

RETAIL ELECTRICITY MARKET PROCEDURES MARCH 2021 CONSULTATION

DRAFT REPORT

Published: **20 May 2021**





NOTICE OF SECOND STAGE CONSULTATION – RETAIL ELECTRICITY MARKET PROCEDURES MARCH 2021 CONSULTATION

Date of Notice: 20 May 2021

This Notice of Second Stage of Rules Consultation (Notice) informs all Registered Participants, Metering Providers, Metering Data Providers, Embedded Network Managers, Ministers and the Australian Energy Regulator (AER) (Consulted Persons) that AEMO is commencing its second stage consultation (Consultation) on the changes (Changes) to implement process improvements which are proposed (Proposal) to the Retail Electricity Market Procedures (Procedures) which relate to the National Electricity Market (NEM).

The Consultation is being conducted under clause 7.16.7 of the National Electricity Rules (NER), in accordance with the Rules consultation requirements in NER 8.9.

Invitation to Make Submissions

AEMO invites written submissions on this Draft Report and Determination (Draft Report).

Please identify any parts of your submission that you wish to remain confidential and explain why. AEMO may still publish that information if it does not consider it to be confidential but will consult with you before doing so.

Consulted Persons should note that material identified as confidential may be given less weight in the decision-making process than material which is published.

Closing Date and Time

Submissions in response to this Notice should be sent by email to NEM.Retailprocedureconsultations@aemo.com.au, to reach AEMO by 5.00pm (Melbourne time) on Friday, 4 June 2021.

All submissions must be forwarded in electronic format (both pdf and Word). Please send any queries about this consultation to the same email address.

Submissions received after the closing date and time will not be valid, and AEMO is not obliged to consider them. Any late submissions should explain the reason for lateness, as well as the detriment to you if AEMO does not consider your submission.

Publication

All submissions will be published on AEMO's website, other than confidential content.

© 2021 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 Draft Report commences the Consultation on the Changes under the Proposal to implement process improvements, as recommended by market participants and AEMO, as follows:

Summary of Proposal Procedure	Proposed Effective Date	Change Type
Guideline for Clarification of the National Measurement Act (Measurement Guideline)	2 August 2021	Document change
Metrology Procedure: Part A - National Electricity Market (Metrology Procedure: Part A)	1 May 2022, to coincide with the planned effective date of Global Settlement (GS) and the first stage of the implementation of the Market Settlement and Transfer Solution (MSATS) Standing Data Review (MSDR)	
Service Level Procedure: Metering Data Provider Services (SLP: MDP Services)		
Standing Data for MSATS (Standing Data document)		
MSATS Procedures: Consumer Administration and Transfer Solution (CATS) Procedure Principles and Obligation (MSATS Procedures: CATS)		
MSATS Procedures: Procedure for the Management of Wholesale, Interconnector, Generator and Sample (WIGS) NMIS (MSATS Procedures: WIGS)		Version control only

AEMO received 13 submissions from Retailers, Local Network Service Providers (LNSPs), Meter Providers (MPs), Metering Data Providers (MDPs) and intending participants. AEMO held a meeting to discuss the Issues Paper with:

- Plus ES on 19 March 2021.
- AGL, Alinta Energy, Vector Metering and Yurika on 16 April 2021.

Overall, multiple respondents indicated broad support for the Changes.

AEMO has identified the following two material issues, based on these submissions, as well as AEMO’s own analysis:

- ICF_023 Process when remote collection of metering data fails.
- ICF_037 Redefine ‘Connection Configuration’.

AEMO’s draft determination is to amend the Procedures in the form published with this Draft Report.



CONTENTS

NOTICE OF SECOND STAGE CONSULTATION – RETAIL ELECTRICITY MARKET PROCEDURES MARCH 2021 CONSULTATION	1
EXECUTIVE SUMMARY	2
1. STAKEHOLDER CONSULTATION PROCESS	4
2. BACKGROUND	4
2.1. NER requirements	4
2.2. Context for this consultation	4
2.3. First stage consultation	5
2.4. Structure of Procedures	6
3. SUMMARY OF MATERIAL ISSUES	7
4. DISCUSSION OF MATERIAL ISSUES	8
4.1. Process when remote collection of metering data fails (ICF_023)	8
4.2. Redefinition of ‘Connection Configuration’ (ICF_037)	11
5. QUESTIONS ON PROPOSED CHANGES	14
6. OTHER MATTERS	14
7. DRAFT DETERMINATION	14
APPENDIX A. GLOSSARY	15
APPENDIX B. SUMMARY OF SUBMISSIONS AND AEMO RESPONSE	16



1. STAKEHOLDER CONSULTATION PROCESS

AEMO is consulting on the Proposal in accordance with the Rules consultation process in NER 8.9. The Consultation follows extensive outworking of each Change by the members of the Electricity Retail Consultative Forum (ERCF), as well as AEMO.

AEMO's timeline for the Consultation is as follows. The dates may be adjusted depending on the number and complexity of issues raised in submissions and any meetings with stakeholders.

Table 1 Indicative Consultation dates

Deliverable	Indicative date
Issues Paper Published	Monday, 1 March 2021
Submissions Close	Thursday, 22 April 2021
Draft Determination Published	Thursday, 20 May 2021
Submissions Close	Friday, 4 June 2021
Final Determination Published	Friday, 16 July 2021
National Guideline Changes Effective Date	Monday, 2 August 2021
Other Procedure Changes Effective Date	Monday, 1 May 2022

Prior to the submission due date, stakeholders can request a meeting with AEMO to discuss the Changes, by emailing details to NEM.Retailprocedureconsultations@aemo.com.au.

The publication of this Draft Report marks the commencement of the Consultation.

A glossary of terms is at Appendix A.

2. BACKGROUND

2.1. NER requirements

AEMO is responsible for the establishment and maintenance of the Procedures specified in NER Chapter 7 in accordance with the Rules consultation procedures, except for procedures established and maintained under NER 7.17.

2.2. Context for this consultation

AEMO engages on the Procedures through the ERCF. The ERCF provides a platform for interested parties to raise issues and propose changes to the Procedures, in the following context <https://aemo.com.au/en/consultations/industry-forums-and-working-groups/list-of-industry-forums-and-working-groups/electricity-retail-consultative-forum>

In 2020-2021, the following Changes were raised by industry participants and AEMO then endorsed for consultation by the ERCF and AEMO.

Table 2 Summary of Changes

ID	Subject	Procedure	Change Type
ICF_M001	Process to detect energy data	SLP: MDP Services	New clause



ID	Subject	Procedure	Change Type
ICF_023	Process when remote collection of metering data fails	Metrology Procedure: Part A SLP: MDP Services	Amendment
ICF_030	Configuration of data channels and meter data obligations	SLP: MDP Services	Amendment
ICF_037	Redefinition of 'Connection Configuration'	MSATS Procedures: CATS Standing Data document	Amendment
N/A	References to National Measurement Act	Measurement Guideline	Amendment

2.3. First stage consultation

AEMO issued the Notice of First Stage Consultation, Issues Paper and initial draft amended Procedure on Monday 1 March 2021. This information is available on [AEMO's website](#). The Issues Paper included a summary of the Changes, as well as details on AEMO's stakeholder engagement, including through the ERCF.

In response, AEMO received 13 submissions. AEMO has published copies of all written submissions (excluding any confidential information) on AEMO's website at: <https://aemo.com.au/consultations/current-and-closed-consultations/electricity-retail-market-procedures-march-2021>.

2.4. Structure of Procedures

Figure 1 The Procedures govern the operation of the retail market, as follows.

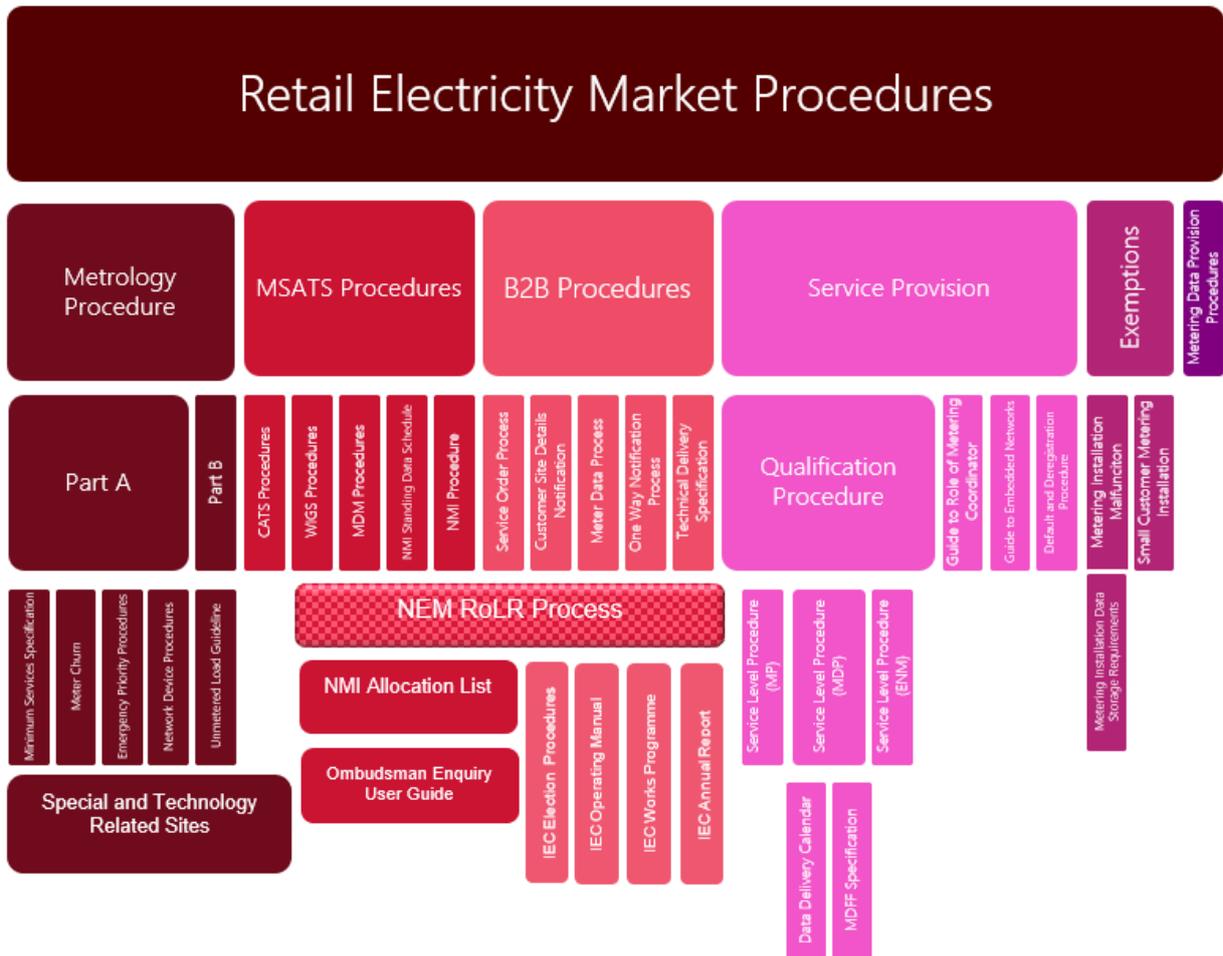
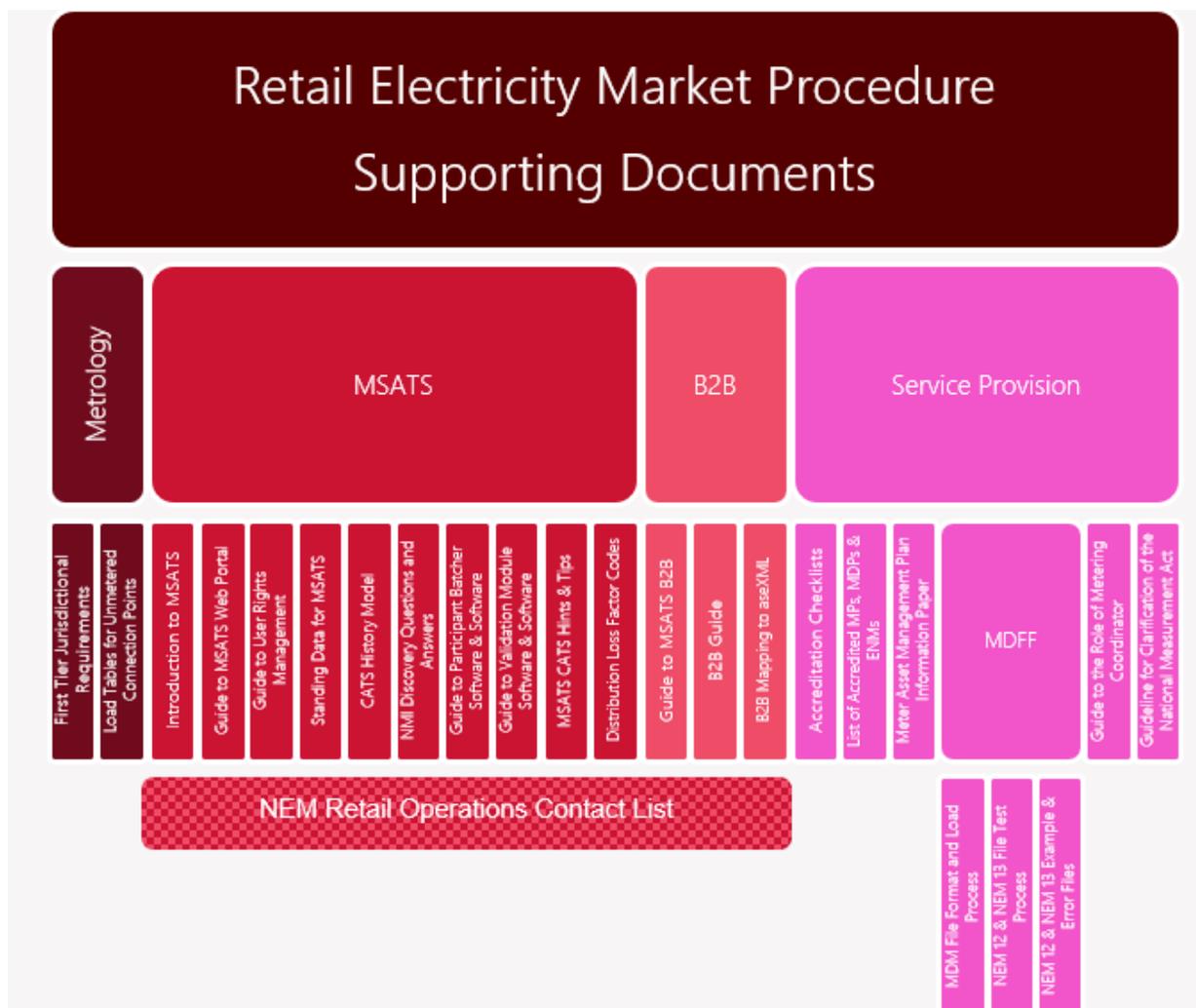


Figure 2 The Retail Electricity Market Supporting Documents (Supporting Documents) explain the Procedures, or provide additional information, as follows.



3. SUMMARY OF MATERIAL ISSUES

The key material issues are as follows.

No.	Issue	Raised by
1.	<u>Process when remote collection of metering data fails</u>	Multiple Respondents
2.	<u>Redefinition of 'Connection Configuration'</u>	Multiple Respondents

These issues are discussed in section 4 and detailed in Appendix B.

The Changes to the Procedures are as follows.

Table 3 Changes to Procedures

Procedure	Change	ID
Measurement Guideline	References to National Measurement Act	N/A
Metrology Procedure: Part A	Process when remote collection of metering data fails	ICF_023



Procedure	Change	ID
MSATS Procedures: CATS	Redefinition of 'Connection Configuration'	ICF_037
SLP: MDP Services	Process to detect energy data	ICF_M001
	Configuration of data channels and meter data obligations	ICF_030
	Process when remote collection of metering data fails	ICF_023
Standing Data document	Redefinition of 'Connection Configuration'	ICF_037

AEMO has published draft versions of the Procedures, incorporating these Changes, to help interested parties to respond to this Draft Report.

The draft Procedures are available in clean and change-marked versions at: <https://aemo.com.au/consultations/current-and-closed-consultations/electricity-retail-market-procedures-march-2021>. Editable version in .rtf format can be made available upon request by email to NEM.Retailprocedureconsultations@aemo.com.au. AEMO notes that the .pdf version is always the official version, which prevails to the extent of any inconsistency.

The implementation of certain of the Changes which are detailed below would occur in advance of related consultations which are yet to commence, as reflected in relevant version tables where possible, as well as the Retail Electricity Market Procedures Version History Tables: <https://aemo.com.au/consultations/industry-forums-and-working-groups/list-of-industry-forums-and-working-groups/electricity-retail-consultative-forum>.

4. DISCUSSION OF MATERIAL ISSUES

4.1. Process when remote collection of metering data fails (ICF_023)

4.1.1. Issue summary and submissions

The Change:

- Is to clarify which participant is obliged to prevent the loss of actual metering data, especially when the appointed Metering Coordinator (MC), Metering Provider (MP) or MDP for a metering installation is not a single business.
- Would require the MC to arrange for the investigation of a potential metering installation malfunction within a defined timeframe, when the MDP notifies the MC of a failure to remotely collect metering data for a number of consecutive days.

Could define a timeframe of 35 days of minimum interval energy data storage for the meter, as suggested by the proponent. The scope of the Change is limited to a procedure update to occur in response to a meter malfunction which results in the MDP's inability to remotely collect data over a given number of consecutive days.

In these circumstances:

- MDP must inform the MC.
- MC must arrange for:
 - MP to confirm whether there is a metering installation malfunction.



- o Repair to be completed as per the NER 7.8.10 timeframe, absent an exemption from AEMO.

These fixed timeframes are preferred over an outcome-based approach, because collecting actual metering data to meet customer, industry and settlements needs will minimise complaints and exceptions handling.

The MC must arrange for an alternate method of meter data collection in a timeframe which prevents the loss of actual metering data, where there are other factors that prevent the remote collection, including:

- AEMO has provided an exemption for a metering installation malfunction; or
- A telecommunications failure has occurred.

Currently, the relevant industry practice requires manual workarounds, such as Provide Meter Data, Verify Meter Data and emails.

Accordingly, this change proposal will:

- Provide clear accountability in the Procedures.
- Improve operational efficiency for the market by reducing costs.
- Minimise the potential for actual metering data to be lost due to the inaction or delayed action of the MC, MDP and/or MP.
- Allow actual metering data to become available sooner for market settlements.
- Enable the quicker identification and rectification of irregularities in the end customer’s bill.

AEMO noted that 15 business days to determine a malfunction’s existence may push days of metering data lost up to 47 days. Accordingly, AEMO adjusted the Change in the Issues Paper to fall within the 35-day meter configuration. The Change reflected AEMO’s understanding of the concept of collecting actual meter data and minimising meter data loss, whilst complying with the requirement in the NER 7.8.2(a)(9) to ensure that the metering installation includes facilities for storing interval energy data for a period of at least 35 days, if the metering installation is registered as a type 1, 2, 3 or 4 metering installation.

The Changes proposed in the Issues Paper are as follows.

Document	Section	Description
Metrology Procedure: Part A	Section 12.2 Metering Data Collection	Insert new clauses: <u>(k) The MC must use reasonable endeavours to identify if a metering installation malfunction exists within 7 days from when an MDP informs them that remote acquisition is not available.</u> <u>(l) For metering installations that have remote acquisition, the MC must use reasonable endeavours to collect metering data at a frequency that prevents the loss of actual metering data but at a frequency of no more than 14 days since the last actual metering data was collected when remote acquisition is not available.</u>
SLP: MDP Services	Section 3.5 Specific Collection Process Requirements for Metering installations with Remote	Insert new clause: <u>(c) Each MDP must operate and maintain a process so that by the fifth consecutive day that remote acquisition is unavailable the MDP notifies the MC.</u>

Document	Section	Description
	Acquisition of Metering Data	

In response:

Metrology Procedure: Part A - Section 12.2

- AGL Power Direct, Alinta Energy, CitiPower Powercor, Energy Queensland, Intellihub, Plus ES, Powermetric Metering, Red Energy and Lumo Energy, United Energy and Vector Metering did not support the Change as worded in the Issues Paper. Instead, these respondents proposed re-drafting which they suggest will enable market flexibility for those meters with higher day capacity than the minimum 35 days in the NER, whilst maintaining compliance with the NER, as well as providing the opportunity for all parties to perform the numerous steps which lead up to conducting a meter reading.
- AusNet Services did not support the Change, as AusNet Services considers that the VICAMI rollout addresses the issue.
- Origin Energy accepted the new clauses.

SLP: MDP Services - Section 3.5

- AGL Power Direct supported the concept, but did not agree with AEMO's wording changes to maintain the clause within the 35-day meter configuration, therefore proposed re-drafting.
- Alinta Energy, CitiPower Powercor, Plus ES, United Energy and Vector Metering supported the Change to the SLP: MDP Services section 3.5, but requested that the wording should acknowledge business days, to avoid any issues created by public holidays and weekends.
- AusNet Services did not support the Change, as AusNet Services considers that the VICAMI rollout addresses the issue.
- Origin Energy and Powermetric Metering accepted the new clauses.

4.1.2. AEMO's assessment

AEMO notes that the Changes reflected AEMO's understanding of the concept of collecting actual meter data and minimising meter data loss, whilst complying with the requirement in NER 7.8.2(a)(9) to ensure that the metering installation includes facilities for storing interval energy data for a period of at least 35 days, if the metering installation is registered as a type 1, 2, 3 or 4 metering installation.

AEMO agrees with the need to allow for public holidays and weekends. Accordingly, AEMO proposes to change the wording in section 3.5 of the SLP: MDP Services to recognise business days, as follows:

'Each MDP must operate and maintain a process so that on the next business day after which a period of, at most, five consecutive business days where remote acquisition is unavailable, the MDP must notify the MC that remote acquisition is unavailable.'

AEMO has reviewed the proposed re-drafting provided in the various submissions. AEMO agrees that the clauses can incorporate the flexibility to reflect the programmed capacity of a meters to store readings, while still meeting the requirements of the NER. AEMO proposes to change the wording in section 12.2 of the Metrology Procedure: Part A to recognise the various meter storage capacities, as follows:

'(k) When the MC is informed of a metering data collection issue, the MC must:

(i) within 15 business days, take the necessary steps to have the missing metering data collected;

(ii) ensure that the metering installations' communications interface is maintained to facilitate ongoing collection of metering data;

(iii) ensure that metering data is collected at a frequency that is within the energy data storage capacity of that metering installation such that the metering data collection process prevents the loss of actual metering data; and

(iv) ensure that, irrespective of the energy storage capacity of the metering installation, the metering installation reading frequency must not exceed three months since the last actual read was undertaken.'

4.1.3. AEMO's conclusion

AEMO's conclusion is to update:

- SLP: MDP Services section 3.5 to recognise business days; and
- Metrology Procedure: Part A section 12.2 to cater for various meter storage capacities.

4.2. Redefinition of 'Connection Configuration' (ICF_037)

4.2.1. Issue summary and submissions

AEMO's MSDR Final Determination – published on 7 September 2020 – introduced a new field, Connection Configuration, which is defined as follows.

Two-character code to denote information about the configuration of the connection point.

First Character = Connection Type

H = High voltage (as defined in the NER)

L = Low voltage (lower than the threshold defined for high voltage in the NER)

Second Character = Phases In Use

1 = Single Phase

2 = Two-Phase

3 = Three-Phase

This field was initially located within the NMI Data table, as a mandatory field, to be populated by the Local Network Service Provider (LNSP).

The Second Character (Phases In Use) is defined as the phases available at the connection point, instead of literal phases in use. For example, if a premise has a 3-phase service main to its connection point, but only actually uses 1 phase at the metering installation, then the second character would be 3, not 1.

The MSDR intends to enable the sharing of key information, to minimise wasted site visits by MPs. In the above example, the MP would not know whether the existing metering installation is connected as single-phase or three-phase. Accordingly, the MP would be unable to appropriately quote, or to know what meter to bring, without a site visit in advance. This inability makes the information in the field unreliable for market operations. Consequently, the LNSP will be obliged to maintain this information, for little benefit.

The Change would:

- Redefine 'Connection Configuration' as 'Phases in Use', instead of phases available at the connection point.
- Instantly overwrite the current definition, thereby improving operational efficiency, because its implementation is expected to coincide with the effective date of Stage 1 of MSDR.

Further, the field is to be populated by the MPB as the participant which has this relevant information. The MP would also be aware if the connection is LV or HV, because it has to install metering equipment which



aligns with the connection type, therefore making the field the MP's responsibility. The field will be Mandatory only when there is an installed meter, but will be blank by default.

The Changes are as follows.

Document	Section	Description
MSATS Procedures: CATS	9.1.4; 9.2.4; 9.3.4; 9.4.4; 12.2.4; 12.2.5; 12.3.4; 12.5.4	Removes obligation for LNSP and ENM to populate a Change Request with Connection Configuration.
	9.3.4(h)	Allows LNSPs to populate the Change Request with Connection Configuration information.
	10.1.4(d); 10.2.4(d); 10.3.4(d)	Adds obligation for MPB to populate a Change Request with Connection Configuration.
	10.4.4(d); 10.5.4(d)	Adds obligation for MC to populate a Change Request with Connection Configuration.
	15.1.4(d); 15.1.4(f)	Changes position of reference to Connection Configuration for AEMO from 15.1.4(d) to 15.1.4(f).
	Table 16-C	Moves Table 16-C from NMI_DATA section to METER REGISTER section.
MSATS Procedures: WIGS	4.1.4; 4.2.4; 4.3.4; 7.1.4; 7.1.5; 7.2.3; 7.3.4	Removes obligation for LNSP and ENM to populate a Change Request with Connection Configuration.
	5.2.4(d); 5.3.4(d); 5.4.4(d)	Adds obligation for MPB to populate a Change Request with Connection Configuration.
	9.1.4(b)(i); 9.1.4(b)(iii)	Changes position of reference to Connection Configuration for AEMO from 9.1.4(b)(i) to 9.1.4(b)(iii).
Standing Data document	Table 6 (CATS_NMI_DATA)	Changes location of ConnectionConfiguration field to Meter Register table.
	Table 3 (CATS_METER_REGISTER)	Updates ConnectionConfiguration field as follows: MANDATORY where there is an installed meter Field to be provided by LNSP MPB .

At the time of publication of this Draft Report, v4.52 of Standing Data for MSATS is yet to be finalised and v5.0 is yet to be implemented. As the Changes which are listed in the table above are contingent on Standing Data for MSATS v4.6, this version has been used as the basis of the change-marked Procedures. Other content which is change-marked is outside the scope of this Consultation and will be consulted on separately during the consolidation process. These versions will be consolidated at a later date.

In response:

- AGL Power Direct, Alinta Energy, Plus ES and Vector Metering did not support the move to meter level.
- AusNet Services and Origin Energy supported this Change.



- Intellihub suggested the field be split to allow LNSPs to provide the expected supply connection to the site and the MPB to provide the supply at the metering level.
- TasNetworks suggested the field provided no value and should be removed.
- Red Energy and Lumo Energy requested that the field be expanded to identify phases available as well as phases in use.

4.2.2. AEMO's assessment

AEMO notes that the Changes reflected:

- The ICF proposal and Change Information Paper (CIP) which was provided by Endeavour Energy and supported by ERCF participants.
- The intent of the Proposal to provide Metering Providers (MPs) with information to drive efficiencies for metering installation replacements.

AEMO has reviewed the varying submissions and considered whether the provision of information should be split between the LNSP and MPs. AEMO requests submissions on a split in Question 1 of this Draft Report.

At this stage, AEMO has proposed the Change to the field to reflect the intent to provide information to MPs in respect of the phases available, as well as the phases in use, as follows:

Two-character code to denote information about the configuration of the connection point.

First Character = Connection Type

H = High voltage (as defined in the NER)

L = Low voltage (lower than the threshold defined for high voltage in the NER)

Second Character

A = single phase supply/single phase metering

B = 2 phase supply/one phase with single phase meter

C = 2 phase supply/two phases each with single phase metering

D = 2 phase supply/ two phase metering

E = 3 phase supply/one phase with single phase metering

F = 3 phase supply/two phases each with single phase metering

G = 3 phase supply/two phase metering

H= 3 phase supply/three phases each with single phase metering

J = 3 phase supply/three phase metering

K = Single Wire Earth Return (SWER)

The field will remain in the Meter Register table, as the responsibility of the MPB, including where the MPB is also the LNSP.

4.2.3. AEMO's conclusion

AEMO has changed the information captured in the Connection Configuration field to identify phases available, as well as phases in use. AEMO has maintained the MPB as the role to populate the Connection Configuration field. However, AEMO requests further feedback on whether the field should be split between the LNSP and MPB, as per Question 1 of this Draft Report.



5. QUESTIONS ON PROPOSED CHANGES

- 1) With regards to ICF_037 Connection Configuration, do you consider that the field would be better split to allow the LNSP to provide the expected supply connection to the site and the MPB to provide the supply at the metering level?

6. OTHER MATTERS

In the Issues Paper, the effective date of the Measurement Guideline and Glossary and Framework was proposed to be 1 August 2021. However, this date is a Sunday. Accordingly, the effective date will be 2 August 2021, which is a business day.

Further, AEMO will not be proceeding with the Changes to the Glossary and Framework, as had been proposed in the First Stage Consultation, because the current section 2.4 already mentions the Measurement Guideline.

Finally, AEMO notes the additional feedback received in respect of updating the C7 report with the new/amended fields of the MSDR, including the Connection Configuration field, which is the subject of ICF_037. AEMO will review the C7 report as part of the implementation requirements of MSDR.

7. DRAFT DETERMINATION

AEMO's draft determination is to amend the following documents in the form published with this Draft Report, in accordance with NER Chapter 7:

- Guideline for Clarification of the National Measurement Act.
- Metrology Procedure: Part A - National Electricity Market.
- Service Level Procedure: Metering Data Provider Services.
- Standing Data for MSATS.
- MSATS Procedures: CATS Procedure.
- MSATS Procedures: WIGS Procedure.



APPENDIX A. GLOSSARY

Term or acronym	Meaning
B2B	Business-to-Business
CATS	Consumer Administration and Transfer Solution, a part of MSATS
CIP	Change Information Paper
CR	Change Request
ERCF	Electricity Retail Consultative Forum
ICF	Issue / Change Form
LNSP	Local Network Service Provider
MC	Metering Coordinator
MDP	Metering Data Provider
MP	Metering Provider
MPB	Metering Provider Category B
MSATS	Market Settlements and Transfer Solution
NEM	National Electricity Market
NER	The National Electricity Rules made under Part 7 of the National Electricity Law
NMI	National Metering Identifier
PoC	Power of Choice
SLP	Service Level Procedure
SWER	Single Wire Earth Return
WIGS	Wholesale, Interconnector, Generator and Sample



APPENDIX B. SUMMARY OF SUBMISSIONS AND AEMO RESPONSE

Table 4 Service Level Procedure: Metering Data Provider Services (SLP: MDP Services)

No.	Section	Consulted person	Issue	AEMO response
1.	2.4.3 Reactive Energy	AGL Power Direct	AGL supports the change	AEMO notes the respondent's support for the proposed change.
2.	2.4.3 Reactive Energy	Alinta Energy	Alinta Energy supports what is being proposed, however we like to see 2.4.3 (b)(ii) modified so that there no confusion as to when reactive energy information needs to be collected and delivered. Suggested wording: (ii) application of a <i>reactive energy</i> -based <i>Network Tariff</i> or if required by FRMP in order to calculate the energy user's bill.	AEMO notes the respondent's support for the proposal. AEMO agrees to update the wording.
3.	2.4.3 Reactive Energy	AusNet Services	Agreed, however AusNet Services would like type 5 and VICAMI meters to be included in paragraph (b), as such AusNet Services proposes the following amendment: (b) The MDP is not subject to the storage requirement in paragraph (a), if the metering data in respect of reactive energy as measured by a type 4, type 5 or VICAMI metering installation is not required for the current purposes of either:	AEMO notes the respondent's support for the proposal. AEMO agrees to update the wording.
4.	2.4.3 Reactive Energy	CitiPower Powercor	The electricity distribution industry is undergoing profound changes, the traditional flow of energy down from the Transmission network to end use customers is making way to bi-directional distribution within LV networks and across via HV from one LV network to another as the deployment of embedded generation increases, resulting in lower customer loads and increasing generation exports, resulting in peaks and troughs in network capacity and swings in voltages. Today our business has over '1.2 million customers' and '12,000' of those are on NMI's classified as Large, i.e. consuming more than 160MWh. Traditionally, the contestable metering on those customers has been configured EBQK (i.e. 4 quadrant). Of those 12,000 Large customers, some 2,500 are Type 1 to 3 customers (i.e. EHV sub-transmission or HV distribution customers) on a mandatory KVA demand tariff. Of the remaining 9,500 Large low voltage Type 4 customers, <u>3,000</u> are not on KVA demand tariffs through 'customer choice'.	AEMO notes the respondent's comments and agrees to defining the clause for small customer: 'The MDP is not subject to the storage requirement in paragraph (a), if the metering data in respect of reactive energy as measured by a type 4 small customer metering installation is not required for the current purposes of either.' AEMO does not agree that it can be mandated that a default value of EBQK applies for all large customers as not all large customer will have been default configured as EBQK.



No.	Section	Consulted person	Issue	AEMO response
			<p>It is a requirement of the NER under chapter 7 that where a site has an embedded generation with the possibility of export, that a bi-directional meter be installed, that is not reliant on either a KVA tariff or provision to a 'requesting party'.</p> <p>Equally, the impact of power factor and reactive energy flows by large customers on distribution network capacity is not reliant on, or limited to those customers being charged on a KVA demand tariff. KVA demand tariffs are simply a pricing and a price signalling strategy, and for the Large type 4 customers, a 'customer choice' is provided to select between an energy only, or a KVA demand tariff, but that doesn't mean that those Large Type 4 customers are not consuming significant KVA capacity of the network.</p> <p>For the bulk of Victorian Small customers, the Victorian distributors now have access to real time PQ data providing even more information to help the networks be managed better.</p> <p>The proposed changes would see a significant proportion of our Large customers (25%) likely move from EBQK to E datastreams as they are not on KVA demand tariffs, and would remain so unless we as a 'requesting party' requested each of the MC's for each of those NMI's to expand back to EBQK or at least EQK in the absence of embedded generation.</p> <p>Each time the FRMP at those NMI's churned, there may also be a churn of MC and we would be constantly needing to monitor and re-issue requests for additional data.</p> <p>The AEMC is currently undertaking a review of the "Regulatory Framework for Metering Services", along with a review into 'LV Network System Security and Reliability'.</p> <p>It is clear that the provision of metering services in the market in the past has focused purely on the real energy requirements for the retail and generation elements of the industry and for the settlements process and in some cases resulted in the lack of consistent data to distributors. While we are seeing increasing proposals to monitor and manage DER and further monitoring of what is occurring on the network, yet the proposed changes will result in reduction of data from 25% of our largest customers.</p> <p>The AEMC review of metering services includes consideration of: 'Better network service: the information provided by smart meters could give DNSPs a better picture of holistic electricity consumption patterns and enable them to make</p>	



No.	Section	Consulted person	Issue	AEMO response
			<p>more efficient network investment decisions. Additionally, demand management and other products mentioned above, if available, may be able to help reduce peak demand and defer or avoid expensive network augmentations. This would benefit all consumers through lower network costs’.</p> <p>The efficient management of distribution networks requires more than just kWh information, that was a limitation of past metering equipment, not of current capability.</p> <p>While it is agreed that sending and storing 5 minute intervals of "zero" data is of no benefit to anyone, there are few Large customers with ‘zero’ reactive energy flows, and they have an effect on the efficient planning and management of network capacity. We strongly recommend that at least EQK should be mandatory on all Large classified NMIs and B required, as per the rules, where embedded generation occurs. However, given the small number of non-KVA demand customers we prefer a blanket rule that EBQK be standard for all Large classified NMIs (i.e. Type 1 to 4 metering installations over 160MWh).</p> <p>We do agree with the proposal in regards to Small Type 4 installations (below 160MWh), particularly as we in Victoria, access our PQ data from our own AMI meters outside the requirements of the NER as ‘Network Devices’ and do not need ‘B’ unless embedded generation or ‘Q&K’ unless a KVA demand tariff is in place.</p> <p>CitiPower Powercor strongly recommend that the below amendments be incorporated so that this change only apply to type 4 metering, where the customer is classified as ‘Small’ and read as follows:</p> <p><i>(a) Subject to paragraph (b), where the metering installation is configured to measure reactive energy, the MDP must store this metering data with the metering data in respect of active energy in the metering data services database.</i></p> <p><i>(b) For all Large customers, a default configuration of EBQK will apply unless otherwise agreed by the relevant market participants.</i></p> <p><i>(c) The MDP is not subject to the storage requirement in paragraph (a), if the metering data in respect of reactive energy as measured by a Small customer type 4 metering installation is not required for the current purposes of either: (i) provision to a requesting party, as may be required for the purposes of additional services under NER 7.4.3; or (ii) application of a reactive energy-based tariff.</i></p>	
5.	2.4.3 Reactive Energy	Energy Queensland	Energy Queensland provides no comment.	



No.	Section	Consulted person	Issue	AEMO response
6.	2.4.3 Reactive Energy	Intellihub	N/A	
7.	2.4.3 Reactive Energy	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the proposed change.
8.	2.4.3 Reactive Energy	Powermetric Metering	Powermetric believe this sits within the current data management system and have no issues with this proposed change.	AEMO notes the respondent's comments.
9.	2.4.3 Reactive Energy	Red Energy and Lumo Energy	Red Energy and Lumo Energy (Red and Lumo) note the proposal. It is important that this proposal does not lead to any consequential amendments in the presentation of meter information in MSATS. Should this occur, there will be flow on system and process impacts with no corresponding benefit to retailers or consumers.	AEMO notes the respondent's comments. The proposed change does not amend any MSATS meter information requirements.
10.	2.4.3 Reactive Energy	United Energy	<p>The electricity distribution industry is undergoing profound changes, the traditional flow of energy down from the Transmission network to end use customers is making way to bi-directional distribution within LV networks and across via HV from one LV network to another as the deployment of embedded generation increases, resulting in lower customer loads and increasing generation exports, resulting in peaks and troughs in network capacity and swings in voltages.</p> <p>Today our business has approximately 800,000 customers and '7,300' of those are on NMIs classified as Large, i.e. consuming more than 160MWh. Traditionally, the contestable metering on those customers has been configured EBQK (i.e. 4 quadrant).</p> <p>Of those 7,300 Large customers, some 1,000 are Type 1 to 3 customers (i.e. EHV sub-transmission or HV distribution customers) on a mandatory KVA demand tariff. Of the remaining 6,300 Large low voltage Type 4 customers, <u>4,200</u> are not on KVA demand tariffs through 'customer choice'.</p> <p>It is a requirement of the NER under chapter 7 that where a site has an embedded generation with the possibility of export, that a bi-directional meter be installed, that is not reliant on either a KVA tariff or provision to a 'requesting party'.</p> <p>Equally, the impact of power factor and reactive energy flows by large customers on distribution network capacity is not reliant on, or limited to those customers being charged on a KVA demand tariff. KVA demand tariffs are simply a pricing and a price signalling strategy, and for the Large type 4</p>	AEMO notes the respondent's comments and refers to the response provided in Table 1, item 4.



No.	Section	Consulted person	Issue	AEMO response
			<p>customers, a 'customer choice' is provided to select between an energy only, or a KVA demand tariff, but that doesn't mean that those Large Type 4 customers are not consuming significant KVA capacity of the network.</p> <p>For the bulk of Victorian Small customers, the Victorian distributors now have access to real time PQ data providing even more information to help the networks be managed better.</p> <p>The proposed changes would see a significant proportion of our Large customers (58%) likely move from EBQK to E datastreams as they are not on KVA demand tariffs, and would remain so unless we as a 'requesting party' requested each of the MC's for each of those NMIs to expand back to EBQK or at least EQK in the absence of embedded generation.</p> <p>Each time the FRMP at those NMIs churned, there may also be a churn of MC and we would be constantly needing to monitor and re-issue requests for additional data.</p> <p>The AEMC is currently undertaking a review of the "Regulatory Framework for Metering Services", along with a review into 'LV Network System Security and Reliability'.</p> <p>It is clear that the provision of metering services in the market in the past has focused purely on the real energy requirements for the retail and generation elements of the industry and for the settlements process and in some cases resulted in the lack of consistent data to distributors. While we are seeing increasing proposals to monitor and manage DER and further monitoring of what is occurring on the network, yet the proposed changes will result in reduction of data from 58% of our largest customers.</p> <p>The AEMC review of metering services includes consideration of: 'Better network service: the information provided by smart meters could give DNSPs a better picture of holistic electricity consumption patterns and enable them to make more efficient network investment decisions. Additionally, demand management and other products mentioned above, if available, may be able to help reduce peak demand and defer or avoid expensive network augmentations. This would benefit all consumers through lower network costs'.</p> <p>The efficient management of distribution networks requires more than just kWh information, that was a limitation of past metering equipment, not of current capability.</p> <p>While it is agreed that sending and storing 5 minute intervals of "zero" data is of</p>	



No.	Section	Consulted person	Issue	AEMO response
			<p>no benefit to anyone, there are few Large customers with ‘zero’ reactive energy flows, and they have an effect on the efficient planning and management of network capacity. We strongly recommend that at least EQK should be mandatory on all Large classified NMIs and B required, as per the rules, where embedded generation occurs. However, given the small number of non-KVA demand customers we prefer a blanket rule that EBQK be standard for all Large classified NMIs (i.e. Type 1 to 4 metering installations over 160MWh). We do agree with the proposal in regards to Small Type 4 installations (below 160MWh), particularly as we in Victoria, access our PQ data from our own AMI meters outside the requirements of the NER as ‘Network Devices’ and do not need ‘B’ unless embedded generation or ‘Q&K’ unless a KVA demand tariff is in place.</p> <p>United Energy strongly recommend that the below amendments be incorporated so that this change only apply to type 4 metering, where the customer is classified as ‘Small’ and read as follows:</p> <p><i>(a) Subject to paragraph (b), where the metering installation is configured to measure reactive energy, the MDP must store this metering data with the metering data in respect of active energy in the metering data services database.</i></p> <p><i>(b) For all Large customers, a default configuration of EBQK will apply unless otherwise agreed by the relevant market participants.</i></p> <p><i>(c) The MDP is not subject to the storage requirement in paragraph (a), if the metering data in respect of reactive energy as measured by a Small customer type 4 metering installation is not required for the current purposes of either: (i) provision to a requesting party, as may be required for the purposes of additional services under NER 7.4.3; or (ii) application of a reactive energy-based tariff.</i></p>	
11.	New clause 2.4.1(a)(ix)	AGL Power Direct	AGL supports the change	AEMO notes the respondent’s support for the proposed change.
12.	New clause 2.4.1(a)(ix)	Alinta Energy	<p>Alinta Energy does not support the insertion of this new clause into the MDP Metrology procedure.</p> <p>The roles and responsibilities of participants when this energy is detected is not well defined in the NER and supporting procedures.</p> <p>Alinta Energy would like to see the roles and responsibilities addressed at the same time as this obligation was placed on MDP’s. We proposed that this change be held over until industry has had the opportunity to consider what changes need to be made to relevant regulatory frameworks to ensure it is clear</p>	AEMO notes the respondent’s comments. AEMO considers it is important to cover this change to avoid loss of energy in the absence of any specific provisions in the NER.



No.	Section	Consulted person	Issue	AEMO response
			who and how this energy is managed from a holistic point of view. This will include obligations to investigate, rectify and possibly prosecute in the event of illegal and unauthorised activity.	
13.	New clause 2.4.1(a)(ix)	AusNet Services	<p>AusNet Services does not support the proposal to introduce an additional process for the MDP to detect energy data every 20 business days, when the datastream is not active for remotely read metering installations. Processes that were introduced as a part of the VICAMI roll out are more than sufficient in regard to avoiding metering data loss, as such AusNet Services proposes the following amendment:</p> <p><u>Where the Metering Coordinator (MC) is not the Distribution Network Service Provider (DNSP), ensure that systems and processes are in place to detect energy data, at least every 20 business days, when the datastream is not active for a metering installation with remote acquisition</u></p>	AEMO notes the respondent's comments. AEMO notes the change proposed is about the provision of information between the two roles to enable the MC to perform their role obligations. The change does not indicate the steps to perform this process. Victorian distributors are still required to perform and support both roles. AEMO does not agree with the additional wording as VICAMI regulations do not enforce this for all Victorian distributors.
14.	New clause 2.4.1(a)(ix)	Energy Queensland	Energy Queensland provides no comment.	
15.	New clause 2.4.1(a)(ix)	Intellihub	N/A	
16.	New clause 2.4.1(a)(ix)	Origin Energy	New clause is noted and accepted.	AEMO notes the respondent's support for the proposed change.
17.	New clause 2.4.1(a)(ix)	Powermetric Metering	Powermetric believe this sits within the current data management system and have no issues with this proposed change.	AEMO notes the respondent's comments.
18.	New clause 2.4.1(a)(ix)	Red Energy and Lumo Energy	Red and Lumo note the proposal and have no comment at this time.	
19.	Renumbered clauses	AGL Power Direct	AGL supports the change	AEMO notes the respondent's support for the proposed change.
20.	Renumbered clauses	Alinta Energy	No comment.	
21.	Renumbered clauses	AusNet Services	Agreed.	AEMO notes the respondent's support for the proposed change.
22.	Renumbered clauses	Energy Queensland	Energy Queensland provides no comment.	
23.	Renumbered clauses	Intellihub	N/A	



No.	Section	Consulted person	Issue	AEMO response
24.	Renumbered clauses	Origin Energy	Noted	
25.	Renumbered clauses	Powermetric Metering	No comment	
26.	Renumbered clauses	Red Energy and Lumo Energy	Noted.	
27.	3.5 Specific Collection Process Requirements for Metering installations with Remote Acquisition of Metering Data	AGL Power Direct	<p>AGL supports the concept of Meter data collection but does not support the drafting which has been proposed by AEMO. See confidential submission for other details.</p> <p>A remote meter could lose comms due to a network disconnection. Under MSATS: CATS Procedures networks are not required to update MSTAS for 5 days. Therefore this amendment does not allow the MDP to determine if there has been a network disconnection prior to referring the issue to the MC.</p> <p>AGL notes that earlier drafting allowed 15 days, but proposes that the activity occur on the next business day after 5 consecutive days of no data – proposed drafting supplied.</p> <p>SLP – CI 3.5 – Proposed re-drafting</p> <p>(c) Each MDP must operate and maintain a process so that on the next business day, after five consecutive days where remote acquisition is unavailable, the MDP notifies the MC.</p>	AEMO notes the respondent’s support for the concept of the proposed change. AEMO agrees to rewording of the clause and will update the clause to: ‘Each MDP must operate and maintain a process so that on the next business day after which a period of, at most, five consecutive business days where remote acquisition is unavailable, the MDP must notify the MC that remote acquisition is unavailable.’
28.	3.5 Specific Collection Process Requirements for Metering installations with Remote Acquisition of Metering Data	Alinta Energy	<p>Alinta Energy supports this change. We also acknowledge that over the Xmas and Easter long weekends that this obligation becomes a bit challenging, so we suggest the following rewording:</p> <p>(c) Each MDP must operate and maintain a process so that after five consecutive days where remote acquisition is unavailable, the MDP notifies the MC on the next business day.</p>	AEMO notes the respondent’s support for the proposed change and refer to the response provided in Table 1, item 27.
29.	3.5 Specific Collection Process Requirements	AusNet Services	AusNet Services does not support the proposal to introduce an additional process for the MDP to notify the MC where remote acquisition is unavailable. Processes that were introduced as a part of the VICAMI roll out are more than	AEMO notes the respondent’s comments. AEMO notes the change proposed is about the provision of information between the two roles to enable the MC to perform their role obligations. The



No.	Section	Consulted person	Issue	AEMO response
	for Metering installations with Remote Acquisition of Metering Data		sufficient in regard to avoiding metering data loss, as such AusNet Services proposes the following amendment: (c) Where the Metering Coordinator (MC) is not the Distribution Network Service Provider (DNSP), each MDP must operate and maintain a process so that by the fifth consecutive day that remote acquisition is unavailable the MDP notifies the MC.	change does not indicate the steps to perform this process. Victorian distributors are still required to perform and support both roles. AEMO does not agree with the additional wording as VICAMI regulations do not enforce this for all Victorian distributors.
30.	3.5 Specific Collection Process Requirements for Metering installations with Remote Acquisition of Metering Data	CitiPower Powercor	CitiPower Powercor supports the proposed change but recommends that this be updated to five business days.	AEMO notes the respondent’s support for the proposed change. AEMO agrees with updating to five business days and refers to the response provided in Table 1, item 27.
31.	3.5 Specific Collection Process Requirements for Metering installations with Remote Acquisition of Metering Data	Energy Queensland	Energy Queensland provides no comment.	
32.	3.5 Specific Collection Process Requirements for Metering installations with Remote Acquisition of	Intellihub	This should read: by the fifth consecutive business day.	AEMO notes the respondent’s comments and refers to the response provided in Table 1, item 30.



No.	Section	Consulted person	Issue	AEMO response
	Metering Data			
33.	3.5 Specific Collection Process Requirements for Metering installations with Remote Acquisition of Metering Data	Origin Energy	New clause is noted and accepted.	AEMO notes the respondent’s support for the proposed change.
34.	3.5 Specific Collection Process Requirements for Metering installations with Remote Acquisition of Metering Data	PLUS ES	<p>PLUS ES notes that an LNSP has 5 business days to update the status of a NMI in MSATS following a NMI De-energisation. The service provider for remote acquisition metering relies on the status of the NMI to investigate why communications from their meter have ceased.</p> <p>The proposed obligation is measured in days and the obligation for the LNSP to update MSATS, which the MDP has a dependency on, is in business days. This misalignment will result in efficient processes for the Service Provider.</p> <p>For example, using Easter this year as an example: A site was de-energised by the LNSP on Wed 31/3:</p> <ul style="list-style-type: none"> • 5 business days would be Friday 9/4 • 5 days for the SP would be 5/4 (Easter Monday -Public Holiday) • 7 days would be Wed 7/4 and • NMI Status may not be updated until Friday 9/4. <p>The proposed obligation (5days) would require:</p> <ul style="list-style-type: none"> • the MDP notifying potentially unnecessarily the MC about remote acquisition unavailability. • The MC/MPB to mitigate downstream impacts such as wasted truck visits, building additional monitoring/validation processes to allow to 5 business days from day 1 of no communications in case the NMI status changes, etc. <p>Aligning the timeframes for both obligations would enable the SP to streamline and implement efficient processes. PLUS ES proposes the following wording for consideration:</p>	AEMO notes the respondent’s comments and refers to the response provided in Table 1, item 30.



No.	Section	Consulted person	Issue	AEMO response
			<p><u>(c) Each MDP must operate and maintain a process so that after the fifth consecutive business day that remote acquisition is unavailable the MDP notifies the MC on the following business day.</u></p> <p>The above proposed amendment would continue to support the minimum storage capacity of meters – 35 days; that is, enable actual meter data to be manually collected before it is lost.</p>	
35.	3.5 Specific Collection Process Requirements for Metering installations with Remote Acquisition of Metering Data	Powermetric Metering	Powermetric believe this sits within the current data management system and have no issues with this proposed change.	AEMO notes the respondent’s comments.
36.	3.5 Specific Collection Process Requirements for Metering installations with Remote Acquisition of Metering Data	Red Energy and Lumo Energy	Red and Lumo note the proposal and have no comment at this time.	
37.	3.5 Specific Collection Process Requirements for Metering installations with Remote Acquisition of	United Energy	United Energy supports the proposed change but recommends that this be updated to five business days.	AEMO notes the respondent’s comments and refers to the response provided in Table 1, item 30.



No.	Section	Consulted person	Issue	AEMO response
	Metering Data			
38.	3.5 Specific Collection Process Requirements for Metering installations with Remote Acquisition of Metering Data	Vector Metering	The number of days should be in Business days. A common reason for losing communications is the NMI has been Deenergised by the LNSP. LNSP's have 5 business days to update MSATS. MDP's check NMI Status before initiating processes to resolve any comms issue. Requiring the MDP to commence these processes before MSAT's is updated to reflect what has occurred is inefficient. Original ICF suggested 7 Business Days which also accounts for the inherent lag in receiving MSATS updates after DNSP has generated the CR transaction and the market is notified. Recommend the period be set to 7 business days.	AEMO notes the respondent's comments and refers to the response provided in Table 1, item 30.

**Table 5 Metrology Procedure: Part A - National Electricity Market (Metrology Procedure: Part A)**

No.	Section	Consulted person	Issue	AEMO response
1.	12.2 Metering Data Collection	AGL Power Direct	<p>AGL supports the concept of collecting actual meter data and minimising meter data loss, but does not support the drafting which has been proposed by AEMO. See confidential submission for other details.</p> <p>The process which would result from the proposed drafting would see a unnecessary number of site visits for no appreciable effect. The cost of site visits is high, relative to the energy value, and the original proposal allowed for detection of external issues (eg DNSP disconnection, Telco issue), a service order request, issuing of an interruption notice to customers prior to the initial visit, and then the minimum number of site visits (up to 3 monthly) for data collection. The drafting as provided could see a site visited between 5 and 7 visits over a 3 month period compared to 1 or 2 times for problematic comms site. These additional visits would provide no appreciable benefit to customers or industry.</p> <p><u>Metrology Procedure – Part A – Proposed amended drafting</u> CI 12.2</p> <p>(k) When the MC is informed of a meter data collection issue, the MC must use reasonable endeavours to:</p> <p>(i) within 15 business days, take the steps to have the missing data collected;</p> <p>(ii) have the metering installations communications system maintained to ensure ongoing data collection; and</p> <p>(iii) ensure that metering data is collected at a frequency that is within the data storage capacity of that meter/s such that the data collection prevents the loss of actual metering data,</p> <p>(iv) read the meter at a frequency of no more than 3 months since the last actual read was undertaken, irrespective of the meter memory capability</p>	<p>AEMO notes the respondent's support for the concept of the proposed change. AEMO agrees to rewording of the clause and will update the clause to:</p> <p>'(k) When the MC is informed of a metering data collection issue, the MC must:</p> <p>(i) within 15 business days, take the necessary steps to have the missing metering data collected;</p> <p>(ii) ensure that the metering installations' communications interface is maintained to facilitate ongoing collection of metering data;</p> <p>(iii) ensure that metering data is collected at a frequency that is within the energy data storage capacity of that metering installation such that the metering data collection process prevents the loss of actual metering data; and</p> <p>(iv) ensure that, irrespective of the energy storage capacity of the metering installation, the metering installation reading frequency must not exceed three months since the last actual read was undertaken.'</p> <p>AEMO notes there are NER requirements where certain processes must be performed within certain timeframes, AEMO has no head of power to vary those requirements.</p>
2.	12.2 Metering Data Collection	Alinta Energy	<p>Alinta Energy does not support the inclusion of these 2 new clauses with their current wording.</p> <p>We propose the following as an alternative for AEMO to consider:</p> <p>(k) When the MC is informed of a meter data collection issue, the MC must use reasonable endeavours to:</p> <p>(i) within 15 business days, take the steps to have the missing data collected;</p>	<p>AEMO notes the respondent's comments and refers to the response provided in Table 2, item 1.</p>



No.	Section	Consulted person	Issue	AEMO response
			<ul style="list-style-type: none"> (ii) have the metering installations communications system maintained to ensure ongoing data collection; and (iii) ensure that metering data is collected at a frequency that is within the data storage capacity of that meter/s such that the data collection prevents the loss of actual metering data, <p>read the meter at a frequency of no more than 3 months since the last actual read was undertaken, irrespective of the meter memory capability</p>	
3.	12.2 Metering Data Collection	AusNet Services	<p>AusNet Services does not support the proposal for the MDP to inform the MC of a metering installation malfunction within 7 days where the MC, MP and MDP are a single business such as in Victoria with VICAMI meters. As such AusNet Services proposes the following amendment:</p> <p><u>(k) Where the Metering Coordinator (MC) is not the Distribution Network Service Provider, the MC must use reasonable endeavours to identify if a metering installation malfunction exists within 7 days from when an MDP informs them that remote acquisition is not available.</u></p> <p>AusNet Services does not support the proposal to collect metering data from a remotely read metering installation every 14 days where the MC, MP and MDP are a single business such as in Victoria with VICAMI meters. As such AusNet Services proposes the following amendment:</p> <p><u>(l) For metering installations that have remote acquisition, where the Metering Coordinator (MC) is not the Distribution Network Service Provider (DNSP), the MC must use reasonable endeavours to collect metering data at a frequency that prevents the loss of actual metering data but at a frequency of no more than 14 days since the last actual metering data was collected when remote acquisition is not available.</u></p>	<p>AEMO notes the respondent's comments. AEMO notes that single integrated businesses exist across the NEM, not just Victoria. The change proposed is about the provision of information between the two roles to enable the MC to perform their role obligations. The change does not indicate the steps to perform this process. Victorian distributors are still required to perform and support both roles. AEMO does not agree with the additional wording as VICAMI regulations do not enforce this for all Victorian distributors. AEMO will not be adding the exclusion wording.</p>
4.	12.2 Metering Data Collection	CitiPower Powercor	<p>Chapter 10 of the NER defines 'Metering Installation Malfunction' as: The full or partial failure of the metering installation in which the metering installation does not:</p> <ul style="list-style-type: none"> (a) meet the requirements of schedule 7.4; or (b) record, or incorrectly records, energy data; or (c) allow, or provides for, collection of energy data; or (d) in the case of a small customer metering installation, meet the requirements of schedule 7.5. 	<p>AEMO notes the respondent's comments and refers to the responses provided in Table 2, item 1 and item 3.</p>



No.	Section	Consulted person	Issue	AEMO response
			<p>Small customer metering installations can malfunction and need replacement, often depending on the nature of the malfunction the meter will be not operating or recording any data and hence rushing to site in 15 days is futile. Additionally, most small customer installations have direct connected metering and for any meter replacement require prior written notification of a planned outage resulting in further or multiple site visits if this prescriptive approach is applied to the mass market.</p> <p>The failure of a wide area telecommunications network resulting in failure to collect energy data is clearly not a metering installation malfunction.</p> <p>While the NER requires remotely read meters to have a minimum of 35 days of onboard meter data storage capacity, most modern meters and particularly those installed as 'new and replacement' meters under the 5 Minute Settlements rule typically have far more data storage capacity.</p> <p>This is demonstrated by most type 4S meters being capable to be installed as type 4A meters and to sustain scheduled reads on a monthly or quarterly read cycle and certainly not requiring a 15 day cycle.</p> <p>Much of the mass market outside Victoria is still fitted with type 6 basic meters, delivering register reads every 90 days under quarterly read cycles, replacement of those with remotely read 5 minute interval meters does not reduce the inefficiency and high costs of multiple site visits.</p> <p>The intent behind this ICF was to define a timeframe for determining if a metering installation malfunction exists <u>where the minimum interval energy data storage for a meter is 35 days</u>. Hence, it is far better to let the MC/MP assess the situation and the storage capacity of their meter fleet and send a metering technician to investigate and determine if a metering malfunction has occurred and if the installation needs repair or replacement as opposed to sending a special meter reader with no technical skills or capabilities to investigate, assess, repair or replace a meter.</p> <p>For the situations where the WAN telecommunications network is out, but the meter is operating correctly and has adequate meter memory storage capacity, the deployment of manual meter reading resources and their timing should be left to the MC and MP to manage and not be made prescriptive as proposed.</p> <p>For all other situations the priority is to send a metering technician with the skills to investigate and assess the situation, and if required perform a planned outage, repair, or manually read and replace the malfunctioning meter.</p>	



No.	Section	Consulted person	Issue	AEMO response
			<p>It is reasonable to prescribe a minimum manual data collection period for metering installations for Large customers and subsequently this proposal should be limited to those large, type 4 customers.</p> <p>The proposal under the SLP for notification from the MDP to MC of loss communication is supported as drafted but CitiPower Powercor strongly recommends the proposal for the new Metrology Procedure Part A clauses to be updated as per the below:</p> <p>(k) <i>For Large customer metering installations</i>, the MC must use reasonable endeavours to identify if a metering installation malfunction exists within 7 days from when an MDP informs them that remote acquisition is not available.</p> <p>(l) For <i>Large customer</i> metering installations that have remote acquisition, the MC must use reasonable endeavours to collect metering data at a frequency that prevents the loss of actual metering data but at a frequency of no more than 14 days, since the last actual metering data was collected when remote acquisition is not available.</p>	
5.	12.2 Metering Data Collection	Energy Queensland	<p>Energy Queensland suggests the proposed 7 day window (from point 12.2 (k)) is unrealistic. We suggest it would be more suitable to align the timeframe to the 15 day window per existing processes for malfunctions which allows time for MSATS updates and an interruption notice to be issued prior to site attendance. For example, participants have 5 days to update MSATS for a status change, and initial checks indicate that a majority of what are initially communications faults are due to network disconnections with no update to MSATS (often taking up to the 5 days or longer).</p> <p>Also, the 7-day window would not allow reasonable time to raise a request and have a retailer or agent issue a service order and an Interruption notice to a customer so that the first field visit can repair/replace the meter.</p> <p>Energy Queensland disagrees with the 14 day cyclic data capture (from point 12.2(l)) as this can create a large impost on the parties – particularly in remote areas. In addition, the current proposed wording does not make any allowance for sites that do have more than 35 days data storage.</p> <p>Energy Queensland proposes the following wording: “For metering installations that have remote acquisition, the MC must use reasonable endeavours to collect metering data at a frequency that prevents the loss of actual metering data.”</p> <p>We also suggest removing the following wording:</p>	AEMO notes the respondent’s comments and refers to the response provided in Table 2, item 1.



No.	Section	Consulted person	Issue	AEMO response
			<p>"...but at a frequency of no more than 14 days since the last actual metering data was collected when remote acquisition is not available." Energy Queensland notes what appears to be a numbering error in the draft document suggesting the new clause (l) could be a sub clause (a) of clause (k). We suggest a review of this section and confirmation that the two proposed new clauses are independent of one another.</p>	
6.	12.2 Metering Data Collection	Intellihub	<p>(k) This outcome was not consistent with the initial intent of the ICF and has significant cost impacts for many participants. (l) This outcome was not consistent with the initial intent of the ICF and has significant cost impacts for many participants.</p>	AEMO notes the respondent's comments and refers to the response provided in Table 2, item 1.
7.	12.2 Metering Data Collection	Origin Energy	New clauses are noted and accepted.	AEMO notes the respondent's support for the proposed change.
8.	12.2 Metering Data Collection	PLUS ES	<p>PLUS ES does not support the proposed drafting of clauses (k) and (l), for the following reasons: Clause (k): The current wording has the following negative impacts:</p> <ul style="list-style-type: none"> Timeframes are in calendar days and not business days. Generally service provider requirements and agreement are outlined in business days. In the general course of the year, 7 days are 5 business days, which is a challenging timeframe for the MPB to meet their Retailer's* requirements let alone complete the scheduling and visit the site. The timeframes are even less where public holidays are involved. For example, Easter 2021- 1 Apr, the MC was notified, 7days would be 8 Apr and due to Public Holidays, that allows the MPB with 3 business days. <p>*Some Retailers have requested that MPBs do not visit the metering installation site unless the MPB has received a B2B SO from them, irrespective of the reason for the site visit.</p> <ul style="list-style-type: none"> The proposed timeframe is so short that in many cases, it would inefficiently force two visits to ensure compliance. The MPB can ascertain that a metering installation is malfunctioning by visiting the site to investigate. If the metering investigation determines that the metering installation needs to be replaced, the MPB would incur additional costs as a second visit to the site would be required to 	AEMO notes the respondent's comments and refers to the response provided in Table 2, item 1.



No.	Section	Consulted person	Issue	AEMO response
			<p>effect the meter exchange. The proposed timeframe is not sufficient to allow the MC/MPB to comply with regulatory obligations pertaining to interruptions of supply within the one site visit.</p> <p>PLUS ES propose that the timeframe and clause is flexible enough to allow the MC to drive efficient and cost-effective processes, i.e. one site visit where required to also replace metering installations.</p> <p>Clause (l):</p> <ul style="list-style-type: none"> Stipulating a 14-day maximum reading frequency does not, of itself, contribute to the objective of preventing loss of actual metering data. Instead, it only imposes a higher manual meter reading cost beyond which is required to comply with requirements of market settlement with actual data. <p>A service provider with predominantly remote read meters does not have the field force which the regulated MPB would have to specifically read Type 5/6 meters. Associated meter reading costs depends on the volume of meters to be read and the geographical location. Low volume of meters and greater travel distances will contribute to higher costs.</p> <p>Obligating an MC to manually read a remote acquisition within 14 days from the last actual read, when communications are unavailable, incurs a cost for which there is no correlating/proportional benefit.</p> <p>The MPB has visibility to the data storage capacity of their meter models therefore can determine the data storage capacity of the meter and in the vast majority of cases, it is well beyond 90 days of data, if not default to 200+ days of data. The first part of the obligation on the MC to ensure that the meter is read to prevent the loss of actual data would meet the obligation to prevent the loss of data. PLUS ES also support the requirement to have a consistent read of these meters which are not MRAM but cannot be remotely read. To mitigate the above impacts, PLUS ES recommends that this timeframe is aligned with manually read meter requirements and is amended to 3 months.</p> <p>To drive operational efficiencies and realise proportional industry benefits, whilst meeting the objective of preventing the loss of actual data, PLUS ES supports the following amendments to the proposed clauses:</p>	



No.	Section	Consulted person	Issue	AEMO response
			<ul style="list-style-type: none"> • (k) When the MC is informed of that remote acquisition is unavailable, the MC must use reasonable endeavours: <ul style="list-style-type: none"> (i) within 15 business days, take the steps to have the missing data collected (ii) to have the metering installations communications system maintained to ensure ongoing data collection; and (iii) to ensure that metering data is collected at a frequency that is within the data storage capacity of that meter/s such that the data collection prevents the loss of actual metering data, (iv) to read the meter at a frequency of no more than 3 months since the last actual read was undertaken, irrespective of the meter memory capability <p>Alternatively, at a minimum the clauses should be amended to read as follows: (k) The MC must use reasonable endeavours to identify if a metering installation malfunction exists within 15 business days from when an MDP informs them that remote acquisition is not available. (l) For metering installations that have remote acquisition, the MC must use reasonable endeavours to collect metering data at a frequency that is within the meter’s data storage capacity to prevent the loss of actual metering data, but at a frequency of no more than 3 months since the last actual read was undertaken when remote acquisition is not available.</p>	
9.	12.2 Metering Data Collection	Powermetric Metering	<p>Powermetric believe this sits within the current meter management process and have no issues with this proposed change. The proposed ICF_023 clauses are not practical and will introduce unnecessary cost on participants with little benefit. Focus should be on ensuring that data is not lost from a meter that cannot communicate and that manual collection frequency is reasonable. Powermetric therefore propose the suggest proposed clauses be replaced with:</p> <ul style="list-style-type: none"> (k) When the MC is informed of a meter data collection issue, the MC must use reasonable endeavours to: <ul style="list-style-type: none"> (i) within 15 business days, take the steps to have the missing data collected; (ii) have the metering installations communications system maintained to ensure ongoing data collection; and 	AEMO notes the respondent’s comments and refers to the response provided in Table 2, item 1.



No.	Section	Consulted person	Issue	AEMO response
			<p>(iii) ensure that metering data is collected at a frequency that is within the data storage capacity of that meter/s such that the data collection prevents the loss of actual metering data,</p> <p>(iv) read the meter at a frequency of no more than 3 months since the last actual read was undertaken, irrespective of the meter memory capability</p>	
10.	12.2 Metering Data Collection	Red Energy and Lumo Energy	<p>Red and Lumo oppose the introduction of the timeframes proposed by AEMO in the ICF released for consultation. The original ICF put forward and developed in consultation with the ERCF had a different set of timeframes for what is being proposed here. Noting that Red and Lumo support the intent of the clause, however, the timing obligations are adding unnecessary costs with no benefit. Ultimately, costs imposed on industry by AEMO are borne by consumers. As such, we urge AEMO to reconsider their proposal as outlined below.</p> <p>In relation to 12.2(k): The original ERCF ICF draft proposed the period for the MC to act to be set at 15 days. This period was set to align with exemption processes, but also to allow the MC time to assess and monitor if the comms failure is due to a legitimate issue requiring a site visit or one that would self resolve - such as telco problems. This timeframe also allows time to:</p> <ul style="list-style-type: none"> ● Determine if the site had been de-energised by the network (allowing for the 5 days for period for MSATS to be updated); ● Schedule a visit and request a service order from a retailer; and ● And where relevant, allow for the retailer to issue an interruption notice to the customer in the event that repairs would require a power interruption (to minimise site visits and the impact on the customer). <p>However, the current drafting has reduced the period to 7 days. This barely allows time for the MC to determine if the meter has been de-energised by the network, as in other parts of the Procedures, they have 5 business days to provide an update to MSATS. This provides inadequate time to resolve the issue, manage the customer experience and expectations, let alone provide the relevant updates into MSATS.</p> <p>In relation to 12.2(i): The original ERCF ICF draft proposed for the MCs to obtain actual read data from the meter based on the amount of memory available. It was proposed that this occurred no less than on a quarterly basis, to ensure that data was used for quarterly billing processes. Red and Lumo support the original proposal to allow the MC/MP to manage site visits, after the initial investigation, in agreement and accommodating the needs of the retailer and their customer.</p>	AEMO notes the respondent's comments and refers to the response provided in Table 2, item 1.



No.	Section	Consulted person	Issue	AEMO response
			<p>AEMO’s updated proposal mandates that actual data is collected on site every 14 days, with no consideration of a customer’s expectations, retailer costs, nor the available memory in the meter. If AEMO wishes to have manual actual reads this frequently for meters that are not capable of remote acquisition, AEMO should fund this data collection. This change will add significant costs to all consumers with no corresponding benefit.</p> <p>In our experience, approximately 50% of communication failures are the result of network disconnection, and the remainder rectified on the initial investigation. Therefore, the AEMO proposal would lead to scenarios where a site could require 25+ visits in a year, compared to the original ERCF ICF which would require 5 visits in a year. The operational costs to undertake at least 20 more visits than what is required far outweighs any benefit.</p> <p>Red and Lumo firmly believe that this will deteriorate competition for customers in remote and rural areas, and areas with poor communication. Smaller retailers will not be able to absorb costs of this magnitude and will either pass these onto customers for no benefit, or choose not to supply to customers in particular locations. This will leave bigger retailers such as Red and Lumo or the incumbent retailer (who has an obligation to supply) being left with a disproportionate set of costs and poor customer experience to manage.</p> <p>This does not meet the NEO nor the NERO.</p> <p>Red and Lumo strongly recommend that AEMO do not prescribe a timeframe in the Procedures and leave this to commercial agreements and/or customer expectations. If AEMO thinks that they must prescribe a timeframe, anything less than 4 months is excessive.</p>	
11.	12.2 Metering Data Collection	United Energy	<p>Chapter 10 of the NER defines ‘Metering Installation Malfunction’ as: The full or partial failure of the metering installation in which the metering installation does not:</p> <ul style="list-style-type: none"> (a) meet the requirements of schedule 7.4; or (b) record, or incorrectly records, energy data; or (c) allow, or provides for, collection of energy data; or (d) in the case of a small customer metering installation, meet the requirements of schedule 7.5. <p>Small customer metering installations can malfunction and need replacement, often depending on the nature of the malfunction the meter will be not operating or recording any data and hence rushing to site in 15 days is futile.</p>	AEMO notes the respondent’s comments and refers to the response provided in Table 2, item 4.



No.	Section	Consulted person	Issue	AEMO response
			<p>Additionally, most small customer installations have direct connected metering and for any meter replacement require prior written notification of a planned outage resulting in further or multiple site visits if this prescriptive approach is applied to the mass market.</p> <p>The failure of a wide area telecommunications network resulting in failure to collect energy data is clearly not a metering installation malfunction.</p> <p>While the NER requires remotely read meters to have a minimum of 35 days of onboard meter data storage capacity, most modern meters and particularly those installed as 'new and replacement' meters under the 5 Minute Settlements rule typically have far more data storage capacity.</p> <p>This is demonstrated by most type 4S meters being capable to be installed as type 4A meters and to sustain scheduled reads on a monthly or quarterly read cycle and certainly not requiring a 15 day cycle.</p> <p>Much of the mass market outside Victoria is still fitted with type 6 basic meters, delivering register reads every 90 days under quarterly read cycles, replacement of those with remotely read 5 minute interval meters does not reduce the inefficiency and high costs of multiple site visits.</p> <p>The intent behind this ICF was to define a timeframe for determining if a metering installation malfunction exists <u>where the minimum interval energy data storage for a meter is 35 days</u>. Hence, it is far better to let the MC/MP assess the situation and the storage capacity of their meter fleet and send a metering technician to investigate and determine if a metering malfunction has occurred and if the installation needs repair or replacement as opposed to sending a special meter reader with no technical skills or capabilities to investigate, assess, repair or replace a meter.</p> <p>For the situations where the WAN telecommunications network is out, but the meter is operating correctly and has adequate meter memory storage capacity, the deployment of manual meter reading resources and their timing should be left to the MC and MP to manage and not be made prescriptive as proposed.</p> <p>For all other situations the priority is to send a metering technician with the skills to investigate and assess the situation, and if required perform a planned outage, repair, or manually read and replace the malfunctioning meter.</p> <p>It is reasonable to prescribe a minimum manual data collection period for metering installations for Large customers and subsequently this proposal should be limited to those large, type 4 customers.</p>	



No.	Section	Consulted person	Issue	AEMO response
			<p>The proposal under the SLP for notification from the MDP to MC of loss communication is supported as drafted but United Energy strongly recommends the proposal for the new Metrology Procedure Part A clauses to be updated as per the below:</p> <p>(k) <i>For Large customer metering installations</i>, the MC must use reasonable endeavours to identify if a metering installation malfunction exists within 7 days from when an MDP informs them that remote acquisition is not available.</p> <p>(l) For <i>Large customer</i> metering installations that have remote acquisition, the MC must use reasonable endeavours to collect metering data at a frequency that prevents the loss of actual metering data but at a frequency of no more than 14 days, since the last actual metering data was collected when remote acquisition is not available.</p>	
12.	12.2 Metering Data Collection	Vector Metering	<p>Proposed clauses are not practical and will introduce unnecessary cost on participants with little benefit.</p> <p>Focus should be on ensuring that data is not lost from a meter that cannot communicate and that the manual collection frequency is reasonable. Suggest proposed clauses be replaced with...</p> <ul style="list-style-type: none"> (k) When the MC is informed of a meter data collection issue, the MC must use reasonable endeavours to: <ul style="list-style-type: none"> (i) within 15 business days, take the steps to have the missing data collected; (ii) have the metering installations communications system maintained to ensure ongoing data collection; and (iii) ensure that metering data is collected at a frequency that is within the data storage capacity of that meter/s such that the data collection prevents the loss of actual metering data, (iv) read the meter at a frequency of no more than 3 months since the last actual read was undertaken, irrespective of the meter memory capability 	AEMO notes the respondent's comments and refers to the response provided in Table 2, item 1.

**Table 6 MSATS Procedures: Consumer Administration and Transfer Solution (CATS) Procedure Principles and Obligation (MSATS Procedures: CATS)**

No.	Section	Consulted person	Issue	AEMO response
1.	9.1.4 9.2.4 9.3.4 9.4.4 12.2.4 12.2.5 12.3.4 12.5.4	AGL Power Direct	<p>While AGL is supportive of the connection configuration data being collected, and the long-term benefits of this change, the move of Connection Configuration information from NMI to meter could create unexpected consequences as the data relevant to a meter is not necessarily the same data relevant to a connection point.</p> <p>For example, if there was a 3-phase supply at the NMI the connection information should be 3 L. But if the customer is metered with 3 x single phase meters, the connection configuration for the meters might all be 1 L.</p> <p>Equally, you could have the same meter configuration for a single-phase supply with 3 single phase meters (eg controlled load, lighting, general power) all as 1 L. In these examples, the incorrect information is being collected and reported.</p> <p>AGL considers that the most accurate way to collect the information is to minimise the number of parties actually generating that information and to ensure it reflects the connection point and not downstream assets.</p> <p>Further, AGL also considers that this proposed change is very likely to lead to incorrect information being collected, due to misunderstanding of how to capture what was meant to be connection information for the NMI, not information associated with each meter.</p> <p>AGL therefore proposes that this change be rejected and that the LNSP retain the obligation to collect this data from their current work processes (or data collection programs – eg NOMWs) and update MSATS.</p>	<p>AEMO notes the respondent's comments. AEMO has considered the submissions provided across the CATS Procedure, the Standing Data for MSATS document as well as the general feedback questions and decided to change the field as follows:</p> <p>Two-character code to denote information about the configuration of the connection point.</p> <p>First Character = Connection Type H = High voltage (as defined in the NER) L = Low voltage (lower than the threshold defined for high voltage in the NER)</p> <p>Second Character</p> <p>A = single phase supply/single phase metering B = 2 phase supply/one phase with single phase meter C = 2 phase supply/two phases each with single phase metering D = 2 phase supply/ two phase metering E = 3 phase supply/one phase with single phase metering F = 3 phase supply/two phases each with single phase metering G = 3 phase supply/two phase metering H= 3 phase supply/three phases each with single phase metering J = 3 phase supply/three phase metering K = SWER</p> <p>The field will remain in the Meter Register table and the responsibility of the MPB. This includes the MPBs that are also LNSPs. The changes will provide the phases available as well as the phases in use as well as the</p>



No.	Section	Consulted person	Issue	AEMO response
				metering arrangement. AEMO notes that any information provided via B2B is only visible to the roles that can see the B2B transactions and it does not provide for future planning when roles change.
2.	9.1.4 9.2.4 9.3.4 9.4.4 12.2.4 12.2.5 12.3.4 12.5.4	Alinta Energy	<p>Alinta Energy does not support this proposed change.</p> <p>Alinta Energy is supportive of the gathering of connection configuration and believes that this information is very valuable and will significantly improve the efficiency of the market however we believe that the LSNP and ENM should be the entities primarily responsible for the provision of this information.</p> <p>Alinta Energy does not agree with the statement in the Issues Paper “The MS DR intends to enable the sharing of key information, to minimise wasted site visits by MPs. In the above example, the MP would not know if the existing metering installation is connected as single-phase or three-phase. Accordingly, the MP would be unable to appropriately quote, or know what meter to bring, without a site visit in advance. This inability makes the information in the field unreliable for market operations. Consequently, the LNSP will be obliged to maintain this information, for little benefit.”</p> <p>The LNSP’s and ENM’s are the entities that are responsible for approving the type of connection to the distribution be that HV or 3phase LV. In most instances this will be what the customers requires from a metering sense. Metering Providers do not install like for like metering at premises, they will make an assessment and install the most practical/efficient metering solution which in most cases will see the amalgamation of 3 single phase meters into 1 poly phase meter.</p>	AEMO notes the respondent’s comments and refers to response provided in Table 3, item 1.
3.	9.1.4 9.2.4 9.3.4 9.4.4 12.2.4 12.2.5 12.3.4 12.5.4	AusNet Services	Agreed.	AEMO notes the respondent’s support for the proposed change.
4.	9.1.4 9.2.4 9.3.4 9.4.4	Energy Queensland	Energy Queensland provides no comment.	



No.	Section	Consulted person	Issue	AEMO response
	12.2.4 12.2.5 12.3.4 12.5.4			
5.	9.1.4 9.2.4 9.3.4 9.4.4 12.2.4 12.2.5 12.3.4 12.5.4	Intellihub	The LNSP should be responsible for specifying the expected Supply connection to the site. The MPB should only be responsible for specifying the supply at the metering level	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
6.	9.1.4 9.2.4 9.3.4 9.4.4 12.2.4 12.2.5 12.3.4 12.5.4	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the proposed change.
7.	9.1.4 9.2.4 9.3.4 9.4.4 12.2.4 12.2.5 12.3.4 12.5.4	PLUS ES	As per PLUS ES comments provided in Section 8.1 of this documents, PLUS ES does not support the Connection Configuration being moved from NMI to Meter level.	
8.	9.1.4 9.2.4 9.3.4 9.4.4 12.2.4 12.2.5 12.3.4	Powermetric Metering	Powermetric have no issue with this proposed change	AEMO notes the respondent's comments.



No.	Section	Consulted person	Issue	AEMO response
	12.5.4			
9.	9.1.4 9.2.4 9.3.4 9.4.4 12.2.4 12.2.5 12.3.4 12.5.4	Red Energy and Lumo Energy	Red and Lumo note the proposal and have no comment at this time.	
10.	9.1.4 9.2.4 9.3.4 9.4.4 12.2.4 12.2.5 12.3.4 12.5.4	Vector Metering	Do not support that the MPB should be made responsible for this information. This field represents the supply to a premise, which is part of the LV infrastructure that LNSP's and ENM's manage. LNSP's and ENM's have access to this information (max demand) as Customers must provide this before the supply is established or upgraded. The LNSP and ENM can use this information to decide if they need to upgrade other parts of the network and this can be used to update Connection Configuration in MSATS.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
11.	9.3.4(h)	AGL Power Direct	See above	
12.	9.3.4(h)	Alinta Energy	Alinta Energy does not support this proposed change. Alinta Energy does not support this information being at the metering level as we believe it should be captured and maintained at the NMI level.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
13.	9.3.4(h)	AusNet Services	Agreed.	AEMO notes the respondent's support for the proposed change.
14.	9.3.4(h)	Energy Queensland	Energy Queensland provides no comment.	
15.	9.3.4(h)	Intellihub	See above	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
16.	9.3.4(h)	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the proposed change.
17.	9.3.4(h)	Powermetric Metering	Powermetric have no issue with this proposed change	AEMO notes the respondent's comments.
18.	9.3.4(h)	Red Energy and Lumo Energy	Red and Lumo note the proposal and have no comment at this time.	



No.	Section	Consulted person	Issue	AEMO response
19.	9.3.4(h)	Vector Metering	ConnectionConfiguration should remain at NMI level and not at the Meter level. CI9.3.4.c should be reinstated for this field and CI9.3.4(h) should remove ConnectionConfiguration as field to be added to each meter.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
20.	9.4.4(h)	Vector Metering	ConnectionConfiguration should remain at NMI level and not at the Meter level. CI9.4.4.c should be reinstated for this field.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
21.	10.1.4(d) 10.2.4(d) 10.3.4(d)	AGL Power Direct	See above	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
22.	10.1.4(d) 10.2.4(d) 10.3.4(d)	Alinta Energy	Alinta Energy does not support this proposed change. Alinta Energy does not support this information being captured at the metering level.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
23.	10.1.4(d) 10.2.4(d) 10.3.4(d)	AusNet Services	Agreed.	AEMO notes the respondent's support for the proposed change.
24.	10.1.4(d) 10.2.4(d) 10.3.4(d)	Energy Queensland	Energy Queensland notes what appears to be a numbering error in the draft document and suggests that 10.1.4(d) should be 10.1.4(c).	AEMO notes the respondent's comment and will fix any anomalies.
25.	10.1.4(d) 10.2.4(d) 10.3.4(d)	Intellihub	See above	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
26.	10.1.4(d) 10.2.4(d) 10.3.4(d)	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the proposed change.
27.	10.1.4(d) 10.2.4(d) 10.3.4(d)	PLUS ES	As per PLUS ES comments provided in Section 8.1 of this documents, PLUS ES does not support the Connection Configuration being moved from NMI to Meter level.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
28.	10.1.4(d) 10.2.4(d) 10.3.4(d)	Powermetric Metering	Powermetric have no issue with this proposed change	AEMO notes the respondent's support for the proposed change.
29.	10.1.4(d) 10.2.4(d) 10.3.4(d)	Red Energy and Lumo Energy	Red and Lumo note the proposal and have no comment at this time.	
30.	10.1.4(d) 10.2.4(d)	Vector Metering	While we support Connection Configuration information being collected, as was agreed in the MSDR process, we do not support the MPB being made	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.



No.	Section	Consulted person	Issue	AEMO response
	10.3.4(d)		responsible for maintaining this information. LNSP's are advised of the connection characteristics when the customer applies for a permission to connect. Customers must provide Max Demand information which drives the infrastructure that is deployed by the DNSP or the DNSP's agent (ASP in NSW). This infrastructure is considered part of the LV network and its maintained by the LNSP. This is the role that should be responsible for updating the characteristics in MSATS. As ConnectionConfiguration relates to the Connection Point it is appropriate that it remains on CATS_NMI_DATA table.	
31.	10.4.4(d) 10.5.4(d)	AGL Power Direct	See above	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
32.	10.4.4(d) 10.5.4(d)	Alinta Energy	Alinta Energy does not support this proposed change. Alinta Energy does not support this information being captured at the metering level.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
33.	10.4.4(d) 10.5.4(d)	AusNet Services	Agreed.	AEMO notes the respondent's support for the proposed change.
34.	10.4.4(d) 10.5.4(d)	Energy Queensland	Energy Queensland provides no comment.	
35.	10.4.4(d) 10.5.4(d)	Intellihub	See above	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
36.	10.4.4(d) 10.5.4(d)	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the proposed change.
37.	10.4.4(d) 10.5.4(d)	PLUS ES	As per PLUS ES comments provided in Section 8.1 of this documents, PLUS ES does not support the Connection Configuration being moved from NMI to Meter level. Hence, the MC could not provide or update those details in CRs pertaining to updates of metering installation details.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
38.	10.4.4(d) 10.5.4(d)	Powermetric Metering	Powermetric have no issue with this proposed change	AEMO notes the respondent's comments.
39.	10.4.4(d) 10.5.4(d)	Red Energy and Lumo Energy	Red and Lumo note the proposal and have no comment at this time.	



No.	Section	Consulted person	Issue	AEMO response					
40.	10.4.4(d) 10.5.4(d)	Vector Metering	As above. LNSP should remain responsible for maintaining this information. Do not support this change.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.					
41.	15.1.4(d) & 15.1.4(f)	AGL Power Direct	AGL supports the change, however, notes that Connection Configuration is still listed in 15.1.4(d) above GNAF PID <table border="1" data-bbox="560 383 862 614"> <tr><td>Aggregate Flag</td></tr> <tr><td>Connection Configuration</td></tr> <tr><td>GNAF PID</td></tr> <tr><td>DP Number</td></tr> <tr><td>Connection Configuration</td></tr> </table>	Aggregate Flag	Connection Configuration	GNAF PID	DP Number	Connection Configuration	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
Aggregate Flag									
Connection Configuration									
GNAF PID									
DP Number									
Connection Configuration									
42.	15.1.4(d) & 15.1.4(f)	Alinta Energy	Alinta Energy does not support this proposed change. Alinta Energy does not support this information being captured at the metering level.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.					
43.	15.1.4(d) & 15.1.4(f)	AusNet Services	Agreed.	AEMO notes the respondent's support for the proposed change.					
44.	15.1.4(d) & 15.1.4(f)	Energy Queensland	Energy Queensland provides no comment.						
45.	15.1.4(d) & 15.1.4(f)	Intellihub	See above	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.					
46.	15.1.4(d) & 15.1.4(f)	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the proposed change.					
47.	15.1.4(d) & 15.1.4(f)	PLUS ES	As per PLUS ES comments provided in Section 8.1 of this documents, PLUS ES does not support the Connection Configuration being moved from NMI to Meter level.						
48.	15.1.4(d) & 15.1.4(f)	Powermetric Metering	Powermetric have no issue with this proposed change	AEMO notes the respondent's support for the proposed change.					



No.	Section	Consulted person	Issue	AEMO response
49.	15.1.4(d) & 15.1.4(f)	Red Energy and Lumo Energy	Red and Lumo support this change. Moving the Connection Configuration information to be aligned to each meter provides better visibility of the actual phases in use by each meter. Red and Lumo also see benefit in knowing both the phases available as well as the ones in use. This would allow for a more efficient and timely process when assessing whether a meter exchange is required or a meter reconfiguration when the requirement for a meter with more phases is needed at the connection point. We propose for there to be an additional field to be implemented to complement the phases in use: Phases available.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
50.	15.1.4(d) & 15.1.4(f)	Vector Metering	Do not support move Connectionconfiguration to the meter level (see below). This attribute reflects the supply line which is a attribute of the connectionpoint and is part of the LV infrastructure, not a particular meter.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
51.	Table 16-C	AGL Power Direct	See above	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
52.	Table 16-C	Alinta Energy	Alinta Energy does not support this proposed change. Alinta Energy does not support this information being captured at the metering level.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
53.	Table 16-C	AusNet Services	Agreed.	AEMO notes the respondent's support for the proposed change.
54.	Table 16-C	Energy Queensland	Energy Queensland provides no comment.	
55.	Table 16-C	Intellihub	See above	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
56.	Table 16-C	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the proposed change.
57.	Table 16-C	PLUS ES	As per PLUS ES comments provided in Section 8.1 of this documents, PLUS ES does not support the Connection Configuration being moved from NMI to Meter level.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
58.	Table 16-C	Powermetric Metering	Powermetric have no issue with this proposed change	AEMO notes the respondent's comments.
59.	Table 16-C	Red Energy and Lumo Energy	See comments against the proposed change for: MSATS Procedures: CATS, 15.1.4(d) & 15.1.4(f).	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.



No.	Section	Consulted person	Issue	AEMO response
60.	Table 16-C	Vector Metering	Do not support move Connectionconfiguration to the meter level (see below). This attribute reflects the supply line which is a attribute of the connectionpoint, not a particular meter.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.

Table 7 Standing Data for MSATS (Standing Data document)

No.	Section	Consulted person	Issue	AEMO response
1.	Table 6 (CATS_NMI_DATA)	AGL Power Direct	See Q4.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
2.	Table 6 (CATS_NMI_DATA)	Alinta Energy	Alinta Energy does not support this proposed change. Alinta Energy does not support this information being captured at the metering level.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
3.	Table 6 (CATS_NMI_DATA)	AusNet Services	Agreed.	AEMO notes the respondent's support for the proposed change.
4.	Table 6 (CATS_NMI_DATA)	Energy Queensland	Energy Queensland provides no comment.	
5.	Table 6 (CATS_NMI_DATA)	Intellihub	See above	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
6.	Table 6 (CATS_NMI_DATA)	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the proposed change.
7.	Table 6 (CATS_NMI_DATA)	PLUS ES	As per PLUS ES comments provided in Section 8.1 of this documents, PLUS ES does not support the Connection Configuration being moved from NMI to Meter level.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
8.	Table 6 (CATS_NMI_DATA)	Powermetric Metering	Powermetric have no issue with this proposed change	AEMO notes the respondent's support for the proposed change.
9.	Table 6 (CATS_NMI_DATA)	Red Energy and Lumo Energy	See comments against the proposed change for: MSATS Procedures: CATS, 15.1.4(d) & 15.1.4(f)	
10.	Table 6 (CATS_NMI_DATA)	Vector Metering	We do not support moving the ConnectionConfiguration field to the CATS_METER_REGISTER. This element should reside on the CAT_NMI_DATA entity as it is attribute of the connection point (NMI) and not of any particular meter.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.



No.	Section	Consulted person	Issue	AEMO response
			Placing ConnectionConfiguration field on the CATS_METER_REGISTER means it is an attribute of a particular meter and each meter on the NMI could have a different value. For ConnectionConfiguration to be useful it must reflect whether the supply is single, two or three phase <u>regardless</u> of the metering in place. LNSP's have this information available to them as customers are required to provide it upon requesting a supply establishment or upgrade.	
11.	Table 3 (CATS_METER_REGISTER)	AGL Power Direct	See Q4.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
12.	Table 3 (CATS_METER_REGISTER)	Alinta Energy	Alinta Energy does not support this proposed change. Alinta Energy does not support this information being captured at the metering level.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
13.	Table 3 (CATS_METER_REGISTER)	AusNet Services	Agreed.	AEMO notes the respondent's support for the proposed change.
14.	Table 3 (CATS_METER_REGISTER)	Energy Queensland	Energy Queensland provides no comment.	
15.	Table 3 (CATS_METER_REGISTER)	Intellihub	See above	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
16.	Table 3 (CATS_METER_REGISTER)	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the proposed change.
17.	Table 3 (CATS_METER_REGISTER)	PLUS ES	As per PLUS ES comments provided in Section 8.1 of this documents, PLUS ES does not support the Connection Configuration being moved from NMI to Meter level. Additionally, the value populated at Green field sites would deliver the most value to an MPB who needs to complete a metering installation as a new connection.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.
18.	Table 3 (CATS_METER_REGISTER)	Powermetric Metering	Powermetric have no issue with this proposed change	AEMO notes the respondent's comments.
19.	Table 3 (CATS_METER_REGISTER)	Red Energy and Lumo Energy	Red and Lumo note the proposal and have no comment at this time.	
20.	Table 3 (CATS_METER_REGISTER)	Vector Metering	We do not support moving the ConnectionConfiguration field to the CATS_METER_REGISTER. This element should reside on the CAT_NMI_DATA entity as it is attribute of the connection point (NMI) and not of any particular meter.	AEMO notes the respondent's comments and refers to the response in Table 3, item 1.

**Table 8 Guideline for Clarification of the National Measurement Act**

No.	Section	Consulted person	Issue	AEMO response
1.	Version and date	Red Energy and Lumo Energy	Updates to this document, Glossary and Framework, are aligned to the changes proposed under references to National Measurement Act. The effective date of the changes to Guideline for Clarification of the National Measurement Act is 1 August 2021. However the changes to the Glossary and Framework are effective 1 May 2022. Red and Lumo propose for the two effective dates to be aligned - either 1 August 2021 or 1 May 2022.	AEMO notes the respondent's comment. AEMO has reviewed the content of the Glossary and Framework and found that the Guideline for Clarification of the National Measurement Act is mentioned within the existing section 2.4 of the Glossary and Framework, hence, AEMO will not be proceeding with the changes to the Glossary and Framework proposed in the Initial stage of this consultation.
2.	1.1	AGL Power Direct	AGL supports this change.	AEMO notes the respondent's support for the proposed change.
3.	1.1	Alinta Energy	Alinta Energy Supports these changes.	AEMO notes the respondent's support for the proposed change.
4.	1.1	AusNet Services	Agreed.	AEMO notes the respondent's support for the proposed change.
5.	1.1	Energy Queensland	Energy Queensland provides no comment.	
6.	1.1	Intellihub	N/A	
7.	1.1	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the proposed change.
8.	1.1	Powermetric Metering	No comment	
9.	1.1	Red Energy and Lumo Energy	Red and Lumo note the proposal and have no comment at this time.	AEMO notes the respondent's support for the proposed change.
10.	1.1	Vector Metering	This changes are not in the "Retail Electricity Market Procedures – Glossary and Framework (Glossary/Framework)" but are in the GUIDELINE FOR CLARIFICATION OF THE NATIONAL MEASUREMENT ACT . Confused me for a while..	AEMO notes the respondent's comments.
11.	3.1 3.2.1 3.2.2	AGL Power Direct	AGL supports this change.	AEMO notes the respondent's support for the proposed change.



No.	Section	Consulted person	Issue	AEMO response
	3.3			
12.	3.1 3.2.1 3.2.2 3.3	Alinta Energy	Alinta Energy Supports these changes.	AEMO notes the respondent’s support for the proposed change.
13.	3.1 3.2.1 3.2.2 3.3	AusNet Services	Agreed.	AEMO notes the respondent’s support for the proposed change.
14.	3.1 3.2.1 3.2.2 3.3	Energy Queensland	Energy Queensland provides no comment.	
15.	3.1 3.2.1 3.2.2 3.3	Intellihub	N/A	
16.	3.1 3.2.1 3.2.2 3.3	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent’s support for the proposed change.
17.	3.1 3.2.1 3.2.2 3.3	Powermetric Metering	No comment	
18.	3.1 3.2.1 3.2.2 3.3	Red Energy and Lumo Energy	Red and Lumo note the proposal and have no comment at this time.	
19.	3.3	AGL Power Direct	AGL supports this change.	AEMO notes the respondent’s support for the proposed change.
20.	3.3	Alinta Energy	Alinta Energy Supports these changes.	AEMO notes the respondent’s support for the proposed change.
21.	3.3	AusNet Services	Agreed.	AEMO notes the respondent’s support for the proposed change.



No.	Section	Consulted person	Issue	AEMO response
22.	3.3	Energy Queensland	Energy Queensland provides no comment.	
23.	3.3	Intellihub	N/A	
24.	3.3	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the proposed change.
25.	3.3	Powermetric Metering	No comment	
26.	3.3	Red Energy and Lumo Energy	Red and Lumo note the proposal and have no comment at this time.	
27.	5.1.2 5.2 5.2.1 5.2.2 5.2.4 5.3	AGL Power Direct	AGL supports this change.	AEMO notes the respondent's support for the proposed change.
28.	5.1.2 5.2 5.2.1 5.2.2 5.2.4 5.3	Alinta Energy	Alinta Energy Supports these changes.	AEMO notes the respondent's support for the proposed change.
29.	5.1.2 5.2 5.2.1 5.2.2 5.2.4 5.3	AusNet Services	Agreed.	AEMO notes the respondent's support for the proposed change.
30.	5.1.2 5.2 5.2.1 5.2.2 5.2.4 5.3	Energy Queensland	Energy Queensland provides no comment.	
31.	5.1.2	Intellihub	N/A	



No.	Section	Consulted person	Issue	AEMO response
	5.2 5.2.1 5.2.2 5.2.4 5.3			
32.	5.1.2 5.2 5.2.1 5.2.2 5.2.4 5.3	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the proposed change.
33.	5.1.2 5.2 5.2.1 5.2.2 5.2.4 5.3	Powermetric Metering	No comment	
34.	5.1.2 5.2 5.2.1 5.2.2 5.2.4 5.3	Red Energy and Lumo Energy	Red and Lumo note the proposal and have no comment at this time.	
35.	6.1	AGL Power Direct	AGL supports this change.	AEMO notes the respondent's support for the proposed change.
36.	6.1	Alinta Energy	Alinta Energy Supports these changes.	AEMO notes the respondent's support for the proposed change.
37.	6.1	AusNet Services	Agreed. However the marked up copy of the document does not have the list correctly labelled, i.e. (b) electricity meters installed before 1 January 2013; (ba) electricity meters installed on or after 1 January 2013, other than electricity meters that measure less than 750 MWh of energy per year;	AEMO notes the respondent's comments and AEMO has aligned the numbering to the points provided in the National Trade Measurement Regulations 2009.
38.	6.1	Energy Queensland	Energy Queensland provides no comment.	
39.	6.1	Intellihub	N/A	



No.	Section	Consulted person	Issue	AEMO response
40.	6.1	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the proposed change.
41.	6.1	Powermetric Metering	No comment	
42.	6.1	Red Energy and Lumo Energy	Editing of the document has been incorrectly numbered and needs to be rectified as follows: <ul style="list-style-type: none"> • For the definition of utility meter in subsection 3(1) of the Act, the following classes of meters are exempted from the operation of section 4A of the Act: <ul style="list-style-type: none"> (ba) electricity meters installed before 1 January 2013; (ba) electricity meters installed on or after 1 January 2013, other than electricity meters that measure less than 750 MWh of energy per year; 	AEMO notes the respondent's comments and AEMO has aligned the numbering to the points provided in the National Trade Measurement Regulations 2009.
43.	6.2 7 8.3 Appendix C	AGL Power Direct	AGL supports this change.	AEMO notes the respondent's support for the proposed change.
44.	6.2 7 8.3 Appendix C	Alinta Energy	Alinta Energy Supports these changes.	AEMO notes the respondent's support for the proposed change.
45.	6.2 7 8.3 Appendix C	AusNet Services	Agreed.	AEMO notes the respondent's support for the proposed change.
46.	6.2 7 8.3 Appendix C	Energy Queensland	Energy Queensland provides no comment.	
47.	6.2 7 8.3	Intellihub	N/A	



No.	Section	Consulted person	Issue	AEMO response
	Appendix C			
48.	6.2 7 8.3 Appendix C	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the proposed change.
49.	6.2 7 8.3 Appendix C	Red Energy and Lumo Energy	Red and Lumo note the proposal and have no comment at this time.	

Table 9 Retail Electricity Market Procedures – Glossary and Framework (Glossary/Framework)

No.	Section	Consulted person	Issue	AEMO response
1.	2.4	Alinta Energy	Alinta Energy Supports these changes.	AEMO notes the respondent's support for the proposed change and refers to the response provided in Table 5, item 5.
2.	4.4.5	Alinta Energy	Alinta Energy Supports these changes.	AEMO notes the respondent's support for the proposed change and refers to the response provided in Table 5, item 5.

Table 10 MSATS Procedures: Procedure for the Management of Wholesale, Interconnector, Generator and Sample (WIGS) NMIS (MSATS Procedures: WIGS)

No.	Section	Consulted person	Issue	AEMO response
1.	Version	AGL Power Direct	AGL supports this change.	AEMO notes the respondent's support for the proposed change.
2.	Version	Alinta Energy	Alinta Energy Supports these changes.	AEMO notes the respondent's support for the proposed change.
3.	Version	AusNet Services	Agreed.	AEMO notes the respondent's support for the proposed change.



No.	Section	Consulted person	Issue	AEMO response
4.	Version	Energy Queensland	Energy Queensland provides no comment.	
5.	Version	Intellihub	N/A	
6.	Version	Origin Energy	Changes are noted.	
7.	Version	Powermetric Metering	No comment	
8.	Version	Red Energy and Lumo Energy	Red and Lumo note the proposal and have no comment at this time.	

Table 11 Questions on proposed changes

No.	Heading	Consulted person	Issue	AEMO response
1.	Do you support the proposals contained in this Issues Paper? If not, please specify areas in which your assessment differs (include ICF reference number), with supporting information.	AGL Power Direct	AGL supports some but not all of the proposals – see comments above.	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.
2.	Do you support the proposals contained in this Issues Paper? If not, please specify areas in which your assessment differs (include ICF reference number), with supporting information.	Alinta Energy	While Alinta Energy supports most of what is trying to be achieved with these proposals, we do not support how this is being proposed to be done. We have provided our comments in relevant tables above.	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.
3.	Do you support the proposals contained in this Issues Paper? If not, please specify areas in which your assessment differs (include ICF reference number), with supporting information.	AusNet Services	AusNet Services does not support the following proposals: ICF_023 Process when remote collection of metering data fails. Section 3.2 of the Issues Paper identifies that this proposal should only apply to metering installations where the MC, MP and MDP are not a single business; "This proposal seeks to clarify which participant is obliged to prevent the loss of actual metering data, especially when the appointed Metering Coordinator (MC), Metering Provider (MP) or MDP for a metering installation is not a single business".	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.



No.	Heading	Consulted person	Issue	AEMO response
			<p>Therefore ICF_023 should not be applied to metering installations where the MC, MP and MDP are a single business under the Distribution Network Service Provider, such as VICAMI metering installations.</p> <p>VICAMI meters store ~200 days worth of metering data, resulting in very little to no metering data loss. Adding additional processes to placate shortcomings in the Power of Choice metering specifications will only add additional overhead to Victorian DNSPs where it is not required.</p> <p>Metering installations where the MC is the DNSP should be exempt from the ammendements made to the Metrology Procedure Part A and SLP MDP Services documents. This feedback has been provided in the specific sections above.</p> <p>ICF_M001 Process to detect energy data</p> <p>Section 3.1 of the Issues Paper identifies that this proposal should only apply to contestable markets; “Accordingly, in the contestable market, AEMO does not believe that defining the details of a detection process would be inappropriate. The development of such a process would be up to each MDP to determine.”</p> <p>Therefore ICF_M001 should not be applied to non-consteable markets, such as Victorian small metering installations, specifically where the MC is the DNSP.</p> <p>Again, due to the higher storage specifications of VICAMI meters compared to the Power of Choice meter specifications, the possibility of metering data loss is significantly reduced. The introduction of a 20 business day detection process will add additional overhead where it is not required.</p> <p>Metering installations where the MC is the DNSP should be exempt from the ammendements made to the SLP MDP Services document. This feedback has been provided in the specific sections above.</p>	
4.	Do you support the proposals contained in this Issues Paper? If not, please specify areas in which your assessment differs (include ICF reference number), with supporting information.	Energy Queensland	<p>Energy Queensland generally supports the proposals contained in this Issues Paper, with the exception of those relating to ICF_023.</p> <p>We refer AEMO to the specific concerns and comments detailed in Section 3, Metrology Procedure: Part A - National Electricity Market (Metrology Procedure: Part A) of this response.</p>	AEMO notes the respondent’s comments and refers to the specific responses provided in previous tables.
5.	Do you support the proposals	Intellihub	As stated above	AEMO notes the respondent’s



No.	Heading	Consulted person	Issue	AEMO response
	contained in this Issues Paper? If not, please specify areas in which your assessment differs (include ICF reference number), with supporting information.			comments and refers to the specific responses provided in previous tables.
6.	Do you support the proposals contained in this Issues Paper? If not, please specify areas in which your assessment differs (include ICF reference number), with supporting information.	Origin Energy	Yes	AEMO notes the respondent's support for the proposed changes.
7.	Do you support the proposals contained in this Issues Paper? If not, please specify areas in which your assessment differs (include ICF reference number), with supporting information.	PLUS ES	<p>ICF_037: Redefinition of 'Connection Configuration'</p> <p>PLUS ES is supportive of the Connection Configuration but does not support it being populated at a meter level. The benefit to the MPB and the industry will be realised if it is at the NMI and maintained by the LNSP. The LNSP creates the NMI at the time that the supply characteristics are presented by the connection applicant. At this point, the LNSP is informed of the proposed supply point voltage, supply point size (maximum demand or maximum current) and whether supply point is single phase or three phase. Furthermore they are accountable for the supply and their assets and would be best positioned to identify or be aware of any changes and update MSATS accordingly.</p> <p>This information is highly desirable and required by the MPB, especially on a Green field site, to determine the metering required for installation. If the voltage of the supply point is known, then key aspects of metering – such as whether high voltage or low voltage metering is required – can be efficiently anticipated and prepared for, with the avoidance of wasted visits. Similarly, if the supply was known to be 3-phase, then the appropriate metering equipment required could be anticipated.</p> <p>For example, a 3-phase supply to the site with 3 x 1-phase meters. If the 1-phase was recorded against each of the 3 meters, the MPB could not determine that the site has a 3-phase supply which would support a 3-phase meter. Hence allowing the MPB if they wish to replace the 3x1 phase meters with a 3-phase metering installation.</p> <p>Whilst it is also desirable to know the phase of the meter at the connection</p>	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.



No.	Heading	Consulted person	Issue	AEMO response
			<p>point, this information could be extrapolated from other available information such as the meter model.</p> <p>To achieve these benefits the above-mentioned fields should all be available via the C7 report and meter model mapping with respect to phase should be available to the industry participants.</p> <p>ICF_023: Process when remote collection of metering data fails PLUS ES has provided details in the Meteorology Part A & MDP SLP relevant section of this document.</p>	
8.	Do you support the proposals contained in this Issues Paper? If not, please specify areas in which your assessment differs (include ICF reference number), with supporting information.	Powermetric Metering	<p>Powermetric support all proposed changes except for ICF_023. The proposed ICF_023 clauses are not practical and will introduce unnecessary cost on participants with little benefit.</p> <p>Focus should be on ensuring that data is not lost from a meter that cannot communicate and that manual collection frequency is reasonable.</p>	AEMO notes the respondent's comments and refer to the response provided in Table 2, item 1.
9.	Do you support the proposals contained in this Issues Paper? If not, please specify areas in which your assessment differs (include ICF reference number), with supporting information.	Red Energy and Lumo Energy	<p>Red and Lumo support the intent of the proposal of ICF_023 (Process when remote collection of metering data fails). However, we do not support the AEMO proposed timeframes. See comments against the proposed changes for: Metrology Procedure: Part A, 12.2 Metering Data Collection.</p>	AEMO notes the respondent's support for the intent of the proposed change and refer to the response provided in Table 2, item 1.
10.	Do you support the proposals contained in this Issues Paper? If not, please specify areas in which your assessment differs (include ICF reference number), with supporting information.	TasNetworks	<p>With respect to ICF_037 'Connection Configuration', TasNetworks recommends to removal of this field altogether from being included in the MSDR. TasNetworks believes it provides no material value whether it is stored on the NMI Table or the Meter Register Table, and in affect may provide misinformation depending on how it is used and interpreted.</p> <p>For a new connection, the LNSP would typically be allocating the number of phases as installed by the electrical technician for the premises which would correspond to the supply phases intended to be provided to the Connection Point by the DNSP, thus providing no value to the MP in regards to identifying whether the metering is required to be single or multi phase, particularly where the field is needed to be populated on NMI Creation.</p> <p>The B2B Service Order Request field <i>SupplyPhases</i>, which is mandatory for respective SSW and MSW requests should provide sufficient information to both the DNSP and MP on the number of phases at the Connection Point,</p>	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.



No.	Heading	Consulted person	Issue	AEMO response
			<p>thus negating the need to introduce an additional field. Typically, HV installations would be treated as a 'negotiated' connection and would therefore be managed differently to the high volume LV connections, again potentially negating the need to identify either H or L in the new Connection Configuration field. High Voltage connections could continue to be communicated to the retailer and MP via other means, either via email, service requests, connection portals or the like. Moving the details to the Meter Register Table could also provide a large amount of duplication of these details (e.g. 3 meters on a NMI could all be tagged as L1), as well as not provide an indication that a 3 phase supply is available/provided at the Connection Point. Again, not providing any significant value to participants. There may be a large number of installations that have multiple single phase meters installed where the supply to the premises is multi phase, which will not be evident to participants whatever table the field is stored in. The B2B Service Order Requests also provides the field of <i>MeteringRequired</i> which is mandatory for Install Meter and Exchange Meter which could provide sufficient information to the MP about what metering is required. <i>SpecialInstructions</i> can also be used to provide further information should it be necessary.</p>	
11.	Do you support the proposals contained in this Issues Paper? If not, please specify areas in which your assessment differs (include ICF reference number), with supporting information.	Vector Metering	<p>Do not support following changes.</p> <ol style="list-style-type: none"> 1) Changes to obligations related to reading non-commed meters. - Requiring the MDP to attend a site to read a non-commed meter every 14 days is impractical with no benefit and is contrary to the NEO. Obligations should focus on ensuring that meter data is not lost as a result of meter memory capacity, and introduce a practical manual reading frequency that is considerate of the costs i.e. aligned with existing obligations for a manually read meter. <p>Do not support change to obligations that make MPB responsible for providing Connection Configuration information as this relates to the supply line that is considered part of the LV network. This should remain on CATS_NMI_DATA for the LNSP to maintain. LNSP's have access to this information as customers are required to provide it as part of their connection applications. LNSP establish the supply line so they know</p>	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.



No.	Heading	Consulted person	Issue	AEMO response
			whether they installed a single, 2 phase or 3 phase supply, Low Voltage or High Voltage supply. In jurisdictions where the supply is established by a third party (NSW) there are obligations on service providers to provide paperwork (CCEW) which will advise NSW LNSP's of the supply characteristics. LNSP's can use this to update MSATs. In the unlikely situation that LNSP's do not have this information then this could be provided by the B2B NOMW process. This is preferable to changing the CATS transactions and MSATS data model.	
12.	Are there better options to accommodate the proposed change that better achieve the stated objectives? What are the related pros and cons? How would they be implemented?	AGL Power Direct	AGL has provided proposed drafting for the meter data collection obligation which it believes is more aligned with the original intent of the change. AGL does not support the move of connection information from NMI to meter, as it believes that this is very likely to lead to ambiguous or incorrect information being collected, which would wipe out the benefits of the proposed change.	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.
13.	Are there better options to accommodate the proposed change that better achieve the stated objectives? What are the related pros and cons? How would they be implemented?	Alinta Energy	Alinta Energy has provided commentary on alternate way for the objective to be achieved in the tables above.	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.
14.	Are there better options to accommodate the proposed change that better achieve the stated objectives? What are the related pros and cons? How would they be implemented?	AusNet Services	N/A	
15.	Are there better options to accommodate the proposed change that better achieve the stated objectives? What are the related pros and cons? How would they be implemented?	Energy Queensland	Energy Queensland refers AEMO to the specific comments made in this submission as per Section 3, Metrology Procedure: Part A - National Electricity Market (Metrology Procedure: Part A) p.4.	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.
16.	Are there better options to accommodate the proposed change	Intellihub	As stated above	AEMO notes the respondent's comments and refers to the



No.	Heading	Consulted person	Issue	AEMO response
	that better achieve the stated objectives? What are the related pros and cons? How would they be implemented?			specific responses provided in previous tables.
17.	Are there better options to accommodate the proposed change that better achieve the stated objectives? What are the related pros and cons? How would they be implemented?	Origin Energy	No comment	
18.	Are there better options to accommodate the proposed change that better achieve the stated objectives? What are the related pros and cons? How would they be implemented?	PLUS ES	As discussed in previous sections of this document.	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.
19.	Are there better options to accommodate the proposed change that better achieve the stated objectives? What are the related pros and cons? How would they be implemented?	Powermetric Metering	See comments above.	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.
20.	Are there better options to accommodate the proposed change that better achieve the stated objectives? What are the related pros and cons? How would they be implemented?	Red Energy and Lumo Energy	Red and Lumo support the proposed changes as presented in ICF_037 (Redefinition of 'Connection Configuration'). However, Red and Lumo see there is benefit in displaying both the phases in use as well as the phases available. See comments against the proposed change for: MSATS Procedures: CATS, 15.1.4(d) & 15.1.4(f).	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.
21.	Are there better options to accommodate the proposed change that better achieve the stated objectives? What are the related pros and cons? How would they be implemented?	TasNetworks	By continuing with existing processes and not introducing the new Connection Configuration field will eliminate the need for cost and impost to be borne by industry participants (and ultimately customers) to implement the new field into their respective market systems. TasNetworks believes there may be little impact by not introducing this new field, and it will also remove the ambiguity associated with how the information is being interpreted.	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.



No.	Heading	Consulted person	Issue	AEMO response
			It may be necessary to undertake further benefits analysis with respect to the intent of this field before introducing a field that does not provide the desired outcome.	
22.	Are there better options to accommodate the proposed change that better achieve the stated objectives? What are the related pros and cons? How would they be implemented?	Vector Metering	<p>1) Reading of non-comm'd meters – Support the principle that non-comm'd meters should be regularly read so that data is not lost but at a frequency that is practical. i.e. ensure that data is not lost, and read every quarter at a minimum . Pros – lost data will be avoided, additional costs for reading will be minimised. Cons – None.</p> <p>2) Connectconfiguration – LNSP should remain responsible. They have the data available via their BAU processes e.g. application forms, CCEW etc, Pros –Existing Transactions can be modified to update ConnectionConfiguration in MSATS, Field can remain on CATS_NMI_DATA, as it should. Confusion about meaning of ConnectionConfiguration can be avoided. I.e. does it relate to a meter or to the connection. Cons- None</p>	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.
23.	What are the main challenges in adopting these proposed changes? How should these challenges be addressed?	AGL Power Direct	The main problems with the meter data collection as consulted on was the very high and unnecessary cost the proposal as drafted would have forced on customers and industry for no appreciable benefit.	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.
24.	What are the main challenges in adopting these proposed changes? How should these challenges be addressed?	Alinta Energy	Alinta Energy believe that there will be little to no challenges with a retailer adopting the proposed changes. We will leave it to other participants to assess their own impact.	AEMO notes the respondent's comments.
25.	What are the main challenges in adopting these proposed changes? How should these challenges be addressed?	Energy Queensland	Energy Queensland identifies the main challenges in adopting these changes would be availability of resources to develop and implement the required systems and process changes in conjunction with the extensive program of change currently underway or proposed in the NEM. Specifically, compliance to timeframes in the proposed change defined in ICF_023 do not align to the metering capabilities of service providers. For example, 14 days versus 35 days.	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.
26.	What are the main challenges in	Intellihub	As stated above	AEMO notes the respondent's



No.	Heading	Consulted person	Issue	AEMO response
	adopting these proposed changes? How should these challenges be addressed?			comments and refers to the specific responses provided in previous tables.
27.	What are the main challenges in adopting these proposed changes? How should these challenges be addressed?	Origin Energy	No comment	
28.	What are the main challenges in adopting these proposed changes? How should these challenges be addressed?	PLUS ES	As discussed in previous sections of this document.	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.
29.	What are the main challenges in adopting these proposed changes? How should these challenges be addressed?	Powermetric Metering	See comments above.	AEMO notes the respondent's comments and refers to the specific responses provided in previous tables.
30.	With regards to the 'Redefinition of Connection Configuration' proposal (ICF_037), what standing data fields should be presented in the C7 Report, to enhance the report's useability?	AGL Power Direct	The C7 report should reflect the Connection Configuration in MSATS. This value must be an attribute of the connection point and reflect where the supply is single, 2-phase or 3 Phase , low or high voltage. Additionally, all new data collected by the MSDR obligations should be made available to the new participant in the c7 or other relevant report.	AEMO notes the respondent's comments and will review the C7 report as part of the implementation requirements of the MSATS Standing Data Review.
31.	With regards to the 'Redefinition of Connection Configuration' proposal (ICF_037), what standing data fields should be presented in the C7 Report, to enhance the report's useability?	Alinta Energy	Alinta Energy would like to see the C7 report reviewed to ensure that all the relevant NMI and metering fields in MSATS are returned, this includes the new fields introduced in the MSDR.	AEMO notes the respondent's comments and refer to the response provided in Table 8, item 30.
32.	With regards to the 'Redefinition of Connection Configuration' proposal (ICF_037), what standing data fields should be presented in the C7 Report, to enhance the report's useability?	Energy Queensland	In addition to presenting the 'Connection Configuration' in the C7 report, Energy Queensland suggests the report would be further enhanced if some of the CT/VT details where applicable were also presented, specifically the CT/VT ratios.	AEMO notes the respondent's comments and refer to the response provided in Table 8, item 30.
33.	With regards to the 'Redefinition of Connection Configuration' proposal (ICF_037), what standing data fields should be presented in the C7 Report, to enhance the report's useability?	Intellihub	Preference would be to extend the "Connection Configuration" to provide a dual role. <ol style="list-style-type: none"> 1) The Supply delivery to the site 2) The service delivery at the meter Both Connection Configuration elements should be included in the C7	AEMO notes the respondent's comments and refer to the responses provided in Table 3, item 1 and Table 8, item 30.



No.	Heading	Consulted person	Issue	AEMO response
			report (site and meter level services)	
34.	With regards to the 'Redefinition of Connection Configuration' proposal (ICF_037), what standing data fields should be presented in the C7 Report, to enhance the report's useability?	Origin Energy	No comment	
35.	With regards to the 'Redefinition of Connection Configuration' proposal (ICF_037), what standing data fields should be presented in the C7 Report, to enhance the report's useability?	Powermetric Metering	The C7 report should contain this relevant Connection Configuration information.	AEMO notes the respondent's comments and refer to the response provided in Table 8, item 30.
36.	With regards to the 'Redefinition of Connection Configuration' proposal (ICF_037), what standing data fields should be presented in the C7 Report, to enhance the report's useability?	Vector Metering	All new data collected by the MSDR obligations should be made available to the new participant in the c7 report. This included the details captured in the connection configuration field. Unclear where the fields returned in the C7 are documented in the procedures but recommend that a reconciliation of the C7 report fields and the MSATS fields is performed to ensure all relevant data is returned when a C7 report is requested. We note that problems exist today when the address details are not returned in some circumstances. This causes material issues for meter providers especially as metering installation timeframe obligation now exist. This is should also be addressed.	AEMO notes the respondent's comments and refer to the response provided in Table 8, item 30.
37.	Do you have any further questions or comments on the proposed changes?	AGL Power Direct	No.	
38.	Do you have any further questions or comments on the proposed changes?	Alinta Energy	No other comments at this time.	
39.	Do you have any further questions or comments on the proposed changes?	Energy Queensland	Energy Queensland provides no comment.	
40.	Do you have any further questions or comments on the proposed changes?	Intellihub	N/A	
41.	Do you have any further questions or comments on the proposed changes?	Origin Energy	No	
42.	Do you have any further questions or comments on the proposed changes?	Powermetric Metering	No	
43.	Do you have any further questions or comments on the proposed changes?	Vector Metering	No.	



No.	Heading	Consulted person	Issue	AEMO response
44.	Please provide any feedback that closely relates to this consultation on the Procedures, but warrants further investigation. AEMO will review any such feedback after this consultation, in the context of another consultation, or the annual prioritisation process.	AGL Power Direct	No further feedback at this time.	
45.	Please provide any feedback that closely relates to this consultation on the Procedures, but warrants further investigation. AEMO will review any such feedback after this consultation, in the context of another consultation, or the annual prioritisation process.	Alinta Energy	No other feedback at this time.	
46.	Please provide any feedback that closely relates to this consultation on the Procedures, but warrants further investigation. AEMO will review any such feedback after this consultation, in the context of another consultation, or the annual prioritisation process.	Energy Queensland	Energy Queensland provides no comment.	
47.	Please provide any feedback that closely relates to this consultation on the Procedures, but warrants further investigation. AEMO will review any such feedback after this consultation, in the context of another consultation, or the annual prioritisation process.	Intellihub	N/A	
48.	Please provide any feedback that closely relates to this consultation on the Procedures, but warrants further investigation. AEMO will review any such feedback after this consultation, in the context of another consultation, or the annual prioritisation process.	Origin Energy	No comment	



No.	Heading	Consulted person	Issue	AEMO response
49.	Please provide any feedback that closely relates to this consultation on the Procedures, but warrants further investigation. AEMO will review any such feedback after this consultation, in the context of another consultation, or the annual prioritisation process.	PLUS ES	<p>PLUS ES analysis of their meter population where remote acquisition has failed for a consecutive period determined:</p> <ul style="list-style-type: none"> • appr 50% of the total volume has occurred due to the customer’s site being de-energised and the status not been updated in MSATS. There are various reasons why the misalignment occurs. • appr 35%+ of the total volume have access issues (physical barrier to the meter or customer refusal) which would prevent the MPB reading the metering installation or replacing the meter. These meters are usually long term. <p>Ultimately this means that the MPB is incurring costs which could have been otherwise avoided and more importantly utilising resources which could have been deployed on other installation work. The access issues also ensure that the MC potentially has metering malfunctions which cannot be rectified until and if the access issues are resolved and substituted data being published to the Market.</p> <p>PLUS ES recommends that the following warrant further discussion/investigation:</p> <ul style="list-style-type: none"> • the misaligned NMI statuses - to identify barriers/constraints which prevent or delay the update of MSATS and what measures if any could decrease these volumes • Access Issues – identification and visibility of physical barriers etc 	AEMO notes the respondent’s comments and has added the topics suggested for discussion at the Electricity Retail Consultative Forum (ERCF).
50.	Please provide any feedback that closely relates to this consultation on the Procedures, but warrants further investigation. AEMO will review any such feedback after this consultation, in the context of another consultation, or the annual prioritisation process.	Vector Metering	Nil.	