

Settlement agreement

2006GROW1



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

Dated: 6 December 2021

Between:

1. Transpower New Zealand Limited as the grid owner of Waikoukou, 22 Boulcott Street Wellington 6011 (grid owner);
2. Contact Energy Limited of Level 2 Harbour City Tower, 29 Brandon Street Wellington 6011 (Contact);

(Collectively the **parties**).

Background:

- (a) On 9 June 2020 the grid owner reported to the Electricity Authority (Authority) that it breached clause 4(4)(a) of Technical Code A, Schedule 8.3 of the Electricity Industry Participation Code 2010 (Code) from 12:47 pm to 3.56 pm on 25 October 2019.
- (b) Clause 4(4)(a) of Technical Code A, Schedule 8.3 requires an asset owner to provide grid-connected asset protection systems that result in minimum disruption to the operation of the grid or other assets.
- (c) On 9 August 2021 the Authority appointed an investigator under regulation 12 of the Electricity Industry (Enforcement) Regulations 2010 (Regulations), to investigate the Alleged Breach by the grid owner.
- (d) Contact Energy Limited joined the investigation as an affected 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) **Regulations** means the Electricity Industry (Enforcement) Regulations 2010;
- (f) **Code** means the Electricity Industry Participation Code 2010.
- (g) **Rules** means the Electricity Governance Rules 2004

2 Alleged Breach

2.1 On 9 June 2020, Transpower as the grid owner self-reported to the Authority that it had breached clause 4(4)(a) of Technical Code A, Schedule 8.3 of the Code.

3 Circumstances of the Breach

- 3.1 On 25 October 2019 between 12.47 pm and 3.56 pm, the grid owner breached clause 4(4)(a) of Technical Code A, Schedule 8.3 of the Code when it used incorrect terminal numbers on drawings for CB272 auxiliary contact which is part of an interlock tripping scheme. This resulted in a normally closed auxiliary contact being connected into the interlock tripping scheme instead of the required normally open contact.
- 3.2 Clause 4(4)(a) of Technical Code A, Schedule 8.3 requires an asset owner to provide grid-connected asset protection systems that result in minimum disruption to the operation of the grid or other assets.
- 3.3 On 25 October 2019 at 12:47 pm, CB302 was opened to remove Ohaaki to Nga Awa Purua circuit 2 from service as part of the test livening sequence following replacement of CB238.
- 3.4 When CB302 was opened, it received an indication that CB272 was open although it was closed and initiated a trip of all generation at Contact Energy's Ohaaki plant. This resulted in a loss of 45MW generation.
- 3.5 The breach resulted from inaccurate labelling of auxiliary contact terminals in the drawings. The auxiliary contacts were connected in accordance with the labelling rather than with the design. This resulted in a normally closed auxiliary contact being connected into the interlock tripping scheme instead of the required normally open contact.

4 Impact of the Breach

- 4.1 Ohaaki power station generation was affected for over 24 hours, resulting in the loss of 45 MW generation. Contact advised that a restoration period of approximately 8 hours was required to reinstate the field as return the unit to service.
- 4.2 The Authority has assessed the market impact of the breach as \$1,200,142.40.

5 Steps taken to prevent recurrence

The grid owner has taken the following steps to prevent recurrence:

- 5.1 Following discussions with Contact Energy, it was agreed that testing of CB272 interlock trip circuitry through to Contact's generator protection is required and would be undertaken in stages:
 - Stage 1: CB272 interlock trip circuitry test and generator synchronising interlock test. This was completed in November 2019.
 - Stage 2: interlock trip scheme test (end-to-end testing). This has yet to be completed as it requires a full Ohaaki station shutdown. This is now planned for completion around February 2022.

6 Settlement

- 6.1 The parties agree that:
 - (a) Stage 2: interlock trip scheme testing will be carried out by agreement in February 2022 during station shutdown;
 - (b) The grid owner will review and update the procedures and specification documents as identified in the Tesla investigation report into the incident;
 - (c) When scheduling work that bridges a customer's point of connection, the grid owner will contact the customer in advance and maintain communications until the work is completed;

- (d) Common interest drawings will be identified, updated, managed and shared; and
- (e) Outcomes and lessons learnt in the Tesla report into the investigation of this event (below) are implemented in Transpower's processes.

	Lessons Learnt	Grid owner comment/plan of action	Due date / Action
1	All interlocking/tripping circuits require comprehensive testing	<p>Transpower's document TP.CP 01.05 (Testing and commissioning of secondary equipment), clauses 5.1, 5.5.1(c), 7.3 provide the requirements for proving that equipment operates as per design, including the need to document testing requirements for connected party interface(s).</p> <p>Grid owner believes the standard provides sufficient guidance on testing including testing of other connected protection schemes.</p> <p>Comprehensive end-to-end testing of the interlock tripping scheme is suggested but requires an outage of all generation at Ohaaki due to the risk of trip from testing.</p>	<p>February 2022</p> <p>As agreed with Contact, comprehensive end-to-end testing of the interlock tripping scheme will be carried out during this station shut.</p>
2	For all interlocking functionality that can trip circuits/generation, detailed test plans should be produced	<p>Clauses 7.2 and 7.4 of TP.CP 01.05 provide the requirements for test plans to be prepared as part of testing documentation.</p> <p>Grid owner will update TP.CP 01.05 to specify this requirement for detailed test plans on interlocking circuits in the next review of the specification document.</p>	<p>During next review of TP.CP 01.05, to be completed by April 2022</p>
3	Testing should be coordinated with all connecting parties (in this case, with Contact Energy)	<p>As #1 above, comprehensive end-to-end test will be carried out in February 2022. Test plans/procedures and drawings have already been approved by Contact.</p> <p>Grid owner proposes adding specific sections in TP.SS 08.01 (Commissioning/Decommissioning – Service Requirements) or TP.SS 08.02 (System Project Overview – Service Requirements) for testing across connected party interface(s) to ensure there is clear coordination between all parties.</p>	<p>During next review of TP.SS 08.01 or TP.SS 08.02, to be completed by June 2022</p>

		Suggested requirements are that where works involve interface between Transpower and connected party equipment, the relevant PM's should provide copies of testing and commissioning documentation for review, including isolation management plans. Documentation should be prepared prior to the works being carried out, have been peer reviewed, and contain a sufficient level of detail to clearly understand the proposed tests being carried out.	
4	Test plans should have contingency/restoration plans for all testing that has the potential to trip in-service equipment	Grid owner will update TP.CP 01.05 to specify this requirement for contingency/restoration plans for testing that has the potential to trip in-service equipment in the next review of the specification document.	During next review of TP.CP 01.05 , to be completed by April 2022
5	Interlocking functionality that can trip circuits/generation should be labelled as trips on all drawings	The grid owner is in the process of identifying which technical document must be reviewed and updated to incorporate this requirement.	To be completed by June 2022
6	All relevant drawings should be made common interest to all parties	<p>Transpower is implementing another circuit breaker replacement project at Ohaaki and as part of this work, mutual interest drawings and construction drawings have been reviewed already by Contact. Contact's comments/feedback on the drawings have been investigated.</p> <p>Transpower's TP.AG 10.13 provides the guidelines for the management of mutual interest drawings. Grid owner will review the standard to ensure the responsible parties in the process of identifying the category of each drawing is clear, and how we manage updating of the drawings that fall into each category is well-established.</p>	<p>Required drawing updates are currently being carried out by Transpower's consultant.</p> <p>There is already a requirement in the grid owner's investigation delivery framework to consult with connected parties and to ensure mutual interest drawings are identified and updated as necessary.</p> <p>During next review of TP.AG 10.13, to be completed by June 2022.</p>
7	All connecting parties (in this case, Contact Energy) should be given the opportunity to review the construction drawings, installation specification, and test plans (in particular with	Same comment as #3	During next review of TP.SS 08.01 or TP.SS 08.02 , to be completed by June 2022

7 Confidentiality

- 7.1 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.
- 7.2 A party must not disclose confidential information under clause 7.1(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 7 before disclosing the confidential information. Any confidential information to be disclosed in the circumstances set out in clause 7.1(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).

8 Agreement Subject to Approval

- 8.1 Subject to clause 8.2, this Agreement will come into effect on the Approval Date.
- 8.2 Clause 7 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 7 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.

9 Settled Breach

- 9.1 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 breach 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 Breach and such other breaches together the **Settled Breach**).
- 9.2 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 Breach; 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 a Settled Breach, and the Authority may then take all or any of the steps provided for in the Regulations despite this Agreement.

10 General

- 10.1 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.
- 10.2 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.
- 10.3 This Agreement may be signed in any number of counterparts.

Signed:

For Transpower New Zealand Limited as the grid owner

Name:

Position:

Signed:

For Contact Energy Limited

Name:

Position: