

# RETAIL ELECTRICITY MARKET PROCEDURES MARCH 2021 CONSULTATION

FINAL REPORT

Published: **16 July 2021**





© 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 Final Report and Determination (Final Report) concludes the consultation (Consultation) on the changes (Changes) to implement process improvements which are proposed (Proposal) to the Retail Electricity Market Procedures (Procedures). These relate to the National Electricity Market (NEM), as recommended by market participants and AEMO, as follows:

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)	N/A	Unchanged
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)		

AEMO received 11 submissions from Retailers, Local Network Service Providers (LNSPs), Meter Providers (MPs), Metering Data Providers (MDPs) and intending participants in response to the Draft Report. AEMO held a meeting to discuss the Draft Report with AGL, Alinta Energy, Ausgrid, PLUS ES, South Australia Power Networks and Vector Metering on 31 May 2021.

Overall, multiple respondents indicated broad support for the Changes. The only aspect of the Proposal which did not receive broad support was ICF\_037 Redefinition of 'Connection Configuration'. Accordingly, AEMO's determination is to amend the Procedures in the form published with this Final Report.



## CONTENTS

EXECUTIVE SUMMARY	<b>2</b>
1. STAKEHOLDER CONSULTATION PROCESS	<b>4</b>
2. BACKGROUND	<b>4</b>
2.1. NER requirements	4
2.2. Context for this consultation	4
2.3. First stage consultation	5
2.4. Second stage consultation	5
2.5. Structure of Procedures	6
3. SUMMARY OF MATERIAL ISSUES	<b>7</b>
4. DISCUSSION OF MATERIAL ISSUES	<b>8</b>
4.1. Redefinition of 'Connection Configuration' (ICF_037)	8
5. FINAL DETERMINATION	<b>11</b>
APPENDIX A. GLOSSARY	<b>12</b>
APPENDIX B. SUMMARY OF SUBMISSIONS AND AEMO RESPONSE	<b>13</b>



## 1. STAKEHOLDER CONSULTATION PROCESS

AEMO consulted on the Proposal in accordance with the Rules consultation process in the National Electricity Rules (NER) section 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 was as follows.

**Table 1 Consultation dates**

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

The publication of this Final Report marks the conclusion 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: <https://aemo.com.au/en/consultations/industry-forums-and-working-groups/list-of-industry-forums-and-working-groups/electricity-retail-consultative-forum>

Over 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
ICF_023	Process when remote collection of metering data fails	Metrology Procedure: Part A	Amendment



ID	Subject	Procedure	Change Type
		SLP: MDP Services	
ICF_030	Configuration of data channels and meter data obligations	SLP: MDP Services	Amendment
ICF_037	Redefinition of 'Connection Configuration'	Standing Data document MSATS Procedures: CATS MSATS Procedures: WIGS	Unchanged
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 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>.

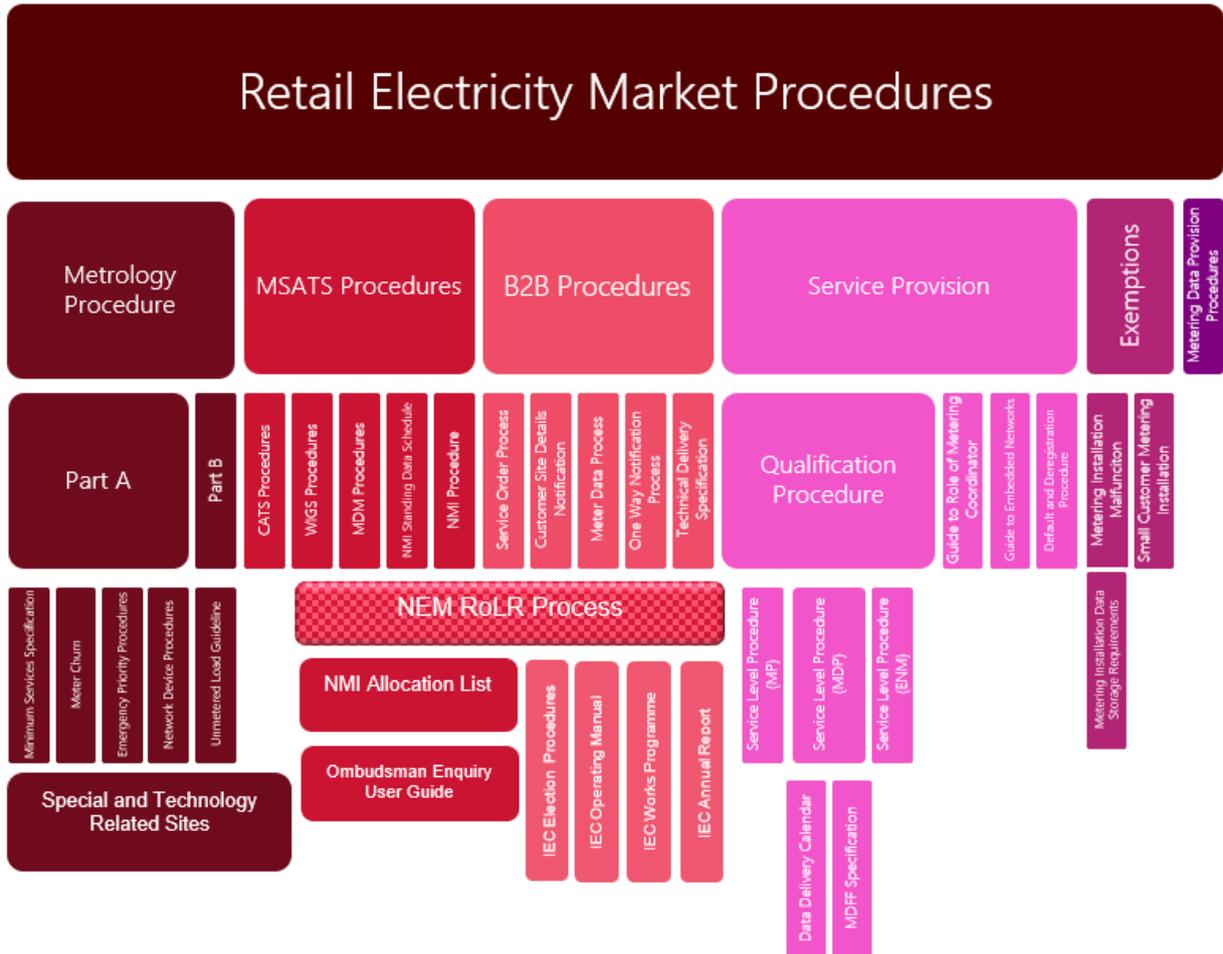
### 2.4. Second stage consultation

AEMO issued the Notice of Second Stage Consultation, Draft Report, and draft amended Procedures on 20 May 2021. These materials are available on [AEMO's website](#). The Draft Report included a summary of the Changes, details on AEMO's stakeholder engagement, including through the ERCF, as well as the submissions in respect of the Issues Paper.

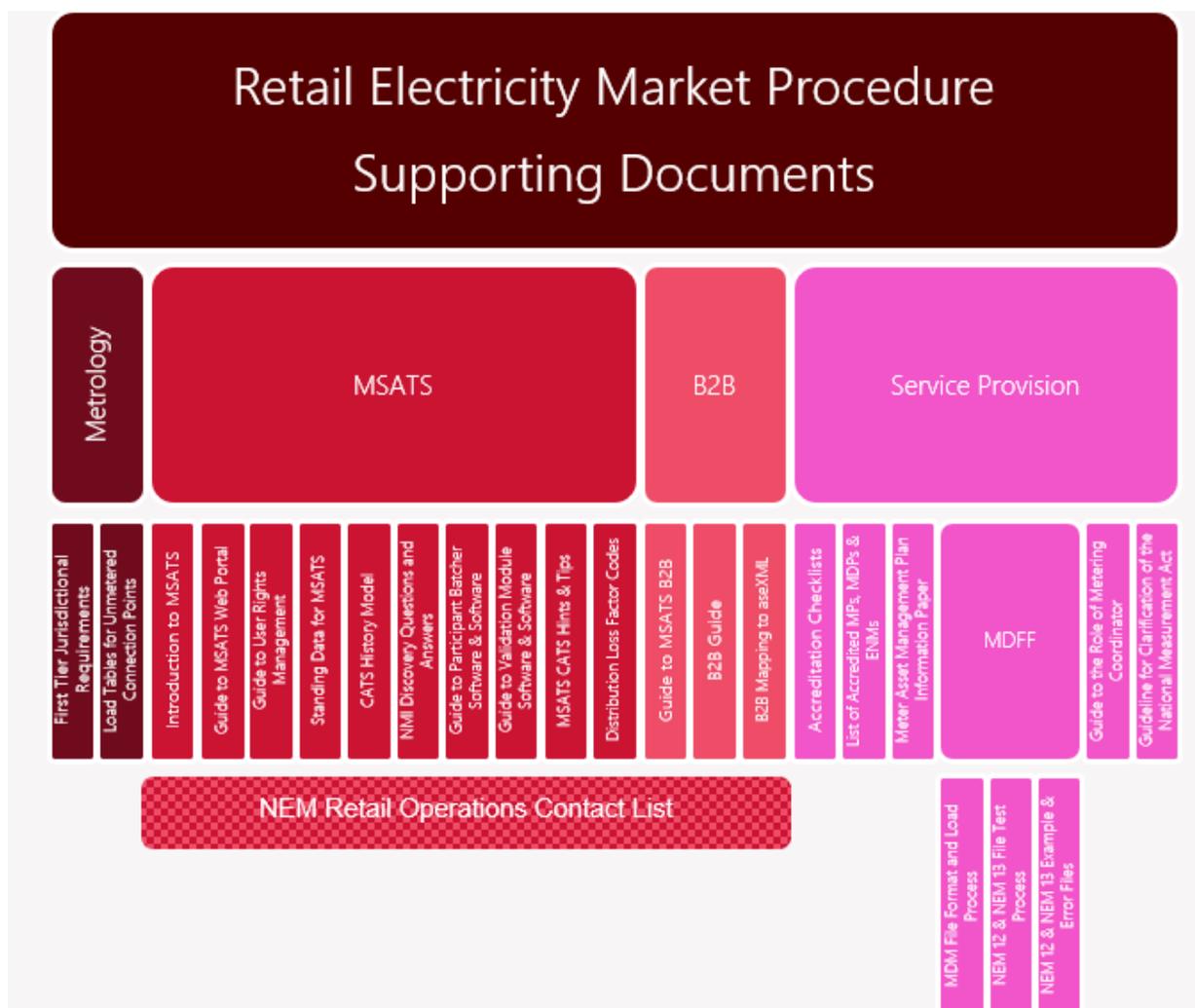
In response to the Draft Report, AEMO received 11 submissions. AEMO also held a meeting to discuss the Draft Report with AGL, Alinta Energy, Ausgrid, PLUS ES, South Australia Power Networks and Vector Metering on 31 May 2021. AEMO published copies of all written submissions (excluding any confidential information): <https://aemo.com.au/consultations/current-and-closed-consultations/electricity-retail-market-procedures-march-2021>.

## 2.5. Structure of Procedures

Figure 1 Retail Electricity Market Procedures



**Figure 2 The Retail Electricity Market Supporting Documents (Supporting Documents)**



### 3. SUMMARY OF MATERIAL ISSUES

The key material issues arising from submissions in response to the Draft Report are as follows.

No.	Issue	Raised by
1.	<u>Redefinition of 'Connection Configuration'</u>	Multiple Respondents

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

The relevant 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
SLP: MDP Services	Process to detect energy data	ICF_M001

Procedure	Change	ID
	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
MSATS Procedures: WIGS		
MSATS Procedures: CATS		

AEMO has published the Procedures, incorporating these Changes except for ICF\_037, to accompany this Final Report.

The 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>. An editable version in .rtf format can be made available upon request by email to [NEM.Retailprocedureconsultations@aemo.com.au](mailto: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 Changes which are detailed in this Final Report 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. Redefinition of 'Connection Configuration' (ICF\_037)

#### 4.1.1. Issue summary and submissions

AEMO's MS DR 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 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 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 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 which



meter is required, without a site visit in advance. This makes the information in the field unreliable for market operations and consequently, the LNSP will be obliged to maintain this information, for little benefit.

The Change, as it was proposed in the Issues Paper, 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 would have 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 Proposal involved the following Changes.

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 <a href="#">where there is an installed meter</a>

Document	Section	Description
		Field to be provided by <del>LN</del> SP MPB.

In the Draft Report, AEMO 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 was proposed to remain in the Meter Register table, as the responsibility of the MPB, including where the MPB is also the LN~~S~~P.

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 that the field be split, to allow LN~~S~~Ps to provide the expected supply connection to the site and the MPB to provide the supply at the metering level.
- TasNetworks suggested that 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.

AEMO requested feedback from participants on an option to split the field to allow LN~~S~~Ps to provide the expected supply connection to the site and the MPB to provide the supply at the metering level which was outlined in the Draft Report.

In response, the submissions demonstrated no clear agreement in respect of the option to split the field:

- AGL, PLUS ES, Vector Metering, Ausgrid and Energy Queensland stated that they did not support the Proposal.
- Intellihub stated that they would prefer the Connection Configuration to remain at NMI level.
- Origin Energy noted and accepted the Connection Configuration changes, but stated that it was not supportive of the field being updated by the MPB for connection type and configuration.



- Citipower Powercor recommended that an additional enumeration be added to the second character, consisting of L = 3 phase supply/LV CT with 3 phase metering.
- Endeavour Energy noted that the Proposal should drive value for market participants and suggested a value of 'unknown' be made available for the initial data population.

#### **4.1.2. AEMO's assessment**

AEMO notes that a majority of respondents did not support the Changes as per the Proposal in either the Issues Paper or the Draft Report. The respondents who support the Changes made several further suggestions, in response to the Proposal in the Draft Report.

#### **4.1.3. AEMO's conclusion**

Given the lack of clear agreement in respect of the Connection Configuration field, AEMO will not be proceeding with the Changes to the MSATS Procedures: CATS, MSATS Procedures: WIGS and Standing Data document, as had been the subject of the Proposal in the First Stage or Second Stage Consultation. AEMO will refer this issue back to the ERCF, for further review of the Proposal.

## **5. FINAL DETERMINATION**

AEMO's determination is to amend the following documents in the form published with this Final 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.

**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	AGL supports the amendments to the initial proposal.	AEMO notes the respondent's support for the change.
2.	2.4.3 Reactive Energy	Energy Queensland	Energy Queensland provides no comment.	
3.	2.4.3 Reactive Energy	Intellihub	Ok.	AEMO notes the respondent's support for the change.
4.	2.4.3 Reactive Energy	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the change.
5.	2.4.3 Reactive Energy	SA Power Networks	No comment	
6.	2.4.3 Reactive Energy	Vector Metering	Agreed	AEMO notes the respondent's support for the change.
7.	New clause 2.4.1(a)(ix)	AGL	AGL supports the change.	AEMO notes the respondent's support for the change.
8.	New clause 2.4.1(a)(ix)	Ausgrid	<p>As Ausgrid highlighted in ERCF discussions, there is an AEMO CATS compliance metric to change the NMI status to 'A' within 5 business days, this Metric is NMIST1 and is a part of the LNSP compliance reporting. Where a NMI with a Type1-4 meter is installed and has been disconnected at the request of the retailer and the MDP picks up consumption, Ausgrid will change the NMI status to 'A'. If the MDP is only obligated to monitor energy data only every 20 days then if this is done on day 20 and the data sent to the LNSP then the LNSP will have to change the NMI status to A and this may be outside the 5 day requirement set by AEMO's CATS procedure and cause a non compliance to the LNSP for no fault of their own.</p> <p>Ausgrid suggests that this metric is changed from 20 days to 5 days so as not to cause compliance issues on the LNSP. If this is not suitable then Ausgrid expects that AEMO modify their reports to remove these non compliance errors from the LNSP reports.</p>	AEMO notes the respondent's comment. The compliance metric will remain as it currently stands. The Procedures cover the entire NEM and jurisdictional process variations are not factored into the Procedures. The obligation for compliance remains upon participants including keeping evidence of compliance with the Procedures.



9.	New clause 2.4.1(a)(ix)	Energy Queensland	Energy Queensland provides no comment.	
10.	New clause 2.4.1(a)(ix)	Intellihub	Ok.	AEMO notes the respondent's support for the change.
11.	New clause 2.4.1(a)(ix)	Origin Energy	New clause is noted and accepted.	AEMO notes the respondent's support for the change.
12.	New clause 2.4.1(a)(ix)	SA Power Networks	No comment	
13.	New clause 2.4.1(a)(ix)	Vector Metering	Agree	AEMO notes the respondent's support for the change.
14.	Renumbered clauses	AGL	Noted.	
15.	Renumbered clauses	Energy Queensland	Energy Queensland provides no comment.	
16.	Renumbered clauses	Intellihub	Ok.	AEMO notes the respondent's support for the change.
17.	Renumbered clauses	Origin Energy	Noted	
18.	Renumbered clauses	SA Power Networks	No comment	
19.	3.5 Specific Collection Process Requirements for Metering installations with Remote Acquisition of Metering Data	AGL	AGL supports the change.	AEMO notes the respondent's support for the change.
20.	3.5 Specific Collection Process Requirements for Metering installations	Endeavour Energy	We agree that it is unreasonable to define an obligation to notify the MC on a non-business day. However, we note 'business days' is also added to the part describing the number of consecutive days where remote acquisition is unavailable. We believe that this has the unintended consequence of adding additional days for the notification when the unavailability of remote acquisition includes weekends and public holidays.	AEMO notes the respondent's comment. The proposal allows time for DNSPs time to update NMI status if the site is de-energised within their 5-business day obligation. The majority of respondents are supportive of this change as proposed. AEMO's



	with Remote Acquisition of Metering Data		<p>For example, if remote acquisition starts to be unavailable on Wednesday, then:  Thursday would be 1st business day  Friday would be 2nd business day  Saturday is not counted  Sunday is not counted  Monday is 3rd business day  Tuesday is 4th business day  Wednesday is 5th business day  Thursday is the day that the MDP must notify the MC</p> <p>In addition, this part of the clause does not impose any action on the MDP but is a trigger for an action, and is generally an automated BAU process that operates every day including non-business days.</p> <p>We suggest that 'business days' be removed from the number of consecutive days where remote acquisition is unavailable part, which would result in the following:  If remote acquisition starts to be unavailable on Wednesday, then:  Thursday would be 1st day  Friday would be 2nd day  Saturday would be 3rd day  Sunday would be 4th day  Monday would be 5th day  Tuesday is the day that the MDP must notify the MC</p> <p>Therefore, we suggest that clause 3.5.c be reworded 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 days where remote acquisition is unavailable, the MDP must notify the MC that remote acquisition is unavailable.</p>	determination is to make the change as proposed in the Final Report.
21.	3.5 Specific Collection Process Requirements for Metering installations with Remote	Energy Queensland	Energy Queensland provides no comment.	



	Acquisition of Metering Data			
22.	3.5 Specific Collection Process Requirements for Metering installations with Remote Acquisition of Metering Data	Intellihub	Ok.	AEMO notes the respondent’s support for the change.
23.	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 change.
24.	3.5 Specific Collection Process Requirements for Metering installations with Remote Acquisition of Metering Data	SA Power Networks	No comment	
25.	3.5 Specific Collection Process Requirements	Vector Metering	Agree	AEMO notes the respondent’s support for the change.



for Metering installations with Remote Acquisition of Metering Data			
---	--	--	--

**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	AGL supports the change.	AEMO notes the respondent's support for the change.
2.	12.2 Metering Data Collection	Endeavour Energy	We note that clause 12.2.k.ii does not have a timeframe defined for the action. For clarity we suggest that a timeframe be defined – in line with the ICF for this change and clause 12.2.k.i we suggest that this timeframe be 15 business days. Therefore, we suggest clause 12.2.k.ii be reworded to: within 15 business days, ensure that the metering installations' communications interface is maintained to facilitate ongoing collection of metering data;	AEMO notes the respondent's comment. The entirety of clause 12.2.k is to be done within 15 business days, as defined by clause 12.2.k.i. The bullet points are not standalone.
3.	12.2 Metering Data Collection	Energy Queensland	Energy Queensland proposes that clause 12.2(k)(iv) is updated to include the following additional bold text: ensure that, irrespective of the energy storage capacity of the metering installation, the metering installation reading frequency must not exceed three months or the agreed meter reading frequency (as per 12.2 (j)) since the last actual read was undertaken.	AEMO notes the respondent's comment. Clause 12.2(j) defines a maximum frequency for meter readings. This maximum frequency covers what is agreed upon between the MC and FRMP.
4.	12.2 Metering Data Collection	Intellihub	Ok.	AEMO notes the respondent's support for the change.
5.	12.2 Metering Data Collection	Origin Energy	Origin puts forward that due to access issues and potential impact to the customer, the wording of 15 business days should be updated inline with the NER 7.8.10B (a) and include 'and or by agreed date with the customer'.	AEMO notes the respondent's comment. Clause 12.2(j) defines a maximum frequency for meter readings. An agreed date between the FRMP and an agreed date made with the customer may exceed the maximum



				reading frequency and <i>energy data</i> storage capacity of the <i>metering installation</i> .
6.	12.2 Metering Data Collection	Plus ES	<p>PLUS ES accepts the objective that clause (k) is seeking to achieve.</p> <p>For further clarification, PLUS ES makes the following recommendations:</p> <p>a. As section 12.2 is relevant for metering data collection in general, PLUS ES suggests the following clarification: (k) When the MC is informed of a remote acquisition metering data collection issue, the MC must:</p> <p>b. Referencing discussions tabled at the May ERCF, there are large volumes of these metering installations for which the MP encounters access issues (Physical, Customer Refusal etc) and attempts to obtain metering data and/or replace the metering installation are unsuccessful.</p> <p>For this purpose, PLUS ES suggests that clause (k) and its associated subclauses are amended to incorporate these scenarios and align to other clauses of section 12.2, where similar allowances have been made when access to metering installations is a dependency. That is,,</p> <p>(k) When the MC is informed of a remote acquisition metering data collection issue, the MC must use reasonable endeavours to ensure that:</p> <p>(i) within 15 business days, the necessary steps are undertaken to have the missing metering data collected;</p> <p>(ii) <del>ensure that</del> the metering installations' communications interface is maintained to facilitate ongoing collection of metering data;</p> <p>(iii) <del>ensure that</del> 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) <del>ensure that</del>, 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 the respondent's support for the objective of the change. Clause 12.2(k) only applies to missing metering data, not substituted or estimated data that occurs due to access issues. Clause k does not only apply to remotely read meters. The clause now refers to 'ensure'.</p>
7.	12.2 Metering Data Collection	SA Power Networks	No comment	
8.	12.2 Metering Data Collection	Vector Metering	Agree with change.	AEMO notes the respondent's support for the change.

**Table 6 Guideline for Clarification of the National Measurement Act**

No.	Section	Consulted person	Issue	AEMO response
1.	1.1	AGL	AGL supports the change.	AEMO notes the respondent's support for the change.
2.	1.1	Energy Queensland	Energy Queensland provides no comment.	
3.	1.1	Intellihub	Ok.	AEMO notes the respondent's support for the change.
4.	1.1	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the change.
5.	1.1	SA Power Networks	No comment	
6.	3.1 3.2.1 3.2.2 3.3	AGL	AGL supports the change.	AEMO notes the respondent's support for the change.
7.	3.1 3.2.1 3.2.2 3.3	Energy Queensland	Energy Queensland provides no comment.	
8.	3.1 3.2.1 3.2.2 3.3	Intellihub	Ok.	AEMO notes the respondent's support for the change.
9.	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 change.
10.	3.1 3.2.1 3.2.2 3.3	SA Power Networks	No comment	
11.	3.3	AGL	AGL supports the change.	AEMO notes the respondent's support for the change.
12.	3.3	Energy Queensland	Energy Queensland provides no comment.	
13.	3.3	Intellihub	Ok.	AEMO notes the respondent's support for the change.



14.	3.3	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's support for the change.
15.	3.3	SA Power Networks	No comment	
16.	5.1.2 5.2 5.2.1 5.2.2 5.2.4 5.3	AGL	AGL supports the change.	AEMO notes the respondent's support for the change.
17.	5.1.2 5.2 5.2.1 5.2.2 5.2.4 5.3	Energy Queensland	Energy Queensland provides no comment.	
18.	5.1.2 5.2 5.2.1 5.2.2 5.2.4 5.3	Intellihub	Ok.	AEMO notes the respondent's support for the change.
19.	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 change.
20.	5.1.2 5.2 5.2.1 5.2.2 5.2.4 5.3	SA Power Networks	No comment	
21.	6.1	AGL	AGL supports the change.	AEMO notes the respondent's support for the change.
22.	6.1	Energy Queensland	Energy Queensland provides no comment.	



23.	6.1	Intellihub	Ok.	AEMO notes the respondent’s support for the change.
24.	6.1	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent’s support for the change.
25.	6.1	SA Power Networks	No comment	
26.	6.2 7 8.3 Appendix C	AGL	AGL supports the change.	AEMO notes the respondent’s support for the change.
27.	6.2 7 8.3 Appendix C	Energy Queensland	Energy Queensland provides no comment.	
28.	6.2 7 8.3 Appendix C	Intellihub	Ok.	AEMO notes the respondent’s support for the change.
29.	6.2 7 8.3 Appendix C	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent’s support for the change.
30.	6.2 7 8.3 Appendix C	SA Power Networks	No comment	

**Table 7 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	<p>AGL acknowledges that the proposed changes to the configuration field were to meet the requirements of ICF 37, which was to make the MP responsible for the field.</p> <p>However, the implementation of that change, by moving the connection information from the NMI to the Meter, has led to a high degree of complexity. This, in turn, has moved the proposed field a long way from the original intent, which was connection information at a NMI level.</p> <p>As such, we propose that the proposed change sought by ICF 37 be rejected, and that the field revert to the original proposal, which was connections at a NMI, with the data captured on the CATS_NMI_DATA table as currently specified, with the information relating to the supply at the NMI, not the premise, irrespective of existing metering. This would result in the 2nd character of this field being set to one of 1,2 or 3.</p>	AEMO notes the respondent's comment. AEMO will refer this issue back to the ERCF for further review of the proposal. AEMO's final determination is to not make the change proposed in the Issues Paper or Draft Report.
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	Energy Queensland	As per comments provided in section 7 and 8.	AEMO notes the respondent's comment. Please refer to the response in Table 7, 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	Intellihub	This should remain at NMI level.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1.



4.	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 comment. Please refer to the response in Table 7, item 1.
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	Plus ES	PLUS ES does not support, as per feedback provided with respect to the proposed ConnectionConfiguration field	AEMO notes the respondent's comment. Please refer to the response in Table 7, 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	SA Power Networks	See comment within Section 7 Standing Data for MSATS - Table 3 (CATS_METER_REGISTER)	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
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	Vector Metering	<p>Vector Metering does not support the change to the party that is responsible for the maintaining the Connection Configuration field. This should remain with the LNSP and ENM.</p> <p>This field should reflect the supply established by the LNSP (or in the case of NSW the ASP) at the connection point (NMI), as was agreed during the MSDR consultation.</p> <p>LNSP's approve the type of supply as part of the 'approval to connect' process. This information can be used by the LNSP to populate this field in MSATS. Obligations should allow the NMI to be created with a 'unknown' value while the site is greenfield but once the site becomes 'Active' ConnectionConfiguration must be populated with the values agreed in the MSDR eg. Character 1 = 'H' or 'L', Character 2 = 1,2 or 3.</p> <p>Refer to table 7 below for more context.</p>	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1



8.	9.3.4(h)	AGL	AGL does not support this change	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
9.	9.3.4(h)	Energy Queensland	As per comments provided in section 7 and 8.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
10.	9.3.4(h)	Intellihub	Ok.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
11.	9.3.4(h)	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
12.	9.3.4(h)	Plus ES	PLUS ES does not support, as per feedback provided with respect to the proposed ConnectionConfiguration field	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
13.	9.3.4(h)	SA Power Networks	See comment within Section 7 Standing Data for MSATS - Table 3 (CATS_METER_REGISTER)	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
14.	9.3.4(h)	Vector Metering	This change should be reverted. Obligations to update Connection Configuration should remain with the LNSP and ENM, and the field should remain on the CATS_NMI_DATA table in MSATS.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
15.	10.1.4(d) 10.2.4(d) 10.3.4(d)	AGL	AGL does not support this change	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
16.	10.1.4(d) 10.2.4(d) 10.3.4(d)	Energy Queensland	As per comments provided in section 7 and 8.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
17.	10.1.4(d) 10.2.4(d) 10.3.4(d)	Intellihub	This should remain at NMI level.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
18.	10.1.4(d) 10.2.4(d) 10.3.4(d)	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
19.	10.1.4(d) 10.2.4(d) 10.3.4(d)	Plus ES	PLUS ES does not support, as per feedback provided with respect to the proposed ConnectionConfiguration field	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
20.	10.1.4(d) 10.2.4(d) 10.3.4(d)	SA Power Networks	See comment within Section 7 Standing Data for MSATS - Table 3 (CATS_METER_REGISTER)	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
21.	10.1.4(d) 10.2.4(d) 10.3.4(d)	Vector Metering	This change should be reverted. This field should be at a NMI level, not the meter register level as the ConnectionConfiguration reflects details of the supply connection to the NMI. Obligations to update Connection Configuration	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1



			should remain with the LNSP and ENM, and the field should remain on the CATS_NMI_DATA table in MSATS as agreed during the MSDR consultation.	
22.	10.4.4(d) 10.5.4(d)	AGL	AGL does not support this change	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
23.	10.4.4(d) 10.5.4(d)	Energy Queensland	As per comments provided in section 7 and 8.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
24.	10.4.4(d) 10.5.4(d)	Intellihub	This should remain at NMI level.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
25.	10.4.4(d) 10.5.4(d)	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
26.	10.4.4(d) 10.5.4(d)	Plus ES	PLUS ES does not support, as per feedback provided with respect to the proposed ConnectionConfiguration field	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
27.	10.4.4(d) 10.5.4(d)	SA Power Networks	See comment within Section 7 Standing Data for MSATS - Table 3 (CATS_METER_REGISTER)	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
28.	10.4.4(d) 10.5.4(d)	Vector Metering	This change should be reverted.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
29.	15.1.4(d) & 15.1.4(f)	AGL	AGL does not support this change	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
30.	15.1.4(d) & 15.1.4(f)	Energy Queensland	As per comments provided in section 7 and 8.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
31.	15.1.4(d) & 15.1.4(f)	Intellihub	This should remain at NMI level.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
32.	15.1.4(d) & 15.1.4(f)	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
33.	15.1.4(d) & 15.1.4(f)	Plus ES	PLUS ES does not support, as per feedback provided with respect to the proposed ConnectionConfiguration field	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
34.	15.1.4(d) & 15.1.4(f)	SA Power Networks	See comment within Section 7 Standing Data for MSATS - Table 3 (CATS_METER_REGISTER)	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1



35.	15.1.4(d) & 15.1.4(f)	Vector Metering	This change should be reverted. This field should be at a NMI level, not the meter register level.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
36.	Table 16-C	AGL	AGL does not support this change	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
37.	Table 16-C	Energy Queensland	As per comments provided in section 7 and 8.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
38.	Table 16-C	Intellihub	This should remain at NMI level.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
39.	Table 16-C	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
40.	Table 16-C	Plus ES	PLUS ES does not support, as per feedback provided with respect to the proposed ConnectionConfiguration field	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
41.	Table 16-C	SA Power Networks	See comment within Section 7 Standing Data for MSATS - Table 3 (CATS_METER_REGISTER)	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
42.	Table 16-C	Vector Metering	This change should be reverted. This field should be at a NMI level, not the meter register	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1

**Table 8 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.	4.1.4; 4.2.4; 4.3.4; 7.1.4; 7.1.5; 7.2.3; 7.3.4	AGL	<p>AGL acknowledges that the proposed changes to the configuration field were to meet the requirements of ICF 37, which was to make the MP responsible for the field.</p> <p>However, the implementation of that change, by moving the connection information from the NMI to the Meter, has led to a high degree of complexity. This, in turn, has moved the proposed field a long way from the original intent, which was connection information at a NMI level.</p> <p>As such, we propose that the proposed change sought by ICF 37 be rejected, and that the field revert to the original proposal, which was connections at a NMI, with the data captured on the CATS_NMI_DATA table as currently specified, with the information relating to the supply at the NMI, not the premise, irrespective of existing metering. This would result in the 2nd character of this field being set to one of 1,2 or 3.</p>	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1



2.	4.1.4; 4.2.4; 4.3.4; 7.1.4; 7.1.5; 7.2.3; 7.3.4	Energy Queensland	As per comments provided in section 7 and 8.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
3.	4.1.4; 4.2.4; 4.3.4; 7.1.4; 7.1.5; 7.2.3; 7.3.4	Intellihub	This should remain with the LNSP.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
4.	4.1.4; 4.2.4; 4.3.4; 7.1.4; 7.1.5; 7.2.3; 7.3.4	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
5.	4.1.4; 4.2.4; 4.3.4; 7.1.4; 7.1.5; 7.2.3; 7.3.4	Plus ES	PLUS ES does not support, as per feedback provided with respect to the proposed ConnectionConfiguration field	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
6.	4.1.4; 4.2.4; 4.3.4; 7.1.4; 7.1.5; 7.2.3; 7.3.4	SA Power Networks	See comment within Section 7 Standing Data for MSATS - Table 3 (CATS_METER_REGISTER)	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
7.	5.2.4(d); 5.3.4(d); 5.4.4(d)	AGL	AGL does not support this change	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
8.	5.2.4(d); 5.3.4(d); 5.4.4(d)	Energy Queensland	As per comments provided in section 7 and 8.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1



9.	5.2.4(d); 5.3.4(d); 5.4.4(d)	Intellihub	This should be at NMI level.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
10.	5.2.4(d); 5.3.4(d); 5.4.4(d)	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
11.	5.2.4(d); 5.3.4(d); 5.4.4(d)	Plus ES	PLUS ES does not support, as per feedback provided with respect to the proposed ConnectionConfiguration field	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
12.	5.2.4(d); 5.3.4(d); 5.4.4(d)	SA Power Networks	See comment within Section 7 Standing Data for MSATS - Table 3 (CATS_METER_REGISTER)	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
13.	9.1.4(b)(i); 9.1.4(b)(iii)	AGL	AGL does not support this change	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
14.	9.1.4(b)(i); 9.1.4(b)(iii)	Energy Queensland	As per comments provided in section 7 and 8.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
15.	9.1.4(b)(i); 9.1.4(b)(iii)	Intellihub	This should be at NMI level.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
16.	9.1.4(b)(i); 9.1.4(b)(iii)	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
17.	9.1.4(b)(i); 9.1.4(b)(iii)	Plus ES	PLUS ES does not support, as per feedback provided with respect to the proposed ConnectionConfiguration field	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
18.	9.1.4(b)(i); 9.1.4(b)(iii)	SA Power Networks	See comment within Section 7 Standing Data for MSATS - Table 3 (CATS_METER_REGISTER)	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1

**Table 9 Standing Data for MSATS (Standing Data document)**

No.	Section	Consulted person	Issue	AEMO response
1.	Table 6 (CATS_NMI_DATA)	AGL	AGL acknowledges that the proposed changes to the configuration field were to meet the requirements of ICF 37, which was to make the MP responsible for the field.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1



			<p>However, the implementation of that change, by moving the connection information from the NMI to the Meter, has led to a high degree of complexity.</p> <p>This, in turn, has moved the proposed field a long way from the original intent, which was connection information at a NMI level. As such, we propose that the proposed change sought by ICF 37 be rejected, and that the field revert to the original proposal, which was connections at a NMI, with the data captured on the CATS_NMI_DATA table as currently specified, with the information relating to the supply at the NMI, not the premise, irrespective of existing metering. This would result in the 2nd character of this field being set to one of 1,2 or 3.</p>	
2.	Table 6 (CATS_NMI_DATA)	Ausgrid	See below comments.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
3.	Table 6 (CATS_NMI_DATA)	Energy Queensland	Energy Queensland provides no comment.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
4.	Table 6 (CATS_NMI_DATA)	Intellihub	This should be at NMI level.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
5.	Table 6 (CATS_NMI_DATA)	Origin Energy	Changes are noted and accepted.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
6.	Table 6 (CATS_NMI_DATA)	Plus ES	<p>PLUS ES does not support the change of the ConnectionConfiguration field to the Meter Register Table, though we recognise this change was triggered by an ICF which requested the MPB to populate the field.</p> <p>PLUS ES supports that details relating to the Connection point deliver more value at the NMI and should remain at the NMI_Data Table. Please see PLUS ES response in more detail in the field below.</p>	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
7.	Table 6 (CATS_NMI_DATA)	SA Power Networks	See comment within Section 7 Standing Data for MSATS - Table 3 (CATS_METER_REGISTER)	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
8.	Table 6 (CATS_NMI_DATA)	Vector Metering	This change should be reverted. This field should be at a NMI level, not the meter register.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
9.	Table 3 (CATS_METER_REGISTER)	AGL	<p>AGL does not consider that the proposed table is correct. Configurations such as C, F and H denote the configuration for multiple meters, which would never be used in a field associated with an individual meter.</p>	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1



			<p>AGL acknowledges that the proposed changes to the configuration field were to meet the requirements of ICF 37, which was to make the MP responsible for the field.</p> <p>However, the implementation of that change, by moving the connection information from the NMI to the Meter, has led to a high degree of complexity.</p> <p>This, in turn, has moved the proposed field a long way from the original intent, which was connection information at a NMI level. As such, we propose that the proposed change sought by ICF 37 be rejected, and that the field revert to the original proposal, which was connections at a NMI, with the data captured on the CATS_NMI_DATA table as currently specified, with the information relating to the supply at the NMI, not the premise, irrespective of existing metering. This would result in the 2nd character of this field being set to one of 1,2 or 3.</p>	
10.	Table 3 (CATS_METER_REGISTER)	Ausgrid	<p>The proposed connection configuration proposal put forward by AEMO in the draft report is far too complex and difficult to populate accurately.</p> <p>Ausgrid acknowledges that the proposed changes to the configuration field were to meet the requirements of ICF 37, which was to make the MP responsible for the field and assist the MP in determining the metering configuration onsite prior to a site visit. As there can be multiple metering configurations at a NMI, this information should be located at a meter level if this is what the intent of the field is.</p> <p>However, the implementation of that change, by moving the connection information from the NMI to the Meter, has led to a high degree of complexity. This, in turn, has moved the proposed field a long way from the original intent, which was connection information at a NMI level.</p> <p>As such, we propose that the proposed change sought by ICF 37 be rejected and revert to the original proposal, which was connections at a NMI, with the data captured on the CATS_NMI_DATA table as currently specified, with the information relating to the supply at the NMI, not the premise, irrespective of existing metering. This would result in the 2nd character of this field being set to one of 1,2 or 3. In addition, Ausgrid requests that the field is either not implemented into MSATS or</p>	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1



			not made as a mandatory field until industry has determined its expected functionality, population of information into this field will be misleading and of limited use to participants if not accurately completed.	
11.	Table 3 (CATS_METER_REGISTER)	CitiPower Powercor	CitiPower Powercor recommends that an additional second character be added: L = 3 phase supply/LV CT with 3 phase metering, as it is important to differentiate between direct connected 3 phase meters and LV CT connected 3 phase meters and hence the presence of Current Transformers in the metering installation.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
12.	Table 3 (CATS_METER_REGISTER)	Endeavour Energy	<p>The draft report explained that the second character of the Connection Configuration field is to provide information on 'phases available' as well as 'phases in use'. We note that most of the submissions requesting for 'phases available' is for the following:</p> <ul style="list-style-type: none"> <li>a. The LNSP is responsible for the connection to the network and therefore would have the phases available information and whether the connection is HV or LV (Alinta Energy, Vector Metering, PLUS ES)</li> <li>b. Metering Providers may not install a like for like meter and may decide to install different meter arrangements, eg replace 3 single phase meters with 1 three phase meter (Alinta Energy, Red Energy and Lumo Energy)</li> <li>c. Metering Providers want to know the phases available at a greenfield site so that they can determine the required metering arrangement at a greenfield site (PLUS ES)</li> </ul> <p>We wish to highlight that AEMO and industry considered both 'phases available' and 'phases in use' during the MSATS Standing Data Review workshop and consultation and decided to only have 'phases in use' On page 17 of the MSATS Standing Data Review Issues Paper, AEMO stated:</p> <p><i>Participants were asked whether the second character (which referred to "Phases Available" in the material distributed in advance of the pre-consultation) should be split into two characters expressing "phases supplied" and "phases in use" separately. Participants expressed strong support for not separating Character 2 in this way. As such, AEMO proposes that Character 2 not be split and only refer to "phases in use".</i></p> <p>We also note that the ICF for this change was to make it clearer that the information to be provided for this field is 'phases in use', as per the name of the second character, and not 'phases available'. During</p>	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1



the Electricity Retail Consultative Forum (ERCF) meetings, where the ICF and CIP for this change was presented to AEMO and industry, there was no request to consider 'phases available', or any issue raised that would warrant a reconsideration of 'phases available'.

We are therefore very concerned about AEMO reintroducing an obligation to provide 'phases available' when this has been considered and ruled out, is not aligned with the intent of the ICF and industry was given ample opportunity to raise any concerns about the ICF. We suggest that participants who want to reintroduce 'phases available' to raise an ICF so that the proposed change can be considered in full, including any adverse impacts it may introduce.

We note that the intent of this new field is to share key information to allow metering providers to better prepare appropriate resources, including metering equipment, and to minimise wasted site visits. We support this intent because it would allow industry processes to be more efficient and ultimately deliver a better customer experience, however the obligation to provide these key information comes at a cost and therefore the benefit of the obligation must outweigh the cost.

We note that the general arrangement is that the service mains connects the DNSP's network to the connection point (this is installed by the DNSP or the ASP in NSW) and the consumer mains connects the connection point to the metering installation (this is installed by the customer's electrician). Given that the Metering Provider is responsible for the metering installation we believe that they would be more interested in the 'phases available' at the metering installation, as opposed to the connection point.

We wish to highlight that the number of phases at the connection point may not be the same number of phases at the metering installation - for example, an office building can have a three phase service main that is then split into single phase consumer mains to the metering installation for each of the office suite (with each of these office suites having their own NMI).

For a greenfield scenario the customer or their electrician would be working closely with the Metering Provider or with their Retailer, who would then instruct the Metering Provider to install the meter - either way the number of phases at the metering installation will be



communicated by the electrician who installed the consumer mains to the metering installation.

This means obligating the DNSP to provide 'phases available' at the connection point will provide minimal benefit and could cause confusion, especially given that the Metering Provider already have avenues to obtain the 'phases available' at the metering installation via the customer's electrician.

Should AEMO include 'phases available' into this field then it should be made clear that this is the number of phases available at the metering installation, and given that the DNSP may not be aware of this information and the Metering Provider will become aware of this information during the course of their metering installation work, we suggest that the Metering Provider be responsible for providing this information. In addition, it would be too costly for the DNSP to perform field audits to collect this information for existing regulated metering installations, therefore we suggest that a value of 'unknown' be made available for the initial data population.

Although AEMO has not provided a description of what is the information after the forward slash, it looks like it is the 'phases in use' and the 'phases of the metering equipment in use'. We believe that this proposal is adding additional complexities with little benefit. Firstly, it does not cover all the scenarios - for example there is not a value that covers the scenario for 1 three phase meter installed for the general supply and 1 single phase meter installed for controlled load. However, if the allowable values were to be expanded to cover all possible scenarios then it will be a lengthy and complex listing. We suggest that this be kept simple and that AEMO maintain the values as defined in the Issues Paper and that AEMO make it clearer what this information represent. Given that AEMO has located this field at the meter level we suggest that AEMO makes it clear that this information represents the phases of that meter.

We note the comments from some participants that Metering Providers may not install a like for like meter and may decide to install different meter arrangements – we believe that there is sufficient information that will allow Metering Providers to make that decision. For example, 3 single phase meters with the same network tariff would indicate that they could replace these meters with 1 three phase meter.



We also note that some participants have suggested that this field be located within the NMI table and to obligate the LNSP to maintain it. We disagree with this proposal, especially obligating the LNSP to maintain this field, because it effectively means no change and therefore does not address the issues identified in the ICF. During the Electricity Retail Consultative Forum (ERCF) meetings, where the ICF and CIP for this change was presented to AEMO and industry, there was no objections making the MPB responsible for this field. We have provided further information above on why the MPB should be responsible for maintaining this field.

In summary, below is our feedback:

d. Phases available

- We do not support adding 'phases available'. We suggest that this be removed. Proponents who strongly support this should raise an ICF so that it can be fully considered via the appropriate industry change process
- If 'phases available' is to be added then it should be made clear that this is at the metering installation and that the MPB be responsible for this information. In addition a value of 'unknown' should be allowed.

• Phases in use

- We do not support adding 'phases in use' and the 'phases of the metering equipment in use' as suggested by the draft determination. We suggest that this be removed and what was proposed in the issues paper be re-instated with clearer definition of what this information represents
- If 'phases in use' and the 'phases of the metering equipment in use', as suggested by the draft determination, is to be added then it should be expanded to include all possible scenarios

• Better clarity of this field

- It should be made clearer that this field pertains to the metering installation, as opposed to the connection point
- It should be made clearer what the information in the second character represents
- Example scenarios and expected values should be provided in section 13 and 14 of the document



			<ul style="list-style-type: none"> <li>• Which participant to maintain             <ul style="list-style-type: none"> <li>○ We do not support obligating the LNSP to maintain this field</li> <li>○ We believe it is more appropriate for the MPB to maintain this field</li> </ul> </li> </ul> <p>Therefore, we suggest that this field be defined as: Two-character code to denote information about the metering installation. First Character = Connection voltage 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 by the meter 1 = Single Phase 2 = Two-Phase 3 = Three-Phase Mandatory where there is an installed meter Field to be provided by MPB</p>	
13.	Table 3 (CATS_METER_REGISTER)	Energy Queensland	Energy Queensland does not support the current approach proposed by AEMO. We suggest further consideration is warranted to ensure lowest cost, reduced duplication for market participants and the burden of establishment and ongoing administration is minimised.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
14.	Table 3 (CATS_METER_REGISTER)	Intellihub	This is far too complex.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
15.	Table 3 (CATS_METER_REGISTER)	Origin Energy	Origin is not supportive of the connection configuration field being updated by the MPB for the connection type and configuration. Origin agrees that the field should be split to allow the LNSP to provide expected supply to the site and MPB to provide supply at the metering level as asked below.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
16.	Table 3 (CATS_METER_REGISTER)	Plus ES	PLUS ES does not support the proposed changes to the ConnectionConfiguration field for the following reasons: <ul style="list-style-type: none"> <li>• The proposed configuration whilst well intended would be highly complex. PLUS ES has concerns that the data integrity of the proposed parameters would be compromised mainly due to:             <ul style="list-style-type: none"> <li>○ Human error factor including interpretation of what is required</li> </ul> </li> </ul>	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1



			<ul style="list-style-type: none"> <li>○ Participants having to populate a field, visibility of this information not being available and 'pie in the sky' values being used</li> <li>• Requiring site visits for a retrospective population of the field may incur a cost burden without any proportional benefits.</li> <li>• PLUS ES supports that the information at a NMI level delivers more value and could be simplified to reflect the size of the supply to the NMI rather than the premise. This information should be provided by the LNSP, as they would have access to these values – not the MPB , i.e greenfield NMIs.</li> </ul> <p>PLUS ES also supports that for the Connection Configuration:</p> <ul style="list-style-type: none"> <li>• the Connection Type of the connection configuration would be more beneficial if it contained the following enumerations (see explanation in section 8 of this consultation):             <ul style="list-style-type: none"> <li>○ <u>WC</u> = For a service that is ≤ 100A Low Voltage</li> <li>○ <u>LVCT</u> = For a service that is &gt;100A Low Voltage</li> <li>○ <u>HV</u> = For a High Voltage service</li> </ul> </li> <li>• Second character of this field should reflect the phase supply to the NMI and should be a simple 1,2 or 3</li> </ul> <p>Should the industry want to further define the field as there is no consensus on the value and field during this consultation, then PLUS ES proposes that this field is:</p> <ul style="list-style-type: none"> <li>• withdrawn or not finalised in this consultation</li> <li>• further work is completed by the ERCF before it is added to another consultation.</li> </ul> <p>This would mitigate participants building and populating a field only to undertake further changes in the near future.</p>	
17.	Table 3 (CATS_METER_REGISTER)	SA Power Networks	<p>SA Power Networks do not support the changes made to the Second Character (inclusion of letters A to K and the associated descriptions). The original purpose of this field and information was to provide a simple view of the connection point characteristics i.e. is the connection point = single phase, two phase or three phase.</p> <p>The proposed changes introduced as part of this draft determination have over complicated this field, will result in confusion on how it</p>	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1



			<p>should be populated, inaccuracies of data and remove the value of the information.</p> <p>SA Power Networks request that the changes be reverted back to:  <i>Two-character code to denote information about the configuration of the connection point.</i></p> <p><i>First Character = Connection Type</i></p> <p><i>H = High voltage (as defined in the NER)</i></p> <p><i>L = Low voltage (lower than the threshold defined for high voltage in the NER)</i></p> <p><i>Second Character = Phases In Use</i></p> <p><i>1 = Single Phase</i></p> <p><i>2 = Two-Phase</i></p> <p><i>3 = Three-Phase</i></p> <p><i>Mandatory where there is an installed meter</i></p> <p><i>Field to be provided by MPB</i></p> <p>SA Power Networks requests that if the decision is made to revert the location of this field back to NMI level (as published in the final determination of the MSATS Standing Data Review Consultation) that it is clear that what should be recorded is the Connection Configuration of the actual NMI only and not include any upstream network phase capabilities.</p>	
18.	Table 3 (CATS_METER_REGISTER)	United Energy	<p>United Energy recommends that an additional second character be added: L = 3 phase supply/LV CT with 3 phase metering, as it is important to differentiate between direct connected 3 phase meters and LV CT connected 3 phase meters and hence the presence of Current Transformers in the metering installation.</p>	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
19.	Table 3 (CATS_METER_REGISTER)	Vector Metering	<p>Vector Metering acknowledges that the proposed changes to the configuration field were to meet the requirements of ICF 37, which was to make the MP responsible for maintaining the information in this field, and as a consequence the field has been moved from the NMI level to the Meter level. This has introduced a lack of clarity on what this field is supposed to represent, as it will be appearing against every meter installed at the site, as well introducing a high degree of complexity as drafting proposes that the field now captures metering arrangements in addition to connection arrangements. The proposed</p>	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1



		<p>codes for the second character (A-J) are incomplete as there are legitimate situations where a multiphase site will have combinations of both 2 or 3 phase meters and single phase meters present. The proposed codes would, at least, need to be expanded to cover these scenarios if industry were to progress with this approach. We question the value that this additional complexity brings.</p> <p>Instead, we propose reverting back to the simplicity of the original intent of the ConnectionConfiguration field as defined in the MSDR consultation, which was simply to reflect the details of the supply to the NMI, established by the Network, and that this field is the responsibility of the LNSP to maintain.</p> <p>We recommend that drafting be added to the procedures to clarify the use of this field, including that the second character reflects the number of active phases connected to the NMI (not the premise), irrespective of existing metering arrangements.</p> <p>This would result in the 2nd character of this field being set to one of 1,2 or 3.</p>	
--	--	---	--

**Table 10 Questions on proposed changes**

No.	Heading	Consulted person	Issue	AEMO response
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?	AGL	<p>AGL acknowledges that the proposed changes to the configuration field were to meet the requirements of ICF 37, which was to make the MP responsible for the field.</p> <p>However, the implementation of that change, by moving the connection information from the NMI to the Meter, has led to a high degree of complexity.</p> <p>This, in turn, has moved the proposed field a long way from the original intent, which was connection information at a NMI level.</p> <p>As such, we propose that the proposed change sought by ICF 37 be rejected, and that the field revert to the original proposal, which was connections at a NMI, with the data captured on the CATS_NMI_DATA table as currently specified, with the information relating to the supply at the NMI, not the premise, irrespective of existing metering. This would result in the 2nd character of this field being set to one of 1,2 or 3.</p>	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1



2.	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?	Ausgrid	Ausgrid can see a benefit for applying a connection configuration at a NMI level for Greenfield sites only (populated by the LNSP) and a metering configuration at a meter level (populated by the MPB). However this is out of scope of what is being proposed by ICF_037 and any changes should be developed via a new ICF developed by the industry.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
3.	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?	Endeavour Energy	We disagree with obligating the LNSP to provide 'phases available' at the connection point for the reasons provided above. Proponents who strongly support this should raise an ICF so that it can be fully considered via the appropriate industry change process. If 'phases available' at the connection point is to be added then a value of 'unknown' should be allowed because it would be too costly for the LNSP to perform field audits to collect this information for existing connection points.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
4.	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?	Energy Queensland	As per comments provided in section 7.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
5.	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?	Intellihub	This should be at a NMI level only.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
6.	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?	Origin Energy	Origin supports the field being split.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1



<p>7.</p>	<p>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?</p>	<p>Plus ES</p> <p>PLUS ES does not consider that the field would be better split to also allow the MPB to provide the supply at the metering level.          A Connection Configuration field has different potential uses depending on whether it is a <u>greenfield NMI</u> or an <u>existing NMI</u>, as well as different meaning at the NMI level and the meter level. Therefore connection configuration at the NMI level should be treated differently to a "connection configuration" (or better labelled as a metering configuration) at the meter level</p> <p><u>At the NMI level</u></p> <p>When a greenfield NMI is created or alterations works are undertaken to the supply, the size/type of the service is known by the LNSP (but unknown by the MP – that is why it is considered more beneficial). A simple way to characterise the service is as follows:</p> <ul style="list-style-type: none"> <li>• <u>WC</u>: For a service that is <math>\leq 100A</math> Low Voltage – (always requiring Whole Current metering)</li> <li>• <u>LVCT</u>: For a service that is <math>&gt;100A</math> Low Voltage – (always requiring Low Voltage Current Transformer metering)</li> <li>• <u>HV</u>: For a High Voltage service (always requiring High Voltage metering with Current Transformers and Voltage Transformers)</li> </ul> <p>If a Connection Configuration at the NMI level is populated by the LNSP at time of NMI creation or when supply alterations are scoped/approved, then it will give value to the market because the above information is the minimum, key differentiating characteristic of the type of metering that is required, allowing the metering requirements to be accurately anticipated prior to "rolling a truck".</p> <p><u>Supply at the metering level:</u></p> <p>PLUS ES metering installations deployment activities are not impacted by not knowing the supply at the metering level. Not knowing the number of phases is not a limiting factor, as installers typically carry a range of meters – but whether the supply size at the NMI is LV and greater or smaller than 100A or HV – is more pertinent to determining the correct deployment activity.</p>	<p>AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1</p>
-----------	--	---	---



8.	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?	SA Power Networks	No, we do not see benefit in this proposal.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1
9.	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?	Vector Metering	Refer to response in Table 7. We support reversion back to the original intent of the MSDR consultation and that ConfigurationConnection reflect details of the supply to the NMI that has been established by the Network or the Networks agent. This is the useful information that can be used by Metering Providers in determining the type of job, the potential metering options and the expect length of visit, and whether a pre-visit maybe required. This information is not readily available in MSATS today. We believe Networks do have (or should have) this information, as they are responsible for controlling connections to their network. We have heard some comments that this information isn't available when the NMI is created (Greenfield site) which we accept however, in this case the code could be set to 'UNKNOWN' with validation put in place to ensure that when a NMI becomes 'Active' is must have a relevant connection codes. At this stage of the consultation we don't support splitting the field into two although we do see that a field at the meter level to indicate that the meter is single or 3 phase may have some merit. Currently MP's who want this information must rely on looking at the meter manufacturers make and model information to determine this, which in turn, requires access to information about all other MP's (LNSP and Contestable) meter manifests. Determining whether this field should be introduced (or not), should be progressed through the standard ICF process via the ERCF.	AEMO notes the respondent's comment. Please refer to the response in Table 7, item 1