

METERING ICF PACKAGE

FINAL REPORT AND DETERMINATION

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EXECUTIVE SUMMARY

The publication of this Final Report and Determination (Final Report) concludes the Rules consultation process conducted by AEMO on various NEM metering procedures to implement recommended process improvements from proponents and AEMO and update the procedures to align with changed rule references under the National Electricity Rules (NER).

On 22 July 2019, AEMO published its Draft Report for this package of amendments, called the Metering ICF Package.

The Draft Report detailed proposed amendments to the:

- MSATS Procedures: CATS
- MSATS Procedures: WIGS
- Metrology Procedure: Part A
- Metrology Procedure: Part B
- Service Level Procedure: Metering Data Provider Services
- Service Level Procedure: Metering Provider Services
- Service Level Procedure: Embedded Network Manager Services
- Exemption Procedure: Meter Installation Malfunctions

AEMO received 12 submissions (including three late submissions) from retailers, Local Network Service Providers (LNSPs), Metering Coordinators (MCs), Meter Providers (MPs), Metering Data Providers (MDPs) and intending participants. AEMO also held one meeting with PlusES and Vector AMS on 9 August 2019.

From these submissions and its own analysis, AEMO identified seven material issues. These issues are addressed in this Final Report, on the topics of:

- Updating MSATS about remote de-energisation and remote re-energisation
- Defining timeframes for updating datastreams in MSATS
- CT and VT Standards to include IEC61869
- Linear interpolation substitution type for accumulation metering installations
- Clarifying communication for identification of incorrect NMI and metering installation
- Delivery of metering data while the NMI status is not Active
- Verification of Metering Data for whole current Small Customer Metering Installations, Type 4A, 5, 6 and 7 Metering Installations

After considering the submissions and evaluating comments against the requirements of the NER and the Amending Rules, AEMO's Final determination amends various clauses across the metering procedures to provide clarity on specific issues highlighted. Overall, there was broad support from multiple respondents for the proposed amendments from the initial and draft stages of consultation.

AEMO's final determination amends the metering procedures in the form published with this Final Report. AEMO proposes the changes will take effect from 20 May 2020.



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1. STAKEHOLDER CONSULTATION PROCESS

As required by clause 7.16.7 of the NER, AEMO consulted on recommended process improvements from proponents and AEMO and updates to various metering procedures to align the procedures with changed rule references. The consultation was conducted in accordance with the Rules consultation procedures in Rule 8.9 of the NER.

The table below outlines the consultation steps AEMO has undertaken.

Deliverable	Indicative date
Notice of first stage consultation and Issues Paper published	20 May 2019
First stage submissions closed	24 June 2019
Draft Report & Notice of second stage consultation published	22 July 2019
Submissions due on Draft Report	6 August 2019
Final Report published	17 September 2019

The publication of this Final Report marks the completion of the consultation and presents AEMO's response to the feedback received.

Note that there is a glossary of terms used in this Final Report at Appendix A.

2. BACKGROUND

2.1. NER requirements

AEMO is responsible for the establishment and maintenance of metering procedures specified in Chapter 7 of the NER except for procedures established and maintained under Rule 7.17.

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

2.2. Context for this consultation

A number of changes to the NER have occurred in recent years, including the *National Electricity Amendment (Metering Installation Timeframes) Rule 2018 No. 15*, requiring changes to the clause numbers referenced in AEMO's metering procedures. In addition, a number of metering issues have been raised in AEMO's consultation through the Electricity Retail Consultative Forum (ERCF).

The ERCF allows interested parties to raise issues and proposed changes to AEMO's Retail Electricity Market Procedures. Procedural changes are raised at the ERCF using issue change forms (ICFs) Over the course of 2019, a number of issues have been raised by both industry proponents and AEMO (Table 1). Proposed changes have been reviewed by the ERCF.

Details on forums and groups specific to NEM Electricity Retail are available on AEMO's website: <http://www.aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups>.

Table 1 Proposed changes

ID	Subject	Document changing
ICF_007	Updating MSATS about remote de-energisation and remote re-energisation	MSATS Procedures: CATS
ICF_008	Define timeframes for updating datastreams in MSATS	MSATS Procedures: CATS



ID	Subject	Document changing
ICF_011	Clarifying the LNSP's obligations in relation to creating Embedded Network Codes	MSATS Procedures: CATS
ICF_M002	CT and VT Standards to include IEC61869	Metrology Procedure: Part A
ICF_M003	Linear interpolation substitution type for accumulation metering installations	Metrology Procedure: Part B
ICF_M004	Clarifying communication for identification of incorrect NMI and metering installation	MSATS Procedures: CATS
ICF_M005	Delivery of metering data while the NMI status is not Active	Service Level Procedure Metering Data Provider Services
ICF_M007	Verification of metering data for whole current Small Customer Metering Installations, Type 4A, 5, 6 and 7 Metering Installations	Metrology Procedure: Part A
ICF_M008	Clarifying ENM's obligations with respect to DLFs and Network Tariff Codes and that the EN for which the ENM has been appointed has an exemption by the AER	Service Level Procedure Embedded Network Manager

2.3. First stage consultation

AEMO issued a Notice of First Stage Consultation on 20 May 2019, and published an Issues Paper and initial draft procedures for the Metering ICF Package. This information is available on [AEMO's website](#).

The Issues Paper included details on AEMO's stakeholder engagement in the course of developing the initial draft procedures, including various proposals that were discussed at consultative forums with industry representatives. The Issues Paper included a summary of the specific amendments proposed in the initial consultation pack.

AEMO received 15 submissions in the first stage of consultation, one of which was a late submission. Copies of all written submissions (excluding any confidential information) have been published on AEMO's website at: <http://aemo.com.au/Stakeholder-Consultation/Consultations/Metering-ICF-Package-Consultation?Convenor=AEMO%20NEM>.

2.4. Second stage consultation

AEMO issued a Notice of Second Stage Consultation on 22 July 2019, and published a Draft Report and draft procedures for the Metering ICF Package. This information is available on [AEMO's website](#).

The Draft Report included details on AEMO's stakeholder engagement in the course of developing the draft procedures. The Draft Report included a summary of the specific amendments proposed in the draft consultation pack.

AEMO received 12 submissions in the second stage of consultation, three of which were late submissions. Copies of all written submissions (excluding any confidential information) have been published on AEMO's website at: <http://aemo.com.au/Stakeholder-Consultation/Consultations/Metering-ICF-Package-Consultation?Convenor=AEMO%20NEM>.



3. SUMMARY OF MATERIAL ISSUES

This section details the material issues AEMO identified during the review process in the second stage of submissions. It also provides AEMO's assessment of the issues and how AEMO proposes to address them.

The key material issues arising from the proposal and raised by Consulted Persons are summarised in the following table:

No.	Issue	Raised by
1.	<u>Updating MSATS about remote de-energisation and remote re-energisation</u>	Multiple Respondents
2.	<u>Define timeframes for updating datastreams in MSATS</u>	Multiple Respondents
3.	<u>CT and VT Standards to include IEC61869</u>	Multiple Respondents
4.	<u>Linear interpolation substitution type for accumulation metering installations</u>	Multiple Respondents
5.	<u>Clarifying communication for identification of incorrect NMI and metering installation</u>	Multiple Respondents
6.	<u>Delivery of metering data while the NMI status is not Active</u>	Multiple Respondents
7.	<u>Verification of Metering Data for whole current Small Customer Metering Installations, Type 4A, 5, 6 and 7 Metering Installations</u>	Multiple Respondents

A detailed summary of issues raised by Consulted Persons in submissions, together with AEMO's responses, is contained in Appendix B.

4. DISCUSSION OF MATERIAL ISSUES

4.1. Updating MSATS for remote de-energisation and remote re-energisation

4.1.1. Issue summary and submissions

The MSATS Procedure requires the Metering Provider (MP) to update MSATS when a meter is remotely de-energised and remotely re-energised (clause 2.5(h)). However, it does not define what date to use when updating MSATS. There is a risk that MPs may apply different logic to determine the date to use when updating MSATS which will lead to confusion within the market. The proposed amendment defines the date to be applied to remote de-energisation as the 'day after' de-energisation, in line with clause 2.3(h) for physical de-energisation of an interval meter by a Local Network Service Provider (LNSP), and the date for remote re-energisation as the 'day of' the re-energisation, in line with clause 2.3(l) for physical re-energisation of an interval meter by an LNSP.

There was broad support for this proposed amendment. Origin asked to include an example of how the timings work, similar to examples on Meter Churn in the Service Level Procedure: Metering Data Provider Services (SLP MDP). TasNetworks suggested using a consistent term to refer to remote de-energisation as in other places it is referred to it as remote disconnection.

Red and Lumo questioned the change from the term "connection point" to "meter" and noted that connection point is used in a range of other sections in the MSATS procedures and is a defined term. They believe this change creates a potential confusion.

Red and Lumo requested that the Proposed Change Date for de-energisation should be the date the site is de-energised to align with the re-energisation requirements on remote connections and disconnections.



4.1.2. AEMO's assessment

The majority of stakeholder feedback supported the proposed remote de-energisation on the day after the de-energisation and remote re-energisation on the day of the re-energisation. AEMO considers the proposed timeframes are appropriate as they are consistent with the NER and allow for all partial day meter readings to be delivered for settlement purposes.

AEMO does not believe that providing examples for the new clauses 2.5(a) and 2.5(b) is necessary, as these are clear MP obligations. AEMO notes the meter churn process is a more complex process, especially in relation to different meter types and hence scenarios are included in the Service Level Procedure: Metering Data Provider Services.

AEMO agrees that there should be consistency in terminology throughout the MSATS Procedure, , and has updated Table 4-J in the MSATS CATS procedure to replace the term remote disconnection with remote de-energisation.

On the question regarding the change from connection point to meter, AEMO notes that both are defined terms in the NER. However, given that other parts of the procedure refer to de-energising a 'connection point', AEMO will refer to de-energisation of a connection point in the new clauses.

AEMO considers the proposed timeframes for the Proposed Change Date for de-energisation are appropriate as they are consistent with the NER and allow for all partial day meter readings to be delivered for settlement purposes. Changing the de-energisation update timeframe to the day of de-energisation as requested by Red and Lumo would remove the ability to capture part day meter readings that need to be included in settlement.

4.1.3. AEMO's conclusion

AEMO will retain the remote energisation/de-energisation update timeframes proposed in the draft procedure and will include updated wording of remote disconnection to remote de-energisation for consistency. The changes are marked up in the final MSATS Procedure: CATS that is published with this Final Report.

4.2. Define timeframes for updating datastreams in MSATS

4.2.1. Issue summary and submissions

Clause 2.4.1(a)(iv) of the Service Level Procedure: Metering Data Provider (SLP MDP) states "Each MDP - Category D must manage the registration of connection point datastreams in accordance with the timeframes specified in the MSATS Procedures".

However, clause 2.4(g) of the MSATS Procedures: CATS states "The New MDP must configure the datastream as 'A' (Active) or 'I' (Inactive) in accordance with the Service Level Procedure (MDP)".

Each document references the other for the timeframe but neither specifies the timeframe.

The proposed change defines the timeframe for updating datastreams in the MSATS Procedure CATS as 'two business days'.

AEMO received varying views on the impact of the proposed changes made to define the timeframe for updating datastreams. Specific comments on this issue can be summarised as follows:

- SA Power Networks raised concerns about the impacts of the changes on the monthly performance reports due to the linkage of this clause with clause 2.4.1(a) of the SLP MDP
- Citipower Powercor and United Energy did not support the change as they raised concerns about the impacts of the changes on the monthly performance reports



- TasNetworks and Tango Energy supported the changes
- intelliHUB provided no comment
- Vector AMS suggested alternative wording to clause 2.4(f) to clarify the obligation and referred to alternative wording for SLP MDP clause 2.4.1
- PLUS ES, Tango Energy and Vector AMS suggested clause 2.4(g) was redundant as it repeated the obligations in previous clauses
- Tango Energy requested clarity on clause 2.4(h)

4.2.2. AEMO's assessment

Changes to the SLP MDP are discussed as part of AEMO's assessment under Section 4.6 of this report in relation to delivery of metering data while the NMI status is not Active.

AEMO will update the wording of 2.4(f) of the MSATS Procedure: CATS to provide clarity.

AEMO will remove clause 2.4(g) as it repeats the obligations expressed earlier in clause 2.4.

In regard to clause 2.4(h), the NMI procedure does not actually list the MDP obligations, but sets out the structure for NMIs to be used in the NEM, details Datastreams for each category of metering installation. Clause 2.4(h) details the MDP obligations.

4.2.3. AEMO's conclusion

AEMO has updated the draft procedure to reflect the redundant clause 2.4(g) and to provide additional clarity. The changes are marked up in the final MSATS Procedure: CATS that is published with this Final Report.

4.3. CT and VT Standards to include IEC61869

4.3.1. Issue summary and submissions

The Metrology Procedures require CTs and VTs to meet the relevant requirements of AS60044 (clause 3.1(b) and (c)) and that they must comply with current Australian Standards (clause 3.1(d)).

All metering CTs and VTs are now manufactured overseas, and as such are usually specified and tested to IEC61869. This replaced IEC60044 many years ago and is considered the international industry standard.

AS60044 and IEC61869 have been compared and an engineering report produced showing no material differences between these standards.

The proposed change updates the sections in the Metrology Procedure Part A to include the relevant parts of the IEC61869 that relate to CTs and VTs.

Stakeholder feedback supported the proposed inclusion of IEC61869. PLUS ES requested clarification of section 3.1(d) of the definition of newly purchased and suggested clarifying a date from when the clause is to take effect.

4.3.2. AEMO's assessment

AEMO believes section 3.1(d) should continue to specify 'newly purchased' as it refers to any CTs and VTs purchased from the effective date of the procedure and at any time while the procedure is in effect.

4.3.3. AEMO's conclusion

AEMO will retain the updated clauses as proposed in the draft procedure. The changes are marked up in the final Metrology Procedures: Part A that is published with this Final Report.



4.4. Linear interpolation substitution type for accumulation metering installations

4.4.1. Issue summary and submissions

The Metrology Procedure Part B requires when a validated actual read for an accumulation meter is lower than the previous substituted read, then the substituted read can either be deleted or re-substituted.

If re-substituted, using method type 61 or 62 would not be suitable because that causes the same issue. Sometimes using another method type like 63 or 65 will work, but on other occasions still provides a read that is higher than the latest validated actual read, therefore these methods are also not suitable.

Another method that would always be suitable for the above scenario is the linear interpolation method whereby the reading is calculated using the Average Daily Load (ADL) between two validated meter readings and applying this ADL pro-rated to the number of days for the substituted read.

This method is currently not available as a standard substitution method; therefore it can only be used if reasonable endeavours to form an agreement are made with impacted participants.

The proposed change therefore updates the Metrology Procedure Part B to include a new substitution type 69 using the linear interpolation methodology.

Stakeholder feedback supported the proposed inclusion of the Type 69 substitution method. Endeavour Energy queries the use of Actual Meter Readings rather than validated meter readings. Tango Energy suggested minor changes to provide clarity to the clause.

4.4.2. AEMO's assessment

AEMO reviewed the proposed methodology for Type 69 and believes that the validated reads options are covered by Type 61 and 62 and will maintain Type 69 as between Actual reads.

AEMO will update the wording to improve clarity.

4.4.3. AEMO's conclusion

AEMO has retained the use of Actual Meter Readings for the calculation and has updated the wording to improve clarity. The changes are marked up in the final Metrology Procedures: Part B that is published with this Final Report.

4.5. Clarifying communication for identification of incorrect NMI and metering installation

4.5.1. Issue summary and submissions

It is not uncommon for metering installations to be linked to the incorrect NMI. This could be the result of human error when commissioning the meter or where a landlord renumbers premises without notifying a market participant. This type of issue is usually identified through customer complaints of high bills or no supply, or by a field technician.

The correction required can be complex and the error could go back several years, and therefore requires good communication and coordination between impacted market participants and impacted end use customers.

There have been instances where this type of issue was identified and corrected by the Metering Coordinator (MC)/MP/MDP with little or no communication and coordination. This resulted in poor outcomes for the end use customer due to the confusion it caused, and extra work for impacted market participants.



The proposed change updates a section in the MSATS Procedures: CATS to include upfront communication when an instance is identified of a metering installation that is not measuring the energy for the connection point it should be measuring.

AEMO proposed amendments to the MSATS Procedures: CATS take into consideration the requested ICF amendment about transposed metering and CATS Standing Data, but represent a broader change to reflect the requirements for participants to maintain correct standing data within MSATS and capture all scenarios, rather than just this one.

Most stakeholder feedback broadly supported the proposed changes. SA Power Networks requested that the obligation on participants to update CATS Standing Data for all NMIs for which they are responsible for should be subject to them completing the required verification that the data is no longer current or relevant.

Vector AMS questioned the reasoning behind expanding the clauses to capture all scenarios, rather than just the ICF's transposed metering scenario.

4.5.2. AEMO's assessment

AEMO believes that existing clause 2.1(h) covers the obligation for the Participant to ensure that CATS Standing Data is kept current and relevant for all the NMIs for which they are responsible. To achieve this obligations participants may have different processes for the verifications and validations of the CATS Standing Data.

AEMO considers that it is appropriate for the proposed change to apply equally to all requirements to update standing data. Restricting it to one particular scenario is likely to give rise to inconsistency and uncertainty.

4.5.3. AEMO's conclusion

AEMO will retain the updated clauses as proposed in the draft procedure, as the proposed change apply equally to all requirements to update standing data and restricting it to one particular scenario is likely to give rise to inconsistency and uncertainty. The changes are marked up in the final MSATS Procedure: CATS that is published with this Final Report.

4.6. Delivery of metering data while the NMI status is not Active

4.6.1. Issue summary and submissions

Clause 3.12.2 of the SLP MDP places an obligation on the MDP to deliver metering data within two business days of the Actual Meter Readings being received into the metering data services database or when the metering data is substituted or estimated. Note that the SLA for delivery of metering data to market participants is not dependent on NMI status or datastream status. However, some MDPs have configured their system to only deliver metering data when the NMI status is active, which causes delays in the delivery of metering data and communicating the existence of illegal reconnections.

This issue was raised in October 2013 at the MDP Working Group. AEMO noted at the time that clause 6.11 of the SLP (as at October 2013) required MDPs to deliver data within two business days, without stipulating whether the NMI was active or inactive. If metering data has passed validation, then it must be delivered to AEMO and participants. AEMO therefore considered that if the MDP receives data from the meter and that data passes validation then the MDP must activate the datastreams and provide data to AEMO and participants.

At the time AEMO decided not to update the SLP MDP as it considered the wording of the SLP MDP along with the above clarification was enough. It has recently been identified that differing interpretations remain about when data should be delivered have been in use and therefore an amendment is desirable.



The proposed change adds clarification to the SLP MDP on when data should be delivered.

AEMO received varying views on the impact of the proposed changes made to support the delivery of metering data while the NMI status is not active. Specific comments on this issue can be summarised as follows:

- Ausgrid and SA Power Networks raised concerns about the impacts of the changes on the monthly performance reports
- Citipower Powercor and United Energy did not support the change as they raised concerns about the impacts of the changes on the monthly performance reports
- Endeavour Energy and Tango Energy suggested minor changes to provide clarity to the clause
- Red and Lumo and TasNetworks supported the changes
- Vector AMS sought clarification on the effective date the datastreams should be made active and requested that the time to update datastream status be changed from 2 business days to 5 business days in line with other obligations placed on LNSPs
- Vector AMS proposed a re-wording of clause 2.4.1(xi)(D) to clarify the clause to maintain flexibility for when a MDP can de-activate a datastream

4.6.2. AEMO's assessment

AEMO notes for physical de-energisations, the datastream should equal 'I' and NMI status should equal 'D' until consumption is detected and the datastream is made 'A', and the NMI status needs to be decided upon depending on what triggered the consumption. The delivery of meter data consumption informs the distributor of possible illegal reconnection.

AEMO notes that depending on the process and timing of the actions taken by metering parties and distributors, this may cause data discrepancies that are reported in performance monitoring reporting. AEMO will review the assignment of some monthly performance measures.

AEMO will update the clause as per Endeavour Energy's suggestion to provide clarity to the clause.

Datastreams should be made active effective from the date the meter data/consumption is recorded regardless of knowledge of date of the re-energisation. If you get a meter data file on a Friday and it contains actual meter data from the Monday, then Monday is the effective date that the datastreams must become active.

AEMO does not propose to allow five business days for updating datastreams in line with other obligations placed on LNSPs. The two business days for datastreams are obligations which are specific for MPs, not LNSPs.

AEMO will update clause 2.4.1(xi)(D) to reflect the need for clarity on when a datastream can be de-activated.

4.6.3. AEMO's conclusion

AEMO has updated the clauses wording to provide clarity and will review the assignment of some monthly performance measures. The changes are marked up in the final Service Level Procedure: Metering Data Provider Services that is published with this Final Report.



4.7. Verification of Metering Data for whole current Small Customer Metering Installations, Type 4A, 5, 6 and 7 Metering Installations

4.7.1. Issue summary and submissions

The Metrology Procedure Part A requires updating to provide clarity to MCs on what they need to do for metering data verification. The current clause was open to interpretation.

Most stakeholder feedback broadly supported the proposed changes. United Energy sought clarification on whether the clause covered Type 5 metering in Victoria and whether the Acceptance Quality Limit (AQL) should be flexible or set. PLUS ES requested AEMO review the use of the terminology of 'verification' versus 'validation' across Metrology Part A section 12.5 and the Service Level Procedure: Metering Provider Services (SLP MP) section 4.2.

4.7.2. AEMO's assessment

AEMO considers that Metrology Part A section 12.5 has always covered all meter types that are whole current, including Victorian Type 5 meters. AEMO notes the AQL was set to a value based feedback from MPs wanting guidance on how to meet this clause. AEMO will correct the terminology in SLP MP section 4.2 to reflect it is referring to verification.

4.7.3. AEMO's conclusion

AEMO has updated the wording of section 4.2 of the SLP MP to improve clarity. The changes are marked up in the final Metrology Procedures: Part A and SLP MP that is published with this Final Report.

5. OTHER MATTERS

As a result of the consultation, various respondents highlighted additional minor amendments to the various procedures within the Metering ICF Package. Where the highlighted amendments did not change the meaning of the obligation, and AEMO considered they were beneficial for clarity or consistency, AEMO has made updates, as shown in the track changed versions published with this final determination.

Vector AMS recommended that the effective date for changes related to ICF_M005 be deferred until August 2020 so that systems can be changed to meet these new obligations. However AEMO noted that the proposed changes need to align with the normal CATS release schedule as per agreement in the ERCF, and as a result the effective date cannot be changed.

PLUS ES maintained its position that an MDP should be permitted to allow datastreams to remain open on inactive NMIs where a meter is (or remains) installed. AEMO has updated the clause referring to when datastreams must become de-activated to clarify when a datastream can remain active.

AEMO has proposed that the amended metering procedures will come into effect on 20 May 2020.

6. FINAL DETERMINATION

Having considered the matters raised in submissions, AEMO's final determination is to amend various metering procedures in the form published with this Final Report, in accordance with Chapter 7 of the NER. There are 16 published final metering procedure documents:

- MSATS Procedures: CATS v4.8 Final Determination Change Marked
- MSATS Procedures: CATS v4.8 Final Determination Clean
- MSATS Procedures: WIGS v4.8 Final Determination Change Marked
- MSATS Procedures: WIGS v4.8 Final Determination Clean



- Metrology Procedure: Part A v6.05 Final Determination Change Marked
- Metrology Procedure: Part A v6.05 Final Determination Clean
- Metrology Procedure: Part B v6.1 Final Determination Change Marked
- Metrology Procedure: Part B v6.1 Final Determination Clean
- Service Level Procedure Meter Data Provider Services v1.8 Final Determination Change Marked
- Service Level Procedure Meter Data Provider Services v1.8 Final Determination Clean
- Service Level Procedure Meter Provider Services v1.4 Final Determination Change Marked
- Service Level Procedure Meter Provider Services v1.4 Final Determination Clean
- Service Level Procedure Embedded Network Manager v1.1 Final Determination Change Marked
- Service Level Procedure Embedded Network Manager v1.1 Final Determination Clean
- Exemption Procedure Meter Installation Malfunctions v1.1 Final Determination Change Marked
- Exemption Procedure Meter Installation Malfunctions v1.1 Final Determination Clean

**APPENDIX A. GLOSSARY**

Term or acronym	Meaning
AER	Australian Energy Regulator
AQL	Acceptance Quality Limit
CATS	Consumer Administration and Transfer Solution, a part of MSATS.
CT	Current Transformer
DLF	Distribution Loss Factor
EENSP	Exempt Embedded Network Service Provider
EN	Embedded Network
ENM	Embedded Network Manager
ENO	Embedded Network Owner
ERCF	Energy Retail Consultative Forum
ICF	Issue Change Form
LNSP	Local Network Service Provider
MC	Metering Coordinator
MDP	Metering Data Provider
MP	Meter Provider
MSATS	Market Settlements and Transfer Solution
NMI	National Metering Identifier
NER	National Electricity Rules
SLP	Service Level Procedure
VT	Voltage Transformer
WIGS	Wholesale, Interconnector, Generator and Sample

APPENDIX B. SUMMARY OF SECOND STAGE SUBMISSIONS AND AEMO RESPONSES

Table 2 MSATS Procedures: CATS

No.	Section	Consulted person	Issue	AEMO response
1.	2.1(i)	SA Power Networks	<p>With reference to 2.1 (i) – this clause as currently drafted does not provide for the owner of the data the opportunity to verify the updated information provided by others as being accurate and therefore the need for the CATS Standing Data being changed. This clause needs to be modified to allow for the owner of the data to:</p> <ol style="list-style-type: none"> 1. Reject the update if they believe the current data is correct or not needing modification 2. Acknowledge that some updates may require more complex investigation before the proposed change is made and this may take longer than 10 business days to complete (if field work is required). <p>Suggested wording: Unless a different timeframe is specified in these Procedures, a Participant must update the CATS Standing Data for all NMI's for which they are responsible within 10 business days of being advised by a Participant or becoming aware and completing the required verification that the CATS Standing Data is no longer current or relevant.</p>	AEMO believes that existing clause 2.1(h) covers the obligation for the Participant to ensure that CATS Standing Data is kept current and relevant for all the <i>NMIs</i> for which they are responsible. To achieve this obligations participants may have different processes for the verification and validation of the CATS Standing Data.
2.	2.1.(l)	intelliHUB	No Comment	AEMO notes respondent's comment.
3.		TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
4.		Tango Energy	Agree	AEMO notes the respondent's support for the proposed change.



No.	Section	Consulted person	Issue	AEMO response
5.		Vector AMS	<p>Recommend that this should be 'affected' Participants for consistency. Concerns raised in initial consultation submission remain. This clause will inadvertently capture all standing data updates and not just those that are material. Use of MSATS Change Requests to notify parties could be seen as meeting this requirement. VECTORAMS is unsure if this is the intent. If Participant 'A' informs Participant 'B', is Participant 'B' obligated to tell Participant 'C' or do they assume Participant 'A' will do this?</p> <p>Current uncertainty on the interpretation will lead to disputes on whether this clause has been met or not. This seems to be a motherhood statement. Recommend drafting be more specific to the ICF issue that was raised, or proposed clause removed.</p>	<p>The use of "Impacted" is consistent with other similar clauses in the procedure, and there is no apparent need to change it.</p> <p>The initial ICF referred to specific scenario of transposed metering. However, AEMO considers that it is appropriate for the proposed change to apply equally to all requirements to update standing data. Restricting it to one particular scenario is likely to give rise to inconsistency and uncertainty.</p>
6.		Red Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
7.	2.4.(c)	intelliHUB	No Comment	AEMO notes respondent's comment.
8.		TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
9.		Tango Energy	Agree	AEMO notes the respondent's support for the proposed change.

No.	Section	Consulted person	Issue	AEMO response
10.		Vector AMS	<p>Current procedures give MDP's the discretion on whether Datastreams are left active when a connection point is deenergised. The proposed drafting now remove this discretion which is not in the scope of the ICF which purely requested a obligation for timely updating of the Datastream status should the MDP choose to update it. VECTORAMS believes the current flexibility should remain and recommends the intent of the ICF can be met by reverting the proposed drafting back to the current drafting and place the timing obligations in the MDP SLP. SLP clause 2.4.1 could be updated with the following.</p> <p>"Where the MDP is required to update the Datastreams status ('A'ctive, 'I'nactive), MSATS must be updated within two business days of the becoming aware of the change in connection point energisation state."</p> <p>See futher comments on SLP section below.</p>	Refer to response to Vector AMS Item 19 in the Service Level Procedure: MDP Services.
11.		Red Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
12.	2.4.(d)	intelliHUB	No Comment	AEMO notes respondent's comment.
13.		TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
14.		Tango Energy	Agree	AEMO notes the respondent's support for the proposed change.
15.		Vector AMS	See comment or 2.4(c)	Refer to response to Vector AMS Item 10.
16.		Red Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
17.	2.4.(e)	intelliHUB	No Comment	AEMO notes respondent's comment.
18.		TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
19.		Tango Energy	Agree	AEMO notes the respondent's support for the proposed change.
20.		Vector AMS	See comment or 2.4(c)	Refer to response to Vector AMS Item 10.



No.	Section	Consulted person	Issue	AEMO response
21.		SA Power Networks	<p>See comments made within MDP SLP section clause 2.4.1 (ix).</p> <p>SAPN comment for 2.4.1(ix) is: The proposed change to deliver metering data while the NMI status is not Active raises concerns that a new issue may be created. It is likely to cause increased volumes of LNSP ADWNAN discrepancies given the NMI Status needs to be updated within 5 business days. AEMO need to ensure that LNSP impacts are not created if this change is to proceed.</p>	Refer to response to Ausgrid Item 1 in the Service Level Procedure MDP Services.
22.		Red Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
23.	2.4.(f)	intelliHUB	No Comment	AEMO notes respondent's comment.
24.		TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
25.		Tango Energy	Agree	AEMO notes the respondent's support for the proposed change.
26.		Vector AMS	<p>It is unclear if this clause only applies to the current MDP at all times or when they are becoming the current MDP. If this is to apply in all scenarios then "or as required when the MDP becomes the Current MDP" could become " or as required." to remove the ambiguity.</p>	The clause applies to current and new MDPs. AEMO will remove the last sentence to avoid confusion.
27.		PLUS ES	PLUS ES proposes to remove the 'or' between the words removed and configured.	Refer to response to Vector AMS Item 26.
28.		Red Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
29.	2.4(g)	Tango Energy	Is (g) necessary. The obligations to update the Datastreams are contained in clauses (c), (d), (e) and (f). The only difference is the word 'Configure' in clause (g). Consider replacing update/create in the previous clauses with 'configure'.	AEMO agrees to delete clause 2.4(g) and reword clauses 2.4(c), (d), (e), and (f) to include update or configure.
30.		Vector AMS	This clause is redundant as it is just pointing to already existing clauses.	Refer to response to Tango Energy Item 29.



No.	Section	Consulted person	Issue	AEMO response
31.		PLUS ES	PLUES proposes that this clause is removed as it is superfluous. The 2.4 Clause begins with 'An MDP must:' and each of the identified clauses includes wording to effect the Datastream 'A' or 'I'.	Refer to response to Tango Energy Item 29.
32.	2.4.(h)	intelliHUB	No Comment	AEMO notes respondent's comment.
33.		TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
34.		Tango Energy	(h) – As the obligation to register individual Datastreams in MSATS exists in the NMI Procedure why does it need repeating here?	The NMI procedure does not list the MDP obligations, however it sets out the structure for NMIs to be used in the NEM, and details Datastreams for each category of metering installation.
35.		Vector AMS	Agreed	AEMO notes the respondent's support for the proposed change.
36.	2.5.(a)	intelliHUB	No Comment	AEMO notes respondent's comment.
37.		Origin Energy	Origin requested examples as part of First Stage consultation as this process is consistently followed and requested the above scenario to be defined similar to the Meter Churn Scenarios in SERVICE LEVEL PROCEDURE: METERING DATA PROVIDER SERVICES Page 16 – 20.	AEMO does not believe that those clauses require scenarios as they are clear MP obligations, however the Meter churn process is a more complex process especially in relation to the different meter types and hence scenarios were included in the SLP MDP procedure.
38.		TasNetworks	Update wording to align with Name of Code for 'D' as Remotely Disconnected (as per Table 4-J), rather than 'De-energised' and 'Remotely de-energised'.	AEMO agrees with the participant request for consistency, and as de-energised is the common term used in the MSATS procedure, AEMO has updated table 4-J by replacing the term disconnected with de-energised.
39.		Tango Energy	Agree	AEMO notes the respondent's support for the proposed change.
40.		Vector AMS	Agreed	AEMO notes the respondent's support for the proposed change.

No.	Section	Consulted person	Issue	AEMO response
41.		Red Lumo	<p>Red and Lumo question the change from the term “connection point” to “meter.” Connection point is used in a range of other sections in the procedures and is a defined term. We believe that this creates a potential confusion.</p> <p>Furthermore Red and Lumo believe that the Proposed Change Date should be the date the site is deenergised to align with the reenergisation requirements on remote connections and disconnections.</p>	<p>AEMO originally changed connection point to meter, as this is where the de-energisation occurs, noting that a <i>meter</i> is also a defined term in the rules. However, as other parts of the procedure refer to a connection point being energised or de-energised, AEMO will retain the ‘connection point’ reference.</p> <p>AEMO considers the proposed timeframes are appropriate as they are consistent with the NER and allow for all partial day meter readings to be delivered for settlement purposes. Changing the de-energisation update timeframe to the day of de-energisation would remove the ability to capture part day meter readings that need to be included in settlement.</p>
42.	2.5.(b)	intelliHUB	No Comment	AEMO notes respondent’s comment.
43.		Origin Energy	Origin requested examples as part of First Stage consultation as this process is consistently followed and requested the above scenario to be defined similar to the Meter Churn Scenarios in SERVICE LEVEL PROCEDURE: METERING DATA PROVIDER SERVICES Page 16 – 20.	Refer to response to Origin Energy item 37
44.		TasNetworks	Agree	AEMO notes the respondent’s support for the proposed change.
45.		Tango Energy	Agree	AEMO notes the respondent’s support for the proposed change.
46.		Vector AMS	Agreed	AEMO notes the respondent’s support for the proposed change.
47.		Red Lumo	See comment 2.5(a) related to connection point.	Refer to response to Red Lumo Item 41.
48.	4.9	PLUS ES	The marked-up version has the table numbering with alphanumerical values and the clean version has the table naming with numerical values i.e. Table 4-E vs Table 4-5.	Agreed, AEMO updated table names to make them consistent between the change marked and the clean versions
49.	4.18	intelliHUB	No Comment	AEMO notes respondent’s comment.



No.	Section	Consulted person	Issue	AEMO response
50.		TasNetworks	4.18(b)iv: Agreed 4.18(d): Agreed 4.18(f): Agreed	AEMO notes the respondent's support for the proposed change.
51.		Tango Energy	Agree	AEMO notes the respondent's support for the proposed change.
52.		Vector AMS	No Comment	AEMO notes respondent's comment.
53.		Red Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.

Table 3 MSATS Procedures: WIGS

No.	Section	Consulted person	Issue	AEMO response
1.	Version	intelliHUB	No Comment	AEMO notes respondent's comment.
2.		TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
3.		Tango Energy	Agree	AEMO notes the respondent's support for the proposed change.
4.		Vector AMS	Agreed	AEMO notes the respondent's support for the proposed change.
5.		Red Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.

Table 4 Metrology Procedure: Part A

No.	Section	Consulted person	Issue	AEMO response
1.	3.1.(a)	intelliHUB	No comment	AEMO notes respondent's comment.
2.	3.1.(a)	Red/Lumo	Red and Lumo have no comment on this change.	AEMO notes respondent's comment.
3.	3.1.(a)	Tango Energy	Agree.	AEMO notes the respondent's support for the proposed change.
4.	3.1.(a)	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
5.	3.1.(a)	Vector AMS	Agreed	AEMO notes the respondent's support for the proposed change.
6.	3.1.(b)	intelliHUB	No comment	AEMO notes respondent's comment.



No.	Section	Consulted person	Issue	AEMO response
7.	3.1.(b)	Red/Lumo	Red and Lumo have no comment on this change.	AEMO notes respondent's comment.
8.	3.1.(b)	Tango Energy	Agree.	AEMO notes the respondent's support for the proposed change.
9.	3.1.(b)	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
10.	3.1.(b)	Vector AMS	Agreed	AEMO notes the respondent's support for the proposed change.
11.	3.1.(c)	intelliHUB	No comment	AEMO notes respondent's comment.
12.	3.1.(c)	Red/Lumo	Red and Lumo have no comment on this change.	AEMO notes respondent's comment.
13.	3.1.(c)	Tango Energy	Agree.	AEMO notes the respondent's support for the proposed change.
14.	3.1.(c)	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
15.	3.1.(c)	Vector AMS	Agreed	AEMO notes the respondent's support for the proposed change.
16.	3.1.(d)	intelliHUB	No comment	AEMO notes respondent's comment.
17.	3.1.(d)	Red/Lumo	Red and Lumo have no comment on this change.	AEMO notes respondent's comment.
18.	3.1.(d)	PLUS ES	PLUS ES proposes rewording to remove ambiguity. Newly Purchasedpurchased from when? Need to be more definitive. If the intent is to mandate that CTs and VTs purchased after a particular date must comply with the standards then the date should be called out.	Newly purchased means anything that is purchased at any time while the procedures specify the requirement for newly purchased equipment to comply. AEMO does not consider it is necessary to change the wording.
19.	3.1.(d)	Tango Energy	Agree.	AEMO notes the respondent's support for the proposed change.
20.	3.1.(d)	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
21.	3.1.(d)	Vector AMS	Agreed	AEMO notes the respondent's support for the proposed change.
22.	12.5.(a)	intelliHUB	No comment	AEMO notes respondent's comment.
23.	12.5.(a)	Red/Lumo	Red and Lumo have no comment on this change.	AEMO notes respondent's comment.
24.	12.5.(a)	Tango Energy	Agree.	AEMO notes the respondent's support for the proposed change.
25.	12.5.(a)	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
26.	12.5.(a)	Vector AMS	Agreed	AEMO notes the respondent's support for the proposed change.
27.	12.5.(b)	intelliHUB	No comment	AEMO notes respondent's comment.



No.	Section	Consulted person	Issue	AEMO response
28.	12.5.(b)	Red/Lumo	Red and Lumo have no comment on this change.	AEMO notes respondent's comment.
29.	12.5.(b)	Tango Energy	Agree.	AEMO notes the respondent's support for the proposed change.
30.	12.5.(b)	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
31.	12.5.(b)	United Energy	<p>United Energy believe this clause is only applicable to small customer metering installations i.e. only meters with minimum services specification under clause 7.8.3(a), clause 7.8.4(c) or clause 7.8.4(h)(2).</p> <p>All type 5 Victorian AMI meters will not be covered by this condition and as such we recommend that this clause be updated to include Victorian Type 5 AMI meters.</p> <p>General inspection and AQL levels need to be different for different systems. Most of Victorian DB's use communication cards permanently embedded with the meters and meters read through Network Management System. This results in a rare/zero chance of meter data validation failure. Defaults MC's should have the flexibility to select an Inspection level dependent on previous validation results/systems chosen. This can form part of each MDP's MAMS approved by AEMO.</p>	<p>AEMO notes respondent's comment, however this is out of scope of this ICF and AEMO will consider the comment outside of this consultation.</p> <p>The AQL was selected based on feedback from MPs wanting guidance on how to meet this clause.</p>
32.	12.5.(b)	Vector AMS	Agreed	AEMO notes the respondent's support for the proposed change.
33.	12.5.(c)	intelliHUB	No comment	AEMO notes respondent's comment.
34.	12.5.(c)	Red/Lumo	Red and Lumo have no comment on this change.	AEMO notes respondent's comment.
35.	12.5.(c)	Tango Energy	Agree.	AEMO notes the respondent's support for the proposed change.
36.	12.5.(c)	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
37.	12.5.(c)	Vector AMS	Agreed	AEMO notes the respondent's support for the proposed change.
38.	12.5.(d)	intelliHUB	No comment	AEMO notes respondent's comment.
39.	12.5.(d)	Red/Lumo	Red and Lumo have no comment on this change.	AEMO notes respondent's comment.
40.	12.5.(d)	Tango Energy	Agree.	AEMO notes the respondent's support for the proposed change.
41.	12.5.(d)	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.



No.	Section	Consulted person	Issue	AEMO response
42.	12.5.(d)	Vector AMS	Agreed	AEMO notes the respondent's support for the proposed change.
43.	12.5.(e)	intelliHUB	No comment	AEMO notes respondent's comment.
44.	12.5.(e)	Red/Lumo	Red and Lumo have no comment on this change.	AEMO notes respondent's comment.
45.	12.5.(e)	PLUS ES	PLUS ES proposes an alignment of terminology between documents: Metrology Part A states the term 'Verification' of metering data for section 12.5, where the MPB SLP Section 4.2 uses the term 'Validating' metering data, when referencing Metrology Part A Section 12.5.	AEMO has updated the SLP MP Section 4.2 to the correct terminology of 'verification'.
46.	12.5.(e)	Tango Energy	Agree.	AEMO notes the respondent's support for the proposed change.
47.	12.5.(e)	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
48.	12.5.(e)	Vector AMS	Agreed	AEMO notes the respondent's support for the proposed change.

Table 5 Metrology Procedure: Part B

No.	Section	Consulted person	Issue	AEMO response
1.	2.6	intelliHUB	No comment	AEMO notes respondent's comment.
2.	2.6	Red/Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
3.	2.6	Tango Energy	Agree.	AEMO notes the respondent's support for the proposed change.
4.	2.6	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
5.	2.6	Vector AMS	Agreed	AEMO notes the respondent's support for the proposed change.



No.	Section	Consulted person	Issue	AEMO response
6.	5.3.9	Endeavour Energy	<p>The wording of clause 5.3.9 only allows the metering data to be recalculated between Actual Meter Readings. We believe that this would have adverse impacts given that there are customers who do not have an Actual Meter Reading for over 9 months and adjusting reads that are over 9 months old may not be rebilled due to regulatory restrictions. This could place retailers and networks at a financial disadvantage or cause extra rebilling work for little benefit. We suggest that the MDP be allowed to use type 69 between two validated reads, with these validated reads being either a substituted or actual read. We note that the term 'validated' is defined in the glossary, therefore we suggest that this term be used.</p> <p>We suggest type 69 to be defined as: To perform a type 69 Substitution, the MDP must calculate the energy consumption between two Validated Meter Readings and pro-rata this calculated energy consumption for the number of days to produce a substituted Meter Reading.</p>	AEMO proposes that the validated reads options are covered by Type 61 and 62 and will maintain Type 69 as between Actual reads.
7.	5.3.9	intelliHUB	No comment	AEMO notes respondent's comment.
8.	5.3.9	Red/Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.



No.	Section	Consulted person	Issue	AEMO response
9.	5.3.9	Tango Energy	<p>Type 69 - Linear Interpolation</p> <p>To perform a type 69 Substitution, the MDP must calculate the ADL between two validated Meter Readings and apply this ADL pro-rated to the number of days for the substituted read. To perform a type 69 Substitution, the MDP must calculate the energy consumption between two Actual Meter Readings and pro-rata this calculated energy consumption for the number of days to produce a substituted Meter Reading.</p> <p>Suggest the following wording:</p> <p>To perform a type 69 Substitution, the MDP must calculate the energy consumption between two Actual Meter Readings and pro-rata this calculated energy consumption for the period of the substituted read.</p>	Agreed
10.	5.3.9	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
11.	5.3.9	Vector AMS	Agreed	AEMO notes the respondent's support for the proposed change.

Table 6 Service Level Procedure Metering Data Provider Services

No.	Section	Consulted person	Issue	AEMO response
1.	2.4.1.(ix)	Ausgrid	<p>Ausgrid would like to confirm that these changes obligate the MDP to continue to read the meter regardless of the NMI status, and once they detect consumption will activate the data streams and send data to the LNSP so the NMI status can be changed to A.</p> <p>Is there any obligation on the MDP to read the meter on a regular basis? For example if the MDP only reads the meter weekly and then has 2 days to make the data streams active this could be a 7 day delay from consumption detected to NMI status change to A, which will cause a ADWNAN_INTERVAL or NMIST1 error for the LNSP, due to no fault of the LNSP.</p>	<p>AEMO confirms that these changes obligate the MDP to continue to read the meter regardless of the NMI status, and once they detect consumption will activate the data streams and send data to the LNSP.</p> <p>For physical de-energisations, the datastream should equal 'I' and NMI should equal 'D' until consumption is detected and the datastream is made 'A', and the NMI status needs to be decided upon depending on what triggered the consumption. The delivery of meter data consumption informs the distributor of possible illegal reconnection.</p> <p>AEMO notes that depending on the process and timing of the actions taken by metering parties and distributors, this may cause data discrepancies that are reported in performance monitoring reporting.</p>
2.	2.4.1.(ix)	CitiPower Powercor	<p>CitiPower Powercor systems are configured for Datastream and NMI status to align. The proposed change to deliver metering data while the NMI status is not Active will just move the issue, instead of resolving it. It will cause increased volumes of ADWNAN discrepancies. We do not support this change.</p>	<p>For Victoria,</p> <ol style="list-style-type: none"> 1. for remote de-energisations, only the meter status should change. NMI and datastreams should remain active. 2. For physical de-energisations, if the fuse is removed, the datastream 'I' and NMI 'D' until consumption is detected and the datastream is made 'A', and the NMI status needs to be decided upon depending on what triggered the consumption. The delivery of meter data consumption informs the distributor of possible illegal reconnection. <p>AEMO notes that depending on the process and timing of the actions taken by metering parties and distributors, this may cause data discrepancies that are reported in performance monitoring reporting.</p>



No.	Section	Consulted person	Issue	AEMO response
3.	2.4.1.(ix)	Endeavour Energy	<p>The wording of clause 2.4.a.x creates a dependency on datastreams being active in MSATS for the meter data delivery timeframe to apply. We believe this clause should be updated because delivery to participants does not, and should not, be dependent on the datastream in MSATS. Also it would remove the conflict with clause 3.12.2 where timeframe for data delivery is defined without reference to datastreams in MSATS.</p> <p>We suggest clause 2.4.a.x be updated to: deliver validated metering data to all Participants with responsibilities for that NMI regardless of the NMI status or datastream status.</p>	Agreed
4.	2.4.1.(ix)	intelliHUB	No comment	AEMO notes respondent's comment.
5.	2.4.1.(ix)	Red/Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
6.	2.4.1.(ix)	SA Power Networks	<p>The proposed change to deliver metering data while the NMI status is not Active raises concerns that a new issue may be created. It is likely to cause increased volumes of LNSP ADWNAN discrepancies given the NMI Status needs to be updated within 5 business days.</p> <p>AEMO need to ensure that LNSP impacts are not created if this change is to proceed.</p>	Refer to response to Ausgrid Item 1.



No.	Section	Consulted person	Issue	AEMO response
7.	2.4.1.(ix)	Tango Energy	<p>(ix) activate ensure metering Datastreams are updated in MSATS within 2 business days in accordance with clause 2.4(e) MSATS procedures when the MDP becomes aware that energy is being recorded from a metering installation and deliver validated metering data to AEMO regardless of the NMI status;</p> <p>Suggest the following wording:</p> <p>(ix) where the MDP becomes aware energy is being recorded from a metering installation update the metering Datastreams in MSATS within 2 business days in accordance with clause 2.4(e) MSATS procedures and deliver validated metering data to AEMO regardless of the NMI status;</p>	Agreed
8.	2.4.1.(ix)	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
9.	2.4.1.(ix)	United Energy	United Energy systems are configured for Datastream and NMI status to align. The proposed change to deliver metering data while the NMI status is not Active will just move the issue, instead of resolving it. It will cause increased volumes of ADWNAN discrepancies. We do not support this change.	Refer to response to CitiPower Powercor Item 2.
10.	2.4.1.(ix)	Vector AMS	<p>Is referencing MSAT 2.4(e) necessary? MSATS 2.4(e) only refers to MDP taking action when a connection point has been 're-energised'. If the MDP recognises consumption at a deenergised site then it has no knowledge of the date that the connection point was re-energised as required by 2.4(e). It can only update the Datastream from the date it saw consumption.</p> <p>Also this should be 5 business days to remain consistent with existing obligations to update MSATS on the MP and LNSP.</p>	<p>Datastreams should be made active effective from the date the meter data/consumption is recorded regardless of knowledge of date of the re-energisation. If you get a meter data file on a Friday and it contains actual meter data from the Monday, then Monday is the effective date that the datastreams must become active.</p> <p>AEMO does not propose to allow 5 days for updating datastreams. The 2 days for datastreams are obligations which are specific for MPs, not LNSPs.</p>



No.	Section	Consulted person	Issue	AEMO response
11.	2.4.1.(x)	CitiPower Powercor	CitiPower Powercor does not agree with the proposed request to update the Datastreams within two business days as this will cause a misalignment with the NMI Status which needs to be updated within 5 business days. It will also cause increased volumes of ADWNAN discrepancies. Our systems are currently configured for Datastream and NMI status to align. We do not support this change.	Refer to response to CitiPower Powercor Item 2.
12.	2.4.1.(x)	intelliHUB	No comment	AEMO notes respondent's comment.
13.	2.4.1.(x)	Red/Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
14.	2.4.1.(x)	SA Power Networks	See comment made within 2.4.1 (ix).	Refer to response to Ausgrid Item 1.
15.	2.4.1.(x)	Tango Energy	(viii) (x) deliver validated metering data within 2 business days to all Participants with responsibilities for that NMI when Datastreams are active in MSATS; and Suggest the following rewording: where Datastreams are active in MSATS deliver validated metering data within 2 business days to all Participants with responsibilities for that NMI; and	Refer to response to Endeavour Energy Item 3.
16.	2.4.1.(x)	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
17.	2.4.1.(x)	United Energy	United Energy does not agree with the proposed request to update the Datastreams within two business days as this will cause a misalignment with the NMI Status which needs to be updated within 5 business days. It will also cause increased volumes of ADWNAN discrepancies. Our systems are currently configured for Datastream and NMI status to align. We do not support this change.	Refer to response to CitiPower Powercor Item 2.
18.	2.4.1.(x)	Vector AMS	Should be 5 business days to remain consistent with existing obligations to update MSATS on the MP and LNSP	Refer to response to Vector AMS Item 10.

No.	Section	Consulted person	Issue	AEMO response
19.	2.4.1	Vector AMS	<p>Current procedures drafting give MDP’s the discretion on whether Datastreams are left active when a connection point is deenergised. The proposed drafting now remove this discretion which is not in the scope of the ICF which purely requested a obligation for timely updating of the Datastream status should the MDP choose to update it. VECTORAMS believes the current flexibility should remain and recommends that the proposed drafting in the MSATS procedure be reverted to the original and any timing obligations put In the MDP SLP. Clarification on generation of substitutions could be added if necessary (in preparation for the 5MS metering package 2 changes to this clause).</p> <p>SLP 2.4.1((x) (D) should read: (D) where the supply of electricity has been disconnected at the service fuse <i>and the MDP will not be providing appropriately substituted metering data</i>; or</p> <p>SLP clause 2.4.1 should be updated with the following. “Where the MDP is required to update the Datastreams status (‘A’ctive, ‘I’nactive), MSATS must be updated within two [five] business days of the becoming aware of any change in connection point energisation state.”</p>	<p>AEMO updated the wording for 2.4.1.(xi) as: (D) where the supply of electricity has been disconnected at the service fuse and the MDP has elected not to send zero substituted metering data; or</p> <p>Refer to response to Vector AMS Item 10.</p>
20.	4.2.(g)	intelliHUB	No comment	AEMO notes respondent’s comment.
21.	4.2.(g)	Red/Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent’s support for the proposed change.
22.	4.2.(g)	Tango Energy	Agree.	AEMO notes the respondent’s support for the proposed change.
23.	4.2.(g)	TasNetworks	Agree	AEMO notes the respondent’s support for the proposed change.
24.	4.2.(g)	Vector AMS	Noted	AEMO notes respondent’s comment.
25.	6.4.1.(c)	intelliHUB	No comment	AEMO notes respondent’s comment.

No.	Section	Consulted person	Issue	AEMO response
26.	6.4.1.(c)	Red/Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
27.	6.4.1.(c)	Tango Energy	Agree.	AEMO notes the respondent's support for the proposed change.
28.	6.4.1.(c)	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
29.	6.4.1.(c)	Vector AMS	Noted	AEMO notes respondent's comment.
30.	7.3.(b)	intelliHUB	No comment	AEMO notes respondent's comment.
31.	7.3.(b)	Red/Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
32.	7.3.(b)	Tango Energy	Agree	AEMO notes the respondent's support for the proposed change.
33.	7.3.(b)	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
34.	7.3.(b)	Vector AMS	Noted	AEMO notes respondent's comment.

Table 7 Service Level Procedure Meter Provider Services

No.	Section	Consulted person	Issue	AEMO response
1.	4.2.(a)(iii)	intelliHUB	No comment	AEMO notes respondent's comment.
2.	4.2.(a)(iii)	PLUS ES	PLUS ES proposes an alignment of terminology between documents: MPB SLP Section 4.2 uses the term 'Validating' metering data, when referencing Metrology Part A Section 12.5 process, where Metrology Part A states the term 'Verification' of metering data for section 12.5.	AEMO has updated the SLP MP to the correct terminology of 'verified' where it references section 12.5 of Metrology Procedure Part A.
3.	4.2.(a)(iii)	Red/Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
4.	4.2.(a)(iii)	Tango Energy	Agree.	AEMO notes the respondent's support for the proposed change.
5.	4.2.(a)(iii)	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
6.	4.2.(a)(iii)	Vector AMS	Noted	AEMO notes respondent's comment.
7.	5.2.(a)	intelliHUB	No comment	AEMO notes respondent's comment.



No.	Section	Consulted person	Issue	AEMO response
8.	5.2.(a)	Red/Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
9.	5.2.(a)	Tango Energy	Agree.	AEMO notes the respondent's support for the proposed change.
10.	5.2.(a)	TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
11.	5.2.(a)	Vector AMS	Noted	AEMO notes respondent's comment.

Table 8 Service Level Procedure Embedded Network Manager

No.	Section	Consulted person	Issue	AEMO response
1.	2.1.2.(d)	intelliHUB	No Comment	AEMO notes respondent's comment.
2.		TasNetworks	No Comment	AEMO notes respondent's comment.
3.		Tango Energy	(d) ensure the embedded network owner ¹ has the benefit of an exemption from the AER from the requirement to be registered as a Network Service Provider. Suggest the following rewording: (d) ensure the embedded network owner ¹ has a valid exemption from the AER with regard to the requirement to be registered as a Network Service Provider.	Agreed
4.		Red Lumo	ensure the embedded network owner has the benefit of an exemption from the AER from the requirement to be registered as a Network Service Provider. Change to ensure the embedded network owner has the benefit of an exemption from the AER from the requirement to be registered as a Network Service Provider.	Refer to response to Tango Energy Item 3.
5.		Vector AMS	Noted	AEMO notes respondent's comment.
6.	4.2.1.	intelliHUB	No Comment	AEMO notes respondent's comment.
7.		TasNetworks	No Comment	AEMO notes respondent's comment.
8.		Tango Energy	Agree with the deleted text.	AEMO notes the respondent's support for the proposed change.



No.	Section	Consulted person	Issue	AEMO response
9.		Vector AMS	Noted	AEMO notes respondent's comment.
10.		Red Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
11.	4.2.2.	intelliHUB	No Comment	AEMO notes respondent's comment.
12.		TasNetworks	No Comment	AEMO notes respondent's comment.
13.		Tango Energy	Agree	AEMO notes the respondent's support for the proposed change.
14.		Vector AMS	Noted	AEMO notes respondent's comment.
15.		Red Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
16.	4.3.3.(a)	intelliHUB	No Comment	AEMO notes respondent's comment.
17.		TasNetworks	No Comment	AEMO notes respondent's comment.
18.		Tango Energy	Agree	AEMO notes the respondent's support for the proposed change.
19.		Vector AMS	Noted	AEMO notes respondent's comment.
20.		Red Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.

Table 9 Exemption Procedure Meter Installation Malfunctions

No.	Section	Consulted person	Issue	AEMO response
1.	1.1.	intelliHUB	No Comment	AEMO notes respondent's comment.
2.		TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
3.		Tango Energy	Agree	AEMO notes the respondent's support for the proposed change.
4.		Vector AMS	Noted	AEMO notes respondent's comment.
5.		Red Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
6.	2.2.	intelliHUB	No Comment	AEMO notes respondent's comment.
7.		TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.



No.	Section	Consulted person	Issue	AEMO response
8.		Tango Energy	Agree	AEMO notes the respondent's support for the proposed change.
9.		Vector AMS	Noted	AEMO notes respondent's comment.
10.		Red Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
11.	Appendix A	intelliHUB	No Comment	AEMO notes respondent's comment.
12.		TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
13.		Tango Energy	Agree	AEMO notes the respondent's support for the proposed change.
14.		Vector AMS	Noted	AEMO notes respondent's comment.
15.		Red Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.
16.	Appendix B	intelliHUB	No Comment	AEMO notes respondent's comment.
17.		TasNetworks	Agree	AEMO notes the respondent's support for the proposed change.
18.		Tango Energy	Agree	AEMO notes the respondent's support for the proposed change.
19.		Vector AMS	Noted	AEMO notes respondent's comment.
20.		Red Lumo	Red and Lumo support this change and have no further comment.	AEMO notes the respondent's support for the proposed change.

**Table 10 Other Issues Related to Consultation Subject Matter**

No.	Heading	Consulted person	Issue	AEMO response
1.	General	Vector AMS	<p>A number of these changes require participants to make system changes. VECTORAMS raised this in the first round and AEMO indicated that the effective date had already been determined by the ERCF prior to the consultation commencing. Setting a date for delivery before the detailed work has completed (in this case the consultation process) is flawed. Taking a time boxed approach must allow for scope to be reduced should the level of change be greater than originally anticipated which VECTORAMS believes is the case in this instance. VECTORAMS recommends that the effective date for changes related to ICF_M005 be deferred until August 2020 so that systems can be changed to meet these new obligations.</p>	<p>The proposed changes are to align with the normal CATS release schedule as per agreement with the ERCF on 29th March 2019.</p>

No.	Heading	Consulted person	Issue	AEMO response
2.	General	PLUS ES	<p>PLUS ES maintains an MDP should be permitted to allow datastreams to remain open on inactive NMIs where a meter is (or remains) installed. By doing so, several benefits are achieved: -</p> <ol style="list-style-type: none"> 1. The MDP attempts to collect metering data on all installed meters irrespective of the NMI Status; 2. The MDP delivers metering data to both AEMO and market participants within the timeframes currently prescribed in the procedures without having to manage the activation of datastreams; 3. AEMO and market participants become aware of the presence of actual metering data as soon as the MDP becomes aware; 4. The obligation of managing actual consumption on in-active NMIs is placed on the LNSP – With both AEMO, the FRMP and the LR capable of escalating as required; and 5. The MDP reduces its exposure to NWADS. <p>Where an MDP elects to maintain active datastreams, the process should be as follows:-</p> <ul style="list-style-type: none"> • Attempt to read all installed meters daily; • Provide actual metering data if and when it is collected from the meter; and • Provide zero substitutions in the event metering data is not collected. • For the purposes of managing the current ADWNAN issues, the current reporting process should be modified to:- • Make the LNSP responsible for any non-zero actual consumption on an inactive NMI; and • Make the MDP responsible for any non-zero non-actual consumption on an inactive NMI. 	<p>Refer to change made as per Vector AMS’s suggestion for clause 2.4.1.(xi)(D) in the SLP MDP Item 19.</p>