

20 December 2024

Submissions
Electricity Authority
By e-mail: connection.feedback@ea.govt.nz

Waipā Networks Submission: Network connections project Stage one amendments

Waipā Networks (Waipā) welcomes the opportunity to make a submission to the Authority on its consultation paper on “Network connections project Stage one amendments”. We also generally support and agree with the submission by the Electricity Networks Association (ENA).

Waipā is a consumer trust-owned Distributor supplying more than 29,000 connections in Cambridge, Te Awamutu and surrounding areas.

Waipā supports the intent of the proposed amendments in particular the aim of improving efficiency and providing more consistency across distribution networks. We have concerns about the detail and practical application of the some of the proposed changes and the implications these have for both distributors and existing customers. These are detailed in the attached Submission Form.

One concern is the proposed introduction of capacity rights which fails to consider the complexity and dynamic nature of capacity allocation in distribution network planning. The consultation document’s simplistic view of capacity rights as flat demand, and simple sections of a whole, risks tying up valuable network resources available (due to the real diversity of load connections), blocking capacity that could otherwise benefit active or ready projects. Our concerns are detailed in J) in the attached.

We are also concerned about the proposed capacity thresholds for medium-sized connections. We consider these should be set higher to avoid unnecessary reporting and administrative burdens. We also suggest introducing a tiered application fee system. Our reasons for this are outlined G) in the attached.

Although not specifically covered in the Authority’s Submission Form questions, we also wish to express concern about the obligation to connect load that the proposed amendments would impose. We support the ENA submission regarding this matter.

Any questions or queries regarding the submission can be directed to myself.

Yours sincerely



Network connections project: Stage one amendments

Submission form

Introduction

The Electricity Authority Te Mana Hiko seeks views on the DG proposals in the 'Network connections project: Stage one amendments' consultation paper. To assist you, this submission form includes the questions in that paper in one place, in Microsoft Word and in tabular form.

You are not limited by the questions provided and are encouraged to provide other comments you think are relevant to the Authority's proposals.

Submission details

Submitting organisation	Waipā Networks
Contact person	██████████
Contact email	██

Questions

Proposal A questions: Amend the application processes for larger-capacity DG applications

A) What are your thoughts on the proposal to replace nameplate capacity with maximum export power?

The primary concern is that large generation units may not be adequately assessed for safety and technical standards if nameplate capacity is entirely disregarded in the assessment process. Solely relying on export power to direct the approval process could lead to an underestimation of network connection requirements during unforeseen operational scenarios.

For instance, a 10 MVA generation unit could theoretically be assessed under a simplified DG connection process if the customer declared it would never export more than 10 kW. While a 10MVA generation requires a sophisticated HV level of protection and controls with primary and secondary backup, these technical requirements (which would have been documented under Process 3) would now be bypassed by this proposal (directed to the technically light Process 1A for small-scale DG). It has also been the experience in South Australia that many DG applications are not configured as agreed at the time of connection. Therefore, while it may be intended to enable limiters, this is not always the case.

It is recommended that maximum export power be used for network impact assessments while nameplate capacity is retained to determine the appropriate process pathway.

- Network impact assessments consume the most time. Limiting and declaring the export to a low value for a large generator unit will naturally expedite these assessments and gain efficiency.
- Connection requirements, including protection and export control, should remain capacity-based, ensuring the correct level of technical requirements can be met. These can be easily standardised, thus eliminating efficiency concerns.

Under the proposal, DG owners would be required to install export-limiting devices and comply with periodic monitoring and verification processes conducted by distributors, supported by Advanced Metering Infrastructure (AMI). While this ensures compliance with export limits and supports network efficiency, concerns arise regarding the added administrative and financial burden on distributors, particularly regarding managing small-scale connections. These challenges could prove prohibitive, potentially leading to processing delays or increased costs for applicants.

The proposed system does not explain how operating envelopes would work under the maximum export power model. This may limit flexibility in managing dynamic network conditions, as operating envelopes allow for real-time adjustments. Can the Electricity Authority clarify how they envision operating envelopes functioning within this framework?

B) Do you support the proposed Process 2 for medium DG (>10kW and <300kW), including the proposed requirements and timeframes? What are your thoughts on the proposed size threshold? What other changes would you make to the medium DG application process, if any?

Waipā supports the addition of an additional medium tier. We would also be supportive of a “complex connection” process.

C) Do you support the proposed Process 3 for large DG applications ($\geq 300\text{kW}$), including the proposed requirements and timeframes? What are your thoughts on the proposed size thresholds? What other changes would you make to the large DG application process, if any?

Waipā supports the overall framework for Process 3 but has identified a few key concerns related to the proposed size thresholds, prioritisation guidance, and the capacity rights allocation. These are discussed in the comments on Proposal B questions.

D) Do you think the Authority should apply any of the proposed changes for large DG to medium DG applications also?

Waipā suggests introducing a tiered application fee system with different levels for Processes 2, 3, 4, and 5. See comments against Question G.

E) What are your thoughts on industry developing the detailed policies to complement the Code changes proposed in this paper?

Waipā supports this idea. If prioritisation (other than first in first served) is to be implemented for applicants requests it will be important to have clear, practical and consistent rules put together with the support of industry bodies

F) What are your thoughts on the Authority’s summary of capacity rights allocation?

Waipā has serious concerns about the details of implementing indefinite or 10-year capacity rights as discussed in Question J.

Proposal B questions: Add application processes for larger-capacity load

G) For Process 3 for medium load (>69kVA and <300kVA) applications:

- Do you support the proposed process and why?
- What are your thoughts on the proposed requirements, size thresholds and timeframes?
- What changes would you make to the medium-load application process, if any?

Waipā supports the overall framework for Process 3 but has identified a few key concerns related to the proposed size thresholds, prioritisation guidance, the capacity rights allocation, and obligation to connect. Below, these concerns are outlined with reasoning and suggestions for improvement to create a more effective and equitable application process.

Thresholds for Load Connections: The proposed threshold for medium-sized load connections (69–300 kVA) is considered too low. Waipā suggests that raising the threshold to 300 - 500 kVA would be more appropriate to avoid unnecessary reporting and administrative burdens.

Reasoning: Setting the threshold at 69 kVA significantly increases the number of small-scale applications that distributors must process and monitor, many of which may have minimal impact on network capacity. This imposes substantial administrative burdens on distributors, requiring them to manage numerous applications that offer little benefit to overall network operations. This is further compounded by heightened reporting and compliance obligations, diverting valuable resources from more impactful projects.

Waipā would like to suggest raising the load connection threshold to 500 kVA. This adjustment balances the need to oversee significant projects while reducing unnecessary burdens on distributors and ensuring resources are efficiently allocated.

Prioritisation Guidance: The proposed prioritisation guidance relies on subjective criteria, such as "readiness," "long-term customer benefits," and "alignment with network capacity goals."

While these factors aim to provide a structured framework, their subjective nature introduces potential inconsistencies and challenges in application. Different stakeholders may interpret these terms variably, leading to uneven prioritisation of projects across distributors and creating a lack of transparency and predictability in decision-making processes. This could result in disputes among applicants and inefficiencies in resource allocation, undermining the intended purpose of the guidance to streamline and optimise network connections.

If a prioritisation criteria is to be used, Waipā suggests developing explicit, detailed guidelines for prioritisation criteria either as an Industry Guide (EEA/ENA) or under the Electricity Authority's (EA) framework. These guidelines should be uniform across distributors

to minimise subjectivity and ensure transparency, fairness, and consistency in decision-making.

Recommendation to introduce a tiered application fee system:

Waipā suggests introducing a tiered application fee system with different levels for Processes 2, 3, 4, and 5.

One major benefit of a tiered fee system is its potential to deter speculative applications. By requiring applicants to pay fees that reflect the complexity and resource intensity of their application, the system creates a barrier against frivolous or non-committed submissions. This measure helps prevent "blocking the system," where speculative applications occupy valuable capacity or administrative time without genuine intent to proceed.

A tiered fee system aligns costs with each process's administrative and technical workload, addressing the resource constraints faced by many lines companies. Differentiated fees offset the costs of handling complex applications, such as those requiring technical studies, while keeping simpler processes more affordable. This ensures fairness and proportionality for both distributors and applicants.

The system also supports improved planning and resource allocation, enabling lines companies to allocate staff, expertise, and systems efficiently. Delays are reduced by tying higher fees to resource-intensive applications, and genuinely ready projects with significant network benefits are prioritised.

Additionally, tiered fees incentivise applicants to provide accurate and complete submissions, minimising revisions and administrative bottlenecks. This structure promotes fairness by ensuring that larger, complex projects contribute proportionally to costs, protecting the interests of both distributors and smaller applicants.

Obligation to connect:

Waipā supports ENA's comment on the potential negative impacts of a regulated obligation to connect.

H) For Process 5 for large load ($\geq 300\text{kVA}$) applications:

- Do you support the proposed process and why?
- What are your thoughts on the proposed requirements, size thresholds and timeframes?
- What changes would you make to the large load application process, if any?

Waipā would like to suggest raising the load connection threshold to 500 kVA. This adjustment balances the need for oversight of significant projects while reducing unnecessary burdens on distributors and ensuring resources are efficiently allocated.

We also request the Authority to clarify how a subdivision application (comprising multiple lots) will be calculated and classified under the new load process.

I) Do you think the Authority should apply any of the proposed changes for large load to medium-load applications also? If so, which ones and why?

Waipā has no additional comments

J) What are your thoughts on the Authority's summary of capacity rights allocation?

Waipā has serious concerns about the details of implementing indefinite or 10-year capacity rights.

At first glance, providing customers with a price for the required capacity for their connection and then granting ownership of that capacity once payment and conditions are met appears to be an intuitive principle. In practice, some level of capacity rights is already implemented, either informally or formally, in most EDBs. The proposal needs to account for the complexity and dynamic nature of capacity allocation in distribution network planning.

There is a risk that this proposal could have the opposite effect of what is intended, increasing connection costs, adding complexity, imposing a significant administrative burden and driving anti-competitive behaviour. This includes the need for ongoing tracking, monitoring, and verification. Additionally, it is well known that many (or most) customers do not fully utilise the capacity agreed upon at the time of connection.

This is due to many factors, such as

- Conservative design and load estimation.
- Changed processes or development plans or business closing down
- Seasonal load and time of day usage

These effects and others mean that the actual network demand is the accumulation of many connections and the diverse nature of these connections results in demand that is almost never the sum of the individual capacities. This effect occurs whenever customers are utilising non-dedicated assets and is pronounced for the higher network voltages (e.g. Sub transmission and Zone Substations, where experience shows that diversity on feeders can often result in a reduction of approximately 15% of the sum of the individual feeders). Often at the time of application the load profile is unknown and therefore a flat profile is requested. A basic view of capacity rights as flat demand and simple sections of a whole, risks tying up valuable network resources available due to the real diversity of load connections, blocking capacity that could otherwise benefit active or ready projects.

In addition, MV network capacity is not only determined by the load carrying capacity of single point assets such as transformers but also must include voltage drop/rise and security issues. These constraints may not allow simple linear allocation principles where X capacity costs Y and the cost to the customer requiring Z capacity is $(Z/X)*Y$. Instead, each connection is assessed individually to meet the customer's capacity request, efficiently using existing network capacity while ensuring power quality, reliability, and safety. If customers are going

to own this capacity indefinitely or for an extended period, this is likely to result in over investment on the network.

As the available capacity will be indicated on a map, there is a risk that connecting parties will ‘bank’ all available network capacity at minimal cost. This would have a two-fold benefit to the connecting party: it would ensure they have flexibility to grow in the future (even if unplanned) and would block any other connection parties thereby protecting their commercial advantage. The impact of this is detrimental to both the community and the network. As it promotes anti-competitive behaviour, reducing the benefit to the community and results in over building of the network, driving unnecessary cost into the network and the community.

It is also believed that the introduction capacity rights allocation will unfairly spread the cost to the community where the allocated capacity is not used. This is because there is no claw back allocation for revenue not received. To make matters worse the Network will be required to purchase the unused capacity back. Therefore, there is an incentive for the connecting party to overestimate their demand up to the point of major investment being required.

K) What else does the Authority need to consider beyond the proposals in this paper and why?

Waipā supports ENA's submission comment on Question K, highlighting concerns regarding the implications of a regulated obligation to connect and its potential to drive perverse outcomes.

Waipā is also concerned about the additional requirement to have landowner approval to remove assets where the load has been disconnected. This could result in significant maintenance and renewal cost (to maintain the safety around the assets) when there is no potential for revenue from the disconnected load.

Proposal C questions: Require distributors to publish a ‘network connections pipeline’ for large-capacity DG and load, and provide information on this pipeline to the Authority

L) Do you support the proposed network connections pipeline, why, why not? What changes would you make, if any? What are your thoughts on the scope of the information to be published?

Waipā supports the proposed network connections pipeline for large connections.

M) What are your thoughts on the proposal for distributors to provide information directly to the Authority on an ongoing basis?

Waipā supports providing the Authority with the pipeline for large connections but recommends increasing the threshold to 500kVA.

Quarterly updates are too onerous, particularly the proposed dates:

1 January: Unrealistic due to the holiday period.

1 April: Overlaps with end of financial year and AMP submissions.

1 July: Conflicts with information disclosure preparations.

We suggest reducing the requirement to annually or biannually, choosing either 1 May or 1 November.

Proposal D questions: Require distributors to provide more information on network capacity

N) What do you think of the proposal to publish more information on network capacity? What challenges do you see with providing the data? What changes would you make, if any?

Waipā supports publishing more information on available capacity to aid customers seeking to connect and is encouraged by the Authority's focus on making smart meter data more readily available. However, we would like to address concerns regarding the frequency of network capacity updates and would like more clarity on whether published spare capacity is indicative only or binding in any way.

We suggest the Authority adopts an approach similar to the Australian Energy Market Commission (AEMC) regarding smart meter data. AEMC requires power quality data from small customers' meters be provided to local network service providers for free, primarily for community safety. They believe community safety should not be compromised by cost. Making smart meter data available could significantly help New Zealand achieve its decarbonisation goals and provide essential information as proposed. Thus, following the Australian model is advisable. The AEMC ruling can be found here:

<https://www.aemc.gov.au/rule-changes/accelerating-smart-meter-deployment>

Proposal C's quarterly updates for network capacity information imposes impractical administrative burdens on distributors. Given the stable nature of network conditions, frequent updates offer limited value and require substantial resources, including increased IT infrastructure and staff time. Switching to annual updates would reduce these pressures while still providing adequate planning data. Annual updates align with the slow pace of changes in network capacity and allow distributors to focus on maintaining data quality.

We suggest providing capacity values as indicative rather than fixed. This acknowledges network variability and guides applicants on capacity availability without unrealistic expectations. It allows distributors to offer actionable data while adapting to changes in network dynamics. Expecting precise values may lead to misinterpretation and frustration due to inherent limitations and the dynamic nature of the electricity network.

The proposed changes aim to bring consistency across the industry. Available capacity depends on factors like thermal limits, security, voltage headroom, and time. Without clear guidelines, EDB's interpretation of this requirement could cause inconsistencies and undermine the intent of the proposed changes. We recommend that the EA works with the EEA to create guidelines for defining, interpreting, and calculating MV and distribution transformer capacity for public use.

O) What are your thoughts on the scope and granularity of the information to be published?

Please refer to comments in Qn N.

Proposal E questions: Update the regulated terms for DG

P) What are your thoughts on the proposed changes to the regulated terms?

No comment

Proposal F questions: Add regulated and prescribed terms for load applications and amend dispute resolution requirements

Q) What are your thoughts on the proposed regulated and prescribed terms for load? What changes would you make, if any?

No comment

R) What are your views on the proposed dispute resolution changes for Part 6? In what ways could dispute resolution be further improved? What are your thoughts on the alternative options to deliver dispute resolution discussed in this paper? Do you have any feedback on the 20-business day timeframe proposed?

Waipā believes that the Utilities Disputes framework works well, and this framework should be referred to, rather than setting new and potentially contradictory requirements that will incur additional administrative load on EDBs.

S) Do you consider the alternative contractual terms option discussed in this paper (and in the Distribution connection pricing consultation paper) would be better than the proposal without contractual terms? What are your thoughts on the other alternative options referred to?

No comment

Proposal G questions: Increase record-keeping requirements for distributors

T) Do you support the proposal to increase the record-keeping requirements for distributors and why? What changes would you make, if any?

No comment

Proposal H questions: Introduce new Part 1 definitions and amend existing definitions (Part 1 only)

U) What are your thoughts on the proposed new definitions and amended definitions for Part 1 of the Code? What changes would you make, if any?

No comment
V) What other terms do you think the Authority should define and what definitions do you propose for those terms?
No comment
Proposal I question: Make minor and incidental amendments to Part 6
W) What are your thoughts on the proposed minor and incidental changes to Part 6? What minor and incidental changes has the Authority missed and what changes would you make, if any?
No comment
Transitional arrangement questions
X) What are your thoughts on the transitional arrangements for the proposals in this paper? Submitters can consider individual proposals when responding to this question.
<p>The proposed transition timeframe can be challenging for the industry and small EDBs experiencing fast growth.</p> <p>Waipā recommends that more time be allowed for transition. This would allow the EEA to produce the required technical guidelines, ensuring consistency across EDBs, and allow the smaller EDB to find suitable resources to complete the backend work, followed by the front-end provision of information. Also refer to Question Y).</p>
Y) What proposals do you consider the most important? How long do you think is needed to implement these?
<p>Waipā support the proposal's intent and have highlighted key areas for further industry input. Making capacity information available will benefit access seekers and the industry with a consistent format. Due to the complexity of these changes, we recommend a 24-month transition period. This allows EDBs to understand and approach the changes consistently and allocate necessary resources effectively, which may be limited across organisations and the industry.</p>
Code drafting question
Z) Do you have comment on the Authority's drafting of the proposed Code changes? What changes would you make, if any?
No comment