

# **RERT Panel Agreement**

Australian Energy Market Operator Limited

and

[name]

Australian Energy Market Operator Limited Level 22, 530 Collins Street MELBOURNE VIC 3000

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## **RERT Panel Agreement**

## Details

Parties					
AEMO Name			AUSTRALIAN ENERGY MARKET OPERATOR LIMITED		
	ABN		94 072 010 327		
	Address	3	Level 22, 530 Collins Street, Melbourne, Victoria		
	Telepho	one	(03) 9609 8000		
	Fax		(03) 9609 8080		
	Email		Mark.Stedwell@aemo.com.au		
	Attentio	n	Mark Stedwell, Group Manager Systems Capability		
Reserve Provider	der Name				
	ABN				
	Address				
	Telephone				
	Fax				
	Email				
Attention					
Recitals	A	AEMO is responsible for managing the National Electricity Market in accordance with the Rules.			
	В	AEMO has selected the Reserve Provider to be a member of a Pane from whom AEMO may seek tenders for the provision of short notic reserve or medium notice reserve from time to time.			
	С	This Agreement sets out the terms and conditions for a being a pane member and provides a framework for the parties to enter int reserve contracts for the provision of reserve from time to time.			
Governing law	New South Wales				
Date of Agreement	See signing page				

## **RERT Panel Agreement**

## **Operative Provisions**

## 2 Interpretation and Incorporation of Schedules

#### 2.1 Definitions

Unless a contrary intention appears, these meanings apply in this document:

- "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 charge" is specified in Item 9 of a Schedule providing for medium notice reserve.
- "billing period" means a period of 7 days commencing with the trading interval ending at 00:30 hours (Eastern Standard Time) on Sunday, provided that:
- (a) the first billing period commences when this Agreement commences; and
- (b) the last *billing period* ends when this Agreement ends.
- "charges" means the availability charge, usage charge, pre-activation charge or early termination charge, as applicable.
- "claims" means all claims, losses, liabilities, costs or expenses, whether arising in contract, tort (including negligence), equity or otherwise.
- "commencement date" means the date this Agreement comes into effect under clause 3.1.
- "communication" means any notice, demand, approval, consent, request or other communication required or given by a party to another party under this Agreement or a reserve contract.
- "conditions precedent fulfilment date" for each condition precedent is specified in the **Annexure** to the relevant **Schedule**.
- "conditions precedent" for each reserve are specified in the Annexure to the relevant Schedule.
- "Confirmation" for a particular reserve contract, means the confirmation notice for the provision of a particular reserve for an agreed period given by AEMO to the Reserve Provider substantially in the form contained in **Attachment 1**.
- "contracted levels of performance" are specified in Item 6 of each Schedule.
- "Corporations Act" means the Corporations Act 2001 (Cth).
- "dispose" means assign, transfer or otherwise dispose of any legal or equitable estate, whether by sale, lease, declaration or creation of trust or otherwise.
- "early termination charge" is specified in **Item 9** of each **Schedule** providing for *medium notice* reserve.
- "EST" means Eastern Standard Time.
- "event of force majeure" means in respect of a party (in this definition called the "affected party") an act of God, lightning strike, earthquake, flood, drought, storm, tempest, mudslide, explosion, fire or any other natural disaster, an act of war, act of public enemies or terrorists, riot, civil commotion, malicious damage, sabotage, blockade or revolution, an act or omission of any authority, or a labour dispute, that:
  - (a) is beyond the reasonable control of the affected party;
  - (b) is not the result of a breach of this Agreement, a reserve contract or the Rules by the affected party, or of an intentional or negligent act or omission of the affected party (or of any other person over which the affected party should have exercised control); and

(c) results in the *affected party's* being unable to observe or perform on time and as required any obligation (other than an obligation to pay money) under this Agreement or a *reserve* contract.

"first stage dispute resolution processes" means the procedures set out in Rule 8.2.4.

"GST" has the meaning given to it in the A New Tax System (Goods and Services Tax) Act 1999 (Cth).

"insolvency event" means, in relation to a party, 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*) appointed, is in liquidation, in provisional liquidation, under administration or 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 on terms approved by the other party);
- (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.

"labour dispute" means a strike, lockout, ban, "go-slow" activity, stoppage, restraint of labour or other similar act that is not directed primarily at a party to this Agreement.

"legislation" means Acts of Parliament, regulations, 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.

*"medium notice reserve"* means the provision of *reserve* in response to a 'medium-notice situation', as that term is described in the *RERT guidelines*.

"minimum technical requirements" are specified in item 6.1 of each Schedule.

"Panel" means the panel to provide either short notice reserve or medium notice reserve (as the case may be) to which the Reserve Provider has been appointed by AEMO.

"pre-activation charge" is specified in **Item 9** of a **Schedule** providing for unscheduled reserve.

"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*) of that party.

"Request for Tender" means a request by AEMO to the Reserve Provider for reserve substantially in the form contained in **Attachment 2**.

"reserve" is described in item 3 of each Schedule.

"reserve contract" means, in respect of a particular reserve, the contract governing the provision of that reserve created in accordance with clause 4.2(b).

"reserve equipment" is specified in **Item 4** of each **Schedule** other than those providing for reserve through the reduction of *load*.

"Reserve Provider" is specified in the Details.

"Rules" means the National Electricity Rules.

"short notice reserve" means the provision of reserve in response to a 'short-notice situation', as that term is described in the RERT guidelines.

"second stage dispute resolution processes" means the procedures set out in Rule 8.2.5.

"term" means the period during which this Agreement is in effect.

"usage charges" are specified in item 9 of each Schedule.

All terms in italics not defined in this Agreement have the meaning given to that term in the Rules.

#### 2.2 Interpretation

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

- (a) this Agreement includes any schedules and annexures;
- (b) a document (including this Agreement) 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 Agreement;
- (d) a clause is a reference to all its subclauses;
- (e) an "Item" is a reference to a provision in a **Schedule**;
- (f) legislation includes subordinate legislation and other instruments under them, and consolidations, amendments, re-enactments or replacements of any of them;
- (g) the word "**Rule**" followed by a number refers to provisions in the *Rules*;
- (h) the singular includes the plural and vice versa and a gender includes all genders;
- (i) the word "**person**" includes a firm, a body corporate, a partnership, joint venture, trust, an unincorporated association and any *authority* and any successor entity to those persons;
- (j) the word "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 to examples of a similar kind;
- (k) a person includes a reference to the person's executors, administrators, successors, substitutes (including persons taking by novation) and assigns;
- (I) a party includes, where the context requires it, that person's directors, officers, employees, contractors, agents and any other persons authorised by that party;
- (m) 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;
  - (ii) by two or more persons binds them jointly and each of them severally;
- (n) 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;
- (o) writing includes any mode of representing or reproducing words in tangible and permanently visible form, and includes facsimile transmissions:
- (p) a month is a reference to a calendar month;
- (q) a day is a reference to a period of time commencing at midnight and ending the following midnight; and
- (r) a period of time and the period dates from a given day or the day of an act or event, it 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.

#### 2.3 Construction

- (a) Headings are inserted for convenience and do not affect the interpretation of this Agreement.
- (b) If a word or phrase is defined in this Agreement, other parts of speech and grammatical forms of that word or phrase have corresponding meanings.
- (c) No rule of construction will apply to a clause to the disadvantage of a party merely because that party put forward the clause or would otherwise benefit from it.

#### 2.4 Symbols

A symbol in column 1 of the table below has the meaning set out opposite that symbol in column 2:

1	2
SYMBOL	MEANING
MW	Megawatt
MWh	Megawatt hour
\$	Australian dollars

#### 2.5 Schedules

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 *reserve* the subject of that **Schedule**, as if the provision was an **Operative Provision**.

#### 2.6 Priority

To the extent of any inconsistency:

- (a) a Schedule prevails over the Operative Provisions; and
- (b) for a reserve contract, the Confirmation prevails over this Agreement.

#### 3 Conditions Precedent

#### 3.1 Conditions

Except for those in **clauses 3.1, 3.4, 7, 10, 13, 14, 15, 16** and **17** all of the parties' rights and obligations in respect of a particular *reserve* under a *reserve contract* are subject to the *conditions* precedent applicable to that *reserve*.

#### 3.2 Fulfilment of Conditions

The Reserve Provider must use reasonable endeavours to fulfil or procure the fulfilment of the conditions precedent by the conditions precedent fulfilment date.

#### 3.3 Updates

Until a condition precedent is fulfilled, the Reserve Provider must provide AEMO with weekly updates on the status of the fulfilment of each condition precedent, including the anticipated date each condition precedent will be fulfilled.

#### 3.4 Waiver of condition precedent

Each condition precedent is for the sole benefit of AEMO and can only be waived by AEMO.

#### 3.5 Conditions Precedent Fulfilment Date

- (a) If any *condition precedent* applying to a particular *reserve* is not fulfilled by the relevant *condition precedent fulfilment date* or waived in accordance with **clause 2.4**, *AEMO* may terminate that *reserve* by giving the *Reserve Provider 3 business days*' notice.
- (b) If all of the *reserve* is terminated under **paragraph (a)**, the parties agree that this Agreement terminates on the date *AEMO* terminates the last *reserve*.

#### 3.6 Effect of Termination

If a particular *reserve* or this Agreement is terminated under **clause 2.5**, the **Schedule** applicable to that *reserve* or this Agreement (as the case may be) is of no further effect and the parties are released from any further obligation under that **Schedule** or this Agreement (as the case may be) but they remain liable for any breach committed before that termination.

#### 3.7 Survival

If this Agreement is terminated under clause 2.5, clause 2.6 does not affect the rights and obligations of the parties under clauses 10, 14, 16 and 17.

#### 4 Term

#### 4.1 Term

- (a) This Agreement comes into effect at the time when the last party to execute this Agreement does so.
- (b) Subject to **clauses 3.2**, **3.3** and **3.4** and to earlier termination in accordance with this Agreement, this Agreement continues until midnight at the end of the day that is 12 months after the *commencement date*.

#### 4.2 Reserve Contracts

Expiry of this Agreement under **clause 3.1(b)** or **3.3(a)** does not affect the continuation of any *reserve* contract.

#### 4.3 Annual Extension

- (a) Subject to **clause 3.4**, if, within a month prior to each anniversary of this Agreement, the Reserve Provider has provided notice that the parameters contained in each **Schedule** for the next 12-month period are unchanged, or if the Reserve Provider notifies of a change to the parameters contained in a **Schedule** and, AEMO has accepted each change, this Agreement (with any updated **Schedule** as agreed by AEMO) will continue in effect for a further 12 months after the date upon which it would otherwise have expired and, unless further extended under this **paragraph (a)**, this Agreement expires on that date.
- (b) Nothing in **clause 3.3** requires the *Reserve Provider* to offer or agree to an extension of this Agreement.

#### 4.4 Expiry of RERT scheme

This Agreement, and any reserve contract, automatically terminates on the date Rule 3.20 expires.

## 5 Panel membership

#### 5.1 Appointment and Acceptance

AEMO appoints the Reserve Provider as a member of the Panel for provision of short notice reserve or medium notice reserve (as the case may be) in accordance with this Agreement and the Reserve Provider accepts that appointment.

#### 5.2 Creation of Reserve Contracts

(a) From time to time, AEMO may issue a Request for Tender to the Reserve Provider to provide medium notice reserve or short notice reserve for specified periods.

- (b) The Reserve Provider may, but is not obliged to, make an offer to provide reserve in accordance with that Request for Tender. Subject to any prior notice of unavailability under clause 5.5 or Items 2.2 and 5 of the relevant Schedule, the Reserve Provider must use reasonable endeavours to make an offer to provide reserve (substantially in the form contained in Attachment 3 to the relevant Schedule) in response to a Request for Tender.
- (c) If AEMO accepts an offer by the Reserve Provider to provide reserve in response to a Request for Tender by sending the Reserve Provider a Confirmation, the parties agree that a separate reserve contract is formed for that reserve comprising clauses 1 and 3 to 17 of this Agreement, the relevant **Schedule** and the terms of the Confirmation.

#### 5.3 No Obligation to Procure from Panel Members

The Reserve Provider acknowledges that:

- (a) AEMO is not required by anything in this Agreement, any legislation, or requirement of any government authority to procure any reserve from the Reserve Provider, or any other member of the Panel; and
- (b) this Agreement is not exclusive and *AEMO* may procure *reserve* from persons who are not members of the *Panel*.

#### 6 Provision of Reserve

#### 6.1 Reserve

- (a) The Reserve Provider must provide to AEMO each reserve in accordance with each reserve contract.
- (b) The Reserve Provider must use reasonable endeavours to ensure that the reserve is provided at the relevant contracted levels of performance and with due care and skill.

#### 6.2 Reduction in Reserve

- (a) At any time during a reserve contract, AEMO may reduce the quantity of reserve to be provided under a reserve contract by notice to the Reserve Provider.
- (b) The notice referred to in **paragraph (a)** must nominate the lesser quantity of *reserve* required by *AEMO* by reference to the relevant *reserve contract* and the date and time from which the lesser quantity of *reserve* is required.
- (c) The parties agree to vary the *reserve contract* to reflect the lesser quantity of *reserve* with effect from the date of the date and time referred to in the notice referred to in **paragraph** (a).

#### 6.3 Reserve Provider Undertakings

Except in accordance with this Agreement, the *Reserve Provider* undertakes that the *reserve* to be provided to *AEMO* under this Agreement will not be:

- (a) the subject of any dispatch offers or dispatch bids;
- (b) offered to the *market* through any other means;
- (c) provided or available to be provided pursuant to any other arrangement or agreement, including any demand side management arrangement or agreement,

during the period for which reserve is contracted under a reserve contract.

#### 6.4 Requests for Reserve

- (a) During the period for which *reserve* is contracted under a *reserve contract*, *AEMO* may (but is not obliged to) request the *reserve* be provided by the *Reserve Provider* in accordance with **item 8** of the relevant **Schedule**.
- (b) The *Reserve Provider* must use all reasonable endeavours to comply with a request under **paragraph (a)**.

#### 6.5 Unavailability of Reserve

If, at any time (whether during the currency of a reserve contract or otherwise), the Reserve Provider considers that reserve equipment is, or will become, incapable of providing reserve in accordance with the contracted levels of performance, it must notify AEMO immediately specifying:

- (a) which reserve the notice applies to;
- (b) when the reserve equipment became, or will become, incapable of providing the reserve;
- (c) how long the Reserve Provider expects the incapability to continue; and
- (d) the cause of the incapability.

#### 6.6 Spot Market Transactions

Neither the Reserve Provider, nor any other party, will be entitled to spot market revenue associated with the provision of reserve. If requested by AEMO, the Reserve Provider will participate in the spot market as AEMO's agent and account to AEMO for any spot market revenue associated with the reserve, or AEMO may set off that spot market revenue against an amount due to the Reserve Provider under a reserve contract.

### 7 Measurement and verification

#### 7.1 Measurement

Measurement of each *reserve* provided under a *reserve contract* must be made in accordance with the **Schedule** relevant to each *reserve*, and as provided by *AEMO*'s records and the *Reserve Provider's metering*, measurement, supervisory and electronic data processing systems.

#### 7.2 Verification

AEMO may verify that *reserve* is being provided in accordance with a *reserve contract* using the process contemplated by a relevant **Schedule**.

## 8 Records, audits and inspections

#### 8.1 Type of Records

The Reserve Provider must compile and maintain records concerning this Agreement, including the provision of reserve under a reserve contract, the operation and maintenance of reserve equipment, any procedures used in the performance of this Agreement or a reserve contract and all notices given or received by telephone in relation to this Agreement or a reserve contract.

#### 8.2 Form and Retention

- (a) The records referred to in clause 7.1 may be maintained in writing or electronically.
- (b) The Reserve Provider must maintain a record referred to in **clause 7.1** for at least 7 years from the date it was created.

#### 8.3 Right to Inspect Records

- (a) AEMO may request a copy of any of the records maintained under **clause 7.1** or any other information in connection with *reserve* at any time.
- (b) The Reserve Provider must comply with a request from AEMO under paragraph (a) within 5 business days of receipt.

#### 8.4 Audits by AEMO

- (a) AEMO may audit any of the records maintained under clause 7.1 by giving the Reserve Provider at least 5 business days' notice. A notice under this paragraph (a) must include the following information:
  - (i) the nature of the audit;

- (ii) the reserve concerned;
- (iii) the name of any representative appointed by AEMO to conduct the audit; and
- (iv) the date on which the audit will commence.
- (b) Unless the *Reserve Provider* agrees otherwise, an audit under this **clause 7.4** may only occur during normal business hours on a *business day*.

#### 8.5 Conduct of Audit

Audits will occur at the site at which the relevant records are maintained by the *Reserve Provider* and the *Reserve Provider* must provide the *representatives* conducting the audit with all assistance those *representatives* may require to conduct it, including access to all relevant records (including computer records or systems) and any interpretation or explanation required.

#### 8.6 Inspections

- (a) At a date and time convenient to both parties, *AEMO* may inspect any of the *reserve* equipment to determine whether the *Reserve Provider* is complying with this Agreement or a *reserve contract*.
- (b) At least 5 *business days* prior to the date on which *AEMO* wishes to make an inspection, *AEMO* must deliver a notice to the *Reserve Provider* detailing the following information:
  - (i) the reserve equipment to be inspected;
  - (ii) the representatives who will be conducting the inspection on behalf of AEMO; and
  - (iii) the date and time when *AEMO* proposes to commence the inspection and the expected date and time when the inspection will conclude.
- (c) The *Reserve Provider* must not unreasonably refuse access and must procure that all necessary third party consents to the access required by *AEMO* to conduct the inspection are secured in time for the inspection to commence as agreed between the parties.
- (d) If AEMO conducts an inspection under this **clause 7.6**, the Reserve Provider must designate representatives to accompany AEMO's representatives and answer any questions and assist with the conduct of the inspection.

#### 8.7 Conduct of Inspection

- (a) AEMO must not carry out any inspection of reserve equipment under clause 7.6 within 6 months of a previous inspection under this Agreement of the same reserve equipment.
- (b) Unless otherwise agreed by the *Reserve Provider*, an inspection under **clause 7.6** may take as long as reasonably necessary, provided it is no longer than 24 hours. Any agreement to extend the period of the inspection must not be unreasonably withheld, considering the extent of the inspection proposed.
- (c) Whilst carrying out an inspection in accordance with **clause 7.6**, *AEMO* must, and must procure that its *representatives*:
  - (i) not cause any loss or damage to the Reserve Provider's assets;
  - (ii) not interfere with the operation of the *Reserve Provider's* business (provided that the inspection itself does not constitute interference);
  - (iii) observe the *Reserve Provider's* requirements relating to occupational health and safety and industrial relations matters that apply to all invitees of the *Reserve Provider*, and
  - (iv) not ask any question or give any direction, instruction, or advice to any representative of the Reserve Provider other than the representative designated by the Reserve Provider for this purpose.

## 9 Maintenance & Repairs

#### 9.1 Maintenance of Reserve Equipment

The Reserve Provider must maintain the reserve equipment in accordance with good electricity industry practice.

#### 9.2 Notice of Modifications to Reserve Equipment

The Reserve Provider must notify AEMO promptly after changing or modifying any reserve equipment in a way that affects or could reasonably be expected to affect the ability of that reserve equipment to meet the contracted levels of performance.

#### 9.3 Ad Hoc Maintenance & Repairs

- (a) If any maintenance or repair to the *reserve equipment* is required after entering into a *reserve contract* that could affect the provision of the *reserve* in accordance with that *reserve contract*, the *Reserve Provider* must notify *AEMO* of the need for that maintenance or repair at least:
  - (i) in the case of *medium notice reserve*, 24 hours; or
  - (ii) in the case of *short notice reserve*, as soon as possible,

before any maintenance or repair occurs. The notice must include the following information:

- (A) the reason for the maintenance or repair;
- (B) the proposed date and time of the maintenance or repair;
- (C) the expected impact of the maintenance or repair on the *reserve* during the maintenance or repair period; and
- (D) the *Reserve Provider's* assessment of the urgency of the maintenance or repair.
- (b) The *Reserve Provider* must not commence the proposed maintenance or repair unless *AEMO* agrees that the maintenance or repair take place as proposed.
- (c) Despite agreeing to the maintenance or repair, AEMO may at any time request the Reserve Provider to defer it if AEMO considers it is likely that the reserve will need to be activated or dispatched at or about the time of the proposed maintenance or repair. If requested by AEMO, the Reserve Provider must make a good faith assessment of the risks associated with the deferral of the relevant maintenance or repair in relation to the ability of the reserve to meet the contracted levels of performance and notify AEMO of that assessment as soon as possible.
- (d) The Reserve Provider must comply with a request by AEMO to defer the maintenance or repair, unless, in the Reserve Provider's reasonable opinion, damage to the reserve equipment is imminent, or the deferral of the maintenance or repair significantly increases the risk of imminent danger to the safety of personnel.
- (e) The Reserve Provider must notify AEMO of any deviation from the advice provided under paragraph (a) as soon as possible.
- (f) AEMO will not be liable to reimburse any costs of the Reserve Provider incurred in respect of deferral of maintenance or repair if AEMO notifies the Reserve Provider of the intended deferral at least 24 hours before the proposed commencement of the maintenance or repair, or within two hours after AEMO's receipt of the Reserve Provider's notice of the maintenance or repair, whichever is the later.

If AEMO gives a notice to defer maintenance or repair at a time that is:

(a) less than 24 hours prior to the planned commencement of the maintenance or repair; or

(b) more than two hours after AEMO's receipt of the Reserve Provider's notice of the maintenance or repair,

whichever is the later:

- (c) the *Reserve Provider* must use reasonable endeavours to defer the maintenance; and
- (d) AEMO must reimburse the Reserve Provider for any reasonable expenses the Reserve Provider incurs that cannot be avoided and are directly attributable to the deferral, upon the Reserve Provider's provision of evidence of incurring of the expense.

## 10 Payments

#### 10.1 Calculation of Payments

The *charges* owed by *AEMO* for *reserve* provided under each *reserve contract* are to be determined in accordance with **item 9** of the relevant **Schedule**.

#### 10.2 Preliminary Statements

- (a) Within 5 business days after the end of each billing period in which the Reserve Provider has provided reserve, AEMO must give the Reserve Provider a preliminary statement setting out the charges and any other amounts owed by each party to the other party in respect of that billing period ("preliminary statement").
- (b) A *preliminary statement* must set out in detail the way in which the *charges* and any other amounts were calculated, including any raw data used to calculate the *charges* and those other amounts.

#### 10.3 Final Statements

Not later than 18 *business days* after the end of each *billing period*, *AEMO* must give the *Reserve Provider* a final statement stating the net amount payable by one party to the other in respect of that *billing period* ("final statement").

#### 10.4 Disputes over Statements

- (a) If there is a dispute between the parties concerning the *charges* or any other amounts payable by one party to the other specified in a *preliminary statement*, the parties agree to use reasonable endeavours to resolve the dispute within 15 *business days* of the end of the relevant *billing period*. The dispute must be resolved by agreement or in accordance with **clause 14**. If the parties have not resolved the dispute before the time at which *AEMO* must give the *Reserve Provider* the *final statement*, *AEMO* must prepare that *final statement* on the basis of its own assessment of the *charges* and any other amounts payable under the *reserve contracts* in respect of that *billing period*.
- (b) Disputes in relation to a *final statement* must be raised within 6 months of the date of the *billing period* to which the statement relates. If a party does not raise a dispute within that period, the party will be taken to have agreed to the way in which that matter is dealt with in the *final statement*.

#### 10.5 Payment

If a *final statement* indicates that a party must pay the other party a net amount, that party must pay the net amount specified in the *final statement* to the other party (whether or not there is a dispute in relation to the amount payable) on the later of:

- (a) the 20th business day after the end of the billing period; and
- (b) the 2<sup>nd</sup> business day after AEMO gives the final statement.

#### 10.6 Adjustment

- (a) Where the parties agree that the *charges* or any other amounts specified in a *final statement* are incorrect, or it is determined in accordance with **clause 14** that they were incorrect or not payable, *AEMO* must issue a replacement statement for the *billing period* stating the correct *charges* or any other amounts payable.
- (b) If a payment has already been made, the party advantaged must pay the other party the amount required to put the other party in the position it would have been in at the time payment was due under **clause 9.5** plus interest on the difference between the amount paid to the party advantaged and the amount that should have been paid. The interest accrues daily at the *bank bill rate* on the relevant day for each day from the date on which payment was made under **clause 9.5** until payment is made under this **paragraph (b)**.
- (c) Payment under **paragraph (b)** must be made on the same day as the next payment is made under **clause 9.5** or set off against an amount due to the party advantaged by the other party, or if no subsequent payments are to occur under **clause 9.5**, within 15 *business days* after the replacement statement is given under **paragraph (a)**.

#### 10.7 Set-Off

- (a) Without limiting AEMO's rights under this Agreement or any reserve contract or at law, AEMO may deduct from any money due to the Reserve Provider under this Agreement or a reserve contract any sum that is payable by the Reserve Provider to AEMO whether or not:
  - (i) AEMO's right to payment arises by way of damages, debt, restitution or otherwise; or
  - (ii) the factual basis giving rise to *AEMO's* right to payment arises out of this Agreement, any other agreement, or is independent of any agreement.
- (b) If the money payable to the *Reserve Provider* under this Agreement or any *reserve contract* is insufficient to discharge the liability of the *Reserve Provider* to pay *AEMO* the amount under **paragraph** (a), the excess will be a debt due and payable and *AEMO* may have recourse to any payments due to the *Reserve Provider* other than under this Agreement or a *reserve contract*. Nothing in **clause 9.7** affects *AEMO*'s rights to recover from the *Reserve Provider* such money, or any balance that remains owing.

#### 10.8 GST

- (a) The *charges* and any other amounts payable to or by *AEMO* under this Agreement or a reserve contract exclude *GST*.
- (b) Where a party is required under this Agreement or a *reserve contract* to reimburse or otherwise pay an amount to another party ("reimbursed party") on account of a cost or expense incurred by that *reimbursed party*, the amount of the reimbursement will be reduced by the amount of any *input tax credit* to which the *reimbursed party* is entitled for an acquisition to which that cost or expense relates.
- (c) If either party makes a *taxable supply* under this Agreement or a *reserve contract*, the party receiving the *taxable supply* must also pay an additional amount equal to the consideration payable for the *supply* multiplied by the applicable *GST* rate.
- (d) Each party must include the additional amounts contemplated under **paragraph** (c) in statements issued under this Agreement and must assist the other party to claim *input tax credits* for *GST* where relevant.
- (e) If the additional amount paid or payable to a party in respect of a *taxable supply* under **paragraph (c)** differs from the actual amount of *GST* payable, adjustments must be made in accordance with the adjustment procedures under **clause 9.8**.
- (e) In **clause 9.8,** "input tax credit", "supply" and "taxable supply" each have the meaning given to those terms in the A New Tax System (Goods and Services Tax) Act 1999 (Cth).

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## 11 Extent of liability

#### 11.1 AEMO Liability cap

- (a) Subject to **paragraph** (b) and **clause 10.4**, the total amount recoverable from *AEMO* in respect of any and all *claims* arising out of any one or more events during any 12-month period with respect to, arising from, or in connection with, this Agreement, all *reserve* contracts and the provision of *reserve* under any of them is limited to a maximum aggregate amount of \$5,000,000.
- (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 Agreement or a reserve 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 Agreement or a reserve contract;
  - (ii) loss of profit, business opportunity, production, revenue, contract or goodwill (whether direct or indirect); or
  - (iii) damages or loss to the extent that a claim results from the Reserve Provider's failure to act in accordance with this Agreement or a reserve contract, legislation or good electricity industry practice.

#### 11.2 Reserve Provider Liability Cap

- (a) Subject to **paragraph (b)**, the total amount recoverable from the *Reserve Provider* in respect of any and all *claims* arising out of any one or more events during any 12-month period with respect to, arising from, or in connection with, this Agreement, all *reserve contracts* and the provision of the *reserve* under any of them is limited to a maximum aggregate amount of \$5,000,000.
- (b) Regardless of the nature of any *claim*, the *Reserve 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 Agreement or a reserve 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 Agreement or a reserve contract;
  - (ii) loss of profit, business opportunity, production, revenue, contract or goodwill (whether direct or indirect); or
  - (iii) damages or loss to the extent that a claim results from AEMO's failure to act in accordance with this Agreement or a reserve contract, legislation or good electricity industry practice.

#### 11.3 Indemnity

Subject to **clause 10.2**, the *Reserve Provider* indemnifies *AEMO* against any liability or loss arising from, and any costs, charges or expenses incurred in connection with, a *claim* by a third person against *AEMO* with respect to, arising from, or in connection with, any act or omission of the *Reserve Provider* in relation to the provision of *reserve*.

#### 11.4 National Electricity Law

This Agreement does not vary or exclude the operation of sections 116, 119 or 120 or 120A of the *National Electricity Law*.

#### 11.5 Civil Liability Act 2002

The parties agree that Part 4 of the Civil Liability Act 2002 (NSW) will not apply to any *claim*, action, suit or proceeding under or in connection with this Agreement or any *reserve contract*.

## 12 Force majeure

#### 12.1 Effect on performance of obligation

A party's obligation under this Agreement and any *reserve contract* (other than an obligation to pay money) shall be suspended during the time and to the extent that the party ("*affected party*") is unable to comply with that obligation by reason of the occurrence of an *event of force majeure*.

#### 12.2 Obligation to Notify

If an *affected party* becomes aware of a circumstance it reasonably considers constitutes or is likely to constitute or result in an *event of force majeure*, it must:

- (a) immediately give the other party notice of the circumstances and of the obligations under this Agreement and any *reserve contract* that have been, or will be, or are likely to be, affected by that circumstance; and
- (b) keep the other party informed both at reasonable intervals and upon request by the other party as soon as practicable following the receipt of that request of:
  - (i) the *affected party's* estimate of the likely and actual commencement (as appropriate) of and duration of the *event of force majeure*;
  - (ii) the action taken and the action proposed to be taken by the *affected party* in complying with **clause 11.3(a)**;
  - (iii) the cessation of the event of force majeure or the successful mitigation of the effects of the event of force majeure; and
  - (iv) any other matter the other party reasonably requests in connection with the occurrence of the *event of force majeure* and the matters referred to in **paragraph** (b).

#### 12.3 Obligation to mitigate

- (a) As soon as practicable after the occurrence of an event of force majeure, the affected party must use reasonable endeavours (including incurring any reasonable expenditure of funds and rescheduling manpower and resources) to mitigate the consequences of that event of force majeure and minimise any resulting delay in the performance of its obligations under this Agreement or a reserve contract.
- (b) The suspension granted under **clause 11.1** does not include any delay in the performance of the affected obligation attributable to a failure by the *affected party* to comply with **paragraph (a)**.
- (c) The affected party bears the onus of proving that it has complied with its obligations under paragraph (a).
- (d) Nothing in **clause 11** requires the *affected party* to settle or compromise a *labour dispute* where the *affected party*, in its sole and absolute discretion, considers that course to be inappropriate.

#### 13 Default

#### 13.1 Termination

A party ("terminating party") may immediately terminate this Agreement or any reserve contract by notice to the other party ("defaulting party") if:

(a) the defaulting party does not pay any money due under this Agreement or any reserve contract on the due date and the defaulting party does not pay the money within a further period of 45 business days after the terminating party serves notice on the defaulting party requiring payment;

- (b) subject to **clause 12.2** the *defaulting party* does not carry out or meet any other material obligation under this Agreement or any *reserve contract* and in the case of a default that is capable of remedy, does not remedy that default within 60 *business days* after the *terminating party* serves notice on the *defaulting party* requiring it to be remedied;
- (c) any representation or warranty made by the *defaulting party* in this Agreement or any reserve contract is materially inaccurate or untrue; or
- (d) an insolvency event occurs in relation to the defaulting party.

#### 13.2 Termination by AEMO

- (a) AEMO may terminate this Agreement or any reserve contract by giving notice to the Reserve Provider if, after being required by AEMO to do so, the Reserve Provider:
  - (i) fails to demonstrate that it is capable of meeting the *contracted levels* of *performance*; or
  - (ii) indicates that the *reserve equipment* might not be capable of providing the relevant reserve in accordance with the *contracted levels* of *performance*.

#### 13.3 Termination for convenience

- (a) AEMO may terminate this Agreement or a reserve contract for the provision of medium notice reserve by giving the Reserve Provider not less than 5 business days' notice and upon payment of any applicable early termination charge.
- (b) The Reserve Provider may terminate this Agreement by giving AEMO not less than 90 business days' notice, however, no early termination charge is payable to the Reserve Provider if it terminates this Agreement under this paragraph (b).
- (c) Termination of this Agreement under **clause 12.3** does not affect the continuation of any reserve contract.

#### 13.4 Termination Notices

A notice to terminate issued under clause 12.1, 12.2 or 12.3 takes effect on the later of:

- (a) the time it is given; and
- (b) the time specified in the notice.

#### 13.5 Survival

- (a) Expiry or termination of this Agreement or any *reserve contract* for any reason does not affect:
  - (i) any rights of either party against the other that:
    - (A) arose prior to the time at which expiry or termination occurred; and
    - (B) otherwise relate to or might arise at any future date from any breach of this Agreement or a *reserve contract* occurring prior to the expiry or termination: or
  - (ii) the rights and obligations of the parties under clauses 7.1 to 7.5, 9, 10, 14 and 17.

#### 13.6 Effect of termination

Termination of this Agreement under **clause 12.1**or 12.2 also has the effect of terminating all *reserve* contracts.

#### 13.7 Reduction of Reserve

If AEMO can terminate a *reserve contract* under **clause 12.1**, or **12.2**, AEMO may instead elect to reduce the *reserve* to be provided under the *reserve contract* by specifying so in the notice issued under **clause 12.1** or **12.2** (as applicable). No *early termination charge* is payable to the *Reserve Provider* in connection with the reduction of *reserve*.

#### 13.8 No other termination

Subject to any written law to the contrary, a party must not terminate this Agreement or any *reserve contract* other than for a ground provided for under this Agreement.

## 14 Assignment and sub-contracting

#### 14.1 Assignment

- (a) The Reserve Provider must not dispose its rights in this Agreement or any reserve contract or reserve equipment without first obtaining AEMO's consent, which must not be unreasonably withheld or delayed.
- (b) AEMO must give its consent for the purposes of paragraph (a) if:
  - (i) the Reserve Provider disposes of the reserve equipment to one person or a group of persons ("assignee"); and
  - (ii) the assignee executes and delivers to AEMO a deed (in form and substance satisfactory to AEMO) prior to the disposal by which the assignee agrees to assume obligations that are substantially equivalent to the Reserve Provider's obligations under this Agreement or any reserve contract.

#### 14.2 Sub-contracting

If the *Reserve Provider* sub-contracts the performance of obligations under this Agreement or any reserve contract, the *Reserve Provider* remains responsible for the performance of those obligations.

## 15 Dispute resolution

[Insert following clauses if the Reserve Provider is a Registered Participant.]

- (a) If a dispute arises in relation to this Agreement or any reserve contract, the first stage dispute resolution processes and the second stage dispute resolution processes apply.
- (b) A party must not have recourse to litigation or second stage dispute resolution processes unless it has either given or received a DMS referral notice.
- (c) **Paragraph (b)** does not prevent a party seeking an urgent interlocutory injunction from a court of competent jurisdiction.
- (d) Unless otherwise agreed or determined under the *first stage dispute resolution processes* or the *second stage dispute resolution processes*, the parties must continue to perform their obligations despite the operation of **clause 14**.

[Insert following clauses if the Reserve Provider is not a Registered Participant.]

- (a) If a party claims that a dispute has arisen between the parties relating to or arising out of this Agreement or a *reserve contract* ("dispute"), they must give the other party a notice ("dispute notice").
- (b) A dispute notice must include details of:
  - (i) the nature of the dispute and the circumstances giving rise to the *dispute*;
  - (ii) the party's proposed resolution of the *dispute*; and
  - (iii) contact details of the relevant delegate of that party with authority to resolve the *dispute* ("*delegate*").
- (c) Upon provision of a *dispute notice*, the procedure that is to be followed to settle a *dispute* is as follows:
  - (i) first, negotiation under paragraph (d);
  - (ii) second, if the *dispute* is not resolved by negotiation, mediation under **paragraphs** (e) and (f);

- (iii) third, if the *dispute* is not resolved by mediation within one month of the appointment of the mediator, the parties agree that either party may commence proceedings in court.
- (d) Within 7 days after the date of the *dispute notice*, the *delegates* must meet and use their best endeavours to agree to a resolution of the *dispute*.
- (e) If the *dispute* is not resolved by the *delegates* within 7 days of their first meeting, the *dispute* must be referred to mediation by a single mediator appointed by agreement of the parties or if they fail to agree within 30 days of referral to mediation, a mediator appointed by the President of the Institute of Arbitrators and Mediators Australia ("IAMA") acting on the request of either party.
- (f) Unless the parties agree otherwise:
  - (i) the mediation will be conducted by a mediator under the IAMA Mediation Rules (whether or not the mediator is a legal practitioner), except that to the extent of any inconsistency between this Agreement and the IAMA Mediation Rules, this Agreement will prevail;
  - (ii) each party may appoint a person, including a legally qualified person, to represent it or assist it in the mediation;
  - (iii) each party will bear their own costs relating to the preparation for and attendance at the mediation; and
  - (iv) the costs of the mediator and any other incidental costs will be borne equally by the parties.
- (g) Clause 14 does not prevent a party seeking an urgent interlocutory injunction from a court of competent jurisdiction.
- (h) Unless otherwise agreed, the parties must continue to perform their obligations under this Agreement and any *reserve contract* despite the existence of a *dispute*.

#### 16 Warranties

- (a) The Reserve Provider represents and warrants to AEMO as at the date of this Agreement and at all times after the date of this Agreement that:
  - (i) it and its *representatives* are duly qualified and skilled to provide *reserve*;
  - (ii) it will provide reserve in accordance with all relevant legislation, good electricity industry practice and relevant Australian Standards and codes of practice;
  - (iii) it will ensure that data of the provision of reserve provided to AEMO for AEMO's use in calculating payments and issuing statements in accordance with clause 9 will be in a form suitable for use in AEMO's systems, and will accurately reflect the level of provision of reserve;
  - (iv) the Reserve Provider's obligations under this Agreement and any reserve contract are enforceable in accordance with their terms:
  - (v) if reserve is being provided under a reserve contract:
    - (A) through the reduction of *load*, any relevant end users of electricity have agreed in writing to reducing their consumption of electricity or having their supply of electricity interrupted for the *Reserve Provider* to provide the reserve in accordance with a reserve contract; or
    - (B) by generation increase, the owners of the generating units have agreed in writing with the Reserve Provider that the generating units may be utilised to enable the Reserve Provider to provide the reserve in accordance with a reserve contract; and

- (vi) the Reserve Provider is entitled to carry out its obligations under this Agreement and any reserve contract.
- (b) AEMO represents and warrants to the Reserve Provider as at the date of this Agreement and at all times after the date of this Agreement that its obligations under this Agreement and any reserve contract are enforceable in accordance with their terms.

## 17 Compliance with Legislation and the Requirements of an Authority

- (a) Each party must comply with *legislation* in any way affecting this Agreement and any *reserve* contract.
- (b) Each party must procure that all notices required to be given, all consents required to be obtained and any form of authorisation, registration or certification required by *legislation* for the purpose of complying with its obligations under this Agreement and any *reserve contract* are given or obtained.
- (c) Each party must pay all fees and bear all costs connected with such notices, consents, authorisations, registrations and certifications.
- (d) Each party must, upon demand by the other party ("requesting party") at any time, provide to the requesting party all information necessary to establish to the satisfaction of the requesting party that the requirements of **paragraph** (b) have been complied with.

#### 18 General

#### 18.1 Notices

- (a) Subject to **paragraph** (b) and the **Schedules**, 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 **Details**; and
  - (iii) left at, sent by ordinary pre-paid post (airmail if posted to or from a place outside Australia), facsimile, or in electronic form, to the address, number, or electronic mail address of the addressee specified in respect of that party in the **Details**.
- (b) Subject to the *Rules*, any:
  - (i) communications given in the course of the day-to-day running of the national grid or the national electricity market by or on behalf of a party to the other; or
  - (ii) request for reserve made by AEMO,

may be made by automated electronic process, telephone or other instantaneous means of *communication*.

- (c) Unless *communications* under **paragraph (b)** are recorded in some other way satisfactory to 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, on the 3<sup>rd</sup> (7<sup>th</sup>, if posted to or from a place outside Australia) *business day* after posting;
  - in the case of facsimile, at the time shown on a transmission report by the machine from which it was sent indicating that it was sent in its entirety to the facsimile number of the recipient;

- (iii) 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
- (iv) in the case of *communications* under **paragraph** (b), instantaneously.
- (f) Other than *communications* given under **paragraph** (b), if a *communication* is received, or deemed to be received, on a day that is not a *business day*, or after 4:00pm *EST* 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 designate a different person, address, facsimile number or electronic mail address for the purposes of **clause 17.1** and the **Details** and any **Schedule**.

#### 18.2 Exercise of Rights

Subject to the express provisions of this Agreement or a *reserve 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.

#### 18.3 No Waiver or Variation

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.

#### 18.4 Amendment

An amendment to this Agreement or a *reserve contract* will be effective only if made in writing and signed by the parties.

#### 18.5 Approvals and Consents

Subject to the express provisions of this Agreement or a *reserve contract*, a party may give conditionally or unconditionally or withhold its approval or consent in its absolute discretion.

#### 18.6 Continuing Indemnities

Each indemnity in this Agreement or a *reserve contract* is a continuing obligation, separate and independent from the other obligations of the parties and survives the end of this Agreement or a *reserve contract*.

#### 18.7 Payment not necessary before Claim

It is not necessary for a party to incur expense or make payment before enforcing a right of indemnity conferred by this Agreement or a *reserve contract*.

#### 18.8 Costs and Expenses

Costs, fees and expenses of a party covered by a right of indemnity include legal expenses, fees and charges incurred by the indemnified party on a solicitor-own client basis and are not subject to taxation on a party-and-party or any other basis.

#### 18.9 Further Assurances

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

 do everything reasonably necessary to give effect to this Agreement and any reserve contract and the transactions contemplated by them (including the execution of documents);
 and (b) use reasonable endeavours to cause relevant third parties to do likewise if necessary or desirable.

#### 18.10 Supervening Legislation

Any present or future *legislation* that operates to vary an obligation or right, power or remedy of a person in connection with this Agreement or a *reserve contract* is excluded to the extent permitted by law.

#### 18.11 Severability

If a provision of this Agreement or a *reserve contract* is void, unenforceable, or illegal in a jurisdiction, it is severed for that jurisdiction. The remainder of this Agreement or the *reserve contract* remains effective and the validity or enforceability of that provision in any other jurisdiction is not affected. This **clause 17.11** has no effect if the severance alters the basic nature of this Agreement or the *reserve contract* or is contrary to public policy.

#### 18.12 Entire Agreement

- (a) Subject to the *Rules*, this Agreement constitutes the entire agreement of the parties in connection with membership of the Panel and any previous agreements, understandings and negotiations on that subject matter cease to have any effect.
- (b) Subject to the Rules, each reserve contract constitutes the entire agreement of the parties in connection with the supply of reserve for the period covered by the reserve contract and any previous agreements, understandings and negotiations on that subject matter cease to have any effect.

#### 18.13 Confidential Information

All information exchanged between the parties under this Agreement or a *reserve contract* or during the negotiations preceding such agreements is declared by *AEMO* to be *confidential information* and must not be disclosed to any person except for the purpose of:

- (a) assessing the viability and deliverability of the *reserve*, in which case the *Reserve Provider* hereby grants its consent to any relevant disclosures, or in accordance with the *Rules*; and
- (b) complying with the *Rules*, the *RERT guidelines* and any relevant procedures published by *AEMO* in accordance with the *Rules*.

#### 18.14 No other representations or warranties

Each party acknowledges that, in entering into this Agreement or a *reserve contract* it has not relied on any representations or warranties about its subject matter except as provided in this Agreement or the *reserve contract*.

#### 18.15 Counterparts

This Agreement or a *reserve contract* may consist of a number of copies, each signed by one or more parties to this Agreement. If so, the signed copies make up one document and the date of this Agreement or a *reserve contract* will be the date on which the last counterpart was signed.

#### 18.16 Governing Law & Jurisdiction

This Agreement, each *reserve contract* and the transactions contemplated by them are governed by the laws in force in the jurisdiction referred to in the **Details**. Each party submits to the non-exclusive jurisdiction of the courts of that place.

#### 18.17 No partnership, agency or trust

Nothing contained or implied in this Agreement or a *reserve contract*:

- (a) constitutes or may be deemed to constitute a party the partner, agent or legal representative of any other party for any purpose whatsoever, or create or be deemed to create any partnership; or
- (b) creates or may be deemed to create any agency or trust.

## **EXECUTED** as an agreement

## **RERT Panel Agreement**

# Schedule 1 – Medium-Notice Reserve – Scheduled Reserve (Generation Increase)

#### 1 Definitions

#### In this Schedule:

"block" means the minimum amount of reserve that can be dispatched by AEMO.

"disablement" means reducing the output of the reserve equipment to the network as quickly as practicable until it is below its market capacity or is de-synchronised.

"disablement lead time" means the period required to disable the reserve equipment and is specified in **Item 4**.

"dispatch constraints" are detailed in the table in item 5.2.

"dispatch end time" means the time the dispatch of reserve specified in a dispatch instruction must cease.

"dispatch instruction" means an instruction from AEMO to the Reserve Provider to dispatch reserve or to disable the reserve equipment (as the case may be).

"dispatch start time" means the time by which the reserve specified in a dispatch instruction must be dispatched.

"enablement" means synchronising the reserve equipment until its loading level becomes equal to the minimum operating level, or preparing the reserve equipment to be dispatched above its market capacity.

"enablement instruction" means an instruction to enable the reserve equipment.

"enablement lead time" means the maximum period required from the time the Reserve Provider receives an enablement instruction until the reserve equipment is:

- (a) synchronised and its loading level becomes equal to the minimum operating level for slow start plant;
- (b) ready for synchronisation for fast start plant; or
- (c) ready to be dispatched above its market capacity,

#### and is specified in Item 4.

"fast start plant" means a scheduled generating unit that can synchronise and increase its loading level to the firm capacity within 30 minutes of being requested to do so.

"firm capacity" means the reserve equipment's loading level specified in Item 3.

"instruction" means any notification by AEMO to the Reserve Provider in respect of the provision of reserve in accordance with a reserve contract.

"market capacity" means the loading level specified in Item 3, which is:

- (a) the subject of *dispatch* offers or is considered by *AEMO* to be likely to be submitted or otherwise available for *dispatch*; or
- (b) provided, or will be provided, or made available for provision under any other arrangement or agreement.

<sup>&</sup>quot;minimum operating level" means the minimum loading level at which the reserve equipment can operate continuously and is specified in **Item 4**.

<sup>&</sup>quot;slow start plant" means any scheduled generating unit other than fast start plant.

<sup>&</sup>quot;Weekly Availability Notice" is defined in Item 6.4.

## 2 Tenders for the Provision of Reserve

#### 2.1 Contact Persons for Tenders

Requests for Tender will be given on behalf of AEMO and any communications concerning a Request for Tender and offers in response to a Request for Tender, must be submitted on behalf of the Reserve Provider by the persons nominated in the table below:

AEMO			
Contact Person at all times:			
Name/Title:	James Lindey, System Performance and Commercial, Systems Capability		
Telephone No:	07 3347 3906		
Fax No:	07 3347 3200		
Email:	james.lindley@aemo.com.au		
Re	eserve Provider		
Contact Person at all times:			
Name/Title:			
Telephone No:			
Fax No:			
Email:			
Backup Contact Person at all times:			
Name/Title:			
Telephone No:			
Fax No:			
Email:			

### 2.2 No obligation to make an offer

The Reserve Provider is not obliged to respond to a Request for Tender and offer the reserve to AEMO if the Request for Tender relates to a request for reserve during the following periods:

Date	Time

## 3 Description of Reserve

The reserve comprises the provision of generation as described below:

Name of Generating Unit	Firm Capacity (MW)	Market Capacity (MW)	Reserve (MW) (Firm Capacity – Market Capacity)

Total Reserve MW

## 4 Reserve Equipment

Name of Generating Unit:1	
Registration Status	[market/non-market]
Location	
Connection Point	
Minimum Operating Level	[ ]MW
Enablement Lead Time	[ ] hours
Disablement Lead Time	[ ] hours
Type of scheduled generating unit	[fast start plant/slow start plant]

## 5 Capabilities of Reserve Equipment

### 5.1 Minimum and Maximum Rates of Change of the Level of Generation

The minimum and maximum rates of change of the level of *generation* that can be specified in a *dispatch instruction* are as follows:

Name of Genera	ting Unit <sup>1</sup>			
Power output range		change of power put	Maximum rate of out	change of power put
	While operating on AGC	Manual Control	While operating on AGC	Manual Control
[ ] MW	[ ]MW/min	[ ]MW/min	[ ]MW/min	[ ]MW/min
[ ] MW	[ ]MW/min	[ ]MW/min	[ ]MW/min	[ ]MW/min

<sup>&</sup>lt;sup>1</sup> Copy table and use one for each Generating Unit involved.

Name of Genera	ting Unit <sup>1</sup>			
Power output range		change of power put	Maximum rate of out	change of power put
	While operating on AGC	Manual Control	While operating on AGC	Manual Control
[ ] MW	[ ]MW/min	[ ]MW/min	[ ]MW/min	[ ]MW/min

#### **5.2** Dispatch Constraints

The reserve equipment is subject to the following dispatch constraints:

Name of Generating Unit <sup>2</sup>	
<b>Minimum run-time</b> , ie the minimum period the scheduled generating unit must generate.	[ ] hours
Minimum off-time, ie the minimum period between the last time the scheduled generating unit was generating and the time at which the scheduled generating unit can re-commence generating.	[ ] hours
<b>Maximum run time</b> , ie the maximum period the scheduled generating unit can generate.	[ ] hours
Other dispatch constraints	

#### 6 Contracted Levels of Performance

The *contracted levels of performance* comprise the provision of *generation* by the *reserve equipment* up to the total *reserve* that conforms to the following requirements:

#### 6.1 Minimum Technical Requirements

- (a) The *reserve* must be capable of being *dispatched* by *instructions* to a single point of contact with operational responsibility for the *reserve*;
- (b) The *reserve* must be capable of being *dispatched* as a *block* of not less than 10 MW, which may be made up of smaller components that are managed by the *Reserve Provider*;
- (c) The reserve must remain dispatched for at least 1 hour; and
- (d) Each *generating unit* comprising the *reserve equipment* must have a type 1, 2, 3 or 4 *metering installation* as required by Schedule 7.2 of the *Rules* to measure the electrical output or change in electrical consumption as a result of *dispatch*.

#### **6.2** Performance Criteria

The Reserve Provider must be capable of:

- (a) upon receiving from AEMO an enablement instruction, enabling the reserve equipment within the enablement lead time;
- (b) upon receiving from AEMO a dispatch instruction, generating at a rate of change of the level of generation as required by the dispatch instruction, but not greater

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<sup>&</sup>lt;sup>2</sup> Copy table and use one for each Generating Unit involved.

than the relevant rate set out in **Item 5.1**, unless agreed otherwise between the parties; and

(c) unless required to continue to generate through central dispatch, upon receiving a dispatch instruction from AEMO to disable, disabling the reserve equipment within the disablement lead time.

#### 6.3 Minimum Availability

The reserve is taken not to be available if:

- (a) the reduction in the amount of *energy* capable of being *generated* due to reasons other than a relevant *dispatch constraint* is greater than 0 MW; or
- (b) a *dispatch instruction* has been issued and the *reserve equipment* has been unable to *generate* at the level requested by the *dispatch instruction*.

#### 6.4 Availability notification by the Reserve Provider

In this **Item 6.4**, the term "week" means each *trading interval* during a period of seven days commencing at 12.30am *EST* on the following day and ending at 12.30am *EST* on the following Saturday but only to the extent that those *trading intervals* fall within the term of any *reserve contract*.

During a *reserve contract*, the *Reserve Provider* must provide to *AEMO* the following availability advices:

#### (a) Weekly Availability Advice

By 3 pm *EST* each Friday, the *Reserve Provider* must provide a *Weekly Availability Advice* to *AEMO* setting out advice on the availability of *reserve* for the *week*, including:

- (i) the maximum level of *generation* that can be achieved up to the *firm* capacity for each trading interval (in MWh);
- (ii) a description of any proposed maintenance that could affect the *reserve*;
- (iii) the cause of any *reserve* unavailability not due to maintenance;
- (iv) a description of any known problems that might:
  - (A) reduce the reliability of the reserve in any trading interval;
  - (B) affect the availability of the *reserve*, and the extent of any projected reduction in provision of the *reserve*; or
  - (C) pose a threat to power system security.

For each problem, the *Reserve Provider* must indicate to the best of its knowledge an assessment of the risk that the problem might escalate or improve; and

(v) describe any tests the *Reserve Provider* intends to conduct and the proposed timing of each test and any *reserve* unavailability associated with each test.

#### (b) Changes to Availability Advice

If the *Reserve Provider* becomes aware of a material change of circumstances following the issue of a *Weekly Availability Advice*, the *Reserve Provider* must as soon as practicable after becoming aware of it advise *AEMO*. This must be provided as a mark-up of the latest *Weekly Availability Advice* highlighting the changes.

#### (c) Ad Hoc Availability Advice

AEMO may request advice on the availability of the *reserve* on an ad hoc basis. If requested by AEMO, the Reserve Provider must provide the requested information as soon as possible. The information that may be requested includes the following:

- a statement of the maximum level of generation that can be achieved up to the firm capacity for each trading interval for the period requested (in MWh);
- (ii) details of any maintenance proposed for the period requested that will affect the *reserve*:
- (iii) the cause of any reserve unavailability in the period requested;
- (iv) details of any known problems of the type referred to in paragraph (a)(iv). For each problem, the Reserve Provider must indicate to the best of its knowledge an assessment of the risk that the problem may escalate or improve;
- (v) a description of any tests the *Reserve Provider* intends to conduct in the period requested and the proposed timing of each test and any *reserve* unavailability associated with each test; and
- (vi) such other information concerning the availability of the *reserve* as *AEMO* may reasonably request.

## 7 Requests for Provision of Reserve

#### 7.1 What AEMO may Request

Subject to any advice from the Reserve Provider that the reserve is not available, at any time during a reserve contract, AEMO may request the provision of any level of generation between the market capacity and the firm capacity.

#### 7.2 Method of Requests

- (a) At any time during a *reserve contract*, *instructions* will be issued by *AEMO's market* systems or by telephone.
- (b) Any instructions issued by telephone will be recorded by *AEMO* in accordance with Rule 4.11.4.

## 7.3 Contact Persons for Operational Purposes

*Instructions* will be given and received and communications concerning *instructions* must be made by the following persons on behalf of each party:

AEMO		
Contact Person at all times:		
Name/Title:	Control Room Operator on shift	
Telephone No:		
Fax No:		
Email:		
Reserve Provider		
Contact Person at all times:		
Name/Title:		

Telephone No:	
Fax No:	
Email:	
Backup Contact Person at all times:	
Name/Title:	
Telephone No:	
Fax No:	
Email:	

#### 7.4 Enablement Instruction

Subject to any dispatch constraints, AEMO may issue an enablement instruction at any time during a reserve contract requiring the Reserve Provider to:

- (a) synchronise and increase the reserve equipment's output to the minimum operating level in the case of slow start plant; or
- (b) prepare the reserve equipment to dispatch above its market capacity; or
- (c) prepare the *reserve equipment* to be ready to *synchronise* and increase output to the *firm capacity* in the case of *fast start plant*.

AEMO may also request a time earlier than the time contemplated in **Item 4** by which the reserve equipment is to reach its *minimum operating level* or *market capacity*. The *Reserve Provider* must use reasonable endeavours to comply with the request.

The issue of an *enablement instruction* does not imply that a *dispatch instruction* will be issued.

#### 7.5 Dispatch Instruction

Subject to any dispatch constraints, AEMO may issue a dispatch instruction to the Reserve Provider at any time during a reserve contract requesting the Reserve Provider to dispatch, vary or disable the reserve. A dispatch instruction:

- (a) must specify the dispatch start time and the dispatch end time;
- (b) must specify the reserve to be dispatched for each trading interval (in MWh) from the dispatch start time to the dispatch end time, which unless agreed otherwise between the parties, must not be more than the firm capacity;
- (c) must not require the reserve equipment to generate below the minimum operating level unless the dispatch instruction is an instruction to disable or as agreed otherwise between the parties; and
- (d) must not require the *reserve equipment* to change its level of *generation* at rates of change greater than those specified in **Item 5.1**, unless agreed otherwise between the parties.

The Reserve Provider must comply with a dispatch instruction that complies with these requirements.

#### 7.6 AGC

Where available, *AEMO* may at any time request that the *reserve equipment* be switched to operate on *AGC* or under manual control. The *Reserve Provider* must comply with this request as soon as practicable.

#### 8 Measurement and Verification

#### 8.1 Measurement

Metering data will be used to determine the quantity of energy dispatched by the reserve equipment.

Any relevant *metering installation* must be installed by a *Metering Provider*, and data collected by an *AEMO* accredited Metering Data Provider (category MDA 1-4).

The maximum level at which *reserve* is taken to have been *dispatched* is the level specified in a relevant *dispatch instruction*.

#### 8.2 Verification

AEMO's market systems and energy management systems will be used to verify the quantity of reserve dispatched under a reserve contract.

If AEMO requests further information relating to the measurement and determination of the dispatched reserve, the Reserve Provider must provide that information to AEMO within 2 business days of AEMO's request.

## 9 Charges

#### 9.1 Billing Period

For each *billing period* during a *reserve contract*, the *Reserve Provider* will be entitled to charge *AEMO*:

- (a) subject to a pro-rata adjustment if the reserve is not available, an availability charge in respect of that billing period, as set out in a relevant Confirmation; and
- (b) where reserve has been dispatched during a trading interval in accordance with a reserve contract during the billing period, a usage charge, which is equal to the product of the price set out in a relevant Confirmation and the quantity (in MWh) of the reserve dispatched by the reserve equipment as measured at its connection point during each trading interval as a result of a dispatch instruction under that reserve contract.

#### 9.2 Early Termination

If the reserve specified in that reserve contract is terminated by AEMO in accordance with clause 12.3(a) before the end of a reserve contract, the Reserve Provider is entitled to charge AEMO an early termination charge, as set out in a relevant Confirmation.

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## Annexure to Schedule 1 - Conditions Precedent

Each condition precedent applying to the reserve described in Item 3 and condition precedent fulfilment date is listed in the table below:

Condi	tion	Condition Precedent Fulfilment Date
1	The Reserve Provider must complete a test of the enablement, dispatch and disablement of the reserve equipment under instruction from AEMO to AEMO's reasonable satisfaction.	
	This test requires the <i>scheduled generating unit</i> to perform the following actions in sequence (failure to perform these actions in sequence will constitute a failure to complete this test satisfactorily):	
	• enable the reserve equipment within the enablement lead time;	
	<ul> <li>generate at a level above the greater of the minimum operating level and the market capacity, and in accordance with dispatch instructions issued by AEMO; and</li> </ul>	
	disable under instructions from AEMO within the disablement lead time.	
	During the test:	
	<ul> <li>All automatic control systems, for example, the excitation control system and governor system, must be operated in their automatic regulating mode;</li> </ul>	
	The reserve equipment must be operated in a constant and stable manner; and	
	• If AGC is installed, the scheduled generating unit must be operated under AGC control.	
	Trend display printouts of the performance of the <i>reserve equipment</i> must be provided to <i>AEMO</i> as evidence of completion of this test.	

# Schedule 2 – Medium-Notice Reserve – Scheduled Reserve (Load Reduction)

#### 1 Definitions

#### In this Schedule:

"block" means the minimum amount of reserve that can be dispatched by AEMO.

"consumer" means a person listed as such in Item 3.

"disablement" means the cessation of the provision of reserve required by a dispatch instruction and resuming the taking of electricity supply.

"disablement lead time" means the maximum period required for the reserve to be disabled and is specified in **item 4**.

"dispatch constraints" are detailed in the table in item 4.

"dispatch end time" means the time the dispatch of reserve specified in a dispatch instruction must cease.

"dispatch instruction" means an instruction from AEMO to the Reserve Provider to dispatch or to disable the reserve (as the case may be).

"dispatch start time" means the time by which the reserve specified in a dispatch instruction must be dispatched.

"enablement" means preparing reserve for dispatch.

"enablement instruction" means an instruction from AEMO to the Reserve Provider to enable the reserve.

"enablement lead time" means the maximum period required by the Reserve Provider to enable the reserve in response to a enablement instruction and is specified in **Item 4**.

"firm capacity" means the loading level specified in Item 3.

"instruction" means any notification by AEMO to the Reserve Provider in respect of the provision of reserve in accordance with a reserve contract.

"load reduction" is the reduction (in MW) in the level at which electricity is taken from the *network* at the *connection points* specified in **Item 3**.

"market capacity" means the loading level specified in Item 3, which is:

- (a) the subject of *dispatch bids* or is considered by *AEMO* to be likely to be submitted or otherwise available for *central dispatch*; or
- (b) provided, or will be provided, or made available for provision under any other arrangement or agreement, including any demand side management arrangement or agreement.

"standby generating unit" means a generating unit that is not connected to the network and will generate in order for the Reserve Provider to provide the reserve.

"Weekly Availability Notice" is defined in Item 6.4.

## 2 Tenders for the Provision of Reserve

### 2.1 Contact Persons for Tenders

Requests for Tender will be given on behalf of AEMO and any communications concerning a Request for Tender and offers in response to a Request for Tender, must be submitted on behalf of the Reserve Provider by the persons nominated in the table below:

AEMO		
Contact Person at all times:		
Name/Title:	James Lindey, System Performance and Commercial, Systems Capability	
Telephone No:	07 3347 3906	
Fax No:	07 3347 3200	
Email:	james.lindley@aemo.com.au	
Reserve Provider		
Contact Person at all times:		
Name/Title:		
Telephone No:		
Fax No:		
Email:		
Backup Contact Person at all times:		
Name/Title:		
Telephone No:		
Fax No:		
Email:		

#### 2.2 No obligation to make an offer

The Reserve Provider is not obliged to respond to a Request for Tender and offer the reserve to AEMO if the Request for Tender relates to a request for reserve during the following periods:

Date	Time

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## 3 Description of Reserve

The *reserve* is comprised of *load reduction* at the locations and in the amounts detailed in the following table:

Location of reserve	
Firm capacity	MW
Market capacity	MW

Total Reserve MW

#### 4 Characteristics of Reserve

Enablement lead time	Hours
Disablement lead time	Hours
<b>Maximum continuous operation</b> ie the maximum time the <i>reserve</i> can be <i>dispatched</i> continuously.	Hours
<b>Minimum continuous operation</b> ie the minimum time the <i>reserve</i> can be <i>dispatched</i> continuously.	Hours
Minimum time between dispatches	Hours
Hours of the day the reserve is available for dispatch	
Days of the week the reserve is available for dispatch	
Maximum number of consecutive days the reserve can be dispatched in a week	
Maximum number of days per week of dispatch	
Other dispatch constraints	

#### 5 Not used

#### 6 Contracted Levels of Performance

The *contracted levels of performance comprise* the provision of *load reduction* up to the total *reserve* that conforms to the following requirements:

#### 6.1 Minimum Technical Requirements

- (a) The *reserve* must be capable of being *dispatched* by *instructions* to a single point of contact with operational responsibility for the *reserve*;
- (b) The *reserve* must be capable of being *dispatched* as a *block* of not less than 10 MW, which may be made up of smaller components that are managed by the *Reserve Provider*:
- (c) The reserve must remain dispatched for at least 1 hour; and
- (d) Each *connection point* through which the *reserve* is being provided must have a type 1, 2, 3 or 4 *metering installation* as required by Schedule 7.2 of the *Rules* to measure the change in electrical consumption as a result of *dispatch*.

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#### 6.2 Performance Criteria

The Reserve Provider must be capable of:

- (a) upon receiving an enablement instruction, enabling the reserve within the enablement lead time:
- (b) upon receiving from AEMO a dispatch instruction, dispatching the reserve as required by the dispatch instruction; and
- (c) upon receiving a *dispatch instruction* from *AEMO* to *disable* the *reserve*, disabling the *reserve* within the *disablement lead time*.

No part of the *reserve* shall be *dispatched* prior to receipt of a relevant *dispatch instruction* without *AEMO*'s prior consent.

*Dispatch* of the *reserve* must not lead to any consequent increase in the rate at which electricity is taken from the *network* by any other equipment or process unless this effect has been deducted from the *reserve*.

### 6.3 Minimum Availability

The reserve is taken not to be available if a dispatch instruction has been issued and the reserve equipment has been unable to reduce load at the level requested by the dispatch instruction.

#### 6.4 Availability notification by the Reserve Provider

In **Item 6.4**, the term "week" means each *trading interval* during a period of seven days commencing at 12.30am *EST* on the following day and ending at 12.30am *EST* on the following Saturday but only to the extent that those *trading intervals* fall within the term of a reserve contract.

During a reserve contract, the Reserve Provider must provide to AEMO the following availability advices:

#### (a) Weekly Availability Advice

By 3 pm *EST* each Friday, the *Reserve Provider* must provide a *Weekly Availability Advice* to *AEMO* setting out advice on the availability of *reserve* for the *week*, including:

- (i) confirmation of the amount of *reserve* available on a *trading interval* basis (in MWh);
- (ii) the cause of any reserve unavailability; and
- (iii) the extent of any projected reduction in the availability of the *reserve*.

#### (b) Changes to Availability Advice

If the *Reserve Provider* becomes aware of a material change of circumstances following the issue of a *Weekly Availability Advice*, the *Reserve Provider* must as soon as practicable after becoming aware of it advise *AEMO*. This must be provided as a mark-up of the latest *Weekly Availability Advice* highlighting the changes.

#### (c) Ad Hoc Availability Advice

AEMO may request advice on the *availability* of the *reserve* on an ad hoc basis. If requested by AEMO, the Reserve Provider must provide the requested information as soon as possible. The information that may be requested includes the following:

- (i) for each *trading interval* falling within the period requested by *AEMO*, the availability of reserve (in MWh);
- (ii) the cause of any *reserve* unavailability in the period requested; and

(iii) such other information concerning the *availability* of the *reserve* as *AEMO* may reasonably request.

## 7 Requests for Provision of Reserve

### 7.1 What AEMO may Request

Subject to any advice from the Reserve Provider that the reserve is not available, at any time during a reserve contract, AEMO may request any load reduction between the market capacity and firm capacity.

#### 7.2 Method of Requests

- (a) At any time during a *reserve contract*, *instructions* will be issued by *AEMO's market* systems or by telephone.
- (b) Any instructions issued by telephone will be recorded by *AEMO* in accordance with Rule 4.11.4.

#### 7.3 Contact Persons for Operational Purposes

*Instructions* will be given and received and communications concerning *instructions* must be made by the following persons on behalf of each party:

AEMO			
Contact Person at all times:			
Name/Title:	Control Room Operator on shift		
Telephone No:			
Fax No:			
Email:			
Reserv	re Provider		
Contact Person at all times:			
Name/Title:			
Telephone No:			
Fax No:			
Email:			
Backup Contact Person at all times:			
Name/Title:			
Telephone No:			
Fax No:			
Email:			

#### 7.4 Enablement Instruction

Subject to any *dispatch constraints, AEMO* may issue an *enablement instruction* at any time during a *reserve contract* requiring the *Reserve Provider* to prepare *reserve* for *dispatch*. An *enablement instruction* must specify:

- (a) the proposed dispatch start time and the proposed dispatch end time; and
- (b) the amount of *reserve* (in MWh) the *Reserve Provider* must prepare for *dispatch* for each *trading interval*, which unless agreed otherwise between the parties, must not be greater than the *firm capacity*.

For a *load reduction* with an *enablement lead time* of zero, an *enablement instruction* will not be required and the *load reduction* shall be taken to be constantly in a state of readiness to act on a *dispatch instruction* issued by *AEMO*.

The issue of an *enablement instruction* does not imply that a *dispatch instruction* will be issued.

#### 7.5 Dispatch Instruction

Subject to any dispatch constraints, AEMO may issue a dispatch instruction to the Reserve Provider at any time during a reserve contract requesting the Reserve Provider to dispatch, vary or disable the reserve. A dispatch instruction must specify:

- (a) the dispatch start time and the dispatch end time; and
- (b) the amount of reserve the Reserve Provider must dispatch for each trading interval (in MWh) from the dispatch start time to the dispatch end time, which unless otherwise agreed between the parties, must not be more than the firm capacity.

The Reserve Provider must comply with a dispatch instruction that complies with these requirements.

#### 8 Measurement and Verification of Reserve

#### 8.1 Measurement

Metering data will be used to determine the quantity of energy dispatched by the reserve equipment.

The *metering installation* must be installed by a *Metering Provider*, and data collected by an *AEMO* accredited Metering Data Provider (category MDA 1-4).

The maximum level at which *reserve* is taken to have been *dispatched* is the level specified in a relevant *dispatch instruction*.

#### 8.2 Verification

AEMO's market systems and energy management systems will be used to verify the quantity of reserve dispatched in accordance with a reserve contract.

If AEMO requests further information relating to the measurement and determination of the dispatched reserve, the Reserve Provider must provide that information to AEMO within 2 business days of AEMO's request.

## 9 Charges

#### 9.1 Billing Period

For each *billing period* during a *reserve contract*, the *Reserve Provider* will be entitled to charge *AEMO*:

- (a) subject to a pro-rata adjustment if the *reserve* is not available, an *availability charge* in respect of that *billing period*, as set out in a relevant *Confirmation*; and
- (b) where reserve has been dispatched during a trading interval in accordance with a reserve contract during the billing period, a usage charge, which is equal to the product of the price set out in a relevant Confirmation and the quantity (in MWh) of the reserve dispatched by the reserve equipment as measured at its connection point during each trading interval as a result of a dispatch instruction under that reserve contract.

#### 9.2 Early Termination

If the *reserve* specified in a *reserve contract* is terminated by *AEMO* in accordance with **clause 12.3(a)** before the end of that *reserve contract*, the *Reserve Provider* is entitled to charge *AEMO* an *early termination charge*, as set out in a relevant *Confirmation*.

# Annexure to Schedule 2 - Conditions Precedent

Each condition precedent applying to the reserve described in **Item 3** and condition precedent fulfilment date is listed in the table below:

Cond	lition	Condition Precedent Fulfilment Date
1	The procedures relevant to the provision of <i>reserve</i> that have been accepted by relevant <i>consumers</i> must be provided to <i>AEMO</i> (if some procedures are generic, a typical procedure will suffice). The procedures must include information protocols and indicate the steps to be carried out for:	
	enablement, dispatch and disablement; and	
	the notifications and responses required by a reserve contract for each notification of the reserve's availability,	
	for each part of the reserve that relates to each relevant consumer.	
2	The Reserve Provider must demonstrate to AEMO's reasonable satisfaction that the required notifications can be provided to the operator of each part of the reserve in sufficient time to allow the reserve to be dispatched in accordance with the contracted levels of performance.	
	Dispatch is not required as part of this demonstration.	

# Schedule 3 – Medium-Notice Reserve – Unscheduled Reserve (Generation Increase)

#### 1 Definitions

#### In this Schedule:

"activation" means synchronising the reserve equipment where required and increasing its output to the firm capacity.

"activation constraints" are detailed in the table in Item 5.1.

"activation end time" means the time the activation of the reserve must cease.

"activation instruction" means an instruction from AEMO for the reserve to become activated or deactivated (as the case may be).

"activation lead time" means the maximum period required by the Reserve Provider to activate reserve in response to an activation instruction including synchronising the relevant non-scheduled generating unit and, if required, increasing its output to the firm capacity and is specified in **Item 4**.

"activation start time" means the time by which the reserve specified in an activation instruction is to be activated.

"block" means the minimum amount of reserve that can be activated by AEMO.

"de-activation" means reducing the output of the reserve equipment to the network as quickly as practicable until it is below its market capacity or is de-synchronised.

"de-activation lead time" means the maximum period required to disable the reserve equipment and is specified in **Item 4**.

"firm capacity" means the reserve equipment loading level specified in Item 3.

"instruction" means any notification by AEMO to the Reserve Provider in respect of the provision of reserve in accordance with a reserve contract.

"market capacity" means the loading level specified in Item 3, which is:

- (a) is considered by AEMO to be likely to be available to the market; or
- (b) provided, or will be provided, or made available for provision under any other arrangement or agreement.

"minimum operating level" means the minimum loading level at which the reserve equipment can operate continuously and is specified in **Item 4**.

"pre-activation" means preparing the reserve equipment for activation.

"pre-activation instruction" means an instruction to prepare the reserve for activation.

"pre-activation lead time" means the maximum period required to prepare the reserve equipment for activation and is specified in **Item 4**.

"Weekly Availability Notice" is defined in Item 6.4.

## 2 Tenders for the Provision of Reserve

## 2.1 Contact Persons for Tenders

Requests for Tender will be given on behalf of AEMO and any communications concerning a Request for Tender and offers in response to a Request for Tender, must be submitted on behalf of the Reserve Provider by the persons nominated in the table below:

AEMO		
Contact Person at all times:		
Name/Title:	James Lindey, System Performance and Commercial, Systems Capability	
Telephone No:	07 3347 3906	
Fax No:	07 3347 3200	
Email:	james.lindley@aemo.com.au	
Reserve Provider		
Contact Person at all times:		
Name/Title:		
Telephone No:		
Fax No:		
Email:		
Backup Contact Person at all times:		
Name/Title:		
Telephone No:		
Fax No:		
Email:		

#### 2.2 No obligation to make an offer

The Reserve Provider is not obliged to respond to a Request for Tender and offer the reserve to AEMO if the Request for Tender relates to a request for reserve during the following periods:

Date	Time

# 3 Description of Reserve

The *reserve* comprises the provision of *generation* as described below:

Name of Generating Unit	Firm Capacity (MW)	Market Capacity (MW)	Reserve (MW) (Firm Capacity – Market Capacity)

Total Reserve MW

# 4 Reserve Equipment

Name of Generating Unit <sup>3</sup>	
Registration Status	[market/non-market]
Registration otatas	[markernon-marker]
Location	
Connection Point	
Minimum Operating Level	[ ]MW
Pre-activation Lead Time	[ ] hours
Activation Lead Time	[ ] hours
De-Activation Lead Time	[ ] hours

# 5 Capabilities of Reserve Equipment

## 5.1 Activation Constraints

The reserve equipment is subject to the following activation constraints:

Name of Generating Unit <sup>3</sup>	
Minimum run-time, ie the minimum period the scheduled generating unit must generate.	[ ] hours
Minimum off-time, ie the minimum period between the last time the scheduled generating unit was generating and the time at which the scheduled generating unit can re-commence generating.	[ ] hours

<sup>&</sup>lt;sup>3</sup> Copy table and use one for each Generating Unit involved.

Maximum run time, ie the maximum period the scheduled generating unit can generate.	[ ] hours
Other activation constraints	

#### 6 Contracted Levels of Performance

The *contracted levels of performance* comprise the provision of *generation* by the *reserve equipment* up to the total *reserve* that conforms to the following requirements:

#### 6.1 Minimum Technical Requirements

- (a) The reserve must be capable of being activated by instructions to a single point of contact with operational responsibility for the reserve;
- (b) The reserve must be capable of being activated as a block of not less than 10 MW, which may be made up of smaller components that are managed by the Reserve Provider;
- (c) The reserve must remain activated for at least 1 hour; and
- (d) Each *generating unit* comprising the *reserve equipment* must have a type 1, 2, 3 or 4 *metering installation* as required by Schedule 7.2 of the *Rules* to measure the electrical output or change in electrical consumption as a result of an *activation*.

#### 6.2 Performance Criteria

The Reserve Provider must be capable of:

- (a) upon receiving from AEMO a pre-activation instruction, pre-activating the reserve equipment within the pre-activation lead time;
- (b) upon receiving from AEMO an activation instruction, synchronising if required and increasing output to the firm capacity within the activation lead time; and
- (c) upon receiving from AEMO an activation instruction to de-activate, de-activating the reserve equipment within the de-activation lead time.

#### 6.3 Minimum Availability

The *reserve* is taken not to be available if:

- (a) the reduction in the amount of *energy* capable of being *generated* due to reasons other than a relevant *activation constraint* is greater than 0 MW; or
- (b) an *activation instruction* has been issued and the *reserve equipment* has been unable to *generate* at the level requested by the *activation instruction*.

#### 6.4 Availability notification by the Reserve Provider

In **Item 6.4**, the term "week" means each trading interval during a period of seven days commencing at 12.30am EST on the following day and ending at 12.30am EST on the following Saturday but only to the extent that those trading intervals fall within the term of any reserve contract.

During any reserve contract, the Reserve Provider must provide to AEMO the following availability advices:

#### (a) Weekly Availability Advice

By 3 pm *EST* each Friday, the *Reserve Provider* must provide a *Weekly Availability Advice* to *AEMO* setting out advice on the availability of *reserve* for the *week*, including:

- (i) the maximum level of *generation* that can be achieved up to the *firm* capacity for each *trading interval* (in MWh);
- (ii) a description of any proposed maintenance that could affect the *reserve*;
- (iii) the cause of any *reserve* unavailability not due to maintenance;
- (iv) a description of any known problems that might:
  - (A) reduce the reliability of the reserve in any trading interval;
  - (B) affect the availability of the *reserve*, and the extent of any projected reduction in provision of the *reserve*; or
  - (C) pose a threat to power system security.

For each problem, the *Reserve Provider* must indicate to the best of its knowledge an assessment of the risk that the problem might escalate or improve: and

(v) describe any tests the *Reserve Provider* intends to conduct and the proposed timing of each test and any *reserve* unavailability associated with each test.

#### (b) Changes to Availability Advice

If the *Reserve Provider* becomes aware of a material change of circumstances following the issue of a *Weekly Availability Advice*, the *Reserve Provider* must as soon as practicable after becoming aware of it advise *AEMO*. This must be provided as a mark-up of the latest *Weekly Availability Advice* highlighting the changes.

#### (c) Ad Hoc Availability Advice

AEMO may request advice on the availability of the *reserve* on an ad hoc basis. If requested by AEMO, the Reserve Provider must provide the requested information as soon as possible. The information that may be requested includes the following:

- a statement of the maximum level of generation that can be achieved up to the firm capacity for each trading interval for the period requested (in MWh);
- (ii) details of any maintenance proposed for the *period* requested that will affect the *reserve*;
- (iii) the cause of any reserve unavailability in the period requested;
- (iv) details of any known problems of the type referred to in paragraph (a)(iv). For each problem, the Reserve Provider must indicate to the best of its knowledge an assessment of the risk that the problem may escalate or improve;
- (v) a description of any tests the *Reserve Provider* intends to conduct in the period requested and the proposed timing of each test and any *reserve* unavailability associated with each test; and
- (vi) such other information concerning the availability of the *reserve* as *AEMO* may reasonably request.

# 7 Requests for Provision of Reserve

#### 7.1 What AEMO may Request

Subject to any advice from the *Reserve Provider* that the *reserve* is not available, at any time during a *reserve contract*, *AEMO* may request the provision of any level of *generation* between the *market capacity* and the *firm capacity*.

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#### 7.2 Method of Requests

*Instructions* will be given by telephone, which *AEMO* will record in accordance with Rule 4.11.4.

#### 7.3 Contact Persons for Operational Purposes

*Instructions* will be given and received and communications concerning *instructions* must be made by the following persons on behalf of each party:

AEMO			
Contact Person at all times:			
Name/Title:	Control Room Operator on shift		
Telephone No:			
Fax No:			
Email:			
	ve Provider		
Contact Person at all times:			
Name/Title:			
Telephone No:			
Fax No:			
Email:			
Backup Contact Person at all times:			
Name/Title:			
Telephone No:			
Fax No:			
Email:			

#### 7.4 Pre-Activation Instruction

Subject to any activation constraints, AEMO may issue a pre-activation instruction at any time during a reserve contract requiring the Reserve Provider to:

- (a) prepare the reserve equipment for synchronisation; or
- (b) prepare the reserve equipment to activate above its market capacity.

AEMO may also request a time earlier than the time contemplated in **Item 4** by which the reserve equipment is to be available for synchronisation or reach its market capacity. The Reserve Provider must use reasonable endeavours to comply with the request.

The issue of a *pre-activation instruction* does not imply that an *activation instruction* will be issued.

#### 7.5 Activation Instruction

Subject to any activation constraints, AEMO may issue an activation instruction to the Reserve Provider at any time during a reserve contract requesting the Reserve Provider to activate or de-activate the reserve. An activation instruction:

- (a) must specify the activation start time (taking into account the activation lead time) and the activation end time (taking into account the de-activation lead time);
- (b) must specify the *reserve* to be *activated* for each *trading interval* (in MWh) from the *activation start time* to the *activation end time*, which unless agreed otherwise between the parties, must not be more than the *firm capacity;* and
- (c) must not require the reserve equipment to generate below the minimum operating level unless the activation instruction is an instruction to de-activate.

The Reserve Provider must comply with an activation instruction that complies with these requirements.

#### 7.6 AGC

Where available, *AEMO* may at any time request that the *reserve equipment* be switched to operate on *AGC* or under manual control. The *Reserve Provider* must comply with this request as soon as practicable.

#### 8 Measurement and Verification

#### 8.1 Measurement

Metering data will be used to determine the quantity of reserve activated by the reserve equipment.

Any relevant *metering installation* must be installed by a *Metering Provider*, and data collected by an *AEMO* accredited Metering Data Provider (category MDA 1-4).

The maximum level at which the *reserve* is taken to have been *activated* will be the level specified in the relevant *activation instruction*.

#### 8.2 Verification

AEMO's market systems and energy management systems will be used to verify the quantity of reserve activated in accordance with a reserve contract.

If AEMO requests further information relating to the measurement and determination of the activated reserve, the Reserve Provider must provide that information to AEMO within 2 business days of AEMO's request.

# 9 Charges

#### 9.1 Billing Period

For each billing period, the Reserve Provider will be entitled to charge AEMO

- (a) subject to a pro-rata adjustment if the *reserve* is not available, an *availability charge* in respect of that *billing period* as set out in a relevant *Confirmation*;
- (b) a *pre-activation charge* equal to product of the price for *pre-activating* as set out in a relevant *Confirmation* and the number of times a *pre-activation instruction* (not including *instructions* amending previous *instructions*) is given during the *billing period*; and
- (c) where reserve has been activated in accordance with a reserve contract during the billing period, a usage charge, which is equal to the product of the price set out in a relevant Confirmation, and the quantity (in MWh) of the reserve activated

by the reserve equipment as measured at its connection point during each trading interval as a result of an activation instruction under a reserve contract.

## 9.2 Early Termination

If the *reserve* specified in that *reserve contract* is terminated by *AEMO* in accordance with **clause 12.3(a)** before the end of the *reserve contract*, the *Reserve Provider* is entitled to charge *AEMO* an *early termination charge*, as set out in a relevant *Confirmation*.

# Annexure to Schedule 3 - Conditions Precedent

Each condition precedent applying to the reserve described in Item 3 and condition precedent fulfilment date is listed in the table below:

Condi	tion	Condition Precedent Fulfilment Date
1	The Reserve Provider must complete a test of the pre-activation, activation and de-activation of the reserve equipment under instruction from AEMO to AEMO's reasonable satisfaction.	
	This test requires the <i>reserve equipment</i> to perform the following actions in sequence (failure to perform these actions in sequence will constitute a failure to complete this test satisfactorily):	
	<ul> <li>pre-activate the reserve equipment within the pre-activation lead time;</li> </ul>	
	<ul> <li>generate at a level above the greater of the minimum operating level and the market capacity, and in accordance with activation instructions issued by AEMO; and</li> </ul>	
	<ul> <li>de-activate under instructions from AEMO within the de- activation lead time.</li> </ul>	
	During the test:	
	<ul> <li>All automatic control systems, for example, the excitation control system and governor system, must be operated in their automatic regulating mode;</li> </ul>	
	• The reserve equipment must be operated in a constant and stable manner; and	
	• If AGC is installed, the reserve equipment must be operated under AGC control.	
	Trend display printouts of the performance of the <i>reserve equipment</i> must be provided to <i>AEMO</i> as evidence of completion of this test.	
2	The Reserve Provider must complete a test of the notifications and procedures used to provide the reserve in accordance with the contracted levels of performance.	
	The Reserve Provider must demonstrate how the Reserve Provider would comply with a pre-activation instruction and an activation instruction, but these actions are not required for this test.	

# Schedule 4 – Medium-Notice Reserve – Unscheduled Reserve (Load Reduction)

#### 1 Definitions

#### In this Schedule:

"activation constraints" are detailed in the table in item 4.

"activation end time" means the time the activation of the reserve specified in an activation instruction must cease.

"activation instruction" means an instruction from AEMO for the reserve to be activated or de-activated (as the case may be).

"activation lead time" means the maximum period between the issue of an activation instruction and the time at which the reserve is activated and is specified in **Item 4**.

"block" means the minimum amount of reserve that can be activated by AEMO.

"consumer" means a person listed as such in Item 3.

"de-activate" means the cessation of the provision of reserve required by an activation instruction and resuming the taking of supply of electricity.

"de-activation lead time" means the maximum period required for the reserve to be deactivated and is specified in **Item 4**.

"firm capacity" means the loading level specified in Item 3.

*"instruction"* means any notification by *AEMO* to the *Reserve Provider* in respect of the provision of *reserve* in accordance with a *reserve contract*.

"load reduction" is the reduction (in MW) in the level at which electricity is taken from the network at the connection points specified in **Item 3**.

"market capacity" means the loading level specified in Item 3, which is:

- (a) considered by AEMO to be likely to be available to the market; or
- (b) provided, or will be provided, or made available for provision under any other arrangement or agreement, including any demand side management arrangement or agreement.

"pre-activation" means preparing reserve for activation.

"pre-activation instruction" means an instruction to the Reserve Provider to prepare the reserve for activation.

"pre-activation lead time" means the maximum period required for the reserve to reach a state of readiness to act upon an activation instruction and is specified in **Item 4**.

"standby generating unit" means a generating unit that is not connected to the network and will generate in order for the Reserve Provider to provide the reserve.

"Weekly Availability Notice" is defined in Item 6.4.

#### 2 Tenders for the Provision of Reserve

#### 2.1 Contact Persons for Tenders

Requests for Tender will be given on behalf of AEMO and any communications concerning a Request for Tender and offers in response to a Request for Tender, must be submitted on behalf of the Reserve Provider by the persons nominated in the table below:

AEMO		
Contact Person at all times:		
Name/Title:	James Lindey, System Performance and Commercial, Systems Capability	
Telephone No:	07 3347 3906	
Fax No:	07 3347 3200	
Email:	james.lindley@aemo.com.au	
Re	eserve Provider	
Contact Person at all times:		
Name/Title:		
Telephone No:		
Fax No:		
Email:		
Backup Contact Person at all times:		
Name/Title:		
Telephone No:		
Fax No:		
Email:		

# 2.2 No obligation to make an offer

The Reserve Provider is not obliged to respond to a Request for Tender and offer the reserve to AEMO if the Request for Tender relates to a request for reserve during the following periods:

Date	Time

# **RERT Panel Agreement**

# 3 Description of Reserve

The *reserve* is at the locations and in the amounts detailed in the following table:

	Name of Consumer	Location of Reserve	Firm Capacity (MW) (7 am – 10 pm EST weekdays)	(MW) (7 am – 10 pm EST weekdays)	Reserve (Firm Capacity – Market Capacity) (MW) (7 am – 10 pm EST weekdays)	Does reserve rely on use of standby generating unit?	Capacity of standby generating unit (MW)	Connection point NMI
1						[yes/no]		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

Total Reserve MW
------------------

# **RERT Panel Agreement**

#### 4 Characteristics of Reserve

Pre-activation lead time	Hours
Activation lead time	Hours
De-activation lead time	Hours
<b>Maximum continuous operation</b> ie the maximum time the <i>reserve</i> can be <i>activated</i> continuously.	Hours
<b>Minimum continuous operation</b> ie "the minimum time the <i>reserve</i> can be <i>activated</i> continuously.	Hours
Minimum time between activations	Hours
Hours of the day the reserve is available for activation	
Days of the week the reserve is available for activation	
Maximum number of consecutive days the reserve can be activated in a week	
Maximum number of days per week of activation	
Maximum number of activations over the term	
Other activation constraints	

#### 5 Not used

## 6 Contracted Levels of Performance

The *contracted levels of performance* comprise the provision of *load reduction* up to the total *reserve* that conforms to the following requirements:

#### **6.1** Minimum Technical Requirements

- (a) The reserve must be capable of being activated by instructions to a single point of contact with operational responsibility for the reserve;
- (b) The *reserve* must be capable of being *activated* as a *block* of not less than 10 MW, which may be made up of smaller components that are managed by the *Reserve Provider*, and
- (c) The reserve must remain activated for at least 1 hour.

#### 6.2 Performance Criteria

The Reserve Provider must be capable of:

- (a) upon receiving from AEMO a pre-activation instruction, preparing the reserve for activation within the pre-activation lead time;
- (b) upon receiving from AEMO an activation instruction, activating the reserve within the activation lead time;
- (c) upon receiving a de-activation instruction from AEMO, de-activating within the de-activation lead time.

No part of the *reserve* shall be *activated* prior to receipt of a relevant *activation instruction* without *AEMO*'s prior consent.

Activation of the reserve must not lead to any consequent increase in the rate at which electricity is taken from the *network* by any other equipment or process owned by a *consumer* unless this effect has been deducted from the *reserve*.

#### 6.3 Minimum Availability

The reserve is taken not to be available if:

- (a) WA<sub>m\_avg</sub> calculated in respect of a *billing period* is less than the *reserve* in respect of that *billing period*;
- (b) an activation instruction has been given in respect of:
  - (i) three or fewer days occurring in a *billing period* and the E<sub>event</sub> on any day on which an *activation instruction* is given is less than the corresponding DA<sub>event</sub>; or
  - (ii) more than three days occurring in a *billing period* and the E<sub>event</sub> on any of the first three days on which an *activation instruction* is given is less than the corresponding DA<sub>event</sub>.

The amounts WA<sub>m avg</sub>, E<sub>event</sub> and DA<sub>event</sub> will be calculated as follows:

 $WA_{m\_avg}$ 

The average weekly availability will be determined for each *billing period* during a *reserve contract*. The determination will only include the availability figures set out in the *Weekly Availability Notice* (as amended by any *Changes to Availability Advice*) applicable for each *trading interval* falling between the hours of 7 am *EST* to 10 pm *EST* on *business days* falling within the period covered by the *Weekly Availability Notice* (as amended by any *Changes to Availability Advice*). The availability for a *trading interval* is the total availability for all the *reserve*.

 $E_{\text{event}}$ 

In respect of a day on which an *activation instruction* is given in respect of a *block*, the total of the amounts (in MWh) of the *load reduction* in the amount of electricity taken at each relevant *connection point* following an *activation instruction* in respect of the parts of the *reserve* comprising that *block* during each *trading interval* occurring in the period commencing at the *activation start time* and ending at the earlier of 6 hours from that time and the *activation end time*.

The amount of the *load reduction* at a *connection point* during a *trading interval* is as determined by the methods described in **Item 8**, but will exclude for the purposes of calculating E<sub>event</sub> the amount of any *load reduction* occurring in the period between the *activation end time* specified in the latest *activation instruction* given in relation to that *trading interval* and that *block* and the time at which *activation* ceased.

DA<sub>event</sub>

In respect of a day on which an activation instruction is given in respect of a block, the amount (in MWh) of the expected load reduction at each relevant connection point during each trading interval occurring in the period commencing at the activation start time and ending at the earlier of 6 hours from that time and the activation end time. The amount of the expected load reduction is equal to the reduction that would be achieved based on the total of the availability figures set out in the Weekly Availability Notice (as amended by any Changes to Availability Advice) for that block in respect of each trading interval of activation in that 6-hour period, assuming that the block were to be activated at the level specified in that Weekly Availability Notice (as amended by any Changes to Availability Advice) throughout each relevant trading interval.

#### 6.4 Availability Notification by the Reserve Provider

In **Item 6.4**, the term "week" means each *trading interval* during a period of seven days commencing at 12.30am *EST* on the following day and ending at 12.30am *EST* on the following Saturday but only to the extent that those *trading intervals* fall within the term of a *reserve contract*.

During a reserve contract, the Reserve Provider must provide to AEMO the following availability advices:

#### (a) Weekly Availability Advice

By 3 pm *EST* each Friday, the *Reserve Provider* must provide a *Weekly Availability Advice* to *AEMO* setting out advice on the availability of *reserve* for the *week*, including:

- (i) confirmation of the amount of *reserve* available on a *trading interval* basis (in MWh);
- (ii) the cause of any reserve unavailability; and
- (iii) the extent of any projected reduction in the availability of the *reserve*.

#### (b) Changes to Availability Advice

If the Reserve Provider becomes aware of a material change of circumstances following the issue of a Weekly Availability Advice, the Reserve Provider must as soon as practicable after becoming aware of it advise AEMO. This must be provided as a mark-up of the latest Weekly Availability Advice highlighting the changes.

#### (c) Ad Hoc Availability Advice

AEMO may request advice on the availability of the reserve on an ad hoc basis. If requested by AEMO, the Reserve Provider must provide the requested information as soon as possible. The information that may be requested includes the following:

- (i) for each *trading interval* falling in the period requested by *AEMO*, the level at which the *reserve* is available (in MWh); and
- (ii) the cause of any *reserve* unavailability in the period requested; and
- (iii) such other information concerning the availability of the *reserve* as *AEMO* may reasonably request.

## 7 Requests for Provision of Reserve

#### 7.1 What AEMO may Request

Subject to any advice from the Reserve Provider that the reserve is not available, at any time during a reserve contract, AEMO may request any load reduction between the market capacity and firm capacity.

#### 7.2 Method of Requests

*Instructions* will be given by telephone, which *AEMO* will record in accordance with Rule 4.11.4.

#### 7.3 Contact Persons for Operational Purposes

*Instructions* will be given and received and communications concerning *instructions* must be made by the following persons on behalf of each party:

AEMO		
Contact Person at all times:		
Name/Title:	Control Room Operator on shift	

Telephone No:	
Fax No:	
Email:	
Reserv	e Provider
Contact Person at all times:	
Name/Title:	
Telephone No:	
Fax No:	
Email:	
Backup Contact Person at all times:	
Name/Title:	
Telephone No:	
Fax No:	
Email:	

#### 7.4 Pre-Activation Instruction

Subject to any activation constraints, AEMO may issue a pre-activation instruction at any time during a reserve contract requiring the Reserve Provider to prepare reserve for activation. A pre-activation instruction must specify:

- (a) the proposed activation start time (taking into account the activation lead time) and the proposed activation end time (taking into account the de-activation lead time); and
- (b) the amount of reserve (in MWh) that the Reserve Provider must prepare for activation for each trading interval.

For a *load reduction* with a *pre-activation lead time* of zero, a *pre-activation instruction* will not be required and the *load reduction* shall be taken to be constantly in a state of readiness to act on an *activation instruction* issued by *AEMO*.

The issue of a *pre-activation instruction* does not imply that an *activation instruction* will be issued

#### 7.5 Activation Instruction

Subject to any activation constraints, AEMO may issue an activation instruction to the Reserve Provider at any time during a reserve contract requesting the Reserve Provider to activate, vary or de-activate the reserve. The activation instruction must specify:

- (a) the activation start time (taking into account the activation lead time) and the activation end time (taking into account the de-activation lead time); and
- (b) the amount of *reserve* the *Reserve Provider* must *activate* for each *trading interval* from the *activation start time* to the *activation end time* (in MWh), which unless agreed otherwise between the parties, must not be greater than the level

specified in the relevant Day Ahead Availability Notice for that reserve and trading interval.

The Reserve Provider must comply with an activation instruction that complies with these requirements.

#### 8 Measurement and Verification

#### 8.1 Measurement

Measurement of any reserve activated under a reserve contract will be in accordance with the agreed measurement, verification and calculation methodology submitted by the Reserve Provider in order to meet condition precedent 4.

#### 8.2 Verification

Verification of the measurement of any *reserve activated* under a *reserve contract* will be in accordance with the agreed measurement, verification and calculation methodology submitted by the *Reserve Provider* in order to meet *condition precedent* 4.

If AEMO requests further information relating to the measurement and determination of the activated reserve, the Reserve Provider must provide that information to AEMO within 2 business days of AEMO's request.

#### 8.3 Calculation

- (a) Subject to **paragraph (b)**, the calculation of the quantity of *reserve activated* under a *reserve contract* will be in accordance with the agreed measurement, verification and calculation methodology submitted by the *Reserve Provider* in order to meet *condition precedent* 4.
- (b) The maximum level at which the *reserve* is *activated* will be the level specified in a relevant *activation instruction*.

## 9 Charges

#### 9.1 Billing Period

For each *billing period*, the *Reserve Provider* will be entitled to charge *AEMO*:

- (a) subject to a pro-rata adjustment if the reserve is not available, an availability charge in respect of that billing period as set out in a relevant Confirmation;
- (b) a *pre-activation charge* equal to product of the price for *pre-activating* as set out in a relevant *Confirmation* and the number of times a *pre-activation instruction* (not including *instructions* amending previous *instructions*) is given during the *billing period*; and
- (b) where reserve has been activated during a trading interval in accordance with a reserve contract during the billing period, a usage charge equal to the product of the price for usage set out in a relevant Confirmation, and the quantity (in MWh) of the reserve activated as measured, verified and calculated in accordance with the relevant reserve contract.

#### 9.2 Early Termination

If the *reserve* specified in a *reserve contract* is terminated by *AEMO* in accordance with **clause 12.3(a)** before the end of that *reserve contract*, the *Reserve Provider* will be entitled to charge *AEMO* an early termination charge as set out in a relevant *Confirmation*.

# Annexure to Schedule 4 - Conditions Precedent

Each condition precedent applying to the reserve described in **Item 3** and condition precedent fulfilment date is listed in the table below:

Conc	lition	Condition Precedent Fulfilment Date
1	The procedures relevant to the provision of <i>reserve</i> that have been accepted by relevant <i>consumers</i> must be provided to <i>AEMO</i> (if some procedures are generic, a typical procedure will suffice). The procedures must include information protocols and indicate the steps to be carried out for:	
	pre-activation, activation and de-activation of that part of the reserve; and	
	the notifications and responses required for each notification of the reserve's availability,	
	for each part of the reserve that relates to each relevant consumer.	
2	The Reserve Provider must demonstrate to AEMO's reasonable satisfaction that the required notifications can be provided to the operator of each part of the reserve in sufficient time to allow the reserve to be activated in accordance with the contracted levels of performance.	
	Pre-activation and activation are not required as part of this demonstration.	
3	Where the provision of reserve relies on standby generation being available to supply the load disconnected from the network, the Reserve Provider must provide AEMO with test certificates or other evidence of satisfactory starts of each standby generating unit, indicating that the prime mover and energisation of the alternator of each standby generating unit were started recently without fail and the standby generating unit must generate electricity for at least 1 hour.	
	The evidence to be provided to <i>AEMO</i> must indicate that each <i>standby generating unit</i> was tested within 30 days of the date of provision of the evidence to <i>AEMO</i> .	
4	The Reserve Provider must submit to AEMO a measurement, verification and calculation methodology in respect of any reserve to be provided that is reasonably satisfactory to AEMO.	

# **RERT Panel Agreement**

# Attachment 1 to Schedule 1, 2, 3 & 4 – Confirmation

[on AEMO letterhead]

To the Reserve Provider [name/address as per relevant Schedule]

#### Re | Confirmation of Reserve Contract

This is a Confirmation under clause XX of the RERT Panel Agreement dated xxx ("Agreement").

AEMO confirms your agreement to provide the following *reserve* for the following charges:

Period of reserve contract:	(AEMO will complete)
Date(s) reserve is available:	(AEMO will complete)
Time(s) reserve is available (EST):	(AEMO will complete)
Quantity of available reserve:	(AEMO will complete)
Location of available reserve:4	(AEMO will complete)
Availability charge:	\$ (AEMO will complete)
Usage charge:	\$ (AEMO will complete)/MWh
Pre-activation charge:5	\$ (AEMO will complete) per pre-activation instruction

This *Confirmation* incorporates clauses 1 and 3 to 17 of the Agreement and Schedule X, which collectively become a *reserve contract*.

Italicised terms are defined in the Agreement.

Dated:

Signed by XX in accordance with the Agreement.

Applicable only if the reserve relates to load reduction and reserve offered is not all of the load reduction described in the relevant schedule – delete this row if this applies and this footnote.

<sup>&</sup>lt;sup>5</sup> Applicable only if the reserve is unscheduled – delete this row if scheduled reserve and this footnote.

# Attachment 2 to Schedule 1, 2, 3 & 4 – Request for Tender

[on AEMO letterhead]

To the Reserve Provider [name/address as per relevant Schedule]

#### Re | Request for Tender

This is a *Request for Tender* under clause 4.2 of the RERT Panel Agreement dated xxx ("Agreement"). *AEMO* requests your tender for the provision of *reserve* as follows:

Date(s) reserve is required:	(AEMO will complete)
Time(s) reserve is required (EST):	(AEMO will complete)
Commencement and completion dates of proposed reserve contract:	(AEMO will complete)
Quantity of reserve required:	(AEMO will complete)
Location of reserve required:6	(AEMO will complete)

Your tender is required by XXam/pm<sup>7</sup> EDST on [ insert date ] on the form of tender attached. If you fail to submit a tender by this date and time, *AEMO* will assume that you do not wish to submit a tender.

Note that if your tender is accepted by *AEMO*, *AEMO* will send you a *Confirmation*, whereupon a reserve contract will be entered into that will incorporate the terms contained in the *Confirmation* and clauses 1 and 3 to 17 of the Agreement and Schedule X.

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Dated:

Signed by XX in accordance with the Agreement.

Applicable only if the reserve relates to load reduction and reserve offered is not all of the load reduction described in the relevant schedule – delete this row if this applies and this footnote.

<sup>&</sup>lt;sup>7</sup> Delete whichever is inapplicable.

# Attachment 3 to Schedule 1, 2, 3 & 4 – Form of Tender

[on Reserve Provider letterhead]

To AEMO[name/address as per relevant Schedule]:

#### Re | Tender for the Provision of Reserve

In response to your Request for Tender dated xxx, we offer to provide the following reserve:

Date(s) reserve is available:	(Reserve Provider to complete)
Time(s) reserve is available (EST):	(Reserve Provider to complete)
Quantity of available reserve:	(Reserve Provider to complete)
Location of available reserve:8	(Reserve Provider to complete)
Availability charge:	\$ (Reserve Provider to complete)
Usage charge:	\$ (Reserve Provider to complete)/MWh
Pre-activation charge:9	\$ (Reserve Provider to complete) per pre-activation instruction

We confirm that the *reserve* being offered to *AEMO* is not already contracted for the period covered by this offer and will not otherwise be made available through *central dispatch*.

We also confirm that if our tender is accepted by *AEMO*, *AEMO* will send us a *Confirmation*, whereupon a *reserve contract* will be entered into that will incorporate the terms contained in the *Confirmation* and clauses 1 and 3 to 17 of the Agreement and Schedule X.

				Agreement	

Dated:

Signed by XX in accordance with the Agreement.

Applicable only if the reserve relates to load reduction and reserve offered is not all of the load reduction described in the relevant schedule – delete this row if this applies and this footnote.

<sup>9</sup> Applicable only if the reserve is unscheduled – delete this row if scheduled reserve and this footnote.

# Schedule 5 – Short-Notice Reserve – Scheduled Reserve (Generation Increase)

#### 1 Definitions

#### In this Schedule:

"block" means the minimum amount of reserve that can be dispatched by AEMO.

"disablement" means reducing the output of the reserve equipment to the network as quickly as practicable until it is below its market capacity or is de-synchronised.

"disablement lead time" means the period required to disable the reserve equipment and is specified in **Item 4**.

"dispatch constraints" are detailed in the table in item 5.2.

"dispatch end time" means the time the dispatch of reserve specified in a dispatch instruction must cease.

"dispatch instruction" means an instruction from AEMO to the Reserve Provider to dispatch reserve or to disable the reserve equipment (as the case may be).

"dispatch start time" means the time by which the reserve specified in a dispatch instruction must be dispatched.

"enablement" means synchronising the reserve equipment until its loading level becomes equal to the minimum operating level, or preparing the reserve equipment to be dispatched above its market capacity.

"enablement instruction" means an instruction to enable the reserve equipment.

"enablement lead time" means the maximum period required from the time the Reserve Provider receives an enablement instruction until the reserve equipment is:

- (a) synchronised and its loading level becomes equal to the minimum operating level for slow start plant;
- (b) ready for synchronisation for fast start plant; or
- (c) ready to be dispatched above its market capacity,

#### and is specified in Item 4.

"fast start plant" means a scheduled generating unit that can synchronise and increase its loading level to the firm capacity within 30 minutes of being requested to do so.

"firm capacity" means the reserve equipment's loading level specified in Item 3.

"instruction" means any notification by AEMO to the Reserve Provider in respect of the provision of reserve in accordance with a reserve contract.

"market capacity" means the loading level specified in Item 3, which is:

- (a) the subject of *dispatch* offers or is considered by *AEMO* to be likely to be submitted or otherwise available for *dispatch*; or
- (b) provided, or will be provided, or made available for provision under any other arrangement or agreement.

"minimum operating level" means the minimum loading level at which the reserve equipment can operate continuously and is specified in **Item 4**.

"slow start plant" means any scheduled generating unit other than fast start plant.

"Weekly Availability Notice" is defined in Item 6.4.

## 2 Tenders for the Provision of Reserve

## 2.1 Contact Persons for Tenders

Requests for Tender will be given on behalf of AEMO and any communications concerning a Request for Tender and offers in response to a Request for Tender, must be submitted on behalf of the Reserve Provider by the persons nominated in the table below:

AEMO				
Contact Person at all times:				
Name/Title:	Control Room Manager			
Telephone No:				
Fax No:				
Email:				
Reserv	ve Provider			
Contact Person at all times:				
Name/Title:				
Telephone No:				
Fax No:				
Email:				
Backup Contact Person at all times:				
Name/Title:				
Telephone No:				
Fax No:				
Email:				
No obligation to make an offer				

## 2.2 No obligation to make an offer

The Reserve Provider is not obliged to respond to a Request for Tender and offer the reserve to AEMO if the Request for Tender relates to a request for reserve during the following periods:

Date	Time

# 3 Description of Reserve

The reserve comprises the provision of generation as described below:

Name of Generating Unit	Firm Capacity (MW)	Market Capacity (MW)	Reserve (MW) (Firm Capacity – Market Capacity)

Total Reserve MW

# 4 Reserve Equipment

Name of Generating Unit:10	
Registration Status	[market/non-market]
Location	
Connection Point	
Minimum Operating Level	[ ]MW
Enablement Lead Time	[ ] hours
Disablement Lead Time	[ ] hours
Type of scheduled generating unit	[fast start plant/slow start plant]

# 5 Capabilities of Reserve Equipment

## 5.1 Minimum and Maximum Rates of Change of the Level of Generation

The minimum and maximum rates of change of the level of *generation* that can be specified in a *dispatch instruction* are as follows:

Name of Genera	ting Unit <sup>11</sup>			
Power output range	· ·		Maximum rate of change of power output	
While operati on AGC		Manual Control	While operating on AGC	Manual Control
[ ] MW	[ ]MW/min	[ ]MW/min	[ ]MW/min	[ ]MW/min

<sup>&</sup>lt;sup>10</sup> Copy table and use one for each Generating Unit involved.

<sup>&</sup>lt;sup>11</sup> Copy table and use one for each Generating Unit involved.

Name of Generating Unit <sup>11</sup>				
Power output Minimum rate of range out		change of power put	Maximum rate of change of power output	
	While operating on AGC	Manual Control	While operating on AGC	Manual Control
[ ] MW	[ ]MW/min	[ ]MW/min	[ ]MW/min	[ ]MW/min
[ ]MW	[ ]MW/min	[ ]MW/min	[ ]MW/min	[ ]MW/min

## 5.2 Dispatch Constraints

The reserve equipment is subject to the following dispatch constraints:

Name of Generating Unit 11	
Minimum run-time, i.e. the minimum period the scheduled generating unit must generate.	[ ] hours
Minimum off-time, i.e. the minimum period between the last time the scheduled generating unit was generating and the time at which the scheduled generating unit can recommence generating.	[ ] hours
Other dispatch constraints	

#### 6 Contracted Levels of Performance

The *contracted levels of performance* comprise the provision of *generation* by the *reserve equipment* up to the total *reserve* that conforms to the following requirements:

#### 6.1 Minimum Technical Requirements

- (e) The *reserve* must be capable of being *dispatched* by *instructions* to a single point of contact with operational responsibility for the *reserve*;
- (f) The reserve must be capable of being dispatched as a block of not less than 10 MW, which may be made up of smaller components that are managed by the Reserve Provider;
- (g) The reserve must remain dispatched for at least 1 hour; and
- (h) Each *generating unit* comprising the *reserve equipment* must have a type 1, 2, 3 or 4 *metering installation* as required by Schedule 7.2 of the *Rules* to measure the electrical output or change in electrical consumption as a result of *dispatch*.

#### 6.2 Performance Criteria

The Reserve Provider must be capable of:

- (d) upon receiving from AEMO an enablement instruction, enabling the reserve equipment within the enablement lead time;
- (e) upon receiving from AEMO a dispatch instruction, generating at a rate of change of the level of generation as required by the dispatch instruction, but not greater than the relevant rate set out in **Item 5.1**, unless agreed otherwise between the parties; and

(f) unless required to continue to *generate* through *central dispatch*, upon receiving a *dispatch instruction* from *AEMO* to *disable*, *disabling* the *reserve equipment* within the *disablement lead time*.

#### 6.3 Availability notification by the Reserve Provider

If the Reserve Provider becomes aware of a material change to the availability of reserve following the entry into a reserve contract, the Reserve Provider must as soon as practicable after becoming aware of it advise AEMO.

## 7 Requests for Provision of Reserve

#### 7.1 What AEMO may Request

Subject to any advice from the Reserve Provider that the reserve is not available, at any time during a reserve contract, AEMO may request the provision of any level of generation between the market capacity and the firm capacity.

#### 7.2 Method of Requests

- (a) At any time during a reserve contract, instructions will be issued by AEMO's market systems or by telephone.
- (b) Any instructions issued by telephone will be recorded by *AEMO* in accordance with Rule 4.11.4.

#### 7.3 Contact Persons for Operational Purposes

*Instructions* will be given and received and communications concerning *instructions* must be made by the following persons on behalf of each party:

AEMO				
Contact Person at all times:				
Name/Title:	Control Room Operator on shift			
Telephone No:				
Fax No:				
Email:				
Reserv	re Provider			
Contact Person at all times:				
Name/Title:				
Telephone No:				
Fax No:				
Email:				
Backup Contact Person at all times:				
Name/Title:				
Telephone No:				

Fax No:	
Email:	

#### 7.4 Enablement Instruction

Subject to any dispatch constraints, AEMO may issue an enablement instruction at any time during a reserve contract requiring the Reserve Provider to:

- (a) synchronise and increase reserve equipment's output to the minimum operating level in the case of slow start plant; or
- (b) prepare the reserve equipment to dispatch above its market capacity; or
- (c) prepare the *reserve equipment* to be ready to *synchronise* and increase output to the *firm capacity* in the case of *fast start plant*.

AEMO may also request a time earlier than the time contemplated in **Item 4** by which the reserve equipment is to reach its minimum operating level or market capacity. The Reserve Provider must use reasonable endeavours to comply with the request.

The issue of an *enablement instruction* does not imply that a *dispatch instruction* will be issued.

#### 7.5 Dispatch Instruction

Subject to any dispatch constraints, AEMO may issue a dispatch instruction to the Reserve Provider at any time during a reserve contract requesting the Reserve Provider to dispatch vary or disable the reserve. A dispatch instruction:

- (a) must specify the dispatch start time and the dispatch end time;
- (b) must specify the *reserve* to be *dispatched* for each *trading interval* (in MWh) from the *dispatch start time* to the *dispatch end time*, which unless agreed otherwise between the parties, must not be more than the *firm capacity*;
- (c) must not require the reserve equipment to generate below the minimum operating level unless the dispatch instruction is an instruction to disable; and
- (d) must not require the *reserve equipment* to change its level of *generation* at rates of change greater than those specified in **Item 5.1**, unless agreed otherwise between the parties.

The Reserve Provider must comply with a dispatch instruction that complies with these requirements.

#### 7.6 AGC

Where available, *AEMO* may at any time request that the *reserve equipment* be switched to operate on *AGC* or under manual control. The *Reserve Provider* must comply with this request as soon as practicable.

#### 8 Measurement and Verification

#### 8.1 Measurement

Metering data will be used to determine the quantity of energy dispatched by the reserve equipment.

Any relevant *metering installation* must be installed by a *Metering Provider*, and data collected by an *AEMO* accredited Metering Data Provider (category MDA 1-4).

The maximum level at which *reserve* is taken to have been *dispatched* is the level specified in a relevant *dispatch instruction*.

#### 8.2 Verification

AEMO's market systems and energy management systems will be used to verify the quantity of reserve dispatched under a reserve contract.

If AEMO requests further information relating to the measurement and determination of the dispatched reserve, the Reserve Provider must provide that information to AEMO within 2 business days of AEMO's request.

## 9 Charges

## 9.1 Billing Period

For each billing period during a reserve contract, the Reserve Provider will be entitled to charge AEMO where reserve has been dispatched during a trading interval in accordance with a reserve contract during the billing period, a usage charge, which is equal to the product of \$XX and the quantity (in MWh) of the reserve dispatched by the reserve equipment as measured at its connection point during each trading interval as a result of a dispatch instruction under that reserve contract.

# Annexure to Schedule 5 - Conditions Precedent

Each condition precedent applying to the reserve described in Item 3 and condition precedent fulfilment date is listed in the table below:

Condi	ition	Condition Precedent Fulfilment Date
1	<ul> <li>The Reserve Provider must complete a test of the enablement, dispatch and disablement of the reserve equipment under instruction from AEMO to AEMO's reasonable satisfaction.</li> <li>This test requires the scheduled generating unit to perform the following actions in sequence (failure to perform these actions in sequence will constitute a failure to complete this test satisfactorily): <ul> <li>enable the reserve equipment within the enablement lead time;</li> <li>generate at a level above the greater of the minimum operating level and the market capacity, and in accordance with dispatch instructions issued by AEMO; and</li> <li>disable under instructions from AEMO within the disablement lead time.</li> </ul> </li> <li>During the test: <ul> <li>All automatic control systems, for example, the excitation control system and governor system, must be operated in</li> </ul> </li> </ul>	T diffillition batter
	<ul> <li>their automatic regulating mode;</li> <li>The reserve equipment must be operated in a constant and stable manner; and</li> <li>If AGC is installed, the scheduled generating unit must be operated under AGC control.</li> <li>Trend display printouts of the performance of the reserve agreement, must be provided to AFMO as a suidence of the reserve.</li> </ul>	
	equipment must be provided to AEMO as evidence of completion of this test.	

# Schedule 6 – Short-Notice Reserve – Scheduled Reserve (Load Reduction)

#### 1 Definitions

#### In this Schedule:

"block" means the minimum amount of reserve that can be dispatched by AEMO.

"consumer" means a person listed as such in Item 3.

"disablement" means the cessation of the provision of reserve required by a dispatch instruction and resuming the taking of electricity supply.

"disablement lead time" means the maximum period required for the reserve to be disabled and is specified in **item 4**.

"dispatch constraints" are detailed in the table in item 4.

"dispatch end time" means the time the dispatch of reserve specified in a dispatch instruction must cease.

"dispatch instruction" means an instruction from AEMO to the Reserve Provider to dispatch or to disable the reserve (as the case may be).

"dispatch start time" means the time by which the reserve specified in a dispatch instruction must be dispatched.

"enablement" means preparing reserve for dispatch.

"enablement instruction" means an instruction from AEMO to the Reserve Provider to enable the reserve.

"enablement lead time" means the maximum period required by the Reserve Provider to enable the reserve in response to a enablement instruction and is specified in **Item 4**.

"firm capacity" means the loading level specified in Item 3.

"instruction" means any notification by AEMO to the Reserve Provider in respect of the provision of reserve in accordance with a reserve contract.

"load reduction" is the reduction (in MW) in the level at which electricity is taken from the *network* at the *connection points* specified in **Item 3**.

"market capacity" means the loading level specified in Item 3, which is:

- the subject of dispatch bids or is considered by AEMO to be likely to be submitted or otherwise available for central dispatch; or
- (b) provided, or will be provided, or made available for provision under any other arrangement or agreement, including any demand side management arrangement or agreement.

"standby generating unit" means a generating unit that is not connected to the network and will generate in order for the Reserve Provider to provide the reserve.

"Weekly Availability Notice" is defined in Item 6.4.

#### 2 Tenders for the Provision of Reserve

#### 2.1 Contact Persons for Tenders

Requests for Tender will be given on behalf of AEMO and any communications concerning a Request for Tender and offers in response to a Request for Tender, must be submitted on behalf of the Reserve Provider by the persons nominated in the table below:

AEMO			
Contact Person at all times:			
Name/Title:	Control Room Manager		
Talanhana Na			
Telephone No:			
Fax No:			
Email:			
Reserve Provider			
Contact Person at all times:			
Name/Title:			
Telephone No:			
Fax No:			
Email:			
Backup Contact Person at all times:			
Name/Title:			
Telephone No:			
Fax No:			
Email:			

## 2.2 No obligation to make an offer

The Reserve Provider is not obliged to respond to a Request for Tender and offer the reserve to AEMO if the Request for Tender relates to a request for reserve during the following periods:

Date	Time

# 3 Description of Reserve

The *reserve* is comprised of *load reduction* at the locations and in the amounts detailed in the following table:

Location of reserve	
Firm capacity	MW
Market capacity	MW

Total Reserve MW

### 4 Characteristics of Reserve

Enablement lead time	Hours
Disablement lead time	Hours
<b>Maximum continuous operation</b> ie the maximum time the <i>reserve</i> can be <i>dispatched</i> continuously.	Hours
<b>Minimum continuous operation</b> ie the minimum time the <i>reserve</i> can be <i>dispatched</i> continuously.	Hours
Minimum time between dispatches	Hours
Hours of the day the reserve is available for dispatch	
Days of the week the reserve is available for dispatch	
Maximum number of consecutive days the reserve can be dispatched in a week	
Maximum number of days per week of dispatch	
Other dispatch constraints	

### 5 Not used

### 6 Contracted Levels of Performance

The *contracted levels of performance comprise* the provision of *load reduction* up to the total *reserve* that conforms to the following requirements:

### 6.1 Minimum Technical Requirements

- (a) The *reserve* must be capable of being *dispatched* by *instructions* to a single point of contact with operational responsibility for the *reserve*;
- (b) The *reserve* must be capable of being *dispatched* as a *block* of not less than 10 MW, which may be made up of smaller components that are managed by the *Reserve Provider*; and
- (c) The reserve must remain dispatched for at least 1 hour.

### 6.2 Performance Criteria

The Reserve Provider must be capable of:

(a) upon receiving an enablement instruction, enabling the reserve within the enablement lead time;

- (b) upon receiving from AEMO a dispatch instruction, dispatching the reserve as required by the dispatch instruction; and
- (c) upon receiving a *dispatch instruction* from *AEMO* to *disable* the *reserve*, disabling the *reserve* within the *disablement lead time*; and
- (d) unless required to continue to *generate* through *central dispatch*, upon receiving a *dispatch instruction* from *AEMO* to *disable*, *disabling* the *reserve equipment* within the *disablement lead time*.

No part of the *reserve* shall be *dispatched* prior to receipt of a relevant *dispatch instruction* without *AEMO*'s prior consent.

Dispatch of the reserve must not lead to any consequent increase in the rate at which electricity is taken from the *network* by any other equipment or process owned by a *consumer* unless this effect has been deducted from the *reserve*.

### 6.3 Availability notification by the Reserve Provider

If the Reserve Provider becomes aware of a material change of circumstances following the entry into a reserve contract, the Reserve Provider must as soon as practicable after becoming aware of it advise AEMO.

### 7 Requests for Provision of Reserve

### 7.1 What AEMO may Request

Subject to any advice from the Reserve Provider that the reserve is not available, at any time during a reserve contract, AEMO may request any load reduction between the market capacity and firm capacity.

### 7.2 Method of Requests

- (a) At any time during a reserve contract, instructions will be issued by AEMO's market systems or by telephone.
- (b) Any instructions issued by telephone will be recorded by *AEMO* in accordance with Rule 4.11.4.

### 7.3 Contact Persons for Operational Purposes

*Instructions* will be given and received and communications concerning *instructions* must be made by the following persons on behalf of each party:

AEMO		
Contact Person at all times:		
Name/Title:	Control Room Operator on shift	
Telephone No:		
Fax No:		
Email:		
Reserve Provider		
Contact Person at all times:		
Name/Title:		

Telephone No:	
Fax No:	
Email:	
Backup Contact Person at all times:	
Name/Title:	
Telephone No:	
Fax No:	
Email:	

### 7.4 Enablement Instruction

Subject to any dispatch constraints, AEMO may issue an enablement instruction at any time during a reserve contract requiring the Reserve Provider to prepare reserve for dispatch. An enablement instruction must specify:

- (a) the proposed dispatch start time and the proposed dispatch end time; and
- (b) the amount of *reserve* (in MWh) the *Reserve Provider* must prepare for *dispatch* for each *trading interval*, which unless agreed otherwise between the parties, must not be greater than the *firm capacity*.

For a *load reduction* with an *enablement lead time* of zero, an *enablement instruction* will not be required and the *load reduction* shall be taken to be constantly in a state of readiness to act on a *dispatch instruction* issued by *AEMO*.

The issue of an *enablement instruction* does not imply that a *dispatch instruction* will be issued.

### 7.5 Dispatch Instruction

Subject to any dispatch constraints, AEMO may issue a dispatch instruction to the Reserve Provider at any time during a reserve contract requesting the Reserve Provider to dispatch, vary or disable the reserve. A dispatch instruction must specify:

- (a) the dispatch start time and the dispatch end time; and
- (b) the amount of reserve the Reserve Provider must dispatch for each trading interval (in MWh) from the dispatch start time to the dispatch end time, which unless otherwise agreed between the parties, must not be more than the firm capacity.

The Reserve Provider must comply with a dispatch instruction that complies with these requirements.

### 8 Measurement and Verification of Reserve

#### 8.1 Measurement

Metering data will be used to determine the quantity of energy dispatched by the reserve equipment.

The *metering installation* must be installed by a *Metering Provider*, and data collected by an *AEMO* accredited Metering Data Provider (category MDA 1-4).

The maximum level at which *reserve* is taken to have been *dispatched* is the level specified in a relevant *dispatch instruction*.

### 8.2 Verification

AEMO's market systems and energy management systems will be used to verify the quantity of reserve dispatched in accordance with a reserve contract.

If AEMO requests further information relating to the measurement and determination of the dispatched reserve, the Reserve Provider must provide that information to AEMO within 2 business days of AEMO's request.

### 8.3 Calculation

- (a) Subject to **paragraph** (b), the calculation of the quantity of *reserve dispatched* under a *reserve contract* will be in accordance with the agreed measurement, verification and calculation methodology submitted by the *Reserve Provider* in order to meet *condition precedent* 4.
- (b) The maximum level at which reserve is *dispatched* will be the level specified in a relevant *dispatch instruction*.

### 9 Charges

### 9.1 Billing Period

For each billing period during a reserve contract, the Reserve Provider will be entitled to charge AEMO where reserve has been dispatched during a trading interval in accordance with a reserve contract during the billing period, a usage charge, which is equal to the product of \$XX and the quantity (in MWh) of the reserve dispatched by the reserve equipment as measured at its connection point during each trading interval as a result of a dispatch instruction under that reserve contract.

# Annexure to Schedule 6 - Conditions Precedent

Each condition precedent applying to the reserve described in **Item 3** and condition precedent fulfilment date is listed in the table below:

Conc	lition	Condition Precedent Fulfilment Date
1	The procedures relevant to the provision of <i>reserve</i> that have been accepted by relevant <i>consumers</i> must be provided to <i>AEMO</i> (if some procedures are generic, a typical procedure will suffice). The procedures must include information protocols and indicate the steps to be carried out for:	
	enablement, dispatch and disablement; and	
	the notifications and responses required by a reserve contract for each notification of the reserve's availability,	
	for each part of the reserve that relates to each relevant consumer.	
2	The Reserve Provider must demonstrate to AEMO's reasonable satisfaction that the required notifications can be provided to the operator of each part of the reserve in sufficient time to allow the reserve to be dispatched in accordance with the contracted levels of performance.	
	Dispatch is not required as part of this demonstration.	
3	Where the provision of reserve relies on standby generation being available to supply the load disconnected from the network, the Reserve Provider must provide AEMO with test certificates or other evidence of satisfactory starts of each standby generating unit, indicating that the prime mover and energisation of the alternator of each standby generating unit were started recently without fail and the standby generating unit must generate electricity for at least 1 hour.	
	The evidence to be provided to <i>AEMO</i> must indicate that each <i>standby generating unit</i> was tested within 30 days of the date of provision of the evidence to <i>AEMO</i> .	
4	The Reserve Provider must submit to AEMO a measurement, verification and calculation methodology in respect of any reserve to be provided that is reasonably satisfactory to AEMO.	

# Schedule 7 – Short-Notice Reserve – Unscheduled Reserve (Generation Increase)

### 1 Definitions

### In this Schedule:

"activation" means synchronising the reserve equipment where required and increasing its output to the firm capacity.

"activation constraints" are detailed in the table in Item 5.1.

"activation end time" means the time the activation of the reserve must cease.

"activation instruction" means an instruction from AEMO for the reserve to become activated or deactivated (as the case may be).

"activation lead time" means the maximum period required by the Reserve Provider to activate reserve in response to an activation instruction and is specified in **Item 4**.

"activation start time" means the time by which the reserve specified in an activation instructions is to be activated.

"block" means the minimum amount of reserve that can be activated by AEMO.

"de-activation" means reducing the output of the reserve equipment to the network as quickly as practicable until it is below its market capacity or is de-synchronised.

"de-activation lead time" means the maximum period required to disable the reserve equipment and is specified in **Item 4**.

"firm capacity" means the reserve equipment loading level specified in Item 3.

"instruction" means any notification by AEMO to the Reserve Provider in respect of the provision of reserve in accordance with a reserve contract.

"market capacity" means the loading level specified in Item 3, which is:

- (a) is considered by AEMO to be likely to be available to the market; or
- (b) provided, or will be provided, or made available for provision under any other arrangement or agreement.

"minimum operating level" means the minimum loading level at which the reserve equipment can operate continuously and is specified in **Item 4**.

"pre-activation" means preparing the reserve equipment for activation.

"pre-activation instruction" means an instruction to pre-activate the reserve equipment.

"pre-activation lead time" means the maximum period required to prepare the reserve equipment for activation and is specified in **Item 4**.

"Weekly Availability Notice" is defined in Item 6.4.

### 2 Tenders for the Provision of Reserve

#### 2.1 Contact Persons for Tenders

Requests for Tender will be given on behalf of AEMO and any communications concerning a Request for Tender and offers in response to a Request for Tender, must be submitted on behalf of the Reserve Provider by the persons nominated in the table below:

	Α	EMO		
Contact Person at all times:				
Name/Title:		Control	Room Manager	
Telephone No:				
Fax No:				
Email:				
	Reserv	e Provid	der	
Contact Person at all times:				
Name/Title:				
Telephone No:				
Fax No:				
Email:				
Backup Contact Person at all tir	nes:			
Name/Title:				
Telephone No:				
Fax No:				
Email:				
No obligation to make an offer				
The Reserve Provider is not ob	•	•	•	
reserve to AEMO if the Requestion following periods:	st for Lende	er relate	s to a request to	or <i>reserve</i> during the
Date		Time		
Description of Reserve				
The reserve comprises the provis				
Name of Consenting the	Firm Cap (MW		Market Capacity (MW)	Reserve (MW)
Name of Generating Unit				(Firm Capacity – Market Capacity)

2.2

3

	Firm Capacity	Market	Reserve
	(MW)	Capacity (MW)	(MW)
Name of Generating Unit			(Firm Capacity – Market Capacity)

Total Reserve MW

# 4 Reserve Equipment

Name of Generating Unit <sup>12</sup>	
Registration Status	[market/non-market]
Location	
Connection Point	
Minimum Operating Level	[ ] MW
Pre-activation Lead Time	[ ] hours
Activation Lead Time	[ ] hours
De-Activation Lead Time	[ ] hours

# 5 Capabilities of Reserve Equipment

### **5.1** Activation Constraints

The reserve equipment is subject to the following activation constraints:

Name of Generating Unit <sup>12</sup>	
Minimum run-time, i.e. the minimum period the scheduled generating unit must generate.	[ ] hours
Minimum off-time, i.e. the minimum period between the last time the scheduled generating unit was generating and the time at which the scheduled generating unit can re-commence generating.	[ ] hours
Other activation constraints	

## **6** Contracted Levels of Performance

The *contracted levels of performance* comprise the provision of *generation* by the *reserve equipment* up to the total *reserve* that conforms to the following requirements:

<sup>&</sup>lt;sup>12</sup> Copy table and use one for each Generating Unit involved.

### **6.1** Minimum Technical Requirements

- (a) The reserve must be capable of being activated by instructions to a single point of contact with operational responsibility for the reserve;
- (b) The reserve must be capable of being activated as a block of not less than 10 MW, which may be made up of smaller components that are managed by the Reserve Provider:
- (c) The reserve must remain activated for at least 1 hour; and
- (d) Each *generating unit* comprising the *reserve equipment* must have a type 1, 2, 3 or 4 *metering installation* as required by Schedule 7.2 of the *Rules* to measure the electrical output or change in electrical consumption as a result of an *activation*.

#### 6.2 Performance Criteria

The Reserve Provider must be capable of:

- (a) upon receiving from AEMO a pre-activation instruction, pre-activating the reserve equipment within the pre-activation lead time;
- (b) upon receiving from AEMO an activation instruction, generating at the rate of change of the level of generation required by the activation instruction; and
- (c) upon receiving from AEMO an activation instruction to de-activate, de-activating the reserve equipment within the de-activation lead time.

### 6.3 Availability notification by the Reserve Provider

If the Reserve Provider becomes aware of a material change of circumstances following the entry into a reserve contract, the Reserve Provider must as soon as practicable after becoming aware of it advise AEMO.

# 7 Requests for Provision of Reserve

### 7.1 What AEMO may Request

Subject to any advice from the *Reserve Provider* that the *reserve* is not available, at any time during a *reserve contract*, *AEMO* may request the provision of any level of *generation* between the *market capacity* and the *firm capacity*.

### 7.2 Method of Requests

*Instructions* will be given by telephone, which *AEMO* will record in accordance with Rule 4.11.4.

### 7.3 Contact Persons for Operational Purposes

*Instructions* will be given and received and communications concerning *instructions* must be made by the following persons on behalf of each party:

AEMO		
Contact Person at all times:		
Name/Title:	Control Room Operator on shift	
Telephone No:		
Fax No:		
Email:		
Reserve Provider		

Contact Person at all times:	
Name/Title:	
Telephone No:	
Fax No:	
Email:	
Backup Contact Person at all times:	
Name/Title:	
Telephone No:	
Fax No:	
Email:	

### 7.4 Pre-Activation Instruction

Subject to any activation constraints, AEMO may issue a pre-activation instruction at any time during a reserve contract requiring the Reserve Provider to:

- (a) increase the reserve equipment's output to the minimum operating level; or
- (b) prepare the reserve equipment to activate above its market capacity.

AEMO may also request a time earlier than the time contemplated in **Item 4** by which the reserve equipment is to reach its *minimum operating level* or *market capacity*. The *Reserve Provider* must use reasonable endeavours to comply with the request.

The issue of a *pre-activation instruction* does not imply that an *activation instruction* will be issued.

#### 7.5 Activation Instruction

Subject to any activation constraints, AEMO may issue an activation instruction to the Reserve Provider at any time during a reserve contract requesting the Reserve Provider to activate or de-activate the reserve. An activation instruction:

- (a) must specify the *activation start time* (taking into account the *activation lead time*) and the *activation end time* (taking into account the *de-activation lead time*);
- (b) must specify the *reserve* to be *activated* for each *trading interval* (in MWh) from the *activation start time* to the *activation end time*, which unless agreed otherwise between the parties, must not be more than the *firm capacity;* and
- (c) must not require the *reserve equipment* to *generate* below the *minimum operating level* unless the *activation instruction* is an *instruction* to *de-activate*.

The Reserve Provider must comply with an activation instruction that complies with these requirements.

### 7.6 AGC

Where available, *AEMO* may at any time request that the *reserve equipment* be switched to operate on *AGC* or under manual control. The *Reserve Provider* must comply with this request as soon as practicable.

### 8 Measurement and Verification

#### 8.1 Measurement

Metering data will be used to determine the quantity of reserve activated by the reserve equipment.

Any relevant *metering installation* must be installed by a *Metering Provider*, and data collected by an *AEMO* accredited Metering Data Provider (category MDA 1-4).

The maximum level at which the *reserve* is taken to have been *activated* will be the level specified in relevant *activation instruction*.

#### 8.2 Verification

AEMO's market systems and energy management systems will be used to verify the quantity of reserve activated in accordance with a reserve contract.

If AEMO requests further information relating to the measurement and determination of the activated reserve, the Reserve Provider must provide that information to AEMO within 2 business days of AEMO's request.

### 9 Charges

### 9.1 Billing Period

For each billing period, the Reserve Provider will be entitled to charge AEMO

- (a) a pre-activation charge equal to product of \$XX and the number of times a pre-activation instruction (not including instructions amending previous instructions) is given during the billing period; and
- (c) where reserve has been activated in accordance with a reserve contract during the billing period, a usage charge, which is equal to the product of \$XX, and the quantity (in MWh) of the reserve activated by the reserve equipment as measured at its connection point during each trading interval as a result of an activation instruction under a reserve contract.

# Annexure to Schedule 7 - Conditions Precedent

Each condition precedent applying to the reserve described in **Item 3** and condition precedent fulfilment date is listed in the table below:

Cond	ition	Condition Precedent Fulfilment Date
1	The Reserve Provider must complete a test of the pre-activation, activation and de-activation of the reserve equipment under instruction from AEMO to AEMO's reasonable satisfaction.	
	This test requires the <i>reserve equipment</i> to perform the following actions in sequence (failure to perform these actions in sequence will constitute a failure to complete this test satisfactorily):	
	<ul> <li>pre-activate the reserve equipment within the pre-activation lead time;</li> </ul>	
	<ul> <li>generate at a level above the greater of the minimum operating level and the market capacity, and in accordance with activation instructions issued by AEMO; and</li> </ul>	
	<ul> <li>de-activate under instructions from AEMO within the de-activation lead time.</li> </ul>	
	During the test:	
	<ul> <li>All automatic control systems, for example, the excitation control system and governor system, must be operated in their automatic regulating mode;</li> </ul>	
	The reserve equipment must be operated in a constant and stable manner; and	
	• If AGC is installed, the reserve equipment must be operated under AGC control.	
	Trend display printouts of the performance of the <i>reserve equipment</i> must be provided to <i>AEMO</i> as evidence of completion of this test.	
2	The Reserve Provider must complete a test of the notifications and procedures used to provide the reserve in accordance with the contracted levels of performance.	
	The Reserve Provider must demonstrate how the Reserve Provider would comply with a pre-activation instruction and an activation instruction, but these actions are not required for this test.	

# Schedule 8 – Short-Notice Reserve – Unscheduled Reserve (Load Reduction)

### 1 Definitions

### In this Schedule:

"activation constraints" are detailed in the table in item 4.

"activation end time" means the time the activation of the reserve specified in an activation instruction must cease.

"activation instruction" means an instruction from AEMO for the reserve to be activated or de-activated (as the case may be).

"activation lead time" means the maximum period between the issue of an activation instruction and the time at which the reserve is activated and is specified in **Item 4**.

"block" means the minimum amount of reserve that can be activated by AEMO.

"consumer" means a person listed as such in Item 3.

"de-activate" means the cessation of the provision of reserve required by an activation instruction and resuming the taking of supply of electricity.

"de-activation lead time" means the maximum period required for the reserve to be deactivated and is specified in **Item 4**.

"firm capacity" means the loading level specified in Item 3.

*"instruction"* means any notification by *AEMO* to the *Reserve Provider* in respect of the provision of *reserve* in accordance with a *reserve contract*.

"load reduction" is the reduction (in MW) in the level at which electricity is taken from the network at the connection points specified in **Item 3**.

"market capacity" means the loading level specified in Item 3, which is:

- (a) considered by AEMO to be likely to be available to the market; or
- (b) provided, or will be provided, or made available for provision under any other arrangement or agreement, including any demand side management arrangement or agreement.

"pre-activation" means preparing reserve for activation.

"pre-activation instruction" means an instruction to the Reserve Provider to prepare the reserve for activation.

"pre-activation lead time" means the maximum period required for the reserve to reach a state of readiness to act upon an activation instruction and is specified in **Item 4**.

"standby generating unit" means a generating unit that is not connected to the network and will generate in order for the Reserve Provider to provide the reserve.

"Weekly Availability Notice" is defined in Item 6.4.

### 2 Tenders for the Provision of Reserve

### 2.1 Contact Persons for Tenders

Requests for Tender will be given on behalf of AEMO and any communications concerning a Request for Tender and offers in response to a Request for Tender, must be submitted on behalf of the Reserve Provider by the persons nominated in the table below:

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AEMO				
Contact Person at all times:				
Name/Title:	Control Room Manager			
Telephone No:				
Fax No:				
Email:				
Reserv	ve Provider			
Contact Person at all times:				
Name/Title:				
Telephone No:				
Fax No:				
Email:				
Backup Contact Person at all times:				
Name/Title:				
Telephone No:				
Fax No:				
Email:				

## 2.2 No obligation to make an offer

The Reserve Provider is not obliged to respond to a Request for Tender and offer the reserve to AEMO if the Request for Tender relates to a request for reserve during the following periods:

Date	Time

# 3 Description of Reserve

The *reserve* is at the locations and in the amounts detailed in the following table:

	Name of Consumer	Location of Reserve	Firm Capacity (MW) (7 am – 10 pm EST weekdays)	(MW) (7 am – 10 pm EST weekdays)	Reserve (Firm Capacity – Market Capacity) (MW) (7 am – 10 pm EST weekdays)	Does reserve rely on use of standby generating unit?	Capacity of standby generating unit (MW)	Connection point NMI
1						[yes/no]		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

### 4 Characteristics of Reserve

Pre-activation lead time	Hours
Activation lead time	Hours
De-activation lead time	Hours
<b>Maximum continuous operation</b> ie the maximum time the <i>reserve</i> can be <i>activated</i> continuously.	Hours
<b>Minimum continuous operation</b> ie "the minimum time the <i>reserve</i> can be <i>activated</i> continuously.	Hours
Minimum time between activations	Hours
Hours of the day the reserve is available for activation	
Days of the week the reserve is available for activation	
Maximum number of consecutive days the reserve can be activated in a week	
Maximum number of days per week of activation	
Maximum number of activations over the term	
Other activation constraints	

### 5 Not used

### 6 Contracted Levels of Performance

The *contracted levels of performance* comprise the provision of *load reduction* up to the total *reserve* that conforms to the following requirements:

### **6.1** Minimum Technical Requirements

- (a) The reserve must be capable of being activated by instructions to a single point of contact with operational responsibility for the reserve;
- (b) The *reserve* must be capable of being *activated* as a *block* of not less than 10 MW, which may be made up of smaller components that are managed by the *Reserve Provider*, and
- (c) The reserve must remain activated for at least 1 hour.

### 6.2 Performance Criteria

The Reserve Provider must be capable of:

- (a) upon receiving from AEMO a pre-activation instruction, preparing the reserve for activation within the pre-activation lead time;
- (b) upon receiving from AEMO an activation instruction, activating the reserve within the activation lead time;
- (c) upon receiving a de-activation instruction from AEMO, de-activating within the de-activation lead time.

No part of the *reserve* shall be *activated* prior to receipt of a relevant *activation instruction* without *AEMO*'s prior consent.

Activation of the reserve must not lead to any consequent increase in the rate at which electricity is taken from the *network* by any other equipment or process owned by a *consumer* unless this effect has been deducted from the *reserve*.

### 6.3 Availability Notification by the Reserve Provider

If the *Reserve Provider* becomes aware of a material change of circumstances following the entry into a *reserve contract*, the *Reserve Provider* must as soon as practicable after becoming aware of it advise *AEMO*.

# 7 Requests for Provision of Reserve

### 7.1 What AEMO may Request

Subject to any advice from the Reserve Provider that the reserve is not available, at any time during a reserve contract, AEMO may request any load reduction between the market capacity and firm capacity.

### 7.2 Method of Requests

*Instructions* will be given by telephone, which *AEMO* will record in accordance with Rule 4.11.4.

### 7.3 Contact Persons for Operational Purposes

*Instructions* will be given and received and communications concerning *instructions* must be made by the following persons on behalf of each party:

AEMO				
Contact Person at all times:				
Name/Title:	Control Room Operator on shift			
Telephone No:				
Fax No:				
Email:				
Reserv	ve Provider			
Contact Person at all times:				
Name/Title:				
Telephone No:				
Fax No:				
Email:				
Backup Contact Person at all times:				
Name/Title:				
Telephone No:				
Fax No:				
Email:				

### 7.4 Pre-Activation Instruction

Subject to any activation constraints, AEMO may issue a pre-activation instruction at any time during a reserve contract requiring the Reserve Provider to prepare reserve for activation. A pre-activation instruction must specify:

- the proposed activation start time (taking into account the activation lead time) and the proposed activation end time (taking into account the de-activation lead time); and
- (b) the amount of reserve (in MWh) that the Reserve Provider must prepare for activation for each trading interval.

For a *load reduction* with a *pre-activation lead time* of zero, a *pre-activation instruction* will not be required and the *load reduction* shall be taken to be constantly in a state of readiness to act on an *activation instruction* issued by *AEMO*.

The issue of a *pre-activation instruction* does not imply that an *activation instruction* will be issued.

#### 7.5 Activation Instruction

Subject to any activation constraints, AEMO may issue an activation instruction to the Reserve Provider at any time during a reserve contract requesting the Reserve Provider to activate, vary or de-activate the reserve. The activation instruction must specify:

- (a) the activation start time (taking into account the activation lead time) and the activation end time (taking into account the de-activation lead time); and
- (b) the amount of reserve the Reserve Provider must activate for each trading interval from the activation start time to the activation end time (in MWh), which unless agreed otherwise between the parties, must not be greater than the level specified in the relevant Day Ahead Availability Notice for that reserve and trading interval.

The Reserve Provider must comply with an activation instruction that complies with these requirements.

### 8 Measurement and Verification

#### 8.1 Measurement

Measurement of any reserve activated under a reserve contract will be in accordance with the agreed measurement, verification and calculation methodology submitted by the Reserve Provider in order to meet condition precedent 4.

#### 8.2 Verification

Verification of the measurement of any *reserve activated* under a *reserve contract* will be in accordance with the agreed measurement, verification and calculation methodology submitted by the *Reserve Provider* in order to meet *condition precedent* 4.

If AEMO requests further information relating to the measurement and determination of the activated reserve, the Reserve Provider must provide that information to AEMO within 2 business days of AEMO's request.

### 8.3 Calculation

- (a) Subject to **paragraph (b)**, the calculation of the quantity of *reserve activated* under a *reserve contract* will be in accordance with the agreed measurement, verification and calculation methodology submitted by the *Reserve Provider* in order to meet *condition precedent* 4.
- (b) The maximum level at which the *reserve* is *activated* will be the level specified in a relevant *activation instruction*.

# 9 Charges

### 9.1 Billing Period

For each billing period, the Reserve Provider will be entitled to charge AEMO:

- (a) a pre-activation charge equal to product of \$XX and the number of times a preactivation instruction (not including instructions amending previous instructions) is given during the billing period; and
- (b) where reserve has been activated during a trading interval in accordance with a reserve contract during the billing period, a usage charge equal to the product \$xx and the quantity (in MWh) of the reserve activated as measured, verified and calculated in accordance with the relevant reserve contract.

# Annexure to Schedule 8 - Conditions Precedent

Each condition precedent applying to the reserve described in **Item 3** and condition precedent fulfilment date is listed in the table below:

Condition		Condition Precedent Fulfilment Date
1	The procedures relevant to the provision of <i>reserve</i> that have been accepted by relevant <i>consumers</i> must be provided to <i>AEMO</i> (if some procedures are generic, a typical procedure will suffice). The procedures must include information protocols and indicate the steps to be carried out for:	
	pre-activation, activation and de-activation of that part of the reserve; and	
	the notifications and responses required for each notification of the reserve's availability,	
	for each part of the reserve that relates to each relevant consumer.	
2	The Reserve Provider must demonstrate to AEMO's reasonable satisfaction that the required notifications can be provided to the operator of each part of the reserve in sufficient time to allow the reserve to be activated in accordance with the contracted levels of performance.	
	Pre-activation and activation are not required as part of this demonstration.	
3	Where the provision of reserve relies on standby generation being available to supply the load disconnected from the network, the Reserve Provider must provide AEMO with test certificates or other evidence of satisfactory starts of each standby generating unit, indicating that the prime mover and energisation of the alternator of each standby generating unit were started recently without fail and the standby generating unit must generate electricity for at least 1 hour.	
	The evidence to be provided to <i>AEMO</i> must indicate that each <i>standby generating unit</i> was tested within 30 days of the date of provision of the evidence to <i>AEMO</i> .	
4	The Reserve Provider must submit to AEMO a measurement, verification and calculation methodology in respect of any reserve to be provided that is reasonably satisfactory to AEMO.	

# Attachment 1 to Schedule 5, 6, 7 & 8 – Confirmation

[on AEMO letterhead]

To the Reserve Provider [name/address as per relevant Schedule]

### Re | Confirmation of Reserve Contract

This is a Confirmation under clause XX of the RERT Panel Agreement dated xxx ("Agreement").

AEMO confirms your agreement to provide the following *reserve* for the following charges:

Period of reserve contract:	(AEMO will complete)
Date(s) reserve is available:	(AEMO will complete)
Time(s) reserve is available (EST):	(AEMO will complete)
Quantity of available reserve:	(AEMO will complete)
Location of available reserve:13	(AEMO will complete)

This *Confirmation* incorporates clauses 1 and 3 to 17 of the Agreement and any Schedule X, which collectively become a *reserve contract*.

Italicised terms are defined in the Agreement.

Dated:

Signed by XX in accordance with the Agreement.

Applicable only if the reserve relates to load reduction and reserve offered is not all of the load reduction described in the relevant schedule – delete this row if this applies and this footnote.

# Attachment 2 to Schedule 5, 6, 7 & 8 – Request for Tender

[on AEMO letterhead]

To the Reserve Provider [name/address as per relevant Schedule]

### Re | Request for Tender

This is a *Request for Tender* under clause 4.2 of the RERT Panel Agreement dated xxx ("Agreement"). *AEMO* requests your tender for the provision of *reserve* as follows:

Date(s) reserve is required:	(AEMO will complete)
Time(s) reserve is required (EST):	(AEMO will complete)
Commencement and completion dates of proposed reserve contract:	(AEMO will complete)
Quantity of reserve required:	(AEMO will complete)
Location of reserve required:14	(AEMO will complete)

Your tender is required by XXam/pm<sup>15</sup> EDST on [ insert date ] on the form of tender attached. If you fail to submit a tender by this date and time, *AEMO* will assume that you do not wish to submit a tender.

Note that if your tender is accepted by *AEMO*, *AEMO* will send you a *Confirmation*, whereupon a reserve contract will be entered into that will incorporate the terms contained in the *Confirmation* and clauses 1 and 3 to 17 of the Agreement and Schedule X.

Italicised terms are	defined in	the Agreement.
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Dated:

Signed by XX in accordance with the Agreement.

Applicable only if the reserve relates to load reduction and reserve offered is not all of the load reduction described in the relevant schedule – delete this row if this applies and this footnote.

<sup>&</sup>lt;sup>15</sup> Delete whichever is inapplicable.

# Attachment 3 to Schedule 5, 6, 7 & 8 – Form of Tender

[on Reserve Provider letterhead]

To AEMO[name/address as per relevant Schedule]:

### Re | Tender for the Provision of Reserve

In response to your Request for Tender dated xxx, we offer to provide the following reserve:

Date(s) reserve is available:	(Reserve Provider to complete)
Time(s) reserve is available (EST):	(Reserve Provider to complete)
Quantity of available reserve:	(Reserve Provider to complete)
Location of available reserve:16	(Reserve Provider to complete)

We confirm that the *reserve* being offered to *AEMO* is not already contracted for the period covered by this offer and will not otherwise be made available through *central dispatch*.

We also confirm that if our tender is accepted by *AEMO*, *AEMO* will send us a *Confirmation*, whereupon a *reserve contract* will be entered into that will incorporate the terms contained in the *Confirmation* and clauses 1 and 3 to 17 of the Agreement and Schedule X.

Italicised terms are defined in the Agreement.

Dated:

Signed by XX in accordance with the Agreement.

Applicable only if the reserve relates to load reduction and reserve offered is not all of the load reduction described in the relevant schedule – delete this row if this applies and this footnote.

# Signing page

SIGNED by XX as authorised representative for and on behalf of AUSTRALIAN ENERGY MARKET OPERATOR LIMITED in the presence of:	) ) ) ) ) ) ) )
Signature of witness	) ) ) )
Name of witness (block letters)	) By executing this Agreement the signatory ) warrants that the signatory is duly
Address of witness	<ul> <li>authorised to execute this Agreement on</li> <li>behalf of AUSTRALIAN ENERGY</li> <li>MARKET OPERATOR LIMITED</li> </ul>
Date signed:	
<b>SIGNED</b> by XX as authorised representative for and on behalf of <b>xxx</b> in the presence of:	) ) )
Signature of witness	) ) ) )
Name of witness (block letters)	)
Address of witness	<ul> <li>By executing this Agreement the signatory</li> <li>warrants that the signatory is duly</li> <li>authorised to execute this Agreement on</li> <li>behalf of xxx</li> </ul>
Nate signed:	)