

# An operational review of winter 2016

29 September 2016

**Note:** This paper has been prepared for the purpose of the Security and Reliability Council (SRC). Content should not be interpreted as representing the views or policy of the Electricity Authority.

## Background

The Security and Reliability Council (SRC) functions under the Electricity Industry Act 2010 (Act) include providing advice to the Electricity Authority (Authority) on security of supply matters.

The winter of 2016 was the first in which Otahuhu and Southdown thermal generation was permanently unavailable to the power system. This had raised some concerns about the adequacy of energy and capacity security, though the National Winter Group forecast the second-highest capacity margin in its ten-year history.

Against that backdrop, the secretariat asked the system operator to consider whether there were any matters that arose during winter 2016 that would be of interest to the SRC. The system operator has prepared a short presentation to cover off the background, observations and lessons from winter 2016. The system operator will give a presentation of the attached slides at the 19 October 2016 SRC meeting.

The SRC may wish to consider the following questions.

- |            |                                                                                                |
|------------|------------------------------------------------------------------------------------------------|
| <b>Q1.</b> | What further information, if any, does the SRC wish to have provided to it by the secretariat? |
| <b>Q2.</b> | What advice, if any, does the SRC wish to provide to the Authority?                            |

# Winter 2016

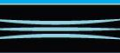
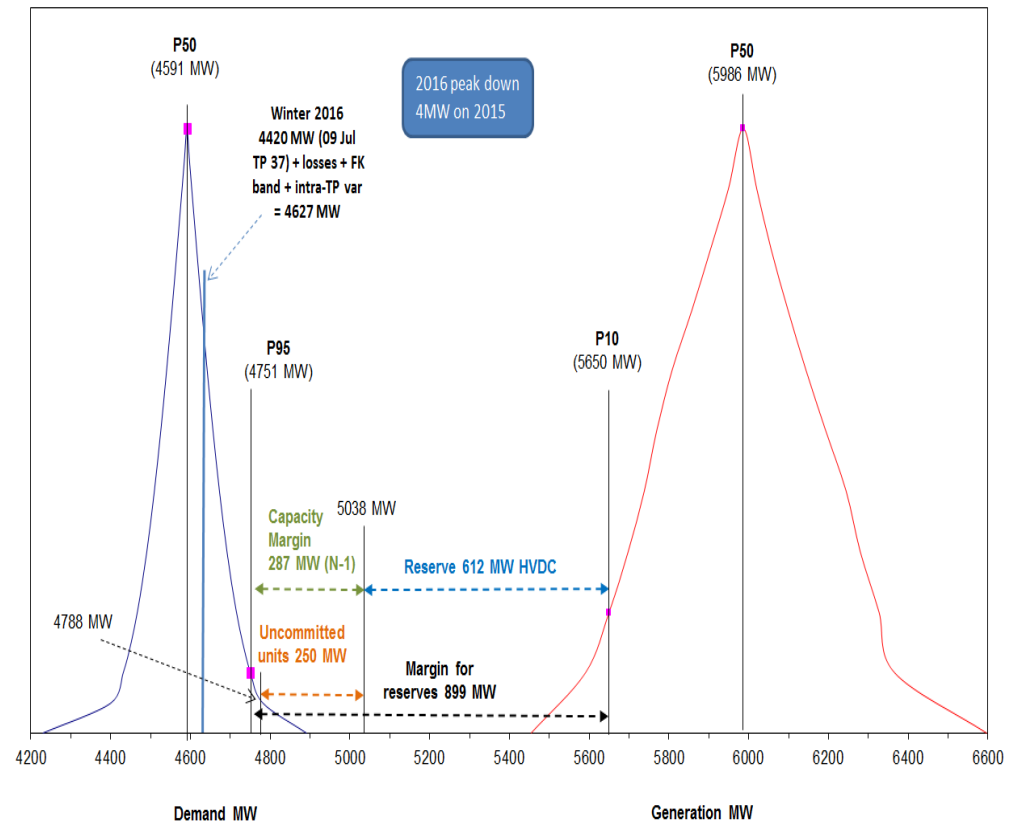
An operational review in light of expectations

TRANSPower



# Ahead of winter, above average capacity forecast in the 2016 NWG

- Industry interest in winter capacity given departure of Otahuhu and Southdown
- Second best capacity margin forecast for the decade
- Forecast tightness in early June with a HVDC Filter outage
- Communication of the outage and security of supply situation helps lubricate the market



# Good capacity evident in winter, but not always offered

## **Wet winter 'capacity management'**

*market worked hard to make it worth while for thermal units to commit for short peak need*

- *9 WRN notices issued due to lack of offers*
- *No GEN notices issued due to lack of offers or IR shortfalls*

## **Operational**

- *Major event the Hawkes Bay snow event - widespread disconnection*
- *HVDC Filter outage – no impact*

## **Observations and lessons**

- *Outage visibility and corresponding security of supply impact important*
  - *Evolving view most useful*
  - *Market impact lags*
- *Wind variability, load management and load forecast error complicates thermal commitments decisions*
- *Having capacity vs. having it offered*



# Transpower is moving to a more dynamic view of winter capacity

## NWG report has served us well

- Industry working group from 2006 winter
- Socialises capacity view of upcoming winter

however...

## NWG is static and quickly out of date

- 2016 NWG 'reworked' after new outage info available
- No updates to published report when situation changes

## NZ Generation balance provides dynamic capacity information

- 200 day rolling forward view
- Online access

TP to highlight situation when the NWG would have been published

