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Common load management protocol

EDB + retailer briefing webinar

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Admin

- We are recording this webinar and intend to make it publicly available after the event.
- Competition law compliance – ENA staff will eject participants if the Chair deems that conversations are entering into sensitive areas.
    - By attending this webinar, **Traders agree to not discuss competitively sensitive information** (including non-public information about *Pricing*, *Cost*, current or future *competitive strategies*, or specific information about *individual current or target Customers*, or to **discuss or reach any arrangement, or understanding, in relation to products, services or markets in which they compete in**.
- **Purpose of today**: A high-level briefing on the FNF's Load Management Protocol Project, intended next steps for developing a LMP that is acceptable to market participants, and Q&A.
- There will be further opportunities for detailed discussion and to provide written feedback on the drafting of the proposed LMP itself.
- Add any questions to the chat.

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Introduction

- **Technology and DER provides consumers with new opportunities** for meeting their energy needs, decarbonising their journeys, and managing their costs. **These changes are happening at speed**, and the sector must respond to consumer requirements and market direction.
- **Enabling these benefits will involve existing and new parties** providing technology, communications, networks, products and services.
- There is also **growing interest, activity, trials and plans for hot water control** by new entrants, using means other than ripple control.
    - **Ripple control of hot water has been integral to Aotearoa's electricity sector** for a range of purposes including system emergencies, interruptible reserves, network security and management.
- Given these developments, **we want to avoid any adverse or unintended impacts** to system security, network assets, safety and customer experience.

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Risks and benefits

Risks – of uncoordinated shared control

- Control followed by restoration of hot water loads **can result in localised or more widespread network peaks**. If not managed and coordinated, this can give rise to system security risks, or breaches of the System Operator required MW/min ramp rates during restoration.
- Where more than one party is controlling residential hot water cylinders there is **the risk that consumers receive a poor experience (no hot water)** if load control is not coordinated between the parties.

Benefits – of shared coordinated control

- Coordinated load management **enables more efficient network utilisation and mitigates uncontrolled peaks** that could impact system security.
- **Creates opportunities for Traders to unlock additional value streams** for consumers using DER assets.
- **Allows consumers to choose their preferred level of service**, and engagement with their hot water (and other controllable load/DER) usage.

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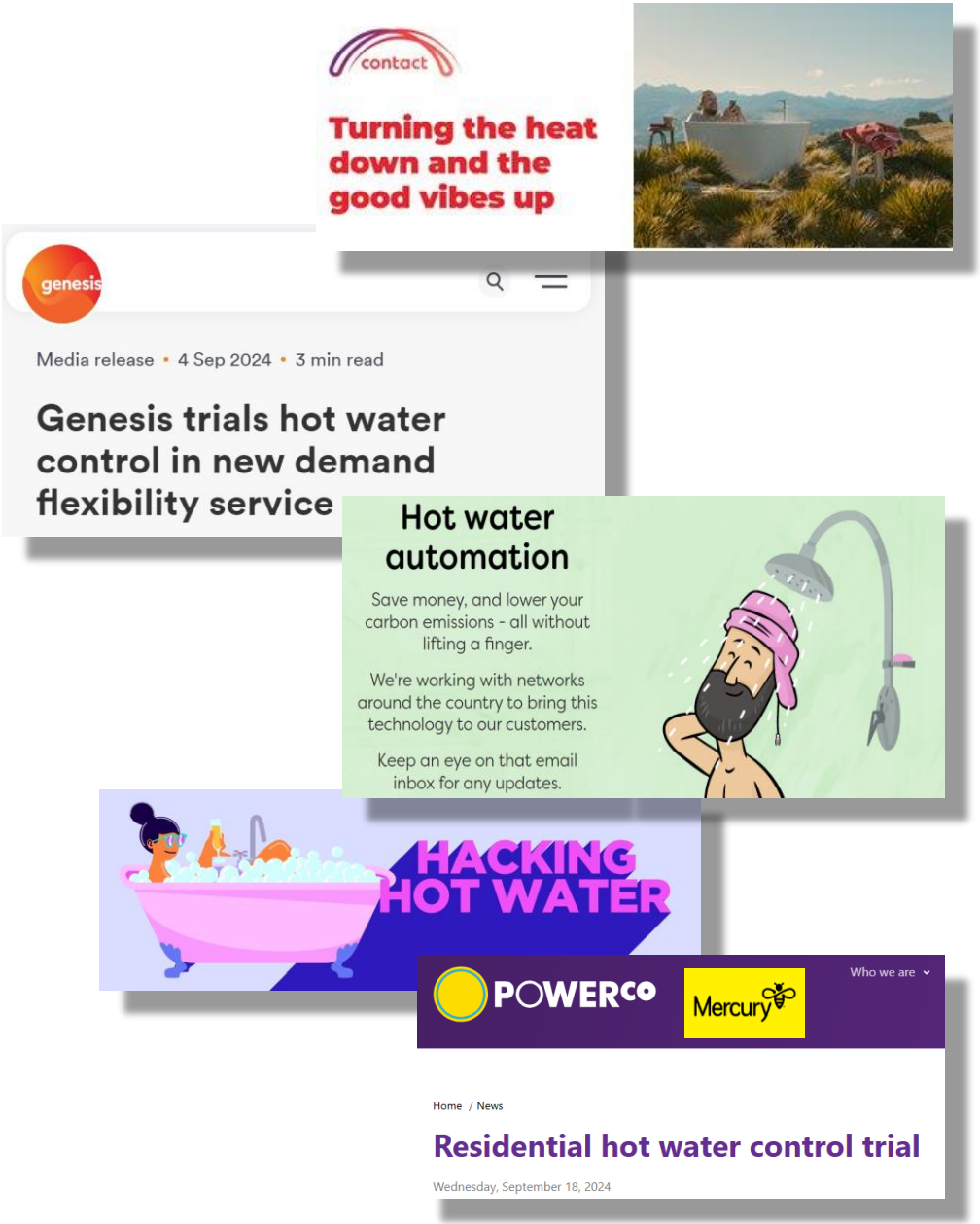
LMP project initiation

- EDBs across Aotearoa have been approached by Traders wishing to trial dual control over consumers' hot water load on their networks.
  - This is accomplished by sending either preset scheduled or dynamic signals to capable meters.
  - These Traders have signalled an intention to **move from trials to roll-out in time for winter 2025**.
- Big 6 EDBs believed that it is **sensible to develop a coordinated LMP that covers all controllable load** via the ENA's 'Future Networks Forum' to allow it to be adopted by all EDBs and Traders.
- While each EDB + Trader pairing are free to establish their own LMP, **we see benefits in all parties agreeing a common LMP** – with some scope for network-specific technical and operational requirements.



LMP project current state

Project Goal: To develop a common framework for managing controllable load during System Emergency Events that Distributors and Traders can adopt, providing standard requirements, while accommodating network-specific needs to allow for implementation by Winter 2025.

- The LMP Project Team have met weekly, starting in September 2024.
- Have had multiple rounds of internal reviews by the project team.
- Have had two rounds of external legal review.

LMP scope

- Cl. 5.6(b) of DDA requires a protocol, unless the Distributor agrees otherwise.
- Applies **only to Traders controlling load or DER, of any type**, on Distributor networks (as per cl. 5.6(b) of DDA).
- **Applies only in, or in avoidance of, a System Emergency Event**, which includes both Grid and Network emergencies.
- **Out of scope of LMP**: load control activities outside of the purpose of clause 5.6. This includes:
    - Clause 4.4, which defines the circumstances (incl. as permitted by Service Standards, maintenance of Network equipment) in which EDBs may reduce or interrupt supply to an ICP (load shedding).
- Code review programme #6 requires that each LMP contains the same, or similar, terms as other protocols agreed between the Distributor and other Traders.

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What's in the LMP?

Standardised requirements for all participating EDBs and Traders (e.g. **Core** Terms).

- Emergency response requirements
- Safe operation procedures (to minimise the impact, or reduce the likelihood, of a System Emergency Event)
- Data and information requirements
- Governance
- Distributor Emergency Notice (DEN)

Network specific requirements (e.g. **Operational** Terms).

- Operating Limits template
- Data template
- Dynamic and Schedule Forecast templates

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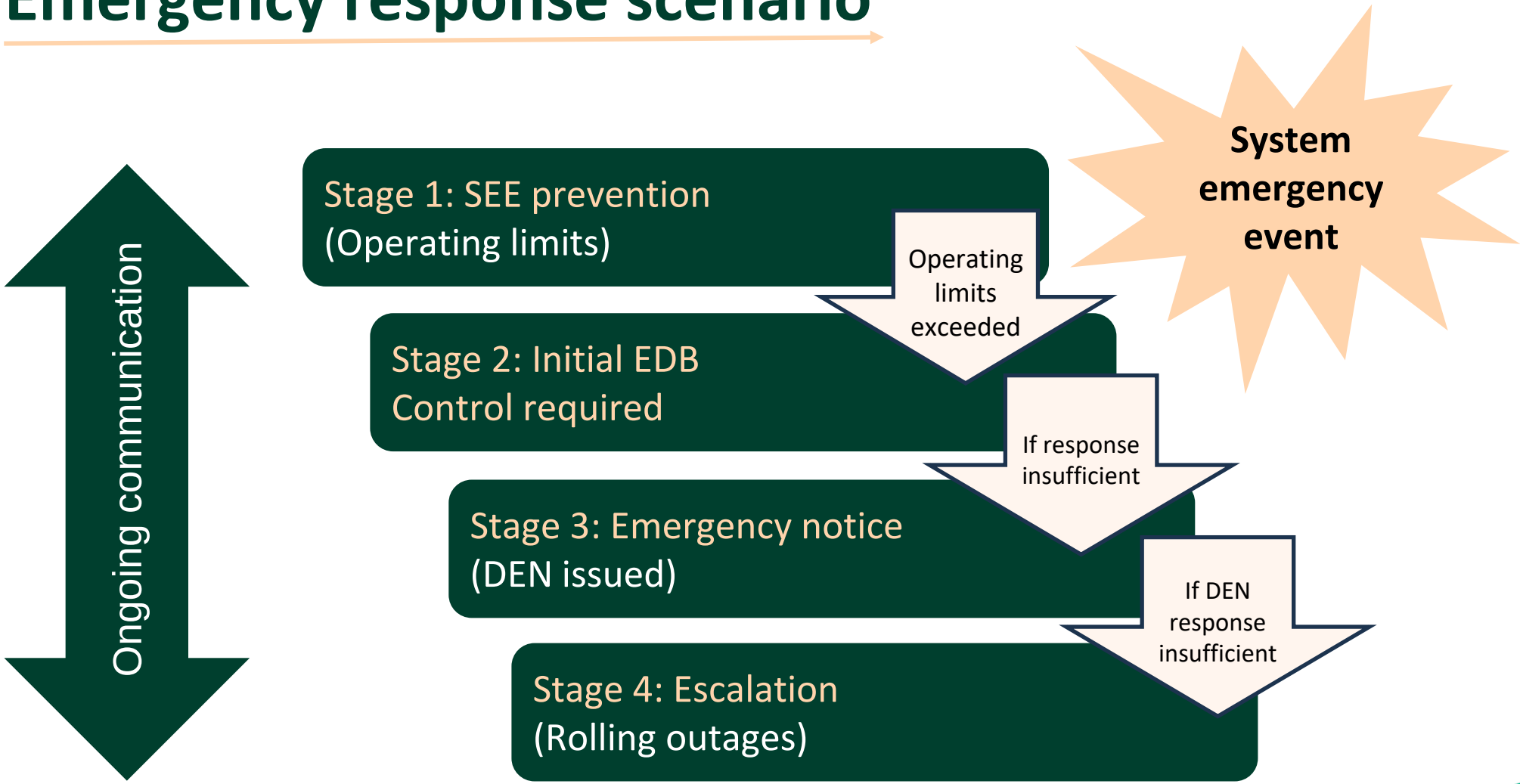
Emergency response scenario



LMP project next steps

- **IMPORTANT**: The LMP is not “set-in-stone” and further refinement and adjustment is expected. We are aware that the first version won’t be “perfect” – but we do expect, at a minimum, that it provides clarity on roles and responsibilities for the sector to collaboratively respond and control load to either avert or mitigate a System Emergency Event.
- We are sharing the draft LMP **today** with ENA members to review and provide feedback.
    - Upcoming EDB workshop webinar scheduled for 17 February.
- We'd like to work through EDB feedback, and present a draft that incorporates our members' views, prior to engaging Traders with the proposed drafting.
    - More details to come, but upcoming workshop webinar is tentatively scheduled for 26 February.

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Learnings

- We are evolving as a sector, and learning as we go.
- To fully enable flexibility on distribution networks, the Authority needs to consider bringing aggregators, and other unregulated flexibility providers, into the Code.
- The Authority should consider the future state and needs of the sector. The sector needs clarity about the DSO role and resultant responsibilities, and how its functions will be interlinked with System Operator, distributors, flexibility providers, aggregators and Traders.
    - While the LMP is emergency specific, it opens the door to considering many of the issues facing evolving DSO models (e.g. tech/system integrations and data sharing requirements).
- The Authority should consider a full review over Parts 8 & 9 to better understand the impact of, and obligations for, multiple parties controlling load in both emergency and non-emergency scenarios.

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Initial feedback sought

- Focus of LMP project team has been on Residential consumers – what do attendees view as the main differences between Residential requirements versus Industrial/Commercial? What's missing from the LMP with this context?
- What are the realistic expectations Distributors can have regarding a Traders operational response after receiving a Distributor Emergency Notice, given current technology stack/limitations?
- The current LMP is focussed on Trader-only control, as it derives from the DDA, but there are other potential flexibility providers (such as a non-retailer operator of DER). How should the risks arising from these other controllers of DER be addressed in future iterations?
- What should be improved about our approach to developing a common LMP?

Please send through any email feedback: richard@electricity.org.nz

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Q&A

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