



# July 2023 Retail Electricity Market Procedures Consultation

Final Report – Standard consultation  
for the National Electricity Market

**Published: 15 December 2023**

[aemo.com.au](https://aemo.com.au)

New South Wales | Queensland | South Australia | Victoria | Australian Capital Territory | Tasmania | Western Australia  
Australian Energy Market Operator Ltd ABN 94 072 010 327

© 2023 Australian Energy Market Operator Limited. The material in this publication may be used in accordance with the [copyright permissions on AEMO's website](#).

## Executive summary

The publication of this final report (**Report**) concludes the standard consultation procedure conducted by AEMO (**Consultation**) to consider the changes (**Changes**) which have been proposed (**Proposal**) to the Retail Electricity Market Procedures (**REMPs**) under the National Electricity Rules (**NER**), which relate to:

- the three Issues and Change Forms (**ICFs**) raised by the Electricity Retail Consultative Forum (**ERCF**); and
- the additional amendment raised by AEMO.

AEMO thanks all stakeholders for their feedback during the Consultation, which was undertaken as required by NER 8.9.2.

### Consultation Paper

In the Consultation Paper, AEMO sought comment and feedback on the following matters:

- Three ERCF ICFs:
  - A preferred longer-term Net System Load Profile (**NSLP**) Methodology (ICF\_072)
    - Considers situations where positive and negative NSLP trading interval values are present.
  - Substitution Types review (ICF\_054)
    - Intends to provide recipients a clearer understanding of the reason and method used to support a substituted metering data value.
  - Summation Metering Changes (ICF\_073)
    - Proposes to introduce three types of summation arrangements.
- Amendments to the NMI Discovery access for Metering Coordinators (**MCs**)
  - Intends to align the CATS Procedures' NMI Discovery access to NER 7.15.5.

In response to the Consultation Paper, AEMO received 11 written submissions.

These submissions raised the following three material issues:

- Origin Energy raised concerns in respect of the proposal to obsolete Type 16 substitutions, suggesting that the obsolescence would result in the removal of timeframes which are required in respect of 'final substitute sites'.
- PLUS ES did not agree with the proposed definition of the summation arrangements, suggesting the proposed definition had the potential to inadvertently and incorrectly include or exclude circumstances where summation metering should or should not be applied.
- Some MCs and retailers raised concerns that the Consultation Paper did not clearly identify:
  - the intended outcome regarding NMI Discovery access for MCs; or
  - the manner in which the matter would be dealt with in terms of REMF drafting.
- A number of submissions raised several use case scenarios that would be reliant on access to sets of NMI Standing Data for MCs who are not, and never have been, a nominated party at the associated NMI in MSATS.

## Draft Report

After considering the submissions, AEMO determined in the Draft Report to:

- Implement 'Option 1' as the longer-term NSLP methodology, with the effective date of 29 September 2024.
- Implement numerous Substitution Type and Reason Code changes, with the effective date of 29 September 2024, including:
  - the addition of seven new substitution types;
  - the obsolescence of substitution type 16; and
  - the addition of 10 new Reason Codes.
- Implement the three types of summation arrangements, with the effective date of 13 May 2024.
- Change the current NMI Discovery access provisions for MCs, with the effective date of 15 December 2023.
- Remove the existing access of Embedded Network Managers (**ENMs**) to Parent NMI DLF and TNI Codes, with the effective date of 15 December 2023.

In the Draft Report, AEMO proposed to amend the following REMP:

- Metrology Procedure: Part A (effective date, 13 May 2024).
- Metrology Procedure: Part B (effective date, 29 September 2024).
- Meter Data File Format Specification NEM12 and NEM13 (effective date, 29 September 2024).
- Service Level Procedure: Embedded Network Manager (effective date, 15 December 2023)
- MSATS Procedures: Consumer Administration and Transfer Solution (CATS) Procedure Principles and Obligations (effective date, 15 December 2023)

In response, AEMO received feedback concerning the effective date for ICF\_054 Substitution Type and Reason Code changes. After discussion with industry, AEMO has confirmed that the effective date of 4 November 2024 for these changes, as proposed in the Consultation Paper.

## Final Report

After considering the submissions in response to the Draft Report, AEMO's determination in this Final Report is to:

- Implement 'Option 1' as the longer-term NSLP methodology, with the effective date of 29 September 2024.
- Implement numerous Substitution Type and Reason Code changes, with the effective date of 4 November 2024, including:
  - the addition of seven new substitution types;
  - the obsolescence of substitution type 16; and
  - the addition of 10 new Reason Codes.
- Implement the three types of summation arrangements, with the effective date of 13 May 2024.
- Change the current NMI Discovery access provisions for MCs, with the effective date of 15 December 2023.

- Remove the existing access of ENMs to Parent NMI DLF and TNI Codes, with the effective date of 15 December 2023.

AEMO’s final determination is to amend the following REMPs in the form published with this Final Report.

Procedure	Version	Effect Date	Change description
<b>Metrology Procedure: Part A</b>	V7.51	13 May 2024	Inclusion of ICF_073 Summation Metering Changes
<b>Metrology Procedure: Part B</b>	V7.7	29 September 2024	Inclusion of ICF_072 longer term Net System Load Profile methodology changes
<b>Metrology Procedure: Part B</b>	V7.8	4 November 2024	Inclusion of ICF_054 Substitution Types review and additional reason codes
<b>Meter Data File Format Specification NEM12 and NEM13</b>	V2.6	4 November 2024	Inclusion of ICF_054 Substitution Types review and additional reason codes
<b>Service Level Procedure: Embedded Network Manager</b>	V1.2	15 December 2023	Removal of ENM access to DLF Codes and TNI Codes for parent connection points
<b>MSATS Procedures: Consumer Administration and Transfer Solution (CATS) Procedure Principles and Obligations</b>	V5.64	15 December 2023	Alignment of the CATS Procedures’ NMI Discovery access to NER 7.15.5 by removing MC NMI Discovery access

## Contents

<b>Executive summary</b>	<b>3</b>
<b>1. Stakeholder consultation process</b>	<b>7</b>
<b>2. Background</b>	<b>8</b>
2.1. Context for this consultation	8
2.2. NER requirements	13
2.3. The national electricity objective	13
<b>3. List of material issues</b>	<b>15</b>
<b>4. Discussion of material issues</b>	<b>16</b>
4.1. Effective Date of ICF_054 Substitution Types and Reason Codes	16
4.2. NMI Discovery for MCs	16
<b>5. Final determination on proposal</b>	<b>17</b>
<b>Appendix A. Glossary</b>	<b>19</b>
<b>Appendix B. List of Submissions and AEMO Responses</b>	<b>20</b>

### Tables

Table 1 Consultation process and timeline .....	7
Table 2 Proposed NSLP Methodologies .....	8
Table 3 Proposed Substitution Types .....	11
Table 4 List of material issues.....	15
Table 5 Meter Data File Format Specification NEM12 & NEM13.....	20
Table 6 Metrology Procedure Part A.....	25
Table 7 Metrology Procedure Part B.....	28
Table 8 MSATS Procedures: CATS Procedure principles and Obligations.....	35
Table 9 Service Level Procedure Embedded Network Manager Service .....	36
Table 10 Additional Feedback.....	37

# 1. Stakeholder consultation process

AEMO conducted the Consultation in accordance with the standard rules consultation procedure in NER 8.9.2.

This Final Report uses terms defined in the NER, which are intended to have the same meanings. A glossary of additional terms and abbreviations is in Appendix A.

AEMO’s process and timeline for the Consultation are outlined below.

**Table 1 Consultation process and timeline**

Consultation steps	Dates
Net System Load Profile Sub-group discussion	7 March 2023
Substitution Type Review Sub-group discussion	19 May 2023 – 29 June 2023
Consultation Paper published	26 July 2023
Submissions due on Consultation Paper	24 August 2023
ERCF ICF Subgroup ( <b>ERCF_SG</b> ) discussion	13 September 2023
Substitution Type Review Sub-group discussion	18 September 2023
Draft Report published	5 October 2023
Submissions due on Draft Report	3 November 2023
ERCF_SG discussion	13 November 2023
ERCF discussion	27 November 2023
Final Report published	15 December 2023

AEMO’s consultation webpage in respect of the Consultation is at <https://aemo.com.au/en/consultations/current-and-closed-consultations/july-2023-retail-electricity-market-procedures-consultation>. The webpage contains all previous published papers and reports, written submissions, and other consultation documents or reference material (other than material identified as confidential).

## 2. Background

### 2.1. Context for this consultation

#### 2.1.1. Preferred longer-term Net System Load Profile (NSLP) Methodology (ICF\_072)

AEMO’s Meter Data Management (**MDM**) system generates the following load profiles, to support market settlement processes:

- The Five-Minute Load Profiles (**5MLP**) create a profile shape, which is used to convert 30-minute and 15-minute interval metering data into 5-minute trading intervals.
- The Net System Load Profiles (**NSLP**) create a profile shape, which is used to convert accumulation (basic meter) reads, that typically account for consumption over a 90-day period, into 5-minute trading intervals.

In recent years, NSLP volumes have substantially reduced, predominantly due to the rollout of mass interval metering across certain parts of the NEM, including Victoria.

When positive and negative NSLP trading interval values are present, significant fluctuations, or ‘spikes’, are observed when the NSLP is applied to accumulation metering data. These spikes are a consequence of having a small denominator value in the profiling algorithm.

The profiled energy would correctly sum to the original metering data. However, the profiled values may not be representative. Where these ‘spikes’ coincide with high spot/pool prices, unintended consequences may occur, including trading limit breaches.

The Load Profiling Methodology Consultation, conducted in 2022, sought to address these spike-related issues. However, the longer-term solution supporting NSLPs was ultimately decoupled from that consultation process. This decoupling was to allow additional time for industry to complete sufficient analysis and to more comprehensively understand the potential impacts of applying alternative methodologies.

The Consultation Paper set out longer-term methodology options shown in [Table 2](#) alongside an AEMO assessment for each option, with a suggested implementation date of no earlier than October 2024.

**Table 2 Proposed NSLP Methodologies**

Methodology	AEMO Comments
Option 1 – For NSLP values less than a minimum value, set the NSLP value to a minimum (non-zero) value ( <b>Floor</b> ).	Only impacts the reads to be profiled that traverse the low value period. Impact on an individual read varies depending on where it overlaps the profiling period. Simple process and easy to implement and understand. Quasi-UAM approach (where the calculated NSLP is below the threshold value, the application of the revised profile results in the same energy value being calculated and applied for the 5-minute periods).
Option 2 – For NSLP values less than a minimum value, set the NSLP to be the average of the positive NSLP values for the trading day.	Only impacts the reads to be profiled that traverse the low value period. Impact on individual read varies depending on where it overlaps the profiling period. Complexity of methodology and system implementation.



Methodology	AEMO Comments
If all NSLP values for a day < minimum value, set NSLP = minimum (non-zero) value.	Potentially results in a strange energy profile which is inconsistent with expected consumption profile.
Option 3 – For NSLP values less than a minimum value, set the NSLP to the minimum of the positive NSLP values for that trading day. If all NSLP values for a day < minimum value, set NSLP = minimum (non-zero) value.	Only impacts the reads to be profiled that traverse the low value period. Impact on individual read varies depending on where it overlaps the profiling period. Complexity of methodology and system implementation. Potentially results in a strange energy profile which is inconsistent with expected consumption profile.

### 2.1.2. Substitution Types review (ICF\_054)

Substitution types which are associated with small market interval metering are limited. Accordingly, in recent years, substitution approvals have risen dramatically from affected Financially Responsible Market Participants (**FRMPs**), Embedded Network Local Retailers (**ENLRs**) and Local Network Service Providers (**LNSPs**).

These approvals are required where the Metering Data Provider (**MDP**) intends to apply the Type 16 Agreed Method. The associated approval processes:

- result in a substantial amount of administrative effort for all parties;
- may result in delays in the provision of metering data; and
- may result in compliance issues for the MDPs.

Additionally, due to the application of the Type 16 Agreed Method, the underlying cause of the substitution is not easily communicable. For example, the recipient will not be able to distinguish between a situation where the substitution is being provided due to crossed meters or failed phase on 3 phase supply.

The ERCF agreed that the current substitution rules supporting Type 1-4 interval metering needed to be reviewed, given the increasing small Type 4 saturation in the interval meter market.

In particular:

- When compared to Type 4 substitution rules, Type 4A and Type 6 substitution rules allow for greater flexibility and encompass more scenarios in the cases where data may be missing, or the data requires finalisation.
- Where no existing Type 1-4 substitution rule is applicable, a MDP must seek approval from affected participants to use an agreed or alternate methodology through a Type 16 and Type 18 substitution, resulting in an administrative burden on all parties.

Further:

- Given the volume of smart meters installed since Power of Choice (**POC**), the use of Type 18 substitutions has increased, particularly as Planned Interruption Notifications (**PINs**) are required and/or Meter Providers (**MPBs**) are unable to access premises to rectify communications faults in a timely manner.
- When a standard substitution rule can be applied, the period of data requiring substitution may exceed 7 days for Type 1-3 meters and 15 days for all other meters, requiring approval from affected participants to apply a Type 16 substitution method.

These restrictions have made it difficult for MDPs to automate the substitution and provision of metering data in a timely manner.

Whilst bilateral agreements are permitted between MDPs and affected participants to approve the use of Type 16 and Type 18 substitutions effectively automatically, not all participants allow this approach. Accordingly, MDPs communicate via email to wait for approvals before committing a substitution, delaying billing for customers and potentially the settlements process. NEM settlement is also impacted by the inaccuracy of substituted data, where better source data could be used in line with Type 6 metering substitution rules.

The Proposal presented in the Consultation Paper sought to address these issues, to ensure that recipients of the data have a clearer understanding of the exact reason and method used to support the provided meter value, thereby reducing the need for agreements amongst the relevant parties.

The Proposal sought to amend Metrology Procedure: Part B to include new substitution types presented in Table 3, as well as the following four new reasons codes:

- Incorrect Meter Multiplier.
- Device unmetered.
- Customer by-pass.
- Network by-pass.

As a result of feedback on the Consultation Paper, as well as the discussions held with the Substitution Type Working Group on 18 September 2023, the following additional reason codes were added in the Draft Report:

- Transposed Channel.
- Transposed Channel – UoM Correction.
- Transposed Channel – Reverse Polarity.
- Transposed Meter.
- Network by-pass extreme weather
- Defined load method

**Table 3 Proposed Substitution Types**

Substitution Type	Methodology	Possible Use Cases	Changes/Comments
Type 14 – Retrospective Like Day	To perform a type 14 Substitution, the MDP must Substitute missing or erroneous <i>metering data</i> using the <b>nearest equivalent day</b> or <b>like day</b> method, as detailed in Table 1.	Metering data could not be retrieved or where metering data is erroneous.	Name change only from <i>Like Day</i> to <u><i>Retrospective Like Day</i></u>
Type 15 – Retrospective Average Like Day	To perform a type 15 Substitution, the MDP may Substitute for the missing or erroneous <i>metering data</i> using the average <b>like day</b> method, as detailed in Table 2.	Metering data could not be retrieved or where metering data is erroneous but the previous week prior to the affected period is higher or lower than normal.	Name change only from Average <i>Like Day</i> to <u><i>Retrospective Average Like Day</i></u>
Type 16 – Agreed Method	To be made obsolete.	To be made obsolete.	To be made obsolete with the intention that: <ul style="list-style-type: none"> <li>Type 16 may still be used for historical purposes.</li> <li>Type 18 would be used as an alternative.</li> </ul>
Type 20 – Prospective Like Day	To perform a type 20 Substitution, the MDP must Substitute missing or erroneous metering data using the nearest equivalent day or like day method, as detailed in Table 3, where: <ul style="list-style-type: none"> <li>the MDP applies a type 19 Substitution following a Meter Churn and the previous MDP has not provided metering data for the start of the Meter Churn Day: or</li> <li>no historical data is available or applicable.</li> </ul>	New MDP has not received churn data or churn data is not available from the old MDP. New meter installed but no metering data could be retrieved or was erroneous from installation date and where previous data is unavailable or cannot be used.	Name change only from <i>Previously Churn Correction</i> to <u><i>Prospective Like Day</i></u> to allow for other scenarios instead of just meter churn.
Type 22 – Prospective Average Like Day	To perform a type 22 Substitution, the MDP may Substitute for the missing or erroneous metering data using the average like day method, as detailed in Table 4, where: <ul style="list-style-type: none"> <li>the MDP applies a type 19 Substitution following a Meter Churn and the previous MDP has not provided metering data for the start of the Meter Churn Day: or</li> <li>no historical data is available or applicable.</li> </ul>	New MDP has not received churn data or churn data is not available from the old MDP. New meter installed but no metering data could be retrieved or was erroneous from installation date and where previous data is unavailable or cannot be used.	New rule.

Substitution Type	Methodology	Possible Use Cases	Changes/Comments
Type 23 – Previous Year	To perform a type 23 Substitution, the MDP must provide a Substitute using the metering data from the nearest equivalent day or like day from the same, or similar, Meter Reading period in the previous year. The nearest equivalent day or like day is to be determined from Table 3.	Missing or affected data on a connection point where load is seasonal (e.g. increased energy consumption in summer in warmer climates, in extreme heat or in areas where heating is used in winter; factories; agricultural sites for water pumps).	New rule.
Type 24 – Data Scaling	To perform a type 24 Substitution, the MDP must apply a multiplier value to scale any affected erroneous Actual meter reading data either up or down to reflect missing or over-estimated registration.	Where incorrect CT or VT ratios are identified on site; VT failure or meter phase failure occurs resulting in loss of registration to 1 or 2 phases; the meter is programmed with the incorrect multiplier; or the incorrect head end system meter multiplier applied.	New rule.
Type 25 – Average Daily Load (ADL)	Where no other option is available, the substituted period is calculated based on Average Daily Load which may or may not be profiled.	Where no previous interval meter data history is available, but an ADL can be provided from Retailer based on consumption/generation on Type 6 meter. Stacking may be applicable for import channel or export-controlled load.	New rule.

### 2.1.3. Summation Metering Changes (ICF\_073)

As part of POC rule changes in 2017, summation metering was grandfathered, as the transitional arrangements were removed from chapter 9 of the NER.

Since 2017, there have been situations where summation metering could have been useful to minimise market settlement impacts, for example, under rare HV breaker scenarios.

The Consultation Paper proposed to update clause 5 of the Metrology Procedure: Part A to clarify the changes which:

- are acceptable to support legacy summation metering arrangements; and
- will be acceptable in future to support new metering installation summation arrangements.

Specifically, the Proposal sought to revise clause 5, “Summation Metering”, in the Metrology Procedure: Part A, to allow the following three types of summation arrangements:

- HV breaker-and-a-half schemes.
- HV single transformer fed by multiple parallel cables.
- Cross boundary supply single transformer with multiple LV Circuits.

### 1.1.1. Amendments to the NMI Discovery access for Metering Coordinators

NER 7.15.5 explicitly restricts access to NMI Standing Data for MCs, MPs and MDPs. Specifically, NER 7.15.5(c) only allows for access to NMI Standing Data for NMIs where the MC is currently, or previously, appointed. Previously, AEMO had determined to enable access to NMI Standing Data through the MSATS NMI Discovery search facility, despite the NER restriction, in the context of the consultations in relation to ICF\_005. The Proposal in the Consultation Paper sought to realign the CATS Procedures with the NER.

## 2.2. NER requirements

AEMO is responsible for the establishment and maintenance of retail electricity market procedures specified in NER Chapter 7, except for procedures established and maintained under NER 7.17.

The procedures authorised by AEMO under NER Chapter 7 must be established and maintained by AEMO in accordance with the NER consultation procedures.

## 2.3. The national electricity objective

Within the specific requirements of the NER applicable to this proposal, AEMO will seek to make a determination that is consistent with the national electricity objective (**NEO**) and, where considering options, to select the one best aligned with the NEO.

The NEO is expressed in section 7 of the National Electricity Law as:

to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- (a) price, quality, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system; and
- (c) the achievement of targets set by a participating jurisdiction—

- (i) for reducing Australia's greenhouse gas emissions; or
- (ii) that are likely to contribute to reducing Australia's greenhouse gas emissions.

### 3. List of material issues

The key material issues raised in response to the Draft Report are listed in Table 4. Table 4 This Final Report only discusses those issues. The Draft Report covers AEMO’s consideration of the issues which arose during the previous stages of the Consultation.

**Table 4 List of material issues**

No.	Issue	Raised by
1.	Effective date of ICF_054 Substitution Types review	Intellihub
2.	NMI Discovery for MCs	Intellihub

Appendix B details the responses to the Draft Report together with AEMO’s responses.

The material issues in Table 4 are discussed in Section 4.

## 4. Discussion of material issues

### 4.1. Effective Date of ICF\_054 Substitution Types and Reason Codes

#### 4.1.1. Issue summary and submissions

In the Consultation Paper, AEMO proposed two effective dates for ICF\_054 Substitution and reason code changes.

AEMO considered the support for the effective date of 4 November 2024. However AEMO considered that the 4 November 2024 effective date would result in several changes to participant obligations in quick succession. Consequently, AEMO determined that the effective date should be 29 September 2024 in the Draft Report.

In response, Intellihub raised the following issues:

*“While we acknowledge that deciding on the effective start date based on the number of respondents supporting a particular date is a simply quantitative approach, we believe this approach does not consider or address the concerns raised about the volume of system changes already scheduled for 2024 and associated resourcing constraints. We request AEMO reconsiders the effective start date and take into account the impact on participants, for example Energy Queensland, who strongly prefer May 2025 due to resourcing constraints, is considered as one respondent however this respondent represents three participants (Ergon Energy, Energex and Yurika Metering). Another consideration is the participant type, for example this change will impact on MDPs more than other participants therefore feedback from MDPs should be given more weighting.”*

#### 4.1.2. AEMO's assessment

The ERCF ICF Subgroup discussed this issue on 13 November 2023. Several participants continued to support the 4 November 2024 effective date as reflected in responses to the Consultation Paper, noting the date aligned with normal cyclic system changes. While some participants supported the 5 May 2025 effective date, these participants also identified the benefits of implementing these improvements sooner.

#### 4.1.3. AEMO's conclusion

Accordingly, these changes will have the effective date of 4 November 2024.

### 4.2. NMI Discovery for MCs

#### 4.2.1. Issue summary and submissions

Most respondents agreed that AEMO should amend the CATS Procedure to align with NER 7.15.5(c)(2).

Intellihub noted:

*“AEMO agrees that there are valid use cases where NMI Discovery should be provided to a MC who is not the current or previous MC or the NMI and have made submissions to the AEMC to allow for this. We encourage AEMO to further engage with the AEMC to highlight the industry issue and to advocate providing expanded NMI Discovery access to the MC.”*

Intellihub proposed drafting changes to clause 16.2(g)(ii) of the CATS Procedure, such that:



*“An MC must only carry out an MC Standing Data Search on NMIs where they are the Current MC or the Previous MC”.*

#### 4.2.2. AEMO's assessment

AEMO notes that the AEMC has received the rule change request in the context of the AEMC's Review of the Regulatory Framework for Metering Services, which requests that MCs be provided with access rights to NMI Standing Data<sup>1</sup>. AEMO encourages interested parties to engage with the AEMC in this regard, in the context of the AEMC's consultation process.

In the Draft Report, AEMO determined that AEMO is unable to identify any scenario in which an MC might reasonably have access to NMI Discovery. Accordingly, AEMO concludes that all provisions for MC access to NMI Discovery in the MSATS Procedures should be removed, pending the outcome of the AEMC's consultation on the rule change request.

#### 4.2.3. AEMO's conclusion

In future, the AEMC may change MC access rights to NMI Standing Data, in the context of its Review of the Regulatory Framework for Metering Services, or another rule change process.

AEMO must comply with the NEL's protected information provisions, which include the provision of access to NMI Standing Data. NMI Standing Data access through AEMO systems must comply with the NER.

## 5. Final determination on proposal

After considering the responses to the Draft Report, AEMO's final determination is to:

- Implement 'Option 1' as the longer-term NSLP methodology, with the effective date of 29 September 2024.
- Implement Substitution Type and Reason Code changes, with the effective date of 4 November 2024, including:
  - the addition of seven new substitution types;
  - the obsolescence of substitution type 16; and
  - the addition of 10 new Reason Codes.
- Implement the three types of summation arrangements, with the effective date of 13 May 2024.
- Change the current NMI Discovery access provisions for MCs, with the effective date of 15 December 2023.
- Remove the existing access of ENMs to Parent NMI DLF and TNI Codes, with the effective date of 15 December 2023.

AEMO's final determination is to amend the following REMPs in the form published with this Final Report, in accordance with the NER.

---

<sup>1</sup> AEMC: "Accelerating Smart Meter Deployment" <https://www.aemc.gov.au/rule-changes/accelerating-smart-meter-deployment>

Procedure	Version	Effect Date	Change description
<b>Metrology Procedure: Part A</b>	V7.51	13 May 2024	Inclusion of ICF_073 Summation Metering Changes.
<b>Metrology Procedure: Part B</b>	V7.7	29 September 2024	Inclusion of ICF_072 longer term Net System Load Profile methodology changes.
<b>Metrology Procedure: Part B</b>	V7.8	4 November 2024	Inclusion of ICF_054 Substitution Types review and additional reason codes.
<b>Meter Data File Format Specification NEM12 and NEM13</b>	V2.6	4 November 2024	Inclusion of ICF_054 Substitution Types review and additional reason codes.
<b>Service Level Procedure: Embedded Network Manager</b>	V1.2	15 December 2023	Removal of ENM access to DLF Codes and TNI Codes for parent connection points.
<b>MSATS Procedures: Consumer Administration and Transfer Solution (CATS) Procedure Principles and Obligations</b>	V5.64	15 December 2023	Alignment of the CATS Procedures' NMI Discovery access to NER 7.15.5 by removing MC NMI Discovery access.

## Appendix A. Glossary

Term or acronym	Meaning
5MLP	Five-Minute Load Profile
CATS	Consumer Administration and Transfer Solution, a part of MSATS.
ENLR	Embedded Network Local Retailer
ENM	Embedded Network Manager
ERCF	Electricity Retail Consultative Forum
FRMP	Financially Responsible Market Participant
ICF	Issue / Change Form
LNSP	Local Network Service Provider
MDP	Meter Data Provider
MC	Metering Coordinator
MSATS	Market Settlements and Transfer Solution
NEM	National Electricity Market
NEL	National Electricity Law
NER	The National Electricity Rules made under Part 7 of the National Electricity Law
NMI	National Metering Identifier
NSLP	Net System Load Profile
PIN	Planned Interruption Notification
PoC	Proof of Concept
POC	Power of Choice
UAM	Uniform Allocation Method

## Appendix B. List of Submissions and AEMO Responses

**Table 5 Meter Data File Format Specification NEM12 & NEM13**

No.	Section	Description	Stakeholder	Participant Comments	AEMO response
1	Appendix E. Reason codes	Addition of Incorrect Meter Multiplier	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
1	Appendix E. Reason codes	Addition of Incorrect Meter Multiplier	Origin Energy	No comments	
1	Appendix E. Reason codes	Addition of Incorrect Meter Multiplier	Red Energy and Lumo Energy	Red Energy & Lumo Energy (Red & Lumo) agree with this addition.	AEMO notes the respondents support for the change.
2	Appendix E. Reason codes	Addition of Temporarily Connection Point unmetered	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
2	Appendix E. Reason codes	Addition of Temporarily Connection Point unmetered	Origin Energy	No comments	
2	Appendix E. Reason codes	Addition of Temporarily Connection Point unmetered	Red Energy and Lumo Energy	Red & Lumo agree with this addition.	AEMO notes the respondents support for the change.
3	Appendix E. Reason codes	Addition of Customer By-Pass	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
3	Appendix E. Reason codes	Addition of Customer By-Pass	Origin Energy	No comments	
3	Appendix E. Reason codes	Addition of Customer By-Pass	Red Energy and Lumo Energy	Red & Lumo agree with this addition. Further to this Origin Energy notes that customers are unable to bypass their meter. Red & Lumo regularly see instances where a customer has illegally bypassed the meter and this code would be appropriate in those instances.	AEMO notes the respondents support for the change.
3	Appendix E. Reason codes	Addition of Network By-Pass	SA Power Networks	SAPN would like to understand how the MDPs would be able to accurately determine this as the reason.	This was discussed in the ERCF ICF subgroup on 13 November 2023, it was noted by participants that MDPs can be notified several



No.	Section	Description	Stakeholder	Participant Comments	AEMO response
					different ways should a Network Bypass a meter.
4	Appendix E. Reason codes	Addition of Network By-Pass	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
4	Appendix E. Reason codes	Addition of Network By-Pass	Origin Energy	No comments	
4	Appendix E. Reason codes	Addition of Network By-Pass	Red Energy and Lumo Energy	Red & Lumo agree with this addition. However, given the recent addition of “Network by-pass – Extreme Weather”, we suggest the description be updated to reflect this and the Detailed Description stating fault. We suggest the updated description to be “Network By-Pass Meter Fault”	AEMO notes the respondents support for the change.
5	Appendix E. Reason codes	Addition of Transposed Channel	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
5	Appendix E. Reason codes	Addition of Transposed Channel	Origin Energy	No comments	
5	Appendix E. Reason codes	Addition of Transposed Channel	PLUS ES	Transposed codes would rarely get used. Typically the configurations are corrected, and Actual Data is republished. As there is no visibility to the qualification/impact of this requirement it is difficult to support this reason code.	AEMO notes the respondent’s response. This item was discussed in the ERCF ICF Subgroup on 13 November 2023. The subgroup agreed that additional reason codes should not change any business processes, the most appropriate reason code should be used at that point in time and there should be no duplication of reason codes. Based on these criteria, the subgroup saw no harm including these reason codes for those participants who believed they are useful. This reason code has been retained.
5	Appendix E. Reason codes	Addition of Transposed Channel	Red Energy and Lumo Energy	Red & Lumo agree with this addition.	AEMO notes the respondents support for the change.
6	Appendix E. Reason codes	Addition of Transposed Channel - UoM Correction	AGL	AGL supports these changes	AEMO notes the respondents support for the change.



No.	Section	Description	Stakeholder	Participant Comments	AEMO response
6	Appendix E. Reason codes	Addition of Transposed Channel - UoM Correction	Origin Energy	No comments	
6	Appendix E. Reason codes	Addition of Transposed Channel - UoM Correction	PLUS ES	Transposed codes would rarely get used. Typically the configurations are corrected, and Actual Data is republished. As there is no visibility to the qualification/impact of this requirement it is difficult to support this reason	AEMO notes the respondent's response. This item was discussed in the ERCF ICF Subgroup on 13 November 2023. The subgroup agreed that additional reason codes should not change any business processes, the most appropriate reason code should be used at that point in time and there should be no duplication of reason codes. Based on these criteria, the subgroup saw no harm including these reason codes for those participants who believed they are useful. This reason code has been retained.
6	Appendix E. Reason codes	Addition of Transposed Channel - UoM Correction	Red Energy and Lumo Energy	Red & Lumo agree with this addition.	AEMO notes the respondents support for the change.
7	Appendix E. Reason codes	Addition of Transposed Channel – Reverse Polarity	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
7	Appendix E. Reason codes	Addition of Transposed Channel – Reverse Polarity	Origin Energy	No comments	
7	Appendix E. Reason codes	Addition of Transposed Channel – Reverse Polarity	PLUS ES	Transposed codes would rarely get used. Typically the configurations are corrected, and Actual Data is republished. As there is no visibility to the qualification/impact of this requirement it is difficult to support this reason	AEMO notes the respondent's response. This item was discussed in the ERCF ICF Subgroup on 13 November 2023. The subgroup agreed that additional reason codes should not change any business processes, the most appropriate reason code should be used at that point in time and there should be no duplication of reason codes. Based on these criteria, the subgroup saw no harm including these reason codes for those participants who believed they are useful. This reason code has been retained.



No.	Section	Description	Stakeholder	Participant Comments	AEMO response
7	Appendix E. Reason codes	Addition of Transposed Channel – Reverse Polarity	Red Energy and Lumo Energy	Red & Lumo agree with this addition.	AEMO notes the respondents support for the change.
8	Appendix E. Reason codes	Addition of Transposed Meter	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
8	Appendix E. Reason codes	Addition of Transposed Meter	Origin Energy	No comments	
8	Appendix E. Reason codes	Addition of Transposed Meter	Red Energy and Lumo Energy	Red & Lumo agree with this addition.	AEMO notes the respondents support for the change.
9	Appendix E. Reason codes	Addition of Network by-pass extreme weather	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
9	Appendix E. Reason codes	Addition of Network by-pass extreme weather	Origin Energy	No comments	
9	Appendix E. Reason codes	Addition of Network by-pass extreme weather	PLUS ES	PLUS ES does not support this code as it is duplicating another proposed reason code/redundant. <ul style="list-style-type: none"> <li>• Network Bypass is already proposed as a reason code</li> <li>• There is an existing reason code 3 – extreme weather conditions</li> </ul>	AEMO notes the respondent's response. This item was discussed in the ERCF ICF Subgroup on 13 November 2023. The subgroup highlighted the difference in the detailed description of each of these reason types, this reason code has been retained.
9	Appendix E. Reason codes	Addition of Network by-pass extreme weather	Red Energy and Lumo Energy	Red & Lumo agree with this addition.	AEMO notes the respondents support for the change.
9	Appendix E. Reason codes	Addition of Network by-pass extreme weather	SA Power Networks	SAPN would like to understand how the MDPs would be able to accurately determine this as the reason.	AEMO notes the respondent's comment. This was discussed in the ERCF ICF subgroup on 13 November 2023, it was noted by participants that MDPs can be notified several different ways should a Network Bypass a meter.
10	Appendix E. Reason codes	Addition of Defined load method	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
10	Appendix E. Reason codes	Addition of Defined load method	Intellihub	The description does not read well. We suggest adding the word 'provides' as suggested below:	AEMO notes the respondent's comment. The detailed description as been modified in the marked-up procedure

No.	Section	Description	Stakeholder	Participant Comments	AEMO response
				For use where Retailer/LNSP provides profile data based on off-market meter or other measured data that best represents the connection point load.	provided as a part of this consultation.
10	Appendix E. Reason codes	Addition of Defined load method codes	Origin Energy	No comments	
10	Appendix E. Reason codes	Addition of Defined load method codes	PLUS ES	<p>PLUS ES does not support this enumeration as it is a methodology ('method code') rather than a reason code.</p> <p>Type 18 – substitution allows you to substitute with agreement. If we then use the methodology as a reason code, we lose sight of why the data has been amended. i.e. extreme weather, quarantined premises etc.</p>	AEMO notes the respondent's response. This item was discussed in the ERCF ICF Subgroup on 13 November 2023. The subgroup agreed that additional reason codes should not change any business processes, the most appropriate reason code should be used at that point in time and there should be no duplication of reason codes. Based on these criteria, the subgroup saw no harm including these reason codes for those participants who believed they are useful. This reason code has been retained.
10	Appendix E. Reason codes	Addition of Defined load method codes	Red Energy and Lumo Energy	Red & Lumo agree with this addition.	AEMO notes the respondents support for the change.
11	3.3.5	Reason Code	Intellihub	<p>With more reason codes added it should be made clear that there is no obligation on the MDP to create a new version of metering data, with the same consumption and profile as the current version of metering data, just to update the reason code.</p> <p>We suggest updating clause of 3.3.5.a as follow:</p> <p>The MDP must apply the ReasonCode that most accurately reflects the reason for supplying the code or based on the hierarchical</p>	AEMO notes the respondent's comment. This item was discussed in the ERCF ICF Subgroup on 13 November 2023. The subgroup agreed the most appropriate reason code should be used at that point in time, data will not be resent to update to update the reason code.





No.	Section	Description	Stakeholder	Participant Comments	AEMO response
				structure agreed with the FRMP at the time the metering data was substituted. For avoidance of any doubt, there is no obligation on the MDP to create a new version of metering data just to update the ReasonCode.	

**Table 6 Metrology Procedure Part A**

No.	Section	Description	Stakeholder	Participant Comments	AEMO response
1	5.2 New Metering Installation Summation Arrangements	Addition of new section	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
1	5.2 New Metering Installation Summation Arrangements	Addition of new section	Origin Energy	No comments	
1	5.2 New Metering Installation Summation Arrangements	Addition of new section	PLUS ES	<p>Whilst PLUS ES has not currently identified additional scenarios, it does not preclude their eventuation. For this purpose the allowed summation metering arrangements are better described in terms of objectives and conditions that must be met, so that it can accommodate variations of circumstances. If it is, instead, limited to explicit examples (as presently written), it will cause future compliance problems when these variations arise that meet the objective, but were not included on the original list of explicit examples. The following alternative is for consideration: 5.2 could be re-written as follows:</p>	<p>As previously stated, AEMO has reintroduced summation for scenarios where it is absolutely necessary, and no other option was viable. There are only a few common ones that have been identified and these have been included in the Metrology Procedure.</p> <p>AEMO acknowledges PLUS ES's comment around potential future scenarios that have not yet been considered, therefore, AEMO has inserted clause (e). This will ensure that only the absolute necessary scenarios are considered and validated, and if acceptable would be included in future updates to the Metrology Procedure as an acceptable option.</p>



No.	Section	Description	Stakeholder	Participant Comments	AEMO response
				<p>Summation metering is only permitted for single connection point circumstances where a physical restriction prevents the installation of single current transformers over all conductors of each phase.</p> <p>Any proposed summation metering arrangement must be approved by AEMO before implementation.</p> <p>Examples of circumstances considered for summation metering may include HV breaker-and-a-half schemes, HV single transformer fed by multiple paralleled cables, and cross boundary supplies with multiple LV secondary circuits.</p>	
1	5.2 New Metering Installation Summation Arrangements	Addition of new section	Red Energy and Lumo Energy	Red & Lumo note the marked draft v751 was incorrectly numbered and was adding a section 5 and renumbering the following sections. Summation metering was already included in the Metrology Part A as section 5. Red & Lumo have no further feedback.	AEMO notes the respondent's comment.
2	2.3 Summation Method	Addition of new section	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
2	2.3 Summation Method	Addition of new section	Origin Energy	No comments	
2	2.3 Summation Method	Addition of new section	PLUS ES	While the paralleling CT method is approved, it should be (a) documented with the obligations to be designed to meet the accuracy performance requirements of the Rules and (b) alternative methods of summation should not be precluded because they may be demonstrated to be equivalent or superior to existing methods. Moreover,	<p>AEMO notes the respondent's comments.</p> <p>Proposed changes to 5.3(a) and (b) have been accepted.</p> <p>5.3(c) is to be retained as summation CTs will introduce additional to the secondary circuits.</p>



No.	Section	Description	Stakeholder	Participant Comments	AEMO response
				<p>there is already protection against the installation of non-compliant summation systems due to the requirement for AEMO to approve <b>all</b> new summation systems prior to installation.</p> <p>An improvement is also suggested in the wording for the termination of secondary conductors.</p> <p>5.3 should be modified as follows:</p> <p>These provisions detail the summation method that can be used for new summation metering installations described in 5.2.</p> <p>Summation metering <b>is can be</b> achieved by paralleling CT secondary circuits, <b>so long as</b> the overall metering installation meets the minimum standards and overall error <b>performance requirements</b> for a new metering installation under all load combinations of the individual CT secondary circuits conditions for the connection point and its individual conductors as measured by individual CTs.</p> <p>CT secondary circuits can only be paralleled using appropriate arrangements of links <b>terminating individual conductors</b>; this must not be done at the meter terminals.</p> <p><b>The use of additional summation CTs within the metering installation is not permitted.</b></p>	<p>The marked-up procedures reflect these changes.</p>



No.	Section	Description	Stakeholder	Participant Comments	AEMO response
2	2.3 Summation Method	Addition of new section	Red Energy and Lumo Energy	Red and Lumo note this response template document to be incorrect as it lists this section as 2.3, when it is in fact 5.3 Summation Method, we do note however the marked draft v751 has been added correctly. Red & Lumo have no further feedback.	AEMO notes the respondent's comment.
3	5.1 Legacy Summation Arrangements		PLUS ES	<p>Suggested addition to the text to ensure that conductors are not doubled-up, whether that would be terminals in a marshalling box or in the terminals of a meter. The purpose of this is to allow access to individual instrument transformers for testing, without disturbing the integrity of any part of the secondary circuit.</p> <p>An improvement is also suggested in the wording for the termination of secondary conductors.</p> <p>5.1(c) should be modified as follows:</p> <p>CT secondary circuits can only be paralleled using appropriate arrangement of links <b>terminating individual conductors</b>: this must not be done at the meter terminals.</p>	AEMO notes the respondent's comment. The marked-up procedures reflect changes to section 5.1(c).

Table 7 Metrology Procedure Part B

No.	Section	Description	Stakeholder	Participant Comments	AEMO response
1	2.6 Summary table of Substitution	Edited to include: <ul style="list-style-type: none"> <li>• Rewording of type 14, type 15 and type 20</li> <li>• Obsolescence of type 16</li> </ul>	AGL	AGL supports these changes	AEMO notes the respondents support for the change.



No.	Section	Description	Stakeholder	Participant Comments	AEMO response
		<ul style="list-style-type: none"> <li>• Addition of new substitution types 22,23,24,25.</li> </ul>			
1	2.6 Summary table of Substitution	Edited to include: <ul style="list-style-type: none"> <li>• Rewording of type 14, type 15 and type 20</li> <li>• Obsolescence of type 16</li> <li>• Addition of new substitution types 22,23,24,25.</li> </ul>	Origin Energy	Origin acknowledges the decision proposed by the ERCF sub-group based on our previous submission and has no further feedback on this change.	AEMO notes the respondent's comment.
1	2.6 Summary table of Substitution	Edited to include: <ul style="list-style-type: none"> <li>• Rewording of type 14, type 15 and type 20</li> <li>• Obsolescence of type 16</li> <li>• Addition of new substitution types 22,23,24,25.</li> </ul>	Red Energy and Lumo Energy	Red & Lumo agree with these changes.	AEMO notes the respondents support for the change.
2	3.2 Substitution types	Edit of substitution types in (f) Addition of (g) (i) and (ii)	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
2	3.2 Substitution types	Edit of substitution types in (f) Addition of (g) (i) and (ii)	Intellihub	<p>We note the words 'MDPs may change the quality flag to an existing type 16 or 18 Substitution without seeking further agreement from those parties' has been removed from clause 3.2.g. We suggest that this be re-instated without reference to type 16 because once agreement is obtained then subsequently changing the quality flag should not require the manual process of seeking agreement again.</p> <p>We suggest adding an additional sentence to the end of clause 3.2.g.ii as follow:</p> <p>For Type 18, the party initiating a change in metering data must consult with the MDP and use reasonable endeavours to reach an agreement with the affected FRMP(s), ENLR (where appropriate) and the LNSP for the connection point. Should the affected participants not respond within</p>	AEMO notes the respondent's comment. Change marked procedures reflect 3.2(g)(iii) reinstated for type 18 Substitution.

No.	Section	Description	Stakeholder	Participant Comments	AEMO response
				2 business days, then the proposal will be taken as accepted until further communication is undertaken. MDPs may change the quality flag to an existing type 18 Substitution without seeking further agreement.	
2	3.2 Substitution types	Edit of substitution types in (f) Addition of (g) (i) and (ii)	Origin Energy	No comments	
2	3.2 Substitution types	Edit of substitution types in (f) Addition of (g) (i) and (ii)	Red Energy and Lumo Energy	Red & Lumo agree with the change and additions.	AEMO notes the respondents support for the change.
3	3.3.4 Type 14 – Like Day	Rewording to Type 14 – Retrospective Like Day	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
3	3.3.4 Type 14 – Like Day	Rewording to Type 14 – Retrospective Like Day	Origin Energy	No comments	
3	3.3.4 Type 14 – Like Day	Rewording to Type 14 – Retrospective Like Day	Red Energy and Lumo Energy	Red & Lumo agree with this rewording.	AEMO notes the respondents support for the change.
4	3.3.5 Type 15 – Average Like Day	Reworded to Type 15 – Retrospective Average Like Day	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
4	3.3.5 Type 15 – Average Like Day	Reworded to Type 15 – Retrospective Average Like Day	Origin Energy	No comments	
4	3.3.5 Type 15 – Average Like Day	Reworded to Type 15 – Retrospective Average Like Day	Red Energy and Lumo Energy	Red & Lumo agree with this rewording.	AEMO notes the respondents support for the change.
5	3.3.6 Type 16 – Agreed Method	Reworded to obsolete Type 16 – Agreed Method	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
5	3.3.6 Type 16 – Agreed Method	Reworded to obsolete Type 16 – Agreed Method	Origin Energy	No comments	
5	3.3.6 Type 16 – Agreed Method	Reworded to obsolete Type 16 – Agreed Method	Red Energy and Lumo Energy	Red & Lumo agree with making “Type 16 agreed method” obsolete.	AEMO notes the respondents support for the change.
6	3.3.8 Type 18 – Alternative	Reference for 3.2 (g)(ii) added Addition of (d)	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
6	3.3.8 Type 18 – Alternative	Reference for 3.2 (g)(ii) added Addition of (d)	Origin Energy	No comments	

No.	Section	Description	Stakeholder	Participant Comments	AEMO response
6	3.3.8 Type 18 – Alternative	Reference for 3.2 (g)(ii) added Addition of (d)	Red Energy and Lumo Energy	Red & Lumo agree the additions.	AEMO notes the respondents support for the change.
7	3.3.10 Type 20 – Churn Correction	Rewording to Type 20 – Propsective Like Day Use definition edited	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
7	3.3.10 Type 20 – Churn Correction	Rewording to Type 20 – Propsective Like Day Use definition edited	Intellihub	Table 3 is referenced by Type 20 and Type 23, with Type 20 now allowing for scenarios that is not related to a meter churn and Type 23 also allowing for scenarios that is not related to a meter churn. However, table 3 still describes the approach using the term 'Churn Day'. For avoidance of confusion, we suggest the term 'Churn Day' in table 3 be replaced with 'Substitution Day' (similar to the approach described in table 1).	AEMO notes the respondent's response. Change marked procedures reflect amendment to Table 3 to include a reference to Substitution Day so that Table 3 supports Type 20 and Type 23 substitutions.
7	3.3.10 Type 20 – Churn Correction	Rewording to Type 20 – Propsective Like Day Use definition edited	Origin Energy	No comments	
7	3.3.10 Type 20 – Churn Correction	Rewording to Type 20 – Propsective Like Day Use definition edited	Red Energy and Lumo Energy	Red & Lumo agree with this rewording.	AEMO notes the respondents support for the change.
8	3.3.12 Type 22 – Prospective Average Like Day	New Substitution definition added Addition of table 4	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
8	3.3.12 Type 22 – Prospective Average Like Day	New Substitution definition added Addition of table 4	Origin Energy	No comments	
8	3.3.12 Type 22 – Prospective Average Like Day	New Substitution definition added Addition of table 4	Red Energy and Lumo Energy	Red & Lumo agree with the additions.	AEMO notes the respondents support for the change.
9	3.3.13 Type 23 – Previous Year	New Substitution definition added	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
9	3.3.13 Type 23 – Previous Year	New Substitution definition added	Origin Energy	No comments	



No.	Section	Description	Stakeholder	Participant Comments	AEMO response
9	3.3.13 Type 23 – Previous Year	New Substitution definition added	Red Energy and Lumo Energy	Red & Lumo agree with the additions.	AEMO notes the respondents support for the change.
10	3.3.14 Type 24 – Data Scaling	New Substitution definition added	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
10	3.3.14 Type 24 – Data Scaling	New Substitution definition added	Origin Energy	No comments	
10	3.3.14 Type 24 – Data Scaling	New Substitution definition added	Red Energy and Lumo Energy	Red & Lumo agree with the additions.	AEMO notes the respondents support for the change.
11	3.3.15 Type 25 - ADL	New Substitution definition added	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
11	3.3.15 Type 25 - ADL	New Substitution definition added	Intellihub	<p>We note this substitution type has a criterion of ‘Where no other option is available’ which suggests that this option should only be used where other options have been exhausted. We believe this criterion should be removed and instead allow the MDP to determine when this substitution type should be used. For example, an ADL based on the customer’s profile (type 25) may be better than the previous year data (type 23) if the customer recently installed solar. Given the FRMP or LNSP may request the MDP to change the substitution if it is not appropriate then we believe it is in the MDP’s interest to choose the most appropriate substitution type the first time. Leaving the criterion as is for type 25 would restrict the MDP from choosing the most appropriate substitution type.</p> <p>We suggest the description for type 25 be updated to: To perform a type 25 Substitution, the substituted</p>	AEMO notes the respondent’s comment.





No.	Section	Description	Stakeholder	Participant Comments	AEMO response
				period is calculated based on Average Daily Load which may or may not be profiled.	
11	3.3.15 Type 25 - ADL	New Substitution definition added	Origin Energy	No comments	
11	3.3.15 Type 25 - ADL	New Substitution definition added	Red Energy and Lumo Energy	Red & Lumo agree with the additions.	AEMO notes the respondents support for the change.
12	11.2.1 NSW	Reference amended to 12.9.2	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
12	11.2.1 NSW	Reference amended to 12.9.2	Origin Energy	Origin supports the proposed change	AEMO notes the respondents support for the change.
12	11.2.1 NSW	Reference amended to 12.9.2	Red Energy and Lumo Energy	Red & Lumo note currently Part B references the incorrect section of Part A and needs to be updated to 12.9.2.	AEMO notes the respondent's comment. This change has been reflected in the change marked procedures.
15	11.2.2 Queensland	Reference amended to 12.9.2	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
15	11.2.2 Queensland	Reference amended to 12.9.2	Origin Energy	Origin supports the proposed change	AEMO notes the respondents support for the change.
15	11.2.2 Queensland	Reference amended to 12.9.2	Red Energy and Lumo Energy	Red & Lumo note currently Part B references the incorrect section of Part A and needs to be updated to 12.9.2.	AEMO notes the respondent's comment. This change has been reflected in the change marked procedures.
16	11.2.3 South Australia	Reference amended to 12.9.2	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
16	11.2.3 South Australia	Reference amended to 12.9.2	Origin Energy	Origin supports the proposed change	AEMO notes the respondents support for the change.
16	11.2.3 South Australia	Reference amended to 12.9.2	Red Energy and Lumo Energy	Red & Lumo note currently Part B references the incorrect section of Part A and needs to be updated to 12.9.2.	AEMO notes the respondent's comment. This change has been reflected in the change marked procedures.
17	11.3.1 NSW & Queensland	Reference amended to 12.9.2	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
17	11.3.1 NSW & Queensland	Reference amended to 12.9.2	Origin Energy	Origin supports the proposed change	AEMO notes the respondents support for the change.
17	11.3.1 NSW & Queensland	Reference amended to 12.9.2	Red Energy and Lumo Energy	Red & Lumo note currently Part B references the incorrect	AEMO notes the respondent's comment. This change has been



No.	Section	Description	Stakeholder	Participant Comments	AEMO response
				section of Part A and needs to be updated to 12.9.2.	reflected in the change marked procedures.
18	11.3.2 South Australia	Reference amended to 12.9.2	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
18	11.3.2 South Australia	Reference amended to 12.9.2	Origin Energy	Origin supports the proposed change	AEMO notes the respondents support for the change.
18	11.3.2 South Australia	Reference amended to 12.9.2	Red Energy and Lumo Energy	Red & Lumo note currently Part B references the incorrect section of Part A and needs to be updated to 12.9.2.	AEMO notes the respondent's comment. This change has been reflected in the change marked procedures.
19	11.4.1 Net System Load Profile	Reference amended to 12.9.2	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
19	11.4.1 Net System Load Profile	Reference amended to 12.9.2	Origin Energy	Origin supports the proposed change	AEMO notes the respondents support for the change.
19	11.4.1 Net System Load Profile	Reference amended to 12.9.2	Red Energy and Lumo Energy	Red & Lumo note currently Part B references the incorrect section of Part A and needs to be updated to 12.9.2.	AEMO notes the respondent's comment. This change has been reflected in the change marked procedures.
20	11.4.2 Floor Value	Addition of new section in respect to the NSLP	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
20	11.4.2 Floor Value	Addition of new section in respect to the NSLP	Origin Energy	Origin supports the proposed change	AEMO notes the respondents support for the change.
20	11.4.2 Floor Value	Addition of new section in respect to the NSLP	Red Energy and Lumo Energy	Red & Lumo agree with the additions.	AEMO notes the respondents support for the change.
21	11.4.3 NSLP TI values below floor value	Addition of new section in respect to the NSLP	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
21	11.4.3 NSLP TI values below floor value	Addition of new section in respect to the NSLP	Origin Energy	Origin supports the proposed change	AEMO notes the respondents support for the change.
21	11.4.3 NSLP TI values below floor value	Addition of new section in respect to the NSLP	Red Energy and Lumo Energy	Red & Lumo agree with the additions.	AEMO notes the respondents support for the change.
22	11.5 Accumulation Meter Profiler – Net System Load Profile	Amended of reference to 12.9.2 in (a)	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
22	11.5 Accumulation Meter Profiler – Net System Load Profile	Amended of reference to 12.9.2 in (a)	Origin Energy	Origin supports the proposed change	AEMO notes the respondents support for the change.



No.	Section	Description	Stakeholder	Participant Comments	AEMO response
22	11.5 Accumulation Meter Profiler – Net System Load Profile	Amended of reference to 12.9.2 in (a)	Red Energy and Lumo Energy	Red & Lumo note currently Part B references the incorrect section of Part A and needs to be updated to 12.9.2. We also agree to to the updated wording to include a reference to 11.4	AEMO notes the respondent's comment. This change has been reflected in the change marked procedures.

**Table 8 MSATS Procedures: CATS Procedure principles and Obligations**

No.	Section	Description	Stakeholder	Participant Comments	AEMO response
1	16.2 Participant	Removal of (h)	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
1	16.2 Participant	Removal of (h)	Intellihub	<p>We are disappointed with the proposal to remove the MC NMI Discovery unless we are the current or previous MC for the NMI because this hinders our ability to operate effectively when providing services to customers and retailers.</p> <p>We note AEMO's decision for the draft determination is based on aligning the MSATS Procedure with the Rules which we do understand although it is not the outcome that best support customers and the industry.</p> <p>We also note AEMO agrees that there are valid use cases where NMI Discovery should be provided to a MC who is not the current or previous MC for the NMI and have made submissions to the AEMC to allow for this. We encourage AEMO to further engage with the AEMC to highlight the industry issue and to advocate providing expanded NMI Discovery access to the MC.</p>	AEMO notes that a rule change request has been received by the AEMC with regard to the matters discussed in their review of the regulatory framework for metering services that requests MCs be provided with access rights to NMI Standing Data. AEMO encourages parties interested in this matter to engage with the AEMC processes upon the commencement of a rule change consultation.
1	16.2 Participant	Removal of (h)	Origin Energy	No comments	

No.	Section	Description	Stakeholder	Participant Comments	AEMO response
1	16.2 Participant	Removal of (h)	Red Energy and Lumo Energy	Red & Lumo agree to the removal.	AEMO notes the respondents support for the change.
2	16.2 Participant	Rewording of (i) Removal of (i) (ii)	AGL	AGL supports these changes	AEMO notes the respondents support for the change.
2	16.2 Participant	Rewording of (i) Removal of (i) (ii)	Origin Energy	No comments	
2	16.2 Participant	Rewording of (i) Removal of (i) (ii)	Red Energy and Lumo Energy	Red & Lumo agree to the rewording and the removal. However, note the marked-up changes are not correctly marked up.	AEMO notes the respondent's comment.
3	16.2 Participant	Rewording of (g) (ii)	Intellihub	We understand that clause 7.15.5 of the NER allows the current MC and previous MC access to NMI stand data. Therefore we suggest clause 16.2.g.ii be updated to include the previous MC, we suggest the following wording:  An MC must only carry out an MC Standing Data Search on NMIs where they are the Current MC or the Previous MC.	AEMO noted in the draft determination that it is unable to identify any scenario in which an MC might reasonably have access to NMI Discovery. Accordingly, AEMO concludes that all provisions for MC access to NMI Discovery in the MSATS Procedures should be removed.

**Table 9 Service Level Procedure Embedded Network Manager Service**

No.	Section	Description	Stakeholder	Participant Comments	AEMO response
1	4.2.1 Overview	Removal of (f)	AGL	AGL understands the need for this change, but also appreciates the issue which impacts the ENM and supports a change which enables the ENM to manage changes to the parent NMI which impact the child NMIs.	AEMO notes the respondent's comment.
1	4.2.1 Overview	Removal of (f)	Origin Energy	No comments	
1	4.2.1 Overview	Removal of (f)	PLUS ES	Aligned with the provisions of NER 7.15.5(c)(6) - that an ENM may access NMI Standing Data at a child connection point, not a parent connection point, PLUS ES recommends that the ENM obligations of clause 4.1 (d) NMI Allocation (ENM SLP) are updated and the sub clauses which the ENM cannot fulfill compliantly are removed. That is, assigning TNI, DLF etc., if they are not entitled to access the information, the how they access it is irrelevant, and hence they should not be required to populate it.	NER 7.15.5 does not prevent an end user from providing information in relation to their connection point to any party of their choosing. Whilst it



No.	Section	Description	Stakeholder	Participant Comments	AEMO response
				<p>(d) Create the Child NMI in MSATS using Create NMI Change Request 2020, 2021, 2520, or 2521. When creating the Child NMI the ENM must:</p> <ul style="list-style-type: none"> <li>(i) Assign the TNI Code<sup>2</sup> of the Parent NMI to the Child NMI;</li> <li>(ii) Link the Child NMI to the Parent NMI by assigning the same Embedded Network Code of the Parent NMI to the Child NMI in the "Child Name" field; and</li> <li>(iii) Assign the appropriate DLF Code to the Child NMI.</li> </ul> <p>Additionally, a review and update of obligations is required with respect to the CATS procedures, including but not limited to:</p> <ul style="list-style-type: none"> <li>• Clause 4.12 (e) and (f) – Provisioning of Parent NMI</li> <li>• Clause 9.2.4(c) – Provisioning of parent NMI fields as a 'must' in CRs</li> <li>• Clause 9.2.4 (c) – Provisioning of parent NMI fields as a 'must' in CRs</li> <li>• Clause 12.2.5 (b) - Provisioning of parent NMI fields as a 'must' in CRs</li> </ul>	might be an inelegant process in comparison to say, direct access to the NMI Discovery Search facility, it appears reasonable to consider that ENMs could obtain this information from the party to whom they are contracted to provide ENM services.
1	4.2.1 Overview	Removal of (f)	Red Energy and Lumo Energy	Red & Lumo agree to the removal.	AEMO notes the respondent's comment.

**Table 10 Additional Feedback**

No.	Participant Comments	Stakeholder	AEMO response
1	AGL has no further feedback at this time.	AGL	
1	<p>With regards to the effective start date for ICF_054 (substitution and reason code changes), AEMO acknowledged that 5 participants supported November 2024 and 4 participants supported May 2025 due to '...the volume of system changes already scheduled for 2024 and associated resourcing constraints'. AEMO then considered an effective start date of 4 November 2024 would result in several changes to Participant obligations in quick succession and in the end stated that 'AEMO agrees with most respondents that the effective date should be 29 September 2024'.</p> <p>While we acknowledge that deciding on the effective start date based on the number of respondents supporting a particular date is a simply quantitative approach, we believe this approach does not consider or address the concerns raised about the volume of system changes already scheduled for 2024 and associated resourcing constraints. We request AEMO reconsiders the effective start date and take into account the impact on participants, for example Energy Queensland, who strongly prefer May 2025 due to resourcing constraints, is considered as one respondent however this respondent represents three participants (Ergon Energy, Energex and Yurika Metering). Another consideration is the participant type, for example this change will impact on MDPs more than other participants therefore feedback from MDPs should be given more weighting.</p>	Intellihub	<p>AEMO notes the respondent's response. This issue was raised and discussed at the ERCF ICF subgroup on 13 November 2023. Several participants were supportive of a 4 November 2024 effective date and while some participants supported a May 2025 implementation date, these participants understood the benefits of implementing these improvements sooner.</p> <p>As a result of this feedback, these changes will have an implementation date of 4 November 2024.</p>

No.	Participant Comments	Stakeholder	AEMO response
	We believe that May 2025 is a reasonable date, given it was put forward as an option, and this date addresses the concerns of the volume of system changes already scheduled for 2024 and associated resourcing constraints.		
1	No further comments	Origin Energy	
1	<b>Access data rights</b> – PLUS ES recognises the constraints the Rules present from a compliance perspective. Resolution/remediation of BAU tasks which require access to information no longer available, have ceased, in the absence of alternative compliant mechanisms, resulting in poor customer outcomes. Whilst a rule change is an evident requirement, it does not appear to be an achievable outcome within the near future.	PLUS ES	AEMO notes the respondent's comment.
1	<b>Section 5 – Other matters</b> – Participation in the ERCF Substitution Type Review subgroup was restricted. Qualification against each proposed reason code should have been provided in the Draft Determination to allow industry to make an informed decision and deliver an efficient review.	PLUS ES	AEMO notes the respondent's comment. While the initial review was conducted by a MDP working group, a 'Substitution Type review' workshop was held by AEMO on 30 August 2022 open to all members of the ERCF. An ERCF subgroup was established from the initial workshop representing different industry participant categories. Based on feedback from the ERCF, AEMO has recently established the "ERCF ICF Subgroup" in order to provide more robust analysis in regard to ICFs.
1	<p>Per the comments above regarding the MSATS Procedures: CATS Procedure Principles and Obligations and not being correctly marked up. Please see below for the correct markups commencing at 16.2.(g)</p> <p>(g) When initiating NMI Discovery Search 3, a retailer must ensure:</p> <p>(i) When using the reason code of TRI (Transferred In Error), they are the Current FRMP or the most recent previous FRMP for a given NMI. (This applies where the Current FRMP needs to request a retailer to transfer back a NMI transferred in error or the most recent previous FRMP has identified another retailer has transferred the NMI in error and is seeking to transfer it back.)</p> <p>(ii) When using the reason code of NNS (New NMI Setup Error – see Table 16-B), the NMI was created in the past 130 business days from the NMI Discovery Search 3 date.</p> <p>(h) An MC may seek access to NMI Standing Data from MSATS in accordance with section 16.3.5 only for the purpose of identifying the NMI Classification of 'LARGE' in order to arrange a change of MC.</p> <p>(i)(h) An current or prospective MC must:</p> <p>(i) only carry out an MC Standing Data Search on NMIs where they are the Current MC.; or</p> <p>(ii) only perform MC Standing Data Search activity for the purpose of responding to a request from a large customer/retailer to assist in the appointment of the prospective MC.</p> <p>(j)(i) The LNSP must:</p>	Red Energy and Lumo Energy	AEMO noted in the draft determination that it is unable to identify any scenario in which an MC might reasonably have access to NMI Discovery. Accordingly, AEMO concludes that all provisions for MC access to NMI Discovery in the MSATS Procedures should be removed, therefore wording relating to MC access rights has been removed.



No.	Participant Comments	Stakeholder	AEMO response
	<p>(i) Only carry out a NMI Discovery Search 1 on any NMIs where they are the Current LNSP.</p> <p>(ii) Only perform NMI Discovery Search 1 within its local area for the purpose of responding to a request from a retailer to assist in the resolution of a NMI Standing Data problem, or to perform quality checks of its data within MSATS.</p> <p>(iii) Only carry out a NMI Discovery Search 2 on any NMIs where they are the Current LNSP.</p> <p>(iv) Only perform NMI Discovery Search 2 activity within its local area for the purpose of responding to a request from a retailer to assist in the resolution of a NMI Standing Data problem, or to perform quality checks of its data within MSATS.</p> <p>(k)(j) The ENM must only carry out a:</p> <p>(i) NMI Discovery Search 1 on any NMIs where they are the Current ENM.</p> <p>(ii) NMI Discovery Search 2 on any NMIs where they are the Current ENM.</p>		
1	<p>SAPN is concerned that the additional reason codes will require new process for the LNSP to support the MDP in determining when to apply some of these reason codes as highlighted in section 2 above. Should additional work is required for the LNSP to support the MDP in determining the use of these new reason codes, then Cost and Benefit Analysis should be carried out demonstrating sufficient benefits can be provided to the customer to support the creation of any additional work load, effort and cost.</p>	SA Power Networks	<p>AEMO notes the respondent's comment. This was discussed at the ERCF ICF Subgroup on 13 November 2023. Participant feedback was that there is no significant industry impact if additional reason codes are included.</p>