



12 February 2024

Electricity Authority

By email to: policyconsult@ea.govt.nz

Tēnā koe,

Response to Code amendment omnibus two – Consultation paper

Thank you for the opportunity to respond to the consultation paper 'Code amendment omnibus two'. This submission focusses on the proposed permanent Code amendment to clarify the use and availability of discretionary demand control.

We do not support the proposed two price bands for discretionary demand control. The consultation paper does not sufficiently consider the wider impact that this change could have on the market, the impact on investment incentives and hedging strategies.

We understand that the proposed approach would result in discretionary demand control being deployed ahead of offered generation under a warning notice, and will reduce the circumstances under which scarcity pricing is triggered. This will lead to weakened market price signals.

This may harm long-term system-wide efficiency. While pricing in moments of near-scarcity may reduce, it will weaken the financial viability for highly flexible assets, such as battery energy storage systems (BESS). These assets are critical to the future of the market, and are already challenging to earn a financial return.

This change could also affect hedging incentives. For example, if discretionary demand control is called and it softens wholesale prices, then under-hedged retailers would be able to free-ride during a low-residual situation (or worse). Encouraging this behaviour will – over the medium to long term – further reduce the incentive for investment in flexibility such as peaking generation, BESS, and demand-side flexibility.

We also note that there may be practical issues with intervening ahead of grid emergency.

- The vast majority of discretionary demand is domestic water heating. This load is atypical in that it is largely energy neutral over about a 6-hour period. If the load is turned off, then it will need to be reinstated, else loss of service will arise for the end customer.
- The complicating factor is that the customers' loss of service is tenable under a grid emergency (i.e. consistent with customer T&C's), but untenable (i.e. in breach of the customer T&C's) if the grid emergency doesn't arise. This can create a paradox whereby if the hot water load stays off (and customer T&Cs breached), there's no grid emergency (because load is lower); but, if the hot water load is reinstated to comply with customer T&C's then a grid emergency may well arise from this hot water load that is added back. Note that the load that is added back is typically materially higher than the load when curtailed, and therefore needs to be added back in a carefully staged manner.
- Therefore, the hot water load control should only be effected for either the retailer (as part of a customer offering), the EDB to manage local network issues, or for grid emergencies (and thus with scarcity pricing applying in this case).

We encourage the EA to undertake a more thorough analysis of this change and the wider implications. This should include examples of when discretionary demand control would be called and the impact that this would have on generation volumes deployed and pricing. Consideration must also be given to load reinstatement for hot water load in the subsequent trading periods.

The proposal should also be considered against other options such as only allowing discretionary demand control under a grid emergency. This would provide certainty to the System Operator of the availability of discretionary demand control, but minimise the distortions on the market.

Please contact me at brett.woods@contactenergy.co.nz if you wish to discuss further.

Ngā Mihi,

A handwritten signature in blue ink, appearing to read 'Brett Woods', is positioned above the typed name.

Brett Woods
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Contact Energy.