

Operational Performance Report to the Electricity Commission February 2010

Purpose

This report summarises 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	Met
2.2.6	Eliminate time error once a day	Met
2.3	Maintain other standards	Met
5.0	Restoration objective	Met

1.2 GRID EMERGENCIES

There were 3 grid emergencies reported in the period:

Date	Time	Summary Details	Island
1 February 2010	12:17	A Grid Emergency was declared for load restoration in West Coast following unplanned outages of Dobson T12 interconnecting transformer as well as T1 and T2 supply transformers. Lake Coleridge-Otira 2 and Arthurs Pass-Otira 1 circuits were removed from service for planned outages at the time, causing loss of load at Dobson, Greymouth, Kumara, Hokitika and Otira.	South
16 February 2010	08:49	A Grid Emergency was declared for grid reconfiguration and load management at Bombay following an unplanned outage of Arapuni-Bombay 1 circuit.	North
18 February 2010	11:49	A Grid Emergency was declared requesting increases in energy and transmission offers in the North Island following unplanned outages of HVDC Poles 1 and 2. In addition to increased generation, North Island load had to be reduced by 5%. Reserves were not dispatched in North Island during this period.	North

1.3 SYSTEM EVENTS

There were 5 system events (frequency excursions) during the reporting period:

Date	Time	Summary Details	Island	Freq (Hz)
16 February 2010	00:46	Nga Awa Purua generation tripped causing a momentary drop in frequency in the North Island.	North	49.5
18 February 2010	11:40	HVDC Pole 2 had an emergency shut down causing momentary fluctuations in frequency in both the North and South Islands.	North South	49.26 50.74
18 February 2010	12:53	Excessive load restoration following an earlier emergency	North	49.44

Date	Time	Summary Details	Island	Freq (Hz)
		shutdown of HVDC Pole 2 caused a momentary drop in frequency in the North Island.		
22 February 2010	11:49	A Tiwai potline tripped causing a momentary rise in frequency in the South Island.	South	50.64
25 February 2010	21:42	Nga Awa Purua generation tripped causing a momentary drop in frequency in the North Island.	North	49.47

1.4 CONNECTION POINT EVENTS

There were connection point events during the reporting period:

Date	Time	Summary Details	Generation/Load interrupted (MW)	Restoration time (minutes)
1 February 2010	12:06	Unplanned outages of Dobson T12 interconnecting transformer as well as T1 and T2 supply transformers while Lake Coleridge-Otira 2 and Arthurs Pass-Otira 1 circuits were removed from service for planned outages caused loss of load at Dobson, Greymouth, Kumara, Hokitika and Otira.	Approx 34 MW total	Between 16-51
4 February 2010	09:33	A fault in the Ohau B 220 kV bus caused loss of connection at Ohau B.	30	70
23 February 2010	12:51	Kaikohe-Kaitaia 1 tripped resulting in loss of connection at Kaitaia.	15	300

1.5 SYSTEM OPERATOR COMPLIANCE WITH RULE BOOK: PART C

During February, the System Operator notified no Part C breaches.

1.6 PARTICIPANT COMPLIANCE

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

1.7 APPLICATIONS FOR DISPENSATIONS

During February 2010, the System Operator granted 1 dispensation however received no applications for dispensations.

2. PART G COMPLIANCE

The System Operator reported four breaches by the System Operator of Part G during the month of February. One breach related to the System Operator failing to incorporate grid information into dispatch schedules. Two breaches related to failing to incorporate HVDC information into the PDS and dispatch schedules (respectively). A further breach resulted from failing to provide final information of the previous trading day by 07:30 hours.

2.1 PARTICIPANT COMPLIANCE

The System Operator reported one breach against a third party participant for failing to comply with dispatch instructions (Part G).

3. ANCILLARY SERVICES

3.1 SUMMARY OF PROCURED ANCILLARY SERVICES

The following is a summary of the contracted ancillary services, as at February 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 System Operator commenced its annual procurement plan review at the end of February. It will undertake informal consultation with key ancillary service providers during March.



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 February 2010.

4.2 EXEMPTION APPLICATIONS

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

4.3 ANNUAL POLICY STATEMENT REVIEW

During the month, the System Operator informally consulted with key participants on the annual policy statement, seeking views on proposed System Operator changes and any additional items participants would like considered. The key proposed changes to this year's policy statement relate to those changes resulting from the credible event review undertaken during 2009. At the end of February, the System Operator published a consultation version of its proposed changes for formal comment and submission by registered participants. Submissions are due by mid March to allow the System Operator time to consider submissions and finalise the draft policy statement by 31 March.

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 is ongoing and expected to be ready for final assessment by end of March.
Te Rere Hau	NZ Windfarms	A new wind farm development located in the Tararua Ranges	Commissioning activities commenced and will continue in 2009 as new turbines are connected.
West Wind	Meridian Energy	A new wind farm development located close to Wellington	Commissioning is ongoing and planned to be completed during March.
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 determination of the causer of two under frequency events (August 2009 and January 2010), in respect of which the grid owner is a potential causer, in accordance with its conflict of interest policy set out in the Policy Statement.

7. DEVELOPMENT AND RESOURCES:

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

- Preparation work for the December 2010 SSF.
- Completion of North Island generator fault ride through studies. South Island studies have commenced.
- Continued work on the new dispensations database. It is currently in testing stage with a provisional go-live date of early March.
- Work is being undertaken with participants in respect of testing the outputs of simultaneous feasibility test (SFT) due to be implemented in late 2010. SFT boundary analysis has also been completed.
- Input into the following EC market development initiatives: interim pricing issues, demand-side bidding and forecasting, locational price risk, scarcity pricing and instantaneous reserve dispatch.
- Working with the EC on defining security of supply forecasting and emergency management obligations in the initial code.
- Preparing a response to the EC's request regarding the Multiple Frequency Keepers Project.
- Production of a preliminary engineering analysis of AUFLS requirements.
- Finalising of Investigation of RMT upgrade.
- Annual reviews of Policy Statement and 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.

