

Integrating Energy Storage Systems into the NEM: Retail Electricity Market Procedures consultation

Issues paper

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Explanatory statement and consultation notice

This issues paper commences the first stage of the consultation conducted by AEMO on the proposed changes to the Retail Electricity Market Procedures (**Procedures**) to implement the National Electricity Amendment (Integrating energy storage systems into the National Electricity Market (**NEM**)) Rule 2021 (**IESS Rule**). This consultation is being conducted under clause 7.16.7 of the National Electricity Rules (**NER**), in accordance with the consultation requirements in NER 8.9.

The IESS Rule:

- Seeks to better integrate energy storage and aggregate facilities in the NEM.
- Introduces extensive changes to registration and classification, dispatch arrangements, non-energy cost recovery, and participation of aggregated portfolios of small resources.
- Introduces the new near-universal participant category of the Integrated Resource Provider (**IRP**).
- Introduces a new unit classification, the 'bidirectional unit' (**BDU**), for resources that both generate and consume electricity.
- Subsumes the existing Market Small Generation Aggregator participant category into the IRP as a Small Resource Aggregator.
- Implements a wide range of terminology changes designed to reflect the shift towards a two-sided market.

To implement the IESS Rule, AEMO will need to update the Procedures.

This issues paper outlines the changes which AEMO is proposing and seeks stakeholder views to better understand the impacts of these changes for industry.

The date of full commencement for the IESS Rule is 3 June 2024. AEMO has submitted a rule change request to the Australian Energy Market Commission (**AEMC**) to align the implementation of non-energy cost recovery changes with the start of the billing week on 2 June 2024. The proposed changes to National Metering Identifier (**NMI**) Classification Codes (**NCCs**) would be implemented on this date of 2 June 2024.

This issues paper covers three main IESS topics for consultation:

- 1. Proposed changes to NCCs**, including three new codes and amendments to two further codes, which AEMO considers necessary for:
 - Identifying integrated resource systems (**IRS**) and removing the current use of two NMIs for grid-scale storage facilities.
 - Appropriate application of market fees and unaccounted-for-energy (**UFE**).
 - Incorporating changes relating to the new Small Resource Aggregator category.
 - Enabling appropriate compliance monitoring to protect the integrity of market settlements.
- 2. Extensive amendments to terminology** introduced by the IESS Rule, which will need to be reflected across the Procedures. Most of these changes will be minor or administrative in nature.
- 3. Other changes**, including an overview of changes to the location and order of embedded network processing, which will not result in procedure changes, but may change the way participants who are embedded network parents undertake reconciliation processes.

In addition, this issues paper includes two Issue Change Forms (**ICFs**) raised through the Electricity Retail Consultative Forum (**ERCF**):

1. ICF_070 alignment of 'Building Name' Field Length in Market Settlement and Transfer Solutions (**MSATS**).
2. ICF_059 Consumer Administration and Transfer Solution (**CATS**) clarifications plus NCC Review.

Consultation notice

AEMO invites written submissions from interested persons on the issues identified in this issues paper to NEM.Retailprocedureconsultations@aemo.com.au by 5:00pm (Melbourne time) on 3 April 2023.

Submissions may make alternative or additional proposals you consider may better meet the objectives of this consultation and the national electricity objective in section 7 of the National Electricity Law. Please include supporting reasons.

Please note the following important information about submissions:

- All submissions will be published on AEMO's website, other than confidential content.
- Please identify any parts of your submission that you wish to remain confidential, and explain why. AEMO may still publish that information if it does not consider it to be confidential, but will consult with you before doing so. Material identified as confidential may be given less weight in the decision-making process than material that is published.
- Submissions received after the closing date and time will not be valid, and AEMO is not obliged to consider them. Any late submissions should explain the reason for lateness and the detriment to you if AEMO does not consider your submission.

Interested persons can request a meeting with AEMO to discuss any particularly complex, sensitive or confidential matters relating to the proposal. Please refer to NER 8.9.1(k). Meeting requests must be received by the end of the submission period and include reasons for the request. We will try to accommodate reasonable meeting requests. However, where appropriate, we may hold joint meetings with other stakeholders, or convene a meeting with a broader industry group. Subject to confidentiality restrictions, AEMO will publish a summary of matters discussed at stakeholder meetings.

Contents

Explanatory statement and consultation notice	3
1. Stakeholder consultation process	6
2. Background	7
2.1. NER requirements	7
2.2. Context for this consultation	7
2.3. The national electricity objective	10
3. IESS change proposals	11
3.1. NMI Classification Code amendments	11
3.2. Amendments to terminology	14
3.3. Other IESS topics	19
3.4. Proposed effective date	20
4. Drafting for proposed IESS changes	21
5. Other Matters	22
5.1. ICF_070 Increase 'Building Name' Field Length in MSATS	22
5.2. ICF_059 CATS clarifications and NMI Classification Code Review	22
6. Summary of issues for consultation	25
Appendix A. Glossary	26

Tables

Table 1	Overview of participation and classification framework following IESS changes.....	8
Table 2	Overview of proposed new and amended NMI Classification Code definitions.....	12
Table 3	Deleted terms relevant to the Procedures.....	14
Table 4	New and replacement terms introduced by the IESS Rule relevant to the Procedures.....	15
Table 5	Amended terms introduced by the IESS Rule relevant to the Procedures.....	17
Table 6	List of Procedures requiring updates.....	18

Figures

Figure 1	Example of embedded network processing change – before and after IESS.....	19
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1. Stakeholder consultation process

AEMO is consulting on the Procedures in accordance with the standard rules consultation procedure in NER 8.9.2. This issues paper uses terms defined in the NER, which are intended to have the same meanings.

AEMO's indicative process and timeline for this consultation are outlined below. Future dates may be adjusted and additional steps may be included if necessary, as the consultation progresses.

Consultation steps	Dates
Issues paper published	6 March 2023
Submissions due on issues paper	3 April 2023
Draft report published	12 June 2023
Submissions due on draft report	10 July 2023
Final report published	18 September 2023

Pre-consultation engagement

In preparation for this consultation, AEMO engaged with the ERCF¹ on several occasions to provide participants with an overview of the rule change and its expected impacts for the Procedures. Key pre-consultation topics included:

- Overview of the IESS Rule implementation (28 July 2022).
- IESS terminology changes (21 September 2022).
- Proposed changes to NCC definitions (27 October 2022).
- Embedded network processing and reporting changes (24 November 2022)².

Feedback received in these sessions has been documented and considered by AEMO in the development of this issues paper.

In addition to targeted consultation with the ERCF, AEMO continues to undertake extensive stakeholder engagement activities to assist industry in understanding the rule change implementation process and opportunities to engage with relevant changes to the Procedures. This engagement includes:

- An IESS Working Group,³ which has recently been transitioned into AEMO's broader NEM2025 program.⁴
- One-to-one discussions with individual impacted stakeholders.
- A series of information sessions on specific IESS-related policy matters.
- A dedicated webpage⁵ and IESS mailbox (IESS@aemo.com.au) for stakeholder enquiries.

¹ ERCF documentation is available at: <https://aemo.com.au/en/consultations/industry-forums-and-working-groups/list-of-industry-forums-and-working-groups/electricity-retail-consultative-forum>

² These reporting changes will not result in changes to AEMO Electricity Retail Market Procedures.

³ Documentation and minutes available at: <https://aemo.com.au/consultations/industry-forums-and-working-groups/list-of-industry-forums-and-working-groups/ieess-working-group>

⁴ <https://aemo.com.au/initiatives/major-programs/nem2025-program>

⁵ <https://aemo.com.au/initiatives/major-programs/integrating-energy-storage-systems-project>

2. Background

2.1. NER requirements

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

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

2.2. Context for this consultation

2.2.1. IESS Rule

The AEMC made the IESS Rule determination on 2 December 2021 seeking to better integrate storage and aggregate systems into the NEM. The IESS Rule takes a significant step toward a technology agnostic two-way market model for the NEM and delivers extensive changes to registration and classification, dispatch arrangements, non-energy cost recovery, and participation of aggregated portfolios of small resources.

This issues paper is focused on the IESS changes relevant to the Retail Electricity Market Procedures. A full overview of changes is included in the AEMC's IESS rule change documentation⁶ and AEMO's high-level design documentation⁷.

The key changes relevant to this issues paper include:

- Introduction of the new **IRP participant registration category**, which will be mandatory for all participants with resources that have both generation and load (above auxiliary load) at a single connection point. In addition to accommodating participation by energy storage facilities, the IRP is a near-universal participant category that may also classify end user connection points and scheduled load, generating units, small resource connection points and ancillary service units (see Table 1). Rule 2.1B.2 outlines the requirements for registration as an IRP, as follows:

NER 2.1B.2 Registration as an Integrated Resource Provider

- (a) To be eligible to register as an *Integrated Resource Provider*, a person must do one or more of the following:
- (1) satisfy the requirements of paragraph (b) for registration as an *Integrated Resource Provider* in respect of an *integrated resource system* or a *generating system*;
 - (2) satisfy AEMO that the person intends to classify, in accordance with clause 2.3.4(b), a *connection point* as one of its *market connection points*; or
 - (3) satisfy AEMO that the person intends to classify, in accordance with clause 2.2.8, a *small resource connection point* as one of its *market connection points*,
- and except where the person is classifying only *non-market generating units* or *non-market bidirectional units*, the person must satisfy the requirements in rule 2.4 for registration as a *Market Participant*.
- (b) To be eligible to register as an *Integrated Resource Provider* in respect of an *integrated resource system* or a *generating system*, a person must:
- (1) in relation to an *integrated resource system*, obtain the approval of AEMO to classify in accordance with rule 2.2 any *bidirectional unit* that forms part of the *integrated resource system* that the person owns, operates or controls, or from which it otherwise sources electricity, as:
 - (i) a *scheduled bidirectional unit* or a *non-scheduled bidirectional unit* or other applicable scheduling classification or classifications; and

⁶ <https://www.aemc.gov.au/rule-changes/integrating-energy-storage-systems-nem>

⁷ <https://aemo.com.au/initiatives/submissions/integrating-energy-storage-systems-iess-into-the-nem>

- (ii) a *market bidirectional unit* or a *non-market bidirectional unit* or other applicable market participation classification;
- (2) in relation to an *integrated resource system* or *generating system*, obtain the approval of AEMO to classify in accordance with rule 2.2 any *generating unit* that forms part of the *integrated resource system* or *generating system* that the person owns, operates or controls, or from which it otherwise sources electricity, as:
 - (i) a scheduled generating unit, a semi-scheduled generating unit or a non-scheduled generating unit; and
 - (ii) a market generating unit or a non-market generating unit;
- (3) classify the relevant *bidirectional units* or *generating units* in accordance with AEMO's approval as referred to in subparagraph (1) or (2); and
- (4) satisfy AEMO that the *integrated resource system* or *generating system* will be capable of meeting or exceeding its performance standards.

- Introduction of the new **BDU classification** which will be used by IRPs to classify resources that both generate and consume electricity (beyond auxiliary load)⁸. A new system category, the **IRS**, has also been defined in the NER, covering systems that both consume and generate electricity.
- Transition of the existing Market Small Generation Aggregator participant category to the IRP, as a **Small Resource Aggregator**. A Small Resource Aggregator:
 - May classify small resource connection points (i.e., small generating units and small BDUs).
 - As part of an initial release from 31 March 2023, will be able to participate in Frequency Control Ancillary Services (**FCAS**) markets where it satisfies the technical requirements to do so.
- Changes to **recovery of non-energy costs**, which will no longer depend on the category in which a Market Participant is registered. Non-energy cost recovery will be based on two data streams, adjusted sent out energy (**ASOE**) and adjusted consumed energy (**ACE**), removing the ability for a participant to net energy flows at a connection point or among its connection points (as currently occurs for units other than grid-scale storage). An example of the changes to arrangements for non-energy cost recovery is provided in AEMO's IESS high-level design. The change includes a new defined term, Cost Recovery Market Participant, which covers all Market Participant categories aside from Market Network Service Providers and Demand Response Service Providers (**DRSPs**). UFE for a local area is to be allocated to all market connection points in the local area, not just those classified as market load.
- Extensive changes to terminology to reflect the changes to the rules and to improve consistency.

Table 1 Overview of participation and classification framework following IESS changes

What has been classified?	Registered Participant who may classify	Label used in the NER
Scheduled BDU	IRP	Scheduled Integrated Resource Provider
Non-scheduled BDU	IRP	Non-Scheduled Integrated Resource Provider
Scheduled generating unit	Generator or IRP	Scheduled Generator
Semi-scheduled generating unit	Generator or IRP	Semi-Scheduled Generator
Non-scheduled generating unit	Generator or IRP	Non-Scheduled Generator
Small resource connection point	IRP	Small Resource Aggregator
Scheduled load	Customer or IRP	Market Customer
End user connection point	Customer or IRP	Market Customer
Ancillary service unit	Generator, IRP, Customer or DRSP	Ancillary Service Provider
Scheduled network service	Network Service Provider (NSP)	Scheduled Network Service Provider

⁸ Units which cannot linearly transition from a state of charge to discharge due to a dead-band (typically pumped hydro) will continue to be classified as both a scheduled load and scheduled generating unit, noting the participant will still need to re-register as an IRP.

An IRP will be the financially responsible Market Participant (**FRMP**) for connection points it has classified. The IESS Rule provides that:

- An IRP has the same obligations as a Generator. The IRP is taken to be a Generator in respect of generating units the IRP has classified as scheduled, semi-scheduled or non-scheduled generating units (taken to be a Scheduled Generator, Semi-Scheduled Generator or Non-Scheduled Generator respectively).
- An IRP has the same obligations as a Customer. The IRP is taken to be a Market Customer in respect of end user connection points it has classified as its market connection points, or connected plant it has classified as scheduled load. IRPs may become authorised as retailers and have access to the same functions in retail systems as other retailers.
- IRP – Small Resource Aggregators may classify the connection points of small generating units and small BDUs (collectively termed ‘small resource connection points’), with similar obligations to existing Market Small Generation Aggregators (e.g., operating as wholesale market only participants, with the small generating unit or small BDU required to be on its own connection point with no retail customer load).

IRPs in the FRMP role for a connection point will be entitled to access and perform all the same functions in the MSATS system that any other FRMP is able to perform today, such as:

- Classification of market connection points (including small resource connection points).
- Access to NMI standing data and visibility of roles associated with a NMI (e.g., Metering Data Provider (**MDP**)).
- Access to NMI discovery (where authorised).
- Use of metering and customer switching processes.
- Appointment of Metering Coordinator.

In addition to the changes explored in this issues paper, the IESS Rule makes a number of amendments to NER Chapter 7, which AEMO considers will not require updates to the procedures. These include:

- Extension of NER clauses 7.4.1(e) and 7.4.2(e) to IRPs, preventing IRPs involved in the trading of energy from being registered as a Metering Provider or Metering Data Provider for connection points in respect of which the metering data relates to its own use of energy (the clause currently applies to Market Generators).
- Extension of NER clauses 7.4.1(f) and 7.4.2(f) to Small Resource Aggregators, preventing them from being registered as a Metering Provider or at any connection point (as is currently the case for Market Customers).
- Extension of NER clause 7.6.2, which specifies who may appoint Metering Coordinators, to IRPs and IRSSs.
- Extension of NER clause 7.8.2(b1), which relates to the requirement for type 4 metering installations to be capable of recording and providing, and configured to record and provide, trading interval energy data, to all type 4 metering installations.
- Extension of the application of NER clause 7.8.2(f), which covers requirements for metering installations for non-market generating units, to non-market BDUs.

- Extension of the application of NER clause 7.8.2(g), which covers requirements for metering installations for small generating units, to small resource connection points.

Implementation timing

The IESS Rule is being implemented over two releases:

- The first is an initial release on 31 March 2023, which provides for Small Generation Aggregators to provide FCAS and introduces (opt-in) aggregate dispatch conformance for participants with two or more technologies behind the connection point⁹.
- The second is a final release on 3 June 2024, which completes the full implementation of the IESS Rule. In addition, AEMO has submitted a rule change request to the AEMC to align the implementation of non-energy cost recovery changes with the start of the billing week on 2 June 2024.¹⁰ In relation to the Procedures:
 - The proposed changes to NCCs would be implemented on 2 June 2024 to align with AEMO's proposed timeframe for the non-energy cost recovery changes, subject to the AEMC's final determination
 - The other changes outlined in this issues paper would take place on 3 June 2024.

2.3. The national electricity objective

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

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

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

- price, quality, safety, reliability and security of supply of electricity; and*
- the reliability, safety and security of the national electricity system.*

⁹ The timing for aggregate dispatch conformance has been delayed to 9 August 2023 to align with the Fast Frequency Response (FFR) project registration process and provision of bids in advance of the rule commencement, allowing implementation efficiencies for AEMO and participants.

¹⁰ Australian Energy Market Commission, *Amendment rule on Integrating Energy Storage Systems into the NEM*, at <https://www.aemc.gov.au/rule-changes/amendment-rule-integrating-energy-storage-systems-nem>

3. IESS change proposals

AEMO is proposing to make the changes to the Procedures in order to implement the IESS Rule. These proposals are explored in the following sections.

3.1. NMI Classification Code amendments

3.1.1. Description and effect of proposal

AEMO requires the ability to identify newly-defined IRS connection points, which both generate and consume electricity, for the purpose of:

- Removing the current requirement for two NMIs for grid-scale storage connection points. At present, grid-scale storage requires one NMI for the generation side and another for the consumption side. Under the IESS Rule, this will no longer be the case, as storage participants will be able to register as an IRP and classify BDUs rather than registering as both a Market Customer and Market Generator¹¹.
- Enabling appropriate application of market fees and UFE. Under the IESS Rule, UFE for a local area is to be allocated to all market connection points in the local area, not just those classified as market load¹². The impact is that the consumption energy values for distribution connected generating systems and distribution connected IRSs (including auxiliary load) will be included in UFE calculations and subject to a UFE allocation.
- Enabling appropriate compliance monitoring to protect the integrity of market settlements.

The new IRS category is defined as follows in NER Chapter 10:

integrated resource system

(a) Subject to the remaining paragraphs of this definition, any of the following:

- (1) a system comprising one or more *bidirectional units* (and which may also comprise one or more *generating units* or other *connected plant* that is not part of a *bidirectional unit*); and
- (2) a system comprising one or more *generating units* where the *connection point* for the system is used to *supply* electricity for consumption on the system side of the *connection point*.

(b) For the purposes of paragraph (a)(2), disregard consumption to the extent it is *auxiliary load*.

(c) For the purposes of clause 2.1B.2(b)(4), clause 4.9.2 and Chapter 5, an *integrated resource system* includes auxiliary or *reactive plant* that is located on the *Integrated Resource Provider's* side of the *connection point* and is necessary for the *integrated resource system* to meet its *performance standards*.

(d) For the purposes of the *Rules* (except rules 2.1A and 2.1B and except as otherwise provided in the *Rules*) a *bidirectional unit* that has been classified as a *scheduled generating unit* as provided for in clause 2.2.2(b2) is taken to be a *generating unit* (and not a *bidirectional unit*) under paragraph (a) of this definition.

AEMO considers that the existing NCCs do not enable AEMO to appropriately identify IRSs for the above purposes. Following pre-consultation with industry, AEMO is proposing three new NCCs and several amendments to the existing NCCs to enable this functionality and incorporate terminology changes introduced in the IESS Rule (more on terminology changes in Section 3.2). These changes are outlined in Table 2 and discussed in detail below.

¹¹ An exception is for units which cannot linearly transition from a state of charge to discharge due to a dead-band (typically pumped hydro) which will continue to be classified as both a scheduled load and scheduled generating unit. A participant will still need to re-register as an IRP.

¹² IESS Rule 3.15.5.

Table 2 Overview of proposed new and amended NCC definitions

NMI Classification Code	Rationale for change	Proposed definition
TIRS	New code to identify transmission-connected IRS and replace existing requirement for two NMIs	<i>Connection point</i> associated with a registered <i>integration resource system</i> (IRS) that is connected to the <i>transmission network</i> . This <i>NMI Classification</i> is to be assigned by <i>AEMO</i> from the IRS registration approval date.
DIRS	New code to identify distribution-connected IRS and replace existing requirement for two NMIs	<i>Connection point</i> associated with a registered <i>integrated resource system</i> (IRS) that is connected to a registered network other than a <i>transmission network</i> or embedded network. This <i>NMI Classification</i> is to be assigned by <i>AEMO</i> from the IRS registration approval date.
DGENRATR	New code to differentiate between distribution and transmission connected generation	<i>Connection point</i> associated with a <i>generating system</i> classified as a <i>Market Generator</i> by <i>AEMO</i> that is connected to a registered network other than a <i>transmission network</i> or embedded network. This <i>NMI Classification</i> is to be assigned by <i>AEMO</i> from the <i>Generator</i> registration approval date.
GENERATR	Amendment to allocate code to transmission-connected generation given new DGENRATR code above	<i>Connection point</i> associated with a <i>generating system</i> classified as a <i>Market Generator</i> by <i>AEMO</i> that is connected to a <i>transmission network</i> . This <i>NMI Classification</i> is to be assigned by <i>AEMO</i> from the <i>Generator</i> registration approval date.
NREG	Amendment to reflect new terminology and IRP Small Resource Aggregator classification of small BDUs in addition to small generating units	<i>Connection point</i> associated with a stand-alone <i>non-registered DER provider</i> at which: <ul style="list-style-type: none"> the <i>distribution connected unit</i> is classified by a <i>Small Resource Aggregator</i> as a <i>small resource connection point</i>; or the <i>distribution connected unit</i> is owned, operated and controlled by a person who meets the requirements of NER 5.3.1A(c)(2) or (3); or the <i>non-registered DER provider</i>, meets the requirements of NER 5A.A.2.

3.1.2. Proposed new codes TIRS and DIRS

The proposed TIRS and DIRS classification codes are intended to:

- Enable the identification of IRSs.
- Replace the current use of two NMIs for connection points with both generation and consumption.
- Distinguish between transmission and distribution connected IRSs for the purpose of UFE allocation. In many cases, it would be possible to determine whether an IRS is connected to the distribution or transmission network based on the Local Network Service Provider (**LNSP**) field. However, some transmission connection points are connected below the bulk connection point. Accordingly, AEMO cannot use the LNSP field to determine the correct classification in these cases (these cases would be assigned DIRS with a Transmission Network Service Provider (**TNSP**)).

As with the existing GENERATR classification code, TIRS and DIRS would be applicable to connection points of **registered** IRSs only. For IRSs that are exempt from the requirement to be registered¹³, the NREG classification code would generally apply. As with GENERATR classification code, TIRS and DIRS may not exist within embedded networks, as the owner, controller and operator of the embedded networks is typically exempt, from both the requirement to be registered as an NSP and the operation of NER chapter 5, which includes the technical requirements for Registered Participants. Both Generators and IRPs are required to comply with the connection process and technical requirements of NER Chapter 5.¹⁴ As such, there is no connection framework for registered Generators or IRPs to follow to

¹³ <https://aemo.com.au/consultations/current-and-closed-consultations/guide-to-generator-exemption-and-classification-of-generating-units-consultation>

¹⁴ Except in accordance with clause S5.2.1(b).

connect to an embedded network. Only exempt generating systems and IRSs can connect within an embedded network, either via a child or parent connection point.

3.1.3. Proposed new code DGENRATR and amendments to GENERATR

The new code DGENRATR is proposed to distinguish distribution connected generating systems from transmission connected generating systems for UFE allocation. The existing GENERATR code is to be amended to apply to transmission-connected generating systems only. Consumption flows for distribution-connected generating systems will attract UFE for trading intervals in which consumption is recorded.

3.1.4. Proposed amendments to NREG

The proposed amendments to NREG are intended to reflect the following changes:

- The transition of Small Generation Aggregators to the IRP participant category under the new Small Resource Aggregator label.
- The introduction of the small BDU, which corresponds to the existing small generating unit and may be classified by a Small Resource Aggregator as one of its market connection points. Small BDUs and small generating units are collectively termed ‘small resource connection points’.
- Amendments to terminology, including:
 - Replacement of the existing term ‘non-registered embedded generator’ with the new term ‘non-registered DER provider’. ‘Non-registered DER provider’ refers to a distribution connected unit operator (i.e., a person that owns, controls or operates a distribution connected unit) that is neither a micro resource operator (i.e., replacement term for micro embedded generator)¹⁵ nor a Registered Participant.
 - Replacement of the existing term ‘embedded generating unit’ with ‘distribution connected generating unit’ and introduction of the corresponding term ‘distribution connected bidirectional unit’ and the collective term ‘distribution connected unit’.

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. As is presently the case, NREG may be applied within embedded networks, as embedded networks are included in the definition of distribution system¹⁶.

Feedback received from the ERCF raised some issues with the existing use of NREG, including the lack of visibility for LNSPs over connection points within embedded networks, as well as the potential need to broaden the provision of information to Embedded Network Managers (**ENM**). AEMO is considering these issues, which are also relevant to broader NCC changes under consideration.

3.1.5. Transition and implementation of new NMI Classification Codes

AEMO proposes to manage the transition for existing NCCs where a new code needs to be applied. NSPs will not have an obligation to transition NCCs.

¹⁵ A *micro resource operator* refers to a *small customer*, *large customer* or *SRA* [small resource aggregator] customer who operates, or proposes to operate, a *distribution connected unit* for which a *micro DER connection* is appropriate.

¹⁶ *Distribution system* is defined as each of the following: (a) a *distribution network*, together with the *connection assets* associated with the *distribution network*, which is *connected* to another *transmission system* or *distribution system*; and (b) a *stand-alone distribution system* in a *regulated SAPS*.

The proposed ongoing arrangement for new NMIs following commencement of the IESS Rule is that:

- Non-registered NCCs (LARGE, SMALL and NREG) will be applied by the NSP to create NMIs, as is done today.
- AEMO will then apply the new NCC (GENERATR, DGENRATR, TIRS or DIRS) as part of the formal registration process, once the installation is registered.

3.1.6. Procedures affected by NMI Classification Code changes

The CATS and WIGS Procedures, in particular will require changes to incorporate the NCC changes into Change Requests.

3.1.7. Questions for consultation – NMI Classification Codes

Questions
<p>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.</p>
<p>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?</p>
<p>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?</p>

3.2. Amendments to terminology

3.2.1. Description and effect of proposal

The IESS Rule includes a large number of terminology changes which will need to be reflected in the Procedures. A full list of terminology changes may be found in the IESS Rule final determination and amending rule.¹⁷

Key terminology changes relevant to the Procedures are listed in Table 3 (deleted terms), Table 4 (new and replacement terms) and Table 5 (amended terms). From AEMO’s perspective, implementing the terminology changes in Procedures is expected to be straightforward, noting that removal of deleted terms listed in Table 3 may have some impacts for the Bulk Change Tool. In addition, changes to the Metrology Procedure Jurisdictional Tables of Difference will require approval from the appropriate jurisdiction.

Table 3 Deleted terms relevant to the Procedures

Deleted term	Replacement term
First-Tier Customer	No replacement – redundant classification
first-tier load	No replacement – redundant classification
Second-Tier Customer	No replacement – redundant classification
Second-tier load	No replacement – redundant classification

¹⁷ <https://www.aemo.gov.au/rule-changes/integrating-energy-storage-systems-nem>

Table 4 New and replacement terms introduced by the IESS Rule relevant to the Procedures

New term	Replaces?	Definition (NER Chapter 10)
adjusted consumed energy	-	The <i>adjusted consumed energy</i> determined in accordance with clause 3.15.4.
adjusted gross energy	-	The <i>adjusted gross energy</i> determined in accordance with clause 3.15.4.
adjusted sent out energy	-	The <i>adjusted sent out energy</i> determined in accordance with clause 3.15.4.
ancillary service unit	<i>ancillary service generating unit</i> and <i>ancillary service load</i>	A <i>generating unit, bidirectional unit</i> or other <i>connected plant</i> that has been classified in accordance with Chapter 2 as an <i>ancillary service unit</i> .
basic micro DER connection service	<i>basic micro DER connection service</i>	Has (in the context of Chapter 5A) the meaning given in clause 5A.A.1. Clause 5A.A.1 definition: a <i>basic connection service</i> for a <i>retail customer</i> who is a <i>micro resource operator</i> .
bidirectional unit	-	(a) Subject to paragraphs (b) and (c), a <i>production unit</i> that also consumes electricity. (b) For paragraph (a), disregard <i>auxiliary load</i> . (c) A <i>bidirectional unit</i> within the meaning of paragraph (a) of this definition, that has been classified as a <i>scheduled generating unit</i> under clause 2.2.2(b2), is taken for the purposes of the <i>Rules</i> (except rules 2.1A and 2.1B and clauses 2.2.2(a) to (b4) or as otherwise provided in the <i>Rules</i>) to be a <i>generating unit</i> (and not a <i>bidirectional unit</i>).
Cost Recovery Market Participant	-	A person who is registered by AEMO under Chapter 2 as a <i>Generator, Integrated Resource Provider</i> or <i>Customer</i> .
distribution connected bidirectional unit	-	A <i>bidirectional unit</i> connected within a <i>distribution system</i> and not having direct access to the <i>transmission network</i> .
distribution connected generating unit	<i>embedded generating unit</i>	A <i>generating unit</i> connected within a <i>distribution system</i> and not having direct access to the <i>transmission network</i> .
Distribution Connected Resource Provider	<i>Embedded Generator</i>	A <i>Generator</i> or <i>Integrated Resource Provider</i> who owns, operates or controls a <i>distribution connected unit</i> .
distribution connected unit	-	A <i>distribution connected generating unit</i> or a <i>distribution connected bidirectional unit</i> .
distribution connected unit operator	<i>embedded generating unit operator</i>	A person who owns, controls or operates a <i>distribution connected unit</i> .
Integrated Resource Provider	-	A person who is registered by AEMO as an <i>Integrated Resource Provider</i> under Chapter 2. For the purposes of Chapter 5, the term includes a person who is required or intends to register in that capacity or a <i>non-registered DER provider</i> who has made an election under clause 5A.A.2(c).
integrated resource system	-	(a) Subject to the remaining paragraphs of this definition, any of the following: (1) a system comprising one or more <i>bidirectional units</i> (and which may also comprise one or more <i>generating units</i> or other <i>connected plant</i> that is not part of a <i>bidirectional unit</i>); and (2) a system comprising one or more <i>generating units</i> where the <i>connection point</i> for the system is used to <i>supply</i> electricity for consumption on the system side of the <i>connection point</i> . (b) For the purposes of paragraph (a)(2), disregard consumption to the extent it is <i>auxiliary load</i> .

New term	Replaces?	Definition (NER Chapter 10)
		<p>(c) For the purposes of clause 2.1B.2(b)(4), clause 4.9.2 and Chapter 5, an <i>integrated resource system</i> includes auxiliary or <i>reactive plant</i> that is located on the <i>Integrated Resource Provider's</i> side of the <i>connection point</i> and is necessary for the <i>integrated resource system</i> to meet its <i>performance standards</i>.</p> <p>(d) For the purposes of the <i>Rules</i> (except rules 2.1A and 2.1B and except as otherwise provided in the <i>Rules</i>) a <i>bidirectional unit</i> that has been classified as a <i>scheduled generating unit</i> as provided for in clause 2.2.2(b2) is taken to be a <i>generating unit</i> (and not a <i>bidirectional unit</i>) under paragraph (a) of this definition.</p>
market connection point	<i>market load</i>	<p>A <i>connection point</i>.</p> <p>(a) classified in accordance with Chapter 2 as a <i>market connection point</i>;</p> <p>(b) which connects any <i>market generating unit</i> to the <i>national grid</i>;</p> <p>(c) which connects any <i>market bidirectional unit</i> to the <i>national grid</i>; or</p> <p>(d) where the <i>network service connected</i> at that <i>connection point</i> is a <i>market network service</i>.</p> <p>*(Note: The term <i>market load</i> will no longer be used for classification as end users may both import and export electricity. The IESS Rule removes <i>market load</i> from NER chapter 2 and elsewhere in the NER but retains the definition in chapter 10 for the purposes of its use in the National Electricity (SA) Regulations.)</p>
micro DER connection	<i>micro EG connection</i>	<p>Has the meaning given in clause 5A.A.1.</p> <p>Clause 5A.A.1 definition: a <i>connection</i> between a <i>distribution connected unit</i> and a <i>distribution network</i> of the kind contemplated by <i>Australian Standard AS 4777</i> (Grid connection of energy systems via inverters).</p>
micro resource operator	<i>micro embedded generator</i>	<p>A <i>small customer</i>, <i>large customer</i> or <i>SRA customer</i> who operates, or proposes to operate, a <i>distribution connected unit</i> for which a <i>micro DER connection</i> is appropriate.</p>
non-registered DER provider	<i>non-registered embedded generator</i>	<p>A <i>distribution connected unit operator</i> that is neither a <i>micro resource operator</i> nor a <i>Registered Participant</i>.</p>
production unit	-	<p><i>Plant</i> used in the production of electricity and all related equipment essential to its functioning as a single entity.</p>
small bidirectional unit	-	<p>A <i>bidirectional unit</i>.</p> <p>(a) with a <i>nameplate rating</i> that is less than 5 MW; and</p> <p>(b) that is incorporated in an <i>integrated resource system</i> in relation to which AEMO has given an exemption under clause 2.1A.2 from the requirement to register as an <i>Integrated Resource Provider</i>.</p>
Small Resource Aggregator	<i>Market Small Generation Aggregator</i>	<p>An <i>Integrated Resource Provider</i> who has classified a <i>small resource connection point</i> as one of its <i>market connection points</i> in accordance with clause 2.2.8.</p>
small resource connection point	-	<p>A <i>connection point</i> that connects one or more <i>small generating units</i> or <i>small bidirectional units</i> (or any combination) to the <i>national grid</i>, where the only supply to the <i>connection point</i> is:</p> <p>(a) for use by a <i>small bidirectional unit</i> connected at the <i>connection point</i>; or</p> <p>(b) <i>auxiliary load</i> of a <i>small generating unit</i> or <i>small bidirectional unit</i> connected at the <i>connection point</i>.</p>
SRA customer	<i>MSGA customer</i>	<p>Has the meaning given in clause 5A.A.1.</p> <p>Clause 5A.A.1 definition means a person who owns, operates or controls, or proposes to own, operate or control, a <i>small generating unit</i> or <i>small bidirectional unit</i> and who has an agreement with a <i>Small Resource Aggregator</i> relating to the <i>small generating unit</i> or <i>small bidirectional unit</i> (as the case may be) under which</p>

New term	Replaces?	Definition (NER Chapter 10)
		the <i>Small Resource Aggregator</i> is financially responsible for the <i>small resource connection point</i> for the relevant unit.

Table 5 Amended terms introduced by the IESS Rule relevant to the Procedures

Amended term	Amended definition
Ancillary Service Provider	A person who has, in accordance with Chapter 2, classified a <i>generating unit</i> , <i>bidirectional unit</i> or other <i>connected plant</i> as an <i>ancillary service unit</i> .
Customer	A person who classifies one or more <i>connection points</i> as <i>market connection points</i> under Chapter 2 and is registered by AEMO as a <i>Customer</i> under Chapter 2.
Demand Response Service Provider	A person who has classified either or both: (1) a <i>connection point</i> as a <i>wholesale demand response unit</i> ; and (2) <i>connected plant</i> as an <i>ancillary service unit</i> and who is registered by AEMO as a <i>Demand Response Service Provider</i> under Chapter 2. The relevant person does not need to be the <i>Market Customer</i> for the relevant <i>connection point</i> .
DER Technical Standards	Means the requirements for <i>distribution connected units</i> under <i>Australian Standard AS4777.2:2020</i> as in force from time to time.
financially responsible	In relation to a <i>market connection point</i> , a term which is used to describe the <i>Market Participant</i> which has done one of the following: (a) classified the <i>market connection point</i> as one of its <i>market connection points</i> ; (b) classified a <i>generating unit connected at the market connection point</i> as a <i>market generating unit</i> ; (c) classified a <i>bidirectional unit connected at the market connection point</i> as a <i>market bidirectional unit</i> ; or (d) classified the <i>network services at the market connection point</i> as a <i>market network service</i> .
generating system	(a) Subject to paragraph (b), for the purposes of the <i>Rules</i> , a system comprising one or more <i>generating units</i> , other than an <i>integrated resource system</i> . (b) For the purposes of clause 2.1B.1(c), clause 2.1B.2(b)(4), clause 4.9.2, Chapter 5 and a <i>jurisdictional derogation</i> from Chapter 5, a system comprising one or more <i>generating units</i> , other than an <i>integrated resource system</i> , and includes auxiliary or <i>reactive plant</i> that is located on the <i>Generator's side of the connection point</i> and is necessary for the <i>generating system</i> to meet its <i>performance standards</i> . (c) For the purposes of the <i>Rules</i> (except rules 2.1A, 2.1B and 2.2 and except as otherwise provided under the <i>Rules</i>), a reference to a <i>generating unit</i> in paragraph (a) or (b) of this definition is taken to include a <i>bidirectional unit</i> that has been classified as a <i>scheduled generating unit</i> as provided for in clause 2.2.2(b2).
generating unit	(a) Subject to paragraph (b), a <i>production unit</i> that is not a <i>bidirectional unit</i> . (b) A <i>bidirectional unit</i> within the meaning of paragraph (a) of the definition of <i>bidirectional unit</i> , that has been classified as a <i>scheduled generating unit</i> under clause 2.2.2(b2), is taken for the purposes of the <i>Rules</i> (except rules 2.1A and 2.1B and clauses 2.2.2(a) to (b4) and except as otherwise provided in the <i>Rules</i>) to be a <i>generating unit</i> (and not a <i>bidirectional unit</i>).
Generator	A person who engages in the activity of owning, controlling or operating a <i>generating system</i> that is <i>connected to</i> , or who otherwise <i>supplies</i> electricity to, a <i>transmission system</i> or <i>distribution system</i> and who is registered by AEMO under Chapter 2 as a <i>Generator</i> or as an <i>Integrated Resource Provider</i> . For the purposes of Chapter 5, the term includes a person who is required or intends to register in that capacity or a <i>non-registered DER provider</i> who has made an election under clause 5A.A.2(c).
load	According to context: (a) the amount of electrical power (in MW) <i>supplied</i> from a <i>network</i> at a defined instant to a <i>connection point</i> , or aggregated over a defined set of <i>connection points</i> ; or (b) a <i>connection point</i> or defined set of <i>connection points</i> at which electrical power is delivered to a person or to another <i>network</i> .
Market Customer	A <i>Customer</i> in relation to the <i>connection points</i> it has classified as <i>market connection points</i> under Chapter 2.

Amended term	Amended definition
	An <i>Integrated Resource Provider</i> in relation to the <i>connection points</i> it has classified as <i>market connection points</i> under clause 2.3.4(b).
Market Participant	A <i>Market Generator</i> , <i>Integrated Resource Provider</i> (other than a <i>Non-Market Integrated Resource Provider</i>), <i>Market Customer</i> , <i>Demand Response Service Provider</i> or <i>Market Network Service Provider</i> .
non-scheduled load	Any source of <i>load</i> not classified as <i>scheduled load</i> .
retail customer	A person who is one or more of the following: (a) a <i>small customer</i> ; (b) a <i>large customer</i> ; (c) a <i>micro resource operator</i> ; or (d) a <i>non-registered DER provider</i> , other than a <i>non-registered DER provider</i> who has made an election under clause 5A.A.2(c) for <i>connection</i> under Chapter 5.
small generating unit	A <i>generating unit</i> . (a) with a <i>nameplate rating</i> that is less than 30MW; and (b) that is incorporated in a <i>generating system</i> or an <i>integrated resource system</i> in relation to which AEMO has given an exemption under clause 2.1A.2 from the requirement to register as a <i>Generator</i> or <i>Integrated Resource Provider</i> .

3.2.2. Procedures affected by terminology changes

AEMO has identified functional and definitional changes arising from the IESS Rule. Table 6 identifies the Procedures and the type of change expected.

Table 6 List of Procedures requiring updates

Procedure	Change Type
Glossary and Framework	Definitional - amendments
MSATS CATS	Functional
MSATS Wholesale, Interconnector, Generator and Sample (WIGS)	Functional
Metrology Procedure Part A	Definitional - amendments
Metrology Procedure Part B	Definitional - amendments
Standing Data for MSATS	Functional
MSATS Metering Data Management (MDM) Procedure	Definitional - amendments
Exemption procedure – data storage requirements	Definitional - amendments
Guide to role of Metering Coordinator	Definitional - amendments
Service Level Procedure: ENM Services	Definitional - amendments
Service Level Procedure: MDP Services	Definitional - amendments
MSATS Procedures: National Metering Identifier	Definitional - amendments
Metering Data Provision Procedures	Definitional - amendments

3.2.3. Questions for consultation – terminology changes

Questions
<p>4. Are there any gaps or issues with AEMO’s assessment of the impacts of terminology changes for the Procedures?</p> <p>5. Can participants provide comments on the need for a formal readiness program to be put in place for the implementation of the IESS Rule?</p>

3.3. Other IESS topics

3.3.1. Changes to embedded network processing

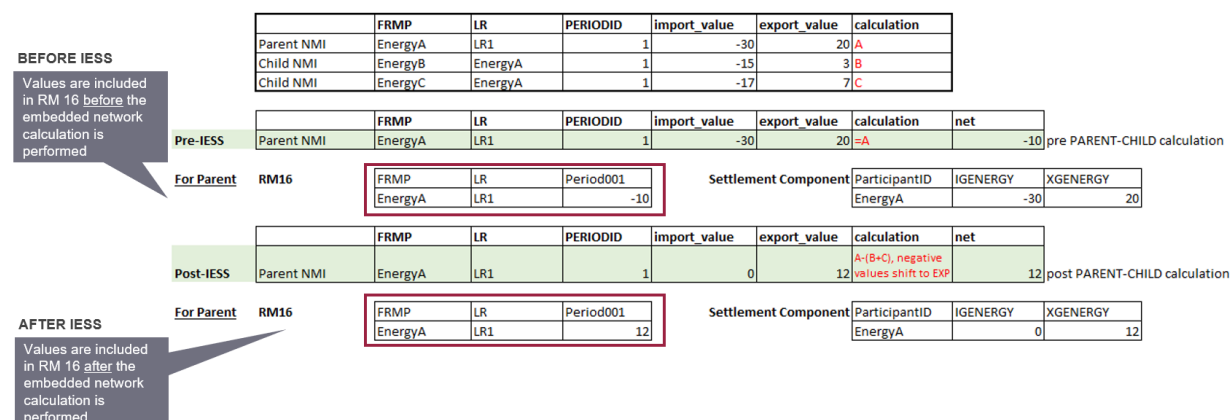
This topic does not relate to changes to the Procedures and is provided for participants' information only.

This change will only impact participants who are parents of on-market children in embedded networks.

The IESS Rule requires non-energy cost recovery to be calculated on the share of consumed and sent-out energy for all participant categories. This means that AEMO needs to perform non-energy cost recovery calculations at NMI level (rather than in aggregate) for accurate settlement. Accordingly, AEMO needs to change the order and location of embedded network processing in its systems. The embedded network calculation itself (settlement by difference, i.e., PARENT minus CHILD) is not changing.

Currently, embedded network energy flow allocation and aggregation is performed in settlements systems after processing by retail systems (additional to the aggregation already performed in retail systems). Under the IESS Rule, the embedded network processing will be performed in retail systems instead, impacting the underlying data used for some RM reports. This will result in minor changes to the data in the RM16 report, which will show the net of the embedded network parent post embedded network calculation¹⁸. Figure 1 provides a simple example of the change.

Figure 1 Example of embedded network processing change – before and after IESS



3.3.2. Reconciliation process following changes

Following this change, there may be implications for the way participants (which are parents of embedded networks) undertake their reconciliation. Participants will be able to reconcile RM16 with settlements values in their settlements statements, but will no longer be able to easily reconcile RM16 against RM21/27 without first performing the embedded network calculations undertaken by AEMO. Parents of embedded networks will still be able to run an RM17 or RM21/27 to obtain data for child connection points (there is no change to access). Participants may then undertake the same embedded network calculation as AEMO (PARENT minus CHILD) to reconcile the RM16. Embedded network children are unaffected by these changes.

¹⁸ RM17 and RM21/27 will remain the same, as they are based on metering data.

AEMO is advising participants of this change only. This change will not impact AEMO documentation, as the data fields within the reports are not changing. AEMO advises that participants consider the implications of this change for their system and processes.

3.4. Proposed effective date

The proposed effective date for changes to NCCs would be **2 June 2024** to align with AEMO's proposed timeframe for the non-energy cost recovery changes (and subject to the AEMC's final determination). The effective date for the remaining proposed changes is **3 June 2024**, which is the final implementation date of the IESS Rule.

4. Drafting for proposed IESS changes

AEMO has provided an overview of proposed procedure changes to reflect the IESS Rule in its Response Template. Participants may use the Response Template to comment on individual changes as required.

Most of the changes reflect terminology updates and proposed NCC changes as described in this issues paper, as well as some additional consequential changes.

AEMO also intends to address a small number of typographical errors whilst updating its procedures; these are not addressed in the Response Template.

5. Other Matters

5.1. ICF_070 Increase 'Building Name' Field Length in MSATS

Currently, the "Building Name" field length in the MSATS database supports 30 CHAR, whereas:

- The aseXML schema supports 60 characters, as there are two elements defined for Building or Property Name
 - `<xsd:element name="BuildingOrPropertyName" type="AustralianBuildingOrPropertyName" nillable="true" minOccurs="0"/>`
 - `<xsd:element name="BuildingOrPropertyName2" type="AustralianBuildingOrPropertyName" nillable="true" minOccurs="0"/>`
- There is a 60 character allowance in the 'Standing Data for MSATS' document
 - aseXML Data Type - `xsd:string maxLength = 30 x 2`

ICF_070 proposes to increase the "Building Name" field length in MSATS to align with the aseXML schema and the Standing Data for MSATS document.

Questions

- 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.**

5.2. ICF_059 CATS clarifications and NMI Classification Code Review

In late 2022, an ERCF NCC Review Subgroup was formed to assess the adequacy of the NCCs specified in Table 4-D of the CATS Procedures.

As a result of its deliberations, the subgroup identified that:

- NEM Participants were currently unable to easily and accurately identify a customer's non-registered or non-classified generation capabilities.
- The disclosure of standalone Electric Vehicle (EV) charging stations via CATS NCC would be a major step towards addressing the issues identified by the Energy Security Board (ESB) EV Standing Data consultation paper.
- The CATS Procedures do not specify Jurisdictional limits related to Customer Threshold Codes which created inefficiencies in the market.

5.2.1. Easy and accurate identification of a customer's non-registered or non-classified generation capabilities

Historically, NCCs have been successfully used by Participants to provide a 'shortcut' or 'simplification' in determining the 'function' of a NMI. Whilst a NMI's 'function' may be able to be deduced by leveraging a combination of existing fields in MSATS, this process has been deemed complex and inefficient.

When analysing the current CATS NCCs, including the proposed IESS NCCs, it became apparent to the subgroup that there were no NCCs being proposed that would easily and accurately identify unclassified and/or unregistered generation up to 5MW.

Various options were subsequently evaluated to resolve this issue, including:

- The addition of new NCCs into MSATS (**Option 1**).
- The creation of a new MSATS field to explicitly describe generation assets (**Option 2**).
- Expanding participant access to the distributed energy resources (**DER**) register (**Option 3**).

Whilst benefits were recognised associated to Options 2 and 3, significant disadvantages were also identified, including:

- The creation of an additional MSATS field would potentially create significant costs across many market participants, some of whom would not receive any value from this additional data.
- The DER register does not currently hold information in a readily accessible nor standard format. The process of updating the DER register and the ability to identify DER updates was also a concern. A Rule change would also be needed to facilitate expanded participant access to the DER register.

5.2.2. Standalone Electric Vehicle Charging Stations

Under the current CATS NCCs, a single Charging Station would most likely be considered Small (due to consumption levels) and a bank of these stations would most likely be considered Large.

As part of the development of a two-sided market, it was expected that EV charging stations would also be connections where energy would be provided to the network (i.e., generation).

The disclosure of standalone EV charging stations via CATS NCC was seen as a major step towards addressing some of the issues identified in the ESB's EV Standing Data consultation paper.

5.2.3. Jurisdictional limits related to Customer Threshold Codes

The current Customer Threshold Codes do not explicitly specify Jurisdictional limits. By not including these limits, users are forced to review additional regulatory instruments across Jurisdictions to understand the applicable thresholds.

5.2.4. ERCF Subgroup recommendation summary

As a result of the subgroup's deliberations, it recommended the following changes to the ERCF:

1. The creation of new CATS NCCs to identify sites which have a nominal consumption of SMALL or LARGE (as defined in Jurisdictional criteria) combined with unregistered / unclassified generation exceeding 10kVA/phase, for example:
 - GSMALL - Customer with export consumption below nominated threshold AND unregistered and unclassified import generation below nominated threshold.
 - GLARGE - Customer with export consumption above nominated threshold AND unregistered and unclassified import generation above nominated threshold.
2. The creation of a new CATS NCC to identify Standalone EV Charging Stations, in support of ESB recommendations, for example:

- EVCHARGE – Standalone EV Charging Stations (excluding non-standalone EV chargers installed behind a customer’s metering installation).
3. The amendment of existing SMALL and LARGE NCCs to exclude sites with generation ≥ 10 kVA per phase.
 4. Changes to the allocation of Residential sites to the ‘SMALL’ NCC, as the Customer Classification Code field already differentiates between Residential and Business customers.
 5. Minor editorial changes to the Customer Threshold Limits in CATS to include the applicable Jurisdictional limits.

Questions

- 7. Do you agree that Option 1 would most effectively and efficiently resolve the issue of NEM Participants not being able to easily and accurately identify a customer’s non-registered or non-classified generation capabilities? If no, please specify your reasoning.**
- 8. Do you believe a different, or alternative, Option may better achieve this objective? If yes, please provide your preferred solution and your reasoning.**
- 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.**
- 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.**
- 11. What do you believe AEMO should consider in determining the proposed effective date/implementation date of the proposed changes? Please specify your reasoning.**

6. Summary of issues for consultation

Submissions may be made on any matter relating to the proposal discussion in this issues paper. AEMO would welcome particular comment and feedback on the following matters:

1. Amendments to NCCs to accommodate changes associated with the IESS Rule, including three new codes (TIRS, DIRS, DGENRATR) and amendments to two further codes (NREG and GENERATR).
2. Impacts of extensive terminology changes to reflect the IESS Rule to participant systems and processes.
3. ICF_070 Increase 'Building Name' Field Length in MSATS
 - Increasing the "Building Name" field length in MSATS to align with the aseXML schema and the Standing Data for MSATS document.
4. ICF_059 CATS clarifications and NCC Review
 - The preferred solution supporting:
 - The easy and accurate identification of a customer's non-registered or non-classified generation capabilities in MSATS.
 - The easy and accurate identification of standalone EV charging stations in MSATS.
 - The inclusion of Jurisdictional limits in the Customer Threshold Code descriptions.

Appendix A. Glossary

Term or acronym	Meaning
ACE	Adjusted Consumed Energy
ASOE	Adjusted Sent Out Energy
BDU	Bidirectional Unit
CATS	Consumer Administration and Transfer Solution
DER	Distributed Energy Resource
DNSP	Distribution Network Service Provider
DRSP	Demand Response Service Provider
ENM	Embedded Network Manager
ERCF	Electricity Retail Consultative Forum
ESB	Energy Security Board
EV	Electric vehicle
FRMP	Financially responsible Market Participant
ICF	Issue / Change Form
IESS	Integrating Energy Storage Systems
IRS	Integrated Resource System
LNSP	Local Network Service Provider
LR	Local Retailer
MC	Metering Coordinator
MDM	Metering Data Management
MDP	Metering Data Provider
MP	Metering Provider
MPB	Metering Provider Category B
MSATS	Market Settlements and Transfer Solution
NCC	NMI Classification Code
NEM	National Electricity Market
NEO	National Electricity Objective
NER	The National Electricity Rules made under Part 7 of the National Electricity Law
NERL	National Energy Retail Law
NMI	National Metering Identifier
NSP	Network Service Provider
TNSP	Transmission Network Service Provider
UFE	Unaccounted-for-energy
WIGS	Wholesale, Interconnector, Generator and Sample