AEMC

RULE

Australian Energy Market Commission

CONSULTATION PAPER

NATIONAL ELECTRICITY AMENDMENT (IMPLEMENTING INTEGRATED ENERGY STORAGE SYSTEMS) RULE 2023

PROPONENT

Australian Energy Market Operator

2 MARCH 2023

INQUIRIES

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Reference: ERC0351

ABOUT THE AEMC

The AEMC reports to the Energy Ministers' Meeting (formerly the Council of Australian Governments Energy Council). We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the Energy Ministers' Meeting.

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SUMMARY

1 The Australian Energy Market Operator (AEMO) has identified a number of implementation related issues as part of its implementation preparation process for the Integrating Energy Storage Systems into the National Electricity Market (NEM) rule (IESS rule) which was made on 2 December 2021. AEMO submitted a rule change request on 21 December 2022 proposing targeted amendments to the IESS rule which aim to reduce implementation costs, avoid potential market uncertainty and align rules drafting with other regulatory processes.

2 The AEMC has commenced its consideration of the request, and this consultation paper is the first stage.

3 We are seeking your feedback on how we propose to assess the request to determine if it will promote the long-term interests of consumers, if it addresses problems related to the implementation of the IESS rule, and if the proposed solutions achieve the intended outcomes.

4 We are progressing this rule change on an expedited process because we consider the rule change request is a request for a non-controversial rule.

We are seeking your views on three core proposed amendments

5 AEMO's rule change request identified three core proposed amendments as follows:

- extend aggregated dispatch conformance (ADC)[1] to all generating systems
- remove the option for bidirectional units (BDU) and semi-scheduled generating units to submit fast start inflexibility profiles (FSIP)[2]
- align the implementation date of changes to non-energy cost recovery (NECR) calculations with the start of the NEM billing week on Sunday, 2 June 2024 as opposed to Monday, 3 June 2024.[3]

We are also seeking your views on additional proposed amendments

6 The additional proposed amendments we are seeking views on are:

- in the classification of scheduled, non-scheduled and semi-scheduled generating units, replace the term 'part of a group of generating units' with 'part of a group of production units' so that the nameplate rating of BDUs in the group is taken into account when assessing whether the 30 MW threshold is met for classification purposes[4]

1 Clause 4.9.2A of the NER.
2 Clause 3.8.19 of the NER.
3 Clause 3.15 of the NER.
4 Clauses 2.2.2(a) (scheduled), 2.2.3(a) (unscheduled) and 2.2.7(a) (semi-scheduled) of the NER.

- in the classification of market connection points, remove the requirement for a customer who is also a local retailer to classify 'any load at' a connection point to align with other regulatory processes[5]
- in the classification of connection points as ancillary service units, clarify the requirement for consent of the end user at the connection point[6]
- in the requirements for a distribution network service provider to calculate a site specific distribution loss factor, remove the reference to 'small resource aggregator', given the new integrated resource provider category already includes a small resource aggregator[7]
- enable AEMO to grant exemptions to metering providers with type 4 metering installations installed prior to 1 December 2018 as opposed to 1 July 2021;[8]

7 The AEMC also proposes to make other minor and administrative amendments to the IESS rule to improve its clarity and reduce uncertainty with its implementation.

We consider that there are three assessment criteria that are most relevant to this rule change request

8 Considering the NEO[9] and the issues raised in the rule change request, the Commission proposes to assess the rule change request against three assessment criteria.

9 Please provide feedback on our proposal to assess the request against:

- Cost and complexity — reducing the cost and complexity of implementing the IESS rule.
- Timing and uncertainty — reducing market uncertainty in time for the commencement of the IESS rule.
- Consideration of the broader direction of reform — aligning amendments with other regulatory processes without deviating from the broader direction of reform decided in the IESS rule.

Submissions are due by 30 March 2023

10 There are multiple options to provide your feedback throughout the rule change process. Written submissions responding to this consultation paper must be lodged with Commission by Thursday 30 March 2023 via the Commission's website, www.aemc.gov.au. There are other opportunities for you to engage with us, see below for further instructions and contact details of the project sponsor.

Full list of consultation questions

5 New clause 2.3.4(i) of the IESS rule.
6 Clause 2.3D.1 of the NER.
7 New clause 3.6.3(b1) and 3.15.10C(a)(4) of the IESS rule.
8 Clause 7.8.2(a1) and (b1) of the NER.
9 Section 7 of the NEL.

QUESTION 1: INCLUDE GENERATING SYSTEMS IN AGGREGATED DISPATCH CONFORMANCE

1. Does the rule change address the problem?
2. Do you agree with AEMO's identification of the problem?
3. If the IESS rule remains unchanged, what is the impact of its implementation on the form of ADC that AEMO already facilitates?
4. New clause 4.9.2A of the IESS rule allows aggregation of integrated resource systems with more than one connection point. AEMO's new power system operating procedure only allows ADC where the generating units are behind a single connection point. What would be the market or operational impacts of extending ADC under clause 4.9.2A to generating systems with more than one connection point?
5. Would the proposed change create any negative consequences related to the existing forms of aggregated dispatch?
6. What would the operational implications or costs be for not making the change to include generating systems in new clause 4.9.2A of the NER?
7. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?
   b. reduce market uncertainty?
   c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?
8. Are there other solutions that would better solve the problem?

QUESTION 2: REMOVE OPTION FOR SEMI-SCHEDULED AND BI-DIRECTIONAL UNITS TO SUBMIT FAST-START INFLEXIBILITY PROFILES

1. Do you consider that excluding semi-scheduled generating units from submitting FSIPs is a material problem, now or in the future?
2. Do you consider that excluding batteries from submitting FSIPs is a material problem, now or in the future?
3. Do you consider that excluding other forms of BDUs from submitting FSIPs is a material problem, now or in the future?
4. What would be the market impact of making the proposed change?
5. What would the operational implications or costs be for allowing semi-scheduled and bidirectional units to register as fast start generating units?
6. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?

b. reduce market uncertainty?
c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?

7. Are there other solutions that would better solve the problem?

QUESTION 3: ALIGN IMPLEMENTATION OF NEW NON-ENERGY COST RECOVERY CALCULATIONS TO COMMENCEMENT OF NEM BILLING WEEK

1. Do you consider AEMO's proposed solution to be the most efficient way to address the problem? If so, what do you consider the key benefits of the proposed solution are?
2. What would be the market impact of making the proposed change?
3. What would the operational implications or costs be for changing the implementation date for NECR calculations to Sunday 2 June 2024?
4. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?
   b. reduce market uncertainty?
   c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?
5. Are there other solutions that would better solve the problem?

QUESTION 4: CLARIFY SCHEDULED, NON-SCHEDULED AND SEMI-SCHEDULED PRODUCTION UNIT CLASSIFICATION THRESHOLDS

1. Has the problem been appropriately identified?
2. Does the rule change address the problem?
3. What would be the impact on the market and on investment of making the proposed change?
4. Are there material costs for implementing the change for sites with unscheduled generating units below 30 MW and storage units below 5 MW that would then reach the 30 MW threshold collectively?
5. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?
   b. reduce market uncertainty?
   c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?

6. Are there other solutions that would better solve the problem?

QUESTION 5: ALIGN MARKET CONNECTION POINT CLASSIFICATION WITH OTHER REGULATORY CHANGES

1. Has the problem been appropriately identified?
2. Does the rule change address the problem?
3. What would be the market impact of making the proposed change?
4. Given that this wording was inserted as part of the Five Minute Settlement rule which commenced on 1 October 2021, would this amendment impact any of the material changes made under the Five Minute Settlement rule?
5. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?
   b. reduce market uncertainty?
   c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?
6. Are there other solutions that would better solve the problem?

QUESTION 6: AMEND ANCILLARY SERVICE UNIT CLASSIFICATION

1. Has the problem been appropriately identified?
2. Does the rule change address the problem?
3. What would the market impact be in making the proposed change?
4. Would this amendment lead to any unintended additional customers at connection points being included in the provision?
5. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?
   b. reduce market uncertainty?
   c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?
6. Are there other solutions that would better solve the problem?

QUESTION 7: ALIGN REQUIREMENTS FOR DISTRIBUTION NETWORKS TO CALCULATE DISTRIBUTION LOSS FACTORS WITH NEW REGISTRATION CATEGORIES

1. Has the problem been appropriately identified?
2. Does the rule change address the problem?
3. What would be the market impact of making the proposed change?
4. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?
   b. reduce market uncertainty?
   c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?
5. Are there other solutions that would better solve the problem?

QUESTION 8: AMEND EXEMPTIONS FOR METERING INSTALLATIONS RELATED TO ENERGY DATA STORAGE UNDER 5-MINUTE SETTLEMENT

1. Has the problem been appropriately identified?
2. Does the rule change address the problem?
3. What would be the market impact of making the proposed change?
4. Are there any type 4 meters that were installed between 1 December 2018 and 1 July 2021 that are currently exempt from the requirements in clause 7.8.2(a)(9)?
5. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?
   b. reduce market uncertainty?
   c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?
6. Are there other solutions that would better solve the problem?

QUESTION 9: ASSESSMENT FRAMEWORK

1. Is the proposed assessment framework appropriate for considering the proponent's rule change request?
2. Are there any other relevant considerations that should be included in the assessment framework?

How to make a submission and object to an expedited process

We encourage you to make a submission

Stakeholders can help shape the solutions by participating in the rule change process. Engaging with stakeholders helps us understand the potential impacts of our decisions and, in so doing, contributes to well-informed, high quality rule changes.

We have included consultation questions in this paper, however, you are welcome to provide feedback on any additional matters that may assist the Commission in making its decision.

How to make a written submission

Due date: Written submissions responding to this consultation paper must be lodged with Commission by 30 March 2023.

How to make a submission: Go to the Commission's website, www.aemc.gov.au, find the "lodge a submission" function under the "Contact Us" tab, and select the project reference code ERC0351.[10]

You may, but are not required to, use the stakeholder submission form published with this consultation paper.

Tips for making submissions are available on our website.[11]

Publication: The Commission publishes submissions on its website. However, we will not publish parts of a submission that we agree are confidential, or that we consider inappropriate (for example offensive or defamatory content, or content that is likely to infringe intellectual property rights).[12]

How to object to an expedited process

The Commission proposes to use an expedited process (one round of consultation) for this rule change for the reasons set out in section 1.2. You can object to this process. We will switch to the standard rule change process if we receive a valid objection.[13]

Due date: Written objections to the expedited process must be lodged with Commission by 16 March 2023.

How to lodge an objection to the expedited process: Go to the Commission's website, www.aemc.gov.au, find the "lodge a submission" function under the "Contact Us" tab, and select the project reference code ERC0351.If you are not able to lodge an objection online, please contact us and we will provide instructions for alternative methods to lodge the objection.

Contents: Objections must set out the reasons why you consider the Rule is not unlikely to

10 If you are not able to lodge a submission online, please contact us and we will provide instructions for alternative methods to lodge the submission.

11 See here.

12 Further information is available here.

13 See section 96 of the NEL. The Commission will consider if the reasons set out in the objection are misconceived or lacking in substance.

have a significant effect on the national electricity market.

Publication: The Commission publishes objections on its website. However, we will not publish materials that we agree are confidential, or that we consider inappropriate (for example offensive or defamatory content, or content that is likely to infringe intellectual property rights).[14]

Other opportunities for engagement

There are other opportunities for you to engage with us, such as one-on-one discussions with the project team prior to, and following, your formal submission.

For more information, you can contact us

Please contact the project sponsor with questions or feedback at any stage.

Project sponsor:	James Tyrrell
Email:	james.tyrrell@aemc.gov.au
Telephone:	+61 2 8296 7842

14 Further information is available here: https://www.aemc.gov.au/contact-us/lodge-submission

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1 THE CONTEXT FOR THIS RULE CHANGE REQUEST

This consultation paper seeks stakeholder feedback on the rule change request submitted by the Australian Energy Market Operator (AEMO) to make a number of amendments related to the implementation of the integrating energy storage systems into the National Electricity Market (NEM) rule (IESS rule).[15]

In preparing for the commencement of the IESS rule, AEMO identified a number of proposed amendments to the rules related to the implementation of the IESS rule. These proposed changes are not intended to re-open the broader policy positions from the IESS rule.

1.1 AEMO has proposed amendments to the implementation of the integrating energy storage systems in the NEM rule

AEMO has proposed three core amendments and some additional amendments to the IESS rule to reduce implementation costs, market uncertainty, and align the rules drafting with other regulatory processes. The IESS rule was made on 2 December 2021 and made extensive changes to better integrate storage and hybrid facilities[16] into the NEM.[17] The IESS rule includes two implementation dates which cover four main changes:

- Initial release on 31 March 2023:
  - introduction of aggregated dispatch conformance (ADC)
  - enabling market small generation aggregators (MSGAs) to participate in contingency frequency control ancillary services (FCAS) markets.
- Final release on 3 June 2024:
  - introduction of the integrated resource provider (IRP) registration category and bidirectional unit (BDU) classification
  - changes to non-energy cost recovery (NECR) calculations.

AEMO has proposed targeted amendments to the IESS rule related to its implementation. The three core proposed amendments are:

1. allow generating units to participate in aggregated dispatch conformance (ADC), as opposed to integrated resource providers (IRP) only[18]
2. remove the option for BDUs and semi-scheduled generating units to submit fast-start inflexibility profiles (FSIP)[19]

15 AEMO, Rule change request, *Final amendment rule on Integrating Energy Storage Systems into the NEM*, 21 December 2022.

16 Hybrid facilities refer to a grid-scale facility that has a group of assets that are co-located behind a single connection point that allow a registered participant to both consume and export significant amounts of electricity from or to the grid. This does not refer to aggregators of small customers with solar panels and batteries.

17 AEMC, Final determination, *Integrating Energy Storage Systems into the NEM*, 2 December 2021.

18 Clause 4.9.2A of the NER.

19 Clause 3.8.19 of the NER.

3. align the implementation date of changes to non-energy cost recovery (NECR) calculations with the start of the NEM billing week on Sunday 2 June 2024 as opposed to Monday 3 June 2024.[20]

The additional amendments are:

1. in the clauses about classification of scheduled generating units, non-scheduled generating units and semi-scheduled generating units, replace the term 'part of a group of generating units' with 'part of a group of production units' so that the nameplate rating of BDUs in the group is taken into account when assessing whether the 30 MW threshold is met for classification purposes[21]
2. in the classification of market connection points, remove the requirement for a customer who is also a local retailer to classify 'any load at' a connection point[22]
3. in the classification of connection points as ancillary service units, clarify the requirement for consent of the end user at the connection points[23]
4. in the requirements for a distribution network service provider to calculate a site specific distribution loss factor, remove the reference to 'small resource aggregator', given the new integrated resource provider category already includes a small resource aggregator[24]
5. enable AEMO to grant exemptions to metering providers with type 4 metering installations installed prior to 1 December 2018 as opposed to 1 July 2021, to align with the ability for AEMO to grant exemptions for metering installations to comply with the data storage requirements under 5-minute settlement.[25]

Through this rule change, the AEMC also proposes to address other minor and administrative amendments to the IESS rule to improve its clarity and reduce uncertainty with its implementation.

1.2 The rule making process

We propose to use the expedited rule making process under section 96 of the NEL because we consider the rule change request is a request for a non-controversial rule, and using the expedited process (one round of consultation) is appropriate in the circumstances. The process for objecting to the expedited rule making process is set out in the Summary.

We consider the rule change request is non-controversial — that is, the rule change is unlikely to have a significant effect on the NEM[26] This is because the proposed changes are targeted at reducing costs and uncertainty related to implementation of the IESS rule only, as opposed to re-opening any broader policy positions. Given this, it is unlikely to have a material impact on consumers or market participants.

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20 Clause 3.15 of the NER.
21 Clause 2.2.2(a) (scheduled), 2.2.3(a) (unscheduled) and 2.2.7(a) (semi-scheduled) of the NER.
22 New clause 2.3.4(i) of the IESS final rule.
23 New clause 2.3D.1 of the IESS final rule.
24 Clause 3.6.3(b1) and 3.15.10C(a)(4) of the NER.
25 Clause 7.8.2(a1) and (b1) of the NER.
26 Section 87 of the National Electricity Law.

The AEMC has decided to extend the standard eight week expedited process to nine weeks under section 107 of the NEL, on the basis that the rule change request raises issues of complexity in relation to the legal implementation of AEMO's proposed solutions, particularly regarding aggregated dispatch conformance. The AEMC would like to engage further with AEMO and stakeholders to determine the most appropriate approach to implementing the requisite changes to the NER.

1.3 The rule change process

This paper is the first stage of our consultation process. The key dates for this rule change are outlined in Table 1.1 below.

Table 1.1: Key dates

MILESTONE	DATE
Rule change request received	21 December 2022
Commencement of this rule change process	2 March 2023
Submissions to consultation paper close	30 March 2023
Publication of final determination and rules	4 May 2023

Information on how to provide your submission and other opportunities for engagement is set out at the front of this document in the Summary.

You can find more information on the rule change process in *The Rule change process – a guide for stakeholders.*[27]

To make a decision on this proposal, we seek stakeholder feedback on how we propose to assess the request, the stated problem and the proposed solutions.

27 *The rule change process: a guide for stakeholders*, June 2017, available here.

2 INCLUDE GENERATING SYSTEMS IN AGGREGATED DISPATCH CONFORMANCE

Under the IESS rule, new clause 4.9.2A introduces aggregated dispatch conformance (ADC) for integrated resource systems.[28] ADC under this new clause will enable integrated resource systems to manage their energy flows to comply with dispatch on aggregate, as opposed to unit level dispatch instructions, unless AEMO requires unit level compliance.[29]

This new form of ADC applies only to integrated resource systems[30] that comprise more than one scheduled resource and where AEMO gives separate dispatch instructions for each scheduled resource. Under the new rule, ADC is available for integrated resource systems that have more than one connection point. The new rule also requires AEMO to make a procedure setting out the permitted forms of ADC and arrangements for AEMO to specify when resource level compliance is required.

In its final determination, the Commission considered that its decision to allow ADC for integrated resource systems would reduce barriers to the integration of storage and hybrids by increasing operational flexibility and reducing the need for curtailment.[31]

ADC is distinct from aggregation for participation in central dispatch under Chapter 3 of the NER[32] The IESS rule maintains the ability for generating units to be aggregated for the purpose of central dispatch under clause 3.8.3 of the NER.[33] It also expands the categories of units that can be aggregated to include bidirectional units (BDUs).[34]

ADC is also distinct from any existing aggregation arrangements that AEMO permits under its registration arrangements and dispatch procedures.

In its final rule, the Commission included a transitional rule to allow for early implementation of ADC for hybrids (rule 11.145.16).[35] While the transitional rule is in very similar terms to clause 4.9.2A, it also allows ADC for systems that comprise only generating units. This differs from new clause 4.9.2A which only allows ADC for an integrated resource system, which is defined to include one or more BDUs. Rule 11.145.16 reflects AEMO's existing ADC arrangements that are already in place, but goes beyond the scope of new clause 4.9.2A.

AEMO has developed a new power system operating procedure that will allow for implementation of clause 11.145.16.[36] The new power system operating procedure extends

28 AEMC, Final determination, *Integrating Energy Storage Systems into the NEM*, 2 December 2021, p. 35.

29 AEMC, Draft determination, *Integrating Energy Storage Systems into the NEM*, 15 July 2021, p. 78.

30 An integrated resource system refers to a system comprising one or more BDUs or 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.

31 AEMC, Final determination, *Integrating Energy Storage Systems into the NEM*, 2 December 2021, p. 35.

32 Clause 3.8.3 of the NER.

33 Under this existing clause, scheduled generators, semi-scheduled generators or market participants who wish to aggregate their relevant generating units for the purpose of central dispatch must apply to AEMO.

34 New clause 3.8.3(a) of the IESS rule.

35 This clause applies to a generating systems that comprises more than one of the following, and where AEMO gives separate dispatch instructions for each: a scheduled generating unit, a semi-scheduled generating unit, and a scheduled load.

36 The new power system operating procedure is required under paragraph (d) of clause 11.145.16 of the NER.

ADC to a generator with a generating system located behind a connection point that comprises two or more of the following scheduled resources — scheduled generating unit, semi-scheduled generating unit, scheduled load. It establishes three ADC models (called Cap Aggregate, Mixed Aggregate and Target Aggregate). AEMO has indicated that these new arrangements are intended to replace the existing ADC arrangements that are currently in place. It has indicated that a number of sites will be using the new arrangements from the commencement of the transitional arrangement.

2.1 The problem raised in the rule change request

AEMO's rule change request has identified two issues relating to ADC:

- generating systems can participate in both the existing ADC arrangements and the new transitional ADC arrangements, but there may be uncertainty whether a generating system will be able to participate in ADC from 3 June 2024 because new clause 4.9.2A only extends to integrated resource systems
- there is scope for confusion if new clause 4.9.2A is not extended to generating systems but AEMO implements ADC for both generating systems and integrated resource systems from 3 June 2024 through its dispatch procedure.

AEMO states that new clause 4.9.2A of the IESS rule explicitly allows ADC for integrated resource systems, but is silent on allowing generating units to participate. Its view is that ADC should be technology agnostic and should be available to both generating systems and integrated resource systems.

2.2 The proponent's proposed solution

AEMO proposes amending new clause 4.9.2A of the IESS rule to explicitly allow ADC for generating systems. It considers the proposed amendment will:

- improve market confidence that participants with generating systems can continue to efficiently use their assets behind a connection point after 3 June 2024
- align the rules and AEMO's dispatch procedure
- make ADC available on a technology agnostic basis to generating systems and integrated resource systems.

AEMO's proposed amendment is provided below.

4.9.2A Aggregated dispatch conformance ~~for hybrid integrated resource systems~~

(a) This clause applies to an integrated resource system **or generating system** that comprises more than one scheduled resource and where AEMO gives separate dispatch instructions for each scheduled resource.

(b) **A Registered Participant** ~~An Integrated Resource Provider~~ for an integrated resource system **or generating system** to which this clause applies may, in accordance with the power system operating procedure made under paragraph (d), comply in aggregate (aggregated dispatch conformance) with the dispatch

instructions for a trading interval for two or more of the scheduled resources comprised in the integrated resource system **or generating system**, excluding any scheduled resource for which resource level compliance has been specified in accordance with paragraph (c).

(c) AEMO may specify in a dispatch instruction for a scheduled resource in an integrated resource system **or generating system** that the scheduled resource the subject of the dispatch instruction is required to operate in accordance with that dispatch instruction(resource level compliance) where a network constraint would be violated if the relevant scheduled resource were to operate other than in accordance with the dispatch instruction, due to technical characteristics of the relevant scheduled resource.

(d) AEMO must make, as a power system operating procedure, a procedure setting out:

(1) for the purposes of paragraph (b), permitted forms of aggregated dispatch conformance by one or more scheduled resources comprised in an integrated resource system **or generating system**; and

(2) arrangements for AEMO to specify when resource level compliance is required for the purposes of paragraph (c).

QUESTION 1: INCLUDE GENERATING SYSTEMS IN AGGREGATED DISPATCH CONFORMANCE

1. Does the rule change address the problem?
2. Do you agree with AEMO's identification of the problem?
3. If the IESS rule remains unchanged, what is the impact of its implementation on the form of ADC that AEMO already facilitates?
4. New clause 4.9.2A of the IESS rule allows aggregation of integrated resource systems with more than one connection point. AEMO's new power system operating procedure only allows ADC where the generating units are behind a single connection point. What would be the market or operational impacts of extending ADC under clause 4.9.2A to generating systems with more than one connection point?
5. Would the proposed change create any negative consequences related to the existing forms of aggregated dispatch?
6. What would the operational implications or costs be for not making the change to include generating systems in new clause 4.9.2A of the NER?
7. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?
   b. reduce market uncertainty?

c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?

8. Are there other solutions that would better solve the problem?

3 REMOVE OPTION FOR SEMI-SCHEDULED AND BIDIRECTIONAL UNITS TO SUBMIT FAST-START INFLEXIBILITY PROFILES

Clause 3.8.19 of the NER provides for two mechanisms relating to dispatch inflexibility. AEMO's rule change request relates to the second mechanism only, but both are explained below to provide context.

The first mechanism (which is not the subject of AEMO's rule change request) is in clauses 3.8.19(a) to (c) of the NER. This mechanism deals with an inability to operate in accordance with dispatch instructions in any trading interval due to abnormal plant conditions or other abnormal operating requirements. The market participant must advise AEMO, give brief, verifiable and specific reasons for its inability to follow dispatch instructions and must give further information to the AER if requested.

The second mechanism (which AEMO's rule change request proposes to amend) is in clauses 3.8.19(d) to (g). It allows a 'dispatch inflexibility profile' to be submitted for scheduled generators and semi-scheduled generators that are not slow start generating units, as well as for scheduled loads and wholesale demand response units.[37] The profile must include parameters such as the time to increase its loading level from 0 MW to a specified minimum MW loading level, the time the plant requires to be operated at or above this level before it can be reduced, and the time to reduce from the minimum loading level to 0 MW.[38]

AEMO uses the term 'fast start generating unit' to refer to a generating unit that can synchronise and reach minimum loading within 30 minutes and shut down in less than 60 minutes — typically gas turbines.

The IESS rule will amend the second mechanism to extend it to 'bidirectional units'. Where a BDU submits a dispatch inflexibility profile to AEMO, it will need to contain the same parameters as dispatch inflexibility profiles for generating units.[39]

While the current provisions in the NER dealing with dispatch inflexibility profiles allow semi-scheduled generators that are not slow start units to submit dispatch inflexibility profiles (but does not require this), AEMO's rule change request states that it currently excludes semi-scheduled generating units from being registered as fast start generating units. AEMO indicates that it excludes these units given their output is largely weather dependent, and it notes that there are currently no semi-scheduled generating units in the NEM registered for fast start.[40]

37 Clause 3.8.19(d) of the NER.
38 Clause 3.8.19(e) of the NER.
39 New clause 3.8.19(e) of the IESS rule.
40 AEMO, Rule change request, *Final amendment rule on Integrating Energy Storage Systems into the NEM*, 21 December 2022.

3.1 The problem raised in the rule change request

AEMO considers that also enabling BDUs to submit FSIPs under new clause 3.8.19(e) of the IESS rule will incur additional implementation costs for a capability that it considers will likely never be used.[41] AEMO stated that the new clause would require it to design and implement additional systems capability to receive a FSIP exclusively from BDUs. This is because BDUs would provide FSIP for both production and consumption, and AEMO's current systems can only accept one set of FSIP per dispatchable unit identifier (DUID) for either production or consumption.

AEMO notes that battery energy storage systems are the main form of BDU, and they are unlikely to use the FSIP systems capability given they are a flexible resource that can almost instantaneously start up and shut down. Additionally, the rule change request stated that none of the battery energy storage systems currently in the NEM have submitted a FSIP in the last four years.

AEMO also considers there would be additional implementation costs in enabling semi-scheduled generating units to submit FSIPs. AEMO states that the additional implementation costs would be incurred from the need to augment its FSIP systems capability for a capability it considers will likely never be used by semi-scheduled generating units.

3.2 The proponent's proposed solution and implementation

AEMO has proposed amendments to clause 3.8.19 of the IESS rule to remove the option for semi-scheduled generating units and BDUs to submit FSIPs. AEMO considers that this change will avoid additional implementation costs associated with augmenting its FSIP systems capability for a new capability which it considers will likely never be used. AEMO's proposed amendment is provided below.

3.8.19 Dispatch inflexibilities

(d) In respect of scheduled resources which are not slow start generating units, **excluding semi-scheduled generating units and scheduled bidirectional units**, Market Participants may provide AEMO, as part of a dispatch bid in respect of the relevant scheduled resource, with a dispatch inflexibility profile.

(e) A dispatch inflexibility profile for a generating unit, **excluding a semi-scheduled generating unit**, ~~or bidirectional unit~~ must contain the following parameters to indicate its MW capacity and time related inflexibilities.

41 New clause 3.3.19(d) and (e) of the IESS rule.

QUESTION 2: REMOVE OPTION FOR SEMI-SCHEDULED AND BI-DIRECTIONAL UNITS TO SUBMIT FAST-START INFLEXIBILITY PROFILES

1. Do you consider that excluding semi-scheduled generating units from submitting FSIPs is a material problem, now or in the future?
2. Do you consider that excluding batteries from submitting FSIPs is a material problem, now or in the future?
3. Do you consider that excluding other forms of BDUs from submitting FSIPs is a material problem, now or in the future?
4. What would be the market impact of making the proposed change?
5. What would the operational implications or costs be for allowing semi-scheduled and bidirectional units to register as fast start generating units?
6. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?
   b. reduce market uncertainty?
   c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?
7. Are there other solutions that would better solve the problem?

4 ALIGN IMPLEMENTATION OF NEW NON-ENERGY COST RECOVERY CALCULATIONS TO COMMENCEMENT OF NEM BILLING WEEK

The IESS rule made changes to the non-energy cost recovery (NECR) framework to recognise many participants now have two-way energy flows.[42] The NECR framework was amended to recover non-energy costs based on a participant's consumed and sent out energy, irrespective of the participant category in which it is registered. Consumed and sent out energy will be measured separately for all market participants and not netted at the connection point, or among a market participant's connection points.

4.1 The problem raised in the rule change request

A NEM billing period is a period of seven days commencing at the start of the first trading interval on each Sunday.[43] The commencement date of Monday 3 June 2024 in the IESS rule means that the commencement of new NECR calculations does not align with the commencement of NEM billing weeks on Sundays. AEMO notes that this misalignment would require it to design, build, test and operate a 'transitional week', from Sunday 2 June 2024, comprising one day of current NECR calculations and six days of new NECR calculations. AEMO estimates the cost to design, build, test and operate the 'transitional week' is approximately $260,000.

4.2 The proponent's proposed solution and implementation

AEMO proposes changing the commencement date of NECR calculation implementation to the commencement of the NEM billing week on Sunday, 2 June 2024. It notes that this change may need to apply to several provisions in the rules, which may include definitions of adjusted consumed energy, adjusted gross energy, adjusted sent out energy and cost recovery market participant.

AEMO states that it intends to maintain the commencement date of the Final Release of 3 June 2024 for the remaining IESS rule changes.

QUESTION 3: ALIGN IMPLEMENTATION OF NEW NON-ENERGY COST RECOVERY CALCULATIONS TO COMMENCEMENT OF NEM BILLING WEEK

1. Do you consider AEMO's proposed solution to be the most efficient way to address the problem? If so, what do you consider the key benefits of the proposed solution are?
2. What would be the market impact of making the proposed change?

42 AEMC, Final determination, *Integrating Energy Storage Systems into the NEM*, 21 December 2021, p. 46.
43 AEMO, *NEM Settlements Process*, 13 May 2019.

3. What would the operational implications or costs be for changing the implementation date for NECR calculations to Sunday 2 June 2024?
4. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?
   b. reduce market uncertainty?
   c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?
5. Are there other solutions that would better solve the problem?

5 ADDITIONAL PROPOSED AMENDMENTS

This section outlines the following additional amendments proposed by AEMO:

- Clauses 2.2.2(a), 2.2.3(a) and 2.2.7(a) of the NER — clarify scheduled, non-scheduled and semi-scheduled production unit classification
- New clause 2.3.4(i) of the IESS rule — align market connection point classification with other regulatory changes
- Clause 2.3D.1 of the NER — amend ancillary service unit classification
- New clauses 3.6.3(b1) and 3.15.10C(a)(4) of the IESS rule — align requirements for distribution networks to calculate distribution loss factors with new registration categories
- Clause 7.8.2(a1) and (b1) of the NER — amend exemptions for metering installations related to energy data storage.

5.1 Clarify scheduled, non-scheduled and semi-scheduled production unit classification thresholds

The classification arrangements for generating units use a 30 MW threshold to determine whether the unit is classified as scheduled or (for intermittent plant) semi-scheduled. If the threshold is not met, the plant may be classified as non-scheduled. AEMO also has discretion to approve classification of a plant exceeding the threshold as non-scheduled.[44]

The 30 MW threshold also applies to a group of generating units connected at a common connection point. The default position is that each generating unit in the group will be classified as scheduled (or semi-scheduled, if intermittent) if they collectively meet the threshold, unless AEMO approves classification as non-scheduled.

The IESS rule extended a similar framework to BDUs except that BDUs are not intermittent and so cannot be semi-scheduled, and the threshold for a single BDU, or a group of BDUs is only 5 MW.

Currently, a battery is required to register with AEMO as a generator and a market customer.[45]. As a result of this, the generation capacity of the battery will apply towards the combined nameplate rating threshold under clauses 2.2.2, 2.2.3 and 2.2.7 of the NER. Once the IESS rule commences, a battery, or any other BDU, will not be a 'generating unit', which will mean the BDU's generation capacity will no longer count towards the combined nameplate rating threshold under clauses 2.2.2(a), 2.2.3(a) and 2.2.7(a) of the NER.

5.1.1 The problem raised in the rule change request

The registration categories of 'scheduled generating unit', 'non-scheduled generating unit' and 'semi-scheduled generating unit' in clauses 2.2.2, 2.2.3 and 2.2.7 of the NER include reference to generating units that are part of a 'group of generating units' connected at a common connection point with a combined nameplate rating of 30 MW or greater. AEMO

44 Clauses 2.2.2, 2.2.3 and 2.2.7 of the NER.

45 AEMO, *Registering a Battery System in the NEM*.

considers the term 'group of generating units' should instead be 'group of production units' so that the nameplate rating of any BDUs forming part of the group is included in determining whether the 30 MW threshold is met.

5.1.2 The proponent's proposed solution and implementation

AEMO proposes replacing the term 'group of generating units' with 'group of production units' in clauses 2.2.2, 2.2.3 and 2.2.7 of the NER. It considers making this change will ensure the position in the NER before the start of the new classification arrangements under the IESS rule continues, which will enable the appropriate classification of a generating unit which is part of a group of production units (which also includes a bidirectional unit) connected at a common connection point that has a combined nameplate rating of 30 MW or greater (given the group include the BDUs). AEMO's proposed drafting is provided below.

2.2.2 Scheduled production units

(a) A generating unit which has a nameplate rating of 30 MW or greater or is part of a group of ~~generating~~ **production** units connected at a common connection point with a combined nameplate rating of 30 MW or greater must be classified as a scheduled generating unit unless AEMO approves its classification as:

(1) a semi-scheduled generating unit under clause 2.2.7(b); or

(2) a non-scheduled generating unit in accordance with clause 2.2.3(b).

2.2.3 Non-scheduled production units

(a) A generating unit with a nameplate rating of less than 30 MW (not being part of a group of ~~generating~~ **production** units connected at a common connection point with a combined nameplate rating of 30 MW or greater) must be classified as a non-scheduled generating unit unless AEMO approves its classification as:

(1) a scheduled generating unit under clause 2.2.2(b); or

(2) a semi-scheduled generating unit under clause 2.2.7(b).

2.2.7 Semi-scheduled generating units

(a) A generating unit which has a nameplate rating of 30 MW or greater or is part of a group of ~~generating~~ **production** units connected at a common connection point with a combined nameplate rating of 30 MW or greater, must be classified as a semi-scheduled generating unit where the output of the generating unit is intermittent unless AEMO approves its classification as:

(1) a scheduled generating unit under clause 2.2.2(b); or

(2) a non-scheduled generating unit under clause 2.2.3(b).

QUESTION 4: CLARIFY SCHEDULED, NON-SCHEDULED AND SEMI-SCHEDULED PRODUCTION UNIT CLASSIFICATION THRESHOLDS

1. Has the problem been appropriately identified?
2. Does the rule change address the problem?
3. What would be the impact on the market and on investment of making the proposed change?
4. Are there material costs for implementing the change for sites with unscheduled generating units below 30 MW and storage units below 5 MW that would then reach the 30 MW threshold collectively?
5. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?
   b. reduce market uncertainty?
   c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?
6. Are there other solutions that would better solve the problem?

5.2 Align market connection point classification with other regulatory changes

Clause 2.3.4 of the NER outlines the registration category 'market customer'. New clause 2.3.4(i) of the IESS rule specifies that a customer who is also a local retailer must classify 'any load at' a connection point in its local area as a market connection point if electricity supplied through the national grid to or from that connection points is purchased or sold by a franchise customer.[46]

5.2.1 The problem raised in the rule change request

AEMO considers new clause 2.3.4(i) of the IESS rule is inconsistent with other changes made to refer to market connection points in the NER because it specifies that a customer who is also a local retailer must classify 'any load at' a connection point in its local area, as opposed to only a connection point in its local area.

5.2.2 The proponent's proposed solution and implementation

AEMO suggests removing 'any load at' from clause 2.3.4(i) of the NER. It considers this will make it consistent with other changes made to refer to market connection points in the NER. AEMO's proposed drafting is provided below.

2.3.4(i) Market connection point classification

46 The NER define a *franchise customer* as 'a person who does not meet its local jurisdiction requirements to make it eligible to be registered by AEMO as a Customer for load'.

A Customer who is also a Local Retailer must classify ~~any load at~~ a connection point in its local area as a market connection point if electricity supplied through the national grid to or from that connection point is purchased or sold by a franchise customer.

QUESTION 5: ALIGN MARKET CONNECTION POINT CLASSIFICATION WITH OTHER REGULATORY CHANGES

1. Has the problem been appropriately identified?
2. Does the rule change address the problem?
3. What would be the market impact of making the proposed change?
4. Given that this wording was inserted as part of the Five Minute Settlement rule which commenced on 1 October 2021, would this amendment impact any of the material changes made under the Five Minute Settlement rule?
5. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?
   b. reduce market uncertainty?
   c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?
6. Are there other solutions that would better solve the problem?

5.3 Amend ancillary service unit classification

New clause 2.3D.1(f)(3) of the NER refers to the classification of ancillary service units. It states that AEMO must approve the classification of an ancillary service unit if AEMO is reasonably satisfied that in the case of an application made by a market customer or demand response service provider, it has an arrangement with the retail customer at the relevant connection points for the supply of market ancillary services.

New clause 2.3D.1(f)(3) is a restatement of current clause 2.3.5(e)(1A) of the NER. It reflects that, while market customers and demand response service providers could apply to classify their own plant as ancillary service units, more often the application relates to plant that it does not own.

For example:

- a market customer (retailer) may apply in relation to the plant of a retail customer that has agreed to participate in a 'virtual IPP'
- a demand response service provider may apply in relation to plant of an end user that has agreed to participate in a demand response arrangement established by the demand response service provider.

The clause provides a check to ensure that the end user at the connection point has given permission for the plant to be used to provide ancillary services.

Similarly, a small resource aggregator acts as an intermediary to enable small generators and small BDUs of end users to participate in central dispatch. An application for classification of an ancillary service unit from a small resource aggregator would relate to plant owned by a third party end user. New clause 2.3D.1(f)(3) of the NER does not refer to small resource aggregators.[47]

5.3.1 The problem raised in the rule change request

AEMO states that the IESS rule combined the provisions for classification of ancillary services for load (typically involving a customer) and generation (often but not always the market participant itself). It notes that the distinction is between connection points at which the registered participant is the intermediary, and other connection points.

5.3.2 The proponent's proposed solution and implementation

AEMO recommends amending clause 2.3D.1(f)(3) of the NER to specify that AEMO must approve the classification of an ancillary service unit if it is reasonably satisfied that in the case of a retail customer or small resource aggregator customer, the applicant has an arrangement with that retail customer or small resource aggregator customer for the supply of market ancillary services. AEMO's proposed drafting is provided below.

2.3D.1 Ancillary service units and ancillary service providers

(f) If AEMO is reasonably satisfied that:

…

(3) ~~in the case of an application made by a Market Customer or Demand Response Service Provider, the applicant has an arrangement with the retail customer at the relevant connection point for the supply of market ancillary services…~~ **"if there is a retail customer or Small Resource Aggregator Customer at the relevant connection point, the applicant has an arrangement with that retail customer or Small Resource Aggregator Customer for the supply of market ancillary services,"**

QUESTION 6: AMEND ANCILLARY SERVICE UNIT CLASSIFICATION

1. Has the problem been appropriately identified?
2. Does the rule change address the problem?
3. What would the market impact be in making the proposed change?

47 The new NER definition of 'SRA customer' reflects the requirement for an agreement between the small resource aggregator and the end user but does not expressly refer to classification as an ancillary service unit; Chapter 10, new definition of 'SRA Customer'.

4. Would this amendment lead to any unintended additional customers at connection points being included in the provision?
5. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?
   b. reduce market uncertainty?
   c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?
6. Are there other solutions that would better solve the problem?

5.4 Align requirements for distribution networks to calculate distribution loss factors with new registration categories

Clause 3.6.3 of the NER outlines the requirements for calculating distribution loss factors. Clause 3.6.3(b1) of the NER outlines the requirements for distribution network service providers to calculate site specific distribution loss factors in respect of a generating unit or small resource aggregator of up to 10 MW or 40 GWh per annum capacity.

New clause 3.6.3(b1) of the IESS rule adds 'integrated resource provider' to the registration categories that apply to a distribution network service provider's requirements to calculate distribution loss factors in respect of a generating unit, 'integrated resource provider' or small resource aggregator.

Clause 3.15.10C of the NER outlines the requirements for intervention and market suspension pricing schedule period settlements. Clause 3.15.10C(a)(4) of the NER outlines requirements related to compensation payable by AEMO for ancillary services for each market customer, market generator and market small generation aggregator.

New clause 3.15.10C(a)(4) of the IESS rule adds 'integrated resource provider' to the registration categories that apply to the requirements for compensation payable by AEMO for ancillary services for each market customer, market generator, 'integrated resource provider' and small resource aggregator.

5.4.1 The problem raised in the rule change request

AEMO notes that clause 2.2.8(c) outlines that an integrated resource provider is taken to be a small resource aggregator (only) in so far as its activities related to small resource connection points classified as its market connection points under clause 2.2.8(b).[48] Given this, AEMO considers that maintaining the reference to 'small resource aggregator' in new clauses 3.6.3(b1) and 3.15.10C(a)(4) of the IESS rule is not necessary, given the addition of 'integrated resource provider'.

48 AEMO, Rule change request, *Final amendment rule on Integrating Energy Storage System into the NEM*, 21 December 2022.

5.4.2 The proponent's proposed solution and implementation

AEMO recommends removing the reference to 'small resource aggregator' in clauses 3.6.3(b1) and 3.15.10C(a)(4). Its proposed drafting is provided below.

3.6.3(b1) Distribution losses

Where a Generator, Integrated Resource Provider or ~~Small Resource Aggregator~~

3.15.10C(a)(4) Intervention and market suspension pricing schedule period statements

for each Market Customer, Market Generator, Integrated Resource Provider a~~nd Small Resource Aggregator~~

QUESTION 7: ALIGN REQUIREMENTS FOR DISTRIBUTION NETWORKS TO CALCULATE DISTRIBUTION LOSS FACTORS WITH NEW REGISTRATION CATEGORIES

1. Has the problem been appropriately identified?
2. Does the rule change address the problem?
3. What would be the market impact of making the proposed change?
4. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?
   b. reduce market uncertainty?
   c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?
5. Are there other solutions that would better solve the problem?

5.5 Amend exemptions for metering installations related to energy data storage under 5-minute settlement

The Five Minute Settlement rule (5MS rule) commenced on 1 October 2021. The 5MS rule amended the definition of a trading interval from a 30-minute period to a 5-minute period. As a result of this, bidding and offering into the NEM, the online dispatch process, settlement, intervention pricing, the calculation of trading amounts, the calculation of the cumulative price threshold, and periodic energy metering are done on a 5-minute trading interval basis.

With regard to energy metering, this meant that metering installations would have to record and store interval energy data on a 5-minute basis, rather than a 30-minute basis. Some meters were not able to comply with this requirement.

To address this, the 5MS rule included a transitional provision in clause 11.103.3 of the NER, which outlined that from 1 October 2021:

- all type 4, 5 and 6 metering installations (other than type 4 meters referred to in clause 7.8.2(b1) of the NER) installed before 1 December 2018; and
- type 4A metering installations installed before 1 December 2019,

do not have to be capable of recording and providing 5-minute trading interval energy data until they are replaced in accordance with clause 7.8.2A of the NER.[49]

The 5MS rule also inserted clause 7.8.2(a1) and (b1) which enabled AEMO to grant exemptions to metering providers with existing:

- type 1, 2, and 3 metering installations; and
- type 4 metering installations at a transmission network connection point, or a distribution network connection point where the relevant financially responsible market participant is a market generator or market small generation aggregator,

that were installed prior to 1 July 2021 from complying with the 5-minute energy storage requirements in clause 7.8.2(a)(9) of the NER, given they were not subject to the exclusion in clause 11.103.3.[50]

The IESS rule will amend clause 7.8.2(b1) to replace the metering installations that are currently specified there with 'type 4' metering installations. This means that from the commencement of the IESS rule, all type 4 meters must be capable of recording 5-minute energy interval data. However, AEMO will have the ability to exempt a metering coordinator from this requirement in respect of a type 4 meter if it was installed prior to 1 July 2021.

5.5.1 The problem raised in the rule change request

AEMO notes that clause 7.8.2(b1) of the IESS rule intends to extend the requirement for type 4 metering installations to be configured to record and provide five minute trading interval energy data to all type 4 metering installations.

AEMO considers that new clause 7.8.2(b1) of the IESS rule has the effect of exempting metering installations from meeting the metering installation energy data storage requirements under clause 7.8.2(a)(9) of the NER.[51]

AEMO states that this is because clause 7.8.2(b1) of the NER is linked to clause 7.8.2(a1)(2) of the NER which allows AEMO to exempt type 4 metering installations installed prior to 1 July 2021. AEMO considers that type 4 metering installations that were installed between 1 December 2018 and 1 July 2021 have already been converted to record and provide five minute trading interval energy data in accordance with the 5MS rule, and therefore the date in clause 7.8.2(a1) should be 'prior to 1 December 2018' as opposed to 'prior to 1 July 2021'.

AEMO notes that all type 1 to 3 metering installations were also converted to record and provide trading interval energy data, and all new and replacement metering installations must record and provide trading interval energy data in accordance with clause 7.8.2A. Given

49 Clause 7.8.2A of the NER requires all new and replacement metering installations to be capable of recording and providing and configured to record and provide five minute trading interval energy data.

50 AEMC, Final determination and rule, *Five Minute Settlement*, 28 November 2017.

51 Clause 7.8.2(a)(9) requires metering installations to record and provide five minute trading interval energy data under the 5MS rule.

this, AEMO sates that there are no longer any type 1 to 3 metering installations recording and providing non-trading interval data, and therefore clause 7.8.2(a1)(1) of the NER becomes redundant.

5.5.2 The proponent's proposed solution and implementation

AEMO proposes amending clause 7.8.2(a1) of the NER to allow it to grant exemptions to metering providers with type 4 metering installations installed prior to 1 December 2018 as opposed to 1 July 2021. It also proposes removing clause 7.8.2(b1) of the NER which requires any type 4 metering installation to be capable of recording and providing trading interval energy data.

AEMO's proposed drafting is provided below. It considers the proposed change will not affect the operation of the Victoria Government Gazette GG2018S474 that provides for Vic AMI metering installations ('relevant metering installations') to also be the subject of the data storage exemption.[52]

17.2.8 (a1) AEMO may exempt a Metering Provider at a connection point from complying with the data storage requirements under subparagraph (a)(9) for **type 4 metering installations**~~:~~

~~(1) types 1, 2, and 3 metering installations; and~~

~~(2) type 4 metering installations referred to in clause 7.8.2(b1),~~

installed prior to 1 **December 2018** ~~July 2021~~. AEMO may only grant an exemption under this clause where it is reasonably satisfied that the Metering Provider will be able to otherwise satisfy the requirements of Chapter 7.

~~(b1) Any type 4 metering installation must be capable of recording and providing, and configured to record and provide, trading interval energy data.~~

QUESTION 8: AMEND EXEMPTIONS FOR METERING INSTALLATIONS RELATED TO ENERGY DATA STORAGE UNDER 5-MINUTE SETTLEMENT

1. Has the problem been appropriately identified?
2. Does the rule change address the problem?
3. What would be the market impact of making the proposed change?
4. Are there any type 4 meters that were installed between 1 December 2018 and 1 July 2021 that are currently exempt from the requirements in clause 7.8.2(a)(9)?
5. Does the proposed change:
   a. reduce the cost and complexity of implementing the IESS rule?
   b. reduce market uncertainty?

52 AEMO, Rule change request, *Final amendment rule on Integrating Energy Storage Systems into the NEM*, 21 December 2022.

c. deviate from the broader direction of reform in the IESS rule, or is it targeted at implementation only?

6. Are there other solutions that would better solve the problem?

6 OTHER MINOR CHANGES TO THE INTEGRATING ENERGY STORAGE SYSTEMS RULE

The AEMC also proposes to make other minor and administrative amendments to the IESS rule to improve its clarity and reduce uncertainty with its implementation. These changes will correct minor errors in the IESS rule or make clarifications that are minor or non-material in nature.

In particular, the proposed amendments seek to amend the IESS rule to:

- correct grammatical errors that would result once the IESS rule commences. For example, to amend:
  - Item 13 in Schedule 1 of the IESS rule to avoid a double full stop in clause 2.2.2(c)
  - Item 121 in Schedule 2 of the IESS rule to avoid a double comma in clause 3.8.3A(d)
- correct clause referencing errors in certain IESS rule instructions. For example:
  - the instruction in Item 109 in Schedule 2 of the IESS rule incorrectly references clause "3.8.3(a)(2)", instead of clause "3.8.3A(2)"
  - the instruction in Item 390 of Schedule 2 of the IESS rule incorrectly references clause "3.13.3(f)(6)(iii)" instead of "clause 3.13.4(f)(6)(iii)".
- correct errors in formulas amended by the IESS rule. For example:
  - the formula in clause 3.15.6A(e), as amended by Item 491 in Schedule 2 of the IESS rule, incorrectly references "RBE" instead of "RBF"
  - the definition of "RATSOE" and "RATCE" in the formula in clause 3.15.8(g), as amended by Item 546 in Schedule 2 of the IESS rule, both reference "consumed energy amounts". This should be "sent out energy" in the definition of "RATSOE". Otherwise, the denominator will be zero.
- move the definition of "SRA Customer" from clause 5A.A.1 to the definitions in Chapter 10 for consistency with other definitions
- correct other minor errors, including to clause referencing and numbering, instructions, spelling and grammar.

These changes will improve the clarity of the IESS rule and reduce uncertainty regarding its implementation.

7 MAKING OUR DECISION

When considering a rule change proposal, the Commission considers a range of factors.

This chapter outlines:

- issues the Commission must take into account
- the proposed assessment framework
- decisions the Commission can make
- rule-making for the Northern Territory.

We would like your feedback on the proposed assessment framework.

7.1 The Commission must act in the long-term interests of consumers

The Commission is bound by the National Electricity Law (NEL) to only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the national electricity objective.

The NEO is:

> 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:
>
> (a) price, quality, safety, reliability and security of supply of electricity; and
>
> (b) the reliability, safety and security of the national electricity system

7.2 We propose to assess the rule change using these three criteria

Considering the NEO and the issues raised in the rule change request, the Commission proposes to assess this rule change request using the following focus areas:

- Cost and complexity — would the proposed amendments reduce the costs and complexity associated with implementing the IESS rule?
- Timing and uncertainty — would the proposed amendments improve market certainty for market participants and provide sufficient time for implementation in line with the commencement of the IESS rule?
- Consideration of broader direction of reform — would the proposed amendments align with other regulatory processes and the broader policy direction from the IESS rule?

QUESTION 9: ASSESSMENT FRAMEWORK

1. Is the proposed assessment framework appropriate for considering the proponent's rule change request?
2. Are there any other relevant considerations that should be included in the assessment framework?

7.3 We have three options when making our decision

After using the assessment framework to consider the rule change request, the Commission may decide:

- to make the rule as proposed by AEMO,[53]
- to make a rule that is different to the proposed rule (a more preferable rule), as discussed below, or
- not to make a rule.

The Commission may make a more preferable rule (which may be materially different to the proposed rule) if it is satisfied that, having regard to the issue or issues raised in the rule change request, the more preferable rule is likely to better contribute to the achievement of the NEO.[54]

7.4 We may make a different rule to apply in the Northern Territory

Parts of the NER, as amended from time to time, apply in the Northern Territory, subject to modifications set out in regulations made under the Northern Territory legislation adopting the NEL.[55]

The proposed rule would apply in the Northern Territory, as it amends provisions in NER chapter 10 that apply in the Northern Territory.[56]

The Commission will therefore assess the proposed rule against additional elements required by Northern Territory legislation:

- *Should the NEO test include the Northern Territory electricity systems?* For this rule change request, the Commission will determine whether the reference to the "national electricity system" in the NEO includes the local electricity systems in the Northern Territory, or just the national electricity system, having regard to the nature, scope or operation of the proposed rule.[57]
- *Should the rule be different in the Northern Territory?* The Commission will consider whether a uniform or differential rule should apply to the Northern Territory, taking into account whether the different physical characteristics of the Northern Territory's network would affect the operation of the rule in such a way that a differential rule would better contribute to the NEO.[58]

53 AEMO, Rule change request, *Amendment Rule on Integrating Energy Storage Systems into the NEM*, 21 December 2021.

54 Section 91A of the NEL.

55 National Electricity (Northern Territory) (National Uniform Legislation) Act 2015 (**NT Act**). The regulations under the NT Act are the National Electricity (Northern Territory) (National Uniform Legislation) (Modification) Regulations 2016.

56 Under the NT Act and its regulations, only certain parts of the NER have been adopted in the Northern Territory. The version of the NER that applies in the Northern Territory is available on the AEMC website at: https://energy-rules.aemc.gov.au/ntner.

57 Clause 14A of Schedule 1 to the NT Act, inserting section 88(2a) into the NEL as it applies in the Northern Territory.

58 Clause 14B of Schedule 1 to the NT Act, inserting section 88AA into the NEL as it applies in the Northern Territory.

ABBREVIATIONS

ADC	Aggregated dispatch conformance
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
BDU	Bidirectional unit
Commission	See AEMC
DUID	Dispatchable unit identifier
FCAS	Frequency control ancillary services
FSIP	Fast start inflexibility profile
IESS rule	National Electricity Amendment (Integrating energy storage systems into the NEM) Rule 2021 No. 13
IRP	Integrated resource provider
MSGA	Market small generation aggregator
NECR	Non-energy cost recovery
NEL	National Electricity Law
NEM	National Electricity Market
NEO	National Electricity Objective
NER	National Electricity Rules
Proponent	The proponent of the rule change request