

SETTLEMENT AGREEMENT

Regulation 24(1) Electricity Industry (Enforcement) Regulations 2010

DATED:

BETWEEN:

- (1) Transpower New Zealand Limited as the grid owner, of 96 The Terrace, Wellington (grid owner); and
- (2) Transpower New Zealand Limited as the system operator, of 96 The Terrace, Wellington (system operator).

(Collectively the **parties**)

BACKGROUND:

- (A) On 7 May 2014, the grid owner reported to the Authority that it had breached clause 2(1)(b) of Technical Code A of Schedule 8.3.
- (B) Clause 2(1)(b) of Technical Code A of Schedule 8.3 requires asset owners to ensure their assets are capable of being operated within the limits stated in the relevant asset capability statement (ACS).
- (C) On 27 June 2014, the Authority appointed an investigator under regulation 12 of the Regulations, to investigate the Alleged Breach by the grid owner.
- (D) The system operator joined the investigation as an interested participant.
- (E) The parties have agreed to settle the Alleged Breach 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) **Alleged Breach** means the alleged breach of the Code arising from the Circumstances and described in clause 2;
- (c) **Approval Date** means the date the parties to this Agreement are notified that the Electricity Authority has approved this Agreement under regulation 24(4) of the Regulations;
- (d) **Circumstances** means the circumstances set out in clause 3;

- (e) **Code** means the Electricity Industry Participation Code 2010;
- (f) **Regulations** means the Electricity Industry (Enforcement) Regulations 2010.

2. Alleged Breach

- 2.1 On 7 May 2014, the grid owner reported to the Authority that the grid owner had breached clause 2(1)(b) of Technical Code A of Schedule 8.3.

3. Circumstances of the Alleged Breach

- 3.1 On 9 December 2013, the grid owner removed the Fernhill 110/33 kV transformer T1 from service to enable its service provider technicians to confirm the characteristics of the current transformer integral to the 33 kV circuit breaker 202. This work was in preparation for the grid owner to replace the transformer protection. The work involved disconnecting protection wiring from the current transformer secondary terminals to inject test current into the red, yellow and blue phases.
- 3.2 In preparation for the testing, a review of the site documentation identified that the transformer-side red bushing had been damaged and replaced in 1982. The technicians did not fully appreciate or understand the implications of the bushing change for the testing. On completing the testing, the technicians incorrectly reinstated the red phase current transformer wiring. The technicians failed to test the reinstated wiring and therefore failed to identify the faulty wiring before it returned circuit breaker 202 to service. At 15:05 on 9 December 2013, the grid owner returned T1 to service.
- 3.3 At 07:32 on 10 December 2013, the grid owner removed Fernhill 110/33 kV transformer T2 from service to carry out similar tests on the current transformer associated with the 33 kV circuit breaker 312.
- 3.4 Immediately on removing transformer T2 from service, transformer T1 tripped, leading to a loss of supply to the 33 kV bus and to Fernhill.
- 3.5 At 08:12 on 10 December 2013, after inspecting the site and recording the positions of the relay flags, the grid owner returned transformer T1 to service and restored supply at Fernhill.
- 3.6 At 08:25 on 10 December 2013, transformer T1 tripped again, causing another loss of supply at Fernhill.
- 3.7 At 09:06 on the same day, the grid owner returned transformer T2 to service to restore supply at Fernhill and to allow the grid owner to fully investigate why transformer T1 had tripped.
- 3.8 At 15:56 on the same day, the grid owner identified faulty wiring on the current transformer associated with circuit breaker 202. At 17:53 on 10 December 2013, after correcting the faulty wiring, the grid owner returned T1 to service.
- 3.9 The grid owner's investigation found that:

- the T1 red phase bushing replacement in 1982 created differences between the current transformer terminations, termination references and wiring arrangement for the red phase, and those for the yellow and blue phases. The grid owner had not identified these differences on the as-built drawing following the bushing replacement
- the lack of planning and lack of documented test procedure for the work undertaken allowed the grid owner to return the assets to service in an incorrect state
- the technician staff lacked appropriate experience in the testing requirements required to re-prove the protection circuits after completing the testing.

4. Impact of the Breach

- 4.1 The losses of the 33 kV supply of 22 MW at the Fernhill substation resulted in power outages for approximately 15,000 of Unison Networks Limited's customers for 81 minutes.

5. Steps taken to prevent recurrence

- 5.1 The grid owner's service provider provided interim support by way of a senior technician to mentor incumbent technicians.
- 5.2 The grid owner will identify and rectify incorrect secondary wiring diagrams associated with circuit breaker 202.
- 5.3 The grid owner investigated the possibility of modifying circuit breaker 202 to make the current transformer wiring arrangements the same on all phases. The grid owner's investigation determined that this modification was impractical.
- 5.4 The grid owner has worked closely with its service provider to ensure the service provider has adopted robust planning processes and documentation.
- 5.5 The grid owner has developed a training package for technicians to provide a pathway for new staff to gain the competencies required to work on the grid owner's assets. This training package will also identify key areas where technicians may require additional training or support.
- 5.6 With the exception of identifying and rectifying incorrect secondary wiring diagrams associated with circuit breaker 202, the grid owner has confirmed that it has completed all the steps necessary to prevent recurrence.

6. Guiding Principles

- 6.1 The parties agree the following guiding principles in relation to this Agreement:

- (a) providing a reliable supply of electricity to customers relies on workers being:
 - properly trained and competent in the tasks they undertake
 - supported by appropriate planning and documentation.

7. Settlement

7.1 The grid owner agrees to:

- (a) confirm that it has identified and rectified the incorrect secondary wiring diagrams associated with circuit breaker 202.

8. Confidentiality

8.1 If the Authority decides under regulation 25(2) of the Regulations not to publicise any part of this Agreement, each party will treat that part of the Agreement as confidential information and will not disclose it other than:

- (a) to the party's employees or contractors who need to know the confidential information to implement or monitor the implementation of this Agreement;
- (b) to the party's professional advisers, auditors and bankers;
- (c) as required by law or for the purposes of judicial proceedings;
- (d) as required by any securities exchange or regulatory or governmental body to which the party is subject or submits; or
- (e) as authorised in writing by the other parties.

8.2 A party must not disclose confidential information under clause 8.1(a) or (b) unless the party obtains a confidentiality undertaking from the person to whom the confidential information is to be disclosed on terms no less onerous than those set out in this clause 8 before disclosing the confidential information. Any confidential information to be disclosed in the circumstances set out in clause 8.1(c) or (d) may only be disclosed after written notice to the other parties (unless the disclosing party is prevented from notifying the other parties by law).

9. Agreement Subject to Approval

9.1 Subject to clause 9.2, this Agreement will come into effect on the Approval Date.

9.2 Clause 8 is binding on the parties as from the date of this Agreement. Pending the Authority's approval of this Agreement under regulation 24(4) of the Regulations, clause 8 will apply as if the Authority has decided under regulation 25(2) of the Regulations not to publicise any part of this Agreement or the existence of this Agreement.

10. Settled Breaches

10.1 This Agreement is in full and final settlement of all claims, actions and demands against any party (under the Regulations, the Code or otherwise) in relation to:

- (a) the Alleged Breach; and
- (b) any other breaches of the Regulations or Code involved in or arising from the Circumstances that the claiming party ought reasonably to have known about at the date of this Agreement,

(the Alleged Breaches and such other breaches together the **Settled Breaches**).

10.2 Subject to regulation 26 of the Regulations, this Agreement is also binding on the Authority and all participants who are not a party to this Agreement to the effect that:

- (a) the Authority may not on its own initiative instigate a further breach investigation, or take any enforcement action in respect of, the Settled Breaches; and
- (b) a participant who is not a party to this Agreement may, in accordance with regulation 26 of the Regulations, make a further notification under regulation 7 or 8 of the Regulations in relation to the Settled Breaches, and the Authority may then take all or any of the steps provided for in the Regulations despite this Agreement.

11. General

11.1 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 Authority's approval of this Agreement under regulation 24(4)(a) of the Regulations.

11.2 This Agreement is the whole and only agreement between the parties relating to the settlement of claims, actions and demands arising from the Circumstances. Each party acknowledges that it has not been induced to enter into this Agreement by any representation made by or on behalf of the other party that is not repeated in this Agreement.

11.3 This Agreement may be signed in any number of counterparts.

SIGNED:

For Transpower New Zealand Limited as the grid owner

Name:

Position:

SIGNED:

For Transpower New Zealand Limited as the system operator

Name:

Position: