SETTLEMENT AGREEMENT

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

DATED: 22 May 2014

BETWEEN:

- (1) Mighty River Power Limited of 602 Great South Road, Greenlane, Auckland (Mighty River Power);
- (2) Transpower New Zealand Limited as the system operator of 96 The Terrace, Wellington (system operator); and
- (3) Genesis Energy Limited of 660 Great South Road, Greenlane, Auckland (Genesis Energy)

(Collectively the parties).

BACKGROUND:

(A) On 10 July 2013, Mighty River Power increased Karapiro's generation to 56.1MW and then to 89.2 MW. At the time, Karapiro was under a block security constraint and had been dispatched to 42MW. The increase to 89.2 MW caused the Karapiro-Hamilton circuit 1 to exceed its line limit.

The system operator's energy coordinator telephoned Mighty River Power's generation controller and instructed that dispatch be followed at Karapiro. Mighty River Power then immediately reduced Karapiro's generation to its dispatched level of 42MW.

On 6 September 2013, Mighty River Power reported to the Electricity Authority (Authority) that it had breached clause 13.82 of the Electricity Industry Participation Code 2010. On 11 September 2013, the system operator also alleged a breach of clause 13.82 by Mighty River Power for the same incident.

- (B) The Authority appointed an investigator under regulation 12 of the Regulations to investigate the Alleged Breach.
- (C) Genesis Energy joined the investigation as an interested participant.
- (D) 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) all capitalised terms not defined in this Agreement have the same meanings as in the Regulations or Code, as the case may be; and
 - (h) all references to clauses are to clauses of this Agreement.

2. Alleged Breach

2.1 Mighty River Power breached clause 13.82 from 05:15 to 05:23 on 10 July 2013 when it failed to comply with a dispatch instruction.

3. Circumstances of the Breaches

- On 9 July 2013, the grid owner extended an outage of the Karapiro circuit breaker (KPO_CB_112_090713) to Thursday 11 July 2013.
- 4. At 20:40 on 9 July 2013, due to the extended outage, the system operator issued a block security constraint to protect the Karapiro Hamilton circuit 1 (KPO_HAM1) from overloading. The block security constraint indicated MRP's Karapiro (KPO) station's generation would be dispatched outside the Waikato river dispatch (WTO) block for the rest of 9 July continuing until the end of 10 July 2013.
- 4.1 At 01:59 on 10 July, the system operator dispatched Karapiro station to 42 MW. This instruction remained in place until the next dispatch instruction that the system operator sent at 06:16.
- 4.2 At around 5:15 (trading period 11) on 10 July 2013, Mighty River Power's hydro controller (hydro controller), who was under training, started another Karapiro station generating unit increasing generation for Karapiro station from 42MW to 56.1MW. At 5:22, the hydro controller further increased the Karapiro

station's generation to 89.2MW. The hydro controller was operating Karapiro station's generation without regard to the block security constraint, and, as if Karapiro was operating under normal circumstances in which Mighty River Power was preparing for dispatch anticipated at 5:30. The hydro controller had forgotten that the Karapiro station was operating outside the block dispatch group.

- 4.3 The hydro controller did not check with his trainer before he increased generation at the Karapiro station. His trainer was not in the room at the time.
- 4.4 The high generation from Karapiro station caused the flow on the KPO_HAM1 circuit to exceed its line limit of 69.8 MW between 05:21:12 and 5:22:39, and activated the system operator's alarms. The system operator's energy coordinator phoned Mighty River Power's hydro controller and instructed Mighty River Power to follow dispatch for the Karapiro station. Mighty River Power immediately turned off the Karapiro station generating unit that it had started in trading period 11, reducing generation to its dispatched level of 42MW.

5. Impact of the Breaches

- 5.1 The parties agreed that the market impact as assessed by the investigator should be recorded as minimal. Karapiro station generated an average of 58.3MW during trading period 11, for which it had been dispatched to 42MW. The final price at KPO1101 was \$69 MW/hr.
- The parties agreed that the security impact as assessed by the investigator should be recorded as serious. The security impact was that the Karapiro station's excessive dispatch overloaded the KPO_HAM1 circuit. Had the system operator's energy coordinator not phoned the Mighty River Power hydro controller early enough, the circuit could have tripped.

6. Steps taken to prevent recurrence

- 6.1 Mighty River Power has reviewed its training process to ensure that during training, no set point changes take place when a block security constraint is in effect, without first being confirmed by a trainer. Mighty River Power considers that the system had been under an unusual configuration at the time, and that this had not previously been captured in the training process.
- 6.2 Mighty River Power is now manually entering block security constraints into its control system. It is also incorporating the process into its procedure manuals which will be completed by 30 June 2014.

7. Guiding Principles

- 7.1 The parties agree the following guiding principle in relation to this Agreement:
 - (a) Compliance with dispatch instructions is important for the reliable and efficient operation of the electricity market.

8. Settlement

- 8.1 Mighty River Power agrees to:
 - (a) manually enter block security constraints into its control system; and
 - (b) incorporate the updated process in its procedure manuals by 30 June 2014.

9. Confidentiality

- 9.1 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:
 - 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.
- 9.2 A party must not disclose confidential information under clause 9.1(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 9 before disclosing the confidential information. Any confidential information to be disclosed in the circumstances set out in clause 9.1(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).

10. Agreement Subject to Approval

- 10.1 Subject to clause 10.2, this Agreement will come into effect on the Approval Date.
- 10.2 Clause 9 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 9 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.

11. Settled Breach

- 11.1 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 are the **Settled Breaches**).

- 11.2 Pursuant to regulation 24, but 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, subject to and 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.

12. General

- 12.1 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.
- 12.2 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.
- 12.3 This Agreement may be signed in any number of counterparts.

| SIGNED: | |
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| For Mighty | River Power Limited |
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| Name: | |
| Position: | |
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| SIGNED: | |
| For Transp | ower New Zealand Limited |
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| Name: | |
| Position: | |
| | |
| SIGNED: | |
| For Genes | is Energy Limited |
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| Name: | |
| Position: | |