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## Pole 1 Offer –effective from 00:00 hours 21 October 2009

Pole 1 will be made available for dispatch in current control mode<sup>1</sup> for north transfer between 130MW and 200MW as a Standard Offer, in response to Grid Emergencies and for Testing.

**Standard Offers** (the applicable offer determined and made by the Grid Owner)

### Standard Offer 1

For the four hours beginning in the next relevant<sup>2</sup> trading period if, for the four hour period, the aggregate unavailable generating capacity in the North Island exceeds 150MW

**and**

the average of the forecast north transfer on Pole 2, alone, for the four hour period exceeds 575MW sent. The calculation of the average is to use forecast HVDC transfer from the latest available scheduling pricing dispatch quantity (SPDQ) solution and for the trading periods beyond the SPDQ solution the lesser of the forecast HVDC transfer from the latest pricing dispatch scheduling (PDS) and the latest security winter schedule (SWS) solutions;

**until**

a subsequent SPDQ solution for a trading period beginning within the next 2 to 2 ½ hours forecasts north transfer on Pole 1 and Pole 2 to be less than 460MW sent.

### Standard Offer 2

On business<sup>3</sup> days for trading periods 14 (beginning 06:30 hours) to and including trading period 41 (ending 20:30 hours) if the unavailable generating capacity in the North Island exceeds 150MW in each trading period.

If between 2 to 2 ½ hours prior to the trading period immediately following the current offer, initially trading period 42, the most recent SPDQ solution forecasts north transfer on Pole 1 and Pole 2 to exceed 460MW sent the period of offer for pole 1 is to be extended by one trading period.

### Standard Offer 3

When Pole 2 northward transfer capability is less than 575MW sent;

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<sup>1</sup> Pole 1 response to a major tripping will be limited to frequency modulation, ramping to 302 MW for a few seconds

<sup>2</sup> The “relevant trading” period is the trading period beginning in the next two to two and a half hours.

<sup>3</sup> Any day of the week except Saturdays, Sundays, national holidays and any other day from time to time declared by the market administrator not to be a business day by notice to each registered participant in the manner set out in the Electricity Governance Rules. A national holiday is any day that Good Friday, Easter Monday, ANZAC Day, Queen’s Birthday, Labour Day, Christmas Day, Boxing Day, New Year’s Day, the day after New Year’s Day and Waitangi Day are observed for statutory holiday purposes

**Grid Emergency** (determined by the System Operator)

In response to a Grid Emergency with a minimum period of operation of four hours and a minimum time between load changes of 4 hours.

If between 2 to 2 ½ hours prior to the trading period immediately following the current offer, initially the trading period following the Grid Emergency, the most recent SPDQ solution forecasts north transfer on Pole 1 and Pole 2 to exceed 460MW sent the period of offer for pole 1 is to be extended by one trading period.

**Testing** (schedule by the Grid Owner in conjunction with System Operator)

For monthly tests of up to 36 hours<sup>4</sup>. During tests no additional benefits from Pole 1 will be scheduled. Assuming Pole 2 remains operational, the HVDC Bipole capability for the duration of the test will remain at 700MW and the contingent event risk will be set to bipole.

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<sup>4</sup> The Grid Owner intends to provide 24 hours notice of the start time and duration of the test. Exact timings will be dependent on scheduled HVDC transfer.

## Background to offer (not part of offer)

### *General*

- The Grid Owner wishes to maximise the available, but limited, Pole 1 capability after monitoring its performance since completion of extensive remedial measures in autumn.
- The offer of Pole 1 has to be in accordance with the Electricity Governance Rules 2003 (rules).
- The Grid Owner will make public the offer strategy identified for Pole 1.

### *Transpower agreement with Insurers*

- Pole 1 available for north transfer within 130MW and 200MW (sent) if:
  - North Island generating unit(s) or station(s) of aggregated capacity in excess of 150MW is unavailable (for what ever reason); or
  - Grid Owner is unable to make Pole 2 available at full capacity;and
  - the cumulative hours of operation in the 12 months ending 31 August 2010 is not to exceed 1500 hours;
  - the cumulative number of starts in the 12 months ending 31 August 2010 is not to exceed 100.
- Within the limit of operating hours and number of starts, Pole 1 will also be made available for use during North Island Grid Emergencies and monthly testing.

### *Derivation of offer strategy*

- Within the limit of the number of starts available, the Grid Owner will seek to identify the periods of highest expected HVDC transfers north and offer Pole 1 during these periods, to the limit of available operating hours.
- To identify the periods of highest transfer the Grid Owner will, initially, utilise a 12 month forecast of possible market operation based on:
  - recent, historic generation and instantaneous reserve offers;
  - expected demand;
  - expected generation and transmission availability – existing and new;
  - 78 years of historic inflow information;
  - recent, observed reservoir management strategies; and

- knowledge of the current major reservoir levels of storage.
- From the above forecast, the Grid Owner will identify the transfer levels at which it will offer and then withdraw an offer for Pole 1.
- As the actual utilisation of Pole 1 is revealed throughout the 12 months ending 31 August 2010, it is anticipated new forecasts will be made, using the latest information available, to modify the transfer levels at which Pole 1 will be offered.
- The Grid Owner will also monitor standby reserve shortfall notices and offer Pole 1 to reduce what may otherwise be significant reserve shortfalls in the North Island. The frequency and duration of such offers will reflect the limited number of starts and hours available to the Grid Owner.

#### *Implications of the rules*

- Due to the limited availability of Pole 1 the Grid Owner will need to rely on the provision of rule 5.5 and rule 5.5.4 of section II of part G to revise information up to two hours prior to the beginning of the relevant trading period to affect a change in the availability of Pole 1 to those that correspond to the identified transfer levels.
- The Grid Owner is not privy to generator offers, or the resultant schedule, made in the trading period immediately prior to the two hours prior to the beginning of the next relevant trading period. The Grid Owner will determine:
  - aggregated generating capacity in excess of 150MW is unavailable by monitoring planned outages, observing dispatch, or using any other available information ;
  - times when Pole 1 offer will be made or terminated will be based on the latest available schedules for the relevant trading periods.