SUBMISSION

EUAA
Energy Users Association of Australia

AEMO – DEMAND SIDE PARTICPATION FORECAST METHODOLOGY AND INFORMATION GUIDELINES

29 SEPTEMBER 2023

INTRODUCTION

The Energy Users' Association of Australia (EUAA) is the peak body representing Australian commercial and industrial energy users. Our membership covers a broad cross section of the Australian economy including significant retail, manufacturing, building materials and food processing industries. Combined our members employ over 1 million Australians, pay billions in energy bills every year and in many cases are exposed to the fluctuations and challenges of international trade.

Thank you for the opportunity to make a submission under AEMO's Demand Side Participation Forecast Methodology and AEMO's Demand Side Participation Information Guidelines consultation papers.

While the EUAA support the demand side participation (DSP) mechanism to drive additional flexible demand-response from commercial and industrial (C&I) consumers, we acknowledge that participating in such a mechanism is not seen as a high priority for many C&I consumers. To increase their participation, any mechanism must represent a relatively simple, low risk and low-cost opportunity.

The EUAA sees benefits in creating consistency in the regulation, collection of data and clear guidelines for DSP. The EUAA notes that the current proposed updated methodology for DSP forecasting and guidelines require data from several sources, including consumers and market dispatch offers (for Wholesale Demand Response -WDR – participants). This is in addition to the CER rule changes currently being considered by the AEMC which also requires data submission by consumers. The EUAA would encourage the market bodies to coordinate and combine the collection of data and the responses, particularly from consumers, who are primarily focussed on producing a product or service and not focussed on the electricity market, system security or reliability issues which should be predominantly dealt with by generators, network service providers and the market operator (i.e. the electricity industry).

The EUAA is also aware of the many different methodologies and markets being created by AEMO and the AEMC for system security and reliability which, although addressing different system security or reliability issues over different timelines (pre-dispatch PASA, short term PASA etc), require similar responses. These responses are usually increasing or decreasing load and/or increasing or decreasing generation. To better integrate load responses to these markets, the EUAA would encourage AEMO and AEMC to develop a single mechanism/program encapsulating as many current system security and reliability mechanisms that require a load response as possible. Creating a single program/mechanism would not limit calling on DSP in all timeframes including PD PASA and ST PASA through market notices, a call for load response (directly to the participant) or, as a last resort, directions. A simplification of the market mechanisms for consumer participation will make it easier for all consumers to contribute to the system security requirements of the market operator from consumers.

RESPONSE TO SELECT CONSULTATION QUESTIONS ON DSP FORECAST METHODOLOGY

- **Does AEMO's DSP forecast methodology adequately explain why certain types of demand response are included or excluded in AEMO's DSP forecast. (Question 2)**
- **Are the inclusions and exclusions described in AEMO's DSP forecast methodology appropriate when preparing a DSP forecast? (Question 3)**

The EUAA does not consider that AEMO's DSP forecast methodology adequately explains why certain types of demand response are included or excluded in AEMO's DSP forecast, nor what AEMO includes or excludes. The EUAA considers that all DSP should be forecast in the one model, irrespective of the mechanism for which the demand response is meeting. To avoid duplication across methodologies, all DSP should be modelled in one methodology and removed from other methodologies. In this way, a true representation of the total DSP required for system security and reliability can be visualised and valued. The current DSP forecasting through several methodologies does not provide any indication of the total DSP requirements, and therefore does not provide adequate signals to consumers who do not have electricity trading desks (i.e. they are not focussed on the electricity market, they are focussed on producing a product or service).

- **Do you agree with AEMO's proposal to retain the existing annual DSP forecasting cycle? (Question 4)**

The EUAA considers that AEMO should be collecting data more frequently and not closing the DSP portal at the start of April. The current methodology requires consumers to forecast future production levels, which is easier for some consumers who have processes not reliant on climatic or seasonal conditions, however food producers in particular have dynamic operating levels due to changes in the climate during the growing seasons, leading to varying levels of production and hence energy demand.

The EUAA also considers that the current annual Forecast Accuracy Reporting is inadequate, and does not compare the forecast data against the actual dispatch outcomes of electricity and system security. Quarterly (or more frequent) Forecast Accuracy Reporting against actual 5-minute dispatch outcomes will better inform both the forecasting and will also supply the necessary data to determine if the DSP portal should remain open, or close at the start of April.

From that perspective, and as stated in our submissions to the following consultation papers: AEMC's Operating Reserve Market, AEMO's Reliability Forecast Guidelines and AEMO's Reliability Forecasting and Methodologies papers, EUAA considers that AEMO's forecasting is currently regularly overstated and that directly leads to unnecessary market interventions that are costly to the end consumer. From that perspective, the EUAA would encourage:

- the AEMC and AEMO to investigate how the accuracy of forecasts are communicated through a regular report that compares the Forecast and Actual demand to determine, based on actual market real time 5-minute dispatch outcomes,

- In line with this, the EUAA encourages the AEMC and AEMO to investigate embedding in the NER a requirement for a far more regular Forecasting and Accuracy Reports (monthly or quarterly rather than annually) that covers all of AEMO's forecasting requirements and compares against actual market real time 5-minute dispatch outcomes, including a process for improving forecasting where an issue is identified in the report.
- The EUAA would encourage the AEMC and AEMO to consider how such a report could be prepared by an independent market body (either AER or AEMC) to ensure impartiality in the report's preparation.

- **Do Stakeholders have any feedback on how the DSP forecast methodology describes the source of AEMO's DSP data, or how to treat NMIs which are part of multiple DSP programs? (Question 5)**

The currently proposed methodology of including the DSP in multiple programs where an NMI is part of multiple DSP programs is a clear example of how AEMO's forecasting is inaccurate. EUAA believes that an NMI contributing to multiple DSP programs is also an unnecessary complication to participation in DSP by consumers and allows sophisticated consumers to "choose" the best (read highest return) program at the time of the DSP requirement, which increases costs for all other consumers.

For AEMO to be consistent with the NEO, AEMO should combine as many programs as possible that require a load response into a single program, with a single price, utilising market notices and consumer notification to ensure a satisfactory DSP response is achieved for whatever reliability or system security issue is present in the NEM at whatever timeframe is necessary.

- **Estimating current levels of DSP (Questions 6-15)**

The EUAA broadly supports the proposed methodologies for estimating current levels of DSP with support of:

- A three-year time-series being a reasonable balance between recent customer behaviour and a large enough sample size;
- Consolidation of the current DSP price-trigger bands into:
  - ≥ $300/MWh to < $1000/MWh
  - ≥ $1000/MWh to < $7500/MWh and
  - ≥ $7500/MWh to the market price cap
- AEMO's proposed methodologies to estimate both DSP response probability curves in each of the DSP trigger-price bands above and DSP response curves during LOR2 and LOR3 reliability events;
- The EUAA believes it is appropriate that AEMO include DSP responses from NSP DSP programs in its forecasting of DSP, this would be particularly useful in implementing the proposed CER rule-changes;
- The EUAA supports 'load-on' DSP (where load is increased due to low or negative pricing) being included in AEMO's DSP forecasting; and
- The EUAA supports AEMO's DSP forecasting calculating the potential duration of DSP responses to trigger events. Calculating the potential duration can only improve AEMO's forecasts, leading to a more efficient use of DSP resources and reducing costs on the operations of the NEM.

- **Should the DSP forecast in the ESOO and associated reliability forecast continue to be based on existing DSP and committed changes? (Question 16)**

The EUAA agrees with this proposal to continue using real data to develop the ESOO.

- **Is AEMO's approach to forecasting growth in DSP over longer-term forecasting horizons reasonable? (Question 17)**

For estimating the growth in DSP in Australia for the purpose of developing the ISP, the EUAA believes that Australian data should be used. While the data from the USA and EU can be used to validate the assumptions drawn from the Australian data, using the EU and USA data (where different policies and incentives exist) to directly estimate future DSP in Australia will produce incorrect projections.

RESPONSE TO SELECT CONSULTATION QUESTIONS ON DSP INFORMATION GUIDELINES

- **Potential Changes to DSP information (DSPI) collected (Questions 1-3)**

The EUAA is concerned that AEMO is planning to use DSP to 'firm' the NEM, instead of ensuring there is ample firming capacity built into the grid. C&I rely on the ability to draw on the electricity grid as production requires, not-withstanding that during contingency events the reliability of electricity supply might be affected. The EUAA is against utilising DSP on a day-to-day basis in-lieu of grid-firming technologies.

C&I electricity consumers are focussed on producing a service or product and are not energy traders. Additionally, many C&I businesses are seasonal, with year-on-year changes in output (and therefore energy consumption) according to climatic conditions. These climatic variations limit C&I consumers ability to provide accurate 'potential' or 'firm' DSP data for various scenarios. The EUAA recommends that AEMO collect both potential and firm DSP in the DSPI.

Additionally, most C&I have the ability to provide DSP for short periods in PD PASA timeframes (e.g. industrial refrigeration) but are unable to provide this DSP indefinitely; as using refrigeration as an example, food safety standards require products to be kept within strict temperature ranges.

In ST PASA and MT PASA timeframes, C&I may have the ability to provide larger DSP responses for longer durations by rearrangement of production schedules and staffing arrangements. But this would still represent a significant challenge that many would not want to take on.

From these perspectives, EUAA supports collection of duration data to the DSPI requirements. In order to manage DSP requirements, AEMO might consider developing the ability to have "rolling" DSP responses, i.e. two C&I consumers with refrigeration-linked DSP might cycle the DSP response between them as managed and required by AEMO.

- **C&I declarations of future DSP (Questions 4-6)**

With AEMO developing more and more demand response, system security and reliability mechanisms for consumers to participate, it is not surprising to the EUAA that C&I consumers are not providing future DSP. In addition, the seasonality issues described above also play a factor. The EUAA suggests that AEMO consolidate as many 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.

- **Is the current approach of collecting information through the DSPI portal during the month of April appropriate? (Question 9)**

The EUAA considers that AEMO should be collecting data more frequently and not close the DSP portal at the start of April. The current methodology requires consumers to forecast future production levels, which is easier for some consumers who have processes not reliant on climatic conditions, however food producers in particular have dynamic operating levels due to changes in the climate during the growing seasons, leading to varying levels of production and therefore energy demand.

Collecting data from C&I consumers when major changes occur (instead of annually) may allow AEMO to maintain a more accurate forecast that would be more dynamic than the current single April data collection forecast.

- **Can AEMO improve the explanation of when to use various DSP categories in the reporting? (Question 13)**

The EUAA believes that AEMO can rationalise the categories into less categories and having categories that are easily understood by C&I consumers. These could include “short notice, short term load reduction” and “long notice, long term load reduction”. The EUAA encourages AEMO to use non-technical definitions and categories, e.g. avoid using PD PASA, ST PASA etc

- **Post DSPI submission adjustments to projected DSP by C&I (Question 14)**

The EUAA encourages AEMO to create a simple process that does not require several touch points that discourage or confuse C&I 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.

AEMO should consider downloading data from the portal at regular intervals over weekends (closing the portal to consumer inputs during the download) and allowing consumers to input data or change data at any time other than the designated download weekends. Using this mechanism, AEMO can establish a notification process for reminding consumers on an annual basis (e.g. during April) to enter the portal and either update the data or approve the existing data as accurate. In this way, AEMO receives the verified data in April, but also has access to dynamic uploads during the year to improve forecast accuracy.

CONCLUDING REMARKS

The EUAA supports the development of methodologies to simplify access to DSP opportunities for consumers, that are not costly, that are not complex and that result in minimal risk to the C&I participants e.g. RERT provides a no loss, no risk situation for C&I consumers with penalties only being as high as the RERT availability payment.

AEMO need to consider that C&I electricity consumers are focussed on producing a service or product and are not energy traders.

The EUAA welcomes further discussions with us and our members around the issues raised in this submission.

Do not hesitate to be in contact should you have any questions.

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