

2 November 2023

Government and Administration Select Committee
Parliament Buildings
1 Museum Street, Wellington 6160
Via Select Committee portal

Tēnā koe,

Improving resilience and emergency management in a considered package

Powerco is a lifeline utility and critical infrastructure provider. Planning for resilience and responding to emergencies is core business. We are one of Aotearoa's largest gas and electricity distributors, supplying around 356,000 (electricity) and 113,000 (gas) urban and rural homes and businesses in the North Island. These energy networks provide essential services and will be core to Aotearoa achieving a net-zero economy in 2050.

Our summary views on the Emergency Management Bill are:

The Bill is one part of a system

- The Bill is connected to multiple related regulation and reforms. Emergency management can be improved but creating a new Act in isolation of other reform underway will not achieve the purpose of this Bill.
- There is merit in delaying this Bill in order to consider the full system and regulation for resilience and emergency management.

Coordination & streamlining for results

- Increasing interdependencies between infrastructure providers requires community level planning and response, rather than by an individual sector or provider. The Bill does not achieve this.
- Coordination, consistency and reducing duplication are key areas to look at, building on systems and processes already in place, rather than creating new obligations.

If you have any questions regarding this submission or would like to talk further on the points we have raised, please contact Irene Clarke (Irene.Clarke@Powerco.co.nz).

Nāku noa, nā,



Stuart Dickson
General Manager, Customer
POWERCO

Attachment 1 – Submission points on Emergency Management Bill

1 Overarching comments

Powerco is a lifeline utility. This means that we have a duty to maintain operations 24/7, including in the case of an emergency event to continue to bring electricity and gas to 1.1 million customers across the North Island. We have interdependencies with other service providers, which are heightened at times of emergency. An objective of coordination should underpin the Emergency Management Bill (the Bill). More information about Powerco and our networks is contained in Attachment 3.

In August 2023, Powerco made a submission to Department of Prime Minister and Cabinet (DPMC) on the critical infrastructure resilience consultation¹. While the Bill has a narrower scope than that resilience reform, there is a significant overlap. In our view there is an important opportunity to expand the scope of the Bill rather than introducing the proposed separate new law for critical infrastructure resilience with the potential for conflicts, confusion and uncertainty in infrastructure planning and emergency response. There are several regulatory regimes or work programmes that connect with emergency management and resilience, and some of those are also subject to current review including RMA national direction, electricity and gas regulation, and Energy Strategy.

More could be done to improve resilience and emergency management. We support reforms that will facilitate resilience outcomes in a targeted, proportional, and streamlined way. Progressing this Bill in isolation will not achieve this. While we support reform of the Civil Defence and Emergency Management Act in the general direction that this Bill proposes, we recommend delaying this Bill until it can be part of a broader package. Should the Bill progress, we have also provided comment on specific provisions in the following sections.

Recommendation:

1. **Put this Bill on hold, pending outcomes of critical infrastructure resilience reviews.** Then progress legislative reform for resilience and emergency management as one streamlined package.

2 Part 1 – Preliminary provisions

We support the **purpose** of the Bill, including to provide a basis for integration of national and local emergency management planning, and to provide a framework to manage risks relating to critical infrastructure in emergency management. However, it is our view that the Bill will not achieve the purpose as it mainly relies on individual critical infrastructure entity responsibilities rather than coordination at a community level. The purpose of the Bill should be stronger than to encourage coordination of emergency management, planning and related activities among the wide range of agencies and organisations involved in preventing or managing emergencies.

¹ Submission on critical infrastructure resilience relevant to this Inquiry: <https://www.powerco.co.nz/-/media/project/powerco/powerco-documents/who-we-are---pricing-and-disclosures/submissions/2023/powerco-submission--dpmc-strengthening-the-resilience-of-the-critical-infrastructure-system-8-august.pdf>

We support the broader **definition** of critical infrastructure entity and the **transitional provisions** to make current lifeline utilities into critical infrastructure entities automatically. We also support the definition of emergency as a situation requiring a significant and coordinated response.

Recommendation:

2. Amend the purpose clause 3(g) to
“**encourage provide a framework for** the co-ordination of emergency management, planning, and related activities...”
3. Review all provisions of the Bill so the strategies, plans and implementation are set up to achieve coordination.

3 Part 2 subpart 3 – Roles and responsibilities of Critical Infrastructure Entities

Clause 54 and schedule 2 requires a critical infrastructure entity to have a **business continuity plan** and for it to be reviewed every 3 years. Powerco has structured business continuity plans in place already to ensure that the business is resilient and will support on-going operation of our networks in an event. Our business continuity plan relates to a number of regulatory and operational requirements. We also have a regulated requirement to produce asset management plans address some elements of clause 12 of schedule 2. Based on the Bill, we would assume we can continue to use our existing plans to meet the clause 54(1)(b) duty and that there is no expectation for an additional plan to be prepared.

We support a requirement (**clause 55**) for critical infrastructure entities to proactively **share information** relevant to planning and monitoring emergencies with the relevant government department or emergency management committee. However, it will be necessary to define the types of information anticipated to be shared so critical infrastructure entities can prepare systems and processes to streamline this requirement. Based on experience, we strongly encourage information requests to be relevant and meaningful as resources can be very stretched during or after an emergency. To clarify expectations for both critical infrastructure entities and the specified bodies, a schedule should be included in the Bill setting out the types and forms of information that may be requested. Information sharing is important not just one-way between Critical Infrastructure Entities and departments/agencies, but also in the other direction and between Critical Infrastructure Entities.

The obligations for critical infrastructure entities in **clause 57** to establish, review and publish **planning emergency levels of service** (PELOS) will take some time to establish and we support a **two-year transition** in **clause 3** to enable this to occur. In the commencement clause it would assist to clarify that the two-year delay is for the critical infrastructure entity to publish its PELOS under clause 57(3), not to delay the process of establishing the PELOS.

Powerco has been engaged in the Wellington Region pilot of setting up a PELOS so has therefore experienced the benefits and difficulties in how the provisions may be implemented. We encourage the Select Committee to review the framework (Attachment 2) and consider the value of this if it were to be an output of clause 57.

It is noted that the additional planning, hazard definition, workshopping, coordination for PELOS will be additional effort and cost for all critical infrastructure providers. We strongly encourage streamlining with existing planning

and reporting functions to avoid unnecessary compliance costs. Streamlining with other initiatives through the DPMC critical infrastructure resilience work is also requested.

We support the principle of developing goals for electricity and gas levels of service in an emergency, and public awareness about possible absence of service in emergencies. However, it is our view that **the approach in the Bill will not achieve a useful outcome for PELOS** the following reasons:

- Every emergency is different in nature, scale, location, response needed. The Wellington pilot developed PELOS for a specific event example (major emergency following rupture of the Wellington fault). It would not be practicable to develop PELOS for every possible emergency as clause 57 is drafted. Without clarifying the nature of emergency clause 57 applies to, it will be approached differently by each critical infrastructure entity and each region.
- The published PELOS are likely to be a conservative response rather than a goal relevant to a local community. There is risk in how they will be interpreted or the expectations they may create. In the Wellington example, the critical infrastructure entities cannot commit to achieving the stated PELOS for every end-user, should that event happen tomorrow, yet it may become a compliance expectation. Caveats and assumptions likely written into PELOS to address this, will diminish any value of publishing it. Rather than individual entities publishing the equivalent of one line in Attachment 2, there would be more value in the area committee collating these and publishing in public awareness form.
- The terminology and definition of PELOs does not make it clear that this is a goal rather than a commitment in an unknown scenario. The definition refers to levels of service that will be provided rather than those LOS being an objective. The Wellington example also found that the timeframes used in defining LOS are important, which again there is considerable scope for inconsistencies between critical infrastructure providers or between regions if this is not defined.
- There is value in the process of related critical infrastructure entities coordinating in developing PELOS across integrated services. Clause 57 directs critical infrastructure entities to do this independently.
- There are some critical infrastructure entities that are regulated, and have regulated levels of service, and others that are not. For regulated organisations like Powerco, we already have performance measures for interruption duration and interruption frequency set by the Commerce Commission and reported annually to the Commission (and disclosed publicly). We are concerned about duplication or inconsistency in how performance is measured and reported.

We do not oppose the **reporting** on our obligations under **clause 58**, however note that this will be additional effort and cost for all critical infrastructure providers. We note that regulations may prescribe reporting requirements (clause 143(g)). We strongly encourage clarity in the form of reporting and streamlining this with existing reporting functions to avoid unnecessary compliance costs. Our submission to DPMC commented on the need to streamline reporting obligations².

² Submission section 4.2 and 4.6: <https://www.powerco.co.nz/-/media/project/powerco/powerco-documents/who-we-are---pricing-and-disclosures/submissions/2023/powerco-submission--dpmc-strengthening-the-resilience-of-the-critical-infrastructure-system-8-august.pdf>

Recommendation:

4. **Amend definition of PELOS and clause 57** to define that the PELOS is for a major emergency event type, that the established LOS are an objective, and that the purpose is for planning and coordination between critical infrastructure providers at a regional level (lead is EM Committee).
5. **Delete clause 57(3)** requiring each critical infrastructure entity to publish its PELOS
6. If clause 57(3) remains, amend **subclause 2(1)(b)(iii)** to
“Section 57(3) and 58 (which relate to certain duties of critical infrastructure entities)”
7. **Add to schedule 2** of the Bill setting out the scope of information that may be requested to be shared from critical infrastructure entities to specified bodies, from specified bodies to critical infrastructure entities, and between critical infrastructure entities.

4 Part 2 subpart 4 – Emergency Management Planning

Clause 54 and 55 includes duties for critical infrastructure entities to participate in development of emergency management plans and strategies, to provide technical advice or share information with the Director or Emergency Management Committee. A key link between the responsibilities of critical infrastructure providers and Emergency Management Committees is missing in the Bill. The procedure for making new or revised **emergency management committee plans** in **clause 76** should include engagement with critical infrastructure providers as they are not a representative of an impacted community.

Recommendation:

8. **Amend clause 76(1)** to
Before approving a proposed new or revised emergency management committee plan, an Emergency Management Committee must—
 - (a) engage in the development of the new or revised plan with—
 - (i) representatives of communities that are likely to be disproportionately impacted by emergency events in the Committee’s area; and
 - (ii) representatives of iwi and Māori within the Committee’s area; and
 - (iii) critical infrastructure providers in the Committee’s area; and**

5 Part 4 subpart 2 Regulations

The purposes listed for regulations to be made relating to **critical infrastructure entities** in **clause 145** are repeated in **clause 143** (f) and (g). This duplication can be removed. Regulations to prescribe reporting requirements for critical infrastructure entities and to prescribe procedures or details relating to PELOS should be developed with critical infrastructure providers and with the intent of streamlining and avoiding duplication. Despite this ability to make regulations, we submit that the Bill itself needs to be clearer on the purpose and scope of PELOS as set out in section 3 above.

Recommendation:

9. **Delete clause 145** (duplication)

Attachment 2 – Wellington region PELOS framework 2023³

4

Table 1: Wellington region –infrastructure planning emergency levels of serviceⁱ - Operationalised framework for a major regional hazard event.

Sector	The first week: self-sufficient for seven days	For the rest of the first month: basic functionality	For the second and third months: moderate functionality	Beyond: full functionality
Water	Minimum of 3 litres per person per day ⁱⁱ , but recommended 20 litres per person per day, as stored at homes by individuals	15-20 litres of water per person per day ⁱⁱⁱ within 1km of the house	80% of supply of potable water to 80% of customers ^{iv}	Full functionality towards a 'new normal'.
Roading ^v	Limited road use – only priority 1 routes ^{vi} or immediate alternates are open to emergency vehicles. Walking and cycling access to local medical centres and to Community Emergency Hubs is available.	Priority 1 routes are open and managed ^{vii} , priority 2 roads or immediate alternates are open to emergency vehicles and, where resources allow, some public transport services run, where roads are open and available. Road access is available between dwellings and local medical centres and Community Emergency Hubs and between water stations and distribution points to enable water ^{viii} to be distributed.	Priority 1 and 2 roads are open and managed, priority 3 and 4 roads or alternates are open for emergency vehicles only and, where resources allow, some public transport services run.	Full functionality towards a 'new normal'.
Food and LPG (for cooking)	As stored in individual homes, provided by Fast Moving Consumer Goods (FMCG) suppliers who are still operating, or emergency food supply brought in with priority to vulnerable people.	Access to a supplied supermarket or distribution point ^{ix} within 2km ^x of the dwelling following an event for urban areas.	Access to a supplied supermarket within 2km of the dwelling in urban areas	Full functionality towards a 'new normal'.

ⁱ These standards do not apply in 'red zones' or cordoned areas where people are assumed not to be sheltering.

ⁱⁱ Taken from Sphere Handbook, section 2.1, page 107: <https://spherestandards.org/handbook/editions/>

ⁱⁱⁱ Taken from World Health Organisation: https://www.who.int/water_sanitation_health/emergencies/qa/emergencies_qa5/en/ (downloaded 3 May 2019) (20 litres), from Sphere Handbook, section 2.1, page 107: <https://spherestandards.org/handbook/editions/> (15 litres) and from Wellington Water's '80-30-80' strategy (20 litres).

^{iv} Taken from Wellington Water's '80-30-80' strategy

^v Following an event, assessments of damage may change priorities.

^{vi} See Wellington Region Earthquake Plan (WREP) of December 2018 for information on priority routes. Any nominated routes will be adapted in a response by the Controller, based on the observed damage to the roading network.

^{vii} Restrictions may be in place for non-emergency vehicles (to manage safety issues).

^{viii} For Community Infrastructure Resilience (CIR) details, see <https://www.wellingtonwater.co.nz/your-water/emergency-water/above-ground-emergency-water-network/how-the-emergency-water-network-will-operate/>

^{ix} Distribution points are listed in the Wellington Region Earthquake Plan (WREP) of December 2018 from WREMO. See Appendix G1.

^x The Sphere Handbook (item 6.3) has a target of less than 5km. <https://spherestandards.org/handbook/editions/>

³ Extract from: https://www.dropbox.com/scl/fi/lf6i5iws3acowb8i3zna6/BNZSEE1628_Mowll-et-al_Wellington-Infrastructure-Emergency-Planning.pdf?rlkey=fde51pvexv98vnx72b5smkon5&dl=0

Sector	The first week: self-sufficient for seven days	For the rest of the first month: basic functionality	For the second and third months: moderate functionality	Beyond: full functionality
Fuel^{xi}	Diesel only: where access, power and resources allow, strict rationing ^{xii} to priority list of users (e.g., emergency services) using fuel storage in place at time of emergency.	Diesel only: where access, power and resources allow ^{xiii} , strict rationing ^{xiv} to priority list of users (e.g., emergency services) using fuel storage in place at time of emergency and any immediate re-supply	Ability to transfer fuel from berth (at port) to tank farm(s). Priority, or selected, service stations are operating.	Full functionality towards a 'new normal'.
Power (electricity)	Households ^{xv} use from local sources ^{xvi} and response priority sites ^{xvii} (including hospitals and key facilities) and medical centres, pharmacies and supermarkets use own pre-arranged power supply for essential functions.	Households use from local sources and response priority sites (including hospitals, medical centres, pharmacies, and supermarkets) use own pre-arranged power supply for essential functions. Ability to charge telecommunications devices (such as phones and tablets) at a location within a local area such as at a local Community Emergency Hub.	Power to response priority sites and key utility sites ^{xviii} . Ability to charge phones and tablets at a location within a local area such as a local Community Emergency Hub.	Full functionality towards a 'new normal', including street lighting ^{xix} .
Telecommunications	EXAMPLE: Access to mobile data (via wireless) and untethered broadband at defined locations such as at Community Emergency Hubs ^{xxi} . (111 dialling only available from these locations.) Satphone (and Starlink) usage where phones are charged.	EXAMPLE: Mobile phone service in some locations, otherwise access only with untethered devices at Community Emergency Hubs. EXAMPLE: Supermarkets, service stations, banks and medical centres have internet access, where they have arranged for connectivity.	EXAMPLE: Access mobile data for almost normal data capability, with capacity constraints (congestion) at some times of day. Some landlines may be operable if the end-user has power. EXAMPLE: Priority users have full service.	Full functionality towards a 'new normal'.
Broadcast	FM radio – Priority Stations ^{xxii} : fully operational ^{xxiii}	Fully functional for priority radio stations, no TV	Fully functional for priority radio stations, no TV	Full functionality towards a 'new normal'.

^{xi} The fuel line is relevant as long as diesel is used for powering generators, earthmoving machinery and delivery trucks.

^{xii} For security issues of fuel supply during rationing, see section 3.4.3 of the National Fuel Plan: <https://www.civildefence.govt.nz/assets/Uploads/publications/National-fuel-plan/National-Fuel-Plan-Final-March2020.pdf>

^{xiii} This includes resources to inspect and re-open service stations, and the resources required to operate them.

^{xiv} For security issues of fuel supply during rationing, see section 3.4.3 of the National Fuel Plan: <https://www.civildefence.govt.nz/assets/Uploads/publications/National-fuel-plan/National-Fuel-Plan-Final-March2020.pdf>

^{xv} Including medically dependant people located at home.

^{xvi} Example, household solar panels, or generators.

^{xvii} For a list of priority sites, see WeLG/WREMO/WELA 'lifelines response priorities: 8 February 2019'

^{xviii} As included in the WeLG/WREMO/WELA Key Utility Sites document of 2016.

^{xix} Power supply (from the grid) requires generation and national transmission assets to be operational.

^{xx} Power re-supply depends on the availability of materials and equipment, internationally (for example, the order period for transformers in 2021 was 9 months), for which the appropriate stakeholders (lines companies) should consider their arrangements.

^{xxi} assuming the CEH's system has capacity

^{xxii} See <https://getthru.govt.nz/radio-stations-to-listen-to> for a list of the priority radio stations.

^{xxiii} See <http://transition.fcc.gov/pshs/docs/csric/WG2B-MSRC-Best-Practice-Update-Final-Report.pdf> section titled "Vulnerability Assessment Guidelines".

Sector	The first week: self-sufficient for seven days	For the rest of the first month: basic functionality	For the second and third months: moderate functionality	Beyond: full functionality
Sanitation	Self-sufficiency by the community for sanitation needs (long-drops, two buckets or similar (no council service)).	Service, according to the 'two buckets' plan ^{xxiv} .	Service, according to the 'two buckets' plan.	Full functionality towards a 'new normal'.
Solid waste	Zero level of service. Store waste at homes.	Activate debris disposal plan. Waste collections commence (even if from transfer stations or local skips/local locations).	Street collections commence.	Full functionality towards a 'new normal'.
Natural gas	Zero level of service	Critical customers re-supplied by isotainer and necessary equipment, where customer has made own arrangements.	Main pipelines re-commissioned ^{xxv,xxvi} . Some critical customers are re-connected. Some suburbs have pipelines re-commissioned.	All customers re-connected ^{xxvii} .
Port	Freight: zero level of service for days 0 to 7.	Freight: 450 TEUs ('Twenty foot Equivalent Units, or 20ft containers), or equivalent, per day ^{xxviii} . Fuel: ability to berth a ship at the fuel terminal by day 8.	Freight: 450 TEUs, or equivalent, per day. Other port functions may continue, if the port is less damaged and the transport and power networks are available.	Full functionality towards a 'new normal'.
Airport	The Airport should be able to operate a 1,200m long runway within 2 days of a major event ^{xxix} .			If specialist equipment and material is available, a length of runway sufficient to land and take off civilian jet aircraft will be available ^{xxx} .
Shelter	Shelter within own property or with immediate support network or at mass temporary accommodation sites. ^{xxxi}		Shelter within own property, with immediate support network or at alternative site.	

^{xxiv} See Mowll, R., Stewart, C., Neely, D. P., Brenin, M., Fisher, M., Loodin, N., & Hutchison, S. (2022). Creating a post-earthquake emergency sanitation plan for the Wellington region, Aotearoa New Zealand. *Australian Journal of Emergency Management*, July 2022. <https://knowledge.aidr.org.au/resources/ajem-july-2022-creating-a-post-earthquake-emergency-sanitation-plan-for-the-wellington-region-aotearoa-new-zealand/>

^{xxv} Natural gas supply from a reticulated network requires national transmission assets to be operational.

^{xxvi} Road access and fuel and contractor availability are required to allow access to critical gas assets. For local supply, gas must be available from transmission delivery points.

^{xxvii} All customers must have a gas professional re-connect supply to network.

^{xxviii} If viable wharf area is available, and the ship operators are able to interface with that, and there is a discharge location to the road network. This level of service would be either using Roll-On-Roll-Off ferries where available, and able to interface with the wharf and operations, or geared ships (ships with their own cranes), i.e., vessels and/or operating plant that does not rely on third party services.

^{xxix} Weather and navigation instrumentation constraints may impact operations.

^{xxx} Weather and navigation instrumentation constraints may impact operations.

^{xxxi} See <https://spherestandards.org/handbook/editions/> for additional information/direction. Assumes staying within own home or property.

Attachment 3 – Information about Powerco and our network

Providing an essential service

We bring electricity and gas to 1.1 million customers across the North Island. We're one part of the energy supply chain. We own and maintain the local lines, cables and pipes that deliver energy to the people and businesses who use it. Our networks extend across the North Island, serving urban and rural homes, businesses, and major industrial and commercial sites. We are also a lifeline utility. This means that we have a duty to maintain operations 24/7, including in the case of a major event like an earthquake or a flood.

The cost of operating our business is not dependent on the amount of gas or electricity we distribute in our networks. These costs reflect the need to maintain the safe operation of the network and are mostly driven by compliance with safety regulations. This includes replacing assets when they reach their end of life. Additional costs to grow the size or the capacity of the network are often met by customers requiring the upgrade or new connection.

Under Part 4 of the Commerce Act, Powerco's revenue and expenditure are set by the Commerce Commission as part of monopoly regulation. We are also subject to significant information disclosure requirements, publicly publishing our investment plans, technical and financial performance, and prices. The regulatory regime allows us to recover the value of our asset base using a regulated cost of capital (WACC) set by the Commission, and a forecast of our expenditure. Every five years, the Commission reviews its forecasts and resets our allowable revenue. This process is designed to ensure the costs paid by customers for us to manage and operate our network is efficient given we are a monopoly and an essential service.

Our electricity customers

Powerco is New Zealand's largest electricity utility by the area we serve. Our electricity networks are in Western Bay of Plenty, Thames, Coromandel, Eastern and Southern Waikato, Taranaki, Whanganui, Rangitikei, Manawatu and Wairarapa. We have 28,441 km of electricity lines and cables connecting 356,000 homes and businesses. Our place in the electricity sector is illustrated below.



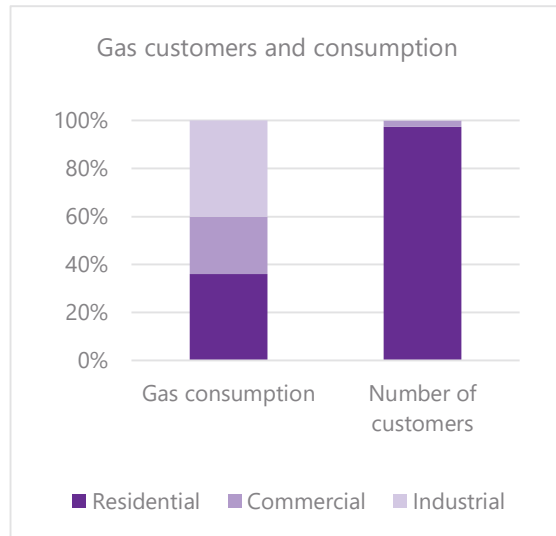
Our network contains a range of urban and rural areas, although is predominantly rural. Geographic, demographic, and load characteristics vary significantly across our supply area. Our development as a utility included several mergers and acquisitions that have led to a wide range of legacy asset types and architecture across the network. Powerco is one of 29 electricity distribution companies. Our customers represent around 13% of electricity consumption (similar in magnitude to the Tiwai aluminium smelter) and around 14% of system demand. Powerco's

network is almost three times the size of Transpower’s in terms of circuit length. The peak demand on our combined networks (2022) was 986 MW, with an energy throughput of 5,266 GWh.

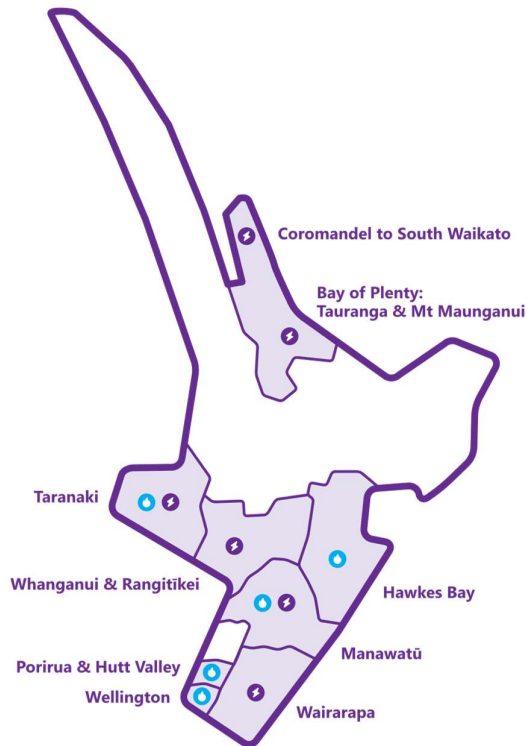
Our gas customers

Powerco is New Zealand’s largest gas distribution utility. Our gas pipeline networks are in Taranaki, Hutt Valley, Porirua, Wellington, Horowhenua, Manawatu and Hawke’s Bay. We have 6,100 km of gas pipes connecting over 113,000 homes and businesses to gas. Our customers consume around 8.6 PJ of gas per year.

Our industrial customers are less than 1% of our customer base and consumer approx. 40% of gas on our network. Our residential customers are 97% of our customer base and consume approx. 35% of gas on our network. The remaining 25% of gas is consumed by our commercial customers. Around 30% of our larger customers are in the food processing sector, around 20% in the manufacturing sector and around 10% in the healthcare sector.



Gas and Electricity footprint



Our network footprint

Our network represents 46% of the gas connections and 16% of the electricity connections in New Zealand. We operate assets within six regions and across 29 district or city council areas.