



NEM Settlement Estimates Policy – IESS and related changes

Final Report – Standard consultation
for the National Electricity Market

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Executive summary

The publication of this final report concludes the standard consultation procedure conducted by AEMO (**Consultation**) to consider proposed amendments to the National Electricity Market (**NEM**) Settlement Estimates Policy (**Policy**), to:

- Implement the *National Electricity Amendment (Integrating energy storage systems into the NEM) Rule 2021 (IESS Rule)* by reflecting changes to terms and concepts in the National Electricity Rules (**NER**) under the IESS Rule.
- Improve and simplify the settlement estimations data hierarchies.
- Improve the methodology for determining settlement estimations in the absence of meter data at the TNI level.
- Incorporate market SAPS resource providers (**MSRP**) into the Policy.

AEMO thanks all stakeholders for their feedback on the proposal, which was undertaken as required by NER 3.15.12(c) following the standard consultation procedure in NER 8.9.2.

The original proposal

IESS rule change terminology update

The IESS Rule updates the regulatory framework to make it easier for energy storage systems and hybrid facilities to register and participate in the NEM. The IESS Rule also presents an opportunity to improve upon the current settlement estimation methodology and structure within the Policy which, in AEMO's view, should provide greater accuracy to estimated settlement data for the benefit of market participants. In light of the IESS rule change, AEMO proposed to update the Policy to replace load and generation terminology with terms reflecting energy quantities.

Improving the settlement estimations data hierarchies

The current Policy applies four hierarchies of available data, in a decreasing order of preference relating to the accuracy of the data source, to determine settlement estimates where no preliminary data is available. Currently, the applicable hierarchy depends on whether the data being estimated is for load or generation, and whether data is being estimated for a market customer, market generator, or demand response service provider (**DRSP**).

To improve readability, reduce confusion and remove unused methodologies, AEMO proposed to replace the four hierarchies with a single concise hierarchy of data to estimate Consumed Energy or Sent Out Energy for all market participant categories.

Improving settlement estimations in the absence of meter data at the TNI level

Under the current Policy, the lowest priority data source in the hierarchy when estimating energy for the previous day at the TNI level relies on applying a scaling factor to an amount of energy based on a like-day, where a like-day is the same day from the most recent billing period for which there is published preliminary data. AEMO has found this estimation method to be fundamentally flawed when applied under the current market conditions with high renewable penetration.

AEMO proposed to replace the scaling factor estimation method with a process that utilises a larger dataset relevant to each participant rather than a single like-day, thereby providing a more finely tuned estimation methodology.

Accounting for MSRPs in the Policy

On 30 May 2023, the *National Electricity Amendment (Regulated stand-alone power systems) Rule 2022 (SAPS Rule)* came into effect to allow distribution network service providers (DNSP) to use stand-alone power systems (SAPS) where it is economically efficient to do so, while maintaining appropriate consumer protections and service standards. The SAPS Rule also created a new registration category, the MSRP, to allow market participants to supply electricity from generating units that are connected to a regulated SAPS. AEMO proposed to update the Policy to include the MSRP registration category.

Stakeholder feedback

AEMO received queries from two participants and held separate meetings with these participants in October 2023 in accordance with NER 8.9.1(k) to address the queries.

After considering the feedback received on the consultation paper, AEMO in its draft report, proposed to implement all elements of the proposal as originally set out in the consultation paper including additional matters as set out in Section 4 of the draft report.

Draft determination

AEMO received no submissions in response to the draft report and has not identified any further issues. Accordingly, AEMO has made no further changes to the version of the Policy published with the consultation paper.

Final determination

AEMO's final determination on the proposal is to amend the **NEM Settlement Estimates Policy** in the form published with this final report, with an effective date of **3 June 2024**.

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1. Stakeholder consultation process

As required by clause 3.15.12(c) of the NER, AEMO has consulted on proposed amendments to the Policy in accordance with the standard rules consultation procedure in NER 8.9.2 (the **proposal**).

Note that this document uses terms defined in the NER, which are intended to have the same meanings. There is a glossary of additional terms and abbreviations in Appendix A.

AEMO's process and timeline for this consultation are outlined below.

Table 1 Consultation process and timeline

Consultation steps	Dates
NEM Wholesale Consultative Forum	15 August 2023
Consultation paper published	22 September 2023
Submissions closed on consultation paper	20 October 2023
Settlement Managers Working Group	31 October 2023
Draft report published	17 November 2023
Submissions closed on draft report	15 December 2023
Final report published	19 January 2024

AEMO's consultation webpage for the proposal is at <https://aemo.com.au/consultations/current-and-closed-consultations/nem-settlement-estimates-policy-consultation---iess-and-related-changes>, and contains all previous published papers and reports, written submissions, and other consultation documents or reference material.

AEMO's consultation paper on the proposal was published in September 2023, together with the draft amendments to the Policy, and AEMO did not receive any written submissions.

AEMO also met separately with individual stakeholders on 4 October 2023 and 26 October 2023 to discuss some specific questions raised, to which AEMO responded in the draft report.

AEMO's draft report on the proposal was published in November 2023, and AEMO did not receive any written submissions in response to the draft report.

2. Background

2.1. Context for this consultation

In December 2021, the AEMC made the *National Electricity Amendment (Integrating energy storage systems into the NEM) Rule 2021 (IESS Rule)*. The IESS Rule updates the regulatory framework to recognise energy storage systems and hybrid facilities in the NER (as ‘bidirectional units’ and ‘integrated resource systems’) and make it easier for operators of those facilities to register and participate in the NEM. The majority of NER changes introduced by the IESS Rule will come into effect on 3 June 2024. The IESS Rule introduced a transitional provision which requires AEMO to review, and where it considers it necessary or desirable, amend and publish, procedures to take into account the IESS Rule (NER 11.145.9).

The concepts and associated terminology introduced by the IESS Rule will necessitate corresponding terminology updates to the Policy. At the same time, AEMO has taken the opportunity to propose changes to the Policy to:

- Improve and simplify the estimations data hierarchies;
- Improve the methodology for determining settlement estimations in the absence of meter data at the TNI level; and
- Incorporate MSRPs into the Policy.

2.1.1. Settlement estimations

AEMO monitors the daily prudential position of each market participant in the NEM through their outstandings, which is a key value used in their prudential assessment. This ensures that AEMO holds enough credit support to cover the liabilities of market participants and minimise credit risk to the NEM as a whole. Under clause 3.3.9 of the NER, AEMO is required to determine the outstandings of a market participant as a dollar amount, and under clause 3.3.11 of the NER, AEMO may take certain actions, including issuing a call notice to the market participant, if a market participant fails to maintain their outstandings below their trading limit.

Under clause 3.3.9 of the NER, the amounts used in the calculation of a market participant’s outstandings are the actual settlement amounts for billing periods where final statements have been issued by AEMO or AEMO’s reasonable estimate of the settlement amounts for billing periods (where final statements have not been issued).

In practice, AEMO uses preliminary billing runs in the assessment of a market participant’s outstandings where these are available. For days where no preliminary billing run has been performed, a settlement estimation process is used.

2.1.2. IESS rule change

The IESS Rule will make a number of NER changes including:

- A new registration category, the Integrated Resource Provider (**IRP**), that allows storage and hybrids to register and participate in a single registration category rather than under two different categories.
- New classification categories for energy producing and consuming facilities, including bidirectional units, integrated resource systems and ancillary service units.
- Clarity for the scheduling obligations that apply to different configurations of hybrid systems, including DC-coupled systems, so that operators of these systems have the flexibility to choose whether to be scheduled or semi-scheduled.
- Allowing hybrid systems to manage their own energy behind the connection point, subject to system security limitations.
- Clarifying that the current approach to performance standards that are set and measured at the connection point will apply to grid-scale storage units, including when part of a hybrid system.
- Transferring existing small generation aggregators to the new IRP category, with new aggregators of small generating units and/or storage units also registering in this category.
- Aggregators registered in the IRP category will be able to provide market ancillary services from generation and load.
- Amending the framework to recover non-energy costs based on a market participant's net Consumed and Sent Out Energy at each market connection point over relevant intervals, irrespective of its registration category.

The Proposal aims to ensure that the Policy reflects all relevant changes from the IESS Rule.

2.1.3. SAPS rule change

The falling costs of renewable generation and batteries are leading to significant decreases in the costs of providing off-grid electricity supply¹. In some areas, including those prone to bushfire risk or that are heavily vegetated, off-grid supply may now be less costly than standard supply. The SAPS Rule allows DNSPs to use SAPS where it is economically efficient to do so, while maintaining appropriate consumer protections and service standards.

As the level of MSRP participation in the NEM is expected to increase, the proposal includes an MSRP settlement estimation methodology in the Policy.

¹ AEMC, May 2020. "Updating the regulatory frameworks for distributor-led stand-alone power systems". At <https://www.aemc.gov.au/market-reviews-advice/updates-regulatory-frameworks-distributor-led-stand-alone-power-systems>. Viewed: 18 October 2023.

2.2. NER requirements

The Policy is made under NER 3.15.12(c) and describes the principles and processes which AEMO applies when calculating *estimated settlement amounts* for the purposes of NER 3.15.12(b). AEMO also applies these principles and processes when estimating settlement amounts for billing periods under NER 3.3.9.

2.3. The national electricity objective

Within the specific requirements of the NER applicable to this proposal, AEMO has sought to make a determination that is consistent with the national electricity objective (NEO) and, where relevant, to select the option 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:

- (a) price, quality, safety, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the national electricity system; and
- (c) the achievement of targets set by a participating jurisdiction—
 - (i) for reducing Australia’s greenhouse gas emissions; or
 - (ii) that are likely to contribute to reducing Australia’s greenhouse gas emissions.

The emissions reduction objective (in paragraph c) was recently added to the NEO, and AEMO has determined not to apply this objective to this consultation process; see Section 5 for more details.

3. Discussion of material issues

All material issues relating to this consultation were addressed in the consultation paper and the draft report and determination.

AEMO received no submissions on the Proposal and no other material issues were raised during the consultation process.

As such, AEMO will amend the Policy in the form published with this final report, which is consistent with the original proposal and the draft report.

4. Other matters

There were no submissions commenting on the proposed changes, and there are no other matters for discussion in relation to the consultation.

5. Final determination on proposal

Having considered all relevant matters, AEMO's final determination is to amend the Policy to reflect the form published with this final report.

The final form of the Policy published with this final report does not differ from the version published with the consultation paper.

5.1. Meeting the objectives of the NEO

By simplifying estimation hierarchies to apply to all market participants and replacing inadequate and flawed estimation methodologies with more granular, participant specific estimation methods, the proposed changes will simplify and clarify the settlement estimation process. Implementation of the Proposal will also reduce participant risk and the financial impacts arising from abnormal and inaccurate trading margin estimations. These outcomes meet the objectives of the NEO by promoting the efficient operation of electricity services for the long-term interests of consumers by reducing the costs and risks of current prudential estimation methods for market participants in the NEM.

The *Statutes Amendment (National Energy Laws) (Emissions Reduction Objectives) Act 2023 (SA) (Amending Act)* recently amended the NEL to incorporate a new emissions reduction element into the NEO. AEMO was not required to apply the amended NEO to a process which started before but was not completed by 21 November 2023 (the date the amendments to the NEO came into effect), but it had a discretion to do so. This consultation process is such a process.

AEMO determined that the amended NEO should not apply to this consultation process because the application of the amended NEO would not make a material difference to AEMO's final determination. This is because:

- the principles of the Policy set out in NER 3.15.12(c) do not allow for consideration of the achievement of emissions reduction targets and there is no other requirement or basis for AEMO to consider the new emissions reduction element in the NEO in making its prudential decisions,
- the amendments to the Policy will have no influence on the level of Australia's greenhouse gas emissions or on related emissions targets, and so consideration of emissions reduction or related targets will not be relevant to the Policy or this consultation process, and
- actions taken under the Policy fall within the real time systems and operations functions performed by AEMO which are not intended to be affected by the new emissions objective².

5.2. Effective date

The effective date of this determination is **3 June 2024**, when the IESS Rule comes into effect.

² Second Reading Speech, Statutes Amendment (National Energy Laws) (Emissions Reduction Objectives) Bill 2023, Hansard, South Australian House of Assembly, Wednesday June 14, 2023 (The Hon A Koutsankounis).

Appendix A. Glossary

Term or acronym	Meaning
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
Consumed Energy	For a market connection point for a trading interval is calculated as follows: $ME- \times DLF$
DLF	The distribution loss factor applicable at the market connection point
DRSP	Demand Response Service Provider
IRP	Integrated Resource Provider
ME-	For a market connection point for a trading interval, the amount of electrical energy estimated in accordance with paragraph 3.2.1 of the Policy, expressed as a negative value in MWh, flowing at the connection point in the trading interval, where the flow is away from the transmission network connection point to which the connection point is assigned.
ME+	For a market connection point for a trading interval, the amount of electrical energy estimated in accordance with paragraph 3.2.1 of the Policy, expressed as a positive value in MWh, flowing at the connection point in the trading interval, where the flow is towards the transmission network connection point to which the connection point is assigned.
MSRP	Market SAPS Resource Provider
NEM	National Electricity Market
NER	National Electricity Rules
NMI	National Metering Identifier
Policy	The NEM Settlement Estimates Policy
SAPS	Stand-alone power system
Sent Out Energy	For a market connection point for a trading interval is calculated as follows: $ME+ \times DLF$
TNI	Transmission Node Identifier