EnelX baseline methodology proposals

December 2024

Further Consultation Paper

A consultation paper seeking feedback from stakeholders on further matters following AEMO's Final Report

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1 Introduction

This Further Consultation Paper covers two matters for which AEMO is seeking further stakeholder feedback in addition to the decisions made in its Final Report on EnelX's wholesale demand response (WDR) baseline methodology proposals:

1. An alternative solar PV specific baseline methodology option as raised by EnelX in its submission.
2. Settings for trialling a higher accuracy metric for eligibility and compliance.

Please refer to the AEMO's Final Report and other consultation documents for all relevant background relating to the matters for consultation.

AEMO welcomes stakeholder feedback on the issues outlined in this paper. The due date for submissions is **Thursday, 30 January 2025**. Feedback may be provided via wdr@aemo.com.au.

Table 1 Timeframes for baseline methodology consultation process

Milestone	Date
Initial assessment	Thursday 4 July 2024 (complete)
Draft Decision communicated to proponent	Thursday 1 August 2024 (complete)
Publish Draft Report & consultation commences	Thursday 26 September 2024 (complete)
Submissions due	Thursday 24 October 2024 (complete)
Publication of Final Report & Decision	Wednesday 4 December 2024 (delayed from original date of 21 November 2024)
Publication of Further Consultation Paper (this document)	*Wednesday 4 December 2024*
Submissions to Further Consultation Paper due	*Thursday 30 January 2025*
Publication of AEMO's response to Further Consultation Paper	*Thursday 27 February 2025*

2 Matters for additional consultation

2.1 Alternative baseline methodology for loads with solar PV

As noted in the Final Report, several submissions expressed concern that EnelX's proposals would not sufficiently address the challenges of baselining solar PV sites.

EnelX raised an alternative baseline methodology (Table 2) that it considers will significantly increase the eligibility of sites with significant solar PV installations. It utilises the same CAISO 10 of 10 calculation methodology which underpins existing baselines, with the following new settings:

- A 5pm to 9pm Eligibility and Compliance TI (Trading Intervals) window rather than the 3pm to 8pm window that applies to all existing baseline methodologies.

- A shorter adjustment window of one hour (ending one hour before the baselined TI) instead of three hours (ending one hour before the baselined TI).

Table 2 Proposed parameters for solar PV baseline methodology

	Solar PV 10 of 10 (All Days)
Framework	10 of 10
Day type	All days
Baseline window	20 days
Selected days	Most recent 10 days (minimum 5)
Unadjusted baseline energy for TI	Average metered energy for trading interval for selected days.
Baseline adjustment	Multiplicative adjustment, with ±20% cap.
Baseline adjustment window (settlement)	1 hour ending 1 hour prior to the first TI of WDR.
Baseline adjustment window (PoL)	1 hour ending 1 hour prior to TI.
Required number of eligibility days	20 days
Eligibility TIs window	5pm to 9pm (market time)
Required number of compliance days	20 days
Compliance TIs window	5pm to 9pm (market time)

AEMO's initial assessment

AEMO's initial view is that this option involves a low complexity change that is likely to provide a more suitable baseline methodology for sites with solar PV and support more of these loads to demonstrate sufficient predictability. Calculating the baseline over a later window may better reflect when solar PV sites are likely to bid in and provide demand response (i.e. outside of peak solar hours). AEMO considers that changing the baseline window is an acceptable alternative option because a comparable (slightly higher) proportion of historical WDR dispatches has occurred between the proposed 5pm and 9pm window (approx. 84%) compared with the 3pm to 8pm window (approx. 82%).

AEMO recognises that the shorter day-of adjustment window is likely to reduce the extent to which solar volatility affects the baseline, and therefore lead to better Predictability of Load (PoL) results for baseline eligibility and compliance. However, in the context of baselining for settlement of WDR responses, a shorter adjustment window also increases the ease of artificial inflation of the baseline because the load uplift only needs to occur for a shorter period of time closer to the event. This risk is limited by the 20% day-of adjustment cap which restricts the degree to which higher consumption during the adjustment window can be reflected in the baseline. One option is to utilise the shorter adjustment window for eligibility/compliance and a longer adjustment window for settlement purposes.

AEMO considers that the cost of implementing this change is relatively low as it requires only parameter changes.

Consultation questions – baseline methodology for solar PV sites

1. Do you consider that the alternative solar PV baseline methodology option would be effective in supporting more solar PV loads to participate in the WDR Mechanism?

2. Do you consider there to be a material additional risk of artificial baseline inflation resulting from the shorter day-of adjustment window?
3. Are there any other risks that AEMO has not considered in its initial assessment?
4. If implemented, should this baseline option only be available to solar PV loads, or should it be more broadly available?

2.2 Settings for trialling an alternative accuracy metric

As outlined in detail in the Final Report, AEMO has determined that it will implement a higher accuracy threshold of 30% on a trial basis to address stakeholder feedback regarding the restrictiveness of the WDR eligibility requirements.

AEMO considers that trialling an alternative accuracy threshold will assist in:

- Establishing an evidence base to understand the risks and benefits of different accuracy thresholds for NEM participants, consumers and the market, including implications for participation rates and quality of dispatched responses. It will enable AEMO to better understand whether an appropriate balance has been struck between NMI eligibility and baseline predictability in the WDR Mechanism to inform future settings. AEMO considers that these effects are otherwise difficult to ascertain in absence of a trial, given lack of participation and operational experience to date.
- Supporting more participation in the WDR Mechanism across the range of available baseline methodology options and bringing WDR Mechanism eligibility requirements more into practical alignment with other demand response programs in Australia and internationally which have seen a much greater degree of participation.

Although AEMO is not required to consult on changes to the baseline methodology metrics, it is seeking stakeholder feedback on the high-level settings for the trial to ensure it is implemented as effectively and transparently as possible.

AEMO's proposed approach is to:

1. **Review the outcomes of the trial (and determine whether to retain the higher accuracy threshold) in alignment with the 2026 WDR Annual Report, providing at least one year of duration**. The feasibility of this review timeframe will depend on:
    a. When AEMO is able to implement the new accuracy threshold in its systems and update its procedures.
    b. Whether AEMO is able to obtain enough data to assess the outcomes of the change within the proposed timeframe.
2. **Retain the ±4% bias thresholds**, on the basis that:
    a. This metric prevents sites with baselines that systematically over- or under- estimate the counterfactual loads from being eligible to participate and protects the market from over- or under- paying for demand response. Because a higher accuracy threshold will allow for some

additional baseline error, it is important to ensure this is not materially biased in one direction or the other.

b. In AEMO's experience, loads tend to fail eligibility or compliance PoL assessments less frequently due to bias thresholds.

3. **Assess outcomes of the trial** on the basis of:

   a. No significant decline in WDR dispatch conformance relative to conformance results reported in the 2024 WDR Annual Report[1]. From AEMO's perspective, reliable response to dispatch instructions is the primary criterion for determining whether to retain the higher accuracy threshold.

   b. AEMO will also assess outcomes such as:

      i. Change in volume of participation (number of participants and WDRUs entering the mechanism).

      ii. Degree of change in average baseline accuracy of participating loads (eligibility and compliance PoL assessments).

      iii. Changes in number of exclusion days. For example, AEMO would expect fewer applications for exclusion days with a higher accuracy threshold.

      iv. Observations around WDR Unit bidding behaviour and spot market distortion. For example, whether a high volume of participation leads to more active bidding behaviour or a reduction in the price of dispatched demand response.

      v. Interactions with new and existing baseline methodologies.

4. **Implement transition arrangements** if the higher threshold is not retained, including a limited grace period for sites that are unable to comply with a lower retained threshold. This is consistent with the decisions made through the Baseline Eligibility Compliance and Metrics Policy consultation.

Consultation questions – settings for trialling an alternative accuracy metric

1. Do you agree with AEMO's proposals around the following settings (why or why not?):
   a. Trial duration and review.
   b. Retaining the existing bias threshold.
   c. Assessment criteria.
   d. Transition arrangements.
2. Are there any other risks or issues that AEMO should consider in implementing a higher accuracy threshold?

[1] https://aemo.com.au/-/media/files/initiatives/wdr/2024-wdr-annual-report.pdf?la=en

3 Next steps

AEMO will consider the feedback from this Further Consultation Paper and publish a response by Thursday 27 February 2025. Implementation of approved options will be considered in alignment with the measures in the Final Report.