

# Operational Performance Report to the Electricity Commission May 2010

## Purpose

This report summarizes the results of the System Operator's review of its performance for May 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:

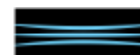
PPO No	Description	PPO Outcome
2.1	Avoid cascade failure	Met
2.2.1	Maintain frequency in the normal band	Met
2.2.2	Manage frequency during momentary fluctuation	Met
2.2.3	Limit rate of occurrences of momentary fluctuations	Met
2.2.4	Recover quickly from a fluctuation	Met
2.2.5	Manage time error	Met
2.2.6	Eliminate time error once a day	Met
2.3	Maintain other standards	Met
5.0	Restoration objective	Met

As noted in last month's report, on 17 April 2010, two time error excursions exceeding the PPO target were recorded. The investigation into this event is nearing completion and this will be detailed in the June performance report.

### 1.2 GRID EMERGENCIES

There were five grid emergencies reported in the period:

Grid Emergencies			
Date	Time	Summary Details	Island
3 May 2010	18:12	A Grid Emergency was declared for insufficient reserve offers in the South Island following the unplanned loss of some South Island generation. An increase in reserve offers from participants alleviated the situation.	South
6 May 2010	00:39	A Grid Emergency was declared as grid voltages in the lower North Island exceeded or were at risk of exceeding EGR limits as a result of the switching of HVDC Pole 1. To reduce the high voltage, Brunswick-Stratford 1 and Bunnythorpe-Haywards 1 circuits were removed from service.	North
7 May 2010	14:42	A Grid Emergency was declared for independent action taken by the asset owner to remove Bream Bay T2 supply transformer from service due to multiple operations of the low voltage circuit breaker.	North
7 May 2010	15:51	A Grid Emergency was declared for independent action taken by the asset owner to remove Bream Bay T2 supply transformer from service due to multiple operations of the low voltage circuit breaker.	North
30 May 2010	17:30	A Grid Emergency was declared due to insufficient generation offers in the North Island. HVDC Pole 1 was started to alleviate the problem.	North



### 1.3 SYSTEM EVENTS

There were 2 system events (frequency excursions) during the reporting period:

Date	Time	Summary Details	Island	Freq (Hz)
11 May 2010	14:44	Huntly unit 2 tripped causing a momentary drop in frequency in the North Island.	North	49.43
18 May 2010	14:29	An emergency Tiwai pot line reduction resulted in a momentary rise in frequency in the South Island.	South	50.69

### 1.4 CONNECTION POINT EVENTS

There was 1 connection point event during the reporting period:

Date	Time	Summary Details	Generation/Load interrupted (MW)	Restoration time (minutes)
25/05/2010	09:30	Karapiro-Te Awamutu 1 circuit tripped causing loss of connection to Te Awamutu.	21.7	106

### 1.5 SYSTEM OPERATOR COMPLIANCE WITH RULE BOOK: PART C

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

### 1.6 PARTICIPANT COMPLIANCE

During May, the System Operator notified no alleged Part C breaches against participants.

### 1.7 APPLICATIONS FOR DISPENSATIONS

During May, the System Operator received no applications for dispensations. It published two draft dispensations during the month.

## 2. PART G COMPLIANCE

### 2.1 SYSTEM OPERATOR COMPLIANCE:

Five breaches of Part G were reported by the System Operator during the month of May:

- One event related to the System Operator not using the price order embodied in the current dispatch schedule to dispatch a generator.
- Two events related to the delay in the publication of pre-dispatch schedules.
- One event related to failing to send final information to send to the pricing manager and to the clearing manager.
- One event related to the failure to incorporate revised information from the Grid Owner regarding HVDC configuration, capacity and losses.

## 2.2 PARTICIPANT COMPLIANCE

Four breaches of Part G were reported by the System Operator during the month of May in respect of non-compliance by a participant with dispatch instructions.

## 3. ANCILLARY SERVICES

### 3.1 SUMMARY OF PROCURED ANCILLARY SERVICES

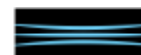
The following is a summary of the contracted ancillary services, as at May 2010:

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

\* 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 have also submitted our response to submissions received by the Commission on the draft procurement plan.

## 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 May 2010.

### 4.2 EXEMPTION APPLICATIONS

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

### 4.3 ANNUAL POLICY STATEMENT REVIEW

During May, the System Operator prepared and submitted responses to submissions received by the Commission in its consultation of the draft annual 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 relating to the potential under frequency event charges arising from the 17 January 2010 and 13 April 2010 under frequency events. The issues surrounding the causer of the 1 August 2009 under frequency event have now been resolved.

## 7. DEVELOPMENT AND RESOURCES:

During May, 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.
- Submitted a report to the Commission on implementing stage 1 of AGC as part of the multiple frequency keeper's project.
- Implementation of winter initiatives.
- Finalising AUFLS technical report.
- Supporting the Commission's market development programme.
- Working with Transpower's HVDC project to define tool changes required for the commissioning of Pole 3.
- Working with pricing manager to prepare for delivery of interim pricing period project.

## 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.