



20 March 2023

Market Development Advisory Group  
C/- Electricity Authority  
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Wellington 6140

By email: [MDAG@ea.govt.nz](mailto:MDAG@ea.govt.nz)

Tēnā koutou

### **Price discovery in a renewables-based electricity system – Options Paper**

WEL Networks (WEL) appreciates the opportunity to submit on the Market Development Advisory Group’s library of options to support efficient price discovery in a renewables-based electricity system.

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, and environmentally sustainable energy.

WEL is therefore eager to see total system costs as low as can reasonably be achieved, as NZ transitions to a low carbon future. We note that although MDAG’s role is largely focused on wholesale market improvements, we agree distributors have a role to play as the demand side of the electricity market becomes increasingly involved to enable an affordable transition.

Strengthening competition should be an overriding objective for any reforms. MDAG state that “Competition is a vital ingredient to successfully shift to a renewables-based system”.<sup>1</sup> The demand side can compete with the supply side to reduce prices; distributors facilitate competition within their networks between demand and distribution connected generation; and distributors can compete with transmission by optimising their utilisation of transmission infrastructure.

Please find attached Appendix 1 - WEL’s feedback on focus area C – lifting participation of demand-side flexibility (DSF).

For context, WEL has access to smart meter data for over 70% of our over 99,000 connections because of prior investments made in this area to enable Low-Voltage (LV) visibility.

We are continuing our work improving data analytics and data science to support advanced features like phase identification, dynamic ADMD calculation, GIS data validation, broken neutral detection using a combined voltage and impedance-based method, etc. However, for the remaining 30% of connections, WEL has limited or no data beyond monthly aggregated volume data. Access to the remaining 30% would strengthen our data set and allow for more informed investment decision making and better outcomes for our community.

As we submitted on the Authority’s ‘Driving efficient solutions to promote consumer interest through winter 2023’ consultation, “WEL has the ability to manage load to ensure efficient distribution network operation. We can choose

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<sup>1</sup> Para 3.52 <https://www.ea.govt.nz/assets/dms-assets/31/MDAG-options-paper-final-2.pdf>





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”.

Should you require clarification on any part of this submission please do not hesitate to contact me.

Ngā mihi nui

David Wiles

**Revenue and Regulatory Manager**



## Appendix 1 – WEL Network’s response to ‘Focus area C’ options

### Focus area C: Lifting participation of demand-side flexibility (DSF)

#### *Overcoming the muting of flexibility price signal*

##### *C2 – put in place a sunset clause to ban profiling if smart meter is installed*

WEL is focused on implementing cost-reflective distribution prices in line with the Authority’s Distribution Pricing Practice Note v 2.2. In our view, a ban on profiling if a smart meter is installed could increase the likelihood that distributors cost-reflective pricing is seen (and can therefore be responded to) by the end consumer.

##### *C3 – require retailers to offer TOU tariffs*

WEL notes that setting retail tariffs is part of the competitive retail market. However, it will become increasingly important that end consumers (or their agent) understand the impact of network constraints and/or congestion on distributor costs (as indicated by distributor prices) and have the opportunity to adjust their consumption patterns to reduce their overall electricity costs. A customer cannot respond to a signal (via spot or distribution) which they do not see.

##### *C5 – provide significant funding for pilots / trials to kick start dynamic tariff use*

‘Learning-by-doing’ seems to be a low-regret approach. WEL is interested in remaining informed of any pilot or trial opportunities as we could be ideally placed to participate. Especially as we are already collecting 5-minute meter data and therefore have strong baseline consumption data and can monitor the impact of new dynamic tariffs in ‘real-time’.

##### *C8 – Future Security and Reliability – improve DSF visibility and remove Code barriers*

We note that MDAG is relying on the FSR project to improve DSF visibility and remove Code barriers. WEL supports MDAG’s option A2 – strengthening the governance of the Authority / System Operator joint venture Future Security and Reliability project. Option A2 recommendations include: introducing guiding principles into the FSR terms of reference, widening in the engagement process, and establishing an external reference group to help and “examine issues where Transpower (or the Authority) may be perceived as having potential conflicts of interest – such as the best division of responsibility between national and ‘local’ system operation, or the merits of an independent system operator model<sup>2</sup>”

As a result, WEL expects to be more informed and engaged in the process of updating the Code to clarify obligations and operational requirements of energy resources connected to distribution networks as well as the interaction with System Operator requirements.

##### *C11 – distribution pricing reflects network needs so wholesale market participants can optimise wholesale and network value streams*

WEL agrees with MDAG’s description of the issues and notes:

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<sup>2</sup> Para 2.13(c) <https://www.ea.govt.nz/assets/dms-assets/31/MDAG-Library-of-options-FINAL-1.pdf>





- static controlled versus uncontrolled tariffs have enabled distributors to alter demand in response to network congestion issues in the real/near time, without any intervention involvement of retailers
- high spot prices in the wholesale market cannot be assumed to correlate with distribution network congestion periods
- there is a significant amount of work required to implement a 'value stack' of products to pay for demand flexibility. It could be assumed the wholesale market is providing appropriate signals, although more work is required on ancillary services. The value of flexibility offered to address distribution network congestion and integration with the energy market (to avoid double-dipping) is work in progress. WEL suggests this should be progressed using an industry working group approach.

*C12 – investigate extending Locational Marginal Pricing into distribution networks*

The complexity of this option should not be underestimated. WEL believes efforts within distribution networks to manage and price network congestion, and congestion at the interface with the transmission grid, should be allowed to develop first. The success, or otherwise, of these efforts should be used to determine whether LMP is a practical solution at a later date.

