

Operational Performance Report to the Electricity Commission

April 2010

Purpose

This report summarizes the results of the System Operator's review of its performance for February 2010, as required under Regulation 45 of the EGR's. An additional Operational Update is also provided for the information of the Commission



SYSTEM OPERATOR

Keeping the energy flowing

TRANSPOWER



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1. COMPLIANCE WITH RULE BOOK, PART C AND REGULATIONS:

1.1 PRINCIPAL PERFORMANCE OBLIGATIONS (PPOs)

The Principal Performance Obligations (PPOs) of the System Operator are to act as a reasonable and prudent operator with the objective of meeting certain PPO outcomes.

The System Operator's performance against the PPO outcomes, during the month, was as follows:

PPO No	Description	PPO Outcome
2.1	Avoid cascade failure	Met
2.2.1	Maintain frequency in the normal band	Met
2.2.2	Manage frequency during momentary fluctuation	Met
2.2.3	Limit rate of occurrences of momentary fluctuations	Met
2.2.4	Recover quickly from a fluctuation	Met
2.2.5	Manage time error	Not met (note 1)
2.2.6	Eliminate time error once a day	Met
2.3	Maintain other standards	Met
5.0	Restoration objective	Met

(Note 1)

On 17 April 2010, two time error excursions exceeding the PPO target were recorded. The event is currently under investigation and will be detailed in the May performance report.

1.2 GRID EMERGENCIES

There were four grid emergencies reported in the period:

Grid Emergencies			
Date	Time	Summary Details	Island
20 April 2010	16:00	A Grid Emergency was declared for insufficient generation offers in the North Island.. HVDC Pole 1 was started to alleviate the issue.	North
21 April 2010	08:19	A Grid Emergency was declared for load management at Balclutha following a unplanned outage of Balclutha-Halfway Bush 1 circuit. A tripping of Gore-Roxburgh 1 circuit would overload Edendale-Invercargill 1 circuit.	South
22 April 2010	15:21	A Grid Emergency was declared for the restoration of Wilton 110 kV bus and associated circuits connected to it following an earlier bus fault. The fault resulted in loss of connections to Central Park, Kaiwharawhara and West Wind.	North
24 April 2010	12:51	A Grid Emergency was declared for grid reconfiguration at Brydone-Gore 1 circuit following a unplanned outage of Balclutha-Halfway Bush 1 circuit. A tripping of Gore-Roxburgh 1 circuit would overload Edendale-Invercargill 1 circuit.	South



1.3 SYSTEM EVENTS

There were 4 system events (frequency excursions) during the reporting period:

Date	Time	Summary Details	Island	Freq (Hz)
3 April 2010	19:27	An HVDC Pole 2 operation caused momentary fluctuations in frequency in the South Island.	South	49.3 50.7
6 April 2010	00:36	An HVDC Pole 2 operation causes momentary rise in frequency in the South Island.	South	50.6
12 April 2010	13:15	Benmore generation tripped causing a momentary drop in frequency in the South Island.	South	49.25
13 April 2010	17:34	Huntly unit 5 tripped causing a momentary drop in frequency in both the North and South Islands.	North South	49.17 49.38

1.4 CONNECTION POINT EVENTS

There were 2 connection point events during the reporting period:

Date	Time	Summary Details	Generation/Load interrupted (MW)	Restoration time (minutes)
21 April 2010	07:59	Balclutha-Berwick-Halfway Bush 1 circuit tripped resulting in a partial loss of connection at Berwick.	32	42
22 April 2010	15:21	A fault on the Wilton 110 kV bus caused all 110 kV circuits connected to the bus to trip, resulting in partial loss of connections at Central Park, Kaiwharawhara and West Wind.	CPK - 109 KWA - 26 WWD - 93	66 71 239

1.5 SYSTEM OPERATOR COMPLIANCE WITH RULE BOOK: PART C

During April, the System Operator notified 4 Part C breaches. Two breaches related to the System Operator failing to provide to the clearing manager the correct allocable costs for ancillary services. One related to failing to pay the correct amounts to ancillary service agents for frequency keeping. A further breach related to the System Operator failing to correctly apply all constraints described in clauses 19 - 21 to the SPD model.

1.6 PARTICIPANT COMPLIANCE

The System Operator notified no alleged Part C breaches against participants in April 2010.

1.7 APPLICATIONS FOR DISPENSATIONS

During April 2010, the System Operator received no applications for dispensations.

2. PART G COMPLIANCE

The System Operator reported two breaches by the System Operator of Part G during the month of April. These related to the System Operator failing to correctly incorporate information from the grid owner regarding the AC transmission system configuration in formulating the dispatch schedule.

2.1 PARTICIPANT COMPLIANCE

One breach of Part G was reported by the System Operator during the month of April in respect of non-compliance by a participant with dispatch instructions.

3. ANCILLARY SERVICES

3.1 SUMMARY OF PROCURED ANCILLARY SERVICES

The following is a summary of the contracted ancillary services, as at April 2010:

Ancillary Service Agent	(1)FK	(2)IR	(3)OFR	(4)BS	(5)VS
Meridian Energy	√	√	√*	√*	
Contact Energy	√*	√*	√*		√*
Mighty River Power	√	√		√*	√*
Genesis Power	√	√		√	
TrustPower		√*			
Vector		√			
Northpower		√			
Powerco		√*			
Unison		√			
WELNetworks		√			
CountiesPower		√			
NZ Steel		√*			
Pan Pac		√			
Winstone Pulp International		√*			
KCE Mangahao and Todd Mangahao		√*			
Norske Skog		√*			
Energy Response		√			
NZ Aluminium Smelters		√*			

* denotes longer term contract

FK Frequency Keeping
OFR Over Frequency Reserve
BS Black Start

IR Instantaneous Reserves
VS Voltage Support

3.2 REVIEW OF PROCUREMENT PLAN

The draft procurement plan was provided to the Electricity Commission on 7th of May 2010 following consultation with participants. We received three (3) submissions in response to this consultation. In preparing our submission, the System Operator considered the

comments made by these participants and made several changes to the draft plan as a result.

4. RECOMMENDATIONS FOR CHANGE TO EGRs AND RELATED MATTERS:

4.1 RULE CHANGE PROPOSALS

There were no rule changes proposed by the System Operator during April 2010.

4.2 EXEMPTION APPLICATIONS

There were no exemption applications submitted by the System Operator in April 2010

4.3 ANNUAL POLICY STATEMENT REVIEW

The annual policy statement review was completed by the System Operator during March and the draft policy statement was submitted to the Electricity Commission on 31 March. The System Operator awaits any submissions received by the Electricity Commission on its consultation on the draft policy statement.

5. OPERATIONAL UPDATE:

5.1 COMMISSIONING OF GENERATION ASSETS

The following table is a summary of active, publicly disclosed commissioning projects where the System Operator is involved:

Summary of generator commissioning			
Generator name	Asset Owner	Description	Status
Nga Awa Purua	Mighty River Power	A second geothermal power station at Rotokawa	Commissioning tests have been completed. Awaiting final ACS prior to completing final assessment.
Te Rere Hau	NZ Windfarms	A new wind farm development located in the Tararua Ranges	Commissioning activities commenced in 2009.
West Wind	Meridian Energy	A new wind farm development located close to Wellington	Commissioning is ongoing.
Stratford peaking plant	Contact Energy	Two 100MW gas fired peaking units to be located close to the existing Stratford power plant.	Commissioning planning is underway.

6. CONFLICTS OF INTEREST

The System Operator continues to manage the conflict of interest identified in its August report relating to the potential under frequency event charges arising from the 1 August 2009 and 17 January 2010 under frequency events. In addition, there was an under frequency event on 13 April of which one of the identified potential causers is the grid owner. The System Operator will also manage this event in accordance with its conflict of interest policies.

7. DEVELOPMENT AND RESOURCES:

During April, in addition to routine operations, System Operator resources were applied as follows:

- Preparation work for the December 2010 SSF.
- Continued operational testing of SFT. This testing process will continue until late June.
- Preparing a report to the Commission on implementing stage 1 of AGC as part of the multiple frequency keeper's project.
- Implementation of winter initiatives.
- Annual review of Procurement Plan.

8. REGULATION 50 (4) STATEMENT:

Regulation 50 (4) Statement:

In performing its role as System Operator, Transpower New Zealand Limited (Transpower) has not been materially affected by any other role or capacity Transpower has under the Electricity Governance Regulations 2003 or the Rules or under any agreement.