



Demand side participation information guidelines

Draft Report – Standard consultation for the National Electricity Market

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New South Wales | Queensland | South Australia | Victoria | Australian Capital Territory | Tasmania | Western Australia
Australian Energy Market Operator Ltd ABN 94 072 010 327

Executive summary and consultation notice

The publication of this draft report commences the second stage of the standard consultation procedure conducted by AEMO to review the Demand Side Participation Information (DSPI) Guidelines (the Guidelines), through which AEMO seeks submissions from stakeholders on:

- whether changes should be made to the information collected,
- whether the process, or portal used, to collect the data should change, and
- whether the quality of the information submitted can be improved,

in order to maintain the Guidelines as required under National Electricity Rules (NER) 3.7D(e)-(i). This consultation will follow the standard rules consultation procedure described in NER 8.9.2.

AEMO received four submissions to the stage one consultation paper (two written, one consumer advocate verbal submission and one informal written submission obtained through the Forecasting Reference Group) guided by the consultation questions listed by AEMO.

In response, AEMO's draft position is to:

- Add a question about Demand Side Participation (DSP) duration to the DSPI survey process, but keep it optional to answer, as stakeholder feedback suggests it may be difficult for many registered participants to answer this question in a consistent, reliable manner given uncertainties.
- Retain the current questions about future DSP, as limited views put forward suggesting they could or should be improved.
- Split the DSP response into separate fields. One will be for a net demand decrease in megawatts (MW), as typically used to manage peak load or during high prices, and one for a net demand increase in MW, which increasingly will be relevant to manage minimum demand periods.
- Keep the DSPI portal open for submissions throughout the year, but noting that mandatory submissions must be made by all registered participants during April each year.
- Look for improvements to how users interact with the DSPI portal, through enhanced online help (if applicable) and webinars for stakeholders about the process of submitting the data.

AEMO's draft proposal is to amend the Guidelines in the form published with this draft report, with a proposed effective date of **20 December 2023**.

Consultation notice

AEMO invites written submissions from interested persons on the draft proposal and issues identified in this draft report to energy.forecasting@aemo.com.au by **5:00 pm (Melbourne time) on 28 November 2023**.

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

Before making a submission, please read and take note of AEMO's consultation submission guidelines, which can be found at <https://aemo.com.au/consultations>. Subject to those guidelines, submissions will be published on AEMO's website.

Please identify any parts of your submission that you wish to remain confidential, and explain why. AEMO may still publish that information if it does not consider it to be confidential, but will consult with you before doing so. Material identified as confidential may be given less weight in the decision-making process than material that is published.

Submissions received after the closing date and time will not be valid, and AEMO is not obliged to consider them. Any late submissions should explain the reason for lateness and the detriment to you if AEMO does not consider your submission.

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

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1. Stakeholder consultation process

AEMO must maintain its DSPI Guidelines in accordance with National Electricity Rules (NER) 3.7D(e)(i). Apart from any minor or administrative changes, any revisions must be consulted on in accordance with the Rules consultation procedures set out in NER 8.9.

AEMO has also commenced the second stage of consultation to review its DSP forecast methodology¹ to satisfy the requirements in the Australian Energy Regulator's (AER's) Forecasting Best Practice Guidelines (FBPG), which require that AEMO review its Forecasting Approach at least once every four years. As information on DSP collected through the process governed by the Guidelines is a key input into the DSP forecast methodology, AEMO will consult on the Guidelines in parallel, to ensure the DSPI process supports the methodology that applies it.

Note that this document uses terms defined in the NER, which are intended to have the same meanings.

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

Table 1 Consultation process and timeline

Consultation steps	Dates
Publication of consultation paper, with stakeholder consultation for this paper commencing.	1 September 2023
Discussion at Forecasting Reference Group meeting	27 September 2023
Submissions on consultation paper due	29 September 2023
Publication of draft determination and draft methodology, with stakeholder consultation for these papers commencing.	31 October 2023
Final day for submissions on draft determination	28 November 2023
Publication of final determination and final methodology to be applied in 2024 Electricity Statement of Opportunities and other relevant reliability modelling.	20 December 2023

As per NER 3.7D(h), any changes to the Guidelines must include a minimum period of three months between the date of publication and the date when the Guidelines commence. Based on the indicative timeline above, the earliest the Guidelines can commence (should they be updated) will be 20 March 2024.

AEMO's consultation webpage² for the proposal contains all previously published papers and reports, written submissions, and consultation documents for the DSP methodology running concurrent with this one. In the event the consultation timeline changes, AEMO will clearly identify the updated timetable on this webpage.

AEMO received four submissions to the stage one consultation paper: two formal written submissions, one informal written submission obtained via the Forecasting Reference Group (FRG), and one consumer advocate verbal submission.

AEMO thanks all stakeholders for their feedback to the first-stage consultation report, which has been considered in preparing this draft report, and looks forward to further constructive engagement.

Beyond the points raised for consultation, it should be noted that AEMO has also made minor and administrative changes to the Guidelines related to the *Integrating energy storage systems into the National Electricity Market (NEM) rule change (IESS Rule Change)*³.

¹ The consultation for the DSP Forecast Methodology is available at <https://aemo.com.au/consultations/current-and-closed-consultations/demand-side-participation-forecasting-methodology-and-dsp-information-guidelines-consultation>.

² See <https://aemo.com.au/consultations/current-and-closed-consultations/demand-side-participation-forecasting-methodology-and-dsp-information-guidelines-consultation>.

³ See <https://www.aemc.gov.au/rule-changes/integrating-energy-storage-systems-nem>.

2. Background

2.1. Context for this consultation

The previous consultation on the Guidelines was undertaken in 2020. There are two main drivers for consulting on this again:

- AEMO's concurrent consultation on its DSP forecasting methodology, which will inform the DSPI required for AEMO's load forecasting process. Potential changes to the Guidelines could arise from significant developments since last consultation, including the introduction of Wholesale Demand Response (WDR) and jurisdictional schemes to curb peak demand, such as the New South Wales's Peak Demand Reduction Scheme, introduced under the Energy Security Safeguard⁴.
- Ensuring regular validation and, if required, revision of the DSP data collected and how it is collected, to ensure compliance is reasonably cost-efficient as per NER 3.7D(f)(1).

2.2. Principles relevant to this consultation

The following principles guide this consultation's considerations and priorities.

The DSPI and the DSPI portal collecting the data defined in the Guidelines should:

- Efficiently support the needs of AEMO's forecasting processes, in terms of effort both to AEMO and to participants.
- Avoid where possible duplication of participant effort across multiple data collection processes.
- Comply with AEMO's confidentiality and privacy policies.
- Be simple and intuitive, or to the extent the subject matter is inherently complex, include guidance to participants on how to complete their processes within the DSPI Portal.
- Be flexibly designed to support evolution of the requirements without needing major changes.

2.3. The national electricity objective

Within the specific requirements of the NER applicable to this proposal, AEMO will seek to make a determination that is consistent with the national electricity objective (NEO) and, where considering options, to select the one best aligned with the NEO. The NEO is expressed in section 7 of the National Electricity Law as:

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

- (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.

3. List of material issues

AEMO received two written submissions, one informal submission via the FRG and one consumer advocate verbal submission, from the following stakeholders:

- Energex and Ergon Energy (EQ);

⁴ See <https://www.energy.nsw.gov.au/nsw-plans-and-progress/regulation-and-policy/energy-security-safeguard/peak-demandreduction-scheme>.

- Energy Users Association of Australia (EUAA);
- Shell Energy (informal feedback via the FRG); and
- Queensland Energy Users Network (QEUN, verbal submission).

Apart from the verbal submission, these are published on AEMO's consultation webpage. The key material issues arising from the proposal and raised in submissions in response are listed in the following table.

Table 2 List of material issues

No.	Issue	Raised by
1.	Duration of DSP response	EQ, EUAA, Shell Energy
2.	Enhanced information about Future DSP	EQ, EUAA, Shell Energy
3.	Additional information on DSP programs that increase demand	Shell Energy
4.	Time window allowed for DSPI portal submissions	EQ, EUAA, Shell Energy, QEUN
5.	Improved understanding of DSP process and portal	EQ, EUAA, Shell Energy
6.	Allowing emails to be used to update submissions	EQ, EUAA

Each of the material issues in Table 2 is discussed in Section 4.

4. Discussion of material issues

4.1. Duration of DSP response

4.1.1. Issue summary and submissions

In its recent consultation on the ISP Methodology⁵, AEMO raised the duration of DSP response as a potential issue, noting that DSP in the future may be used differently to how it is today, to help balance the system during longer spells of low wind and/or solar generation. Without a limit on duration, the models could rely on DSP for much longer periods that what may be able to be delivered by each provider of DSP. AEMO obtained mixed responses from stakeholders on setting a maximum duration for DSP and noted that further information was needed to guide the future direction. In its stage 1 consultation paper on the Guidelines, AEMO asked if the DSPI survey should be used to collect such information.

- EQ noted that duration varies significantly and may be impractical to estimate.
- EUAA expressed concerns that AEMO's modelling would use DSP to firm up renewables in the NEM by making it operate for unrealistic durations and therefore supported the response duration being collected. They did, however, also note that responses may differ for different industries and notification periods.
- Shell Energy supported collecting this information.

4.1.2. AEMO's assessment

From the ISP Methodology consultation and the responses obtained to this consultation, it is clear that it is difficult to provide a simple, accurate estimate of the duration that DSP can be called upon. Factors impacting the duration that DSP can operate include the time of day, week and year, the industry type, weather conditions and the notification period. A single question about duration would therefore in many cases not be meaningful. Conversely, attempting to obtain information on DSP duration while accounting for all of the factors that may influence it would substantially increase the burden on DSP information providers.

⁵ See <https://aemo.com.au/consultations/current-and-closed-consultations/consultation-on-updates-to-the-isp-methodology>.

AEMO notes that there are multiple ways to collect this information, with the DSPI process being one of several options.

4.1.3. AEMO's conclusion

AEMO acknowledges that DSP duration is important and there is value in additional information about realistic settings for this for use in AEMO's modelling. Given the difficulties many organisations may have in responding accurately and consistently to the DSPI requirements, AEMO's draft determination is to not add a mandatory additional survey question(s) to the DSPI portal on the estimated duration DSP could be called upon. It may be a significant additional burden for participants with DSP resources to respond to this annually, and the usability of the estimates could be limited, given the many conditions around the estimates. However AEMO considers that incorporating voluntary, optional question(s) with clarity on how the information provided would assist in validating AEMO's own alternative approaches to evaluating the duration of DSP available will help to continuously improve this key variable, and encourage improved transparency over time from DSP providers. AEMO will continue to also rely on other means to estimate available DSP duration, such as analysing existing DSP data, reviewing any relevant domestic and international literature on the topic, or other relevant activities.

4.2. Enhanced information about future DSP

4.2.1. Issue summary and submissions

AEMO currently asks participants to provide information on future DSP programs as part of the DSPI survey process. However, AEMO has observed that little future DSP has been declared in DSP submissions to date. AEMO raised this in its stage 1 consultation paper on the Guidelines, seeking to understand why that is the case and whether changing the questions asked might help. Adding a confidence percentage in the estimated capacity was listed as one such option.

- EQ considered that providing information on potential future projects/programs is problematic as they may not eventuate and therefore could overestimate the potential future DSP.
- Shell Energy agreed that inclusion of a confidence percentage could add value, along with making it clear for participants that estimates then should be based on their currently known information rather than being set in stone.

On the broader topic of information provision to AEMO, EUAA also recommended that AEMO consolidate as many as possible of its various system security and reliability mechanisms requiring consumer responses into a single mechanism/program that is simple, low-risk and low cost to consumers.

4.2.2. AEMO's assessment

Accurately assessing the potential response of future DSP portfolios is hard, as noted by EQ. At this point, potential responses for participating entities may not be known, and AEMO also notes that contracting of DSP sites are often shorter term (a few years) and not executed well in advance of program start, adding to the difficulties of providing an estimate one or more years ahead of start.

Allowing future DSP to be articulated through confidence levels, as supported by Shell Energy, could lead to more non-firm DSP being reported, and these submitted increases could help inform future short-term DSP growth for anticipated DSP in the ES00⁶, as well as to

⁶ As per AEMO's ES00 and Reliability Forecast Methodology, anticipated projects are considered in the reliability forecast published in the ES00, although not until after the T-1 year for Retailer Reliability Obligation purposes, see: https://aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/nem_esoo/2023/esoo-and-reliability-forecast-methodology-document.pdf.

guide DSP growth projections in other planning activities, such as the Integrated System Plan (ISP). AEMO notes that such changes may be small compared to the overall amount of DSP already identified and the short-term outcomes are unlikely to materially affect the longer-term development options (of generation, storage and/or transmission investments) recommended in the ISP.

On the other hand, AEMO also appreciates the risk of double-counting when it comes to soliciting data on future programs. For example, a new (future) DSP program reported by one participant may take on sites that are currently part of an existing scheme by another provider. The DSP capacity reported as a future program would increase the amount of DSP available to the system, but there may be no corresponding reduction reported by the existing provider, causing the impact to be potentially double-counted.

AEMO notes EUAA's comment about consolidating different system security and reliability mechanisms. AEMO does not believe this will change the information to be reported through the DSPI portal.

4.2.3. AEMO's conclusion

AEMO's proposal for the inclusion of confidence levels for future DSP received mixed support. AEMO therefore proposes to keep the current DSPI survey questions, as there is limited support for change and the difficulties and risks in providing quality data in this area mean that any data that is provided may not actually result in an improved DSP forecast.

4.3. Additional information on DSP programs that increase demand

4.3.1. Issue summary and submissions

The growth in electricity supplied from variable renewable sources is causing an increasing occurrence of negative wholesale electricity prices. During negative price events, efforts to increase demand may be of value to customers, and to the market as a whole. DSP programs could be created to benefit from such price events, or to provide support for network companies seeking to manage system security during low demand conditions.

In the existing DSPI survey, focus has been on the traditional programs that decrease net demand, and AEMO noted the potential benefits of enhancing the ability to provide information about programs that would increase net demand during appropriate market conditions.

In the current DSPI portal, data providers can note whether a DSP program is intended to increase *or* decrease demand, but this does not contemplate DSP programs that may be designed for both, depending on the prevailing conditions. AEMO sought feedback as to whether the DSPI portal should be changed to allow for the provision of data on programs that target both increases and decreases in demand.

- Shell Energy supported the implementation of separate entry areas for increases and decreases in demand instead of just one.

4.3.2. AEMO's assessment

AEMO considers that programs that can help manage the grid by increasing net demand from the grid may be increasingly valuable, and notes the support from Shell Energy in allowing the portal to better capture impacts of programs that target net demand increases.

4.3.3. AEMO's conclusion

AEMO proposes to allow entries for both increase and decrease responses, noting some programs may allow both.

AEMO proposes to split the DSP response into different fields. One will be for a net demand decrease, as typically used to manage peak load or during high prices, and one for a net

demand increase, which increasingly will be relevant to manage minimum demand periods. This will cater for the fact that responses may not be symmetric, so values have to be kept separate.

4.4. Time window allowed for DSPI Portal submissions

4.4.1. Issue summary and submissions

In its stage 1 consultation paper, AEMO outlined two options for the timing of providing submissions to AEMO's DSPI portal:

1. Retain the current April-only submission window to provide timely support of the load forecast applied in the ESOO.
2. Make the portal open year-round to support participant entry at any time, but require participants to make a full submission of their current DSPI in April each year. Submissions outside the formal submission window in April will be treated as updates or new additions to the most recent formal submission.

In response:

- EQ noted it has planning processes in place around these commitments and already works to these timeframes.
- EUAA considered that AEMO should be collecting data more frequently and should not close the DSPI portal at the start of April. Collecting data from commercial and industrial consumers when major changes occur (instead of annually) may allow participants to provide a more timely, and therefore accurate, forecast that would be more dynamic than the current single April data collection forecast.
- Shell supported the option of an extended (all year) window for submissions, or something like the first fortnight in each calendar quarter or first week in each month. To easily identify what is revised, the portal could enable the responding participant to indicate whether new DSP or revised DSP information, would be provided.
- QEUN supported the portal remaining open all year to allow AEMO to have the best possible information at any point in time.

4.4.2. AEMO's assessment

AEMO notes that keeping the DSPI portal open for longer, and if possible all year, will have an impact on AEMO (including cyber security and IT helpdesk support).

Getting access to updated DSP information, AEMO must be mindful of the cost-benefit trade-off of updating its forecasts, particularly given DSP is a small component in terms of MW capacity, relative to the supply-demand balance in most regions. In isolation, it therefore may be unlikely to provide a material driver of change (from an ESOO perspective), but evaluations could be considered from time to time.

4.4.3. AEMO's conclusion

AEMO proposes to keep the DSPI portal open all year, subject to considering logistical impacts on AEMO's digital architecture for the DSPI portal. AEMO will continue to run its normal process for forecasting DSP for the ESOO, and will therefore continue to require timely submissions to be provided and/or confirmed in April as per the current process (or at a date that is clearly supplied to DSP participants prior to the process commencing annually). This will provide a clear 'cut off' date to provide AEMO with sufficient time for the preparation of DSP forecasts for the ESOO. The DSP statistics published by AEMO to comply with NER 3.7D(c) will follow the ESOO forecast.

Any information submitted outside the April reporting window may be considered in any subsequent analysis, for example, if AEMO considers it a material change and important to consider within an ESOO Update.

4.5. Improved understanding of DSP process and portal

4.5.1. Issue summary and submissions

To ensure an appropriate trade-off between participant effort and value to AEMO's forecasts, AEMO in its stage 1 consultation document asked for feedback on what part of meeting the DSPI obligations requires the most significant effort for participants. Also, given the necessary complexity and infrequent usage of the DSPI portal, AEMO asked:

- Whether anything can be done to assist industry participants with accessing and using the DSPI portal.
- What AEMO can do to improve participants' understanding of how to use the various categories.

In response to these questions:

- EQ noted that in its experience the gathering and verification of the required information is more resource-intensive than the portal submission process, although the portal process could still be improved. It suggested that AEMO develop on-screen tips and guidance notes that explain common causes for errors in the portal and how to troubleshoot and resolve them. For example, AEMO could emphasise that all reported NMIs only have 10 digits.
- Shell Energy proposed that AEMO undertake initially quarterly education forums/webinars and later look to see if this can be scaled back. This may address issues associated with staff turnover in positions that are responsible for DSPI data entry.
- EUAA suggested that AEMO can rationalise the DSP categories into fewer categories and have categories that are more easily understood by commercial and industrial consumers. These could include "short-notice, short-term load reduction" and "long-notice, long-term load reduction". EUAA also encouraged AEMO to use non-technical definitions and categories and avoid using terms like PD PASA and ST PASA.

4.5.2. AEMO's assessment

AEMO will investigate the feasibility of potential improvements to the DSPI portal with regards to help features, such as proposed by EQ, and/or consider providing education opportunities through webinars (potentially recorded and made available for future reference) at an appropriate cadence to support stakeholder submissions.

Noting the response from EUAA, AEMO should clarify that submissions are for registered participants only and this includes only a few commercial and industrial customers. For the vast majority of endusers, reporting will be done by the retailers and/or aggregators they have signed up with.

4.5.3. AEMO's conclusion

AEMO proposes to investigate information updates to the DSPI portal and a potential webinar to support the next DSPI submission window of April 2024 for all registered participants, explaining the changes to DSPI and categories to be used.

4.6. Allowing emails to be used to update submissions

4.6.1. Issue summary and submissions

AEMO noted that, at times, data issues were found after the time window for submitting DSPI entries during April. With the current process, the portal would not be open, making it difficult to get a formal revised dataset from a participant. AEMO proposed to formalise getting revised data based on email confirmation from the participant instead of requiring a resubmission through the portal, using this approach when it is outside the period where the portal is open.

In response:

- EQ noted that while the use of email submissions is a reasonable alternative, its preference is that the portal remains open to allow participants to update their submissions. The portal allows for a consistent format and data validation and avoids issues with file sizes and sharing of data via email.
- EUAA encouraged AEMO to create a simpler process that does not require several touch points that discourage or confuse commercial and industrial customers from updating their DSP forecasts. From this perspective, entering initial data into the portal and then emailing updates is inefficient and creates a minimum of two touch points.

4.6.2. AEMO's assessment

AEMO notes that if the portal is open all year (see Section 4.4), an email solution to update is less relevant.

4.6.3. AEMO's conclusion

AEMO proposes to only allow submissions through the portal, particularly if it is feasible to keep the portal open all year (see Section 4.4).

5. Draft determination on proposal

AEMO has proposed a draft version of the DSPI guidelines, which is published alongside this draft report. Changes have been tracked for any updates that are not editorial (i.e. that are not of grammatical nature or rewording of statements that do not change their meaning), to highlight differences from the current published version.