

SETTLEMENT AGREEMENT

(Regulation 83(1) Electricity Governance Regulations 2003)

DATED:

BETWEEN:

- (1) **Unison Networks Limited**, of 1101 Omaha Road, Hastings (**Unison**);
- (2) **Transpower New Zealand Limited**, of Level 7, 96 The Terrace, Wellington, in its capacity as System Operator (the **System Operator**);
- (3) **Vector Limited**, of 101 Carlton Gore Road, Newmarket, Auckland, (**Vector**); and
- (4) **Norske Skog Tasman Limited**, of Fletcher Ave, Kawerau, (**Norske Skog**),

collectively the **parties**

BACKGROUND:

- (A) On 26 January 2007 and 1 February 2007 the System Operator reported potential breaches of rule 6.3.3 of section II of part G and rule 4.11 of section III of part G by Unison in that it appeared that Unison had failed to reasonably estimate the availability of the reserves based on interruptible load (IL) and failed to comply with dispatch instruction for fast interruptible load (FIR) and sustained interruptible load (SIR) during two different under frequency events (UFE) (“the Alleged Breaches”).
- (B) In accordance with regulation 69 of the Regulations, the Board of the Electricity Commission (**Board**) appointed an investigator to investigate the Alleged Breaches.
- (C) The System Operator, Vector and Norske Skog joined the investigation as interested participants.
- (D) The parties have agreed to settle the Alleged Breaches on the terms contained in this Agreement.

IT IS AGREED:

1. Interpretation

1.1 In this Agreement, unless the context requires otherwise:

- (a) **Agreement** means this Settlement Agreement;
- (b) **Approval Date** means the date the Board approves this Agreement under regulation 84(2) of the Regulations;
- (c) **Alleged Breaches** means the alleged breaches of the Rules arising from the Circumstances and set out in clause 2.2;
- (d) **Circumstances** means the circumstances set out in clause 2.1;

- (e) **Regulations** means the Electricity Governance Regulations 2003;
- (f) **Rules** means the Electricity Governance Rules 2003;
- (g) **UFE** means an Under Frequency Event;
- (h) all capitalised terms not defined in this Agreement have the same meanings as in the Regulations or Rules, as the case may be; and
- (i) all references to clauses are to clauses of this Agreement.

2. Circumstances and Alleged Breach

2.1 The circumstances of the Alleged Breach:

(a) 8 November 2006

Due to tripping of the Otahuhu C power station at 11:20 hours on 8 November 2006, 360MW of generation were lost from the New Zealand power system. As a result of this, the system frequency dropped to 49.07 Hz before returning to its normal range (49.8 – 50.2 Hz)

At the time of the UFE, Unison had dispatch instructions for 7.9MW FIR and 7.9 MW SIR. When the UFE occurred, Unison delivered 4.9MW FIR and 5.7 MW SIR.

(b) 1 December 2006

Due to tripping of the Otahuhu B power station at 10:50 hours on 1 December 2006, 297 MW of generation were lost from the New Zealand power system. As a result of this, the system frequency dropped to 49.199 Hz before returning to its normal range (49.8 – 50.2 Hz).

At the time of the UFE, Unison had dispatch instructions for 7.8MW FIR and 7.8 MW SIR. When the UFE occurred, Unison delivered 5.5 MW FIR and 6.2 MW SIR.

- (c) During each of the two events the Unison plant tripped as anticipated and programmed but the contracted interruptible load was not delivered. The under-delivery was in each case an unexpected and unexplained event for Unison.
- (d) The load profiles used by Unison for creating IL offers are more than two years old and, probably, do not account for some changes of load behaviour since the time of their creation and last update. Normally, analysis of IL delivered during an UFE provides a base for assessment of the accuracy of the profiles. This was not the case in 2006 where, prior to 8 November 2006, there had been no other UFEs that could have been used by Unison as a reference for comparison and assessment of a reasonable estimate of available IL.
- (e) In January 2007 Unison initiated a load testing programme to better understand and mitigate the estimate problem that became apparent as a consequence of the two events. The 12 month test programme involves switching IL on and off for short periods of time, every hour over a week. Once the 12 month test programme is completed, Unison will implement and manage a process that thereafter regularly tests and updates IL availability profiles. Unison will henceforth regularly update the IL availability profiles with the information obtained from the 12 month and continuing testing programmes.
- (f) Unison will also continue with its current, scheduled and ongoing comprehensive ripple plant maintenance and testing programmes to ensure reliability of the reserves providing equipment.

- (g) Unison accepts that the IL provided in the two events was in each case lower than its dispatch instructions. To mitigate the problem of insufficient response uncovered by the two events Unison decided to lower its offer profile by 15 % and to withdraw morning and evening peak offers from the market as its IL is not available at these times.
- (h) Based on Unison's performance during the two events the System Operator, acting under clause 4.4 of the Instantaneous Reserve Schedule of the Ancillary Services Contract, has limited the maximum reserve quantity for FIR and SIR offered by Unison to 9.4 MW, a reduction of 2.3 MW. The new maximum limit will remain in place until drop load tests are completed by Unison, the results reviewed by the System Operator and new limits can be agreed. To better ensure Unison's IL offer is able to be dispatched securely future overall quantities offered by Unison will be lowered by 2.3 MW across the profile.

2.2 On 26 January 2007 and 1 February 2007 the System Operator reported potential breaches of rule 6.3.3 of section II of part G and rule 4.11 of section III of part G by Unison in that it appeared that Unison had, on the relevant days, failed:

- to reasonably estimate the availability of the reserves based on interruptible load; and
- to comply with dispatch instruction for fast and sustained interruptible load during two different under frequency events.

3. Guiding Principle

The parties agree the following guiding principle in relation to this Agreement:

that any actions the parties may be required to undertake in order to achieve a settlement should not require the parties to invest in significant additional resources to comply with the Agreement.

4. Settlement

4.1 In addition to continuing and completing the 12 month test programme referred to in clause 2 (e) above Unison agrees to implement the following plan for testing and confirming future IL quantities it is able to deliver when so dispatched by the System Operator :

(a) Ongoing Monthly and Annual Testing:

Once a month Unison will undertake load drop tests over a 24 hour period to validate the 'weekday' and 'weekend' files. Unison will repeat testing should the load reduction be less than the expected IL profile.

(b) Annual plant and equipment testing:

Unison will test and calibrate its IL initiation equipment each February to ensure reliability of the reserves initiating equipment.

(c) If requested by the System Operator, IL equipment test results will be provided to the System Operator as soon as reasonably practicable after the results are available.

4.2 Unison acknowledges that the System Operator, depending on the results of Unison's testing, may increase or reduce the maximum quantities Unison is permitted to offer under its Ancillary Services Procurement Contract.

5. Agreement Subject to Approval

5.1 This Agreement takes effect on the date it is approved by the Board under regulation 84(2) of the Regulations.

6. Settled Breaches

6.1 Subject to the approval of the Commission under regulation 84(2)(a):

(a) The terms of this Agreement are a full and final settlement between the parties to this Agreement of all claims and liabilities under the Regulations and Rules of:

(i) the Alleged Breaches; and

(ii) any other breaches of the Regulations and Rules, involved in or arising from the Circumstances

(together the “the Settled Breaches”)

(b) In accordance with regulation 84, but subject to regulation 87, this Agreement is also binding on the Electricity Commission and all other Participants to the effect that:

(i) the Electricity Commission may not on its own initiative instigate a further rule breach investigation, or take any enforcement action, in respect of the Settled Breaches; but

(ii) a Participant who is not a party to this Agreement may, in accordance with regulation 87, make a further notification under regulation 62 or 63 in relation to a Settled Breach and the Electricity Commission may then take all or any of the steps provided for by Part 4 of the Electricity Governance Regulations notwithstanding this Agreement.

7. General

7.1 Each party will execute all documents and do, or refrain from doing, all other reasonable things necessary or desirable to give full effect to the provisions of this Agreement, including to secure the Board's approval of this Agreement under regulation 84(2) of the Regulations.

EXECUTED AS AN AGREEMENT:

For **Unison Networks Limited** by:

Name:

Position:

For **Transpower New Zealand Limited** by:

Name:
Position:

For **Vector Limited** by:

Name:
Position:

For **Norske Skog Tasman Limited** by:

Name:
Position: