

# NCESS Contract (Reliability 2025-27)

**[For Unregistered Facilities that will receive activation payments  
– Peak Demand Service only (by reducing Withdrawal)  
excluding Intermittent Generating Systems]**

**Australian Energy Market Operator Limited**

and



Australian Energy Market Operator Limited  
ABN 94 072 010 327  
Level 22, 530 Collins Street  
Melbourne VIC 3000

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## Contract Details

<b>Parties</b>	<b>AEMO</b> Australian Energy Market Operator Limited (ABN 94 072 010 327) Level 22, 530 Collins Street, Melbourne VIC 3000
	<b>Service Provider</b> ##
<b>Commencement Date</b>	1 October 2025 or the date when all Conditions Precedent are satisfied or waived in accordance with <b>clause 3.3</b> (whichever is later)
<b>Duration</b>	<input type="checkbox"/> 1-year <input type="checkbox"/> 2-years
<b>End Date</b>	For a 1-year duration, 1 October 2026 For a 2-year duration, 1 October 2027
<b>Final Condition Precedent Satisfaction Date</b>	For a 1-year duration, 1 April 2026 For a 2-year duration, 1 October 2026
<b>Service Provider Registration Status</b>	<input type="checkbox"/> <i>Market Participant</i> <input type="checkbox"/> Unregistered Service Provider
<b>Service</b>	To increase <i>Injection</i> or reduce <i>Withdrawal</i> (measured in MW of response capability)
<b>Maximum Service Quantity</b>	## MW (equivalent to ## MWh per <i>Trading Interval</i> )
<b>Security</b>	## (including GST)

<b>Address for Service</b>	<b>AEMO</b>
	Attention: Manager – WA Future System & Design Email: toby.price@aemo.com.au Cc: Attention: General Counsel Address: GPO Box 2008, Melbourne VIC 3001 Email: reception.melbourne@aemo.com.au
	<b>Service Provider</b>
	Attention: ##
	Address: ##
	Email: ##
	Cc:
	Email: ##

## Recitals

- A AEMO's functions under the *WEM Regulations* and the *WEM Rules* relevantly include:
- ensuring the *SWIS* operates in a secure and reliable manner; and
  - procuring, scheduling and dispatching *Non-Co-optimised Essential System Services* in accordance with the *WEM Rules*.
- B AEMO and the Service Provider have agreed to enter into this *NCESS Contract*.

## Operative Provisions

### 1. Interpretation

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#### 1.1. Definitions – general

- (a) Subject to **clause 1.1(b)**, capitalised terms used in this Contract are defined in **clause 1.2**.
- (b) Terms in capitalised-italics have the meaning given in the *WEM Rules* (including Appendix 12) effective as at the *New WEM Commencement Day*.

#### 1.2. Dictionary

**Activation Notice** means the activation notice specified in **clause 6**.

**Activation Notice Period** means the activation notice period specified in **Schedule 3**.

**Activation Payment** means the activation payment determined under **clause 10.3**.

**Activation Price** means the activation price specified in **Schedule 3**.

**Actual Service Quantity** (measured in MWh per *Trading Interval*) means the quantity of Service provided in a *Trading Interval* (calculated in accordance with **Schedule 4**) relative to the Baseline Quantity.

**Authority** means any Commonwealth, State, Territory or local government or regulatory department, body, instrumentality, minister, agency or other authority, but does not include AEMO.

**Availability Payment** means the availability payment determined under **clause 10.2**.

**Availability Price** means the availability price specified in **Schedule 3**.

**Available**, in relation to the Service, means the Unregistered Service Equipment is (or under this Contract is taken to be) capable of increasing *Injection* or reducing *Withdrawal* (as applicable) by the Maximum Service Quantity (relative to the Baseline Quantity) for the relevant *Trading Interval* in the Service Period.

**Baseline Quantity** (measured in MW or MWh per *Trading Interval*, as applicable) means the quantity (calculated in **Schedule 4**) from which the Actual Service Quantity in a *Trading Interval* is measured.

**Commencement Date** means the commencement date specified in the **Contract Details**.

**Condition Precedent** means a condition precedent specified in **Schedule 1**.

**Condition Precedent Satisfaction Date**, in relation to a Condition Precedent, means a condition precedent satisfaction date specified in **Schedule 1** (unless amended by AEMO under **clause 3.3**), which must be a date on or before the Final Condition Precedent Satisfaction Date.

**Connection Point** has the meaning given in the Electricity Industry (Metering) Code 2012.

**Contract Term** means the period specified in **clause 2**.

**Designated Connection Point** has the meaning given in **Schedule 3**.

**End Date** means the end date specified in the **Contract Details**.

**Energy Legislation** means:

- (a) the *Electricity Industry Act*, the *WEM Regulations* and the *WEM Rules*;
- (b) any other statute or legislative instrument of the Commonwealth or a State or Territory providing for the establishment, operation or administration of a market for energy or an energy system; and
- (c) any instrument or procedure made under any of the foregoing.

**Final Condition Precedent Satisfaction Date** means the date specified in the **Contract Details**.

**Good Electricity Industry Practice** means the exercise of the degree of skill, diligence, prudence and foresight that a skilled and experienced person would reasonably and ordinarily exercise under comparable conditions and circumstances, consistent with applicable written laws and statutory instruments and applicable recognised codes, standards and guidelines.

**Insolvency Event**, in relation to a party, means the happening of any of these events:

- (a) it is (or states that it is) insolvent or under administration; or
- (b) it has a controller (as defined in the Corporations Act 2001 (Cth)) appointed, is in liquidation, in provisional liquidation, under administration, wound up or has had a receiver (or receiver and manager) appointed to any part of its property;
- (c) it is subject to any arrangement, assignment, moratorium or composition, protected from creditors under any statute or dissolved (in each case, other than to carry out a reconstruction or amalgamation while solvent);
- (d) an application or order has been made (and, in the case of an application, it is not stayed, withdrawn or dismissed within 30 days), resolution passed, proposal put forward, or any other action taken, in each case in connection with that party, which is preparatory to or could result in any of the events detailed in **paragraphs (a), (b) or (c)**;
- (e) it is otherwise unable to pay its debts when they fall due; or

- (f) something having a substantially similar effect to the events detailed in **paragraphs (a) to (e)** happens in connection with that party under the law of any jurisdiction.

**Interval Meter Data**, in relation to each Designated Connection Point, means data from an interval meter provided by the *Metering Data Agent* or the Service Provider for each *Trading Interval*.

**Legislation** means Acts of Parliament, regulations, rules, statutory instruments and codes, and includes any licence, order, official policy, directive, request, requirement or guideline of an Authority whether or not it has the force of law.

**Maximum NCESS Contract Amount** means the maximum Availability Payments that would be payable to the Service Provider, assuming that the Service is available during each *Trading Interval* in the Service Period of the Contract Term.

**Maximum Service Quantity** (measured in MW or MWh per *Trading Interval*, as applicable) means the quantity required to be provided and measured by reference to the relevant Baseline Quantity, and specified in the **Contract Details** (as adjusted under **clause 3.7** or **clause 13.4**, if applicable).

**NCESS Payment**, in relation to a Settlement Period, has the meaning given in **clause 10.1(b)**.

**NMI** (short for "National Metering Identifier"), in relation to a Connection Point, means the identifier or code for that Connection Point.

**Operational Contact Person** means AEMO's Operational Contact Person or the Service Provider's Operational Contact Person, as applicable, as specified in **Schedule 5**.

**Representative**, in relation to a party, means any officer, employee, agent, adviser, trustee, permitted assignee, liquidator, administrator, or third-party contractor of that party or of a related body corporate (as that term is defined in the Corporations Act 2001 (Cth)) of that party.

**Security** has the meaning given in **clause 11**.

**Service** means the service specified in the **Contract Details**.

**Service Limitation** means a service limitation specified in **Schedule 3**.

**Service Period** means the availability period for the Service determined under **clause 4.4**.

**Service Test**, in relation to the Unregistered Service Equipment, means a test of its ability to provide the Service for the purposes of this Contract.

**Settlement Period** means a *Trading Week*, provided that:

- (a) (unless **clause 11.4** applies with respect to the Security) the first Settlement Period commences on the Commencement Date; and
- (b) the last Settlement Period ends on the End Date.

**Unavailable** means the Unregistered Service Equipment is (under **clause 5.3**) or is taken to be (under **clause 9.4**) incapable of increasing *Injection* or reducing *Withdrawal* (as applicable) by the Maximum Service Quantity (relative to the Baseline Quantity) for the relevant *Trading Interval* in the Service Period.

**Unregistered Service Equipment** means the unregistered service equipment specified in **Schedule 3**.

**Unregistered Service Provider** means a Service Provider that is not a *Market Participant* as specified in the **Contract Details**.

## 1.2. Interpretation

Unless a contrary intention appears in this Contract, a reference to:

- (a) **this Contract** includes any schedules, attachments and annexures;
- (b) a document (including this Contract) includes the document as novated, varied, or replaced, and despite any change in the identity of the parties;

- (c) a clause, paragraph, schedule, or annexure is a reference to a clause, paragraph, schedule, or annexure to this Contract;
- (d) a clause is a reference to all its subclauses;
- (e) Legislation includes subordinate legislation and other instruments under them, and consolidations, amendments, re-enactments or replacements of any of them;
- (f) the singular includes the plural and vice versa, and a gender includes all genders;
- (g) the word “person” includes a firm, a body corporate, a partnership, joint venture, trust, an unincorporated association, any Authority and any successor entity to those persons;
- (h) the words “includes” or “including” or “such as” are not words of limitation, and when introducing an example, do not limit the meaning of the words to which the example relates or to examples of a similar kind;
- (i) a person includes a reference to the person’s executors, administrators, successors, substitutes (including persons taking by novation) and assigns;
- (j) a party includes, where the context requires it, that person’s directors, officers, employees, contractors, agents and any other persons authorised by that party;
- (k) a thing (including an amount) is a reference to the whole and each part of it and a reference to a group of persons is a reference to all of them collectively, to any two or more of them collectively, and to each of them individually;
- (l) writing includes any mode of representing or reproducing words in tangible and permanently visible form;
- (m) a month is a reference to a calendar month;
- (n) a day is a reference to a period of time commencing at midnight and ending at the following midnight; and
- (o) a period of time dating from a given day or the day of an act or event, is to be calculated exclusive of that day and, if a period of time is specified as commencing on a given day or the day of an act or event, it is to be calculated inclusive of that day.

### 1.3. Construction

- (a) Headings are inserted for convenience, and do not affect the interpretation of this Contract.
- (b) If a word or phrase is defined in this Contract, other parts of speech and grammatical forms of that word or phrase have corresponding meanings.
- (c) No rule of construction applies to a clause to the disadvantage of a party merely because that party put forward the clause or would otherwise benefit from it.
- (d) An agreement, representation or warranty:
  - (i) in favour of two or more persons is for the benefit of them jointly and each of them severally; and
  - (ii) by two or more persons binds them jointly and each of them severally.

### 1.4. Schedules

- (a) The **Schedules** form part of this Contract.
- (b) If a **Schedule** contains any provisions that impose additional obligations to those set out in the Operative Provisions, the provisions in the Schedule apply in respect of the Service, as if the provision were an Operative Provision.

### 1.5. **WEM Rules prevail**

If there is any inconsistency between this Contract and the *WEM Rules* with respect to a party's obligation or other term of this Contract, the *WEM Rules* prevail to the extent of the inconsistency.

## 2. **Contract Term**

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### 2.1. **Commencement Date**

This Contract commences at 8.00 am on the Commencement Date.

### 2.2. **End Date**

This Contract ends at 8.00 am on the End Date (unless terminated earlier under **clause 13**).

## 3. **Condition Precedent**

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### 3.1. **Condition Precedent**

This Contract (other than this **clause 3** and **clause 1** (Interpretation), **clause 10** (Payment and settlement) [but only to the extent required for **clause 10** to give effect to **clause 11.4**], **clause 11** (Security), **clause 14** (Dispute resolution), **clause 15** (Representations and warranties) and **clause 16** (General)) has no legal effect unless and until all Conditions Precedent are satisfied or waived in accordance with **clause 3.3**.

### 3.2. **Responsibility for satisfying Conditions Precedent**

The Service Provider must:

- (a) use reasonable endeavours to satisfy each Condition Precedent as soon as practicable and, in any event, must satisfy each Condition Precedent by the Condition Precedent Satisfaction Date;
- (b) keep *AEMO* informed regarding the status of each Condition Precedent, including by providing information in accordance with **Schedule 2** and as otherwise reasonably requested by *AEMO*; and
- (c) notify *AEMO* in writing promptly if the Service Provider reasonably considers that a Condition Precedent is unlikely to be satisfied by the Condition Precedent Satisfaction Date.

### 3.3. **Determination of satisfaction of Conditions Precedent**

- (a) *AEMO* must determine satisfaction (or otherwise) of each Condition Precedent within 3 Business Days of the later of:
  - (i) the date *AEMO* considers (at *AEMO*'s sole discretion and acting reasonably) that the Service Provider has provided all information relevant to that Condition Precedent to *AEMO*; and
  - (ii) (if relevant to the Condition Precedent) the date the Meter Data Agent provides all relevant Interval Meter data to *AEMO*.
- (b) To avoid doubt, *AEMO* may request further information from the Service Provider at any time for the purposes of **clause 3.3(a)**.
- (c) If *AEMO* determines under **clause 3.3(a)** that the Condition Precedent is satisfied, *AEMO* must set the date of satisfaction as the date of *AEMO*'s determination under **clause 3.3(a)**.

### 3.4. **Extension and waiver**

Each Condition Precedent is for *AEMO*'s benefit. *AEMO* (in its sole discretion and acting reasonably) may extend a Condition Precedent Satisfaction Date to a date on or before Final Condition Precedent Satisfaction Date, or waive the non-satisfaction of a Condition Precedent, by notifying the Service Provider to that effect in writing.



### 3.5. Termination for non-satisfaction of Condition Precedent

AEMO may terminate this Contract if a Condition Precedent is not satisfied by the Condition Precedent Satisfaction Date, and AEMO (in its sole discretion and acting reasonably) does not:

- (a) extend the Condition Precedent Satisfaction Date; or
- (b) waive the non-satisfaction of the Condition Precedent under **clause 3.3**.

### 3.6. Consequences of termination

If AEMO terminates this Contract under **clause 3.5**:

- (a) **clause 11.4** applies with respect to the Security; and
- (b) **clause 13.3** applies with respect to the termination.

### 3.7. Alternative to termination

- (a) AEMO (as an alternative to termination under **clause 3.5**) may, by notice to the Service Provider, reduce the relevant Maximum Service Quantity to a quantity AEMO reasonably expects the Service Provider to be capable of providing, having regard to all relevant information available to AEMO, including information provided by the Service Provider in accordance with **Schedule 2. Clause 11.4** applies with respect to the Security to the extent of the proportionate difference between the Maximum Service Quantity and the reduced Maximum Service Quantity.
- (b) If the Maximum Service Quantity is reduced under **clause 3.7(a)**:
  - (i) the Service Provider may, by notice in writing, request AEMO to increase the relevant Maximum Service Quantity to a quantity up to but not exceeding the Maximum Service Quantity specified in the **Contract Details**; and
  - (ii) AEMO must increase the relevant Maximum Service Quantity to a quantity (up to but not exceeding the Maximum Service Quantity specified in the **Contract Details**) that AEMO reasonably expects the Service Provider to be capable of providing, having regard to all relevant information available to AEMO.

## 4. Service

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### 4.1. Service obligations

On and from the Commencement Date, the Service Provider must:

- (a) operate and maintain the Unregistered Service Equipment in accordance with Good Electricity Industry Practice; and
- (b) ensure each Designated Connection Point is not (and has not previously been) associated with any *Demand Side Programme* during the 2023/24 or 2024/25 *Capacity Year*;
- (c) (subject to this Contract) ensure the Service is Available at all times during the Service Period;
- (d) ensure the Unregistered Service Equipment satisfies the control and communication requirements specified in **Schedule 3**;
- (e) activate the Unregistered Service Equipment (or cause third-party Unregistered Service Equipment to be activated) and provide the Service when required to do so by AEMO in compliance with the relevant Activation Notice and otherwise in accordance with this Contract; and
- (f) not enter into or be a party to any contractual or legal arrangement relating to the Unregistered Service Equipment (other than in the ordinary course of business) that may adversely affect the Service Provider's ability to provide the Service.

## 4.2. Changes in Unregistered Service Equipment or Designated Connection Point

- (a) The Service Provider must notify AEMO's Operational Contact Person (by telephone and email) of a proposed change in the Unregistered Service Equipment or a Designated Connection Point.
- (b) Subject to **clause 4.2(c)**, AEMO may approve the proposed change with effect from a time determined by AEMO (and must not unreasonably withhold its approval of the proposed change). AEMO (in its sole discretion and acting reasonably) may require the Service Provider to carry out a Service Test after approving the proposed change.
- (c) AEMO must exclude any connection point where:
  - (i) the Service Provider is not the *Market Participant* associated with the connection point; and
  - (ii) the connection point is included in any existing or expected NCESS Contract with the relevant *Market Participant*.

## 4.3. Information request

- (a) AEMO (acting reasonably) may request information from the Service Provider's Operational Contact Person regarding the Unregistered Service Equipment or the Service at any time during the Contract Term.
- (b) The Service Provider must provide requested information without undue delay.

## 4.4. Service Period

The Service Period is each *Trading Interval* in each *Electric Storage Resource Obligation Interval*.

## 4.5. Material change notification by Service Provider

The Service Provider must notify AEMO's Operational Contact Person without undue delay if:

- (a) There are any material changes during the Contract Term with respect to:
  - (i) the Unregistered Service Equipment; or
  - (ii) a Designated Connection Point (including NMI details); or
- (b) an Insolvency Event occurs in relation to the Service Provider.

# 5. Availability

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## 5.1. Determining Availability

The Service is taken to be Available in any *Trading Interval* during the Service Period unless it is Unavailable under **clause 5.3** or taken to be Unavailable **clause 9.4**.

## 5.2. Unavailability notification by Service Provider

- (a) The Service Provider must notify AEMO's Operational Contact Person without undue delay (by telephone and email) if it considers that:
  - (i) the Unregistered Service Equipment is or will become incapable of increasing *Injection* or reducing *Withdrawal* (as applicable) from the Baseline Quantity; or
  - (ii) the Service is or will become Unavailable for any other reason.
- (b) The notice must specify:
  - (i) when the Service became or will become Unavailable;
  - (ii) the expected period of Unavailability; and
  - (iii) the cause of the Unavailability.

- (c) The Service Provider must notify AEMO's Operational Contact Person without undue delay (by telephone and email) when the Service becomes Available after a period of Unavailability.

### 5.3. Unavailable

The Service is Unavailable in any *Trading Interval* during the Service Period if:

- (a) a Condition Precedent is not satisfied and AEMO (in its sole discretion and acting reasonably) does not waive non-satisfaction of the Condition Precedent under **clause 3.3**;
- (b) either of the following applies:
  - (i) the Service Provider does not activate the Unregistered Service Equipment in compliance with an Activation Notice and otherwise in accordance with this Contract; or
  - (ii) the Service Provider activates the Unregistered Service Equipment, but the Actual Service Quantity, as measured in accordance with **clause 7**, is less than 90% of the required quantity for the *Trading Interval*;
- (c) the *Trading Interval* is within a period notified under **clause 5.2**;
- (d) AEMO loses communication with, or visibility of, the Unregistered Service Equipment for the entire *Trading Interval*; or
- (e) AEMO otherwise reasonably determines that the Unregistered Service Equipment is unable to provide the Maximum Service Quantity in the *Trading Interval*.

## 6. Activation

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- (a) AEMO (in its sole discretion and acting reasonably) may issue an Activation Notice to the Service Provider's Operational Contact Person (by telephone and email) during the Contract Term. AEMO will use reasonable endeavours to only activate the Service for the Service Provider when it considers that *Real-Time Market* outcomes may be insufficient to ensure *Power System Security* and *Power System Reliability* during the Service Period.
- (b) An Activation Notice must specify:
  - (i) the MW quantity of increased *Injection* or reduced *Withdrawal* (as applicable), relative to the Baseline Quantity, that is required to be provided during each relevant *Trading Interval* (which must not exceed the Maximum Service Quantity) for the relevant *Trading Interval* in the Service Period;
  - (ii) the time by when the Unregistered Service Equipment is required to have increased *Injection* or reduced *Withdrawal* (as applicable) relative to the Baseline Quantity (which must be consistent with the Service Limitations); and
  - (iii) the time when the Unregistered Service Equipment is no longer required to maintain the MW quantity specified in **clause 6(b)(i)** (which must be consistent with the Service Limitations).
- (c) To avoid doubt, when an Activation Notice is issued, the Service Provider is required to:
  - (i) increase *Injection* or reduce *Withdrawal* (as applicable) before the time specified for the purposes of **clause 6(b)(ii)**, at a rate approximating the service ramp rate (where the service ramp rate is the rate (in MW per minute on a linear basis) at which the Unregistered Service Equipment is required to increase *Injection* or reduce *Withdrawal* (as applicable)); and
  - (ii) reduce *Injection* or increase *Withdrawal* (as applicable) after the time specified for the purposes of **clause 6(b)(iii)** to a level that the Service Provider considers appropriate.
- (d) The Service Provider must comply with an Activation Notice.

## 7. Measurement

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*AEMO* must use Interval Meter Data to determine the Actual Service Quality at each Designated Connection Point relative to the Baseline Quantity for each *Trading Interval*.

## 8. Modifications to Unregistered Service Equipment

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### 8.1. Service Provider Unregistered Service Equipment

The Service Provider must notify *AEMO* promptly after changing or modifying any Unregistered Service Equipment that it owns operates or controls in a manner that affects or could reasonably be expected to affect its ability to provide the Service.

### 8.2. Third-Party Unregistered Service Equipment

The Service Provider must use reasonable endeavours to ensure that any third-party with whom the Service Provider enters into a contract or an arrangement for the purposes of providing the Service notifies the Service Provider as soon as any Unregistered Service Equipment applicable to that third-party is, or will become, incapable of providing the Service.

## 9. Service Test

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### 9.1. Service Test

*AEMO* may require the Service Provider to carry out a Service Test if:

- (a) the Unregistered Service Equipment does not operate at a level equal to or greater than the Maximum Service Quantity for the relevant *Trading Interval* in the Service Period at any time in a 3-month period; or
- (b) the Actual Service Quantity for the Unregistered Service Equipment is less than 80% of the quantity specified in an Activation Notice for the *Trading Interval*.

### 9.2. Service Test process

The Service Test process is as follows:

- (c) *AEMO* determines 2 consecutive *Trading Intervals* in the Service Period during which the Unregistered Service Equipment is to be subject to a Service Test;
- (d) *AEMO* notifies the Service Provider's Operational Contact of the Service Test *Trading Intervals* in writing; and
- (e) *AEMO* issues an Activation Notice with respect to the Service Test *Trading Intervals*.

### 9.3. Service Test outcome

*AEMO* must determine the Service Test outcome based on Interval Meter Data as follows:

- (a) if (having regard to the matters specified in **clause 5.3**) the relevant data shows that the Service is taken to be Unavailable in either or both of the Service Test *Trading Intervals*, then the Unregistered Service Equipment fails the Service Test; and
- (b) otherwise, the Unregistered Service Equipment passes the Service Test.

### 9.4. Deemed Unavailability

If the Unregistered Service Equipment fails a Service Test, the Service is Unavailable from the *Trading Interval* in which *AEMO* reasonably considers it failed the Service Test until the Unregistered Service Equipment passes a Service Test or *AEMO* otherwise reasonably considers the Service is Available.

## 10. Payment and settlement

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### 10.1. NCESS Payment

- (a) AEMO must calculate the NCESS Payment for each Settlement Period.
- (b) The NCESS Payment is the sum of the Availability Payments and Activation Payments.

### 10.2. Availability Payment

The Availability Payment in a Settlement Period is determined as follows:

$$\text{Availability Payment} = \sum_{t \in \text{TI}} \text{AP} \times \text{MSQ}$$

where:

**AP** is the Availability Price for the relevant *Trading Interval* (being the Availability Price in **Schedule 3** converted to \$ per MW per *Trading Interval*);

**MSQ** is the Maximum Service Quantity (in MW) for the relevant *Trading Interval*; and

**t**TI denotes all *Trading Intervals* in the Service Period in the Settlement Period (excluding *Trading Intervals* when the Service is Unavailable).

### 10.3. Activation Payment

The Activation Payment in a Settlement Period is determined as follows:

$$\text{Activation Payment} = \sum_{t \in \text{TI}} \text{AP} \times \text{ASQ}$$

where:

**AP** is the Activation Price for the relevant *Trading Interval* (being the Activation Price in **Schedule 3** converted to \$ per MW per *Trading Interval*); and

**ASQ** is the Actual Service Quantity (in MW) for the relevant *Trading Interval* determined as follows:

- (a) zero, if the Service is Unavailable;
- (b) zero, if the Service is not activated in accordance with **clause 6**; and
- (c) otherwise, the Actual Service Quantity (in MW) for the relevant *Trading Interval*, up to but not exceeding the MW quantity specified in the relevant Activation Notice for the relevant *Trading Interval*, as determined in accordance with **clause 7**; and

**t**TI denotes all *Trading Intervals* in the Service Period in the Settlement Period.

### 10.4. Settlement – Market Participant

For a *Market Participant*, section 9 of the *WEM Rules* applies with respect to NCESS Payments.

### 10.5. Settlement – Unregistered Service Provider

- (a) If the Service Provider is an Unregistered Service Provider, AEMO must follow the settlement processes outlined in this **clause 10.5**.
- (b) On the sixth *Business Day* of the second month following each *Trading Month* during the Contract Term, AEMO will issue a recipient created tax invoice to the Service Provider and, subject to clause 9.24.3A of the *WEM Rules*, will pay the Service Provider the NCESS Payment via bank transfer to the Service Provider's nominated account within four *Business Days* of the date of the invoice.
- (c) The Service Provider must provide any information and do anything that AEMO reasonably requires to facilitate the payment of the invoice.

- (d) If the Service Provider disagrees with an invoice issued under **clause 10.5(b)**, the Service Provider may lodge a notice of disagreement with *AEMO* by no later than 5pm AWST within 40 *Business Days* following the date on which the invoice was issued.
- (e) *AEMO* will, within one month of receipt of a notice of disagreement, respond to the notice of disagreement by:
  - (i) indicating any revisions to the invoice and issuing a revised invoice; or
  - (ii) disagreeing with the notice of disagreement (and therefore taking no action).
- (f) If the Service Provider is not satisfied with *AEMO*'s response to the notice of disagreement, the Service Provider may commence a dispute in accordance with **clause 13**.
- (g) If *AEMO* issues a revised invoice under **clause 10.5(e)(i)**, it will pay the Service Provider the amount payable via bank transfer to the Service Provider's nominated account within four *Business Days* of the date of the invoice.

#### 10.6. GST

Clause 9.1.3 of the *WEM Rules* applies with respect to amounts payable under this Contract.

## 11. Security

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### 11.1. Application

This **clause 11** applies if the **Contract Details** specify that Security is required.

### 11.2. Obligation to provide Security

The Service Provider must ensure that *AEMO* holds the benefit of the Security for the amount specified in the **Contract Details** as amended under **clause 3.7**. The Security must be an obligation in writing that:

- (a) is from a *Security Provider*;
- (b) is a guarantee or bank undertaking in a form prescribed by *AEMO*;
- (c) is duly executed by the *Security Provider* and delivered unconditionally to *AEMO*;
- (d) constitutes valid and binding unsubordinated obligations of the *Security Provider* to pay to *AEMO* amounts in accordance with its terms;
- (e) permits drawings or claims by *AEMO* up to a stated amount;
- (f) has an effective date on or before the date indicated in **Condition Precedent 1**; and
- (g) has an expiry date on or following a date which is 20 *Business Days* after the date that is 2 months after the Final Condition Precedent Satisfaction Date.

### 11.3. Satisfaction of Conditions Precedent

If the Service Provider satisfies each Condition Precedent by the relevant Condition Precedent Satisfaction Date, or *AEMO* waives non-satisfaction of a Condition Precedent under **clause 3.3**, *AEMO* must return the original copy of the Security to the Service Provider within 10 *Business Days*.

### 11.4. Non-satisfaction of Conditions Precedent

- (a) If the Service Provider does not satisfy each Condition Precedent by the relevant Condition Precedent Satisfaction Date, and *AEMO* (in its sole discretion and acting reasonably) does not waive non-satisfaction of a Condition Precedent under **clause 3.3**, then:
  - (i) *AEMO* must notify the Service Provider of that fact; and
  - (ii) the Service Provider must pay to *AEMO*, as compensation to the market, an amount equivalent to the Security (as specified in the **Contract Details** and subject to **clause 3.7(a)**) within 10 *Business Days*.

- (b) The obligation in **clause 11.4(a)(ii)** is satisfied if:
  - (i) the Service Provider pays *AEMO* an amount equivalent to the Security (as specified in the **Contract Details** and subject to **clause 3.7(a)**) in cleared funds within 10 *Business Days* after *AEMO* notifies the Service Provider under **clause 11.4(a)(i)** (in which case *AEMO* must promptly return the original copy of the Security to the Service Provider); or
  - (ii) (if *AEMO* does not receive a payment under **clause 11.4(b)(i)**) *AEMO* draws on the Security and promptly returns the original copy of the Security to the Service Provider.
- (c) The payment under **clause 11.4(b)(i)** or the drawdown under **clause 11.4(b)(ii)**, as applicable, is deemed to be a negative *NCESS* amount payable under this Contract for the purposes of clauses 5.9.1 and 9.10.27C of the *WEM Rules*.

## 12. Liability

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### 12.1. *AEMO's* liability cap

- (a) Subject to **clause 12.1(b)**, and other than in respect of any unpaid *NCESS* Payment amounts, the total amount recoverable from *AEMO* in respect of any and all claims arising out of any one or more events during the Contract Term with respect to, arising from, or in connection with, this Contract is limited to the prescribed maximum amount for the purposes of section 126 of the *Electricity Industry Act* and regulation 52 of the *WEM Regulations*.
- (b) Regardless of the nature of any claim, *AEMO* is not liable in any circumstances for any:
  - (i) damages or losses that are not direct and do not flow naturally from a breach of this Contract, even if they may reasonably be supposed to have been in the contemplation of both parties as a probable result of the breach at the time they entered into this Contract;
  - (ii) loss of market, opportunity or profit (whether direct or indirect); or
  - (iii) damages or losses to the extent that a claim results from the Service Provider's failure to act in accordance with this Contract, Legislation, or Good Electricity Industry Practice.

### 12.2. Service Provider liability cap

- (a) Subject to **clause 12.2(b)**, and other than in respect of any *NCESS* Payment amounts repayable by the Service Provider under this Contract, the total amount recoverable from the Service Provider in respect of any and all claims arising out of any one or more events during the Contract Term with respect to, arising from, or in connection with, this Contract is limited to the lesser of the Maximum *NCESS* Contract Amount and \$5 million.
- (b) Regardless of the nature of any claim, the Service Provider is not liable in any circumstances for any:
  - (i) damages or losses that are not direct and do not flow naturally from a breach of this Contract, even if they may reasonably be supposed to have been in the contemplation of both parties as a probable result of the breach at the time they entered into this Contract;
  - (ii) loss of market, opportunity or profit (whether direct or indirect); or
  - (iii) damages or losses to the extent that a claim results from *AEMO's* failure to act in accordance with this Contract, Legislation, or Good Electricity Industry Practice.

## 13. Termination

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### 13.1. Termination by AEMO

AEMO may terminate this Contract by giving notice to the Service Provider if:

- (a) (for any period after the Commencement Date) any of the following applies:
  - (i) as at any given day, the Service has been Unavailable in more than 10% of *Trading Intervals* in the Service Period in the preceding 90 days during the Contract Term;
  - (ii) the Service is Unavailable for a continuous period of more than 30 days during the Contract Term;
  - (iii) the Service Provider breaches a material term of this Contract and, in the case of a breach that is capable of remedy, does not remedy that breach within 20 *Business Days* (or, if AEMO approves a longer period for a specific breach, within that longer period) after AEMO notifies the Service Provider of the breach; or
  - (iv) an Insolvency Event occurs in relation to the Service Provider, and the Service Provider does not remedy the Insolvency Event within 20 *Business Days* after the Insolvency Event occurs (or, if AEMO approves a longer period for the Insolvency Event, within that longer period).
- (b) A termination notice takes effect on the later of:
  - (i) the time it is given; and
  - (ii) immediately prior to 8.00 am on the *Trading Day* immediately after the date specified in the notice.

### 13.2. No liability for termination

- (a) Subject to **clause 13.2(b)**, AEMO is not liable to the Service Provider if it terminates this Contract under this **clause 13**.
- (b) AEMO is only liable for NCESS Payments due in accordance with this Contract before 8.00 am on the *Trading Day* immediately after the date specified in the termination notice.

### 13.3. Consequences of termination

Subject to **clause 13.2(b)**, expiry or termination of this Contract for any reason does not affect any rights of either party against the other party that:

- (a) arose prior to the time at which expiry or termination occurred; and
- (b) otherwise relate to or may arise at any future date from any breach of this Contract occurring prior to the expiry or termination.

### 13.4. Reduction of Maximum Service Quantity

- (a) AEMO (acting reasonably and as an alternative to termination) may, by notice to the Service Provider, reduce the relevant Maximum Service Quantity to a quantity AEMO reasonably expects the Service Provider to be capable of providing having regard to the Service Provider's historical performance under this Contract.
- (b) If the Maximum Service Quantity is reduced under **clause 13.4(a)**:
  - (i) the Service Provider may, by notice in writing, request AEMO to increase the relevant Maximum Service Quantity to a quantity up to but not exceeding the Maximum Service Quantity specified in the **Contract Details**; and
  - (ii) AEMO must increase the relevant Maximum Service Quantity to a quantity (up to but not exceeding the Maximum Service Quantity specified in the **Contract Details**) that AEMO reasonably expects the Service Provider to be capable of providing, having regard to all relevant information available to AEMO.



## 14. Dispute resolution

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### 14.1. *WEM Rules* dispute process

Subject to **clause 14.2**:

- (a) the dispute process set out in sections 2.18, 2.19, 2.20, 9.16 and 9.17 of the *WEM Rules* applies to any dispute arising under this Contract; and
- (b) for an Unregistered Service Provider, the dispute process set out in sections 2.18, 2.19, 2.20, 9.16 and 9.17 of the *WEM Rules* applies to any dispute arising under this Contract as if the Service Provider were a *Rule Participant* for the purposes of those clauses.

### 14.2. General dispute resolution procedure

- (a) This **clause 14** does not prevent a party seeking an urgent interlocutory injunction from a court of competent jurisdiction.
- (b) Unless otherwise agreed, the parties must continue to perform their obligations under this Contract despite the existence of a dispute.

## 15. Representations and warranties

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The Service Provider represents and warrants to *AEMO* as at the Commencement Date and at all times during the Contract Term that (to the best of its knowledge and belief):

- (a) the Service Provider's obligations under this Contract are valid and binding and enforceable in accordance with their terms;
- (b) the Service Provider has in full force and effect all contracts, authorisations, licences, permits, consents, certificates, authorities and approvals necessary to enter into this Contract, to perform its obligations under this Contract and to allow those obligations to be enforced;
- (c) the Service Provider is not in default under Legislation affecting it or its respective assets, or any obligation or undertaking by which it or any of its assets are bound which will or might reasonably be expected to, materially affect its ability to perform the obligations under this Contract;
- (d) there is no pending or threatened action or proceeding affecting the Service Provider or any of its respective assets before a court, governmental agency, commission, arbitrator or other tribunal which will, or might reasonably be expected to, materially affect its ability to perform its obligations under this Contract; and
- (e) the Service Provider does not have immunity from the jurisdiction of a court or from legal process (whether through service of notice, attachment prior to judgment, attachment in aid of execution, execution or otherwise).

## 16. General

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### 16.1. Notices

- (a) Subject to **clause 16.1(b)** and **Schedule 5**, all communications to a party must be:
  - (i) in writing;
  - (ii) marked to the attention of the person named in respect of that party in the **Contract Details**; and
  - (iii) left at, sent by ordinary pre-paid post (airmail if posted to or from a place outside Australia), or in electronic form, to the address, number, or electronic mail address of the addressee specified in respect of that party in the **Contract Details**.
- (b) Subject to the *WEM Rules*, any:

- (i) communications given in the course of the day-to-day running of the *Wholesale Electricity Market* by or on behalf of a party to the other;
- (ii) notifications regarding Availability of the Service by the Service Provider in accordance with this Contract, must be made by email (or automated electronic process) or telephone as notified by *AEMO*.
- (c) Unless communications under **clause 16.1(b)** are recorded in some other way satisfactory to and with the consent of both parties, the parties must ensure that logs are kept in which persons or electronic systems giving and receiving those communications record brief details of their substance and timing.
- (d) Unless a later time is specified in it, a communication takes effect from the time it is received.
- (e) A communication is taken to be received:
  - (i) in the case of a posted letter, 5 *Business Days* after posting;
  - (ii) in the case of an electronic message, on production of a report by the computer from which the electronic message was sent that indicates that the message was received in its entirety at the electronic mail address of the recipient; and
  - (iii) in the case of a communication under **clause 16.1(b)**, when the communication is received.
- (f) Other than communications given under **clause 16.1(b)**, if a communication is received, or deemed to be received, on a day that is not a *Business Day*, or after 4:00pm AWST on a *Business Day*, it is taken to be received on the next *Business Day*.
- (g) A party may at any time by notice given to the other party in writing designate a different person, address, telephone number or electronic mail address for the purposes of **clause 16.1**, the **Contract Details** and **Schedule 5**.

## 16.2. Exercise of Rights

Subject to the express provisions of this Contract, a party may exercise a right, power or remedy at its discretion, and separately or concurrently with another right, power or remedy. A single or partial exercise of a right, power or remedy by a party does not prevent a further exercise of that or of any other right, power or remedy. Failure by a party to exercise or delay in exercising a right, power or remedy does not prevent its exercise.

## 16.3. Waiver of Rights

A right may only be waived in writing, signed by the party giving the waiver and:

- (a) no other conduct of a party (including a failure to exercise, or delay in exercising, the right) operates as a waiver of the right, or otherwise prevents the exercise of the right;
- (b) a waiver of a right on one or more occasions does not operate as a waiver of that right if it arises again; and
- (c) the exercise of a right does not prevent any further exercise of that right or of any other right.

## 16.4. Assignment or other dealing

- (a) The Service Provider must not assign or otherwise deal with its rights or obligations under this Contract or (except in the ordinary course of business) in respect of the Unregistered Service Equipment without *AEMO*'s written consent.
- (b) *AEMO* must not unreasonably withhold or delay its consent under **clause 16.4(a)**.
- (c) *AEMO* (as a condition of consent under **clause 16.4(a)**) may require the Service Provider and the third-party to enter into a deed of novation with *AEMO* on terms that are reasonably satisfactory to *AEMO* under which the third-party agrees to assume obligations that are substantially equivalent to the Service Provider's obligations under this Contract.

(d) Any purported assignment in breach of this **clause 16.4** is invalid and of no legal effect.

**16.5. Amendment and variation**

(a) Unless otherwise stated in this Contract, this Contract may be varied:

- (i) by agreement of the parties as recorded in writing and signed by the parties; or
- (ii) by agreement under **clause 16.5(b)**.

(b) If any Legislation (including the *WEM Rules*) is amended (**Change in Law**) and, in a party's reasonable opinion, the amendment will affect this Contract or the performance of obligations under this Contract:

- (i) the party may, by notice in writing to the other party, request relevant amendments to this Contract that are reasonably required to address the Change in Law; and
- (ii) both parties must act reasonably and in good faith to agree on any amendments to this Contract required to address the impact of the Change in Law on this Contract or the performance of obligations under this Contract.

**16.6. Costs and expenses**

Except as otherwise agreed by the parties in writing or stated in this Contract, each party must pay its own costs in relation to preparing, negotiating and executing this Contract and any document related to this Contract.

**16.7. Further assurances**

Each party agrees, at its own expense, on the request of the other party to:

- (a) promptly do everything reasonably necessary to give effect to this Contract and the transactions contemplated by it (including the execution of documents); and
- (b) use reasonable endeavours to cause relevant third parties to do likewise if necessary or desirable.

**16.8. Supervening legislation**

Subject to **clause 16.5(b)**, any present or future Legislation that operates to vary an obligation or right, power or remedy of a person in connection with this Contract is excluded to the extent permitted by law.

**16.9. Severability**

If a provision or part of a provision of this Contract is void, unenforceable, invalid or illegal in a jurisdiction, it is severed for that jurisdiction. The remainder of this Contract remains effective and the validity or enforceability of that provision in any other jurisdiction is not affected. This **clause 16.9** has no effect if the severance alters the basic nature of this Contract or is contrary to public policy.

**16.10. Entire agreement**

- (a) Subject to the *WEM Rules*, this Contract constitutes the entire agreement of the parties in connection with provision of the Service and any previous agreements, understandings and negotiations on that subject matter cease to have any effect.
- (b) For the avoidance of doubt, this Contract contains everything the parties have agreed on in relation to the matters it deals with. No party can rely on an earlier document, or anything said or done by the other party, or by a director, officer, agent or employee of that party, before this Contract was executed, save as permitted by law.

**16.11. Confidential information**

- (a) The Service Provider consents to the use or disclosure of its confidential information by *AEMO* to the extent reasonably necessary for *AEMO* to carry out its functions, or comply with its obligations, under the *WEM Regulations* and the *WEM Rules*.
- (b) This **clause 16.11** survives termination (for whatever reason) of this Contract.

**16.12. No other representations or warranties**

Each party acknowledges that, in entering into this Contract, it has not relied on any representations or warranties about its subject matter except as provided in this Contract.

**16.13. Counterparts**

This Contract may consist of a number of identical copies, each signed by one or more parties to this Contract. If so, the signed copies make up one document and the date of this Contract will be the date on which the last counterpart was signed. The counterparts may be executed and delivered by email or other electronic signature by one or more of the parties and the receiving party or parties may rely on the receipt of such document so executed and delivered electronically as if the original had been received.

**16.14. Governing law and jurisdiction**

This Contract and the transactions contemplated by it are governed by the laws in force in Western Australia. Each party submits to the non-exclusive jurisdiction of the courts of that place. The parties will not object to the exercise of jurisdiction by those courts on any basis.

**16.15. No partnership, agency or trust**

Nothing contained or implied in this Contract constitutes or may be deemed to constitute that a party is the partner, agent or representative of any other party for any purpose whatsoever, or creates or may be deemed to create any partnership or creates or may be deemed to create any agency or trust.

**16.16. No authority to act**

Neither party has any power or authority to act for or to assume any obligation or responsibility on behalf of the other party, to bind the other party to any agreement, negotiate or enter into any binding relationship for or on behalf of the other party or pledge the credit of the other party except as specifically provided in this Contract or by express agreement between the parties.

# SIGNING PAGE

EXECUTED as an agreement

**SIGNED** by ## (## title) as authorised )  
representative for **Australian Energy Market** )  
**Operator Limited:** )  
 )  
 )  
 )  
 )  
 )  
 )  
 )  
 )  
 )  
 )

.....  
By executing this Contract the signatory warrants that the signatory is duly authorised to execute this Contract on behalf of **Australian Energy Market Operator Limited**

Date: .....

**SIGNED** by ## (## title) as authorised )  
representative for ##: )  
 )  
 )  
 )  
 )  
 )  
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 )  
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 )  
 )  
 )

.....  
By executing this Contract the signatory warrants that the signatory is duly authorised to execute this Contract on behalf of ##

Date: .....

## Schedule 1 – Conditions Precedent

No	Condition Precedent	Condition Precedent Satisfaction Date
1.	The Service Provider provides the Security to <i>AEMO</i> .	1 November 2024
2.	If the Maximum Service Quantity is greater than or equal to 10 MW, the Service Provider must register as a <i>Market Participant</i> .	##
3.	<p>The Service Provider provides NMI details of each Designated Connection Point associated with the Unregistered Service Equipment, where each Designated Connection Point must have:</p> <ul style="list-style-type: none"> <li>(a) must have an interval meter installed;</li> <li>(b) must have been assigned a NMI; and</li> <li>(c) must not be included in any existing or expected NCESS Contract with the <i>Market Participant</i> that is the relevant <i>Market Participant</i> for the connection point.</li> </ul>	##
4.	The Service Provider must complete commissioning (to <i>AEMO</i> 's satisfaction) of the required control and communication requirements specified in <b>Schedule 3</b> .	##
5.	<p>The Service Provider demonstrates (through activation at its own cost and based on Interval Meter Data, for any period on or after 1 June 2025) that the Unregistered Service Equipment is capable of increasing <i>Injection</i> or reducing <i>Withdrawal</i> (as applicable) for 8 consecutive <i>Trading Intervals</i> during the relevant Service Period by a quantity greater or equal to the relevant Maximum Service Quantity (relative to the Baseline Quantity).</p> <p>For the purposes of this Condition Precedent, the Baseline Quantity and the Actual Service Quantity must be determined in accordance with <b>clause 7</b>.</p>	##

## Schedule 2 – Progress Report

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The Service Provider must provide the following information (with supporting evidence) at least every 3 months from the date of this Contract until the Commencement Date (or termination under **clause 3.5** if applicable):

- (a) when all third-party contracts will be finalised;
- (b) when all required control equipment will be in place;
- (c) when required control and communication equipment will be ready to undertake commissioning; and
- (d) when the required control and communication equipment will have completed commissioning.

## Schedule 3 – Service

### (a) Unregistered Service Equipment and Designated Connection Point

Unregistered Service Equipment	##
Designated Connection Point	The following NMI: # #

### (b) Availability Price and Activation Price

Availability Price (\$ per MW per year)	
Activation Price (\$ per MWh)	

### (c) Service Limitations

Activation Notice Period	2 hours before the Service is to be provided
Minimum Activation Quantity (MW)	1 MW
Minimum Activation Event Duration	1 Trading Interval during the Service Period
Maximum Activation Event Duration	8 consecutive <i>Trading Intervals</i> during the Service Period

### (d) Control and communication requirements

The Unregistered Service Equipment must satisfy the following control and communication requirements:

- (i) a single point of communication for activation;
- (ii) a capability to activate up to the Maximum Service Quantity for 8 consecutive *Trading Intervals* during the relevant Service Period; and
- (iii) visibility, through communication protocols approved by AEMO (where the approval must not unreasonably be withheld), at a granularity of not more than 5 minutes (unless AEMO approves a different granularity), of:
  - A. *Injection or Withdrawal* of the Unregistered Service Equipment;
  - B. expected Maximum Service Quantity availability during the next Service Period; and
  - C. the data specified in clauses **Schedule 3(d)(iii)(A)** and **Schedule 3(d)(iii)(B)** (to be maintained by the Service Provider) for each of the previous 30 *Trading Days*; and
- (iv) where the Maximum Service Quantity comprises more than 10 MW at more than one connection point behind a single *Transmission Node*, aggregated visibility under **Schedule 3(d)(iii)** for all connection points at that *Transmission Node*, unless otherwise approved by AEMO.



## Schedule 4 – Baseline Quantity and Actual Service Quantity

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AEMO must determine the Baseline Quantity and the Actual Service Quantity (both in MWh per *Trading Interval*) in accordance with this **Schedule 4**.

### Summary

The Baseline Quantity is calculated with respect to each Activation Event.

The Baseline Quantity is calculated by reference to the aggregated electricity demand of all NMIs from the Designated Connection Points in **Schedule 3**. A separate Baseline Quantity is not calculated for individual NMIs forming part of an aggregation.

AEMO must calculate the Baseline Quantity as follows:

- Step 1 – determine a set of Selected Days for each Activation Event;
- Step 2 – determine the Preliminary Quantity for each relevant *Trading Interval* in each Activation Event;
- Step 3 – calculate a Relative Root Mean Squared Error for each Preliminary Quantity (and if the Relative Root Mean Squared Error for any Preliminary Quantity is greater than 20%, then (in AEMO's sole discretion and acting reasonably) either go back to Step 1 or redetermine the Preliminary Quantity using an adjusted *Injection* or *Withdrawal* quantity based on the set of Designated Connection Points that AEMO reasonably considers more accurately reflects the Service Provider's typical demand);
- Step 4 – determine and apply an Adjustment Factor for each Activation Event; and
- Step 5 – calculate the Baseline Quantity for each *Trading Interval* in each Activation Event.

AEMO then uses the Baseline Quantity to determine the Actual Service Quantity for each *Trading Interval* in each Activation Event.

### Definitions

The following definitions apply for the purposes of this **Schedule 4**:

**60-Day Period** means the 60 calendar days preceding the calendar day that relates to the first *Trading Interval* for which the calculation is made.

**Activated Day** means a day on which an Activation Event occurs.

**Activation Event** means:

- (before the Commencement Date) the set of *Trading Intervals* indicated by the Service Provider for the purposes of **Condition Precedent 5**; and
- (after the Commencement Date) the set of *Trading Intervals* specified in an Activation Notice.

**Adjustment Factor** means the adjustment factor calculated in accordance with Step 4 of this **Schedule 4**.

**Non-Activated Day** means a day on which an Activation Event does not occur.

**Preliminary Quantity** means a preliminary quantity calculated in accordance with Step 2 of this **Schedule 4**.

**Relative Root Mean Squared Error** means a relative root mean squared error calculated in accordance with Step 3 of this **Schedule 4**.

**Selected Day** means an Activated Day or a Non-Activated Day in the 60-Day Period selected by AEMO in accordance with Step 1 of this **Schedule 4**.

## Calculation of Baseline Quantity

### Step 1: Determine a set of Selected Days for each Activation Event

The set of Selected Days comprises the 10 most recent Non-Activated Days within the 60-Day Period.

The following process applies if the 60-Day Period does not contain 10 Non-Activated Days:

- Where the 60-Day Period contains 5 to 10 Non-Activated Days, the set of Selected Days comprises the Non-Activated Days.
- Where the 60-Day Period contains less than 5 Non-Activated Days, the set of Selected Days comprises the Non-Activated Days plus one or more Activated Days within the 60-Day Period so that there are 5 Selected Days. The Activated Days will be selected in order of highest demand of any *Trading Interval* relevant to an Activation Event. Where 2 or more Activated Days are ranked the same, the Activated Day closest in time to the first *Trading Interval* in the Activation Event will be ranked higher.

The Service Provider may request that AEMO exclude a day from the 60-Day Period. AEMO (in its sole discretion and acting reasonably) may exclude a day from the 60-Day Period where AEMO reasonably considers that the day is not representative of the Service Provider's *Injection* or *Withdrawal* on the Activated Day, having regard to the Service Provider's historical *Injection* or *Withdrawal* quantities on similar days. If AEMO excludes a day, AEMO must perform Step 1 again excluding the day from the 60-Day Period.

### Step 2: Determine the Preliminary Quantity for each *Trading Interval* in each Activation Event

AEMO must determine the Preliminary Quantity for each *Trading Interval* in each Activation Event as follows:

$$b_t = \frac{1}{S} \sum_{i=1,2,\dots,S} c_{ti}$$

where:

$b_t$  = the Preliminary Quantity (in MWh) for a given *Trading Interval* (t)

i = a Selected Day

t = a *Trading Interval*

c = the *Injection* or *Withdrawal* quantity (in MWh) for a given *Trading Interval* (t) occurring on Selected Day (i)

S = the number of days in the set of Selected Days.

### Step 3: Calculate a Relative Root Mean Squared Error for each Preliminary Quantity

AEMO must determine a Relative Root Mean Squared Error for each Preliminary Quantity (relative to the 60 Non-Activated Days immediately preceding the Activation Event) as follows:

$$\text{RRMSE} = \frac{\sqrt{\frac{\sum_{i \in I} (\sum_{t \in T} ((b_t - c_{ti})^2))}{N}}}{\frac{1}{N} \times \sum_{t \in T} b_t}$$

where:

I = the set of 60 Non-Activated Days (i) immediately preceding the Activation Event

T = the set of *Trading Intervals* (t) from which Interval Meter Data is taken for the Preliminary Quantity

N = the total number of *Trading Intervals* in set (T) across all the days in set (I)

$b_t$  = the Preliminary Quantity associated with *Trading Interval* (t) as calculated in Step 2

$c_{ti}$  = the *Injection* or *Withdrawal* quantity (in MWh) for a given *Trading Interval* (t) on day (i).

If the Relative Root Mean Squared Error is 20% or greater, then AEMO (in its sole discretion and acting reasonably) may:

- go back to Step 1; or
- redetermine the Preliminary Quantity using an adjusted *Injection* or *Withdrawal* quantity based on the set of Designated Connection Points that AEMO reasonably considers more accurately reflects the Service Provider's typical demand.

#### Step 4: Determine and apply an Adjustment Factor for each Activation Event

AEMO must determine and apply an Adjustment Factor for each Activation Event as follows:

$$a = \frac{\sum_{t=s-8}^{t=s-3} (c_t - b_t)}{6}$$

where:

$a$  = Adjustment Factor (this may be positive or negative)

$s$  = the start of the first *Trading Interval* ( $t$ ) in the Activation Event, which may be adjusted by AEMO to reflect operational conditions on the day if required

$c$  = the *Injection* or *Withdrawal* quantity (in MWh) for *Trading Interval* ( $t$ )

$b$  = the Preliminary Quantity (in MWh) for *Trading Interval* ( $t$ )

$s-n$  = the *Trading Intervals* before the activation start time.

If the Service is to increase *Injection* or decrease *Withdrawal*, where the Adjustment Factor is a negative amount, the absolute value of the Adjustment Factor must not exceed a quantity equivalent to 20% of the amount of the Maximum Service Quantity (converted to MWh per *Trading Interval*).

If the Service is to decrease *Injection* or increase *Withdrawal*, where the Adjustment Factor is a positive amount, the Adjustment Factor must not exceed a quantity equivalent to 20% of the amount of the Maximum Service Quantity (converted to MWh per *Trading Interval*).

If the Service has for two or more Activation Events on the same day, then the Adjustment Factor for each Activation Event is the Adjustment Factor calculated for the first Activation Event on that day.

#### Step 5: Calculate the Baseline Quantity for each *Trading Interval* in each Activation Event

$$B_t = b_t + a$$

where:

$B$  = the Baseline Quantity (in MWh) for *Trading Interval* ( $t$ )

$a$  = the Adjustment Factor (this may be positive or negative)

$b$  = the Preliminary Quantity (in MWh) for *Trading Interval* ( $t$ ).

### Calculation of the Actual Service Quantity

AEMO must determine the Actual Service Quantity for each *Trading Interval* in the Activation Event as follows:

$$D_t = \begin{cases} \min(\max(0, c_t - B_t), Q_t/0.5) & \text{for Services to increase Injection or reduce Withdrawal} \\ \min(\max(0, B_t - c_t), Q_t/0.5) & \text{for Services to reduce Injection or increase Withdrawal} \end{cases}$$

where:

$B$  = the Baseline Quantity (in MWh) for *Trading Interval* ( $t$ )

$c$  = the *Injection* or *Withdrawal* quantity (in MWh) for the *Trading Interval* in the Activation Event

$D_t$  = the Actual Service Quantity (in MWh) for *Trading Interval* ( $t$ )

$Q_t$  = the quantity, in MW, specified in the Activation Notice for the *Trading Interval* ( $t$ ), or, if the Activation Event occurs prior to the Commencement Day, the Maximum Service Quantity.

## Schedule 5 – Operational Contact Persons

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(a) **AEMO's Operational Contact Person**

Name/Title	WA Market Operations and Support
Telephone No	1300 989 797
Email	wa.operations@aemo.com.au

(b) **Service Provider's Operational Contact Person**

**Primary Contact Person**

Name/Title	##
Telephone No	##
Email	##

**Backup Contact Person**

Name/Title	##
Telephone No	##
Email	##