13.71 System operator to use certain things

- (1) In determining **dispatch instructions**—when implementing a **dispatch schedule** under clause 13.72(1)(a), the **system operator** must use—
 - (a) the price order in the current **dispatch schedule**; and
 - (b) any revised **offer** from a **generator** submitted in accordance with clause 13.19 (except for revised **offers** submitted by an **intermittent generator** under clause 13.19(1)(a)(iii)); and
 - (c) any ramp rates of **generators**. For **intermittent generators**, the ramp rates are those agreed between the **intermittent generator** and the **system operator**; and
 - (d) any revised **nominated bid** quantities from a **purchaser** submitted in accordance with clause 13.19A; and
 - (e) any additional information regarding the future output of an **intermittent generator** submitted by an **intermittent generator** in agreement with the **system operator**; and
 - (f) the actual profile of **demand** during the previous **trading period**; and
 - (g) the expected profile of **demand** within the current **trading period** and the subsequent **trading periods**; and
 - (h) the current output levels of each **generator**; and
 - (i) any revised **reserve offer** from an **ancillary service agent** advised in accordance with clause 13.48; and
 - (j) any revised information received from a **grid owner** under clause 13.34(1); and
 - (k) the order in which reserves may be called as specified by the **system operator** from time to time.
- (2) In determining **dispatch instructions** under clause 13.72(1)(b), the **system operator** must use revised **nominated dispatch bids** submitted under clause 13.19A.

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13.73 Content of dispatch instructions to generators, ancillary service agents, and dispatchable load purchasers

- (1) The **system operator** must ensure that each **dispatch instruction** it issues under clause 13.72(1)(a) instructs the **generator** or **ancillary service agent** to carry out 1 of the following in relation to a **generating plant**, a **generating unit**, a **block dispatch group**, a **station dispatch group**, a **frequency keeping unit**, or **interruptible load**:
 - (a) provide a quantity of **active power**:
 - (b) provide a quantity of **instantaneous reserve**:
 - (c) provide a quantity and quality of reserve power or alternative to regulate frequency continuously:
 - (d) provide a quantity of **reactive power**:
 - (e) adjust transformer tap positions to maintain voltage levels:
 - (f) provide a level of voltage:
 - (g) **synchronise** or **de-synchronise generating plant** within the current **trading period** or the next **trading period** either directly or in accordance with any process that may be agreed with the **generator**:
 - (h) switch on or switch off schemes for over frequency tripping where such capability exists in **generating plant** that a **generator** has offered to provide to the **system operator**:

- (i) manage the **generating plant** within a **block dispatch group** or **station dispatch group** so as to ensure the largest single reserve risk within that **block dispatch group** or **station dispatch group** does not exceed the relevant maximum reserve risk advised by the **system operator** for the North Island or the South Island for each **trading period**:
- (j) manage the total aggregate generation for each **sub-block dispatch group** or **sub-station dispatch group** for that **generator** so as not to exceed the total sum of the **dispatched** quantities for each **generating plant** or **generating unit** comprising that **sub-block dispatch group** or **sub-station dispatch group** for the duration of the notice received under clauses 13.60, 13.61, or 13.64 to 13.66:
- (k) manage the total aggregate generation for each **block dispatch group** or **station dispatch group** for that **generator** so as to meet the total sum of the **dispatched** quantities for each **generating station** or **generating unit** comprising that **block dispatch group** or **station dispatch group**.
- (2) The **system operator** must ensure that each **dispatch instruction** issued under clause 13.72(1)(b) instructs the **dispatchable load purchaser** to use a specified quantity of **electricity** in relation to a **dispatch-capable load station**.

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13.76 System operator to issue and log dispatch instructions

- (1) The system operator must issue dispatch instructions,—
 - (a) to each **generator** (other than a **generator** receiving **dispatch instructions** in its capacity as an **ancillary service agent**), using an **approved system**; and
 - (b) to each **dispatchable load purchaser** that has submitted a **nominated dispatch bid**, on **WITS**; and
 - (c) to each **ancillary service agent**, <u>using an **approved system** or as otherwise agreed in the relevant **ancillary service arrangement** verbally or in writing.</u>
- (2) [Revoked].
- (3) The **system operator** must log and record each **dispatch instruction**.
- (4) Each **generator** and each **ancillary service agent** must log each **dispatch instruction** received from the **system operator**.
- (5) The system operator must provide a copy of each dispatch instruction—
 - (a) to the **clearing manager**, by 1600 hours on the 7th **business day** of the **billing period** after the **billing period** in which the **system operator** issues and logs the **dispatch instruction**; and
 - (b) to the **Authority**, by 1600 hours on the first **business day** after the day on which the **system operator** issues and logs the **dispatch instruction**.
- (6) For the purpose of subclause (5), if the **system operator** has issued more than 1 **dispatch instruction** for a **dispatch-capable load station** for the same **trading period**, the **system operator** must provide a copy of the latest **dispatch instruction**.

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13.79 Acknowledgement of dispatch instructions

If the **system operator** has issued a **dispatch instruction** to a **generator** or an **ancillary service agent**, that person must acknowledge to the **system operator** receipt of that **dispatch instruction**:

- (a) within 4 minutes of receiving that **dispatch instruction**, and must use its reasonable endeavours to acknowledge to the **system operator** receipt of the **dispatch instruction** within 3 minutes of receiving the **dispatch instruction**; or
- (b) if the **system operator** and that person have entered into a written agreement relating to the person's acknowledgement of receipt of **dispatch instructions** that conflicts with subclause (a), in accordance with that agreement. The agreement may include an agreement that the person need not acknowledge receipt of some or all **dispatch instructions**.

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13.81 Backup procedures if communication not possible

- (1) The **system operator** must follow the backup procedures specified by it from time to time for issuing **dispatch instructions** if—
 - (a) none of the <u>relevant</u> mechanisms described in clause 13.76(1)(a) or 13.76(1)(c) isare not available to issue **dispatch instructions** under clause 13.72(1)(a); or
 - (b) <u>subject to any agreement under clause 13.79(b)</u>, the **system operator** does not receive an acknowledgement from a **generator** or **ancillary service agent** of receipt of a **dispatch instruction** within 10 minutes after issuing the **dispatch instruction**.
- (2) If the **system operator** is not able to issue a **dispatch instruction** on **WITS** under clause 13.476(1)(b) to a **dispatchable load purchaser** that has submitted a **nominated dispatch bid**, the **dispatchable load purchaser** must follow the backup procedures specified by the **system operator**.

13.83 Generators to make staff or facilities available to meet dispatch instructions

- (1) Each **generator** must ensure, with respect to each of its **generating plants** that is the subject of an **offer**, that appropriate personnel or facilities are available to receive, acknowledge (subject to any agreement under clause 13.79(b)), and comply with any **dispatch instruction** given by the **system operator** to the **generator**.
- (2) Nothing in this clause limits the ability of a **generator** to have a control centre that operates 1 or more items of **generating plant** by remote control.

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13.84 Ancillary service agents to make staff or facilities available to meet dispatch instructions

Each **ancillary service agent** must ensure, with respect to any **instantaneous reserve** that is the subject of a **reserve offer** for the **trading period**, that appropriate personnel or facilities are available to receive, acknowledge (subject to any agreement under clause 13.79(b)), and comply with any **dispatch instruction** given by the **system operator** to that **ancillary service agent**.

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13.86 Generators and ancillary service agents not obliged to comply with dispatch instructions below threshold

For any generating plant, generating unit, block dispatch group or station dispatch group, aA generator or ancillary service agent providing instantaneous reserve or frequency keeping is not required to comply with 1 or more dispatch instructions given by the system operator in accordance with clause 13.72(1)(a) if implementing the dispatch instruction or those dispatch instructions together would change by less than or equal to—

- (a) for ancillary service agents, 1 MW from the last dispatch instruction that the ancillary service agent complied with; or
- (b) for **generators** other than **type A co-generators**, 1 **MW** from the last **dispatch instruction** that the **generator** complied with; or
- (c) for **type A co-generators**, 5 **MW** from the last **dispatch instruction** that the **type A co-generator** complied with.