

# WDRM – Baseline Eligibility Compliance and Metrics Policy

**Prepared by:** AEMO Markets

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## Current version release details

Version	Effective date	Summary of changes
2.0	3 June 2024	<ul style="list-style-type: none"><li>Update to reflect National Electricity Amendment (Integrating energy storage systems into the NEM) Rule 2021.</li></ul>

**Note: There is a full version history at the end of this document.**

# 1. Introduction

## 1.1. Purpose and scope

This is the Baseline Eligibility Compliance and Metrics Policy made under National Electricity Rules (NER) clause 3.10.2 (**Policy**).

The Policy:

- Establishes the methodology by which the Australian Energy Market Operator (AEMO) will determine baseline eligibility and compliance under the wholesale demand response mechanism (**WDRM**).
- Sets out the thresholds for *baseline methodology metrics*.

## 1.2. Definitions and interpretation

### 1.2.1. Glossary

Terms defined in the National Electricity Law (NEL) and NER have the same meanings in this Policy, unless otherwise specified in this clause.

Terms defined in the NER are intended to be identified in this Policy by italicising them, but failure to italicise a defined term does not affect its meaning.

The words, phrases and abbreviations in the table below have the meanings set out opposite them, when used in this Policy.

Term	Definition
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator Limited
AER	Australian Energy Regulator
ARE	Average Relative Error
DRSP	Demand Response Service Provider
DUID	Dispatchable Unit Identifier
NEL	National Electricity Law
NER	National Electricity Rules
RRMSE	Relative Root Mean Squared Error
TI	<i>Trading interval</i>
WDR	Wholesale Demand Response
WDRM	Wholesale Demand Response Mechanism
WDRSQ	Wholesale Demand Response Settlement Quantity
WDRU	Wholesale Demand Response Unit

## 1.2.2. Interpretation

These Procedures are subject to the principles of interpretation set out in Schedule 2 of the National Electricity Law.

## 1.2.3. Interpretation

The following principles of interpretation apply to the Policy, unless otherwise expressly indicated:

- (a) The NER and the NEL prevail over the Policy, to the extent of any inconsistency.
- (b) The Policy has effect only for the purposes set out in the NER.
- (c) The Policy is subject to the principles of interpretation set out in NEL Schedule 2.
- (d) A reference to time is a reference to Australian Eastern Standard Time.
- (e) A reference to a clause is a reference to a clause of the NER.
- (f) A reference to a section is a reference to a section of the Policy.

## 1.3. Related documents

Title	Location
Wholesale Demand Response Guidelines (AEMO)	<a href="https://aemo.com.au/consultations/current-and-closed-consultations/wdr-guidelines">https://aemo.com.au/consultations/current-and-closed-consultations/wdr-guidelines</a>
Baseline Methodology Register (AEMO)	<a href="https://aemo.com.au/initiatives/trials-and-initiatives/wholesale-demand-response-mechanism/wdr-participant-toolbox/wdr-baseline-methodology-register">https://aemo.com.au/initiatives/trials-and-initiatives/wholesale-demand-response-mechanism/wdr-participant-toolbox/wdr-baseline-methodology-register</a>
Wholesale Demand Response Participation Guidelines (AER)	<a href="https://www.aer.gov.au/wholesale-markets/guidelines-reviews/wholesale-demand-response-participation-guidelines">https://www.aer.gov.au/wholesale-markets/guidelines-reviews/wholesale-demand-response-participation-guidelines</a>

## 2. Background

### 2.1. Baselines

- (a) A *wholesale demand response unit (WDRU)* is a *connection point* which has been classified by a *Demand Response Service Provider (DRSP)* in accordance with NER Chapter 2 as a WDRU, or two or more WDRUs that have been aggregated in accordance with NER clause 3.8.3.
- (b) A DRSP can provide *wholesale demand response (WDR)* by reducing the consumption of electricity or increasing the export of electricity with respect to the *baseline* at the connection point of a WDRU.
- (c) The *baseline* for a WDRU when it is not being dispatched is a forecast of the amount of electrical *energy* flowing at the *connection point* for the WDRU, calculated in accordance with NER clause 3.10.5.

- (d) The *baseline* for a WDRU when it is being dispatched is an estimate of the amount of electrical energy flowing at the *connection point* for the WDRU, had the WDRU had not been dispatched, calculated in accordance with NER clause 3.10.5.
- (e) The *baseline methodology* is used to determine a baseline for a WDRU. A *baseline methodology* must specify the parameters that must be set for each WDRU with the approval of AEMO (when approved, the *baseline settings*) to allow the *baseline methodology* to apply to different WDRUs.
- (f) The *baseline methodology metrics* are parameters determined by AEMO under NER clause 3.10.2(a) for assessing the *baseline* produced by a *baseline methodology* when applied to a *qualifying load* (or for a WDRU if already classified as such) using applicable *baseline settings*.
- (g) To participate in the WDRM, a DRSP must demonstrate that a *baseline* can be determined for the *qualifying load* that complies with the *baseline methodology metrics* both:
  - (i) At the time of WDRU classification (**baseline eligibility assessment**).
  - (ii) After WDRU classification, in a regular, ongoing, systematic sense (**baseline compliance testing**).
- (h) A baseline compliant WDRU may be bid in by a DRSP, then dispatched and settled by AEMO, for WDR on any types of eligibility days under the approved baseline methodology assigned to the WDRU, in respect of which the WDRU baseline eligibility assessment or *baseline compliance testing* was completed. The DRSP must ensure that it bids in the WDRU accordingly, but not otherwise. AEMO will not settle any dispatch that occurs otherwise.

## 2.2. Baseline eligibility assessment

- (a) For the purposes of WDRU classification, under NER clause 2.3.6(e)(5), a DRSP must demonstrate that the *baseline methodology*, when applied to the *qualifying load* and using the proposed *baseline settings* and historical *metering data* for the *qualifying load* produces a *baseline* that satisfies the *baseline methodology metrics* and meets any other criteria in the *wholesale demand response guidelines*.
- (b) Section 3 of this Policy sets out details in respect of baseline eligibility assessment.

## 2.3. Baseline compliance testing

- (a) AEMO conducts *baseline compliance testing* in accordance with arrangements determined by AEMO under NER clause 3.10.2(d) to determine whether a *baseline methodology*, when applied to a WDRU, produces a *baseline* that satisfies the *baseline methodology metrics*.
- (b) Where WDRUs have been aggregated for dispatch, AEMO conducts baseline compliance testing separately for each WDRU, not the aggregated WDRUs.

- (c) Under NER clause 3.10.4(a), the baseline compliance standard is satisfied by a WDRU if the approved baseline methodology, when applied to the WDRU using the approved baseline settings, produces a baseline that satisfies the baseline methodology metrics.
- (d) Under NER clause 3.10.4(b), a WDRU is baseline non-compliant if it does not satisfy the baseline compliance standard, and it continues to be baseline non-compliant until the DRSP demonstrates that the WDRU satisfies the baseline compliance standard.
- (e) Section 4 of this Policy sets out details of baseline compliance testing.

## 2.4. Baseline methodology metrics

- (a) The baseline methodology metrics are used to assess the baseline produced by a baseline methodology when applied to a qualifying load, in predicting the qualifying load's consumption patterns (when it is not providing demand response), both for the purposes of baseline eligibility assessment and baseline compliance testing.
- (b) Under NER clause 3.10.2(b), the two baseline methodology metrics used for baseline eligibility assessment and baseline compliance testing are accuracy and freedom from bias.
- (c) Accuracy is the statistical measure of deviation between the actual consumption or export of a WDRU (as recorded by metering data) and its baseline (in periods when it is not providing demand response).
- (d) Bias is the statistical measure of deviation between the actual consumption or export of a WDRU (as recorded by metering data) and its baseline for each of the measures of baseline accuracy consistently exhibiting error:
  - (i) in a single direction; or
  - (ii) under the same circumstances.
- (e) Under NER clause 3.10.2(c), the baseline methodology metrics must assess accuracy and bias in particular *trading intervals* (TIs) and across multiple intervals.
- (f) Under NER clause 3.10.2(f), in determining the baseline methodology metrics, AEMO must have regard to:
  - (i) the need to not distort the operation of the market;
  - (ii) the need to maximise the effectiveness of the WDR at the least cost to end use consumers; and
  - (iii) the level of accuracy achieved by AEMO's short-term demand forecasts and forecasts of intermittent generation.

## 2.5. Calculating accuracy

- (a) The statistic chosen to measure accuracy is a baseline's relative root mean squared error (RRMSE). The RRMSE expresses the baseline's average accuracy over a TI as a fraction of average qualifying load over a TI.

- (b) The RRMSE is based on squared prediction errors, weighing large errors much more heavily than small or mid-sized errors.
- (c) The RRMSE measures how closely a baseline methodology together with the baseline settings predicts the NMI's actual qualifying load. An RRMSE of 0.1 means that the WDRU's estimated baseline is typically within 10 percent of the actual qualifying load.
- (d) Any baseline adjustment applicable to a particular baseline methodology will be applied when determining the RRMSE.
- (e) The formula that is used to calculate the RRMSE is:

$$RRMSE = \frac{\sqrt{\frac{\sum_{n=1}^N (L_n^{baseline} - L_n^{actual})^2}{N}}}{\frac{1}{N} \times \sum_{n=1}^N L_n^{actual}}$$

Where:

$n$  is the index of summation (from 1 to  $N$ )

$N$  is the total number of TIs in the analysis

$L_n^{baseline}$  is the calculated baseline *qualifying load* associated with a TI  $n$ .

$L_n^{actual}$  is the actual metered *qualifying load* associated with a TI  $n$ .

## 2.6. Calculating bias

- (a) Bias is the systematic tendency of a baseline method to over- or under-predict actual qualifying loads.
- (b) The statistic used to measure bias is the baseline's average relative error (ARE). This statistic, for a given customer, is the average baseline per TI less the average actual qualifying load per TI, expressed as a fraction of actual qualifying load per TI.
- (c) An ARE value which is:
  - (i) Zero indicates that a WDRU has no systematic tendency to over- or under-predict *qualifying loads* using a particular *baseline methodology* and *baseline settings*.
  - (ii) A positive value indicates the tendency to over-predict *qualifying loads*.
  - (iii) A negative value indicates the tendency to under-predict *qualifying loads*.
  - (iv) Closer to zero indicates less baseline bias.
- (d) Any baseline adjustment applicable to a particular *baseline methodology* will be applied when determining the ARE.
- (e) The formula that is used to calculate the ARE is:



$$ARE = \frac{\sum_{n=1}^N (L_n^{baseline} - L_n^{actual})}{\sum_{n=1}^N (L_n^{actual})}$$

Where:

$n$  is the index of summation (from 1 to  $N$ )

$N$  is the total number of TIs in the analysis

$L_n^{baseline}$  is the calculated baseline *qualifying load* associated with a TI  $n$ .

$L_n^{actual}$  is the actual metered *qualifying load* associated with a *trading interval*  $n$ .

## 2.7. Satisfying the baseline methodology metrics

- (a) A *qualifying load* must be predictable so that its baseline energy can be accurately estimated, for the purposes both of baseline eligibility assessment and *baseline compliance testing*.
- (b) This predictability of *qualifying load* is determined by whether the accuracy and bias metrics, calculated for the specified *baseline methodology* using historical data for the *qualifying load* according to the relevant baseline eligibility assessment rules (in Section 3.2 of this Policy) or *baseline compliance testing* rules (in Section 4.5 of this Policy) for that *baseline methodology*, respectively, meet the following thresholds outlined in Table 1.

**Table 1 Accuracy and bias thresholds**

	Threshold	Baseline Eligibility Assessment	Baseline Compliance Testing
<b>Accuracy</b>	20%	RRMSE value calculated for the <i>qualifying load</i> , over all of the required eligibility days, for all the TIs in the eligibility TIs widow for that baseline methodology, has to be equal to or lower than the accuracy threshold specified.	RRMSE value calculated for the WDRU, over all of the required compliance days for all the TIs in the compliance TIs window for that baseline methodology, has to be equal to or lower than the accuracy threshold specified.
<b>Bias</b>	±4%	ARE value calculated for the <i>qualifying load</i> , over all of the required eligibility days for all the TIs in the eligibility TIs widow for that baseline methodology, has to be equal to or lower than the bias threshold specified.	ARE value calculated for the WDRU, over all of the required compliance days for all the TIs in the compliance TIs window for that baseline methodology, has to be equal to or lower than the bias threshold specified.

## 2.8. Reviewing and updating the Policy

- (a) The suitability of the eligibility and compliance methodology as well as the metrics thresholds will be reviewed annually (starting in 2022).
- (b) The purpose of the review is to ensure that AEMO’s baseline eligibility and compliance processes result in only *qualifying loads* that have accurate and unbiased baselines participating in WDR and that the demand response provided under the WDRM is real and additional. Consideration will also be given to factors outlined in NER clause 3.10.2(f).

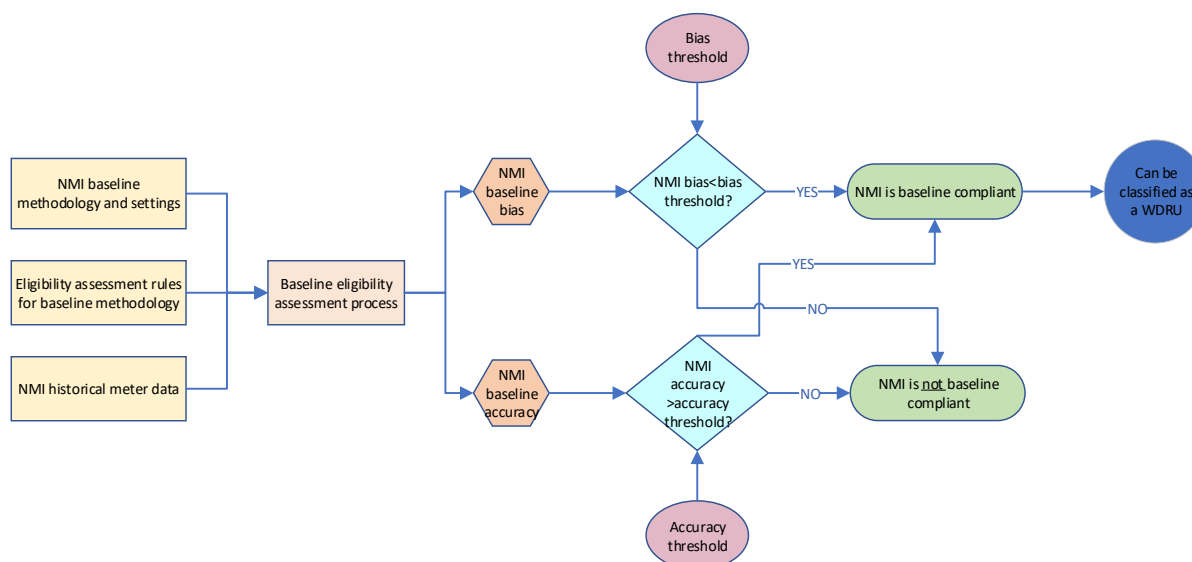
- (c) *Market Participants* will be consulted on any changes which are to be made to the Policy (a full rules consultation process is not required).

### 3. Baseline eligibility assessment

#### 3.1. Framework

- (a) The high-level view of the baseline eligibility assessment framework is shown in Figure 1. The inputs are:
  - (i) The baseline methodology and *baseline settings* applicable to the *qualifying load*.
  - (ii) The historical metering data associated with the *qualifying load*.
  - (iii) Eligibility assessment rules for the *baseline methodology*.
  - (iv) Bias and accuracy metrics thresholds.
- (b) Prior to submitting a *qualifying load* to AEMO for baseline eligibility assessment, the DRSP can use the Baseline Eligibility Assessment Tool provided by AEMO to assess a *qualifying load*'s likely eligibility for WDRU classification.
- (c) A DRSP can submit a *qualifying load* in respect of which it has end user consent for WDR participation for the purposes of baseline eligibility assessment, through AEMO's Portfolio Management System.
- (d) The outcome of the baseline eligibility assessment will be available to the DRSP through the Portfolio Management System.

Figure 1 Baseline eligibility assessment framework



## 3.2. Rules

- (a) Baseline eligibility assessment involves using metering data for a specified number of days and TIs to calculate the accuracy and bias metrics for each *qualifying load's baseline* prior to WDRU classification.
- (b) Baseline eligibility assessment requires the specification by AEMO (included in this Policy) of the following for each *baseline methodology*:
  - (i) Eligibility days.
  - (ii) Eligibility TIs window.
  - (iii) Adjustment rules.
- (c) The number of eligibility days and the eligibility TIs window for each *baseline methodology* is shown in the Baseline Methodology Register. They are further discussed in Sections 3.2.1 and 3.2.2 of this Policy.

### 3.2.1. Eligibility days

- (a) The **eligibility assessment day** is the day on which the eligibility test is performed.
- (b) **Eligibility days** are days for which baselines can be calculated for the *qualifying load*, for the purposes of conducting baseline eligibility assessment.
- (c) **Eligibility exclusion days** are days on which NMI *qualifying load* was not measurable or is deemed to be far outside the usual for the NMI. AEMO will determine, at its discretion, the eligibility exclusion days for a NMI.
- (d) Examples of eligibility exclusion days are blackout/outage, plant shutdown, scheduled maintenance, scheduled and unscheduled outages and site commissioning. This list is non-exhaustive. There may be other events that may qualify as an eligibility exclusion day.
- (e) Each eligibility exclusion day will have to be approved for use by AEMO, with clear reasoning for the request provided by the DRSP. AEMO will also provide the DRSP with reasons for why an eligibility exclusion day is not approved in any rejection.
- (f) Eligibility days are days which:
  - (i) Are qualifying days for a particular *baseline methodology* (i.e. business days for the business day *baseline methodology* etc.).
  - (ii) Are **not** eligibility exclusion days as specified by AEMO.
- (g) Each *baseline methodology* has a required number of eligibility days required for the baseline eligibility assessment to be performed, as outlined in the Baseline Methodology Register.
- (h) Eligibility days are days immediately preceding the eligibility assessment day, up to the number of required eligibility days specified.
- (i) If a *qualifying load* does not have a required number of eligibility days, baseline eligibility assessment cannot be performed for the *qualifying load*.

### 3.2.2. Eligibility TIs window

- (a) The **eligibility TIs window** refers to the TIs from which meter data is taken for the *qualifying load* for the purpose of conducting baseline eligibility assessment.
- (b) Baseline eligibility assessment uses data for all the TIs in the eligibility TIs window for all the required eligibility days for that *baseline methodology*.
- (c) The eligibility TIs window used for eligibility assessment **may be different** for each *baseline methodology*, as outlined in the Baseline Methodology Register.

### 3.2.3. Adjustment rules

- (a) A *baseline* calculated under different *baseline methodologies* may be adjusted for conditions on the day of WDR through a baseline adjustment.
- (b) Any baseline adjustment for a particular *baseline methodology* will also be used when assessing baselines under baseline eligibility assessment.
- (c) Under baseline eligibility assessment, any baseline adjustment applicable to the particular *baseline methodology* will be applied to each TI in the eligibility TIs window as if that TI was the first TI to be bid into WDR.

## 3.3. Eligible qualifying loads

- (a) If a *qualifying load* satisfies the *baseline methodology metrics* through the baseline eligibility assessment, as well as meeting all other eligibility criteria outlined in NER clause 2.3.6 to AEMO's reasonable satisfaction, then the *qualifying load* will be classified as a WDRU.
- (b) Once a *qualifying load* is classified as WDRU, it will be assigned a dispatchable unit identifier (DUID) which will allow it to be dispatched and settled for WDR.

## 3.4. Ineligible qualifying loads

- (a) If a *qualifying load* does not satisfy the *baseline methodology metrics* through the baseline eligibility assessment, or does not meet all other eligibility criteria outlined under NER clause 2.3.6 to AEMO's reasonable satisfaction, then the *qualifying load* will not be classified as a WDRU.
- (b) A *qualifying load* that is not classified as WDRU cannot be dispatched or settled for WDR.
- (c) A DRSP can request that a new *baseline methodology* or new *baseline methodology settings* be applied to the *qualifying load* and resubmit the *qualifying load* for baseline eligibility assessment.

## 4. Baseline compliance testing

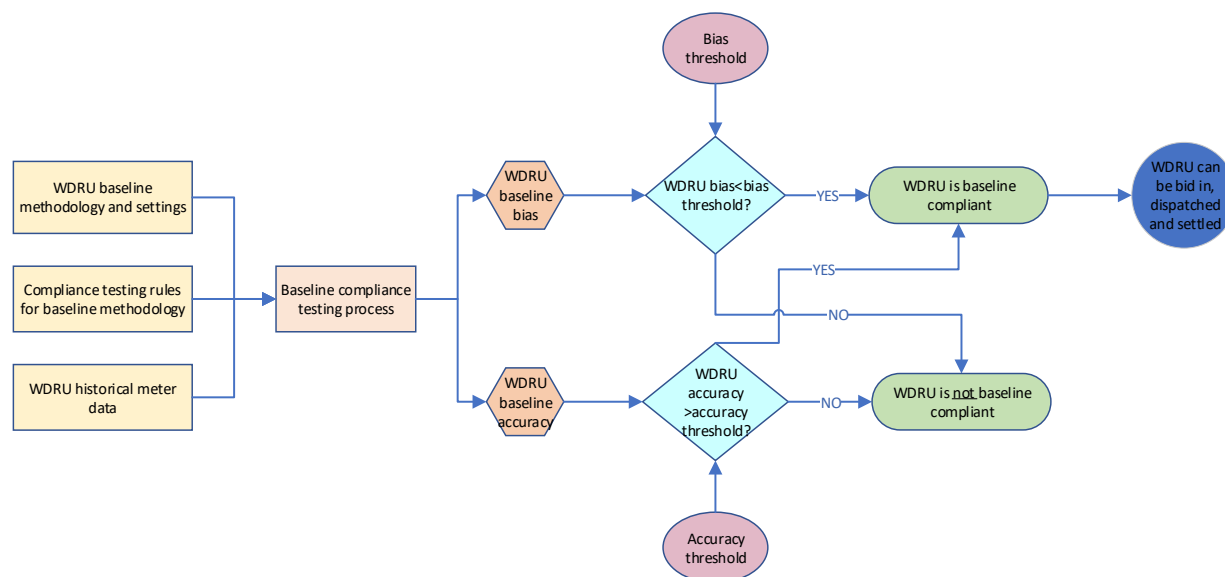
### 4.1. Principles

- (a) To participate in the WDRM, a NMI which is part of a WDRU must have and maintain a predictable *qualifying load* for which baseline energy can accurately be estimated, to satisfy the *baseline compliance standard*. This predictability of the *qualifying load* is determined through the *baseline compliance testing*, using *baseline methodology metrics*.
- (b) Under NER clause 3.10.2, AEMO is required to set out the process for DRSPs to demonstrate compliance with the *baseline methodology metrics*. DRSPs must also take steps to identify non-compliance under clause 3.8.2A(f).
- (c) Where WDRUs have been aggregated for dispatch, *baseline compliance testing* is conducted separately for each WDRU, not the aggregated WDRUs.
- (d) When conducting *baseline compliance testing*, time periods cannot be cherry-picked to produce a favourable result, although periods in which a WDRU has been dispatched are excluded (see Section 4.5 below).

### 4.2. Framework

- (a) Under NER clause 3.10.2(d), AEMO must determine and publish the arrangements for *baseline compliance testing*.
- (b) The high-level view of the *baseline compliance testing* framework is shown in Figure 2. The inputs are:
  - (i) The baseline methodology and baseline settings applicable to the WDRU.
  - (ii) The NMI historical metering data associated with the WDRU.
  - (iii) Baseline compliance testing rules for the baseline methodology.
  - (iv) Bias and accuracy metrics thresholds.
- (c) Under NER clause 3.10.4(a), the *baseline compliance standard* is satisfied by a WDRU if the approved *baseline methodology*, when applied to the WDRU using the approved *baseline settings*, produces a *baseline* that satisfies the *baseline methodology metrics*. Such a WDRU is said to be *baseline compliant*. Otherwise, the WDRU is said to be *baseline non-compliant*.

Figure 2 Baseline compliance testing framework



### 4.3. Frequency

- (a) Under NER clause 3.10.2(e), AEMO can set the frequency of *baseline compliance testing*, which may be different for different WDRUs or classes of WDRU.
- (b) AEMO will undertake *baseline compliance testing* **at least** twice per calendar year, indicatively during:
  - (i) Winter in June.
  - (ii) Summer in late November/early December.
- (c) AEMO may undertake *baseline compliance testing* at any other time of the year, at its discretion.
- (d) AEMO will notify a DRSP of a *baseline non-compliant* WDRU as soon as practicable after AEMO has completed *baseline compliance testing*.
- (e) A DRSP may request AEMO to conduct *baseline compliance testing* of a WDRU outside the scheduled frequency, through AEMO's Portfolio Management System.
- (f) A DRSP can use AEMO's Baseline Compliance Testing Tool to conduct *baseline compliance testing*.

### 4.4. Notification

- (a) Under NER clause 3.8.2A(f)(1), a DRSP must establish and implement measures in accordance with *good electricity industry practice* to identify a WDRU that is *baseline non-compliant*.
- (b) Under NER clause 3.10.2(i), if a DRSP becomes aware that its WDRU does not satisfy the *baseline compliance standard*, the DRSP must notify AEMO as soon as practicable.

- (c) A DRSP can notify AEMO that a WDRU does not satisfy the *baseline compliance standard* through AEMO's Portfolio Management System.

## 4.5. Rules

- (a) *Baseline compliance testing* involves using metering data for a specified number of days and *trading intervals* to calculate the accuracy and bias metrics for each WDRU's *baseline*.
- (b) Baseline compliance testing requires the specification of the following for each baseline methodology:
  - (i) Compliance days.
  - (ii) Compliance TIs window.
  - (iii) Adjustment rules.
- (c) The required number of compliance days and the compliance TIs window for each baseline methodology are contained in the Baseline Methodology Register. They are further discussed in Sections 3.2.1 and 3.2.2.

### 4.5.1. Compliance days

- (a) The **compliance test day** is the day on which the compliance test is performed.
- (b) **Compliance days** are the days for which *baselines* can be calculated for the WDRU, for the purpose of conducting *baseline compliance testing*.
- (c) **Compliance exclusion days** are days on which WDRU *qualifying load* was not measurable) or is deemed to be far outside the usual for the WDRU. AEMO will determine, at its discretion, the compliance exclusion days for a WDRU.
- (d) Examples of compliance exclusion days are blackout/outage, plant shutdown, scheduled maintenance, scheduled and unscheduled outages and site commissioning. This list is non-exhaustive. There may be other events that may qualify as a compliance exclusion day.
- (e) Each compliance exclusion day will have to be approved for use by AEMO, with clear reasoning for the request provided by the DRSP. AEMO will also provide the DRSP with reasons for why a compliance exclusion day is not approved in any rejection.
- (f) Compliance days are days which:
  - (i) Are qualifying days for a particular *baseline methodology* (i.e. business days for the business day *baseline methodology*).
  - (ii) Are days on which the WDRU has **not** been dispatched.
  - (iii) Are **not** compliance exclusion days as specified by AEMO.
- (g) Each *baseline methodology* has a required number of compliance days required for the baseline compliance testing to be performed, as outlined in the Baseline Methodology Register.
- (h) Compliance days are days immediately preceding the compliance test day, up to the required number of compliance days specified.

#### 4.5.2. Compliance TI window

- (a) The **compliance TI window** refers to the *trading intervals* from which meter data is taken for the purpose of conducting *baseline compliance testing*.
- (b) *Baseline compliance testing* uses data for all the TIs in the compliance TI window for all the required compliance days for that *baseline methodology*.
- (c) The compliance TI window used for compliance testing **may be different** for each *baseline methodology*, as outlined in the Baseline Methodology Register.

#### 4.5.3. Adjustment rules

- (a) A *baseline* calculated under different *baseline methodologies* may be adjusted for conditions on the day of WDR through a baseline adjustment.
- (b) Any baseline adjustment for a particular *baseline methodology* will also be used when assessing *baselines* under *baseline compliance testing*.
- (c) Under *baseline compliance testing*, any baseline adjustment applicable to the particular *baseline methodology* will be applied to each TI in the compliance TIs window, as if that TI was the first TI to be bid into WDR.

### 4.6. Baseline compliant WDRUs

- (a) The DRSP will be notified through AEMO's Portfolio Management System that a WDRU is baseline compliant after undergoing *baseline compliance testing*.
- (b) A baseline compliant WDRU can be bid in, dispatched and settled for WDR on any types of eligibility days under the baseline methodology assigned to the WDRU. The wholesale demand response settlement quantity (WDRSQ) is calculated according to NER clause 3.15.6B(c).

### 4.7. Baseline non-compliant WDRUs

#### 4.7.1. Single WDRUs

- (a) Under NER clause 3.8.2A(c), if a WDRU is *baseline non-compliant*, the DRSP must provide to AEMO an *available capacity* of zero for the WDRU.
- (b) A *baseline non-compliant* WDRU should not be bid in for WDR.
- (c) If a *baseline non-compliant* WDRU is bid in and dispatched for WDR:
  - (i) Its baseline will be set at the metered energy value, resulting in the WDRSQ being calculated to be zero.
  - (ii) The DRSP may face further action under the AER's Wholesale Demand Response Participation Guidelines.
- (d) Under NER clause 3.10.2(h), if *baseline compliance testing* by AEMO indicates that a WDRU does not satisfy the *baseline compliance standard* in accordance with clause 3.10.4(a), AEMO will notify the relevant DRSP as soon as practicable.



- (e) Once a WDRU is flagged as non-compliant, either through *baseline compliance testing*, or by the DRSP notifying AEMO that a WDRU is *baseline non-compliant*, it will remain flagged as being *baseline non-compliant*, until the DRSP has taken the steps necessary to make the WDRU baseline compliant, as follows:
  - (i) The DRSP may request AEMO's approval to change the *baseline methodology* and *baseline settings* applied to the WDRU.
  - (ii) If AEMO approves, then the WDRU must undergo *baseline compliance testing*, to assess whether it meets the *baseline compliance standard*.
  - (iii) Finally, if so, then the DRSP will be notified through AEMO's Portfolio Management System, meaning that baseline compliant WDRU can be bid in, dispatched and settled for WDR.

## 4.7.2. Aggregated WDRUs

### 4.7.2.1. DRSP baseline non-compliant WDRUs obligation

- (a) Where WDRUs have been aggregated for dispatch, *baseline compliance testing* is conducted separately for each WDRU.
- (b) Under NER clause 3.8.2A(c), if a DRSP is aware that a WDRU is *baseline non-compliant*, the DRSP must provide to AEMO an *available capacity* of zero for the aggregated WDRUs.
- (c) If a DRSP is aware that a WDRU is *baseline non-compliant*, the DRSP must make the WDRU unavailable through AEMO's Portfolio Management System (see clause 4.7.2.2 of the Policy).
- (d) A *baseline non-compliant* WDRU which is part of the aggregation should not be bid in for WDR.
- (e) If the *baseline non-compliant* aggregated WDRU is bid in and dispatched for WDR, for each individual WDRU which is part of the aggregated WDRU, the *baseline* will be set at the metered energy value, resulting in the WDRSQ being calculated to be zero.
- (f) If a *baseline non-compliant* WDRU that is part of an aggregation is bid in and dispatched for WDR, the DRSP may face further action under the AER's Wholesale Demand Response Participation Guidelines.

### 4.7.2.2. Making a WDRU unavailable

- (a) If a WDRU is baseline non-compliant, or is temporarily unavailable to provide WDR, a DRSP can use AEMO's Portfolio Management System to make a WDRU unavailable for central dispatch.
- (b) The DRSP must:
  - (i) Indicate to AEMO the reason for this request by the DRSP.
  - (ii) Provide to AEMO the *available capacity* of zero for the unavailable WDRU.

- (iii) At the same time, submit a rebid to vary the *available capacity* of the aggregated WDRUs as *scheduled resources* under NER clause 3.8.22(b).
  - (iv) Subsequently, reflect the varied *available capacity* in all bids, until such time that the unavailable WDRU becomes available for dispatch.
- (c) AEMO will:
  - (i) Use the available aggregated WDRUs in central dispatch.
  - (ii) Not include the unavailable WDRU in settlement.
- (d) If the removal of the WDRU is to be permanent, the DRSP must request declassification for the WDRU, and request a new *maximum responsive component* for the aggregated WDRU.

#### 4.7.2.3. AEMO baseline non-compliant WDRU suspension

- (a) If a DRSP does not follow the process outlined in clauses 4.7.2.1 and 4.7.2.2 of the Policy, AEMO can suspend a *baseline non-compliant* WDRU from the central dispatch of the aggregation of which it is a part, if AEMO had imposed its ability to do so on a DRSP, as a term or condition of AEMO approving the DRSP's application for aggregation under NER clause 3.8.3(b3) and (b4).
- (b) AEMO will notify this suspension to the DRSP.
- (c) The DRSP must:
  - (i) Provide to AEMO an *available capacity* of zero for this suspended WDRU under NER clause 3.8.2A(c)(1) (that is, without NER clause 3.8.2A(c)(2) being invoked to require an available capacity of zero for the non-suspended aggregated WDRUs).
  - (ii) At the same time, submit a rebid to vary the *available capacity* of the non-suspended aggregated WDRUs as *scheduled resources* under NER clause 3.8.22(b) (noting the minimum change in DUID availability capacity is 1 MW).
  - (iii) Subsequently, reflect the varied *available capacity* in all bids, until this suspended WDRU becomes baseline compliant.
  - (iv) Further, request a new *maximum responsive component* of the aggregated WDRU.
- (d) AEMO will:
  - (i) If AEMO approves this request, conduct *baseline compliance testing* on the non-suspended aggregated WDRUs against the *baseline compliance standard*.
  - (ii) Notify the DRSP of the outcome, through the Portfolio Management System.
  - (iii) Set the baseline of the suspended WDRU at the metered energy value, resulting in its WDRSQ being calculated to be zero.
  - (iv) Use the non-suspended aggregated WDRUs in central dispatch.



## Version release history

Version	Effective date	Summary of changes
2.0	3 June 2024	<ul style="list-style-type: none"><li>Update to reflect National Electricity Amendment (Integrating energy storage systems into the NEM) Rule 2021.</li></ul>
1.0	20 November 2020	<ul style="list-style-type: none"><li>First issue</li></ul>