

# Operational Performance Report to the Electricity Authority January 2011

## Purpose

This report summarizes the results of the System Operator's review of its performance for January 2011, as required under Clause 3.14 of the Electricity Industry Participation Code 2010. An additional Operational Update is also provided for the information of the Authority.



SYSTEM OPERATOR

*Keeping the energy flowing*

TRANSPOWER



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## 1. COMPLIANCE WITH RULE BOOK AND PARTS 7 AND 8:

### 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 January, was as follows:

PPO No	Description	PPO Outcome
7.2(1)(a)	Avoid cascade failure	Met
7.2(1)(b)(i)	Maintain frequency in the normal band	Met
7.2(1)(b)(ii)	Manage frequency during momentary fluctuation	Met
7.2(1)(b)(iii)	Limit rate of occurrences of momentary fluctuations	Met
7.2(1)(b)(iv)	Recover quickly from a fluctuation	Met
7.2(1)(b)(v)	Manage time error	Met
7.2(1)(b)(vi)	Eliminate time error once a day	Met
7.2(c)	Maintain other standards	Met
8.5	Restoration objective	Met

### 1.2 GRID EMERGENCIES

There were 21 grid emergencies declared in the period.

Grid Emergencies			
Date	Time	Summary Details	Island
04-Jan-11	09:44	Grid Emergencies were declared for insufficient generation offers in the Upper North Island and insufficient transmission capacity in the Waikato region. The grid was re-configured at KIN to alleviate the situation.	North
05-Jan-11	08:21		
06-Jan-11	08:11		
07-Jan-11	09:24		
08-Jan-11	19:26		
11-Jan-11	15:00		
12-Jan-11	08:55		
13-Jan-11	08:11		
14-Jan-11	08:59		
17-Jan-11	08:44		
18-Jan-11	09:53		
21-Jan-11	09:29		
23-Jan-11	07:39		
24-Jan-11	07:02		
25-Jan-11	06:30		
26-Jan-11	06:35		
27-Jan-11	06:42		
28-Jan-11	06:45		
29-Jan-11	07:00		
30-Jan-11	07:00		
31-Jan-11	08:00		



### 1.3 SYSTEM EVENTS

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

Date	Time	Summary Details	Island	Freq (Hz)
22/01/11	22:24	Maraetai 220 kV bus tripped resulting in a loss of connection to Maraetai and Waipapa Power Stations.	N	49.34 Hz
26/01/11	00:55	A Tiwai potline tripping resulted in a momentary rise in frequency in the South Island.	S	50.85 Hz

### 1.4 CONNECTION POINT EVENTS

There were no connection point events during the reporting period:

### 1.5 SYSTEM OPERATOR COMPLIANCE WITH RULE BOOK: PARTS 7 AND 8

During January, the System Operator notified no breaches of Part 7 or Part 8.

### 1.6 PARTICIPANT COMPLIANCE

During January, the System Operator alleged no Part 8 breaches against participants.

### 1.7 APPLICATIONS FOR DISPENSATIONS

During January, no dispensation applications were received by the System Operator.

## 2. PART 13 COMPLIANCE

### 2.1 SYSTEM OPERATOR COMPLIANCE

During January, the System Operator notified one breach of Section 13.62 (1)(d) of the Code for failing to ensure that no more than 2 hours elapsed between the time of commencement of each consecutive pre-dispatch schedule.

### 2.2 PARTICIPANT COMPLIANCE

No participant breach of Part 13 was reported by the System Operator during the month of January 2011.



### 3. ANCILLARY SERVICES

#### 3.1 SUMMARY OF PROCURED ANCILLARY SERVICES

The following is a summary of the contracted ancillary services, as at January 2011:

Ancillary Service Agent	FK	IR	OFR	BS	VS
Contact Energy	√*	√	√*	√	√*
Counties Power		√			
Energy Response		√*			
Genesis Power	√	√		√	
KCE Mangahao and Todd Mangahao		√*	√		
Meridian Energy	√*	√*	√*	√*	
Mighty River Power	√*	√*	√	√*	√*
NZ Aluminium Smelters		√*			
NZ Steel		√*			
Nga Awa Purua			√		
Northpower		√*			
Norske Skog		√			
Powerco		√*			
Pan Pac		√			
TrustPower		√*			
Tuaropaki (Mokai)			√		
Unison		√			
Vector		√*			
WEL Networks		√*			
Wellington Electricity Networks		√			
Winstone Pulp International		√			

(1) FK - Frequency Keeping

(4) BS - Black Start

(2) IR - Instantaneous Reserves

(5) VS - Voltage Support

(3) OFR - Over Frequency Reserve

\*Longer term contract



## PROCUREMENT PLAN

The System Operator is required by the Code to annually advise the peak and penalty voltage support rates for the coming 12 months (effective 1 March 2011).

Zone 1 distributors were informed in January of the new peak and penalty rates for the period 1 March 2011 to 28 February 2012, which are:

Peak Rate: **157** cents/kvar  
Penalty Rate: **241** cents/kvar

The System Operator is in the process of applying its annual CPI fee adjustment to the longer term contracts for Voltage Support, Black Start and Over Frequency Reserve. This will be completed in February 2011.

The System Operator has scheduled a South Island black start station test for mid-year.

## CHANGES TO ANCILLARY SERVICE PROCUREMENT CONTRACTS

There were minor changes to an interruptible load provider's contract during the reporting period. This change resulted in an increase to the maximum quantities able to be provided under the contract.

## 4. POLICY STATEMENT

The System Operator has started its annual review of the policy statement for 2011/2012. To date only one change has been identified which relates to clarifying over constraint management after SFT is implemented. The System Operator has already informally spoken to a number of participants regarding the policy statement review however it will also be consulting formally with participants within the next two weeks.

## 5. RECOMMENDATIONS FOR CHANGE TO CODES AND RELATED MATTERS

### 5.1 CODE CHANGE PROPOSALS

No rule change proposals were made in January 2011.

### 5.2 EXEMPTION APPLICATIONS

No exemption applications were made during the month of January 2011.

## 6. OPERATIONAL UPDATE:

### 6.1 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.	Awaiting final ACS.
Te Rere Hau	NZ Windfarms	A new wind farm development located in the Tararua Ranges.	Assessing final ACS.
West Wind	Meridian Energy	A new wind farm development located close to Wellington.	Assessing final ACS.
Stratford Peaking Plant	Contact Energy	Two 100MW gas fired peaking units to be located close to the existing Stratford power plant.	Commissioning activities commenced during November 2010.
Te Uku	Meridian Energy	A new wind farm connection at Te Kowhai Substation	Commission activities commenced during November 2010.

## 7. CONFLICTS OF INTEREST

There were no new conflicts of interest arising during the month of January 2011.

## 8. DEVELOPMENT AND RESOURCES

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

- Preparation for operations with SFT continued during January
- Transpower's HVDC Pole 3 project to define tool changes
- TASC projects
- Scarcity Pricing
- Dispatchable demand
- Normal frequency management
- Under frequency management
- AGC project scoping

## 9. ELECTRICITY INDUSTRY PARTICIPATION CODE PART 7

### Code 7.10 Separation of Transpower Roles

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 Industry Participation Code 2010 or under any agreement.

