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John Rampton
General Manager Market Design
Electricity Authority

By email: submissions@ea.govt.nz

Dear John

Making hours-ahead price forecasts more accurate

We appreciate the opportunity to submit to the Authority's consultation *Making hours-ahead price forecasts more accurate*, published 9 February 2017.

In this submission, we

- outline our support for incremental change towards a real-time market (via option A) and
- respond to specific statement made about other policy areas.

We support option A, improving conforming load forecasts

We have longstanding experience with load forecasting for pricing, security management and dispatch and we consider accuracy of demand profiles as a key input to performance of our responsibilities. We fully support the Authority in seeking improvement to the conforming load forecast to achieve the objectives for forecast price accuracy, and progression towards real-time prices and an hours-ahead market.

We consider an incremental approach that (i) does not limit future known options and (ii) may generate yet unknown options to be good practice for development processes. For example, publishing improved load forecast data to the wholesale information trading system (WITS) or to the public domain could spur innovation in other market areas.

To improve the conforming load forecast requires understanding inputs such as demand response (elasticity), participant load control and (unoffered) embedded generation, including how those inputs may not conform e.g. due to intermittent distributed generation or the influence of international commodity prices on a business's operation. We explore improvement opportunities through synergy with our other business tools and functions. For example, in 2016 we reduced the run times for the non-response and price response schedules, from capability made available by our SCADA upgrade. The upgrade allowed the schedules to use more recent (hence more accurate) load and weather data.

We agree with the Authority's observation on page 22 that "there are several parties who take actions that affect demand at GXPs" with "distribution network companies, demand aggregators, distributed generators and other parties can all affect conforming load". Actions are currently induced in two ways, through prices for consumption (nodal \$/MWh) and for capacity (transmission charges \$/kW). A likely response to consumption and capacity prices is for parties to change the

time at which electricity is consumed and we expect emerging technology to facilitate, and change the value proposition for, such response. The conforming demand forecast will need to keep accommodate such response, as well as continuing to contribute to secure, economically-priced dispatch.

We look forward to assisting the Authority as it develops Option A.

Consultation paper comment on other policy areas

We generally agree with the further thinking in the paper on wider benefits that accurate forecast prices could bring to the electricity system in the future. However, we have reservations about the following statement (page 40):

Changes to transmission pricing and distributed generation pricing principles could make it more likely that demand and distributed generation will respond to price signals, rather than to demand signals. This is a positive result for the system but it increases the importance of forecast spot prices.

We consider the statement places too much faith on the nodal price accuracy for sending dynamically-efficient signals for transmission (and alternatives) investment and understates the risk (inefficient investment and security of supply) that nodal prices are insufficient. These risks are traversed in submissions by Transpower^[1] and other parties to the Authority's TPM and DGPP reviews. Notably, we have expressed concern that the Authorities proposals place undue reliance on nodal price signals. We do not repeat explanations here because we do not want to detract from our primary submission point of support.

Yours sincerely



Micky Cave
Senior Regulatory Analyst

^[1] Our submissions to both the TPM 2nd issues paper (and related 'supplementary' paper), available at <http://www.ea.govt.nz/development/work-programme/pricing-cost-allocation/transmission-pricing-review/consultations/#c15999>

Appendix response to questions

Question	Response
Are there any major options you think we missed? If so, please describe them.	No
Are there any quick wins you think we missed? If so, please describe them.	No.
Are there any other issues that are common to all options that should be examined? If so, please describe them	No.
Are there any qualitative benefits and costs for Option A we missed? If so, please describe them.	No. The qualitative approach does provide for understanding possibility of low(er) cost incremental change
Are there any qualitative benefits and costs for Option B we missed? If so, please describe them.	No.
Are there any qualitative benefits and costs for Option C we missed? If so, please describe them.	No.
Are there any qualitative benefits and costs for Option D we missed? If so, please describe them.	No.
Do you disagree with the options chosen for quantitative assessment? If so, please describe the reasons why	No (we agree).
Do you agree with the cost benefit assessment? If not, why not?	Yes.
Do you agree that Option A is preferred at this point? If not, why not?	Yes.
If Option A is implemented, are there any factors that should be taken into account to maintain the potential to move on to Options B, C or D at a later point?	We do not suggest any other factors to take into account.