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Submissions  
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### **Submission on Options to reduce operational coordination risk – consultation paper**

WEL Networks Limited (WEL) appreciates this opportunity to submit on the Electricity Authority's (the Authority's) analysis of options to better manage supply risk for winter 2023.

WEL is NZ's sixth largest distribution network company and is 100% owned by our community through our sole shareholder WEL Energy Trust. Our purpose is to enable communities to thrive, and we work to ensure that our customers receive affordable, reliable, fairly priced, and environmentally sustainable energy.

The Authority appears to be planning for the (increased) potential for another 9 August 2021 event – when WEL curtailed electricity supply to nearly 18,000 of our customers on instruction from the System Operator to ensure that there was sufficient energy to meet national demand.

WEL's interest is in the whole system working together to minimise the likelihood of a repeated mismatch of supply and demand; thereby bolstering public confidence and reinforcing the social licence required to progress the investment needed to reduce emissions across our energy system.

We note the Authority's focus is exclusively *"on ways to ensure resources that have extended start-times are committed so they can operate in real-time – if this commitment is efficient and for the long-term benefit of consumers"*.<sup>1</sup> This may not be the only issue facing the electricity system.

The Authority's document states, *"it is not total generation capacity but availability of sufficient flexible generation (and demand response) at peak times that has been the issue"*.<sup>2</sup> WEL suggests generation capacity is also an issue in the near future. Transpower's latest [NZ Generation Balance](#) shows there are periods during Winter 2023 when generation capacity is between 200-300MW above potential peak demand. The System Operator's June 2022 [Security of Supply Annual Assessment](#) Figure 4 shows two scenarios and sensitivities where North Island capacity declines during 2023 through the monitored thresholds. We understand the Authority's Wholesale Market Review 'promoting

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<sup>1</sup> Paragraph 3.4 of Consultation paper

<sup>2</sup> Executive Summary of Consultation paper





competition in the wholesale market' is focused on getting more and faster investment in generation. However, this is unlikely to solve any shortfall in capacity (or energy) in Winter 2023.

We are disappointed the Authority's problem definition has not acknowledged the underlying drivers of why there is now more frequent operational coordination risks. That is, that peak demand is increasing at a faster rate than overall electricity demand. The System Operator attributes this to the removal of the RCPD price signal in transmission charges. This financial incentive for distribution companies (and others) to manage / reduce peak demand influenced the way we managed our network assets and network constraints for the benefit of our customers.

Growth in electricity demand on our network is currently 10% per annum, during peak times. WEL has the ability to manage load to ensure efficient distribution network operation. We can choose to offer load management to assist with national demand and supply risks but seek absolute clarity on a hierarchy of how and who has the rights to this load management and how it's paid for.

Overall, an energy shortfall due to growing peak demand is an ongoing issue and any solutions should be robust, well designed and permanent (as opposed to transitory addressing just Winter 2023).

Some of the options the Authority proposes are also in MDAG's Library of Options<sup>3</sup>. We understand the Authority was well briefed by MDAG as the group developed these options and hope the Authority can build on any MDAG options that address the Authority's current focus on ensuring *"resources that have extended start-times are committed so they can operate in real-time – if this commitment is efficient and for the long-term benefit of consumers"* for Winter 2023.

We provide feedback on the Authority's options relevant to a distributor:

**A - Provide better information on headroom in supply stack:** We query whether "better" means the aim is to improve the quality of information that is currently available and/or make public information that currently only the System Operator has so that others can act on this information. The System Operator's [description](#) of how it manages potential shortfalls is clear.

The accuracy of the information being used by the System Operator depends on a range of factors as detailed in the consultation paper. If accuracy remains an issue, then publishing the headroom information provides participants with more information or complexity without adding clarity/accuracy.

**D – System operator review of wind offers based on external forecast:** This appears to be a no-regrets option that can be easily implemented prior to winter 2023 (that the System Operator should be funded for).

**E – Clarify availability and use of discretionary demand control:** The Authority claims *"There is currently poor information available on the level of 'discretionary' demand that network companies can readily curtail if called upon to do so"*.<sup>4</sup> We suggest network companies may individually have good visibility of discretionary demand, but it is unclear if there is any reason or incentive to share this information more widely.

WEL is the first network company with 5-minute visibility of the status of our network. This enables WEL to manage network enhancement and network growth in a more effective and efficient manner resulting in greater savings for our customers. As discussed above, we can choose to offer load management to assist with national demand and

<sup>3</sup> <https://www.ea.govt.nz/assets/dms-assets/31/MDAG-Library-of-options-FINAL-1.pdf>

<sup>4</sup> Paragraph 5.22 of Consultation paper





supply risks but seek absolute clarity on a hierarchy of how and who has the rights to this load management and how it's paid for. Distributors, retailers, or flexibility providers rely on financial incentives to offer the service of discretionary demand control to the System Operator on an ongoing basis and/or in real-time.

**F – Introduce a new integrated ancillary service:** This option is related to option E in as much as there has to be an additional 'source' of energy to provide this service. WEL queries whether something in the current Code means that the source of this additional ancillary service / energy is not already available to the System Operator. A new ancillary service is not a net addition to available resources to meet demand if it is being diverted from the current energy or ancillary services markets.

We note variations on this option are not preferred by MDAG in their Library of Options (eg capacity mechanisms, strategic reserve, warming contracts).

**G – Selectively increase existing ancillary service cover:** Similar to option F, WEL suggests this is 'borrowing from Peter to pay Paul'. The options are trying to address a shortage of energy. Supplying ancillary services diverts the resource from the energy market into ancillary service provision.

#### **Another option**

The Authority's focus is to improve the ability or likelihood that thermal commitment decisions will be made when there is a potential energy shortfall.

WEL supports more analysis of the role of hydro generators in managing their stored fuel in a way that complements low-cost intermittent wind and solar generation. The current focus is on existing thermal generation capacity providing 'backup' and the issue of a long commitment time. Existing hydro generators can ramp up more quickly to meet a fall-off in wind or solar. It would be interesting to understand if generators with hydro storage and wind are already operating their portfolio like this, but this hasn't been revealed because the analysis of offers is by plant rather than by owner.

#### **Concluding remarks**

At its core the electricity system is highly integrated, and it is WEL's view that every participant should recognise electricity as a public good by offering generation sufficient to meet national demand, and not the demand of a participant's customer base driven by commercial incentives. We agree with the Authority that "*outcomes will not be optimal unless decision-makers have incentives to act in the wider public interest*".<sup>5</sup> This is difficult to regulate for<sup>6</sup> (and it's not clear any of the proposed options achieve this public interest focus) but reflects the fact that electricity is an essential service.

Further, consumers are expected to contribute to NZ's emission reductions by becoming more reliant on (renewable) electricity. WEL suggests the public and political consequences of another, or more frequent, events where electricity supply to end consumers is disrupted are significant.

While the Authority's economic efficiency focus is on consumers getting the 'level of reliability they want and are willing to pay for' WEL suggests consumers have a limited ability to trade-off 'reliability' and 'willingness to pay' as they are unlikely to choose not to use electricity – a choice not to use electricity is more likely to reflect income rather

<sup>5</sup> Paragraph 4.42 of Consultation paper

<sup>6</sup> As evidenced by the evaluation of the options showing none of the Authority's preferred options address improving incentives.





than reliability. WEL is committed to managing its network in the most efficient and effective manner for the benefit of our customers and will respond to incentives where we can, to ensure that our customer base is reliably supplied with electricity from the energy market.

Yours sincerely

David Wiles  
**Revenue and Regulatory Manager**

