

# Integrated Energy Storage Systems

## PROCEDURE CONSULTATION

## PARTICIPANT RESPONSE TEMPLATE

***Participant:*** Vector Metering

***Submission Date:*** 3<sup>rd</sup> April 2023

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## 1. Context

This template is to assist stakeholders in giving feedback about the options detailed in the issues paper associated with the Integrated Energy Storage Systems consultation.

The changes being proposed are because of NER rule changes which have occurred requiring changes to AEMO’s Retail Electricity Market Procedures.

## 2. Consultation questions

### *NMI Classification Code amendments*

Question	Participant Comments
1. Do you agree that the proposed new NCCs address the requirements for compliance with the IESS Rule outlined by AEMO? If not, please specify your reasoning and any alternative options relevant to the IESS rule.	Yes. They appear to be appropriate.
2. Are there any gaps or issues with the proposed NCC definitions as they relate to the IESS Rule, noting that issues beyond the scope of the IESS Rule will be dealt with through separate processes?	We have some concerns related to the NREG classification. We understand that BDUs at NREG sites have generation capacity less than 5MW and can also have material consumption that is not classified as auxiliary loads. It is apparent that the proposed change to the use of NCC for NREG sites with a single NMI will obscure the size of the consumption and whether the sites is categorised Large or SMALL. The issues paper states  “The amended definition of NREG is not intended to change the application of this NCC, aside from the explicit recognition that it may be utilised for the classification of connection points for unregistered small BDUs in addition to small generating units”

	In our view the proposal related to NREG in the NCC, in combination with the Rule change that allows NREG sites to be registered under a single NMI will have the unintended consequence that the classification of the consumption will not be visible in the NCC as is currently the case. Visibility of consumption is important for participants to meet their obligations. We believe this issue should be addressed so that participants who rely on this are not materially impacted.
3. What is the likely impact of the proposed changes for participant systems and processes? Do participants require any further information from AEMO to understand the impact of the proposed changes?	Minimal. As a meter provider for the mass market we believe we will be largely unaffected by these new classifications (assuming the issue with NREG raised above is satisfactorily addressed). These classifications mainly relate to sites that are primarily generation sites, not consumption sites.

***Amendments to terminology***

<b>Question</b>	<b>Participant Comments</b>
4. Are there any gaps or issues with AEMO's assessment of the impacts of terminology changes for procedures?	No Comment
5. Can participants provide comments on the need for a formal readiness program to be put in place for the implementation of IESS changes?	As a participant that is largely unaffected by the change we have no view on the need for a formal readiness program.

**Other matters - ICF\_070 Increase 'Building Name' Field Length in MSATS**

Question	Participant Comments
<p>6. Do you agree with the proposed change to increase the 'Building Name' field length in MSATS to align to the aseXML schema and the Standing Data for MSATS document? If not, please specify your reasoning.</p>	<p>yes</p>

**Other matters - ICF\_059 CATS clarifications plus NMI Classification Review**

Question	Participant Comments
<p>7. Do you agree that Option 1 would most effectively and efficiently resolve the issue of NEM Participants not being able to identify a customer's non-registered or non-classified generation capabilities easily and accurately? If no, please specify your reasoning.</p>	<p>No. We do not agree with the proposed solution. There are numerous issues with this solution.</p> <ol style="list-style-type: none"> <li>1) The proposal to change NCC, especially how 'Large' and 'Small' customers with generation capabilities will be categorized, will result in some Small customers being recategorized as 'Large' will impact the CATS transactions in the CATS procedures. The Cats procedures will need to change as they specifically reference the NCC. Some CATS transactions are only available to Small Customers .e.g. Reversal of a transfer.</li> <li>2) Changing the NCC as proposed will have a high impact on most participants systems. The NCC is a fundamental piece of information that drives operational and compliance processes, especially in metering businesses but also in retailers and DNSPs. There are over 95 NER obligations that apply specifically to 'Small Customers' and participants have developed systems to refer to NCC to know when these apply and when they do not. For example, Meter Installation timeframes where Small and Large have different timeframes. All participants will need to review their processes and systems to revise and either extend the logic</li> </ol>

	<p>to new codes or refer to other fields. This change has been put up as the most cost effective when in our view it is not. Out of all the alternative solutions it is the most expensive and highest risk as it impacts so many participants and so many processes. Alternative solutions can provide a lower risk and isolate the change to participants who want to use this information.</p> <p>3) It is unclear that the case has been made for the industry to embark on significant changes to avoid the issues of misquoting. The supporting information to the ICF presented at the ERCF suggests that retailers require independent verification of a customer’s potential system generation capacity rather than relying on the information provided by the customer when preparing a quote. Any issue related to retailers being ‘locked in’ to a quote or contract based on incorrect information provided by the customer can be avoided via the retailer’s Terms and Conditions.</p> <p>4) The proposed solution bases a NCC on the size of a customer’s generation system to avoid misquoting the customer. i.e. Systems that are greater than 10kW or (10kVA) receive a different classification to customers with a smaller system. However, it is not immediately apparent how knowing this single piece of information without consideration of other factors is useful. For example, knowing that a customer’s systems will never export generation into the network, or exports generation is limited (e.g. 5KVA) at a level below the system capacity (10kVA) appears to be equally important for accurate quoting but this will not be visible from the NCC code. For existing sites the volume of the generation from a customer’s system into the grid is already available in MSATS however use of this seems to have been discounted without proper consideration. In our view, this is still a live option (see below).</p>
<p>8. Do you believe a different, or alternative, Option may better achieve this objective? If yes, please</p>	<p>There are a number of options that in our view provide a better solution to option 1 proposed. In order of lowest cost these are:</p>

<p>provide your preferred solution and your reasoning.</p>	<ol style="list-style-type: none"> <li>1) ADL on the 'B' DataStream contained within the CATS_NMI_DATASTREAM is already available for use. This will provide the average daily generation value that retailers can use in preparing quotes. The supporting material provided to the ERCF suggests that use of ADL on NDS is not sufficient as the DataStream in MSATS is reflecting a net value (Consumption minus Generation). However, this is not the case. Since 5MS MDP's are obligated to establish 'register' level DataStream, which exposes an ADL for both consumption 'E' and Generation 'B'. All meters that are recording 5 minute data (approx. 2 million) have been converted to register level data streams. Over time all remaining meters will be converted to register level DataStream. AEMO has previously stated a desire to move away from 'Net DataStream as quickly as possible as this allows for more accurate settlement and UFE calculations. Should retailers find generation ADL valuable in quoting there remains an option for industry to accelerate the creation of register level Data Streams for all existing sites with local generation.</li>   <li>2) AEMO to source the required information from the DER register and present it to the retailer as part of the NMI discovery processes. The benefit of this approach is that retailers can have a richer data source available to support accurate quoting. The DER registers hold information about a site and therefore is likely to be the best source (besides the customer) for this information. This would require AEMO to establish an interface to the DER register for the enquiry and would require a schema change to include this into the NMI Discovery report.</li>   <li>3) Create new fields on CATS_NMI_DATA to contain the relevant information that retailers require. This option would need to determine if it is appropriate that details of a customer's systems e.g. capacity of system, should be stored in MSATS. The benefit of this approach is that it is low risk for participants because it avoids changes to NCC and impacting already established processes. Assuming that the DNSP is required to maintain this information adding these new fields to MSATS tables would require 4 CATS CR's (CR2xxx) to be enhanced, as well as changes to other metering reports (NMI Discovery, C4,C7</li> </ol>
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	<p>etc). Participants who are not interested in having this information can use n-1 schema functionality to defer any schema changes.</p>
<p>9. Do you agree that the creation of a new NCC to identify Standalone EV Charging Stations would add value to the market? If no, please specify your reasoning.</p>	<p>No. The driver to classify public EV charging stations differently to any other loads, is unclear and the issue paper doesn't provide any insight. We are not aware of any regulation that says EV charging stations have different requirements to any other Business, Small or Large connection. As mentioned above, changing the NCC related to 'Small' and 'Large' customers will have high impact on participant systems and processes and will be costly to implement. Under the obligations of the NER/NERR/NERL EV's will be treated the same as any other connection. i.e. If Load is small enough then NER/NERR 'Small Customer' provisions will apply, otherwise obligations related to 'Large' customers will apply.</p> <p>If EV Charging sites need to be treated differently to other customers, then an alternative to changing the NMI Classification Code is to change the Customer Classification Code i.e. Add a new code of EVCHARGE to CCC, so that CCC will contain 'Business', 'Residential' and 'EVCHARGE'. Retailers can then use this in their processes.</p>
<p>10. Do you agree with the proposed minor editorial changes to ensure clarity of the Customer Threshold Limits in CATS? If not, please specify your reasoning.</p>	<p>No. We do not support the change to Table 4-D – NMI Classification Codes. The issue of jurisdictional thresholds was dealt with under ICF-031/CIP-031 in 2020 which updated the table to correctly reflect the designation of NMI classification codes and the jurisdictional thresholds. The table currently reflects the correct jurisdictional thresholds.</p>
<p>11. What do you believe AEMO should consider in determining the proposed effective date/implementation date of the proposed changes? Please specify your reasoning.</p>	<p>AEMO must consider the impact of the industry agreed solution on participants systems and processes. Should the consultation decide that the proposed solution described in ICF-059 be adopted then all participants will need adequate time to review all their processes and systems and make the necessary adjustments. As already indicated, the proposed change has high impact on participant systems and therefore will require a large amount of effort to identify and change all areas that are impacted.</p>

### 3. Procedure Drafting Changes

#### *Retail electricity market procedures – Glossary and Framework*

Section	Description	Participant Comments
Figure 1	Modify diagram to represent bi-directional flows of energy instead of uni-directional flows	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.
2.6.2	Include <i>integrated resource systems</i> as a term that is included in the WIGS Procedures	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.
4.1.2	Remove <i>market loads</i> and replace with <i>market connection points</i>	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.
Glossary	<p>Remove the following terms:</p> <ul style="list-style-type: none"> <li>• First Tier NMI</li> <li>• First Tier Load</li> <li>• Second Tier NMI</li> <li>• Second Tier Load</li> <li>• Tier 1 Site</li> <li>• Tier 2 Site</li> </ul> <p>Include the following term:</p> <ul style="list-style-type: none"> <li>• Financially Responsible</li> </ul> <p>Add <i>Integrated Resource Provider</i> to the definition of FRMP</p>	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.

**MSATS CATS**

Section	Description	Participant Comments
<p>2.2 Financially responsible market participant</p>	<p>Part (d) Delete 'Ensure that only small generating unit connection points are assigned to the relevant MSGA' and replace with 'Ensure that only small resource connection points are assigned to the relevant Small Resource Aggregator'  Delete sections (i) and (j) and replace with:  'Ensure that only small resource connection points are assigned to the relevant Small Resource Aggregator'</p>	<p>Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.</p>
<p>2.9 Demand Response Service Provider</p>	<p>Include NREG as an NMI Classification that a DRSP can be assigned to.</p>	<p>Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.</p>
<p>Table 4-A-Change Reason Codes</p>	<p>Include TIRS and DGENERATR as part of Note (1)</p>	<p>Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.</p>
<p>4.5 NMI Classification</p>	<p>Include the new classification codes for DGENRATR, TIRS and DIRS and modify the descriptions of GENERATR and NREG</p>	<p>Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.</p>

Section	Description	Participant Comments
Table 4-H- Datastream Status Codes	Remove reference to second tier retailer  Part (d) If a retailer transfer CR is Completed the Datastream Status Code must be 'A' when the NMI is energised.	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.
6.2 Error Corrections	Footnote 8.  Include DIRS, TIRS and DGENRATR in reference to "not SMALL"	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.
15.2.3 Requesting Participant Requirements	Remove the following field as a selection option from the BCT:  The Tier Status (not required if both the LR and FRMP are provided as selection criteria)	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.

### **MSATS WIGS**

New NCCs are proposed to be included in the Condition Precedent component of the Wholesale, Interconnector, Generator and Sample (WIGS) procedure. The existing system constraints are unchanged for each participant requirement, timeframe and objection for each change request submitted.

Change Request type	Section	Conditions Precedent	Participant Comment
Change Retailer	2.1.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG or DWHOLSAL	-
Error Applications	2.2.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG or DWHOLSAL	-

Change Request type	Section	Conditions Precedent	Participant Comment
Provide Data – Change Request	3.1.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, DWHOLSAL, BULK or XBOUNDARY	-
Create NMI – Change Requests	4.1.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, XBOUNDRY, DWHOLSAL or SAMPLE	-
N – New Role, C – Current Role. Create Child NMI	4.2.2	The NMI Classification Code is TIRS, DIRS, DGENRATR, GENERATR, DWHOLSAL OR WHOLESAL	-
Create NMI, Metering Installation Details and NMI Datastream	4.3.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, XBOUNDARY, DWHOLSAL or SAMPLE	-
Create Metering Installation Details	5.2.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, XBOUNDARY, DWHOLSAL or SAMPLE	-
Exchange of Metering Information	5.3.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, XBOUNDRY, DWHOLSAL or SAMPLE	-
Change Metering Installation Details	5.4.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, DWHOLSAL or SAMPLE	--
Change Network Tariff Code	5.5.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, XBOUNDRY, DWHOLSAL or SAMPLE	-
Create and Maintain Datastream – Change Requests	6.1.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, XBOUNDRY, DWHOLSAL or SAMPLE	-
Exchange of Datastream Information	6.2.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, XBOUNDRY, DWHOLSAL or SAMPLE	-
Change NMI Datastream	6.3.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, XBOUNDRY, DWHOLSAL or SAMPLE	-
Maintain NMI – Change Requests	7.1.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, XBOUNDRY, DWHOLSAL or SAMPLE	-
Change a NMI	7.2.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, XBOUNDRY, DWHOLSAL or SAMPLE	-

Change Request type	Section	Conditions Precedent	Participant Comment
Change NMI Embedded Network (child)	7.3.2	The NMI Classification Code is WHOLESAL, NREG, DWHOLSAL, TIRS, DIRS, DGENRATR or GENERATR	-
Change Parent Name	7.4.2	The NMI Classification Code is TIRS, DIRS, DGENRATR, GENERATR, NREG, DWHOLSAL or WHOLESAL	-
Change LNSP	8.1.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, XBOUNDRY, DWHOLSAL or SAMPLE	-
Change MDP	8.2.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, XBOUNDRY, DWHOLSAL or SAMPLE	-
Change MC	8.3.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, DWHOLSAL or SAMPLE	-
Change ENLR – Child NMI	8.4.2	The NMI Classification Code is DIRS, DGENRATR, GENERATR, NREG, DWHOLSAL or WHOLESAL	-
Change ROLR	8.5.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, XBOUNDRY, DWHOLSAL or SAMPLE	-
Change MPB or MPC or Both	8.6.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, XBOUNDRY, DWHOLSAL or SAMPLE	-
AEMO Only Change Requests	9.1.2	The NMI Classification Code is WHOLESAL, INTERCON, TIRS, DIRS, DGENRATR, GENERATR, NREG, BULK, XBOUNDRY, DWHOLSAL or SAMPLE	-

Section	Description	Participant Comments
9.2.3	<p>Remove the following field as a selection option from the BCT:</p> <p>The Tier Status (not required if both the LR and FRMP are provided as selection criteria)</p>	<p>Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.</p>

***Metrology Procedure Part A***

<b>Section</b>	<b>Description</b>	<b>Participant Comments</b>
3.4	Remove reference to 'first tier load'	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.
3.5	Remove reference to 'first tier load'	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.
3.6	Remove reference to 'second-tier' and 'first-tier loads' from 3.6 (a)	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.
12.8.2	Remove reference to 'first tier controlled load' and 'second tier controlled load' and include market customer. In 12.8.2 Load Profiling (a) and remove first tier from 12.8.2 Load Profiling (b) and include market customer.	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.

***Metrology Procedure Part B***

<b>Section</b>	<b>Description</b>	<b>Participant Comments</b>
10.3	Bi-directional units may have multiple sources of generation and load behind the connection point. For sites that are scheduled units, AEMO provides SCADA data for generating units.	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.

Section	Description	Participant Comments
	<p>Validation of metering data for connection points where SCADA is made available includes NCCs of DGENRATR and Small Resource Aggregator.</p> <p>New clause to reference bi-directional units where validation should occur for SCADA data suffixes of E and B channel data.</p>	
12.3	<p>Include Integrated Resource Provider and Small Resource Aggregator in 12.3(a) and remove reference to MSGA.</p>	<p>Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.</p>
13.1	<p>Change all references in section 13.1 from Market Load to Market Connection Point</p>	<p>Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.</p>
13.5	<p>Change reference from 'market load' to <i>market connection point</i></p>	<p>Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.</p>

### ***Standing Data for MSATS***

Section	Description	Participant Comments
3.2	<p>Include new NCCs and remove reference to 'Small Generation Aggregator'.</p>	<p>Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.</p>

### **MSATS MDM Procedures**

<b>Section</b>	<b>Description</b>	<b>Participant Comments</b>
3.2.3	Replace 'Embedded Generator' in 3.2.3 (a) with <i>distribution connected unit</i> .	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.

### **Exemption Procedure Data Storage Requirements**

<b>Section</b>	<b>Description</b>	<b>Participant Comments</b>
2.1	Remove reference to <i>transmission connection point</i> and <i>distribution connection point</i> where the FRMP is a <i>Market Generator</i> or <i>Market Small Generation Aggregator</i> to reflect the Rule Change 7.8.2(b1).	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.

### **Guide to the Role of the Metering Coordinator**

<b>Section</b>	<b>Description</b>	<b>Participant Comments</b>
4.1	Remove <i>small generating units</i> and <i>market generating units</i> and include <i>non-market bidirectional units</i> and <i>small resource connection point</i> .	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.

***Service Level Procedure: Embedded Network Manager***

<b>Section</b>	<b>Description</b>	<b>Participant Comments</b>
4.2.4	Include the new NMI classification of DGENERATR	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.

***Service Level Procedure: MDP Services***

<b>Section</b>	<b>Description</b>	<b>Participant Comments</b>
3.13	Include new NCCs of XBOUNDRY, BULK, DGENRATR, DIRS and TIRS for connection points required to provide 90% of complete actual metering data by 8am for the day(s) specified for prudential purposes.	Agree in principle but as the draft procedure has not yet been provided it is difficult to assess how proposed changes impact this section.

***MATS Procedures: National Metering Identifier***

<b>Section</b>	<b>Description</b>	<b>Participant Comments</b>
Appendix E	Removal of current illustrations and tables of Appendix E	Unclear what is being proposed as the draft procedure has not yet been provided.

***Metering Data Provision Procedures***

<b>Section</b>	<b>Description</b>	<b>Participant Comments</b>
4.3	Include a new energy flow type that reflects the purpose of the rule change to include bidirectional energy flows for generation connection points.	Unclear what is being proposed as the draft procedure has not yet been provided.