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The Electricity Authority
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Tēnā koutou,

Submission on Network Connections Project: Stage One Amendments

Introduction

1. PowerNet Limited (PowerNet) appreciates the opportunity to make a submission to the Electricity Authority (the Authority) on the stage one amendments for Network Connections project consultation paper.
2. PowerNet is an electricity management company with its head office based in Invercargill and is owned by The Power Company Limited (TPCL). PowerNet manages the non-exempt Electricity Distribution Business (EDB's) of Electricity Invercargill Limited (EIL), OtagoNet and Lakeland Network (LNL), the exempt EDB of TPCL and Ruakura EDB Limited Partnership (Tainui Group Holdings Limited), and the non-grid connected Stewart Island Electric Supply Authority (SIESA).
3. With an asset base and investments in excess of NZ\$1 billion, the aggregated electricity distribution asset base managed by PowerNet is the fourth largest in New Zealand. TPCL operates in Southland and West Otago, OtagoNet in rural and coastal Otago region that surrounds Dunedin City, EIL operates in Invercargill and Bluff, Lakeland Network (LNL) in the Frankton, Cromwell and Wānaka regions, SIESA on Stewart Island, and Ruakura in the Waikato.
4. PowerNet has long-term management agreements in place with TPCL, OtagoNet, LNL, EIL, and Ruakura, with the benefit of integrated business management systems in place, and a core purpose and expertise in asset management capability.
5. PowerNet supports, in principle, the submission made by Electricity Networks Aotearoa (ENA) and have included in our own submission key issues that we wish to raise with the Authority. We support aspiration to reach net zero emissions by 2050 and 100 percent renewable energy generation, that is not cost prohibitive, by 2030. We acknowledge the important role distribution networks will play in supporting New Zealand's transition to an electrified nation and a low emissions economy.
6. This submission can be published in full on the Authority's website.

Key discussion points

7. PowerNet, in principle, agrees with the reasons the Authority is seeking change to Part 6 of the Electricity Industry Participation Code (the Code). We agree that good regulation can create efficiencies and remove barriers for the connection of large, distributed generation

Customer service is important to us at PowerNet. If for any reason, we do not meet your expectations we would like the opportunity to work through a solution with you, please call our office on 03 211 1899. If we are unable to resolve your concern, there is a free and independent resolution service available through Utilities Disputes Limited www.udl.co.nz

customers to the network. We also support an industry that has fit-for-purpose processes and standards to connect and operate efficiently.

8. PowerNet is aware and supportive of the interdependencies that exist between this consultation, and the concurrently released consultation of distribution connection pricing proposed Code amendments. We note that building new infrastructure can be costly, and ensuring the costs can be allocated and distributed fairly across the network for those seeking the growth, and those benefitting from upgraded networks, are those bearing the bulk of the expense incurred.
9. We are supportive of the overall intent to introduce timeframes into the application process for large, distributed generation, and agree there will, in the long-term, be material benefits for both distributors and stakeholders. Our caveat is to caution the Authority, that relationship and consumer needs are often bespoke, and while we are not averse to the benefits of greater regulation, we want to ensure that in any new regulatory framework there remains appropriate flexibility to meet the individual needs of both distributors and stakeholders.
10. The applications for new and upgraded large connections to the network are often complex, and the number of applications for all distributed generation is increasing. PowerNet is supportive of rule changes that ensure this process is well understood by all and note the potential and not insignificant increase in resource and process that will need to be sourced to meet the requirements of a new regulatory framework for Part 6 of the Code.
11. We further acknowledge and support two of the key outcomes sought by the Authority through this review process, to ensure more consistency across the sector in process and practice, and to ensure there is greater transparency of capacity across the Networks. We accept that inconsistency across EDB processes is an issue that implicates all EDBs consistently.

Large, distributed generation connections

12. One of our primary concerns in the significant changes proposed for Part 6 of the Code is to ensure that there is flexibility in any new regulatory framework to maintain the relationships and individualism that we apply to our large connection customers.
13. We agree that having a set of rules in place to require distributors to approve or decline an initial application for distributed generation greater than 10kW is beneficial. The current practice of an undetermined time for approval or decline of this initial application is not helpful to either the distributor or the customer seeking to connect. We therefore acknowledge that the processes as proposed by the Authority have merit and will allow the less complex applications, and those better prepared to complete connection, to move through the process in a timelier manner. It makes sense to align across EDBs, so far as we are not constrained from following process appropriate to our own geography and customer base.
14. PowerNet is engaged with several large, distributed generation customers. The Southland and Otago Region is home to some significant decarbonisations load consumers, with growing interest for distributed generation. We have completed numerous large projects over the last couple of years and are proactive in meeting the mutual needs of our shareholders and those stakeholders wishing to connect to our network. We are comfortable

that industrial customers are generally happy with the approach we have taken to engage with flexibility and options for their electrification connections. However, ensuring enough flexibility and time afforded to negotiate effectively with large decarbonising customers is of the utmost importance to us.

15. For example, the Kaiwera Downs wind farm project (Gore), owned by Mercury Energy was commissioned in mid-2024. This project saw PowerNet manage the development of a 43MW wind farm and complete a supporting 33kV line. This relationship is multi-staged and a significant move for the future of renewable energy in the South.
16. In 2024, Matura Valley Milk (Gore) commissioned a 20MW High-Pressure Electrode Boiler. This resulted in New Zealand's first all-electric dairy-processor. This was a significant project that required extensive flexibility in negotiation and timing to ensure the needs of the customer were met. Should this timeframe have been heavily regulated, the relationship may have seen undue strain and have a 'box-ticking' appearance to go through the motions required. It will be important to PowerNet that any new regulatory framework does not tie the hands of either party for important negotiations to take place.
17. Similarly, in late 2024, PowerNet installed two large 2.5MVA transformers at the South Pacific Meats (SPM) plant at Awarua (Invercargill). The installation is part of SPM's larger boiler upgrade, which involves replacing its coal boiler with two 2MW high-voltage electric boilers.

PowerNet's management approach

18. PowerNet, as an electricity distribution management company manages regulated and non-regulated distribution businesses. This results in increased scale and diversity, and through our integrated management approach means we see less sporadic pull on our resources and more broad experience developed to draw on.
19. While our current processes allow for an integrated approach to network connections and load capacity, and we are well positioned to ensure a consistent approach across the networks we manage, our networks have varying impacts. For example, the urban nature and footprint of EIL is constrained making large, distributed generation and significant industrial electrification or growth much less likely. In contrast, TPCL and to a lesser extent OtagoNet are likely to experience significant distributed generation applications and large electrification or growth loads. Electric Vehicle charging and smaller distributed generation will be common across all our managed networks but accelerated in higher income regions. We also expect solar to be more productive in Frankton/Central Otago.
20. We manage the networks as consistently as we can where possible. Not only does this result in greater business efficiency but also ensures we don't drop service levels for exempt networks due to lack of regulation. For SAIDI and SAIFI on our TPCL network we have calculated the limits/thresholds that would apply if regulated and have worked to these. However, we maintain discretion to deviate where it makes sense. For example, in the last few years TPCL's spend increased significantly to support industrial customer electrification which may not have been possible if under a non-exempt price-path.
21. So, while we are committed to removing barriers for genuine stakeholders to connect to the network and move towards the electrification goals for Aotearoa, we strongly urge the

Authority to ensure, that in a more standardised experience for those wanting to connect to a network, there remains flexibility to allow for the diversity across network geography and demand.

Application timeframes and fees

22. We support the proposal from the Authority to have a medium application process and agree it will minimise the variation that currently exists in assessing differing sized distributed generation applications and help remove competition for available capacity above 10kW and below 300kW.
23. In relation to the proposed timeframe of a maximum of 40 business days for initial applications to be approved or declined by the distributor that are distributed generation of 300kW and above, we believe in most situations we will satisfy this requirement. However, this has the potential to be costly and will take time to resource. If this proposal is implemented, PowerNet will do what is required to meet the new requirement and believe the 40-business day proposal for initial application notification is, in the long term, equitable for both stakeholders and distributors, and that a reasonable finite timeframe is within the best interests of all parties.
24. While we understand the benefits of the long-term gain, there will be some short-term teething issues and resourcing pressures to establish and get right. To meet regulated timeframes PowerNet will need to bolster resources and amend internal processes. We note the Authority views the benefits of the proposal outweighing the costs, however, these are in fact real costs to the business that will ultimately be borne by consumers.
25. In addition to the resourcing and process changes, should we become overwhelmed with applications for distributed generation, we see risk that we will be in breach of the Code and/or have numerous applications that are routinely approved if the timeframe is not met. This does not have a desirable outcome for either the customer or the EDB, and we see benefit in ensuring the transition timeframe is commensurate with the step-change required.
26. PowerNet also supports establishing a rule that will require applicants of large, distributed generation to pay an initial fee that is, at distributor discretion, non-refundable and non-transferrable. We view this as an appropriate measure to minimise wasted resources in receiving applications that would not meet basic requirements.

Network connections pipeline for large capacity distributed generation and load

27. PowerNet is supportive of the intent to give greater visibility and transparency over the applications to connect and upgrade that are in the pipeline. We further support the approach of the Authority to protect commercial sensitivity, and only provide detailed information direct to the Authority, while providing visibility of overarching applications and locations. We agree that this will assist stakeholders and those wishing to connect to the network greater transparency and understanding of available capacity and load.
28. The Authority is proposing that approved projects must meet specific milestones to retain their position in the distributor's connection pipeline. We support this approach, and the appropriate tolerance that should be displayed by distributors to ensure stakeholders are afforded opportunity to rectify important issues if a milestone is missed. We further support

the industry establishing their own guidelines around prioritisation, queueing and management of applications, and would not support this being regulated under the Code.

29. We support distributors providing more information on network capacity to assist with long-term development decisions and agree in the benefits of access seekers having greater visibility of applications waiting to connect.

Large capacity load application processes

30. PowerNet supports the submission made by the ENA, whereby we do not agree with the Authority in introducing regulated processes for the connection of load to networks. While we acknowledge that there may at times be uncertainty for applicants, we do not see any significant issue that needs to be fixed through a regulated framework.

Timing of engagement

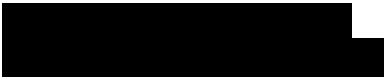
31. As with the ENA submission on pricing, we would also raise concern around the timing of this consultation. It is arguably poor practice to engage in significant regulatory change proposals throughout the months of December and January. Not only are EDB's likely to be poorly resourced over the holiday period, but many of the staff also required for this feedback are engaged in the following years pricing updates. We question if the Authority are genuinely seeking meaningful and robust input and response from EDB's, why they have opted to close submissions and cross-submissions through a period that would be good practice to avoid. Although unlikely to be the intent, it results in a perception of disingenuous consultation.

Summary

32. The energy sector is on the cusp of transformational change, where greater electrification is required to ensure a low-carbon future for Aotearoa. Large-scale electrification is a critical part of this change and ensuring there is enough capacity to meet growing demand will be fundamental to enabling this future.
33. PowerNet understands the need for greater transparency of capacity on the network that will provide security to stakeholders, and in turn, accelerate investment across New Zealand's network infrastructure. This will also require a supporting regulatory framework that allows for the agile investment decisions that are needed.
34. PowerNet supports the review and many proposals for Part 6 of the Code. We understand the overarching desire of the Authority to ensure those wishing to connect to the network can do so in a timely and cost-effective way, while also ensuring distributors have the necessary data and capacity to provide for the electrification needs of the country.
35. In making its final decision however, we would urge the Authority to ensure the regulatory framework has enough flexibility built in to ensure that large, distributed generation projects have the time required to ensure they are robust, sustainable, and fit-for-purpose for stakeholders and distributors. While we are appreciative of the urgency to move forward with the electrification required, this must be balanced with ensuring the long-term infrastructure being developed is economically and environmentally applicable and will meet the needs of our generations to come, and not just the whims of a few today.

36. We have provided more detailed response to several of the questions posed by the Authority in the Appendix below and would welcome the opportunity to expand on any comments if the occasion arises.

For more information contact:



Appendix A

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?
<p>PowerNet agrees with this proposal.</p> <p>It is maximum export that will have the greatest impact on network capacity and its management. However, it needs to be appreciated that maximum export capacity is far harder to calculate, and it is likely that often customers will, as a result, provide an inaccurate estimate, either assuming total name plate or potential generation may export (i.e. coinciding with minimal load) or assuming some base load will always be present to absorb a proportion of generation. Given maximum export is dependent on the balance of highly variable generation potential and highly variable and often incrementally growing/changing consumption that will absorb behind the meter maximum export (unless specifically controlled) would be highly likely to change over time.</p> <p>It will ultimately be up to the EDB to monitor compliance and consistency with maximum export information provided and respond when deviation is noted.</p>
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?
<p>PowerNet is supportive of the proposed thresholds. We acknowledge that having a medium application process will minimise the variation that currently exists in assessing differing sized DG applications and remove competition for available capacity above 10kW. Our primary concern is to ensure that there is flexibility in any new process to maintain the bespoke relationships and individualism that we apply to our customers. The process as proposed by the Authority has merit and will allow less complex applications to move through the process in a more timely manner.</p> <p>In relation to the proposed timeframe of a maximum of 40 business days for initial applications and 45 business days for final applications, we are in support of a timeframe being in place.</p>
C) Do you support the proposed Process 3 for large DG applications (≥300kW), 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?
<p>PowerNet agrees with this proposal</p> <p>Our current experience of these applications is that there is a very individualised response required for each customer and application based on their experience and progression of the</p>

<p>development business case. This can make it challenging to manage and understand the likely progression pathway of developers. The regulations need to balance the need to be flexible with the information and timeframes to deliver and understand the required solution especially if non network solutions are involved. Our experience with developers of large DG is that the time to assess and respond can vary significantly depending on where they are connecting and the size of the connection. The concept solution can require multiple option studies and modelling which is highly dependent on the location.</p>
<p>D) Do you think the Authority should apply any of the proposed changes for large DG to medium DG applications also?</p>
<p>Yes, our experience with developers of medium DG is that the time to assess and respond can vary depending on where they are connecting and the size of the connection.</p>
<p>E) What are your thoughts on industry developing the detailed policies to complement the Code changes proposed in this paper?</p>
<p>PowerNet supports this proposal. We are comfortable with the approach of the ENA and EEA working together and allowing the distribution sector to develop the detailed policies to complement the Code changes proposed in this paper. This would see the ENA and EEA work alongside key stakeholders, to develop an appropriate set of guidance and policies to support the sector meeting these new requirements.</p>
<p>F) What are your thoughts on the Authority's summary of capacity rights allocation?</p>
<p>N/A</p>
<p>Proposal B questions: Add application processes for larger-capacity load</p>
<p>G) For Process 3 for medium load (>69kVA and <300kVA) applications:</p> <ul style="list-style-type: none"> • 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?
<p>PowerNet supports the ENA submission. We support the intention to standardise the application process across EDB's. We support the introduction of timelines. We support helping customers decarbonise. We disagree with an obligation to connect load, and we disagree that the costs to EDB's are minor.</p> <p>Meeting the code will require increased investment in staff and software. We believe that the changes may have the unintended effect of delaying small scale applications as resources will be directed elsewhere. While it is understood this would support EV charger applications, we believe this would have the unintended effect of including Dairy Farms, Light Commercial and light Industrial connections. Making these customers follow some of the stringent processes of the code could be onerous for them. We believe the lower threshold of</p>

<p>69kVA is too low and support the proposed thresholds of the sector of 300kVA up to and including 500kVA.</p>
<p>H) For Process 5 for large load ($\geq 300\text{kVA}$) applications:</p> <ul style="list-style-type: none"> • 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?
<p>PowerNet supports the submission from ENA. We do not support a change to regulations that would create an obligation on distribution businesses to connect load. Should this regulation come into play, there should be sufficient amendment made that would allow us to decline to connect on various grounds, including connections that are not economically viable or appropriate long-term investments to be made on the network.</p>
<p>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?</p>
<p>J) What are your thoughts on the Authority's summary of capacity rights allocation?</p>
<p>PowerNet is in favour of the capacity rights allocation as laid out in the consultation paper, appreciating that customers are required to continue to reach milestones to hold onto their capacity rights. Having an application reach a sufficient stage to conditionally guarantee capacity and final capacity guarantee only being granted when the customer has met all requirements to manage risk to the distributor and competing connection applicants is appropriate and will support a fair and efficient connection process for customers.</p>
<p>K) What else does the Authority need to consider beyond the proposals in this paper and why?</p>
<p>PowerNet supports the comments made in the ENA submission to this point.</p>
<p>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</p>
<p>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?</p>
<p>PowerNet supports this proposal in principle. We do however request that consideration be given to the breadth of work required in this process, and appropriate timeframes for EDBs to comply.</p>

Even if the network capacity data is available to the public, it still does not indicate whether network is able to support the customers' connections. It is always going to be bespoke designs, hence the importance of the timelines needing flexibility. We view this to be captured through the extension process allowed for in the proposed application timeframes.

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

PowerNet does not have any objection to this proposal, and we do not see this disadvantaging EDBs commercially.

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?

PowerNet notes that the sharing of capacity information is contingent on our availability of information to share. Given the Authority's inaction on smart meter data access, there can only be minimal expectation to produce and share capacity information. The Authority is aggressively seeking to create consistency across the country to support efficient connections however regarding capacity data it seems we will likely see more inconsistency between EDBs where some have the capability to create and share capacity information while other EDBs do not. PowerNet is concerned that the Authority, having left a resolution to smart meter data access too late, will at some stage expect a step change in capacity information provision ahead of EDBs capability to develop this information. It is vital that flexibility services are enabled consistently for customers, and this will require EDBs to understand their capacity at quite granular levels of detail. As electrification picks up in pace, EDBs do not want to be part of a bottleneck holding back implementation of new flexibility services (where it is most cost-efficient solution) due to the large development curve to turn smart meter data into sufficiently granular capacity information and to share this information. Based on this, we support the ENA submission and suggest flexibility is established in this process to acknowledge the varying capabilities of EDBs to source the required data.

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

PowerNet believes that capacity data should ideally be as granular as is necessary to inform any customer about their potential to connect new load, generation, or DER and for their applications to be managed efficiently.

Proposal E questions: Update the regulated terms for DG

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

N/A

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?	
N/A	
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?	
N/A	
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?	
N/A	
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?	
PowerNet agree with the timeframe to keep documentation, however, it would require the implementation of new software and resources to be able to collate and send Authority the information they want. It would therefore be unlikely that we could be compliant within the timeframe suggested in the proposal. PowerNet recommend flexibility in the timescale to allow a change in process to be established.	
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?	
N/A	
V) What other terms do you think the Authority should define and what definitions do you propose for those terms?	
N/A	

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?
N/A
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.
Given all EDB's will require additional staff to implement process changes and source software, a 12-month transition period is likely too short. PowerNet would like to see greater flexibility introduced. (Note this is likely to cause additional competition for staff amongst EDB's)
Y) What proposals do you consider the most important? How long do you think is needed to implement these?
PowerNet supports the ENA submission.
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?
N/A