

Flexible Trading Arrangements

September 2024

Final Determination High Level Implementation Assessment

Preliminary view for participants on how the rule change
may be implemented by AEMO





AEMO acknowledges the Traditional Owners of country throughout Australia and recognises their continuing connection to land, waters and culture. We pay respect to Elders past and present.

Important notice

Purpose

AEMO has prepared this document to provide preliminary information about the implementation assessment of the Unlocking CER benefits through flexible trading rule change.

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Version control

Version	Release date	Changes
1.0	September 2024	Final

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Definitions

Definition	Description
8M	Type 8 metering installation
9M	Type 9 Metering installation
ADR	Accredited Data Recipients
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
API	Application programming interface
B2B	Business-to-business
B2M	Business-to-market
CATS	Consumer administration and transfer solution
CDP	Consumer data platform

Definition	Description
CDR	Consumer data right
CER	Consumer energy resource
CMS	Central management system
CP	Connection Point
CR	Change request
DER	Distributed energy resource
DERR	Distributed energy resource register
DNSP	Distribution network service provider
DRSP	Demand response resource provider
DSB	Data Standards Body
eMDM	Enterprise meter data management
EN	Embedded network
ENM	Embedded network manager
EV	Electric vehicle
FRMP	Financially responsible market participant
FTA	Flexible trading arrangement
IEC	Information Exchange Committee
IRP	Integrated resource provider
LNSP	Local network service provider (includes DNSP, TNSP and ENM)
LR	Local retailer
MC	Metering Coordinator
MDP	Metering Data Provider
MITC	Meter installation type code
MP	Metering provider
MSATS	Market Settlements and Transfer Solutions
NCC	NMI classification code
NEM	National Energy Market
NER	National Electricity Rules
NERR	National Energy Retail Rules



Definition	Description
NMI	National Metering Identifier
NMISP	National Metering Identifier service provider
PAE	Profiling and allocation engine
PoL	Predictability of load
RERT	Reliability and emergency reserve trader
RoLR	Retailer of last resort
SAPS	Standalone Power System
SDQ	Standing Data Quality
SSP	Secondary Settlement Point
TI	Trading Interval
TNSP	Transmission Network Service Provider
UI	User Interface
VPP	Virtual power plant
WDR	Wholesale Demand Response
WIGS	Wholesale, Interconnector, Generator and Sample

1 Introduction

1.1 The final rule and determination

On 15 August 2024, the Australian Energy Market Commission (AEMC) published their final determination on the "Unlocking Consumer Energy Resources (CER) Benefits through Flexible Trading" rule. This rule is designed to enhance the flexibility of how consumer energy resources, such as solar panels and batteries, are used and traded within the National Electricity Market (NEM). The key objective is to enable consumers to better manage their energy usage and participate in the market.

The final determination introduces new metering types, type 8 that allows for bespoke requirements to apply for the metering of CER within customers' premises, and type 9 which is designed to enable the integration of street-furniture (e.g. kerbside electric vehicle chargers, smart street lighting systems) into the NEM metering framework.

1.2 Changes between the draft and final rule

The final determination has made several important refinements from the draft stage, including:

- **Metering Requirements:** The AEMC has adjusted the design of metering installation types to better clarify their use in the NEM – type 8 being used for SSPs and type 9 for street furniture connections.
- **SSP NMI creation and maintenance:** The final determination establishes the role of NMI Service Provider for the creation and maintenance of SSP NMIs; a role appointed by the financially responsible Market Participant for the SSP. The draft determination had placed this obligation on the distribution network service provider at the premises CP.
- **Metering Coordinator at a Small Customer:** A FRMP can choose a different MC for the SSP compared to the CP for a small customer.
- **Implementation Timeline:** The timeline for implementing these changes has been clarified, with provisions to enable type 9 metering installations to commence from May 2026 and the entire rule including flexible trading, from November 2026, consistent with the draft HLIA.

1.3 Document background and purpose

The purpose of this document is to provide a preliminary view to participants on how the Rule may be implemented by AEMO. This is intended to assist and inform participants in developing their own implementation timelines and impact assessments. This document will provide an indicative and preliminary overview of:

- Likely impacted Market Procedures.
- High level system and data exchange impacts.
- Indicative timelines showing consultation period, accreditation, industry testing, market trial and go-live timings.

1.4 Consultation process and key dates

Table 1 Timetable for the rule change and points of stakeholder consultation.

Stage	Timeline
AEMC draft rule determination	29 February 2024
AEMO industry briefing webinar of draft high level implementation assessment consultation	5 April 2024
AEMO publish draft high level implementation assessment	11 April 2024
AEMC final rule determination	15 August 2024
AEMO publish final high level implementation assessment	26 September 2024
AEMO industry briefing webinar of final high level implementation assessment consultation	10 October 2024
AEMO procedures final	30 September 2025
AEMO accreditation start	October 2025
AEMC rule commencement – type 9 metering arrangements	31 May 2026
AEM rule commencement – flexible trading arrangements	1 November 2026

2 Market Design Overview

2.1 Summary

The Rule is about the integration of CER in the NEM. It makes a series of changes designed to allow consumers or their service providers to manage CER in ways that provide benefits to the customer and to the energy system.¹

The rule introduces changes to enable the following:

1. Flexible trading with multiple energy service providers at large customer premises.
2. Opportunities to optimise CER flexibility for small customers.
3. Measuring energy flows from street furniture connections (e.g. streetlights, EV chargers).

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

The changes enable large customers to establish SSPs and engage multiple energy service providers to manage flexible resources at these points. The main features of this framework are:

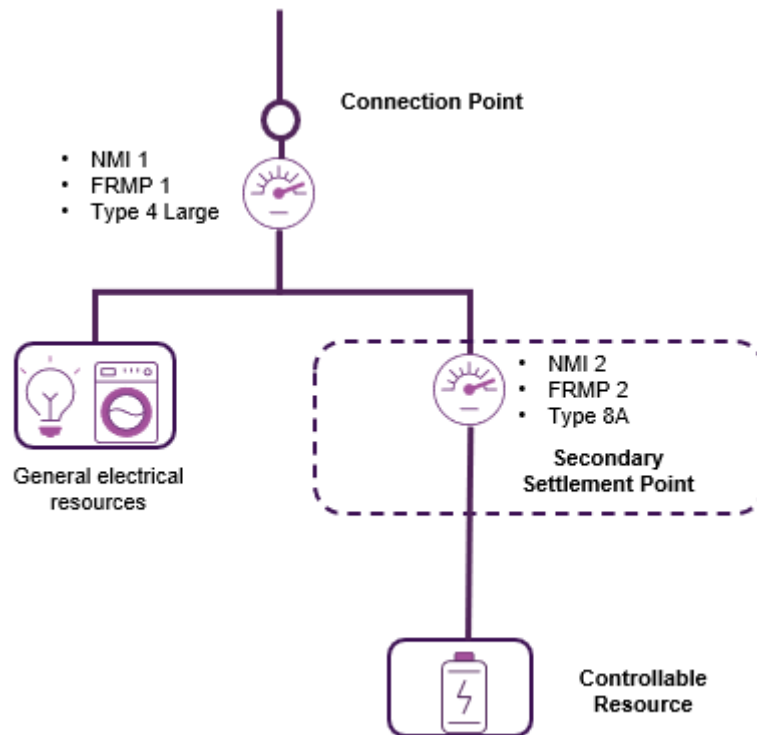
- It is voluntary.
- Large customers can establish SSPs and engage multiple FRMPs at their premises.²
- The relationship between FRMPs are governed by existing regulatory arrangements and contractual arrangements.
- A new accredited role, NMI Service Provider, is responsible for establishing and maintaining SSP NMIs and would have visibility of standing data from SSP NMIs.
- Existing subtractive settlement arrangements are used to minimise implementation costs.
- Allocation of distribution network tariffs to the FRMP at the CP.
- New meter type 8A applies for any SSP at a large customer premises.
- Any MC wishing to provide services at a type 8A metering installation must include this metering type in their Meter Asset Management Strategy, and have that strategy approved prior to the commissioning of any type 8A metering installation.
- Installation of type 8A metering installation devices can be carried out by any person qualified under applicable law, not necessarily an MP, however the commissioning of a type 8A metering installation must only be performed by an appropriately accredited MP.

¹ For Victoria, which is not regulated by the NECF, the Final Determination notes, ‘DNSPs operating in Victoria will need to consider whether changes required to their systems and processes to offer MC services at SSP’.

² A SSP cannot be established for a *scheduled resource* or in a *regulated SAPS*

- A Metering Provider must maintain the type 8A metering installation, consistent with the appointing MC’s Meter Asset Management Strategy, that must have received prior approval for the inclusion of type 8A metering installations from AEMO.

Figure 1 Example Large Customer Premises



2.1.2 Opportunities to optimise CER flexibility for small customers

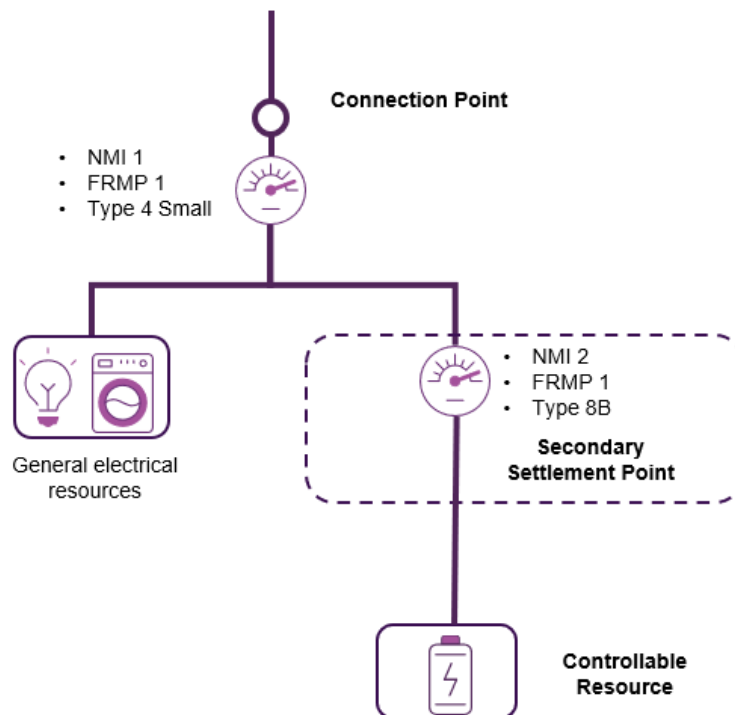
The changes enable small customers to identify and manage flexible CER separate from inflexible or passive energy use and allow flexible CER to be better recognised in the energy market. The main features of this framework are:

- Small customers can establish a SSP without a separate connection to the distribution network for their flexible CER which would be assigned a NMI.³
- Flexible CER energy consumption would be separately metered through either a smart meter (type 4 metering installation or a new type 8B metering installation) integrated into the customer’s CER or wired externally to the device.
- The new arrangements are voluntary and based on consumer choice.

³ A SSP cannot be established for a *scheduled resource* or in a *regulated SAPS*.

- Small customers continue to only have one FRMP at their premises.
- Subtractive settlement arrangements would apply between the CP and SSP(s) at small customer premises.
- A new accredited role, NMI Service Provider is responsible for establishing and maintaining the NMI for the consumer’s retailer.
- The FRMP can choose a different contestable MC at the SSP compared to the CP.
- Any MC wishing to provide services at a type 8B metering installation must include this metering type in their Meter Asset Management Strategy, and have that strategy approved prior to the commissioning of any type 8B metering installation.
- Installation of type 8B metering installation devices can be carried out by any person qualified under applicable law, not necessarily an MP, however the commissioning of a type 8A metering installation must only be performed by an appropriately accredited MP.
- An MP must maintain the type 8B metering installation, consistent with the appointing MC’s Meter Asset Management Strategy, that must have received prior approval for the inclusion of type 8B metering installations from AEMO.
- DNSPs can access metering data from SSP NMIs if they choose to.

Figure 2 Example Small Customers

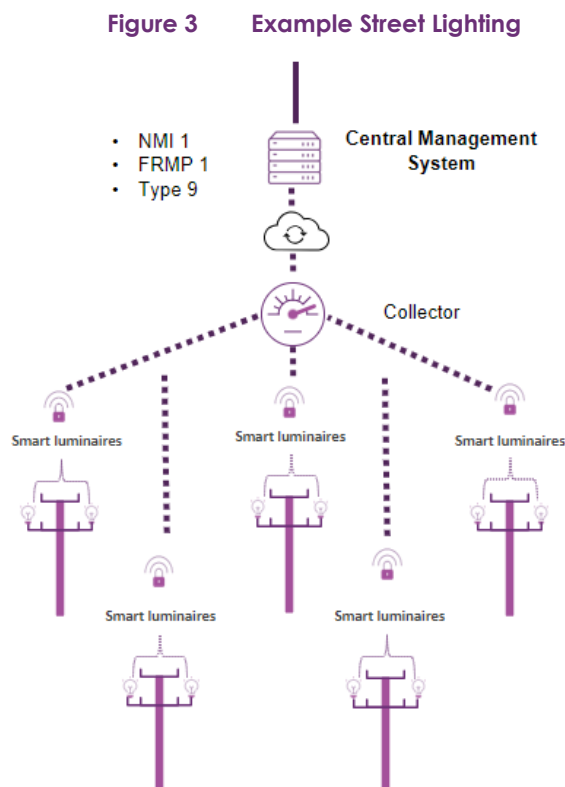


2.1.3 Measuring energy flows for street furniture connections (e.g. streetlights, kerbside EV chargers, etc.)

The changes introduce the type 9 metering installation, designed to allow for street furniture connections such as smart streetlighting systems, kerbside EV charging points, and some existing unmetered connections where traditional metering cannot be practically accommodated.

The main features of this framework are:

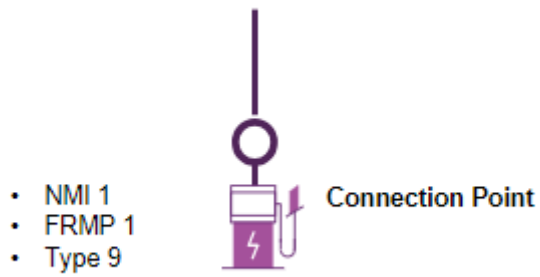
- Arrangements are voluntary and cover a range of use cases, including kerbside EV chargers and streetlights.
- The minimum specifications will be determined by AEMO in procedures, guided by principles in the NER; the specification is it is generally expected to be lower than for a type 4 *small customer metering installation*.
- They require National Measurement Institute approval.
- Street furniture connection arrangements can include the aggregation of multiple metering points (i.e., multiple streetlights) under one NMI using CMS – a new definition in the NER which is ‘a device or system that collects electronic signals from *measurement elements* and packages it into *trading intervals*’.



- MPs and MDPs require new accreditation requirements for each new metering installation type.
- The MC role is contestable – i.e. no party is mandated to provide MC services, with appointment responsibility residing with the FRMP, as is standard for type 1-4 metering installations.

- The MC for type 9 metering installations can propose alternative testing and inspection arrangements to AEMO for approval through an asset management strategy.

Figure 4 Example Kerbside Charging



3 Summary of key impacts

AEMO has considered key impacts resulting from the rule and rated them.

Figure 5 Heat Map view of key impacts of the rule

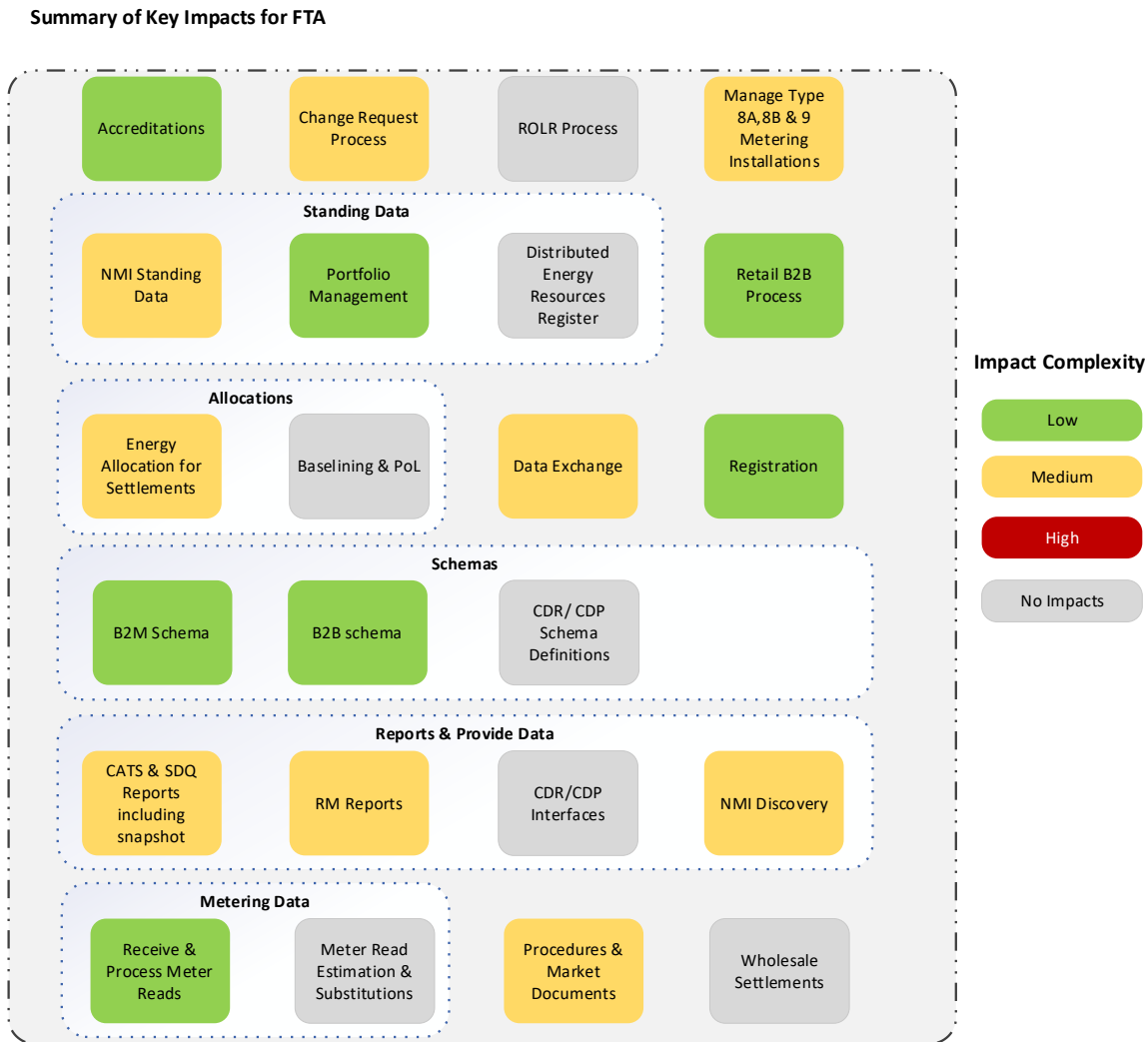


Table 2 Tabular view of key impacts of the rule

Focus Area	Impact Heat Map	Impact Description
Accreditations	Low	<ul style="list-style-type: none"> MDPs and MPs will need to be accredited should they opt in to offer services for the new metering types - Type 8 & Type 9 NMISP Accreditation for SSPs
Change Request Process	Medium	<ul style="list-style-type: none"> Creation of SSPs which will be a market CP by the NMISP Accept new installation type codes, meter use, meter model and meter manufacturer Enhance Change request Automations

Focus Area	Impact Heat Map	Impact Description
RoLR Process	None	<ul style="list-style-type: none"> The existing RoLR process to update the FRMP will apply for a SSP.
Manage Type 8 & 9 Metering Installations and Malfunctions	Medium	<ul style="list-style-type: none"> MC, MDP, FRMP and MP responsibilities to manage the new meter installation types
NMI Standing Data	Medium	<ul style="list-style-type: none"> SSPs and their relationship to CPs will need to be managed through the lifecycle (e.g. creation, abolition, de and re-energisation) Inclusion of Type 8A, 8B and Type 9 metering installation type codes
Portfolio Management	Low	<ul style="list-style-type: none"> Validation premises with SSP are not used for WDR
Distributed Energy Resources Register	None	<ul style="list-style-type: none"> No impacts identified. Impacts may be uncovered when developing the detailed requirements
Retail B2B Processes	Low	<ul style="list-style-type: none"> Potential new enumerations, and provisions to accommodate the NMISP
Energy Allocation for Settlements	Medium	<ul style="list-style-type: none"> Energy allocation based on subtractive metering on SSP setup Management of SSP where the premises CP is not connected to the NEM
Baselining & Predictability of Load (PoL)	None	<ul style="list-style-type: none"> No impacts identified. Impacts may be uncovered when developing the detailed requirements
Data Exchange	Medium	<ul style="list-style-type: none"> B2M aseXML changes, support for n & n-1 and transformations Changes to CATS transactions and reports schema formats B2B aseXML schema changes may be required Standing Data and Meter data access for DNSP's to child SSP will be provided via an interface
Registration	Low	<ul style="list-style-type: none"> MC coordinating and provisioning of metering services at a CP or SSP (Type 8A, 8B & Type 9)
B2M schema	Low	<ul style="list-style-type: none"> Inclusion of new NMI Standing Data elements in the B2M schema to support FTA Parent child relationships
B2B schema	Low	<ul style="list-style-type: none"> B2B aseXML schema changes may be required
CDR/CDP schema definitions	None	<ul style="list-style-type: none"> No impacts identified. Impacts may be uncovered when developing the detailed requirements
NMI Discovery	Medium	<ul style="list-style-type: none"> Updates to NMI Discovery (additional attributes on CP & SSP) for FRMPs to find out the standing data that is associated with a NMI
CATS & SDQ Reports	Medium	<ul style="list-style-type: none"> Amendments to current CATS & snapshot reports to include new NMI attributes New SDQ reports
RM Reports	Medium	<ul style="list-style-type: none"> Potential changes to RM reporting related to settlement of SSP
CDR / CDP Interfaces	None	<ul style="list-style-type: none"> No impacts identified. Impacts may be uncovered when developing the detailed requirements
Meter Read Estimation & Substitutions	Medium	<ul style="list-style-type: none"> New obligations for validation and substitution to include type 8A, 8B and type 9 metering installations
Receive & Process Meter Reads	None	<ul style="list-style-type: none"> No impacts identified. Impacts may be uncovered when developing the detailed requirements
Procedures & Market Documents	Medium	<ul style="list-style-type: none"> Refer Section 4 for details
Wholesale Settlements	None	<ul style="list-style-type: none"> Wholesale settlement functionality does not require changes and leverages the energy allocations that is calculated based on the subtractive metering

4 Procedure Impacts Review

By 30 September 2025, AEMO must publish procedures, guidelines, and other documents to consider the Rule. The Rule impacts Registration, Retail and Metering Procedures, and B2B Procedures. Due to the staggered effective dates of 31 May 2026 and 1 November 2026, AEMO must provide multiple versions of the procedures to accommodate the changes. As part of the pre-consultation phase, AEMO will consult with the industry about the preferred method of change mark procedures.

The effective date of this reform coincides with the IPRR draft rule. Whilst procedural overlap may occur as part of IPRR, the procedures and documents listed below have not considered the IPRR draft rule. The IPRR Final Rule is due to be published on 19 December 2024.

Please note:

- The B2B WG has identified scenarios where there may need to be amendments to B2B Procedures. These amendments range between:
 - Enhancements to existing processes, such as new enumerations or including new parties in transactions (e.g. NMI Service Provider).
 - New processes being required.
- Administrative and minor changes will impact the majority of AEMO procedures and guidelines to ensure the new metering installation types 8A, 8B, and 9 are reflected and included, as well as the impact of the removal of ‘CP’ and inclusion of ‘market CP’.
- [Section 8](#) provides a detailed assessment and proposals for NMI Creation, NMI Standing Data, NMI Discovery, and Change Requests.

Table 3 Initial Assessment of the Procedures and Documents Impacted

Registration	Impact
Register as a Demand Response Service Provider Register as a Metering Coordinator Register as an Integrated Resource Provider Register as a Customer	<ul style="list-style-type: none"> • Administrative change of inclusion ‘SSP’ • Classification by an IRP of a ‘small resource SSP’ for a large customer
Retail and Metering	Impact
Glossary and Framework	<ul style="list-style-type: none"> • New definitions from changes to the NERR which are not reflected in the NER for the following items: <ul style="list-style-type: none"> ○ Premises CP ○ Primary retailer ○ Secondary meter ○ Secondary Settlement Arrangement

Market and Settlement Transfers Solution	Impact
MSATS Procedures – CATS/WIGS	<ul style="list-style-type: none"> • New standing data elements to support relationships between SSP and CP • Inclusion of new metering type codes • New requirements for the NMI Service Provider to assign NMI SSP • A Large Customer can appoint the MC for a Secondary Settlement Point. • Allowance for the FRMP to assign a different MCs for a small customer at the CP and SSP • New obligation by role for NMI Service Provider • A SSP NMI cannot be made active retrospectively
Standing Data for MSATS	<ul style="list-style-type: none"> • New standing elements to support relationship between SSP and CP
Meter Data Management (MDM) Procedures	<ul style="list-style-type: none"> • Changes to RM reporting to accommodate SSPs
NEM RoLR Processes	<ul style="list-style-type: none"> • The RoLR process for a SSP to transfer to the FRMP of the CP
Metering procedures, guidelines and processes	Impact
Service Level Procedure Embedded Network Manager Services	<ul style="list-style-type: none"> • Inclusion of assignment of a SSP
Service Level Procedure NMI Service Level Provider	<ul style="list-style-type: none"> • Describing the list of services an NMI Service Provider must provide
Service Level Procedure MDP Services	<ul style="list-style-type: none"> • New obligations for validation and substitution to include type 8A, type 8B and type 9 metering installations • Specifying the processes of third-party subcontractors where the use of a central management system is allowed • Requirement for the CP meter and SSP meter to record at E and B suffixes • Assignment of SSP requires the use of subtractive metering arrangements • The CP and SSP to record at 5 minute intervals to enable subtractive settlements • Datastreams for a SSP cannot be made retrospective
Service Level Procedure MP Services	<ul style="list-style-type: none"> • The MP to commission and maintain a SSP, installed on behalf of the customer, for a large or small CP • Capabilities of an MP to be changed to include a new registration type 8M and type 9M • Inclusion of security and password controls to include type 8A, type 8B and type 9 metering installations • Detailing the requirements where a Central Management System is used to collect electronic signals from measurement elements for a metering installation
National Metering Identifier procedure	<ul style="list-style-type: none"> • Inclusion of a NMI to be applied at a SSP by the NMISP • Proposed inclusion of diagrams as part of appendix E to illustrate configurations

Metrology Procedures and unmetered loads	Impact
Metrology Procedure Part A	<ul style="list-style-type: none"> • Inclusion of the minimum services specification for type 8 and 9 metering installations • New clauses referencing: <ul style="list-style-type: none"> ○ the metering installation components of a type 8 and type 9 metering installation ○ the service level requirements for type 8 and type 9 metering installations ○ the methods of data substitution for a type 8 and type 9 metering installations where the CP meter is not recording actual data ○ the operation in relation to the metrology of a SSP
Metrology Procedure Part B	<ul style="list-style-type: none"> • Inclusion of how a MDP determines the metering data for a SSP or embedded network child CP where its CP or embedded network parent CP has been de-energised or disconnected or the network services its CP or embedded network parent CP is experiencing an outage
Unmetered Load Guideline	<ul style="list-style-type: none"> • Changes to include reference to a type 9 metering installation

Accreditation and Registration	Impact
Accreditation Checklists (Metering Providers, Metering Data Providers, & Embedded Network Managers)	<ul style="list-style-type: none"> • Ensure the capabilities of a MP, MDP and ENM meet the new requirements under the NER for a type 8A, type 8B and type 9 metering installation. • Changes to include determining MDP approach when a SSP is de-energised or experiences an outage. • Include NMI Service Provider as a new accredited role within the document.
Qualification Procedure (Metering Providers, Metering Data Providers & Embedded Network Managers)	<ul style="list-style-type: none"> • Include NMI Service Provider as a new accredited role within the document.
Application Form (Metering Providers, Metering Data Providers & Embedded Network Managers)	<ul style="list-style-type: none"> • Include NMI Service Provider as a new accredited role within the document.
Accredited NMI Service Providers	<ul style="list-style-type: none"> • New document which lists those organisations given accreditation as NMI Service Providers.
NMI Service Provider Guideline	<ul style="list-style-type: none"> • New document describing the principles and processes involved for in market operations for SSPs.
Guide to the Role of the Metering Coordinator	<ul style="list-style-type: none"> • New obligations for type 8 and type 9 metering installations for MCs are included in the registration process for an MC. Existing MCs will not be required to re-register, however any MC intending to operate at these NMIs will need to obtain AEMO’s prior approval for changes to their metering asset management strategy for type 8 or 9 metering installations.
Application for Registration NEM Metering Coordinator	<ul style="list-style-type: none"> • Include type 8 and type 9 metering installations

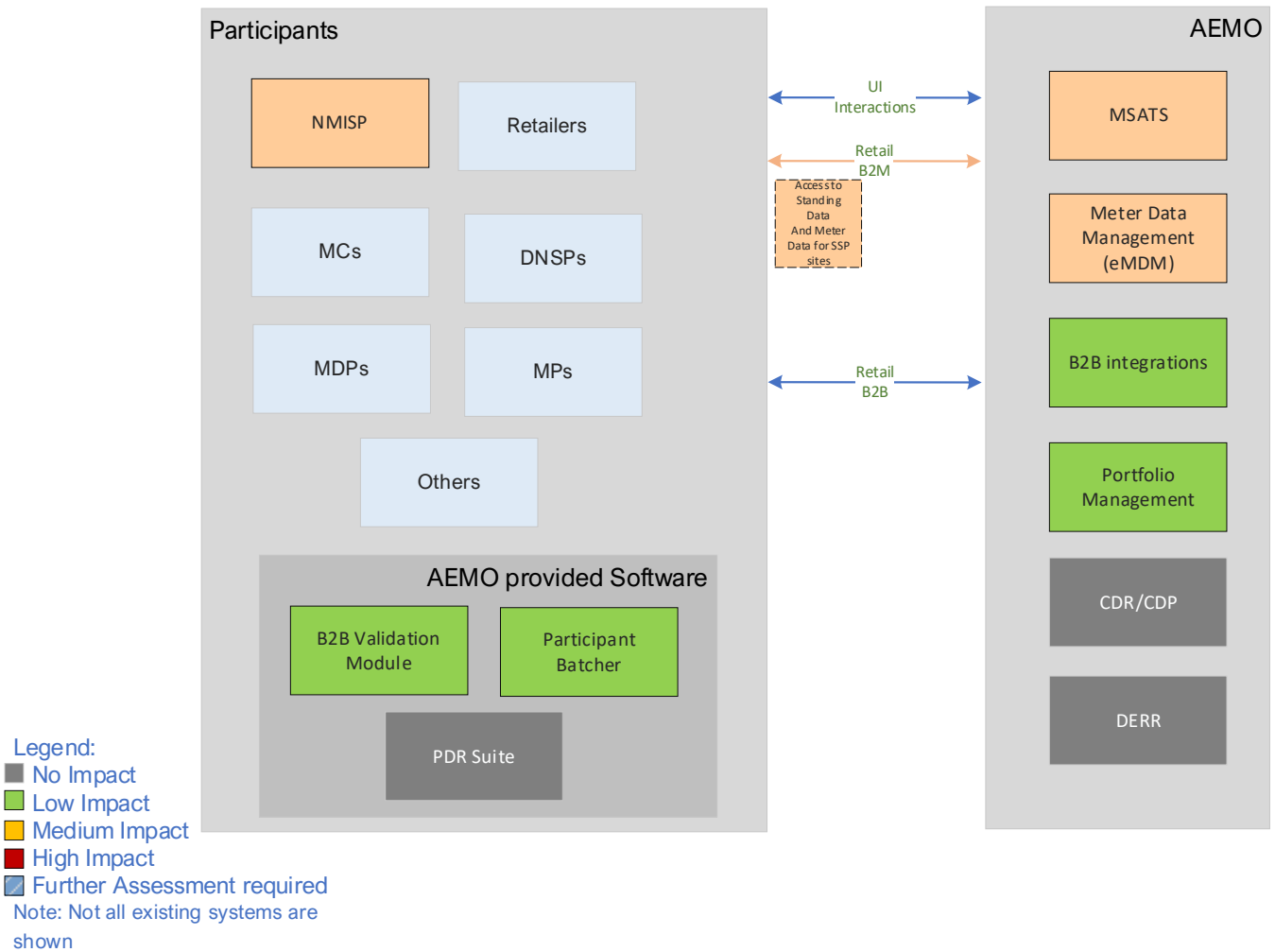
Business to Business Procedures (IEC)	Impact
B2B Procedures: Meter Data Process	<ul style="list-style-type: none"> Amendments regarding the requesting of metering data and the validation of metering data [New Party].
B2B Procedures: One Way Notification process	<ul style="list-style-type: none"> Amendments regarding the communication of metering faults between parties [New Enumeration].
B2B Procedures: Service Order Process	<ul style="list-style-type: none"> Amendments to: <ul style="list-style-type: none"> NMI allocation [Change to transaction to include Connection Point Information and New Party – Accredited NMISP] Commissioning process - requesting a metering party configure the meter [New Enumeration] Activate\deactivate a data stream (as opposed to NMI deactivation) [New Enumeration] Additional use of Notified Parties such as including FRMP on SSPs for re-energisations / de-energisations [include second FRMP, Accredited NMISP]
B2B Procedures: Customer and Site Details Notification Process	<ul style="list-style-type: none"> No impacts have been identified at this stage.
B2B Guide	<ul style="list-style-type: none"> Changes to the B2B Guide will be determined once the final changes to the B2B procedures have been confirmed.
B2B Procedures: Technical Delivery Specification	<ul style="list-style-type: none"> Changes to the Technical Delivery Specification will be determined once the final changes to the B2B procedures have been confirmed.

5 AEMO System Impacts

In this section, the participant interaction, system, interface and schema impacts have been summarised.

5.1 System and Data Exchange Overview

Figure 6 Participant Interaction Impacts



5.1.1 System Impacts

Table 4 System Impacts

AEMO System	Summary
MSATS CATS	<ul style="list-style-type: none"> New and updated change requests to support the creation and management of SSP NMIs. <ul style="list-style-type: none"> Affects Change Request logic and configuration. New attributes defined to record SSP relationships and statuses subject to consultation. <ul style="list-style-type: none"> Attribute on SSP stating the CP. Attribute or flag to identify a Primary CP (AEMO Managed). Attribute for the category of CP relationship, e.g. FTA. Attribute for the category of SSP relationship, e.g. FTA. New Metering Installation Type Codes for introduced Type 8A, 8B & Type 9 metering.

AEMO System	Summary
	<ul style="list-style-type: none"> Changes to various processes to display the CP and SSP relationships, e.g. Discovery, CATS Reports, Snapshot Reports, Browser changes. New SDQ reports to identify potential standing data anomalies.
Meter Data Management (eMDM)	<ul style="list-style-type: none"> Profile Allocation Engine <ul style="list-style-type: none"> Manage SSPs when premises CP is inactive. RM Report to enable reconciliation for CP/SSP Settlement Allocation - Retain subtractive metering, per the current Embedded Network process, for sites with SSP.
DERR	<ul style="list-style-type: none"> No impacts identified.
CDR/CDP	<ul style="list-style-type: none"> No impacts identified.
Portfolio Management	<ul style="list-style-type: none"> New Validation of premises with SSP are ineligible for WDR.
B2M	<ul style="list-style-type: none"> Support new B2M aseXML_r4(n) schema version as LATEST/CURRENT. Standing Data and Metering data access for DNSP's to child SSP will be provided via an interface.
B2B	<ul style="list-style-type: none"> B2B aseXML schema changes may be required.
Integration	<ul style="list-style-type: none"> aseXML Schema changes to include new SSP attributes. Transformation and management of schema versions for B2B and B2M data exchange.
AEMO provided Software	<ul style="list-style-type: none"> B2B Validation Module - Possibility of a new aseXML schema for B2B. Participant Batchers – New aseXML schema for B2M. PDR Suite – Batchers, Monitor, Loader – No impact identified.
Capacity	<ul style="list-style-type: none"> Increased transaction volumes expected based on the estimated additional SSP devices added per year.

5.1.2 Market system interfaces and interactions

- Standing Data and Metering data access for DNSP's to child SSP will be provided via an interface.
- B2M (and possibly the B2B Retail) payload formats for current exchange mechanisms will be enhanced as defined in Procedure updates.

5.1.3 MSATS Browser

Updates are required throughout the MSATS Browser UI to reflect the additional fields added to CATS to support SSP, including changes to introduce any new CRs may be added.

5.1.4 CATS Reports

Table 5 CATS Reports

Report Name	Impact
Snapshot Report	Snapshot updated to include the attributes associated with SSP.
CATS Reports	CATS reports updated as required to include the attributes and CP/SSP relationships.
SDQ Reports	Updates to reports related to the use of CP/SSP, new metering types, and any procedure conflicts.
RM Report	RM report to enable reconciliation for CP/SSP

5.1.5 APIs

- No changes to API or FTP protocols.
- Payload schema changes expected to include required attributes related to minor flow energy metering installations.

Table 6 APIs

API	Impact
B2M	Updates to aseXML schema.
B2B	Updates to aseXML schema may be required.

5.2 Data Model and Schema Impacts

5.2.1 MSATS Data Model Impacts

- Additional attributes to record CP and SSPs in a minor flow energy metering installations.

5.2.2 Schema Impacts

Table 7 Schema Impacts

Schema	Impact
aseXML (B2M)	Changes required to add the new attributes related to SSP.
aseXML (B2B)	Changes may be required to support new enumerations.

Schema	Impact
DERR	No impacts to DERR payloads formats identified.

6 Implementation Pathway

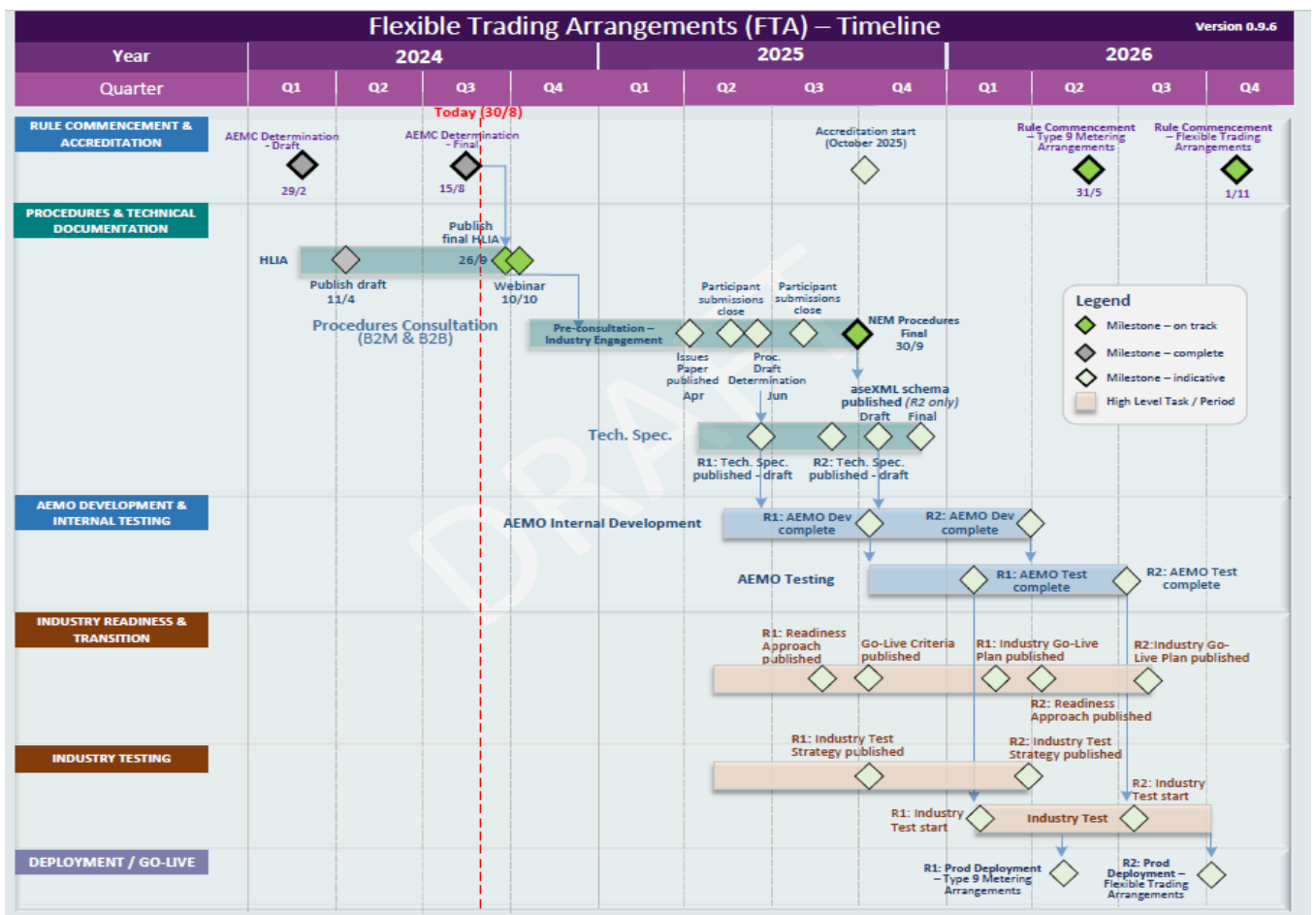
The effective dates have now been set by the AEMC’s final decision on the rule on 15 August 2024. Key rule and consultation dates are tabled.

Table 8 Timetable for the rule change and points of stakeholder consultation.

Stage	Timeline
AEMO Procedures Final	30 September 2025
AEMO Accreditation start	October 2025
AEMC Rule Commencement – Type 9 Metering Arrangements	31 May 2026
AEM Rule Commencement – Flexible Trading Arrangements	1 November 2026

AEMO has considered the implementation pathway and an indicative timeline aligned to the AEMC final rule and determination.

Figure 7 AEMO’s Indicative Timeline



6.1 Key Implementation Considerations

AEMO has assessed key implementation considerations.

6.1.1 Procedure consultation considerations

To allow sufficient time for consultation with participants, AEMO is conducting a consultation pathway encompassing:

- Pre-consultation
 - AEMO to publish a HLIA final for participants on 26 September 2024.
 - AEMO to hold a HLIA Webinar final for participants on 10 October 2024.
 - AEMO to hold pre consultations from October 2024 with follow ups if required to March 2025.
- Consultation
 - AEMO issues paper to be published April 2025.
 - AEMO Final Determination must be by 30 September 2025.

6.1.2 Accreditation considerations

- Accreditation documentation to be developed in parallel with the pre consultation and consultation periods.
- The earliest practical date upon which interested parties can apply for accreditation will be October 2025.

6.1.3 B2B and B2M Schema Change Considerations

- The second FTA release, in November 2026, will contain a new version of the B2M schema and potentially a new B2B Schema. Participants are encouraged to move to the new versions of the schema, particularly those who are currently on a superseded schema version, as the superseded version will become obsolete following the November 2026 go-live.

6.1.4 Industry Test Considerations

- AEMO will make the standard pre-production environment available for the Industry Test / Market Trial window. AEMO has not identified the need for a separate participant development environment for this change.
- R1: Type 9 Metering Arrangements to be made available for industry test before 31 May commencement.
- R2: Flexible Trading Arrangements to be made available for industry test / market trial before 1 November commencement.
- Initial assessment indicates that this project could meet the criteria for a Market Trial. This means that there could be a requirement for coordinated testing across multiple participant types.

- The test execution challenge will be to ensure sufficient participation across the industry because the implementation is optional for participants.

6.1.5 Related reform considerations

Integrating Price Responsive Resources (IPRR)

IPRR into the NEM is a voluntary mechanism to allow unscheduled price responsive resources, such as exempt generation/storage and VPPs, to participate in the NEM.

- The AEMC has progressed the IPRR rule to a draft determination on 25 July 2024.
- The draft rule proposes an IPRR commencement date of 5 November 2026.
- The AEMC final rule and determination is anticipated 19 December 2024.
- Consideration to be given to running the retail procedure consultations for FTA and IPRR together.
- AEMO's [IPRR draft HLIA](#) indicates that there is low or no material impacts to retail systems that are also impacted by FTA and vis-à-vis FTA is making no or immaterial changes to wholesale systems impacts by IPRR.

Accelerating Smart Meter Deployment

The Accelerating Smart Meter Deployment rule change enables an acceleration for the deployment of smart meters in the NEM.

- The AEMC progressed the Accelerating Smart Meter Deployment rule change to a draft determination on 4 April 2024.
- The AEMC final rule and determination is anticipated 28 November 2024.
- AEMOs assumed accelerated rollout effective date for the final rule is 1 December 2025.
- AEMOs assumed effective date for Power Quality Data is mid 2026.
- AEMO/IEC Consultation Final Determination for Package 1 is anticipated 2 April 2025 and before the AEMO FTA consultation issues paper is published.
- AEMO Consultation for Package 2
 - Pre consultation November 2024 to Jan 2025
 - Issues paper Feb 2025
 - Draft April 2025
 - Final July 2025
- AEMO Consultation for Power Quality Data is scheduled:
 - Pre consultation February 2025 to April 2025
 - Issues Paper April 2025

- Draft June 2025
- Final September 2025

6.1.6 Risks and Issues

This section summarises key risks.

Table 9 Initial Assessment of the risks

Identified Risk	Initial Rating	Mitigation strategies	Residual Rating (after mitigation)
Timing of AEMC rule change (AEMC priority and preferred rule).	Medium	Continued engagement between AEMC and AEMO to reinforce the importance at multiple levels.	Low
Insufficient participant support (support of the new process).	Medium	ERCF is a channel that will be used to build participant support.	Low
The parties that are implementing the Rule Change are also implementing Accelerating smart meter deployment in the same period.	Medium	Timeframes set to support successful enablement of both reforms for participants.	Low
Contention and priority of Flexible Trading Arrangements amongst other reform initiatives.	Medium	NEM Reform program governance to manage priority and contention.	Low
AEMO and participant support for market trials over mid-December 2025 to late January 2026 period due to organisational shutdown periods.	Medium	Support of market trials during a period where adequate resourcing from both AEMO and Participants can be realised, for example Q3 2026.	Low
Any change and potential instability across summer periods requires focus on operations rather than reform change.	Medium	Timeframes set to support successful enablement of the rule change.	Low
AEMO support for participant development timeframes.	Medium	Publishing comprehensive specifications in a timeframe that supports participant development being ready for industry testing.	Low

6.2 Indicative Industry Readiness Approach

This section shows AEMO’s early view of the FTA readiness approach. Figure 8 provides the indicative view of the FTA readiness approach, consistent with the NEM reform readiness strategy. Table 10 provides commentary on each of the readiness elements.

Figure 8 Indicative FTA industry readiness approach

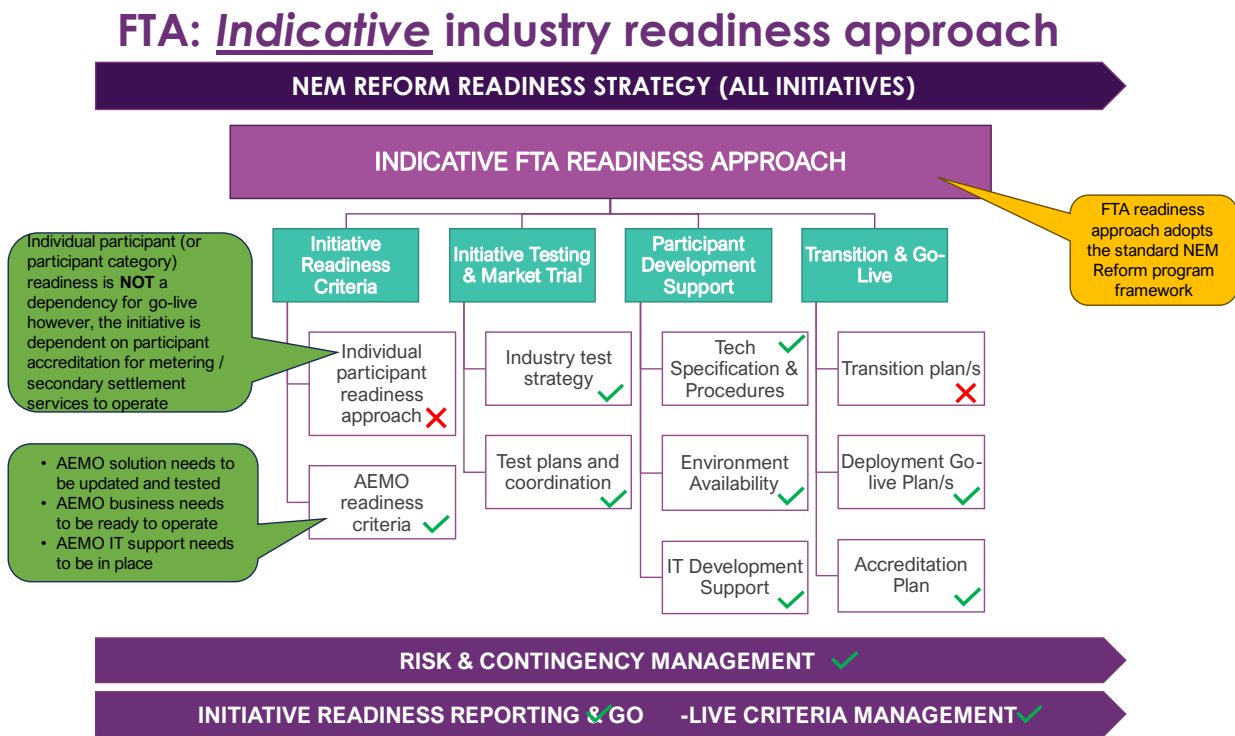


Table 10 AEMO's initial view of Industry Readiness for FTA

READINESS AREA		INITIAL VIEW OF INDUSTRY READINESS APPROACH
Initiative readiness criteria	Individual participant readiness approach	<ul style="list-style-type: none"> Individual participant (or participant category) readiness is not a dependency for go-live because FTA participation is voluntary for both FTA Release 1 (Type 9 metering arrangements) and FTA Release 2 (Flexible Trading Arrangements). However, Participants intending to provide metering or secondary settlement services must be accredited prior to performing those functions.
	AEMO readiness criteria	By the respective FTA commencement dates, AEMO's: <ul style="list-style-type: none"> Solution needs to be updated and tested. Business needs to be ready to operate. IT support needs to be in place.

READINESS AREA		INITIAL VIEW OF INDUSTRY READINESS APPROACH
Initiative testing and market trial	Industry test strategy	<ul style="list-style-type: none"> An Industry test strategy will be developed in collaboration with industry for both FTA Release 1 and FTA Release 2. HLIA indicates that industry testing: <ul style="list-style-type: none"> Will be needed for MPs, MCs, MDPs, NSPs and FRMPs, to test new meter types and secondary settlement point functionality (likely including NMI Standing Data, MSATS reports, data exchange, and energy allocation for settlements) Will enable participants to test the B2M and B2B schema changes, where required. Can be utilised by MPs, MCs, MDPs, NSPs and FRMPs to validate end to end process. AEMO will engage with participants to establish whether a market trial (coordinated end-to-end testing) will be required. It is likely that FTA Release 1 will run as an Industry Test and that FTA Release 2 will run as a coordinated Market Trial. AEMO will allow a 3-month period to conduct the industry testing/market trial prior to the respective FTA commencement dates. During this period, pre-production will be available for self-testing of the respective FTA functionality.
	Test plans and coordination	<ul style="list-style-type: none"> Will be developed in consultation with industry and in alignment with the industry test strategies.
Participant development support	Procedures	<ul style="list-style-type: none"> The FTA rule change indicates that updates will be required to the following procedures: Registration, Retail and Metering Procedures, and B2B Procedures. Consultation and subsequent changes to existing AEMO procedures will need to be finalised by 30 September 2025.
	Technical specifications	<ul style="list-style-type: none"> EMMS data model technical specification: The FTA changes do not impact the EMMS Data Model. MSATS technical specification: Both FTA releases will have an impact on MSATS. It is expected that these changes will be reflected via iterative MSATS technical specification releases. Technical Specs for both releases and aseXML schema changes for FTA Release 2 will be available 2 to 3 months prior to the planned industry test commencement.
	Environment availability	<ul style="list-style-type: none"> AEMO's pre-production will be available to support industry testing (and potentially a market trial) for 3-months prior to the 2nd FTA rule commencement in November 2026.
	IT development support	<ul style="list-style-type: none"> Initial assessment is that a Participant development support environment would not be needed as the FTA changes to AEMO's systems will most likely be only incremental change to the existing systems. It is therefore expected that development support can be managed in the pre-production environment. Environment support for accreditation activities, if necessary, will be considered with the development of the accreditation guidelines.
Transition and go-live	Transition plans	<ul style="list-style-type: none"> No transitional requirements for industry are indicated in the FTA rule.
	Go-live plan	<ul style="list-style-type: none"> Individual Go-Live Plans will be developed in consultation with industry for FTA Release 1 and FTA Release 2.
	Registration or accreditation plans	<ul style="list-style-type: none"> The FTA rule indicates that new accreditation requirements will be needed for MPs and MDPs for each new metering installation type and for the NMISP role that establishes Secondary Settlement points. Changes will be made to MC registration, however,

READINESS AREA		INITIAL VIEW OF INDUSTRY READINESS APPROACH
		existing MCs will not be required to re-register. Guidelines for accreditation and registration changes will be published as part of the updates to the procedures.
Risk & contingency management		<ul style="list-style-type: none"> Will be developed in consultation with industry.
Initiative readiness reporting & go-live criteria management		<ul style="list-style-type: none"> AEMO will report to industry, progress against confirmed L1/L2 industry readiness milestones on a regular basis through NEM Reform forums Industry Readiness Impact Assessment is due to be published at the end of March 2026 (date TBC) AEMO will also provide formal checkpoints against go-live criteria to provide assurance of implementation preparations ahead of industry test period and go-live, allowing time for finalising AEMO's and participants business preparations: Prior to Industry Test start – February 2026 (date to be confirmed) Go-live readiness – 21 May 2026 Release 1 and 22 October 2026 Release 2 Formalised participant readiness reporting is not required on the basis that there are no mandatory participant transition or preparation activities that if not performed will impact technical readiness for market or other participants

7 Participant Impact Assessment

7.1 Detail of Impacted Functions

AEMO recognises the significant system and process changes needed by participants to meet the obligations of the rule, including developing interfaces for B2M and B2B data exchanges with the Market (B2M) and other participants (B2B). This section focuses solely on the latter and does not address the updates participants must make within their systems to support their business processes. Given the diverse levels of system maturity and automation across participants, AEMO cannot predict the exact scale or nature of these impacts for each participant. However, AEMO can highlight common areas likely to be involved in most participants' impact analyses to achieve the rule outcomes.

7.1.1 NMI Creation

Focus Area	Impact Heat Map	Impact Description
NMI Creation	Medium	<ul style="list-style-type: none"> A new participant role category of NMISP will enable parties to be accredited to create and maintain SSPs. Each accredited party will be assigned a NMI range for registration of new SSP NMIs. NMISP will need to ensure the DLF and TNI applied to the SSP reflects the DLF and TNI assigned to the premises CP.

Participant Impacts

- New role category of NMISP will create and maintain SSP NMI
 - New NMISP will be assigned to the LNSP role on the SSP NMI.
 - Each accredited NMISP will be assigned a range of NMI numbers.
 - NMISP will need to manage the assignment of DLF and TNI code to the SSP and ensure they are in line with the premises CP.
- The SSP FRMP will appoint the NMISP for the SSP NMI.

7.1.2 MSATS Standing Data

The final determination introduces new metering installation types to allow the measurement of flexible loads, street furniture and street lighting. Metering installation types COMMS8A and COMMS8B are used for SSP metering installations for large and small customers. Additional metering installation type codes have been created for premises CP where metering capabilities will also need to reflect COMMS4 requirements. The CP MITC will include the COMMS4 capability combined with the type 8A additional features (e.g. type 8 minimum service specification capability).

Focus Area	Impact Heat Map	Impact Description
NMI Standing Data	Medium	<ul style="list-style-type: none"> • New CATS NMI Standing data attributes will be added to NMI standing Data (CND fields) to support SSP and CP relationships within the FTA program, • The new fields will include the following: <ul style="list-style-type: none"> ○ Parent Type – will store the connection type relationship of the SSP associated with the CP. (e.g. FTA) ○ Child Type – will store the connection type of the SSP. (e.g. FTA) ○ Primary NMI – will be populated on the SSP with the premises CP NMI value. ○ Is Primary – will identify a premises CP that contains one or more SSP NMIs. • NMISP will need to maintain NMI Standing Data for SSPs.
Meter Register	Medium	<ul style="list-style-type: none"> • New MITCs <ul style="list-style-type: none"> ○ COMMS8A – only eligible on SSP NMIs with LARGE NMI Class Code ○ COMMS48A – only eligible on premises CP with LARGE NMI Class Code (where the type 4 metering installation also meets the 8A services specification) ○ COMMS8B – only eligible on SSP NMIs with SMALL NMI Class Code ○ COMMS9 – only eligible on a CP with approved alternative metering arrangements ○ COMMS49 – only eligible on a CP with approved alternative metering arrangements and a SSP NMI. • New meter register enumerations will be added to support standing data.

-
- Meter Manufacturer
 - ‘Type 8’, ‘Type 9’ and ‘Type 9 CMS’
 - Meter Model
 - ‘Type 8’, ‘Type 9’ and ‘Type 9 CMS’
 - Meter Use
 - Revenue (existing value)
- Additional codes can be added via ERCF process.
-

Participant Impacts

- All participants to update their Market Data repositories to reflect the new CATS_NMI_DATA attributes.
 - All participants to update their Market Data repositories to reflect the new CATS_NMI_METER_REGISTER MITCs and enumerations.
 - NMISP will need to maintain NMI standing data for SSP.
-

7.1.3 Change Request Process

Focus Area	Impact Heat Map	Impact Description
Change Request Process	Medium	<ul style="list-style-type: none"> New 2000 series CRs for Create NMI Details – SSP will enable NMISP participants to create SSP NMIs. New validation to ensure an SSP is assigned to an existing CP.
		<ul style="list-style-type: none"> New process to update the premises CP NMI details with new attribute when a 2000 series Create NMI Details – SSP CR is completed, the new process will update the CP to identify it is a Primary connection.
		<ul style="list-style-type: none"> New 1000 series CR validation to ensure SSP FRMP participant id is the same as the CP FRMP participant id for SMALL premises.
		<ul style="list-style-type: none"> New process to update LR on SSP when the FRMP changes on the premises CP. (similar process as embedded networks)
		<ul style="list-style-type: none"> New process to de-energise Small SSP when the CP FRMP is changed or de-energised.
		<ul style="list-style-type: none"> Existing 5000 series CRs will be used to maintain SPP NMI standing data (no changes) Ability to update Primary NMI, Parent Type, Child Type, and Is Primary fields will not be editable after creation.
		<ul style="list-style-type: none"> AEMO 5100/5101 CRs will be updated to support corrections to Standing Data, including update to Parent NMI, Parent Type, Child Type, and Is Primary fields
		<ul style="list-style-type: none"> Update 3000 series CRs to include MITC and enumerations.

Participant Impacts

- NMISP participant will create and maintain SSP NMIs.
 - Requesting FRMPs must include standing data details of premises CP NMI, DLF and TNI when requesting NMI creation.
- New process to update premises CP standing data when create SSP CR is completed.
- New validations when completing Retailer Change
- New process to maintain SSP LR role.
- New process to de-energise SSP NMI when CP is de-energised.
- Update of AEMO only CR to allow maintenance of new attributes on SSP and CP NMIs.
- Update metering maintenance and installation CRs to include new MITCs and enumerations.

7.1.4 NMI Discovery

Focus Area	Impact Heat Map	Impact Description
NMI Discovery	Medium	<ul style="list-style-type: none"> Type 1 discovery results to include new NMI attributes in the response

- Type 2 discovery results to include new NMI attributes in the response

Participant Impacts

- FRMP / LNSP NMI discovery on SSP NMIs will include “Child Type” and “Primary NMI” values.
- FRMP / LNSP NMI discovery on premises CP NMIs will include “Parent Type” and “Is Parent”.
 - FRMPs can request an additional NMI discovery using the premises address to identify SSP NMIs when a premises CP NMI has been identified as “Is Parent”.

7.1.5 Metering Malfunctions

Focus Area	Impact Heat Map	Impact Description
Meter Malfunctions	Medium	<ul style="list-style-type: none"> • Type 8A, 8B and 9 Malfunction metering equipment to be resolved within 20 days

Participant Impacts

- FRMP to arrange resolution to Type 8A, 8B or 9 malfunction metering equipment.
 - Where malfunction is not resolved within 20 days the FRMP must inactivate the NMI.

7.1.6 Energy Allocation

The final determination identified the need to consider the settlement of an SSP / EN children when the premises CP / EN Parent is de-energised or has a network outage and revert the SSP/EN child settlement data to zero. AEMO has considered the most prudent option for settlement processing and will seek to perform the following processes during these market actions:

- Premises CP / EN Parent de-energisation

Where a premises CP / EN Parent has no active datastreams and the SSP / EN Child has active datastreams, the settlement process will exclude the impacted SSP / EN Child from settlements calculations and report the impacted NMI to the FRMP.

- Premises CP / EN Parent with Network Outage

When a network outage is encountered the premises CP / EN Parent metering data must be 0 reads with a reason code set to 43 (Power outage) or 79 (Power outage alarm) for each affected TI Where consumed or sent-out energy is recorded against an associated SSP / EN Child for the same TI, the settlement values for the affected TI will be set to 0.

This solution supports the final determination recommendation not to settle energy flows where the EN or customer premises is not connected to the NEM because of a network outage. The use of datastreams to determine premises CP / EN Parent de-energisation reflect the current settlement process. Changes will be made to AEMOs PAE to not settle SSP / EN Child NMIs and advise affected FRMPs of affected trading intervals.

Focus Area	Impact Heat Map	Impact Description
Energy Allocation	Medium	<ul style="list-style-type: none"> Premises with a SSP will apply subtractive metering for calculation of settlement values for the premises CP. New validations will exclude SSP / EN child on detection of a de-energised premises CP / EN Parent from the settlement calculation, with new reporting to notify the impacted FRMP. Settlement of SSP / EN Children will be calculated as 0 for any affected TI, where the premises CP / EN Parent has a network outage reason code applied against any TI read, with new reporting to notify the impacted FRMP. Network charges will only be applied to the premises CP. <ul style="list-style-type: none"> SSP will not have network charges applied by the LNSP.

Participant Impacts

- Calculation of CP with SSP will use subtractive metering.
- New reporting to notify impacted FRMPs when SSP / EN Child is not included in settlements when the premises CP / EN Parent is de-energised.
- New reporting to notify impacted FRMPs when SSP / EN Child have been settle for 0 energy for a TI where the premises CP / EN Parent is flagged as having a Network Outage.
- LNSP must only consider the energy flow at the premises CP when calculating network charges.

7.1.7 Metering Data

Focus Area	Impact Heat Map	Impact Description
Metering Data	Low	<ul style="list-style-type: none"> Procedure consultation will consider substitution methodology for SSPs An accredited CMS may be used to support metering data from multiple devices on type 9 metering installations

Participant Impacts

- MDP must provide zero readings when metering data is not received from the SSP.
- MDP may use a CMS for management of meter readings from multiple devices.

7.1.8 Reports

Focus Area	Impact Heat Map	Impact Description
Reports	Medium	<ul style="list-style-type: none"> • CATS standing data reports will include additional NMI attributes where applicable <ul style="list-style-type: none"> ○ Is Primary ○ Parent Type ○ Child Type ○ Primary NMI • Snapshot to include additional NMI attributes • New SQD validations will be created to validate standing data accuracy: <ul style="list-style-type: none"> ○ SSP active where CP inactive ○ Type 8A metering not on LARGE premises ○ Type 8B metering not on SMALL premises ○ FRMP not the same on CP & SSP for SMALL premises • Existing RM reports may be changes identify when zero energy is settled on SSP / EN Children due to a network outage, reports that may be impacted are: <ul style="list-style-type: none"> ○ RM27 – L2 Settlement Reconciliation Report ○ RM17 – L3 Settlement Reconciliation Report • RM report to enable reconciliation for CP/SSP • MDP Delivery of settlement data requirements will be reported separately for Type 8A, 8B and 9 metering installations.

Participant Impacts

- Standing Data reports will include new attributes and values where assigned.
- Snapshots will include new attributes and values where assigned.
- SQD reporting will include additional checks to support participant obligations.
- New FRMP RM Report for SSP NMIs excluded from settlements.
- MDP meter data quality and quantity reporting will include separately report type 8A, 8B and 9 metering installations.

7.1.9 Data Exchange

Focus Area	Impact Heat Map	Impact Description
Data Exchange	Medium	<ul style="list-style-type: none"> • B2M aseXML changes, support for aseXML_r4(n) & aseXML_r4(n-1) and transformations. • B2B aseXML changes may be required. • New API to enable LNSP for CP with SSP to retrieve NMI standing data and/or metering reads for associated SSP.



Participant Impacts

B2M

- Participants required to set or access FTA attributes must transition to the new (to-be) version of B2M aseXML_r4(n) LATEST
- Other participants have the option to transition to the new (to-be) version of B2M aseXML_r4(n) LATEST or remain on the SUPERSEDED (to-be) B2M aseXML_r4(n-1)
- Participants currently using the existing (as-is) version B2M aseXML_r4(n-2) SUPERSEDED must transition to either the upcoming (to-be) B2M aseXML_r4(n-1) SUPERSEDED or the new (to-be) version of B2M aseXML_r4(n) LATEST

B2B

- B2B aseXML schema changes may be required.

7.1.10 B2M Schema

Focus Area	Impact Heat Map	Impact Description
B2M Schema	Medium	<ul style="list-style-type: none"> • Inclusion of new NMI Standing Data elements in the B2M schema

Participant Impacts

- Participants required to interact with new attributes must be able to read and write values to the new aseXML elements, and effectively map these elements to the aseXML_r4(n) defined as ElectricityMasterStandingData.

7.1.11 B2B Schema

Focus Area	Impact Heat Map	Impact Description
B2B Schema	Low	<ul style="list-style-type: none"> • Changes may be required to support new enumerations.

Participant Impacts

- Changes to enumerations may be required to support the creations and maintenance of SSPs.

7.1.12 Portfolio Management

Focus Area	Impact Heat Map	Impact Description
Portfolio Management	Low	<ul style="list-style-type: none"> • New validates for registration of NMI <ul style="list-style-type: none"> ○ Reject CP NMIs with associated SSP from WDR registration

- Reject SSP NMIS from WDR registration

Participant Impacts

- Registration of WDR Premises CP or SSP NMIs will be rejected

7.1.13 Distributed Energy Resources Register (DERR)

Focus Area	Impact Heat Map	Impact Description
Distributed Energy Resource Register	None	<ul style="list-style-type: none"> • Distributed Energy Resources are updated against the premises CP in the DERR. <ul style="list-style-type: none"> ○ CER (load) assets are not stored in the DERR and therefore there is no update requirements. ○ DER (generation) assets are stored in the DERR to assign AEMO and DNSPs with management of their network ○ Updating of DER assets will continue to be registered against the premises CP.

Participant Impacts

- Registration of DER devices will continue to be against the premises CP.
- DNSP will continue to assign NMIs that DER devices are recorded against as the DNSP is only responsible for the premises CP these will be assigned within the DERR.

7.1.14 Customer Data Right (CDR) & Consumer Data Platform (CDP)

Focus Area	Impact Heat Map	Impact Description
CDR / CDP	None	<ul style="list-style-type: none"> • AEMO and DSB to view the inclusion of NMI standing data fields into the response.

Participant Impacts

- AEMO and the DSB to work through the impact for ADRs and if there are also impacts for the CDR standard.

7.1.15 DNSP access to SSP Standing Data & Metering Data

The Final determination identified that DNSPs may have visibility of SSP standing data and metering data. In consideration of this requirement AEMO considered the two below options:

- Premises Network Service Provider role

The new role would be assigned to every SSP and be assigned with the participant code for the premises CPs DNSP. This option would require the MDP to send all metering data to the PNSP.

- New delivery mechanism

Development of a new mechanism that enables DNSPs to request Standing data and/or Metering data for SSPs associated to a premises CP NMI where they have an active responsibility. The process will validate the association to the premises CP NMI and if acceptable return the Standing data and/or Metering data for the nominated request period and be defined during the consultation period.

AEMOs preferred solution is to develop the delivery mechanism to support the ad hoc requests, this option provides the least cost method to provide SSP standing data and metering data to DNSPs.

Focus Area	Impact Heat Map	Impact Description
DNSP access to SSP Data	Medium	<ul style="list-style-type: none"> • A new mechanism will be created to enable the CP DNSP to retrieve Standing Data and Metering Data for associated SSPs

Participant Impacts

- DNSP would be required to request Standing data and/or Metering data for associated SSP NMIs via the new mechanism to AEMO, which will validate their availability to access data via their associated connection to the premises CP

7.2 Subtractive Metering

This section provides an overview of the subtractive metering process.

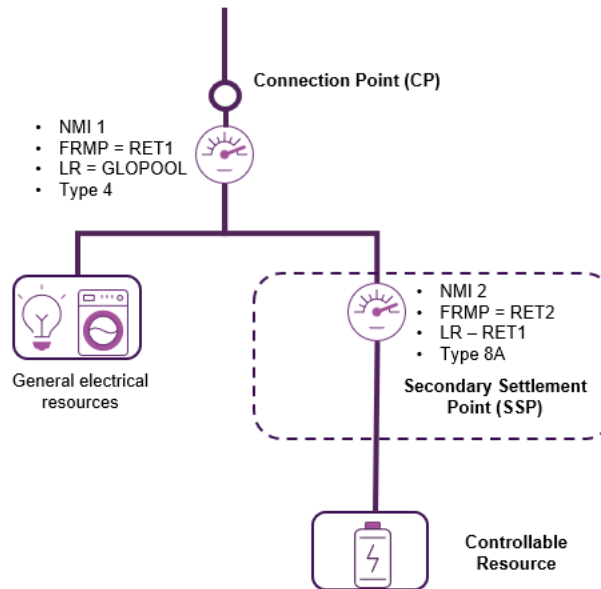


Figure 9 Subtractive metering diagram

For a FTA the settlement energy is calculated by subtracting the net metered energy of all SSP from the net metered energy of the CP. This subtractive logic is currently used for embedded networks.

7.2.1 Settlement data calculation using subtractive metering

This example is for a large customer that includes two FRMPs.

If we assume for the above diagram the metering reads for a TI are:

- CP had a value of 10 on the E (consumption) register and 2 on the B (sent out) register, and
- SSP had a value of 2 on the E (consumption) register and 6 on the B (sent out) register

The formula for subtractive settlement energy is:

- CP settlement energy = CP net (E-B) – SSP(s) net (E-B)

Taking the above values into account this provides an energy value of:

- CP settlement energy = $(10 - 2) - (2 - 6)$
 $= 8 - (-4) = 12$ (aka 12 units were consumed)

Where the SSP settlement energy would be calculated a normal:

- SSP settlement energy = SSP net (E-B) = $2 - 6$
 $= -4$ (aka 4 units were sent out)

Retailers will be able to calculate the settlement energy for a CP with an SSP associated as they will receive the SSP metering data as part of the LR role.

*Note: this logic is **currently used** for embedded networks.*

7.2.2 Settlement calculation data during network outage.

This example is for a large customer that includes two FRMPs.

If we assume for the previous diagram the metering reads for a TI are:

- CP had a value of 0 on the E (consumption) register and 0 on the B (sent out) register and are substituted each reading includes a reason code reflecting a Network outage, and
- SSP had a value of 0 on the E (consumption) register and 6 on the B (sent out) register

The formula for subtractive settlement energy is:

- CP settlement energy = CP net (E-B) – SSP(s) net (E-B)

During the settlement process the SSP readings will be replaced with 0 reads e.g. SSP E=0 B=0

- CP settlement energy = $(0 - 0) - (0 - 0)$
 $= 0 - 0 = 0$

Where the SSP settlement energy would be calculated a normal:

- SSP settlement energy = SSP net (E-B) = $0 - 0 = 0$

*Note: this logic is **to be replicated** for embedded networks,*

7.3 SSP connection to Large and Small premises

The below diagram identifies the availability of SSPs on Large and Small premises and the relationship to their NEM CP.

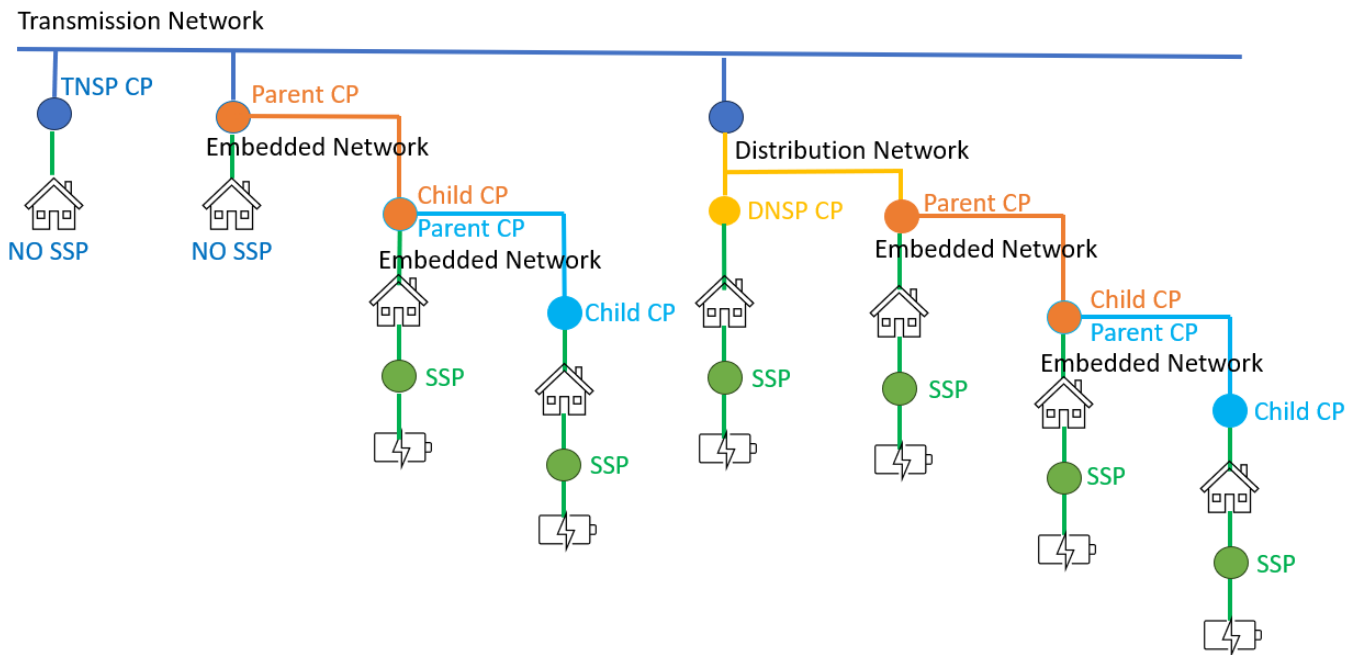


Figure 10 Availability of SSP Connections

CPs on a TNSP will have a NMI classification code of Wholesale and therefore an SSP is not eligible.



7.4 A1. Impact Ratings

Impact rating	Description	Comments
No impact	<ul style="list-style-type: none"> No change's to AEMO systems, processes, guidelines, or procedures. Stakeholder consultation not required. 	<ul style="list-style-type: none"> No changes
Low	<ul style="list-style-type: none"> Low impact to AEMO systems, processes, guidelines, or procedures Stakeholder consultation may be required, or feedback sought. 	<ul style="list-style-type: none"> Minor changes, additions, or updates to AEMO procedures and/or guidelines, purposes of consistency Minor changes, additions, or updates to existing business processes and/or technology systems Stakeholder consultation not anticipated but may be required.
Medium	<ul style="list-style-type: none"> Medium impact to AEMO systems, processes, guidelines, or procedures Stakeholder consultation required. 	<ul style="list-style-type: none"> Material changes or additions to AEMO procedures and/or guidelines Significant changes or additions to existing business processes and/or technology systems Stakeholder consultation required.
High	<ul style="list-style-type: none"> High impact to AEMO systems, processes, guidelines, or procedures Stakeholder consultation required. 	<ul style="list-style-type: none"> Significant changes, additions, or creation of new AEMO procedures, and/or guidelines Significant changes, additions, or the creation of new business processes and/or technology systems Stakeholder consultation required.