

Ref: 24/027  
E 5/14



1 October 2024



Electricity Authority  
Te Mana Hiko

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

Tēnā koutou

## **SUBMISSION ON CODE REVIEW PROGRAMME NUMBER 6: CONSULTATION PAPER**

Unison Networks Limited (**Unison**) is an electricity distribution business operating in Hawke's Bay, Taupō and Rotorua. Centralines Limited (**Centralines**) is a distributor operating in Central Hawke's Bay.

The purpose of this submission is to support the Electricity Networks Aotearoa's submission and highlight key issues raised by the proposed amendments and potential impacts on the current and future power system. We **support** the Authority's intent to achieve workable regulation but do not consider the proposals reflect adequate analysis of the impacts.

### **Summary**

There is insufficient information and consideration in the consultation document about:

- the compatibility of existing uses of hot water load control with the proposals; and
- system security will be undermined without robust safeguards on acceptable load management protocols.

Subsequently, the proposals are highly problematic and do not meet the Authority's objectives. We encourage the Authority to work with the industry further before proceeding.

It is in consumers' long-term interests that any changes to promote competition, by removing separability in the Code and Default Distributor Agreement (**DDA**) retain a robust safeguard for the wider system and distributors to promote system security and network reliability aligned with minimum investment cost.

### **Not all existing uses for hot water load control are compatible with removing separability**

Unison supports measures to make hot water load available for more purposes and value streams. We appreciate this can enhance whole of system economic value for consumers without compromising system security. We acknowledge that the objectives of the proposed changes are intended to clarify that this is possible, by allowing multiple parties to control with priorities being determined by Schedule 8.1.

However, we are concerned that the proposals **undermine system security** by removing an 'emergency' lever distributors and the System Operator relies on. Distributors have invested in ripple control systems over decades to provide a load management response. This reduces investment need by safeguarding the system from the consequences of overload/instability, and short network 'peaks'.

The Authority's view to date expressed both through the DDA drafting, and recent compliance memorandums, has been that where multiple parties have secured the right to control load, this must be separable. This requires, at the very least, the parties to agree when, one or other party may control load. The Authority does identify the inconsistency between cl 5.3 and Sch 8.

The proposed change now explicitly states that load controlled by one party may also be controlled by another party. In making this change, the Authority is assuming that the characteristics of the flexibility service each party offers are consistent, and not competing or mutually exclusive. No analysis is provided to demonstrate this. When the range of uses distributors have for hot water are considered, it is evident that this in some instances is not correct. In particular, a number of distributors make hot water load available for Instantaneous Reserves (**IR**) when they are not controlling for network purposes (transmission or distribution peak management). The requirement of the Reserves Market is that all load offered as IR, must be delivered when required – this means it is not possible for any party to control the load during periods it has been offered for IR. The proposed changes appear to overlook this use of hot water load control by distributors.

### **Load management protocols must safeguard system security and network reliability**

The second objective of the proposal is that parties agree to load management protocols and that these are on equivalent terms for all parties seeking to control load. We acknowledge that equivalent terms are a good outcome to promote competition, given the issues highlighted above regarding the importance of hot water load control to system security through reserves. However, there is a risk that relying on the negotiation of bilateral arrangements does not ensure this is retained, or worse, undermines the availability or reliability of this resource. For example, if the parties are unable to agree a protocol where there are defined periods or circumstances where hot water is made available as reserves, then the distributor would no longer be able to offer this resource as IR as it cannot guarantee it could deliver the load control response required for participation in the IR market. The proposal states that in this case this would be resolved by Schedule 8 however the drafting does not provide that clarity. Both parties would need to be satisfied that wishing to have access to control (distributor for IR, and trader for its purposes) are undertaking 'Market participation' under Schedule 8, and therefore have equal priority. That scenario is clearly unworkable where hot water load control is required exclusively for reserves in accordance with the IR Market requirements.

We further note that Schedule 8 does not explicitly provide clarity for recently introduced Code Obligations requiring distributors to offer in and provide hot water load control in relation to forecast generation shortages. The implication is that under the proposed changes distributors must also negotiate the coordination of fulfilling this obligation as part of any load management protocol. This is inefficient, but also potentially undermines distributors' ability to either offer or provide this critical resource for these system events.

### **System Emergency Events must be a priority in Schedule 8**

The current proposals do not include network System Emergency Events (a term defined in the DDA), in the priority ranking in Schedule 8. The consequence of this is that distributors may no longer have access to hot water, other existing, or new controllable loads for the purpose of management Network System Emergencies, increasing the risk of network damage and disruption of supply to consumers.

Although the Authority states the intended purpose is to increase competition for flexibility offerings for consumers, in practice this will still be limited as only one trader can provide these to a consumer at any time due to the exclusivity of the trader's relationship with an ICP.

### **Integrate future considerations to minimise harm**

We suggest that before proceeding with piecemeal changes that introduce risk and potential for adverse unintended consequences and outcomes for consumers, the Authority includes this as part of a joined-up program looking at future system operation and development of flexibility markets, in particular considering:

- flexibility services specifications and compatibility;
- flexibility value stacking and the (market) mechanisms needed to enable realisation of whole of system value for consumers while maintaining security including both Grid, and distribution network security;
- flexibility coordination; and
- unbundling of retail services to enable greater competition for flexibility offerings at the ICP level.

In the event the Authority is compelled to proceed with amendments in advance of the above recommended work, clarification of dual access of controllable load is required to ensure the changes do not undermine system security. Unison requests that, at a minimum, the Authority:

- includes network System Emergency Events in the definition of Grid Emergency in Schedule 8 to ensure distributors can access load control to manage network system emergency events;
- includes code obligations on distributors to bid and offer controllable load in response to System Operator instructions in the definition of Grid Emergency in Schedule 8;
- excludes load offered in the reserves market from 'controllable load' for the purpose of clause 5 and Schedule 8 and load management protocols; and
- includes load management protocols as part of the DDA to provide visibility for all traders.

### **Hot water load control is currently used well and often for distribution purposes**

Unison controls hot water approximately 90 days a year, predominately for the purpose of relieving network constraints (which reduces the investment cost to consumers to upgrade forecast constraints). It has an approximate off load of 20MW and on load (restoring load) of 40MW which is sequenced in 15-20 minute intervals to protect the network and avoid creating a new 'peak'.

If the Authority needs more technical input to consider the impacts of the proposals adequately, please do not hesitate to contact us.

Ngā mihi,



Jason Larkin

**GENERAL MANAGER COMMERCIAL AND REGULATORY**