

# Network Connections Project

Allen Davison  
Retail & Network Policy

## THE NETWORK CONNECTIONS PROJECT – OUTCOMES & OBJECTIVES

The project outcome is:

- New Zealand’s distributors provide efficient, standardised processes for load and generation to connect and operate efficiently.

The project objectives are:

- To increase the efficiency of network connections, i.e. the process of connecting to networks is easier, faster, more consistent and more equitable.
- To improve the efficiency of networks by using fit for purpose standards.

## THE STAGES OF THE NETWORK CONNECTIONS PROJECT

The project has two stages:

- **Stage One** – Address the non-price barriers to the prioritisation and connection of large capacity DG and load
  - Policy work April - November 2024
  - We seek your input into a July consultation paper and the review of submissions
- **Stage Two** – Review Part 6 *Connection of distributed generation*.
  - Policy work to commence late 2024

Staging allows the Authority to:

- focus on the most important issues first
- use our resources to best effect

We are seeking your input on the proposed sequencing of work

BACKGROUND



## THE PROJECT WILL RESPOND TO THE AUTHORITY VISION AND STRATEGIC OBJECTIVES...

### **Our vision**

Our vision is for consumers to have choices in accessing the energy they need now, and in the future, to ensure they and New Zealand prosper.

### **Our strategic objectives**

We want to achieve a sustainable, accessible, secure and resilient energy system to improve long-term outcomes for consumers and New Zealand.

- **Sustainable** – Consumers can access a mix of renewable generation, storage and technologies. They can control their energy use, reducing costs and improving our environment.
- **Accessible** – Consumers have simple and stable options to access energy. They can choose their energy supplier(s) from a competitive and efficient market.
- **Secure and resilient** – Consumers have trust and confidence in their energy supply. It's reliable, secure and responsive to shocks.

## ...AND THE AUTHORITY'S PRIORITIES

### Our priorities

The low-emissions transition of the electricity system should be as efficient as possible while maintaining energy security, system adaptability, and affordability for all New Zealanders.

Our priorities are:

- **System security and resilience** – Making sure market rules enable innovation and investment in generation while ensuring a reliable electricity system.
- **Enabling investment and innovation** – Promoting investment and supporting the uptake of new technologies for more dynamic management of the power system.
- **Consumer protection** – Improving protections for consumers and small businesses, improving how we monitor the retail market and the conduct of retailers.
- **Monitoring, compliance, education and enforcement** – Promoting a stable regulatory environment by strengthening our compliance activities and improving data disclosure to support decision making.
- **Building trust and confidence** – Improving our capability and capacity to deliver a stable investment framework and regulatory environment to enable effective decision making that benefits consumers.

## ...AND THE GOVERNMENT'S PRIORITIES

The government has set out its expectations for the electricity sector in two documents

### *Electrify NZ*

- Increase renewable electricity supply and connections
- [https://assets.nationbuilder.com/nationalparty/pages/17865/attachments/original/1684306518/Electrify\\_NZ.pdf?1684306518](https://assets.nationbuilder.com/nationalparty/pages/17865/attachments/original/1684306518/Electrify_NZ.pdf?1684306518)

### *Supercharging EV Infrastructure*

- Deliver 10,000 public EV chargers by 2030
- Increasing access to LV network capacity information
- [https://assets.nationbuilder.com/nationalparty/pages/18364/attachments/original/1693957243/Supercharging\\_EV\\_Infrastructure.pdf?1693957243](https://assets.nationbuilder.com/nationalparty/pages/18364/attachments/original/1693957243/Supercharging_EV_Infrastructure.pdf?1693957243)

## BACKGROUND TO THE NETWORK CONNECTIONS PROJECT

- The project is part of the Authority's programme *Updating regulatory settings for distribution networks*
- The programme has released a series of papers and reports (see <https://www.ea.govt.nz/projects/all/updating-regulatory-settings-for-distribution-networks>)
- In addition, the Authority has engaged with a range of stakeholders to gather sector information, and continues to do so
- The Authority released its indicative work programme in October 2023 ([https://www.ea.govt.nz/documents/3929/Work\\_programme\\_Oct\\_231406907.13.pdf](https://www.ea.govt.nz/documents/3929/Work_programme_Oct_231406907.13.pdf))
- The Retail & Network Policy team (part of Market Policy) is delivering the distribution work programme
- The Network Connections Project is the part that focuses on network connections



## OTHER WORK IN THE UPDATING REGULATORY SETTINGS FOR DISTRIBUTION NETWORKS PROGRAMME

### **Access to data and information**

- Data is a core focus across the Authority, not just for the distribution sector
- Retail & Network Policy is considering:
  - increasing the granularity of DG information on the registry
  - the case to include DER information in the registry, and registry (or other) improvements
  - Increasing access to MEP information

### **Market settings**

- Provide guidelines for conditional Code exemptions
- Provide guidance on imposing 'arm's length' rules
- Consult on bringing flexibility providers into the Code

NON-PRICE BARRIERS TO  
CONNECTING



## ACCESS SEEKER CHALLENGES

- There is a wide variation in distributor application processes
- There is a lack of visibility of where an application sits in the application process, other applications on the network, and of the application process itself.
- There are no Code mechanisms for multi-party applications and limited ability to address competing applications.
- Inflexibility and poor engagement by some EDBs.
- Slow EDB approval times, and long waits for electricity infrastructure to be installed.
- Limited visibility of network capacity/constraints and where best to invest.
- Limited ability for non-approved contractors to undertake infrastructure works on EDB network (e.g. installing poles, wires, switchgear and transformers)

## DISTRIBUTOR CHALLENGES

- A significant increase in the number of applications to connect and competition for capacity
- Larger and more complex DG applications
- The transition to electric transport, including supporting the installation of EV charging (both public and private)
- Responding to industrial customers seeking to decarbonise, which may require a significant capacity upgrade
- Making the efficient use of flexibility, in a context of increasing electricity demand and capacity constraints
- Managing power quality in an increasingly flexible environment, with growth in multi-directional electricity flows and inverter-based resources
- Managing supply constraints (e.g. power system consultants, product supply-chain challenges)

## SUMMARY OF STAGE ONE PROPOSAL

	DG	Load
Large connections*	CMF** variation	CMF variation
Medium connections*	Part 2 amended or alternative (e.g. CMF light)	Part 2 amended or alternative (e.g. CMF light)
Small connections ( $\leq 10\text{kW}$ )***	Proposed for Stage Two (currently Parts 1 and 1A)	Proposed for Stage Two (currently not in Code)

\* Size thresholds TBD

\*\* Tranpower's Connections Management Framework (CMF)

\*\*\* The Authority has previously consulted on whether this threshold should be increased

## WHY THE AUTHORITY HAS PROPOSED A CMF- STYLE APPROACH FOR LARGE CONNECTIONS

- Stakeholders say the Part 2 application process and prioritisation clause (in Part 6) are not suitable for larger, more complex applications
- Stakeholders have recommended the Authority consider Transpower's CMF
- Transpower undertook a robust review process when developing the CMF, including international approaches
- The CMF would address many of the connection issues raised by stakeholders (e.g. speculative applications)
- The CMF appears to have been effective in enabling more connections
- There are benefits to aligning the connection requirements for the grid and networks
- The CMF improves visibility of the pipeline of application to connect, thereby improving investment decisions

WHY THE AUTHORITY  
HAS PROPOSED AN  
AMENDED PART 2 OR  
ALTERNATIVE (E.G.  
CMF LIGHT) FOR  
MEDIUM CAPACITY  
APPLICATIONS

- Stakeholders say the Part 2 application process and prioritisation clause (in Part 6) are currently not suitable for medium capacity applications
- Medium capacity applications are less complex than large capacity applications, so a simple, standardised application process may be best if possible (like the Part 1A process in Part 6)
- The full CMF approach may not be warranted for medium capacity applications, although some CMF elements may be appropriate

## CONTACT DETAILS

Allen Davison

Principal Analyst – Retail & Network Policy

[Allen.Davison@ea.govt.nz](mailto:Allen.Davison@ea.govt.nz)

DDI: 04 471 8625

Mob: 021 061 2316