

23 February 2022

Mr Andrew Lewis
Executive Director Energy Division
NSW Department of Planning, Industry and Environment
Locked Bag 5022
Parramatta NSW 2124

By online submission

Dear Mr Lewis

Consultation Paper – Promoting innovation for NSW energy customers

AEMO welcomes the opportunity to provide a submission to the consultation paper published on 22 December 2021 entitled “Promoting innovation for NSW energy Customers - consultation paper”.

AEMO notes the NSW Department of Planning, Industry and Environment (Department) does not seek to duplicate the work other reform processes and instead seeks to understand stakeholder perspectives on key issues. Overall, to the extent DPIE can, it would be ideal to try and align NSW positions with broader reform program. In particular AEMO notes:

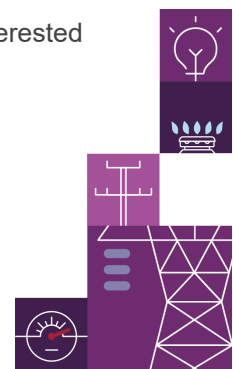
- On DER, the consultation document covers wide ranging topics that are covered by the ESB DER roadmap i.e., standards, dynamic operating envelopes, community batteries, EV charging infrastructure and stand-alone systems. Exploration of mandating DER standards within NSW (similar to what SA has done) and consideration of interoperability standards are both the subject of a lot of discussions through the ESB and ARENA DEIP processes. The discussion around EV charging infrastructure is also relevant to the broader NSW infrastructure work.
- On data and digitalisation, this ties to the ESB Data Strategy and the Consumer Data Right (CDR) work. It is also pertinent for NSW to be exploring whether to provide a one stop shop for the provision of DER and meter data to consumers.

AEMO recognises the breadth and complexity of the matters raised in the paper for consultation and is pleased to offer assistance to the Department as the process moves forward.

In addition to the above, two issues are pertinent to AEMO’s role in the National Electricity Market (NEM):


- Issue 4: Meter board upgrades (4e) – related to the potential use of the AEMO Market Settlement and Transfer Solution (MSATS) to hold information relating to the condition of a meter board at a premises; and
- Issue 5: Sample meters (5a, 5b and 5c) – the importance of reviewing the requirements of NSW jurisdictional metrology in the AEMO Metrology Procedures and the optimal alternative.

Appendix A provides information which AEMO considers will be of use to the Department and other interested parties when considering these matters further.



Should you wish to discuss any of the matters raised in this submission, please contact Kevin Ly on kevin.ly@aemo.com.au.

Yours sincerely



Violette Mouchaileh

Executive General Manager, Reform Delivery

Attachment A: AEMO response to consultation questions

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Question 4e – Meter board upgrades – What are the challenges of using an existing platform to share information regarding the condition of a customer’s meter board with interested participants?

AEMO recognises the issues relating to meter board condition that are raised in Issue 4 of the consultation paper; it is an area of concern for a number of participants operating both within and external to New South Wales.

As the operator of the MSATS procedures and system, AEMO is in regular dialogue with interested parties relating to this matter. Both the NER, upon which the MSATS procedures and systems are founded, and the MSATS procedures themselves are able to be amended, with transparent request and review processes defined. AEMO can confirm that this matter has recently been raised for consideration – specifically that MSATS and National Metering Identifier (NMI) Standing Data held within it be amended to incorporate information on meter board condition.

In consultation with interested parties, AEMO determined that it was not suitable for NMI Standing Data to be used for this purpose. As part of the 2019 pre-consultation workshops for the MSATS Standing Data Review, AEMO and interested parties discussed what fields could provide information to drive efficiencies in metering processes. Meter board details (asbestos, size, photo to identify board condition) were discussed to see if they would provide insight to what’s onsite at a premises. The discussions confirmed that the presence of asbestos could be communicated through an existing MSATS field known as Site Hazard. The size of a meter board and a photo of the board to show the condition of a meter board were other options requested. It was agreed that these were not to be added to MSATS due to:

- the length of time to gather the information,
- the inability for MSATS to hold photos (AEMO noted this would be an expensive upgrade to MSATS that would require prioritisation in the long term (beyond 5 years)),
- the lack of agreement on which role should collect the information, and
- the overall high costs to initially collect and maintain this information would outweigh the benefits attained.

The information gathered would also not show any rectification details as the meter board is the customer’s asset and MSATS does not contain customer details.

Question 5 – Sample Meters:

- **5a – Are there broader benefits (beyond the financial settlements process) to retaining controlled load profiles in New South Wales?**
- **5b – Are the costs to enable smart meters to determine the controlled load profiles less than the benefits from the information?**
- **5c – What alternative options should be considered?**

As referenced in the consultation paper, AEMO’s Metrology Procedures contain jurisdictional metrology material (JMM) that in New South Wales (NSW) includes specific provisions for sample metering that is used

to support the calculation and application of a NSW Controlled Load Profile (CLP) in AEMO's market settlement process.

The consultation paper defines the immediate problem that has arisen since the introduction of competition in metering in December 2017 – that deployment of remotely read type 4 advanced metering is displacing sample metering and as a result, distributors are finding it increasingly difficult and costly to comply with JMM sample metering requirements.

Profiling in settlement is a way of accommodating data that reflects energy flowing at connection points over a long period of time and determining which portions of that flow related to much smaller 'time-windows' over that period. In NEM settlement, profiling enables accumulated metering data taken from manually read metering installations over an extended period, say 3 calendar months, to be allocated to each 30 minute or 5-minute trading interval over that 3-month period. Profiling is not required for advanced metering installations as they record and provide data which is separated into each trading interval.

Beyond the immediate problems faced by distributors, as manually read metering installations are progressively replaced by advanced metering in NSW, it is evident that in the foreseeable future the CLP and sample metering requirements will become an anachronism, no longer relevant to market conditions or arrangements. Prior to that point, as the number of customers who have both controlled loads and manually read metering installations decrease, there will be a point in time where there are insufficient manually read metering installations from which sample metering 'representative candidates' can be sourced, and similarly few to which the resulting CLP would need to be applied in market settlement.

Profiling in settlement has not been designed to be applied for small numbers of metering installations and in particular, CLPs are unsuited for such an arrangement. Their prolonged use might negatively impact market settlement as any data used to calculate the CLP is likely to be increasingly unrepresentative of actual consumption. In extreme cases this could lead to the allocation of CLP energy in any one or more five-minute trading interval being greater than the residual energy needing to be profiled, creating a negative net system load profile – a perverse outcome in market settlement requiring corrective actions.

AEMO commends the Department for considering the viability of the sample metering and CLP requirements at this juncture, prior to the point where their continued application becomes untenable in practice and problematic in application, as previously described.

The requirements relating to JMM, and the mechanism by which it can be amended, are provided in National Electricity Rules (NER) clause 7.16.4. JMM is unlike all other content in the Metrology Procedures in that it can only be amended by the relevant Minister of the MCE, rather than the typical rule change requirements in the NER. JMM is limited in that it only relates to type 5, 6 and 7 metering installations (i.e., manually read metering installations and metering installations for contestable unmetered loads – operated by the LNSP Metering Coordinator). Changes to type 1-4 remotely read and advanced metering installations are determined through standard NER consultation and rule change processes.

AEMO recommends that an expiry date be provided in accordance with NER clause 17.6.4 for the current JMM provisions; the expiry occurring on a date in the future that provides interested parties, such as distributors and AEMO, sufficient time to make reasonable adjustments needed to prepare for cessation of existing sample metering and CLP requirements in NSW. AEMO considers that an end date of between 12-24 months from the date of this submission is ideal.

End dating current JMM provisions at a defined point in the future would allow an interested party to propose alternative arrangements to the AEMC for continuing the operation of a CLP in the NER beyond the limitations of JMM, and for any such proposal to be tested against the relevant market objective.

AEMO also agrees with the Department's contention in the consultation paper regarding the CLP being currently applied throughout the day rather than being in a defined period or periods, and that there appears to be no correlation between controlled load operation and the prevailing spot price for energy. These might be reason enough to question the ongoing benefit of the CLP in NSW, however AEMO contends that these matters are supplementary to the more imminent pressures on the application of the CLP as previously described.