

# WHOLESALE DEMAND RESPONSE MECHANISM - CONSULTATION ON THE NEM SETTLEMENT ESTIMATES POLICY

ISSUES PAPER

Published: **5 November 2020**





© 2020 Australian Energy Market Operator Limited. The material in this publication may be used in accordance with the [copyright permissions on AEMO's website](#).



## **EXECUTIVE SUMMARY**

The publication of this Issues Paper commences the first stage of the Rules consultation process conducted by the Australian Energy Market Operator (AEMO) on proposed amendments to the NEM Settlement Estimates Policy in respect of the Wholesale Demand Response Mechanism under the National Electricity Rules.

The draft NEM Settlement Estimates Policy sets out:

- (a) the principles and process for calculating estimated settlement amounts when normal processing is not possible.
- (b) AEMO's process for estimating settlement amounts for the purpose of prudential estimation under Rule 3.3.9.

This Issues Paper aims to facilitate informed feedback from National Electricity Market Registered Participants and other interested parties regarding the treatment of Demand Response Service Providers under the NEM Settlement Estimates Policy. AEMO invites stakeholders to suggest alternative options where they do not agree that AEMO's proposals would achieve the relevant objectives. AEMO also asks stakeholders to identify any unintended adverse consequences of the proposed changes.

Stakeholders are invited to submit written responses on the issues and questions identified in this Issues Paper by 5.00 pm (Melbourne time) on 18 December 2020, in accordance with the Notice of First Stage of Consultation published with this Issues Paper.



## CONTENTS

EXECUTIVE SUMMARY	<b>2</b>
1. STAKEHOLDER CONSULTATION PROCESS	<b>4</b>
2. BACKGROUND	<b>5</b>
2.1 NER requirements	5
2.2 Context for this consultation	5
3. DISCUSSION	<b>6</b>
3.1 DRSP prudential settings	6
3.2 Settlement estimations DRSPs	7
3.3 Settlement Estimations for Market Customers	8
4. DRAFTING OF PROCEDURES	<b>9</b>
5. SUMMARY OF MATTERS FOR CONSULTATION	<b>10</b>
APPENDIX A - GLOSSARY	<b>11</b>



## 1. STAKEHOLDER CONSULTATION PROCESS

As required by the National Electricity Rules (NER), AEMO is consulting on the NEM Settlement Estimates Policy (Procedures) in accordance with the Rules consultation procedures set out in NER rule 8.9.

A glossary of terms used in this Issues Paper is at Appendix A.

AEMO's indicative timeline for this consultation is outlined below. Dates may be adjusted depending on the number and complexity of issues raised in submissions and any meetings with stakeholders.

Deliverable	Indicative date
Issues Paper published	5 November 2020
Submissions due on Issues Paper	18 December 2020
Draft Report published	15 January 2021
Submissions due on Draft Report	4 February 2021
Final Report published	4 March 2021

Prior to the Issues Paper submissions due date, stakeholders can request a meeting with AEMO, to discuss the issues raised in this Issues Paper.

NEM Registered Participants and other interested parties are invited to submit written responses on the questions identified in this Issues Paper and any other aspect of the draft Procedures. Stakeholders are requested to include reasons for their responses and (if applicable) details of any alternative options they consider may better achieve the relevant objectives. Submissions must be made in accordance with the Notice of First Stage of Consultation published with this Issues Paper.



## **2. BACKGROUND**

### **2.1 NER requirements**

Under NER clause 3.15.12(c), AEMO is responsible for developing, publishing and maintaining the Procedures. The Procedures may be made or amended in accordance with the Rules consultation procedures set out in NER rule 8.9.

### **2.2 Context for this consultation**

In June 2020, the Australian Energy Market Commission (AEMC) released its final determination that sets out a series of changes to the NER to facilitate wholesale demand response in the NEM, through a wholesale demand response mechanism (WDRM Rule). Under the WDRM Rule, from October 2021, consumers will be able to sell demand response in the wholesale market. The WDRM Rule introduces a new market participant category, the Demand Response Service Provider (DRSP).

The Procedures set out:

- (c) the principles and process for calculating estimated settlement amounts when normal processing is not possible.
- (d) AEMO's process for estimating settlement amounts for the purpose of prudential estimation under Rule 3.3.9.

The proposed amendments to the Procedures set out the process for settlement estimations in respect of DRSPs.



### 3. DISCUSSION

AEMO proposes to amend the Procedures, as follows:

- Clause 3.2 - additional text to provide general description of the approach to settlement estimations for DRSPs.
- Clause 3.2.4 - addition of clause to describe the hierarchy of data for estimating Wholesale Demand Response Settlement Quantity (WDRSQ) for DRSPs.
- Clause 1.1 - removal of the effective date of 1 July 2021, with update to effective date to 1 October 2021 on front cover of Procedures.

#### 3.1 DRSP prudential settings

The WDRM Rule allows for “negative settlement” to occur, in which a wholesale demand response unit (WDRU) consumes above its baseline in an interval when it is dispatched to provide wholesale demand response. While a DRSP (and its customer) would not intentionally be bidding in wholesale demand response in these circumstances, unexpected outcomes can occur.

In these circumstances, DRSPs would be exposed to the overs and unders of baseline inaccuracy. Further, DRSPs would be exposed to pool prices, meaning they would be pool price payers rather than pool price recipients (i.e. have a negative settlement amount).

In its final determination, the AEMC stated that it considered it appropriate for DRSPs to be exposed to both the positive, as well as negative, monetary flows. This will provide DRSPs with a stronger incentive to ensure that they deliver wholesale demand response in accordance with their dispatch instructions.

Due to this potential for exposure, under NER clause 3.3.8, AEMO must determine the prudential requirements for DRSPs, so that the prudential standard is met for the NEM.

AEMO will be setting DRSP prudential requirements (as described in the Credit Limit Procedures, currently under consultation<sup>1</sup>) through a bespoke methodology. Under this methodology, DRSP prudential requirements will be assessed as:

- Maximum Credit Limit (MCL) = Outstandings Limit (OSL) + Prudential Margin (PM)
- OSL is set at the value of \$8,000
- PM is a set at the value of \$2,000
- OSL and PM values will be adjusted to account for any reallocation transactions to which the DRSP is a party.

In practical terms, this methodology will result in a requirement for all DRSPs to provide AEMO with a guarantee of \$10,000 upon registration, to meet their prudential obligations.

The trading limit for a Market Participant is the amount of credit support provided to AEMO less the relevant PM. Assuming a DRSP provides AEMO with the required \$10,000 guarantee this means their trading limit will be \$8,000.

---

<sup>1</sup>See consultation document at: <https://aemo.com.au/consultations/current-and-closed-consultations/credit-limit-procedures-wdrm>



## 3.2 DRSP settlement estimations

The outstandings is a key value used in the prudential assessment of a Market Participant. Market Participants are obliged under clause 3.3.11 of the NER to maintain their outstandings below their trading limit. Failure to do so can result in AEMO issuing a call notice.

The value of a Market Participant's outstandings is the aggregate of the absolute value of net settlement amounts payable in respect of any billing period, or part of a billing period, that has occurred but not yet been settled, less any security deposit funds held by AEMO for that Market Participant.

AEMO calculates a Market Participant's net settlement amount by aggregating the trading amounts resulting for each Market Participant from each transaction in respect of each trading interval occurring in that billing period together with Participant fees. The settlement amount will be a positive or negative dollar amount for each Market Participant.

For DRSPs, the trading amount will be determined using the Wholesale Demand Response Settlement Quantity (WDRSQ) which is calculated using the baseline settlement quantity and the metered energy (for detailed calculations refer to NER clause 3.15.6B(c)).

### 3.2.1 Data used to calculate outstandings

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 required.

The process followed by AEMO to estimate settlements data for the purposes of prudential assessment for DRSPs is described below.

### 3.2.2 Hierarchy of data for DRSP settlement estimations

AEMO employs a hierarchy of data for estimating settlement amounts for prudential purposes. For DRSPs this hierarchy will consist of the following:

1. Actual metering data used to calculate WDRSQ
  - Actual metering data, together with the baseline settlement quantity, is used to calculate WDRSQ.
  - A billing run is to be performed each calendar day, which will pick up the latest metering data available for all days for which there is yet to be a preliminary billing run.
  - Actual metering data will always be used, once it is available (usually within 2-3 days).
2. Final substituted metering data used to calculate WDRSQ
  - If no actual metering data is available, final substituted metering data, together with the baseline settlement quantity, can be used to calculate WDRSQ.
  - This metering data is generated for each NMI by the Metering Data Provider in accordance with the Metrology Procedure Part B: Metering Data Validation, Substitution and Estimation<sup>2</sup>.

<sup>2</sup> See at: [https://www.aemo.com.au/-/media/Files/Electricity/NEM/Retail\\_and\\_Metering/Load\\_Tables/Metrology-Procedure-Part-B-v60.pdf](https://www.aemo.com.au/-/media/Files/Electricity/NEM/Retail_and_Metering/Load_Tables/Metrology-Procedure-Part-B-v60.pdf)





- Metering data is substituted by MDPs to deal with various occurrences of missing or erroneous metering data.
  - Final substituted metering data, which is permanent in nature is not replaced by actual metering data at any time.
  - Only data designated as final substituted metering data can be used to calculate WDRSQ.
3. Estimated data for WDRSQ
- If no actual metering data or final substituted metering data is available, the WDRSQ is estimated at zero.
  - This zero estimate for WDRSQ is likely to be used only for the first 2-3 days after the wholesale demand response event, before metering data becomes available.
  - In most cases, the actual demand response will probably be provided by a DRSP, therefore a zero value for WDRSQ represents a conservative estimate of WDRSQ.

### 3.2.3 Other options for DRSP settlement estimations

AEMO does not believe any other method of estimations is relevant to DRSPs, since wholesale demand response is fundamentally an unpredictable event, so any estimation methodology relying on past data will not give accurate estimates.

## 3.3 Market Customer settlement estimations

AEMO will not be updating the Procedures in relation to settlement estimations for prudential purposes for Market Customers. At a high level, if actual or estimated metering data is not available for Market Customers a “like-day” estimation methodology is used (refer to section 3.2.3 of the Procedures). A “like-day” is the same day from the most recent billing period for which data from a preliminary billing run is available (i.e. if estimating load for a Tuesday, it would take the load from the last Tuesday where metering data (actual or estimated/substituted) is available).

When a wholesale demand response event occurs, a Market Customer will be settled with respect to both the energy market settlements (based on metering data) and the baseline energy level. The baseline energy is the counterfactual to the actual metered energy, if there had been no demand response.

Accordingly, AEMO believes that before metering data is available, the “like-day” estimate will be sufficiently close to the Market Customer’s consumption (including both load and demand response) as is possible to estimate. Therefore, this estimate will be valid for the purposes of prudential assessment in respect of Market Customers.

### Questions

- Is there any additional clarifying information required in the Procedures for the treatment of DRSP or Market Customer settlement estimations for prudential purposes?
- Are there any additional options for the treatment of DRSP or Market Customer settlement estimations for prudential purposes that AEMO should consider?
- Are there any unintended/adverse consequences of the treatment of DRSPs or Market Customers with respect to settlement estimations for prudential purposes as described in the Procedures?



## **4. DRAFTING OF PROCEDURES**

To help stakeholders and other interested parties to respond to this Issues Paper, AEMO has published the draft amended Procedures.

The draft Procedures are available at:

<https://aemo.com.au/consultations/current-and-closed-consultations/nem-settlement-estimates-policy-wdrm>



## **5. SUMMARY OF MATTERS FOR CONSULTATION**

In summary, AEMO seeks comment and feedback on the settlement estimation for prudential purposes for DRSPs.

Submissions on these and any other matter relating to the proposal discussed in this Issues Paper must be made in accordance with the Notice of First Stage of Consultation published with this Issues Paper, by 5.00 pm (Melbourne time) on 18 December 2020.



## APPENDIX A - GLOSSARY

Term or acronym	Meaning
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator Limited
DRSP	Demand Response Service Provider
MCL	Maximum Credit Limit
MDP	Metering Data Provider
NEM	National Electricity Market
NER	National Electricity Rules
OSL	Outstandings Limit
PM	Prudential Margin
WDRM	Wholesale Demand Response Mechanism