



25th September 2009

## Participants

### Change to Frequency Keeping Selection Methodology Post MSP go-live (21 July 2009)

As you will be aware through our communications at industry forums and by newsletter, two hours prior to the new market systems (MSP) going live, the System Operator reverted back to the frequency keeping selection methodology used prior to 3rd June 2008. The reason for the change to the System Operator's selection methodology was to align it with how the MSP frequency keeping selection software had been designed.

The System Operator has commenced a project to reintroduce the frequency keeping selection methodology into the new MSP environment. The methodology will select the frequency keeper based on a least-cost basis. This is done by using the market offer for frequency keeping and an estimation of the associated constrained-on cost of moving a provider to 'centre-of-band'. Implementation of the new methodology will be included in the December 2009 MSP release.

In the interim, in response to the increasing cost of frequency keeping, the System Operator has also commenced a project to implement an interim frequency keeping selection process.

This interim solution will present applicable price information to the co-ordinators to allow them to make an informed decision on potential constrained on costs, thereby allowing them to manually choose the least-cost provider based on this applicable price information. The implementation date for the interim solution is early to mid October.

A breakdown of the applicable price information presented to the coordinators is as follows:

#### Marginal Price

- This is the forecast marginal price of the most expensive node within a frequency keeper block or station, based on their scheduled MW's in the SDPQ. For example, if Maraetai has the highest nodal price in the Waikato block for the MW's scheduled, then this is the price displayed on the Market Operator Interface (MOI) frequency keeping display.

#### Operating Minimum Price

- This is the price in dollars of the energy offer tranche used from the frequency keeping provider stations/block to provide the Offered Frequency Control minimum plus frequency keeping band MW. For example, if the Waikato block was scheduled for frequency keeping with a control minimum of 700 MW, the operating minimum would be 750 MW's (for a frequency keeping band of 50 MW). At this setpoint, the nodal price is based on the minimum priced Waikato station offers required to meet this output.

#### Control Maximum Price

- This is the offer tranche price for the stations/generators in the frequency keeping provider stations/block if they are generating at the top end of their capability. For example, if the control maximum at Tokaanu was 240 MW's, the maximum they could be dispatched to is

190 MW's (for a 50 MW band). If they were dispatched to this figure (190 MW's) but, due to system conditions and low frequency their output averaged 240 MW's for a trading period, then the constrained-on price would be reflective of the control maximum price.

The coordinators will view each SDPQ once produced and analyse the pricing details of the available frequency keepers for the next three trading periods. From this analysis they will seek to determine the least expensive frequency keeper based on offer price and potential constrained-on costs and manually select the cheapest frequency keeper for the next three trading periods.

Please be assured the System Operator remains focused on implementing both the interim process and permanent solution as soon as practicable.

Yours sincerely

A handwritten signature in black ink, appearing to read 'J. Campbell', written in a cursive style.

Risk and Performance Manager - System Operations