

# Flexible Trading Arrangements



## High Level Implementation Assessment (HLIA) Industry Briefing

10 October 2024

Please note that this session will be recording for minute-taking purposes only



# 1. Welcome

Blaine Miner (AEMO)

# General Housekeeping

1. Please mute your microphone
2. Use the Teams 'Chat' function to ask any questions or provide any comments
  - AEMO and Industry SMEs are on the call, who will attempt to respond
  - Key questions or comments can be highlighted at the end of each agenda item
  - If a question or comment is expected to be covered later in the agenda, this will be mentioned in the chat
3. In attending this meeting, you are expected to:
  - Have reviewed and are familiar with the pack prior to attending this session
  - Contribute constructively
  - Be respectful, both on the call and in the chat

We acknowledge the Traditional Owners of country throughout Australia and recognise their continuing connection to land, waters and culture.

**We pay respect to their Elders past, present and emerging.**

# Agenda

D	Time	Topic	Presenter
1	13:00 – 13:05 (5 mins)	<b>Welcome and introduction</b>	Blaine Miner
2	13:05 – 13:15 (10 mins)	<b>Summary</b>	Blaine Miner
3	13:15 – 13:45 (30 mins)	<b>NMI Creation &amp; Settlements</b>	Paul Lyttle
4	13:45 – 14:05 (20 mins)	<b>Procedure Impacts</b>	Justin Stute (AEMO) & Mark Riley (IEC/B2B)
5	14:05 – 14:20 (15 mins)	<b>System Impacts</b>	Selwyn Sequeira
6	14:20 – 14:35 (15 mins)	<b>Implementation Pathway</b>	Dylan Volkhardt
7	14:35 – 14:55 (15 mins)	<b>General Questions</b>	Open
8	15:00	<b>Close meeting</b>	Close

**Appendix A:**  
Competition law meeting protocol and AEMO forum expectations

*“Please note that this meeting will be recorded by AEMO and may be accessed and used by AEMO for the purpose of compiling minutes. 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. Purpose of these sessions

Blaine Miner (AEMO)

# Disclaimer

This document includes material outlining AEMO's interpretation of indicative impacts of national energy market (NEM) reforms to energy market systems and processes for energy industry participants, as of 10 October 2024.

The interpretations expressed in this presentation are not binding on AEMO. The interpretation of the impact of NEM reforms may change at any time.

Anyone participating or intending to participate in the NEM should obtain detailed advice about the application of the National Electricity Rules and applicable laws, procedures and policies to their specific circumstances.

To the maximum extent permitted by law, AEMO and its employees or consultants are not liable for any statements in, or omissions from, these materials, or for any use of or reliance on them.

# Purpose of this session

This webinar session discusses the [Final High Level Implementation Assessment](#) (HLIA) published on 26 September 2024. The session provides an overview of:

- Likely impacted Market Procedures and B2B Procedures
- High level system and data exchange impacts
- Implementation Pathway
- Rules Considerations

Participants are encouraged to use this session to formulate questions as part of the pre-consultation focus group sessions and formal consultation process to begin in 2025. Any questions stemming from this webinar session that have not been replied to or covered can be sent to:

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



# High Level Implementation Assessment Process

AEMO's HLIA process provides a preliminary view to participants and the AEMC on how the Flexible Trading Arrangements reform may be implemented by AEMO.

HLIA Process	Dates
AEMC draft rule and determination	29 February 2024
AEMO to hold draft HLIA webinar	5 April 2024
AEMO to publish draft HLIA	11 April 2024
Participant feedback to AEMO on the draft HLIA	23 April 2024
AEMO Reform Delivery Committee Meeting on feedback	3 May 2024
AEMC final rule	15 August 2024
AEMO Publish final HLIA	26 September 2024
Participant feedback to AEMO on the final HLIA	8 October 2024
AEMO hold final HLIA webinar	10 October 2024

# Key Dates

Next steps following completion of AEMO’s HLIA process.

Pre consultation Focus Groups	Dates
DNSP Focus Group	23 October 2024
Retailer Focus Group	7 November 2024
MC/MD/MDPs Focus Group	20 November 2024
Formal Consultation	Dates
Issues Paper	April 2025
Draft	June 2025
Final	September 2025
Rule Effective	Dates
AEMO procedures final	30 September 2025
Type 9 metering arrangements	31 May 2026
Flexible trading arrangements	1 November 2026

# 2. Summary

Blaine Miner (AEMO)

# Summary of changes

## Flexible trading with multiple energy service providers at large customer premises

- The proposed changes would enable large customers to establish secondary settlement points and engage multiple energy service providers to manage flexible resources at these points.

## Opportunities to optimise CER flexibility for small customers

- The proposed changes would enable small customers and their agents (i.e. retailers and aggregators) to identify and manage flexible CER separate from inflexible or passive energy use and would allow flexible CER to be better recognised in the energy market.

## Measuring energy flows from in-built technology (e.g. streetlights, EV chargers, other street furniture)

- The proposed changes introduce arrangements for two new meter types in the NER that enable technology with in-built measurement capability to be used for settlement and billing.

# Key changes from draft rule

## Metering Requirements

- Type 8 being used for secondary settlement points (SSPs) and type 9 for street furniture connections.

## SSP NMI creation and maintenance

- New accredited role of NMI Service Provider (NMISP) replaces the DNSP to establish and maintain NMIs for secondary settlement point.

## Metering Coordinator at a Small Customer

- A FRMP can have different MCs at the premises connection point (PCP) and SSP for a small customer

## Implementation Timeframe

- The effective date for type 9 metering installation commences on 31 May 2026
- The remainder of the reform commences 1 November 2026

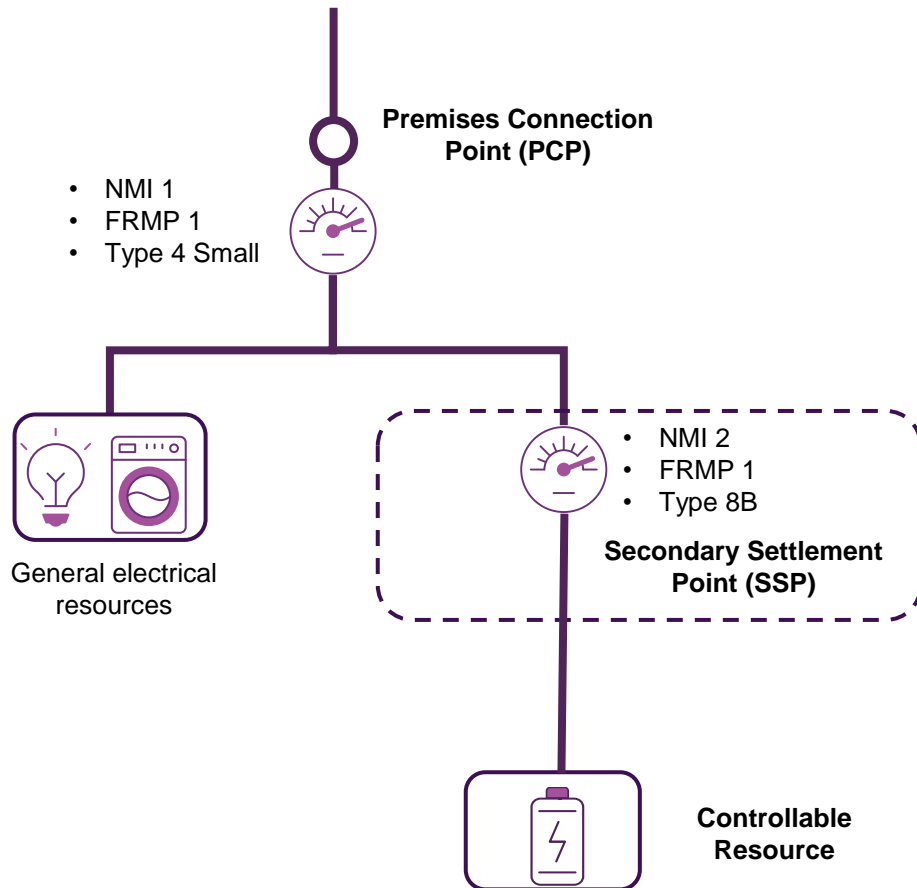
# 3. NMI Creation & Settlements

Paul Lyttle (AEMO)

# 3.1 NMI Creation

Paul Lyttle (AEMO)

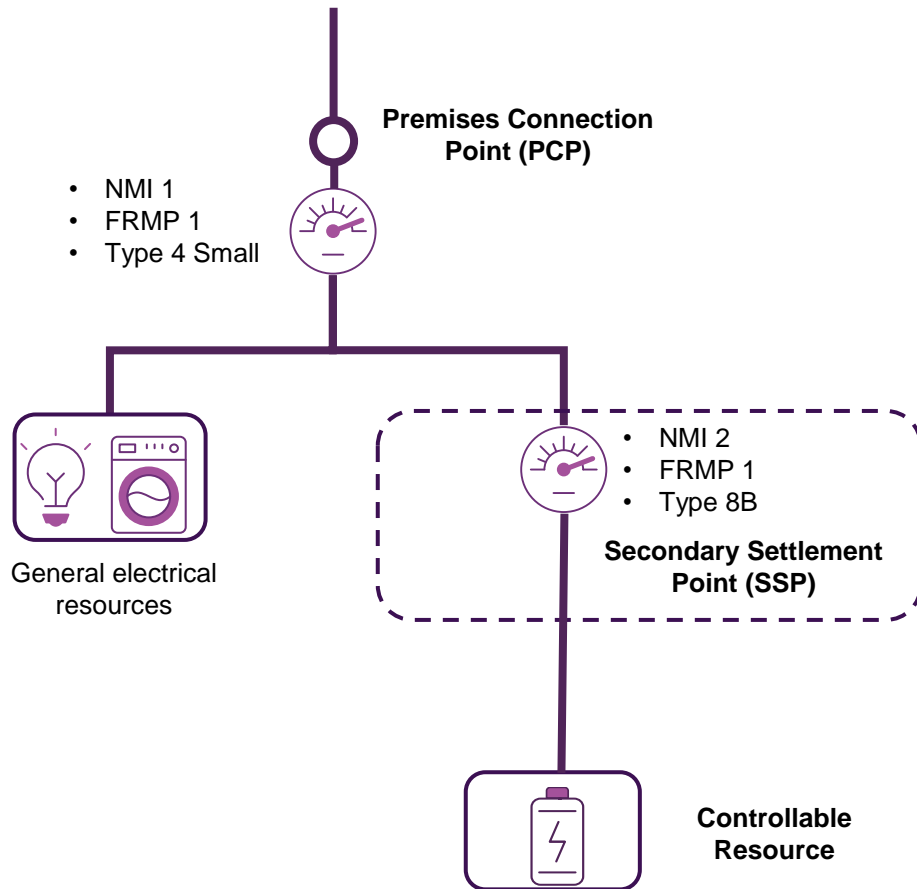
# Secondary settlement points



- A secondary settlement point (SSP) can be applied to Small or Large customers only.
- A Small or Large customer may have one or multiple SSPs on a PCP
- The SSP FRMP appoints the NMISP to create and maintain the SSP
- The SSP FRMP appoints the MC for the SSP, which may be different to the PCP appointed MC
- Subtractive calculations apply for the PCP.  
e.g.  $PCP(\text{consumed} - \text{sent out}) - SSPs(\text{consumed} - \text{sent out})$
- The SSP LR will be the PCP FRMP Participant ID, therefore the PCP FRMP will receive metering reads for the SSP
- Network service charges will only be applied at the PCP for the whole premises

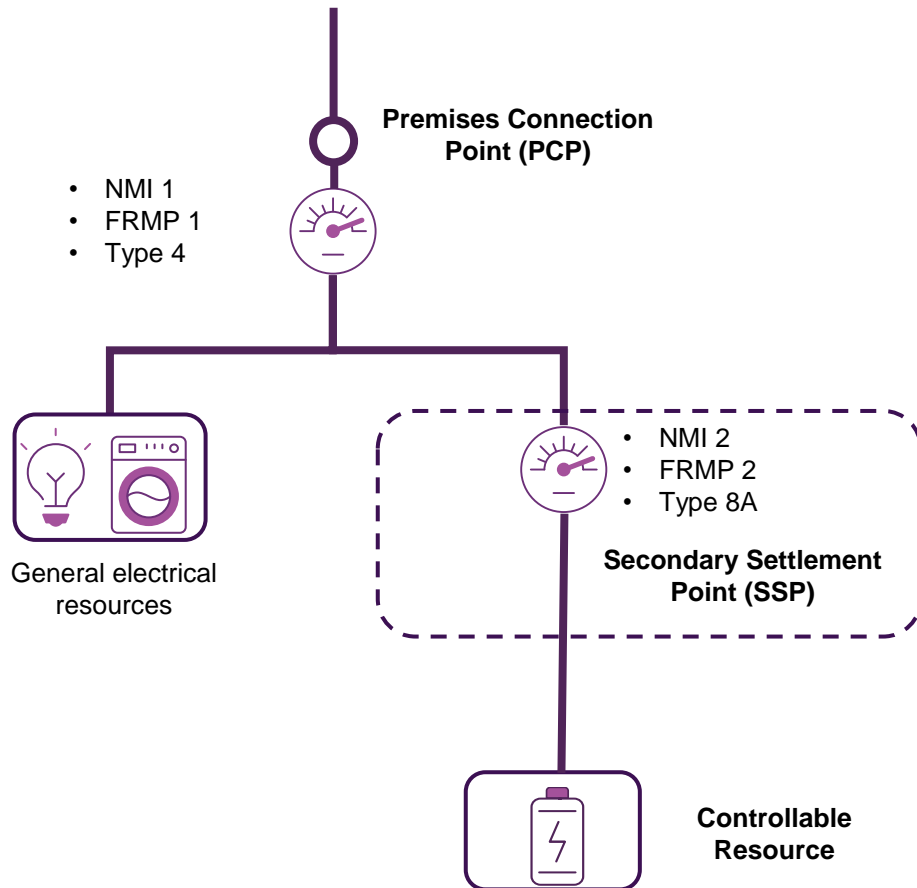


# Small customers – multiple settlement points



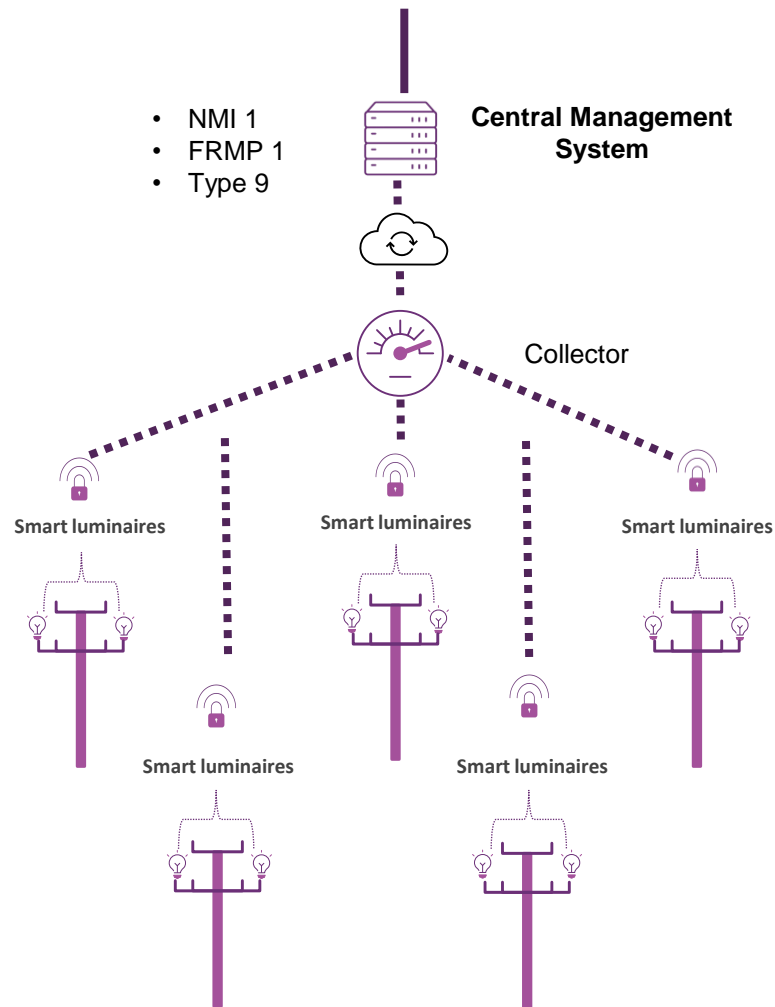
- A Small customer must have the same FRMP for the premises connection point (PCP) and secondary settlement points (SSP)
- The SSP will require a type 8B metering installation

# Large customer - multiple energy service providers



- A Large customer can have different FRMPs for the premises connection point (PCP) and secondary settlement points (SSP)
- The SSP will require a type 8A metering installation

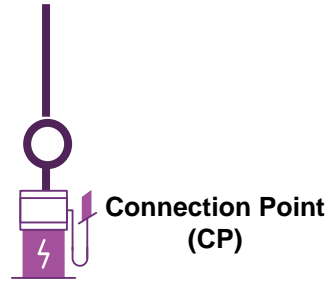
# Multiple energy devices - measuring energy flows using CMS



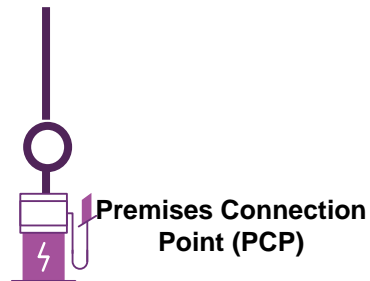
- Multiple small measuring devices (e.g. smart street lighting) may include a Central Management System (CMS) as part of the metering installation.
- The CMS would collect electronic signals from multiple measurement devices and collate them into trading intervals
- A PCP that uses a CSM will be a Type 9 metering installation
- The type 9 metering installation is a metered alternative to the existing type 7 (unmetered) metering installation.
- Type 9 NMI creation and maintenance will be performed by the DNSP

# Single energy devices - measuring energy flows

- NMI 1
- FRMP 1
- Type 9

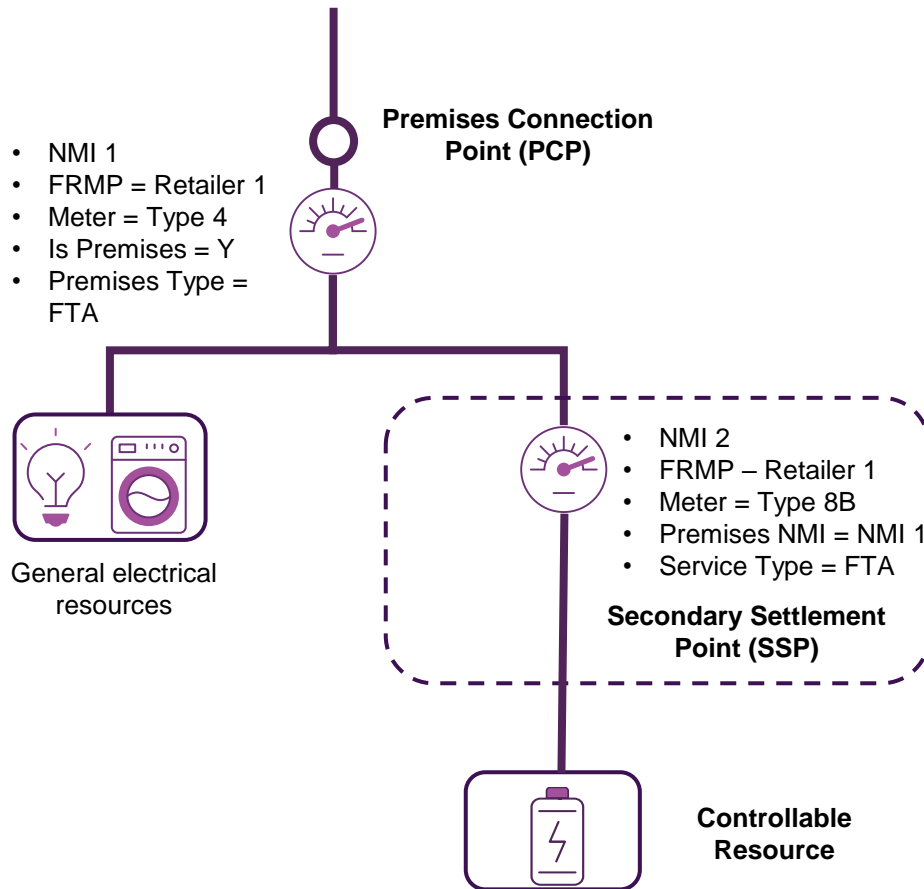


- NMI 1
- FRMP 1
- Type 8A



- Type 9 metering installation may be used for a connection point (CP) for street furniture that is not located on a premises (aka public land).
- Where multiple street furniture devices exist, they may be aggregated using the CMS model
- Metering Type 8A may be used for a premises connection point (PCP)
- NMI creation and maintenance will be performed by the DNSP
- Energy throughput must be < 750 MWh

# NMI standing data – new attributes



## Premises connection point (PCP)

- “IsPremises” – where PCP has an associated SSP
- “PremisesType” – Identifies the services available at the CP (e.g. FTA)

## Secondary settlement point (SSP)

- “PremisesNMI” – identifies the associated PCP
- “ServiceType” – identifies the service type for the SSP (e.g. FTA)

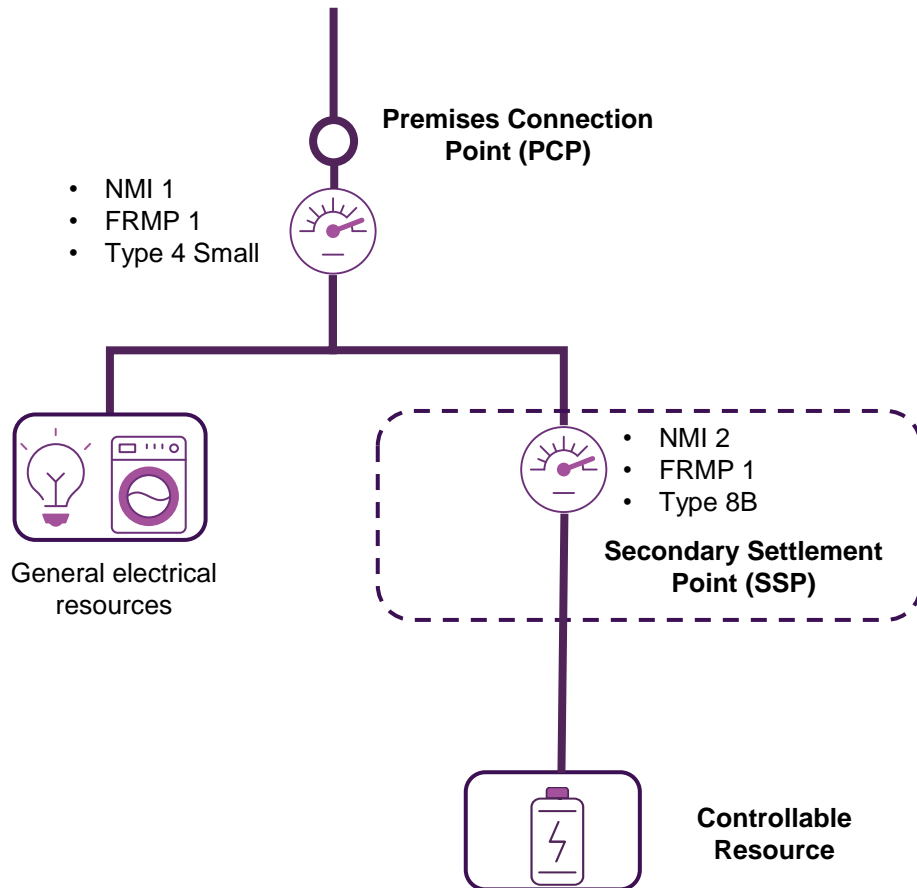
# Meter Register – new attributes

New MITC codes to support different metering installation requirements

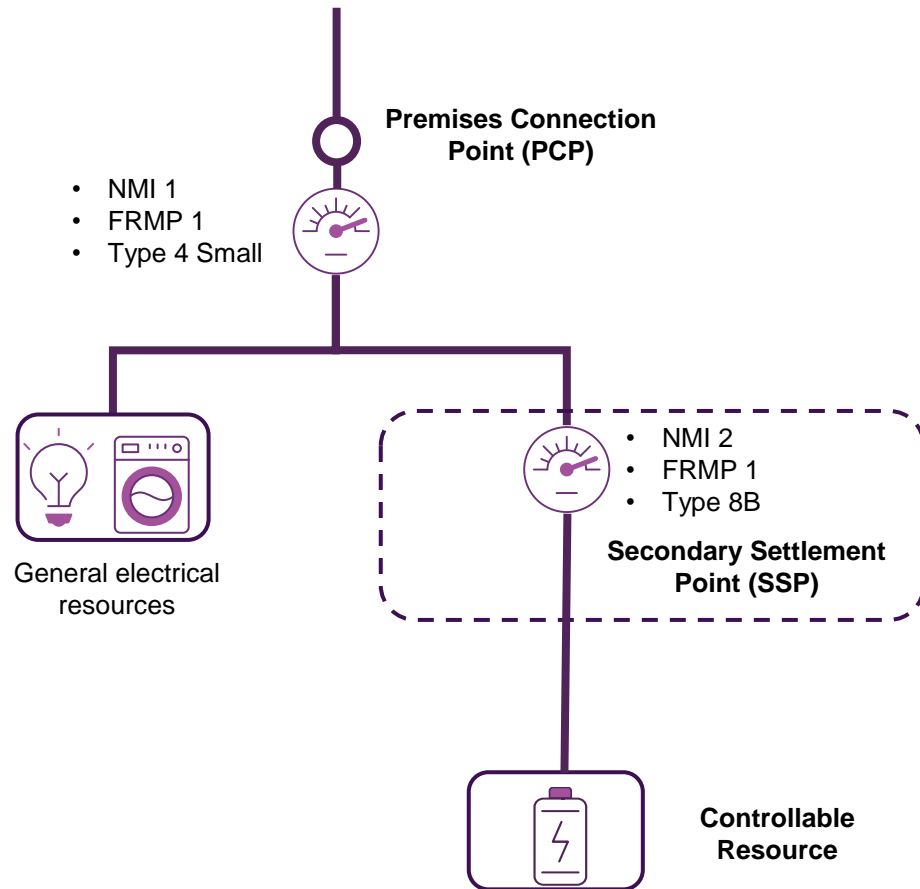
- COMMS8A – Large SSP with type 8A metering
  - COMMS48A – Large PCP\* with type 8A metering
  - COMMS8B – Small SSP with type 8B metering
  - COMMS9 – PCP with type 9 metering
  - COMMS49 – PCP with type 9 metering and a SSP.
- PCP\* will need to support COMMS4 metering capabilities

Existing meter fields:

- New values for Meter Manufacturer
  - tbd
- New values for Meter Model
  - tbd
- Existing values to be used for Meter Use



# Processing impacts



## NMI Discovery

- PCP - Ability to identify when SSP(s) are assigned
  - Is Premises = Y to be included in the Type 1 NMI Discovery – Results (list)
- SSP - Ability to identify PCP assigned too.
  - Premises NMI via Type 1 or Type 2 Obtain Standing Data - Results

## Reports

- CATS report to include new attributes
- Snapshots to include new attributes

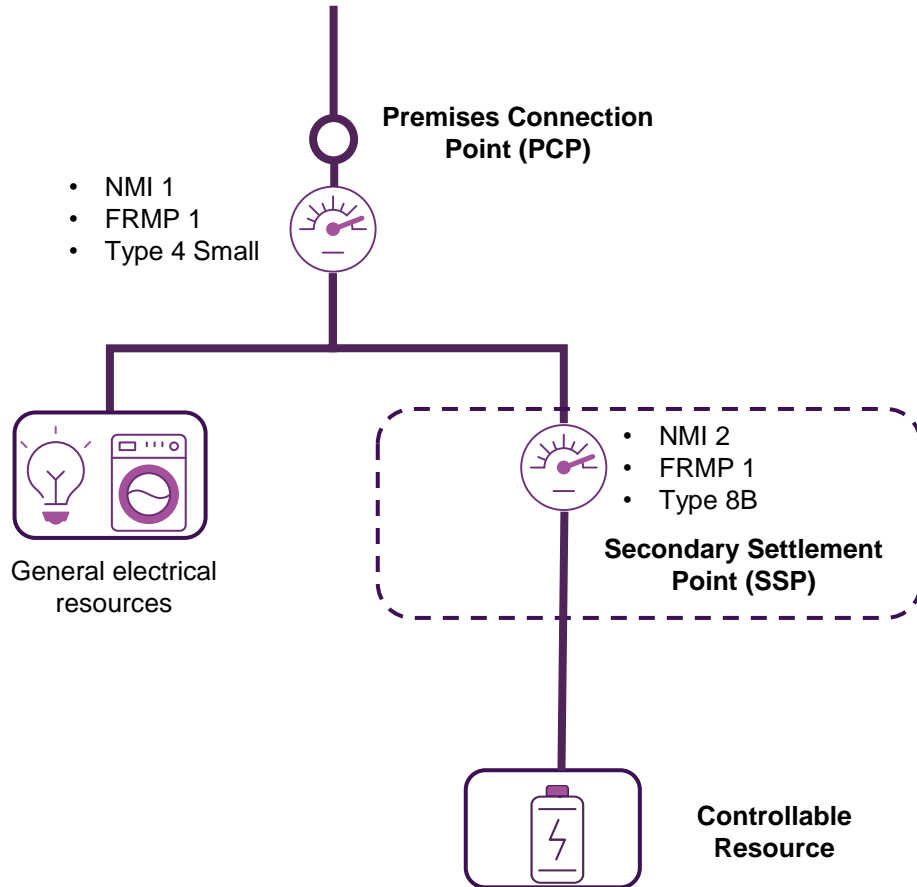
## aseXML

- Inclusion of new attributes
- Management of schema update

## B2B

- As described previously

# Change request impacts



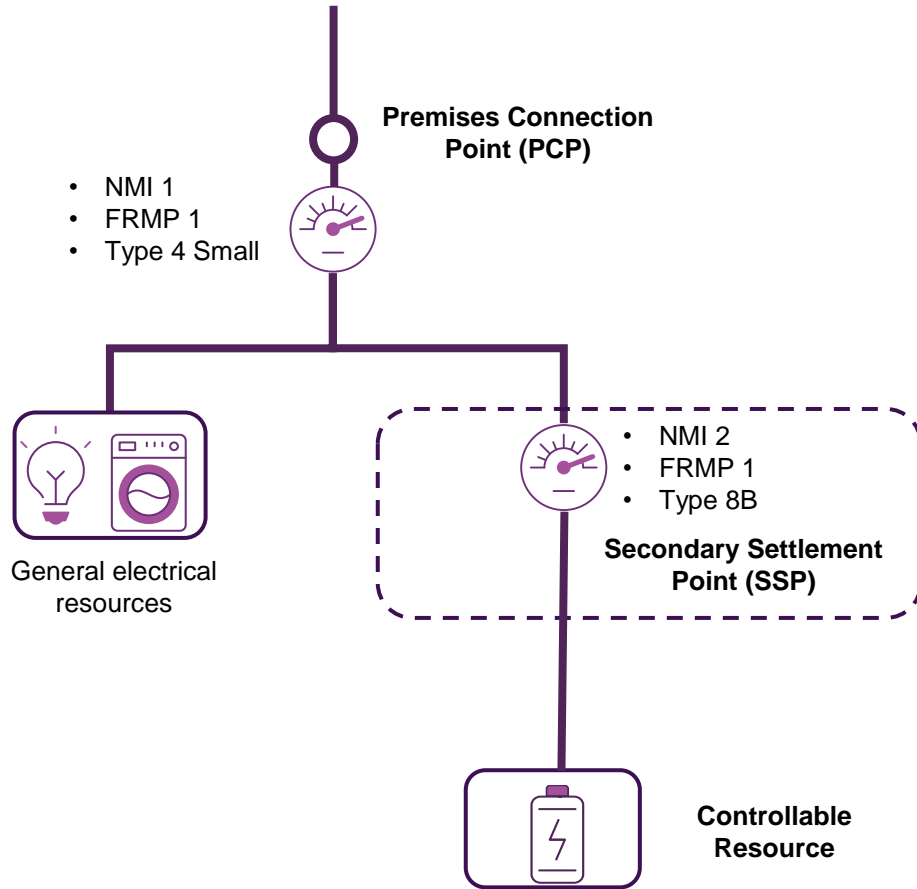
## Change Requests

- New create SSP CRs
  - Validation to ensure PCP NMI exists
  - Update PCP attributes on SSP creation
- Update Change Retailer logic for SSP impacts
  - Ensure SMALL NCC has the same FRMP for PCP & SSP
  - Automatic update of LR on SSP when PCP churns
  - Automatic disconnection of SSP when SMALL PCP churns and no SSP Churn
- Include new Metering attributes

SDQ validations where data errors occur



# Change request impacts



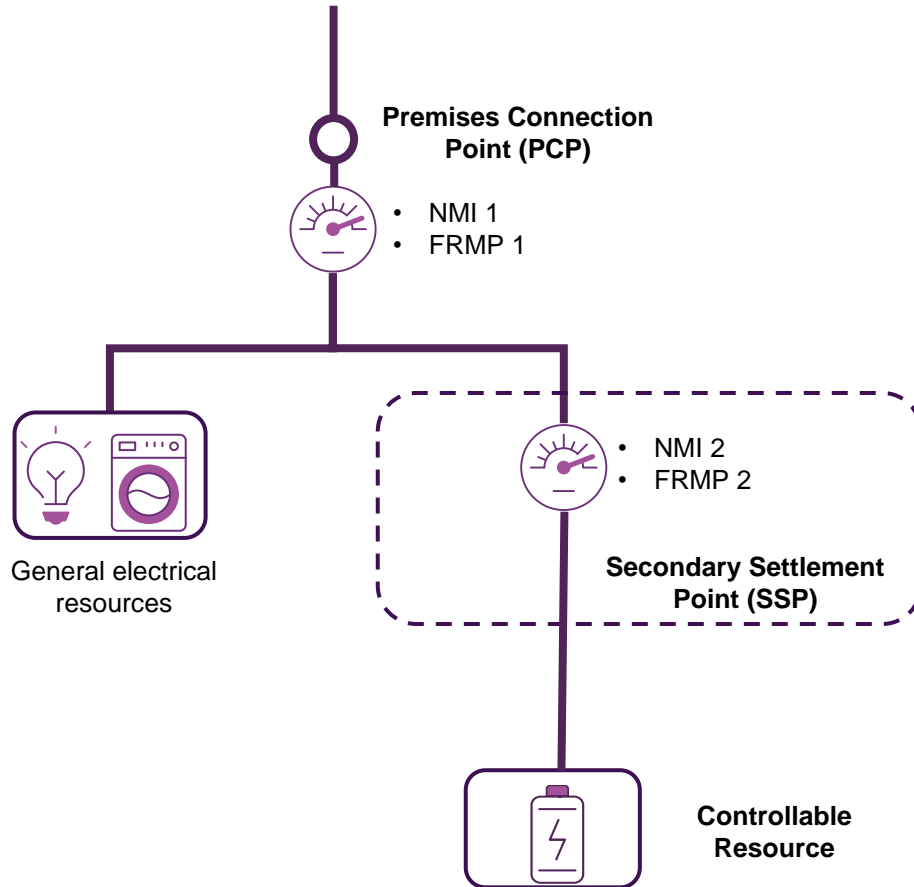
Small NMI	Premises CP	PCP status	SSP	SSP status
Current FRMP	Retailer 1	active	Retailer 1	active
<b>Churn Scenarios</b>				
Both PCP/SSP	Retailer 1 Retailer 2	de-energised active	Retailer 1 Retailer 2	de-energised active
PCP only	Retailer 1 Retailer 2	de-energised active	Retailer 1	de-energised <i>Automatic de-en process</i>
SSP only	Retailer 1	active	Retailer 1	active <i>CR rejected</i>

Large NMI	Premises CP	PCP status	SSP	SSP status
Current FRMP	Retailer 1	active	Retailer 1	active
<b>Churn Scenarios</b>				
Both PCP/SSP	Retailer 1 Retailer 2	de-energised active	Retailer 1 Retailer 2	de-energised active
PCP only	Retailer 1 Retailer 2	de-energised active	Retailer 1	active
SSP only	Retailer 1	active	Retailer 1 Retailer 2	de-energised active

# 3.2 NMI Settlements

Paul Lyttle (AEMO)

# Energy allocation



## Metering Reads

- MDPs will continue to provide metering reads in line with the delivery calendar (including reads for SSPs)

## PAE (profiling and allocation engine)

- To determine when PCP / EN parent CP is not connected to the NEM
  - De-energised
  - Network outage

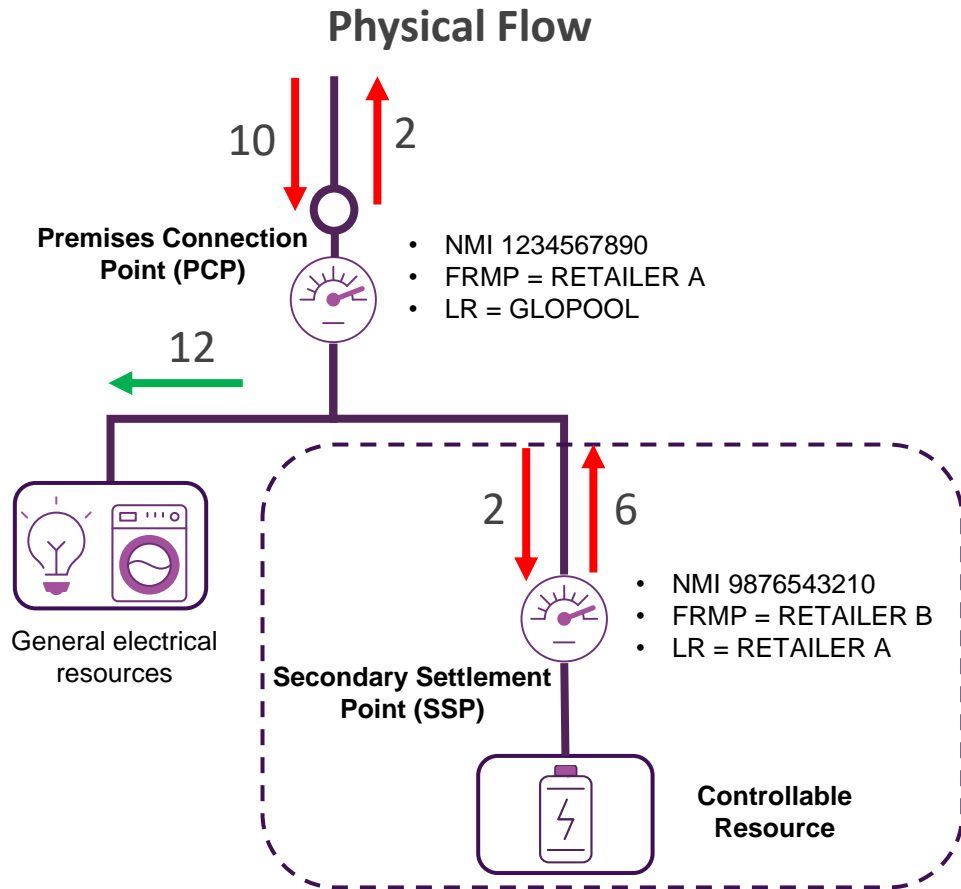
## Settlement Data

- AEMO to identify PCP / EN parent CP is not connected to the NEM
- Associated SSP / EN child metering reads are to be exclude / set to 0 for affected Trading Intervals.

## Allocate Settlement Data

- Subtractive metering calculation used for PCP
  - $PCP \text{ allocation} = PCP(\text{consumed} - \text{sent out}) - SSP(s)(\text{consumed} - \text{sent out})$
  - $SSP \text{ allocation} = SSP(\text{consumed} - \text{sent out})$

# Energy allocation – Logical settlement



Assume LARGE NMI with 2 retailers for 1 x TI

Metering Reads received:

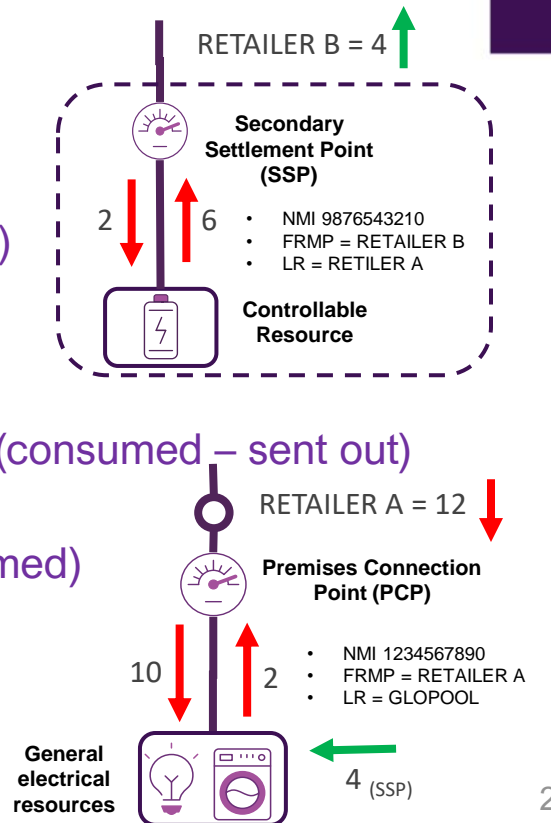
- PCP meter = 10 consumed and 2 sent out
- SSP meter = 2 consumed and 6 sent out

## Retailer B

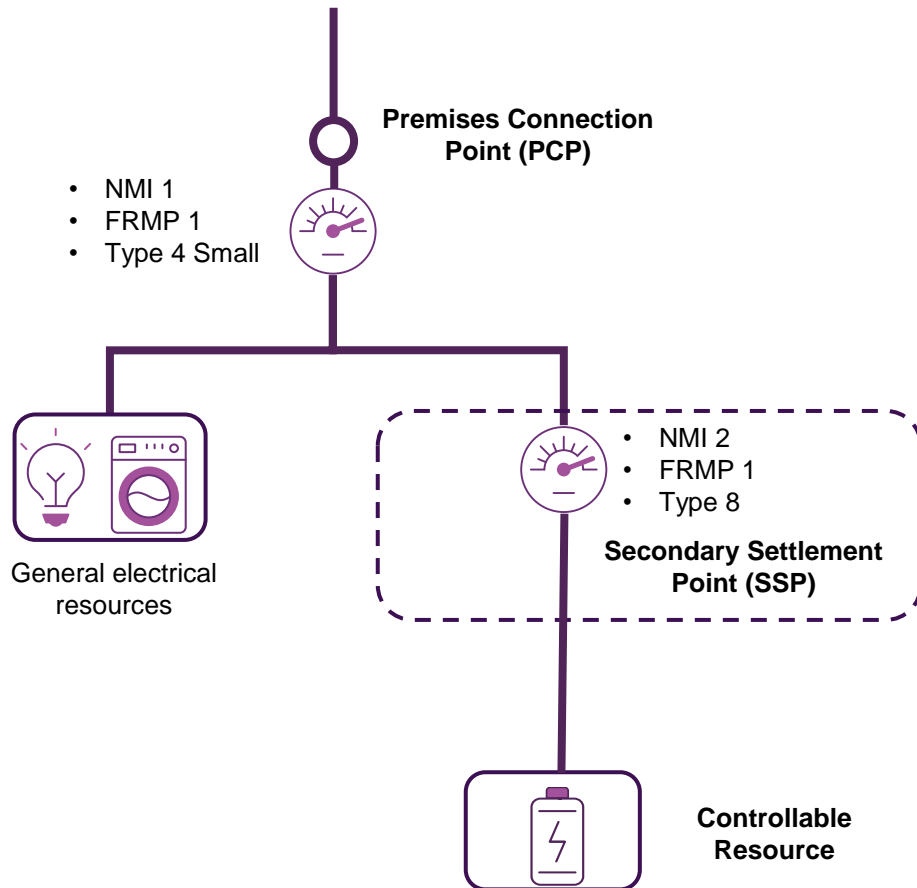
- SPP allocation  
 $= \text{SSP consumed} - \text{sent out}$   
 $= (2 - 6) = -4$  (4 units sent out)

## Retailer A

- PCP allocation  
 $= \text{PCP (consumed} - \text{sent out)} - \text{SSP (consumed} - \text{sent out)}$   
 $= (10 - 2) - (2 - 6)$   
 $= 8 - (-4) = 12$  (12 units consumed)



# Participant requirements



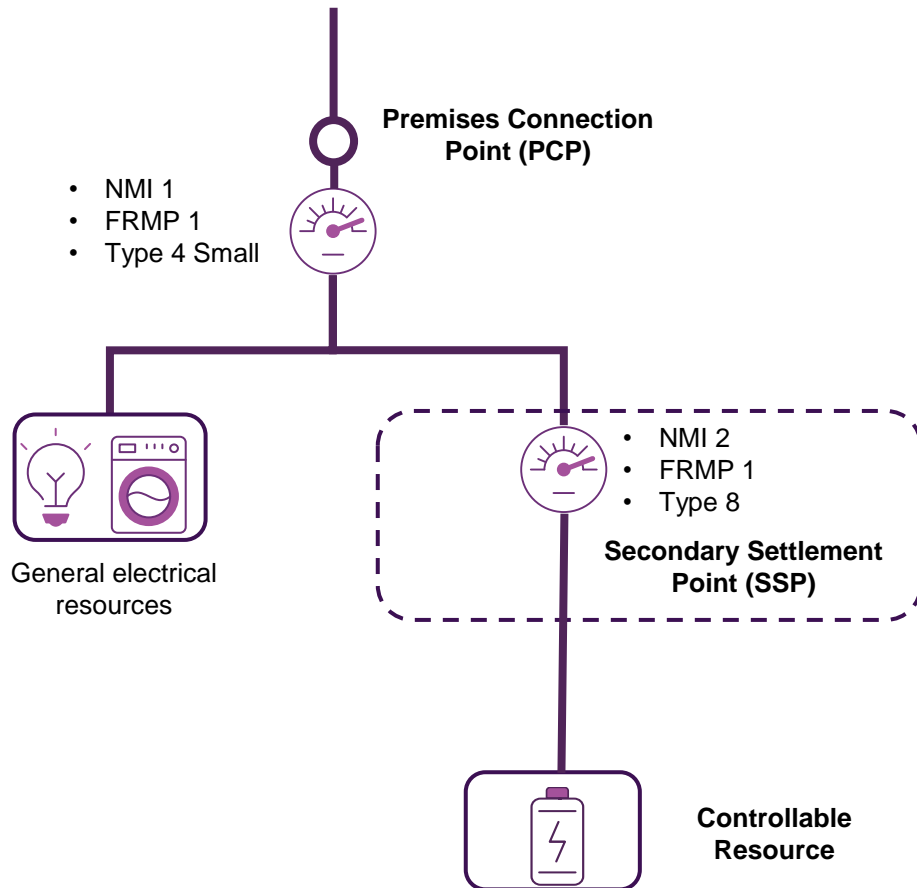
## LNSP

- NMI Service Provider (NMISP) to create and maintain SSP NMIs
- DNSPs to create and maintain PCP with single or multiple energy devices (type 8A or 9)

## FRMP

- SSP FRMP appoints the NMISP to create and maintain the SSP NMI
- Small Customer SSP must have the same FRMP as the PCP
- Large Customers may have a different FRMPs for the PCP and SSPs
- PCP FRMP will be assigned as LR for the SSP NMI(s)
- SSP FRMP responsible for notifying customer for SSP malfunction meter repairs

# Participant requirements cont'd



## MC

- May be different for the PCP and SSP NMIs

## MP

- Must be accredited for metering type to provide service
- May contract 3rd parties to support accreditation
- Will require CMS to be accredited for multi energy devices
- Responsibility to ensure devices support minimum requirements

## MDP

- Must be accredited for metering type to provide service
- May contract 3rd parties to support accreditation

# 4. Procedure Impacts

Justin Stute (AEMO) & Mark Riley (IEC/B2B)

# Procedures impacted

Area	Procedure impacted
Registration	<ul style="list-style-type: none"> <li>• Register as a Demand Response Service Provider</li> <li>• Register as a Metering Coordinator</li> <li>• Register as an Integrated Resource Provider</li> <li>• Register as a Customer</li> </ul>
Retail and Metering	<ul style="list-style-type: none"> <li>• Glossary and Framework</li> </ul>
Market and Settlement Transfers Solution	<ul style="list-style-type: none"> <li>• MSATS Procedures</li> <li>• Standing Data for MSATS</li> <li>• Meter Data Management (MDM) Procedures</li> <li>• NEM RoLR Processes Part A – MSATS Procedure</li> </ul>
Metering Procedures, guidelines and processes	<ul style="list-style-type: none"> <li>• Service level Procedure Embedded Network Manager Services</li> <li>• Service Level NMI Service Provider (NEW)</li> <li>• Service Level Procedure MDP Services</li> <li>• Service Level Procedure MP Services</li> <li>• National Metering Identifier procedure (Include SSP NMI Allocation)</li> </ul>



# Procedures impacted

Area	Procedure impacted
Metrology Procedures and unmetered loads	<ul style="list-style-type: none"> <li>• Metrology Procedure Part A</li> <li>• Metrology Procedure Part B</li> <li>• Unmetered Load Guideline</li> </ul>
Accreditation and Registration	<ul style="list-style-type: none"> <li>• Accreditation Checklists (Metering Providers, Metering Data Providers, Embedded Network Managers and NMI Service Providers)</li> <li>• Qualification Procedure (Metering Providers, Metering Data Providers, Embedded Network Managers and NMI Service Providers)</li> <li>• Application Form (Metering Providers, Metering Data Providers, Embedded Network Managers and NMI Service Providers)</li> <li>• Allocation of Secondary Settlement Points (NEW)</li> <li>• NMI Service Provider Guideline (NEW)</li> <li>• Guide to the role of the Metering Coordinator</li> </ul>

# Procedures impacted

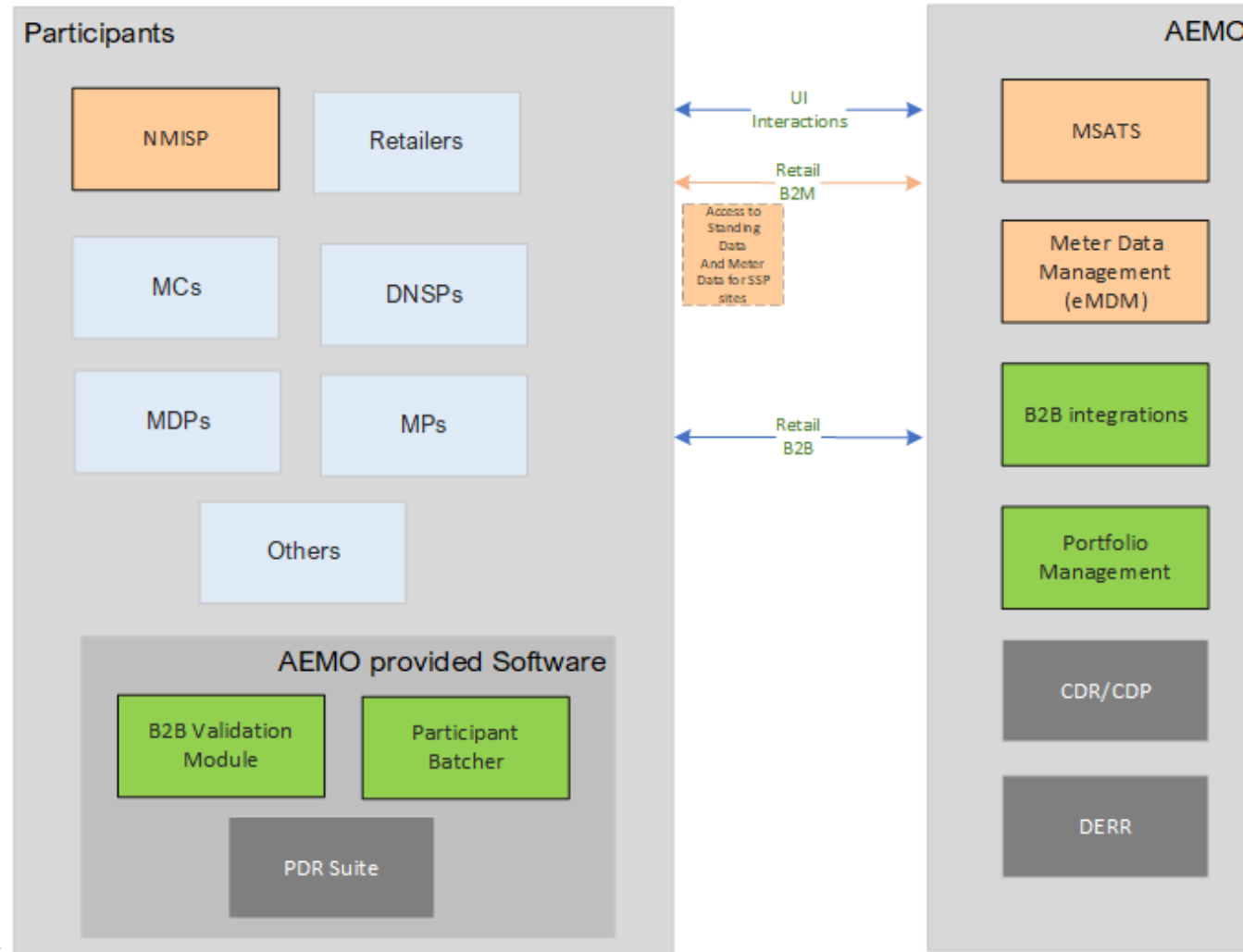
Area	Procedure impacted
Business to Business Procedures (IEC)	<ul style="list-style-type: none"> <li>• B2B Procedures: Customer and Site Details Notification</li> <li>• B2B Procedures: Meter Data Process</li> <li>• B2B Procedures: One Way Notification Process</li> <li>• B2B Procedures: Service Order Process</li> <li>• B2B Procedures: Technical Delivery Specification</li> <li>• B2B Guide</li> <li>• NEM RoLR Processes Part B B2B Procedure</li> </ul>

Further information is provided in the Final HLIA:  
[Final High Level Implementation Assessment](#)

# 5. System Impacts

Selwyn Sequeira (AEMO)

# AEMO Systems Heat Map



- Legend:
- No Impact
  - Low Impact
  - Medium Impact
  - High Impact
  - Further Assessment required
- Note: Not all existing systems are shown

# High level system impacts

## MSATS

- Change requests – e.g. specifying a NMI is a SSP
- Standing data – e.g. attributes to identify and maintain PCP and SSP relationships
- Configuration data – e.g. new metering installation types
- UI, NMI discovery and Reports – e.g. inclusion/display of new attributes and NMI relationships
- New accredited role– NMI Service Provider acting in the LNSP role (similar to ENM)

## AEMO Software

- Participant batcher – Schema changes related to PCP and SSP attributes in a SSP setup.
- B2B Validation Module – Possibly impacted. Refer B2B
- PDR Suite – No impact identified

## Meter Data Management (eMDM)

- Meter Data – Recording of Reason codes, such as a network outage, etc.
- Energy Allocation – e.g. use of subtractive metering for SSP (as per EN) and logic change to allocation due to outages on EN and FTA sites
- New RM reports for reconciliation of meter reads with allocation data for SSP and EN sites

## B2B

- An assessment needs to be undertaken by the IEC and B2BWG to evaluate potential impacts.

# High level system impacts cont'd

## DERR

- Impacts to be assessed through consultation with Networks. None currently identified.

## Portfolio Management

- New validations of premises with SSP are ineligible for WDR.

## aseXML

- B2M - Schema changes related to PCP and SSP attributes in a SSP setup
- B2B – Any impacts to be confirmed as per IEC and B2BWG findings.

## Integration

- DNSP access to Standing Data and Metering data for SSP NMIs will be provided via an interface

## Capacity Uplift

- Increased transaction volumes expected based on the estimated additional SSP devices added per year.

# System Impact Assumptions

- CDR – Data Standards Body to assess the inclusion of NMI standing data fields.
- CDP – No changes to include new attributes.
- Existing interfaces will be enhanced for the payload formats where necessary.
- No changes or impacts to Wholesale systems.
- Procedure validations may be implemented as system validations or via Standing Data Quality reports.

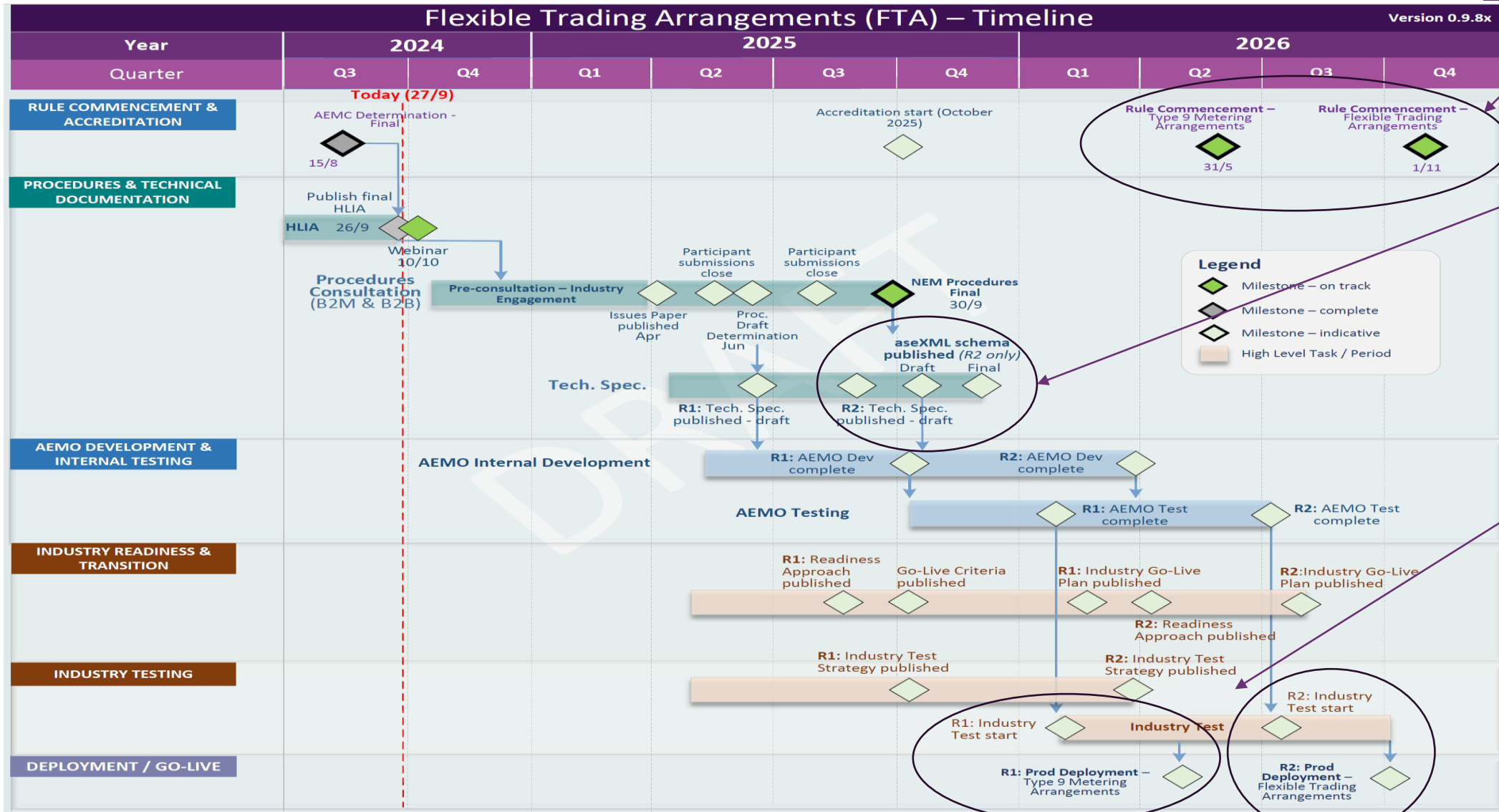
# 6. Implementation Pathway

Dylan Volkhardt (AEMO)



# AEMO Indicative Timeline

AEMO has considered the implementation pathway and indicative timeline aligned to the rule change.



The final rule introduces two effective dates.

Release 2 - Flexible Trading Arrangements includes aseXML schema changes

The final rule introduces two system releases to meet effective dates.

- Release 1 - Type 9 Metering Arrangements
  - 7 months from tech spec draft available to industry test start
- Release 2 - Flexible Trading Arrangements
  - 9 months from tech spec draft available to industry test start (potential for market trial)

# 7. General Questions



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



# Appendix

# 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 regarding proposed reforms or other initiatives, all participants agree to adhere to the CCA at all times and to comply with this Protocol. Participants must arrange for their representatives to be briefed on competition law risks and obligations.

Participants in AEMO discussions **must**:

- Ensure that discussions are limited to the matters contemplated by the agenda for the discussion
- Make independent and unilateral decisions about their commercial positions and approach in relation to the matters under discussion with AEMO
- Immediately and clearly raise an objection with AEMO or the Chair of the meeting if a matter is discussed that the participant is concerned may give rise to competition law risks or a breach of this Protocol

Participants in AEMO meetings **must not** discuss or agree on the following topics:

- Which customers they will supply or market to
- The price or other terms at which Participants will supply
- Bids or tenders, including the nature of a bid that a Participant intends to make or whether the Participant will participate in the bid
- Which suppliers Participants will acquire from (or the price or other terms on which they acquire goods or services)
- Refusing to supply a person or company access to any products, services or inputs they require

Under no circumstances must Participants share Competitively Sensitive Information. Competitively Sensitive Information means confidential information relating to a Participant which if disclosed to a competitor could affect its current or future commercial strategies, such as pricing information, customer terms and conditions, supply terms and conditions, sales, marketing or procurement strategies, product development, margins, costs, capacity or production planning.

# Glossary

Term	Definition
<b>B2B</b>	Business-to-business
<b>B2M</b>	Business-to-market
<b>BDU</b>	Bi-directional unit
<b>BESS</b>	Battery energy storage system
<b>CER</b>	Consumer energy resources
<b>CMS</b>	Central management system
<b>CR</b>	Change request
<b>DER</b>	Distributed energy resources
<b>DERR</b>	Distributed energy resource register
<b>DRSP</b>	Demand response service provider
<b>ENM</b>	Embedded Network Manager
<b>FRMP</b>	Financially responsible market participant
<b>FTA</b>	Flexible trading arrangements
<b>IRP</b>	Integrated resource provider
<b>IRS</b>	Integrated resource system
<b>IPRR</b>	Integrating price responsive resource

Term	Definition
<b>LNSP</b>	Local network service provider
<b>MC</b>	Metering coordinator
<b>MDP</b>	Metering data provider
<b>MP</b>	Metering provider
<b>MSATS</b>	Market settlements and transfer solutions
<b>NCC</b>	NMI classification code
<b>NMI</b>	National metering identifier
<b>PAE</b>	Profiling and allocation engine
<b>PCP</b>	Premises connection point
<b>PMA</b>	Private metering arrangement
<b>PMS</b>	Portfolio management system
<b>ROLR</b>	Retailer of last resort
<b>SSP</b>	Secondary settlement points
<b>UFE</b>	Unaccounted for energy
<b>WDR</b>	Wholesale demand response



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