

Operational Performance Report to the Electricity Commission July 2010

Purpose

This report summarizes the results of the System Operator's review of its performance for July 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.

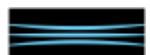
The System Operator's performance against the PPO outcomes, during the month, was as follows:

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 2 grid emergencies declared in the period:

Grid Emergencies			
Date	Time	Summary Details	Island
4 July 2010	16:30	A Grid Emergency was declared due to insufficient generation offers in the North Island as a result of an unplanned outage of HVDC Bipole. Additional generation offers, load control, increase in intermittent generation, and later on the availability of HVDC Pole 1 alleviated the need to reduce reserve requirements or involuntary load control. In addition, a grid reconfiguration was required at Kinleith to optimise available North Island generation	North
30 July 2010	10:55	A Grid Emergency was declared due to an unplanned outage of Kumara-Otira 1 circuit. The outage caused voltage stability issues at Otira, Hokitika, Kumara, Greymouth and Dobson which required a split at Dobson-Greymouth 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)
4 July 2010	13:11	HVDC Pole 2 tripping resulted in a momentary change in frequency in both the North and South Islands.	North South	49.06 52.47
12 July 2010	04:08	Stratford power station tripping resulted in a momentary drop in frequency in the North Island.	North	49.14
14 July 2010	06:17	Huntly unit 5 tripping resulted in a momentary drop in frequency in both the North and South Islands.	North South	49.16 49.33
23 July 2010	12:44	Tiwai potline tripping resulted in a momentary rise in frequency in the South Island.	South	51.43

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)
24/07/2010	13:01	Balclutha-Berwick-Halfway Bush 1 circuit tripped causing loss of connection to Berwick.	36	170

1.5 SYSTEM OPERATOR COMPLIANCE WITH RULE BOOK: PART C

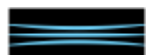
During July, the System Operator notified 3 Part C breaches. One breach related to the failure by the System Operator to manage time error within +/- five seconds (as identified in the June monthly report), one breach related to the failure to use the most recent asset capability information provided by asset owners in modelling reserve requirements and another breach related to the failure to correctly apply a permanent security constraint to the SPD model.

1.6 PARTICIPANT COMPLIANCE

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

1.7 APPLICATIONS FOR DISPENSATIONS

During July, the System Operator granted 2 dispensations during the month and received one application to withdraw a dispensation.



2. PART G COMPLIANCE

2.1 SYSTEM OPERATOR COMPLIANCE

Four breaches of Part G were reported by the System Operator during the month of July. Two related to the failure to include information from the Grid Owner in formulating the dispatch schedule, one related to not providing a reasonable estimate of existing demand configuration in formulating real time prices and one related to failed to incorporate the expected profile of demand in formulating the dispatch schedule.

2.2 PARTICIPANT COMPLIANCE

No breaches of Part G were reported by the System Operator during the month of July.

3. ANCILLARY SERVICES

3.1 SUMMARY OF PROCURED ANCILLARY SERVICES

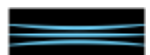
The following is a summary of the contracted ancillary services, as at July 2010:

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 PROCUREMENT PLAN

The review of the 2010/11 Procurement Plan was completed in July, with advice that the Minister had approved the draft plan.

3.3 PROCUREMENT OF OVER FREQUENCY RESERVE (NORTH ISLAND) AND VOLTAGE SUPPORT (ZONE1)

In July, the System Operator consulted with potential providers of over frequency reserve in the North Island. Several providers expressed an interest to participate in this new market.

The tender documents were sent out at the beginning of August, with a closing date of 31 August. It is intended that the contracts will commence on 1 October and that the outages requested by the Grid Owner which highlighted this issue will take place shortly after this date.

The System Operator is currently preparing a variation to the Procurement Plan to widen the definition of over frequency reserve (which is currently limited to relay equipment that *disconnects* from the grid) to enable certain generators (such as CCGTs, thermals, geothermals and (potentially) intermittent generators) to provide OFR in the form of a fast run-back.

4. RECOMMENDATIONS FOR CHANGE TO EGRS AND RELATED MATTERS

4.1 RULE CHANGE PROPOSALS

A rule issue was identified in July (and submitted as a rule proposal to the Commission early in August) relating to the information required to calculate the allocation of instantaneous reserve availability costs. There is currently no rule requirement or obligation on any generator to provide kWh generation data to EMS, the Clearing Manager or the System Operator which is required for this calculation. This issue arose following the non-provision of information by Mighty River Power Limited in respect of both Kawerau generation (KAG) and Nga Awa Purua generation (NAP).

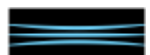
4.2 EXEMPTION APPLICATIONS

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

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 tests have been completed. Awaiting final ACS prior to completing final assessment.
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. Pre-commissioning activities are expected to commence during August.

6. CONFLICTS OF INTEREST

There was an under frequency event on 4 July 2010 in respect of which the grid owner is a potential causer. The System Operator will manage the determination of the causer in accordance with its conflict of interest policy set out in the Policy Statement.

7. DEVELOPMENT AND RESOURCES

During July, 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 continued throughout July. Parallel operations will commence during August
- The final stage of the variable reserve changes for the winter initiatives project was implemented during July
- Finalising AUFLS technical report and preparing for participant workshops in August. A number of meetings were held with key stakeholders regarding the findings in the 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.

