntarily  
Scheduled Resources  
Guidelines**

# Context: Assumed knowledge of IPRR

- Today is all about the second draft VSR Guidelines
- The content we cover today will focus on key differences between the first and second draft of the VSR Guidelines
- The session today is **not** intended to be a replacement for a read of the second draft VSR Guidelines.

## VSR GUIDELINES: 2025 INDUSTRY ENGAGEMENT TIMELINE

**Thu 20 Feb**  
Consultation  
paper  
published



**Thu 20 Mar**  
Feedback on  
consultation  
paper closed



**Thu 17 Jun**  
Stakeholder  
Briefing  
Session



**Thu 4  
Sep**  
Second  
VSR  
Guidelines  
published



**Thu 2 Oct**  
Feedback  
period on  
second draft  
**closes**

**Fri 28 Feb**  
VSR Guidelines  
industry forum



**Tue 3 Jun**  
Draft VSR  
guidelines  
published



**Wed 9 Jul**  
Feedback  
period on  
draft VSR  
Guidelines  
closes

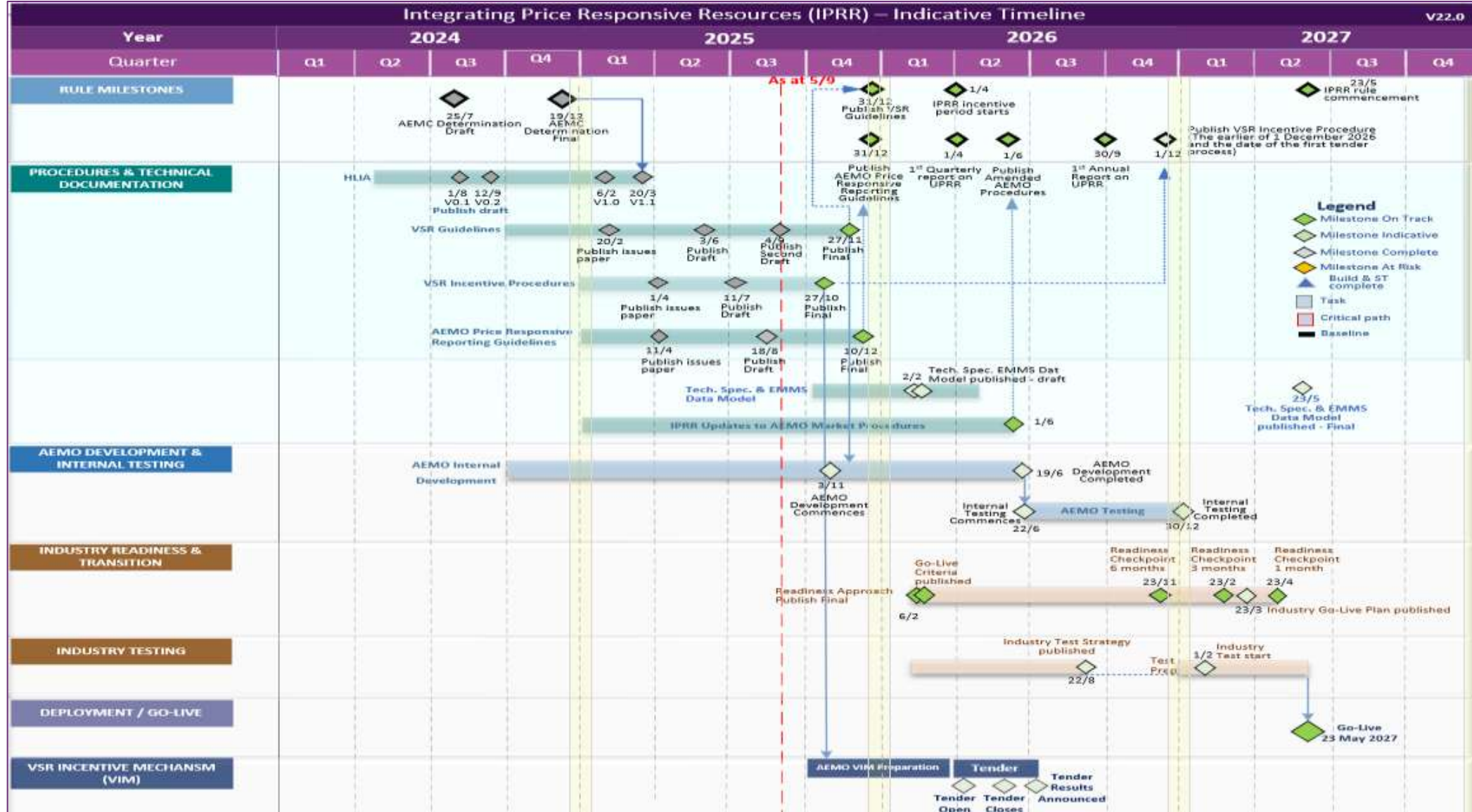


**TODAY**  
**Fri 12 Sep**  
Stakeholder  
briefing  
session



**Thu 27 Nov**  
**Final**  
VSR  
Guidelines  
published

# IPRR indicative timeline



# 3. Voluntarily Scheduled Resources (VSR) Second Draft Guidelines - Deep dive

Istvan Szabo/Louise Bardwell (AEMO)

# VSR Second Draft Guidelines: Topics for discussion

- **The second draft report** outlines several new topics relevant to IPRR implementation that have impacted requirements in the second draft VSR Guidelines.
- These include:
  - The VSR dispatch model and VSR energy model
  - Implementation of inactive and hibernated mode
  - The VSR DUID model, including interactions with FCAS
  - Network constraints
  - FPP eligibility
  - Non-conformance constraints
  - Consideration of NER 3.8.2(e)
- AEMO has also progressed matters consulted on in the first draft, including device-level information requirements, telemetry requirements, and data and information sharing.

## Proposed sections of the second draft VSR Guidelines

1. VSR nomination
2. Portfolio management
3. Determining zones and loss factors
4. Capability assessment
5. Deactivation and temporary hibernation
6. Bidding
7. NEMDE processes
8. Dispatch
9. Conformance
10. Metering
11. Data and information sharing

# Section one: Dispatch and energy model

# Overview: Dispatch and energy model

- A more flexible bidding model, utilising “dispatch type”
- State of charge and daily energy constraints
- Transitioning between dispatch types
- Temporary restriction on changing the bidding model and composition of initially market BDU VSRs

# Dispatch, bidding and energy model

Dispatch type	Bidding model*	Qualifying resource	State of Charge (SOC)	Daily Energy Constraint
GENERATOR	<b>sched. generating unit</b> max. prod. cap. $\geq 1$ max. cons. cap. = 0	no initial or subsequent restriction on nomination	VSRP <u>can't</u> provide	VSRP <u>can</u> provide AEMO publishes used in model
LOAD	<b>scheduled load</b> max. prod. cap. = 0 max. cons. cap. $\geq 1$	no initial or subsequent restriction on nomination	VSRP <u>can't</u> provide	VSRP <u>can</u> provide AEMO publishes used in model
BIDIRECTIONAL (mixed technology)	<b>scheduled BDU</b> max. prod. cap. $\geq 1$ max. cons. cap. $\geq 1$	no initial or subsequent restriction on nomination	VSRP <u>can</u> provide AEMO publishes <u>not</u> used in model**	VSRP temporarily <u>can't</u> provide**
BIDIRECTIONAL (reserved for ns. market BDUs only)	<b>scheduled BDU</b> max. prod. cap. $\geq 1$ max. cons. cap. $\geq 1$	initial and subsequent nomination is temporarily restricted for VSRs consisting of non-scheduled market BDUs	VSRP <u>can</u> provide AEMO publishes used in model	VSRP <u>can't</u> provide

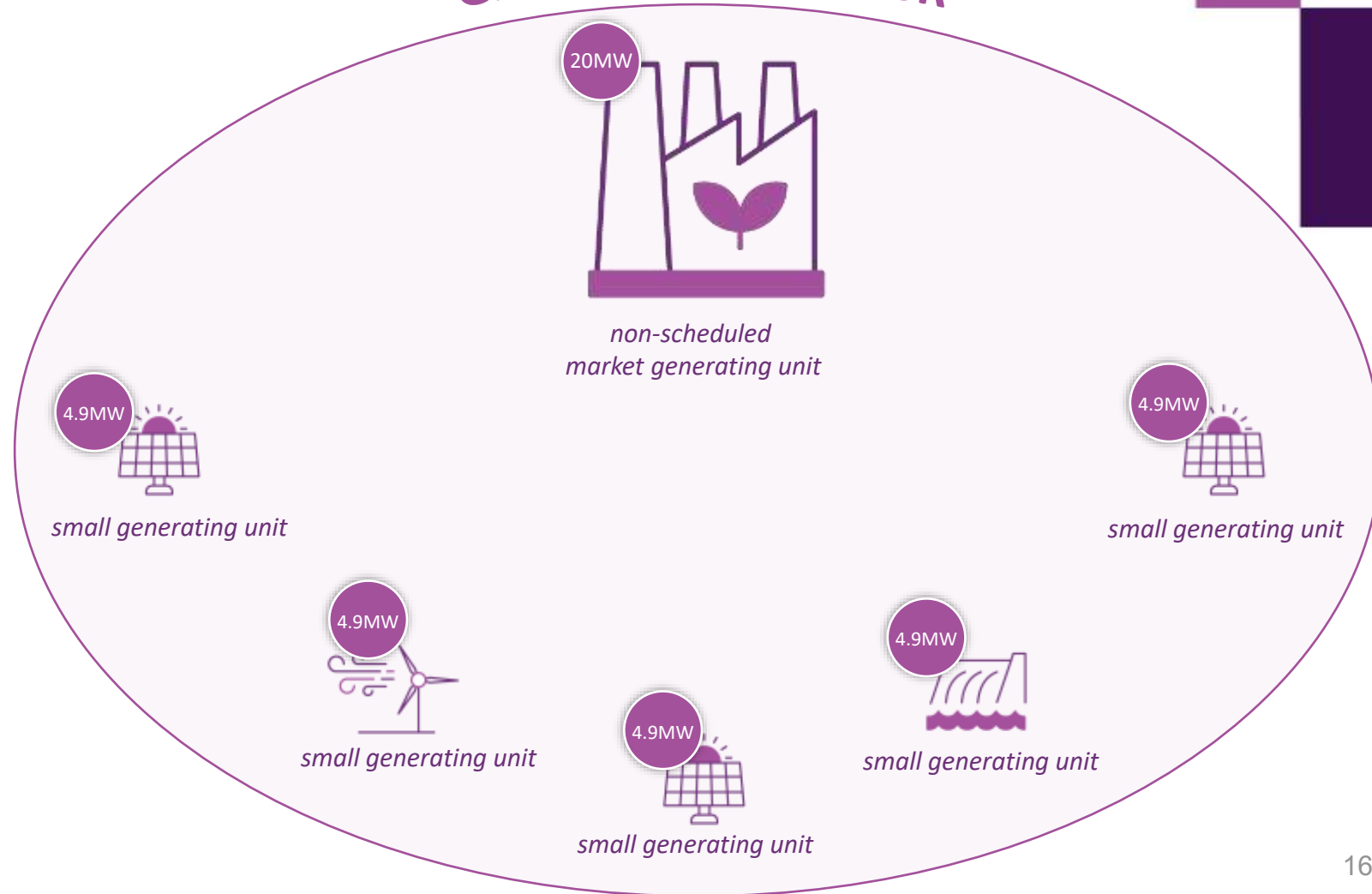
\* The bidding model utilised will largely be based on and determined by the NER Schedule 3.1 information the VSRP provides for the VSR.

\*\* AEMO will initiate industry consultation on determining an appropriate methodology of an energy model for hybrid/mixed aggregations.

# A worked example of a GENERATOR VSR...

- NER Schedule 3.1 information will be provided like so:
  - Maximum **production** of the VSR:  $4.9 \times 5 + 20 = 44.5$  MW
  - Maximum **consumption** of the VSR: 0 MW
  - Maximum **storage capacity** of the *voluntarily scheduled resource* = 0 MWh
- Daily Energy Constraints can be provided for the VSR, but **no** SOC!

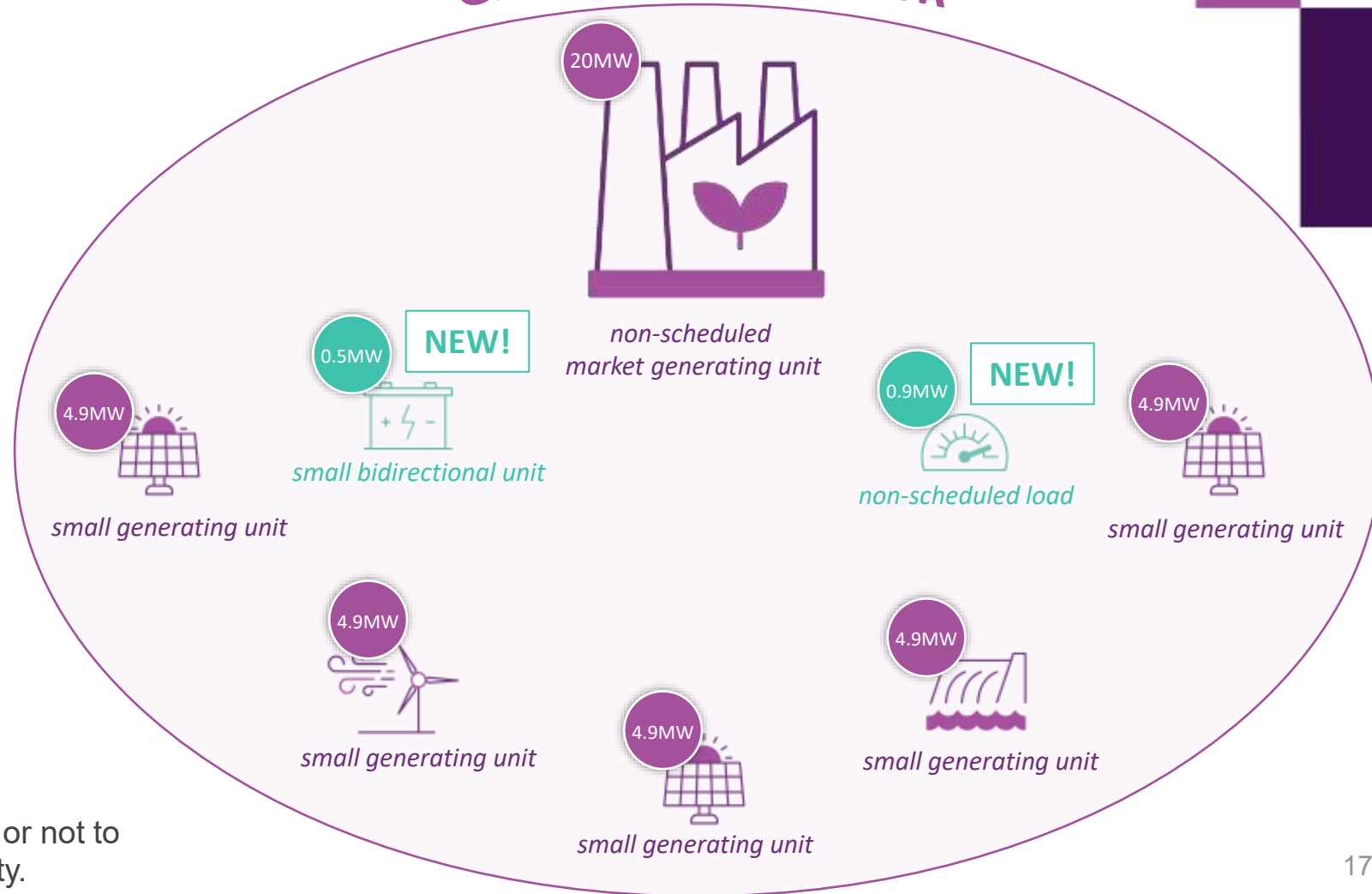
## GENERATOR type VSR



# ... and subsequent nomination with no bidding change...

- NER Schedule 3.1 information does not change\*:
  - Max. prod. = 44.5MW
  - Max. con. = 0MW
  - Max. stor. = 0MWh
- VSR remains GENERATOR
- Below non-conformance error triggers
- Daily Energy Constraints can be provided for the VSR, but no SOC!

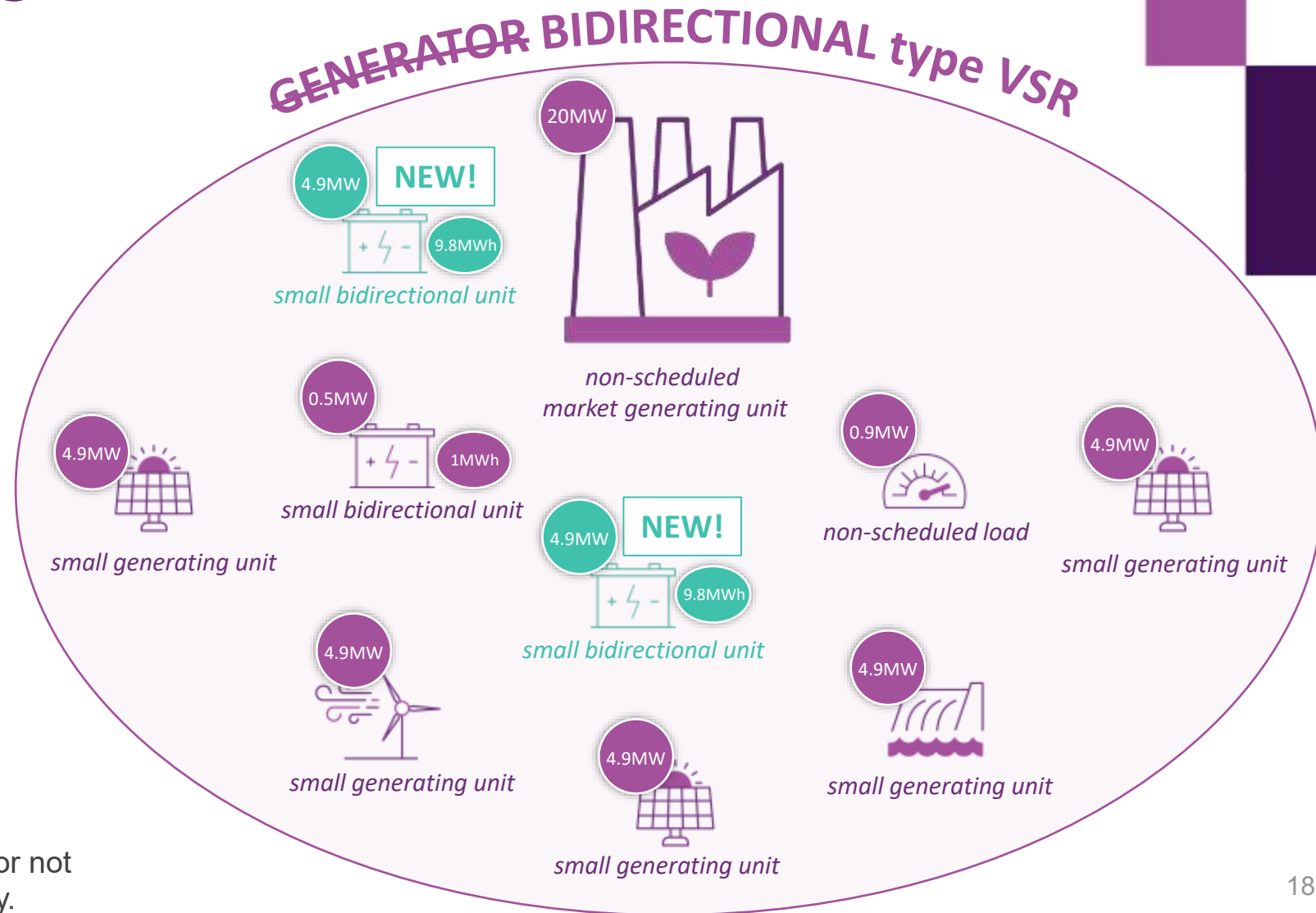
## GENERATOR type VSR



\* The VSRP has discretion & flexibility to change or not to change Schedule 3.1 information on VSR capacity.

# ... and subsequent nomination with bidding change

- NER Schedule 3.1 information changes\*:
  - Max. prod. = 54.3MW
  - Max. con. = 11.2MW
  - Max. stor. = 20.6MWh
- VSR changes to BIDIRECTIONAL
- Bidding & dispatch enabled for prod. and cons.
- State of Charge can be provided for the VSR, but no DEC!



\* The VSRP has discretion & flexibility to change or not change Schedule 3.1 information on VSR capacity.

# Questions to stakeholders

AEMO would like to hear from stakeholders on whether they consider it reasonable:

- For AEMO to *provide flexibility for VSRs in their dispatch types*, through their NER Schedule 3.1 maximum capacity values, and provide respective bidding pathways, i.e. GENERATOR VSR types would bid as scheduled generators, while BIDIRECTIONAL VSR types would bid as scheduled BDUs.
- For *an industry consultation to be held on energy constraint methodologies* for mixed technology, hybrid units.
- To *temporarily lock in the initial nomination of VSRs consisting solely of non-scheduled market bidirectional units*, so that other type of qualifying resources cannot be added to such VSRs until industry consultation provides more clarity on energy models for mixed technology units.

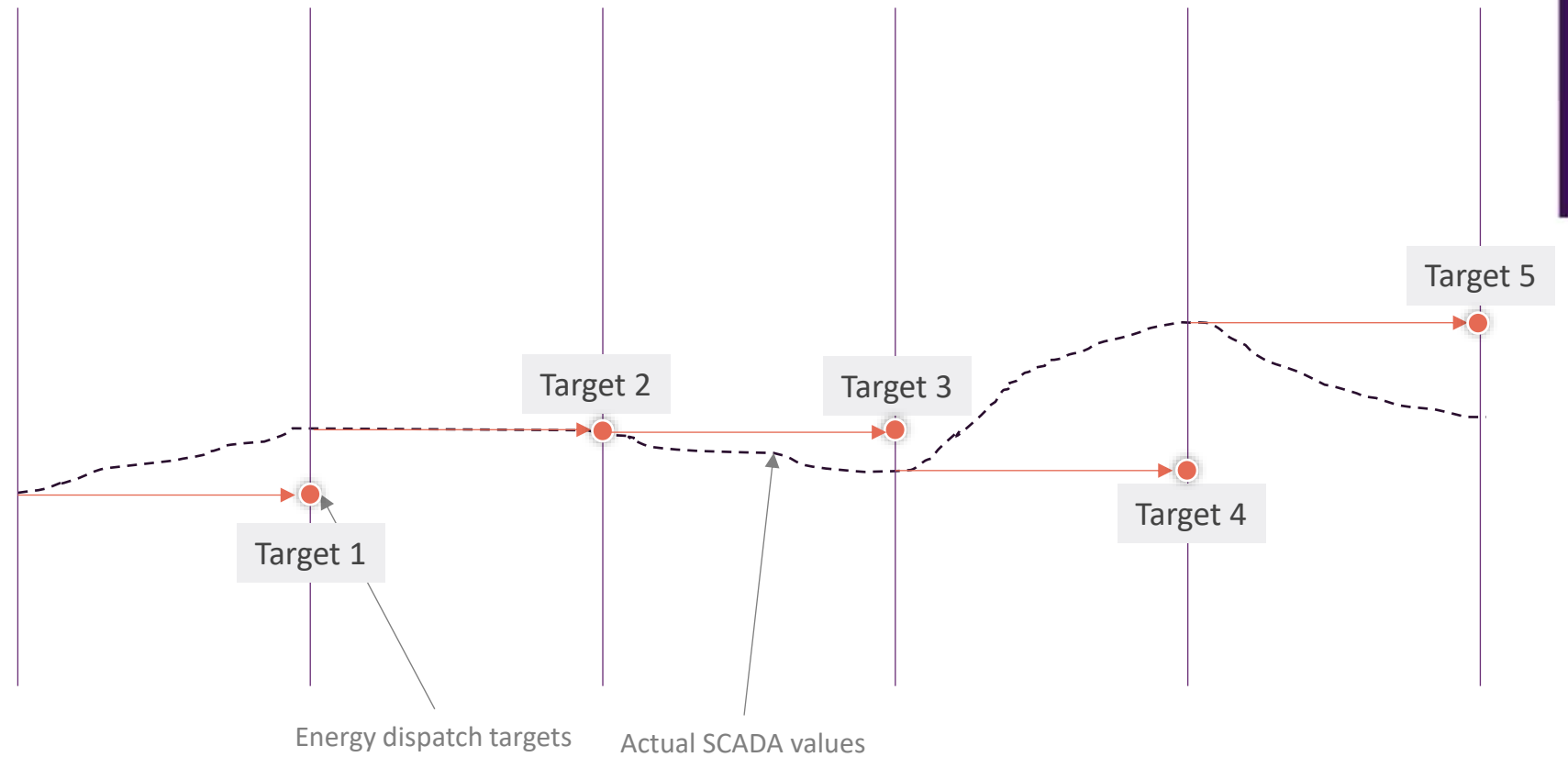
# Section two: Inactive and hibernated mode

# Overview: Inactive and hibernated mode

- New approach for inactive VSRs in dispatch and pre-dispatch
- Unpacking approach for hibernated VSRs in dispatch and pre-dispatch

# Inactive VSRs in dispatch: new approach

- “inactive constraints”
- Logic similar to non-conformance constraints
- Last telemetered = target
- Closely follows actual output
- Cannot set the price
- Ignores potentially false & misleading participant bids
- VSRPs must bid unavailable for Regulation FCAS
- Keeps VSRs on “supply side” → transparent
- Does not “flip” VSRs from supply to demand within PD, in case of status change



Do stakeholders have any concerns about this implementation approach?

# Inactive VSRs in pre-dispatch: new approach

- Different approach from dispatch
- AEMO expects bids to accurately reflect production/consumption intentions
- VSRPs will receive pre-dispatch targets based on bids submitted
- Inactive VSRs will remain on the supply side → transparency

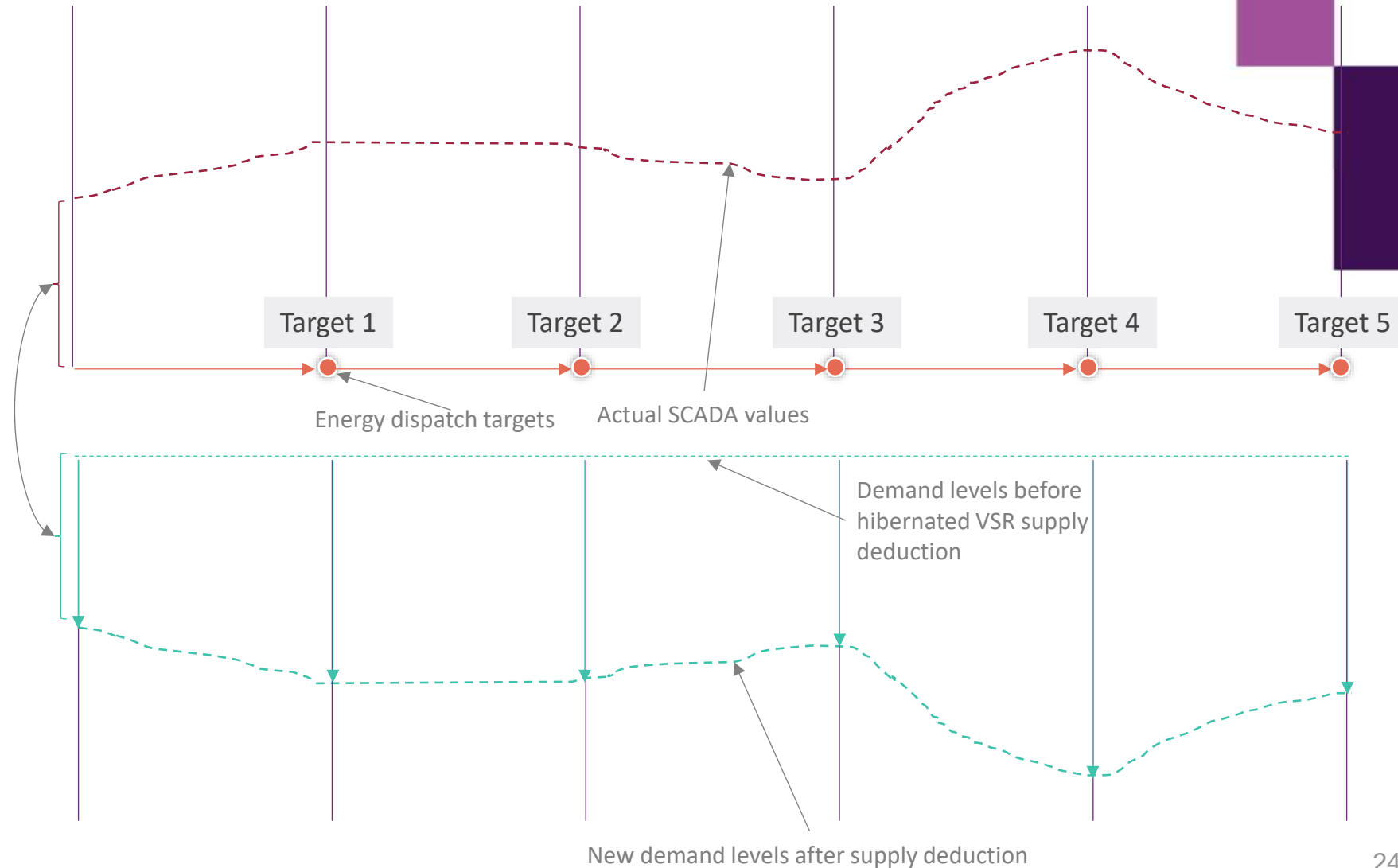
AEMO expects that in the early stages of rule commencement, the number and volume of inactive VSRs that won't be able to provide accurate bids, will be very low.

However, if AEMO detects that significantly inaccurate bids submitted for inactive VSRs are negatively affecting AEMO's pre-dispatch forecasts, the above approach for inactive VSRs will need to be adjusted.

Do stakeholders have any concerns about the implementation approach of treating inactive VSR in pre-dispatch ?

# Hibernated VSRs in dispatch & pre-dispatch

- Same approach in dispatch and pre-dispatch
- Will receive 0 MW energy targets
- Energy bids will be ignored
- Represented in demand calculations – not on the supply side
- Must bid unavailable for energy and Regulation FCAS in relation to hibernation period
- All energy and Reg. FCAS bids must be set to unavailable prior to entering hibernation
- Will be enabled to provide Contingency FCAS, if otherwise eligible



# Section three: Changes related to stakeholder feedback

# Overview: Changes related to stakeholder feedback

- VSR DUID model
- VSR and FCAS eligibility
- Nomination: device-level information collection
- Aggregated telemetry requirements for VSRs/VSRPs
- Draft VSR Zone Mapping Tool
- Data and Information sharing

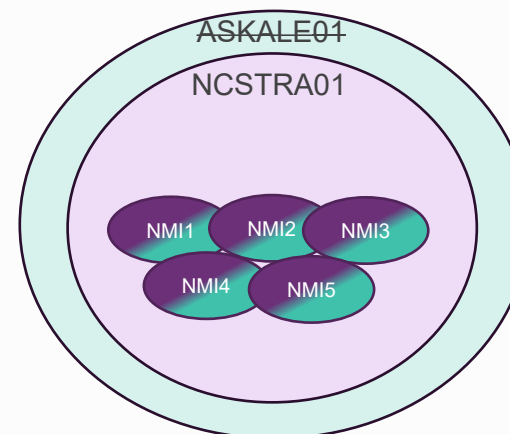
# VSR DUID model

- VSRs providing both energy and FCAS services, with NMIs contained and being exclusive to the DUID, will be able to use a single DUID and have the services be co-optimised.
- Participant can nominate an existing ASU DUID providing FCAS to also provide energy as a VSR
  - ASU classification from the existing DUID will be transferred to a new VSR DUID
- Participant may also choose to have two separate DUIDs, one for energy and one for FCAS, which they self-manage.
  - May have the exact same or an overlap in NMIs across the two DUIDs
  - AEMO considers there are six different configurations for portfolios containing two separate DUIDs
  - Would not be eligible for co-optimisation, as this can only occur in the case of a single DUID for both services.

## Co-optimisation

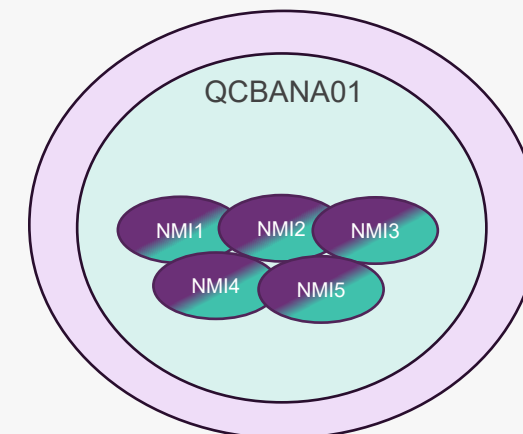
### Existing ASU, Co-optimised DUID

Single DUID for energy and FCAS, where an existing ASU DUID nominates to also provide energy services as a VSR. The existing ASU DUID is declassified and FCAS services transferred to a new VSR DUID is established for provision of both services.



### Existing VSR, Co-optimised DUID

Single DUID for energy and FCAS, where a VSR DUID is first created for provision of energy services, and then applies for provision of ancillary services using that same VSR DUID.



# VSRs and FCAS: Eligibility based on DUID configuration and VSR status

- Qualifying resources in a hibernated VSR are still eligible to participate in central dispatch and provide contingency FCAS under its existing capacity as an ASU, if relevant.
- Only a single DUID for VSR and FCAS that is in active mode can provide Regulation FCAS

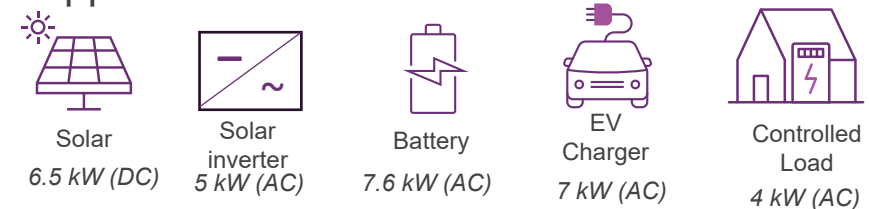
	VSR Status	Energy	Regulation FCAS	Contingency FCAS
<b>Single DUID</b> (single, combined energy & FCAS DUID)	Active	Yes, co-optimised with FCAS	Yes, co-optimised with energy	Yes, co-optimised with energy
	Inactive	Yes, but not co-optimised with FCAS – energy via inactive constraint	No	Yes, but not co-optimised with energy
	Hibernated	No	No	Yes, and no energy provided – FCAS under existing ASU classification, but same DUID
<b>Dual DUIDs</b> (separate energy only VSR DUID and FCAS only ASU DUID)	Active	Yes, on energy only VSR DUID, but not co-optimised with FCAS	No	Yes, but not co-optimised with energy – FCAS under ASU DUID
	Inactive	Yes, on energy only VSR DUID, but not co-optimised – energy via inactive constraint	No	Yes, but not co-optimised with energy – FCAS under ASU DUID
	Hibernated	No	No	Yes – FCAS under ASU DUID

# Nomination

- AEMO proposes collection of device-level information at nomination for **devices under control** (i.e. devices that are behaving price-responsively).
- Information will allow AEMO’s demand forecasts to differentiate between scheduled and non-scheduled capacity (e.g. rooftop PV capacity)
- AEMO will not require ongoing and continuous updates of device information for VSR portfolios, but proposes requiring updates:
  - If a capability re-assessment is triggered.
  - Once a financial year, coinciding with the annual NER Schedule 3.1 bid and offer validation data update.
- AEMO is not proposing to alter the scope of the DER Register.

## Proposed information to collect includes:

- NMI the device is linked to
- Type of device: Solar PV, Battery, Biomass, Landfill gas, Hydro, Diesel, Natural gas, EV Supply Equipment & Other controllable load
- Capacity of the device: in kW, AC and DC values for solar PV, AC values for other devices
- Maximum energy storage of the device, if applicable: in kWh



AEMO agrees further consultation is required to consider how the device level information collected during VSR nomination is stored and to what extent this information can be and is shared with DNSPs.

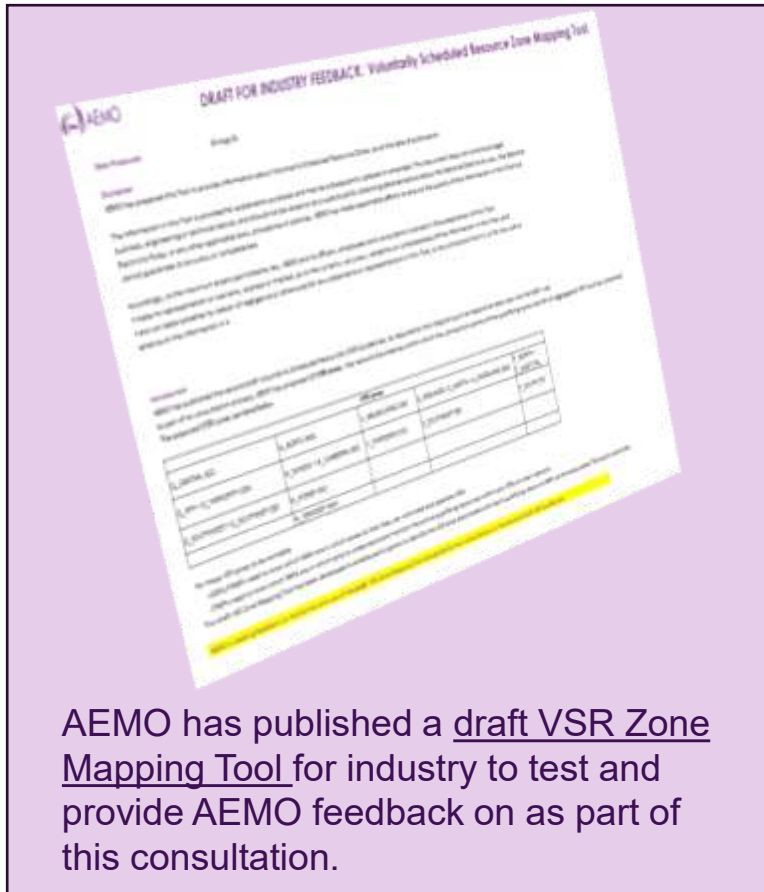
# Aggregated telemetry requirements for VSRs/VSRPs

- AEMO clarifies the expectations around the provision of aggregated telemetry data, particular for VSRs > 5 MW:
  - Under the Power System Data Communications standard, the requirement is that this aggregated telemetry data is provided every 4 seconds from the **Intervening Facility to AEMO**.
  - Does not require for every device within the aggregation to provide telemetry every 4 seconds.
  - A variety of methods could be used by participants to achieve the 4 second frequency threshold, including the use of forecasts.
- AEMO plans to develop a separate document that will outline AEMO's policy for performing its aggregated telemetry check for VSRs.
- Policy will outline how AEMO will determine if the aggregated telemetry data for a VSR is a fair and accurate representation of its actual output.

AEMO would like to hear from stakeholders if they consider whether AEMO should have the ability to request, at nomination, details of the VSRP's methodology and technical setup for creating aggregate SCADA values.

AEMO would like to hear from stakeholders to understand the technical feasibility regarding requirements on the latency (end-to-end time) associated with command controls between AEMO co-ordinating centres, an Intervening Facility and Remote-control equipment (RCE).

# VSR Zones: Consultation on Draft VSR Zone Mapping Tool



- AEMO considers it necessary to split Tasmania into two VSR zones, to align with the load forecasting areas.
- Draft VSR Zone Mapping Tool allows participants to identify the VSR zone associated with each qualifying resource NMI by mapping via the relevant TNI and, in some required circumstances, postcode.
- AEMO has included a new requirement in the second draft Guidelines outlining a dispute process for applicants seeking to revise the allocation of a qualifying resource in a VSR to a particular VSR zone.

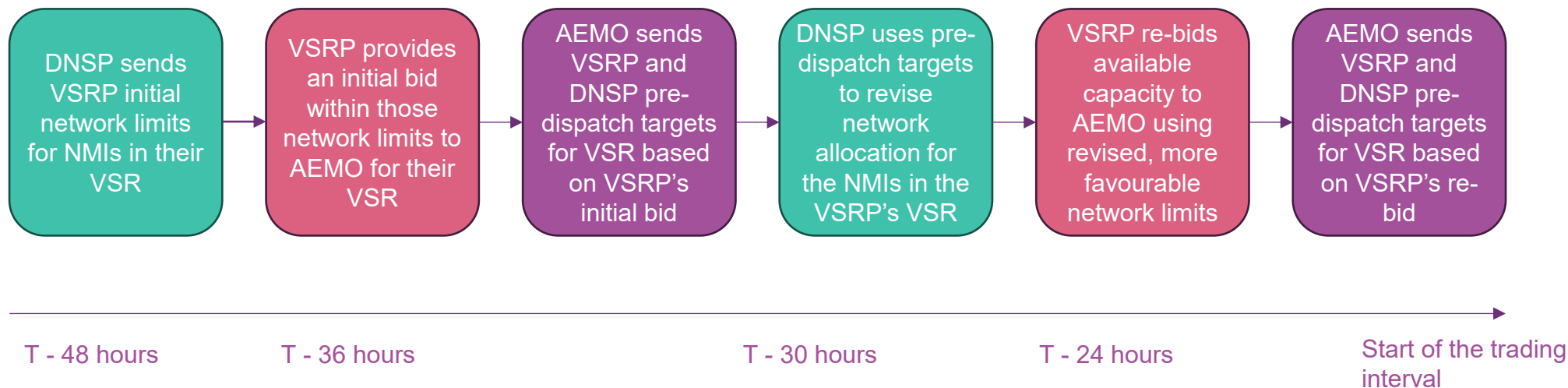
AEMO welcomes any feedback from stakeholders on:

- The draft tool, including AEMO’s methodology for performing the mapping and how AEMO can best support its ease of use.
- Whether it’s considered reasonable for AEMO to update the tool on a quarterly basis, each time a new load TNI is created, or if there is an alternative update frequency that stakeholders consider

# Data and information sharing

- AEMO has included the option for VSRPs to provide explicit consent for DNSPs to receive pre-dispatch information for a VSR in their distribution network under specific confidentiality obligation.
- AEMO considers that the sharing of this pre-dispatch information could allow:
  - DNSPs to more efficiently allocate network capacity based on pre-dispatch information for a VSR, disaggregated to the qualifying resource level, rather than conservative assumptions on the behaviour of the market-active qualifying resources.
  - VSRPs to receive less-conservative network capacity allocations and therefore be able to offer more capacity into the market.

AEMO welcomes feedback from stakeholders regarding AEMO's proposed option of facilitating the sharing of PD targets with DNSPs through a voluntary explicit consent at the point of VSR nomination.



# Section four: Potential implementation rule changes

# Overview: Potential implementation rule changes

- VSRs in network constraints
- VSRs and Frequency Performance Payments
- Treatment of non-conforming VSRs
- Participation in central dispatch under NER 3.8.2(e)

# VSRs in network constraints

- Network constraints could “force” a BIDIRECTIONAL VSR to either:
  - generate at a lower price the VSRP intended, or
  - consume at a higher price the VSRP intended
- The IPRR rule intended to exempt all VSRs from the above, due to financial risks.
- AEMO found that the implementation of this change is not feasible, due to the constraints formulation logic embedded in AEMO’s systems.

AEMO would like to hear from stakeholders to better understand the trade-off between implementation complexity, added value and level of risk for prospective VSRs.

Do stakeholders value not being constrained on for consumption or for generation?

# VSRs and Frequency Performance Payments (FPP)

- Only VSRs with 4s SCADA (i.e. VSRs > 5 MW or providing FCAS) would be eligible for a FPP contribution factor.
- Due to implementation of inactive and hibernated VSRs, consider it would be most appropriate to require AEMO's FPP-related systems to recognise and differentiate between a VSR's status:
  - Active VSRs with 4s SCADA would be eligible for FPP contribution factors.
  - Inactive or hibernated VSRs would no longer be eligible for FPP contribution factors and became part of the Residual instead.
- AEMO estimates that there would be significant costs associated with building out this capability in its FPP-related systems, and that this would outweigh the benefits VSRs may receive from receiving FPP contribution factors.
- AEMO proposes that all VSRs are treated as ineligible units in FPP and rather considered in Residual.
- AEMO proposes to engage with the AEMC to explore the feasibility of a rule change to implement this.

AEMO would like to hear from stakeholders on whether they consider it reasonable for AEMO to classify all VSRs as ineligible units in FPP (i.e. they will be allocated to Residuals), as well as any other matters AEMO has not considered.

# Treatment of non-conforming VSRs

- AEMO is seeking stakeholder feedback on clarifying NER 3.8.23B(e), which governs AEMO's response to non-conforming VSRs.
- AEMO considers the current drafting presents inconsistencies with existing provisions for scheduled resources and may lead to unintended operational challenges.
- In practice, AEMO may be unable to enforce compliance if a VSRP is unreachable or unable to re-bid because there is a problem with their bidding system.
  - This could result in a non-conforming VSR continuing to set the spot price, contrary to NER 3.8.23B(b)(2).
- AEMO is proposing that the AEMC consider a revised NER clause that would:
  - Align the treatment of VSRs with scheduled resources
  - Enable AEMO to apply non-conformance constraints effectively
  - Prevent non-conforming VSRs from setting the spot price
  - Avoid placing VSRPs in untenable positions where re-bidding is not feasible.

## NER3.8.23B(e)

- (e) If a *voluntarily scheduled resource* is identified as non-conforming under paragraph (b), *AEMO* acting reasonably may, by notice to a *Voluntarily Scheduled Resource Provider*, require the *Voluntarily Scheduled Resource Provider* to limit the available capacity of the non-conforming *voluntarily scheduled resource* to a maximum figure determined by *AEMO* for so long as the *voluntarily scheduled resource* remains non-conforming.

AEMO welcomes stakeholder feedback on:

- Any alternative approaches to managing non-conforming VSRs.
- The suitability of the expedited rule

# Participation in central dispatch

NER 3.8.2(e) states the following:

If *AEMO* considers it reasonably necessary for adequate system operation and the maintenance of *power system security*, *Registered Participants* who may otherwise be exempted from participating in the *central dispatch* process must do so to the extent and in the capacity specified by *AEMO*.

- A non-scheduled unit to which NER 3.8.2(e) applies, could be nominated as a VSR.
- If the VSR then hibernates, it would longer be required to participate in central dispatch [NER 3.8.2B(c) and 3.10A.2 (l)(2)(ii)]
- These clauses would then be in conflict with each other.
- AEMO currently does not have discretion to reject a hibernation notice or place conditions on nomination approvals.

AEMO would like to hear from stakeholders on whether they consider it reasonable for AEMO to have discretion to either:

- Reject the hibernation notice from such VSRs, or
- Place a condition on the nomination of non-scheduled qualifying resources that are subject to or will become subject to NER 3.8.2(e). The condition would be that VSRs that comprise of such qualifying resources will not be allowed to enter temporary

# 4. Regulation FCAS & VSRs

Aaron Millican (AEMO)

# Introduction to Regulation FCAS & AGC

- Regulation FCAS is a market ancillary service to provide control of NEM frequency.
- Regulation FCAS is controlled via AEMO's Automatic Generation Control (AGC) system.
- When a unit is enabled by NEMDE for regulation FCAS:
  - Every 4 seconds:
    - Unit provides operating state and limits information to AEMO via SCADA.
    - AEMO provides a new energy setpoint, within unit limits.
    - Unit is expected to respond to new setpoint in a timely manner.
  - Unit remains on AGC even when not enabled for regulation FCAS

# Existing requirements of Regulation FCAS

- Any NEM unit providing regulation FCAS must:
  - Be on SCADA or SCADA Lite
  - Be connected to AEMO AGC
  - Be registered as ancillary service unit with regulation FCAS capacity
  - Complete testing and verification of regulation FCAS capability
  - Participate in central dispatch to be enabled for regulation FCAS
  - Meet the following formal specifications in service:
    - Market Ancillary Service Specification
    - Power System Data Communication Standard

# VSRs and regulation FCAS

- To provide regulation FCAS, VSR will need to:
  - Have all of its constituent *qualifying resources* to be exclusive to the DUID
  - Be in active dispatch mode
  - Be eligible to be co-optimised with energy and FCAS
- Potential technical concerns include:
  - Aggregation concerns
    - Latency and processing
  - Communication concerns
    - Integrity, reliability, dependability
- AEMO is developing its preferred pathway towards VSRs providing regulation FCAS from May 2027 and will provide industry updates once prepared.

# 5. Next Steps

Emily Brodie (AEMO)


# Next steps

STAGE	DATES	RESPONSIBLE
Final rule determination	Thu 19 Dec 2024	AEMC
Publish final High Level Implementation Assessment (HLIA) for comment	Thu 06 Feb 2025	AEMO
Publish VSR Guidelines consultation paper	Thu 20 Feb 2025	AEMO
Feedback period on HLIA closes	Thu 27 Feb 2025	Industry to provide feedback
Publish final v1.1 HLIA	Thu 20 Mar 2025	AEMO
Feedback period on consultation paper closes	Thu 20 Mar 2025	Industry to provide feedback
Draft report published, including draft Guidelines	Tue 3 June 2025	AEMO
Feedback period on draft report closes	Wed 9 July 2025	Industry to provide feedback
Second draft of report and Guidelines published	Thu 4 Sep 2025	AEMO
Feedback period on second draft report & Guidelines closes	Thu 2 Oct 2025	Industry to provide feedback
Final report and Guidelines published	Thu 27 Nov 2025	AEMO

## AEMO invites feedback on the matters for consultation

- Please provide your feedback via [nemreform@aemo.com.au](mailto:nemreform@aemo.com.au)
- Your feedback is essential, and the second draft report and guidelines along with this presentation outline key areas for industry to consider.
- Feedback will inform the final report where appropriate.

# 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



- 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](mailto:NEMReform@aemo.com.au).

Subscribe to the NEM Reform Newsletter [here](#)

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





For more information visit



[NEMReform@aemo.com.au](mailto:NEMReform@aemo.com.au)



[AEMO | NEM Reform initiatives | IPRR](#)

# Appendix A – AEMO Competition Law Meeting Protocol

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# 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	TERM	DEFINITION	TERM	DEFINITION
<b>AEMC</b>	Australian Energy Market Commission	<b>ERI</b>	Enhancing reserve information	<b>MITE</b>	Market interface technology enhancement
<b>AEMO</b>	Australian Energy Market Operator	<b>ESB</b>	Energy Security Board	<b>NEM</b>	National electricity market
<b>AER</b>	Australian Energy Regulator	<b>EV</b>	Electric vehicle	<b>NEMDE</b>	National electricity market dispatch engine
<b>API</b>	Application Programming Interface	<b>FCAS</b>	Frequency control ancillary service	<b>NEO</b>	National electricity objective
<b>ARENA</b>	Australian Renewable Energy Agency	<b>FEL</b>	Flexible export limit	<b>NER</b>	National electricity rules
<b>B2B</b>	Business to business	<b>FPP</b>	Frequency performance payments	<b>NMI</b>	National metering identifier
<b>B2M</b>	Business to market	<b>FTA2</b>	Unlocking benefits of CER through flexible trading	<b>NSP</b>	Network service provider
<b>BDU</b>	Bidirectional Unit	<b>FRMP</b>	Financially responsible market participant	<b>PASA</b>	Projected assessment of system adequacy
<b>CER</b>	Consumer Energy Resources	<b>HLIA</b>	High level implementation assessment	<b>PMS</b>	Portfolio management system
<b>COAG</b>	Council of Australian Governments	<b>IESS</b>	Integrating energy storage systems	<b>PoL</b>	Predictability of load
<b>CRMP</b>	Cost recovery market participant	<b>IDAM</b>	Identity access and management	<b>REZ</b>	Renewable Energy Zones
<b>DER</b>	Distributed energy resources	<b>IDX</b>	Industry data exchange	<b>SCADA</b>	Supervisory control and data acquisition
<b>DNSP</b>	Distribution network service provider	<b>IPRR</b>	Integrating price responsive resources	<b>ST PASA</b>	Short Term Projected Assessment of System Adequacy
<b>DOE</b>	Dynamic Operating Envelope	<b>IRP</b>	Integrated resource provider	<b>V2G</b>	Vehicle-to-grid
<b>DRSP</b>	Demand response service provider	<b>ISP</b>	Integrated system plan	<b>VPP</b>	Virtual Power Plants
<b>DSP</b>	Demand side participation	<b>MASS</b>	Market ancillary services specification	<b>VSR</b>	Voluntarily scheduled resource
<b>DUID</b>	Dispatchable unit identifier	<b>MSL</b>	Minimum System Load	<b>VSRP</b>	Voluntarily scheduled resource provider
				<b>WDRM</b>	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](#).

# Appendix C – Further details

Some additional details from the deep dive section of this presentation are provided here.

Please note that these detailed slides do not substitute reading the full report and guidelines.

**[PLEASE READ THE VSR GUIDELINES SECOND DRAFT REPORT AND SECOND DRAFT GUIDELINES FOR THE FULL SCOPE OF CONSULTATION.](#)**

# Dispatch and energy model

- A worked example of the dispatch model, through an initial GENERATOR nomination
- Subsequent addition of qualifying resources without a dispatch model change
- Subsequent addition of qualifying resources with a dispatch model change to BIDIRECTIONAL

# A worked example of the model: initial nomination as GENERATOR

- The VSRP nominates a VSR consisting of the following resources:
  - A 20 MW dispatchable capacity *non-scheduled market generating unit*
  - Five 4.9 MW dispatchable capacity *small generating units* (24.5 MW)
- NER Schedule 3.1 information will be provided like so:
  - Maximum **production** of the *voluntarily scheduled resource*, to which the *voluntarily scheduled resource* may be dispatched:  $4.9 \times 5 + 20 = 44.5$  MW
  - Maximum **consumption** of the *voluntarily scheduled resource*, to which the *voluntarily scheduled resource* may be dispatched: 0 MW
  - Maximum **storage capacity** of the *voluntarily scheduled resource* = 0 MW
- Daily Energy Constraints can be provided for the VSR, but no SOC!

# A worked example of the model: subsequent nomination – no bidding change

- A VSRP nominates to add the following resources to the VSR:
  - A 0.5 MW dispatchable capacity *small bidirectional unit*
  - A 0.9 MW dispatchable capacity *non-scheduled load*
- But does not alter consumption in its NER Schedule 3.1 data!
- The VSR will remain a GENERATOR and continue bid in production bid bands only.
- In the unlikely event when all generation assets are non-operational and can't offset load within the VSR, it will be off-target.
- But won't trigger non-conformance, due to being below error triggers
- Daily Energy Constraints can be provided for the VSR, but no SOC

# A worked example of the model: subsequent nomination – bidding change

- The VSRP nominates to add the following resources to the VSR:
  - Two 4.9 MW dispatchable capacity *small bidirectional units* (9.8 MW)
- The VSRP is updates its maximum consumption it previously provided through Schedule 3.1 to 11.2 MW and storage to 20.6 MWh
- It will be assigned a BIDIRECTIONAL dispatch type
- It will be able to bid in both production and consumption bands
- It may receive dispatch instructions for either prod. or cons.
- State of Charge can be provided for the VSR, but no DEC!