Vector Limited
110 Carlton Gore Road
PO Box 99882
Newmarket
Auckland 1149
+64 9 978 7788 / vector.co.nz

20 December 2024

Electricity Authority
Level 7, AON Centre
1 Willis Street
Wellington

By email: connection.feedback@ea.govt.nz

Network Connections Project – Stage One

1. This is Vector's submission on the Electricity Authority's (Authority) consultation *Network Connections Project – Stage One.*

2. No part of this submission is confidential and we are happy for it to be published on the Authority's website.

3. Our key commentary is set out below and we have also provided our responses to the consultation questions in Appendix A.

Problem definition

4. We are concerned the Authority is introducing wide-ranging, significant and rushed regulation around connections processes (particularly when considered alongside the significant changes proposed concurrently in the pricing consultation) that have not been adequately justified as promoting the long-term benefit of consumers.

5. In line with our concerns on the Authority's connection pricing consultation, the Authority has not robustly articulated the problem they are trying to solve, nor provided evidence that would justify prescriptive regulation or major changes such as the proposed obligation to connect load. The consultation paper provides no examples or case studies that would help submitters understand the problem better. It is concerning that, given the likely cost of implementing the Authority's proposals, more has not been done by the Authority to ensure the problem is well defined and the solutions being proposed will sufficiently address that problem.

6. There also is little analysis or assessment undertaken by the Authority on the current performance of existing EDB connection processes. Without robust quantitative analysis, we question how the Authority has confidence that the existing processes are not serving the majority of access seekers well. The currently unregulated connection processes are

flexible and provide for customer-centricity and agility by distributors, which is critical for distributors to manage connections, particularly in high-growth areas like Auckland.

7. We note the Ministry for Regulation has published guidance on government expectations around good regulation. This states that:

   "*[regulators] should not introduce a new regulatory system or system component unless we are satisfied it will deliver net benefits for New Zealanders*"[1]

8. This guidance makes it clear that, absent a clear cost benefit analysis, it is inappropriate to impose significant obligations such as that proposed for load.

Unclear legal grounds for the Authority's imposition of an obligation to connect large load

9. We have significant concerns about the legality of the introduction of a new obligation on EDBs to connect new access seekers (>69kVA), a matter which is not addressed in any of the consultation documents.

10. The consultation paper states:

    Part 6 places a legal obligation on distributors to approve DG applications that comply with Part 6 and any connection requirements set by the distributor. The Authority's view is this implies a further obligation on distributors to provide the necessary infrastructure for approved applications to connect. Adding load application processes to the Code places the same obligations on distributors with regard to load applications.[2]

11. However, the legal grounds for the Code to provide for a new obligation of this nature is not clearly stated by the Authority. We are not aware of any statutory basis that would permit the Authority to amend the Code to include an obligation to connect new load.

12. As Vector understands it, there are limited obligations on EDBs to offer new connections or maintain existing connections. There are some exceptions regarding:
    - Certain legacy (pre-1993) connections, under s105 of the Electricity Industry Act 2010 (EIA); and
    - Distributed generation, which was carried over into the Code from the Electricity Governance (Connection of Distributed Generation) Regulations 2007.

13. Importantly, the requirement to connect DG in Part 6 was inherited by the Authority when the Electricity Governance (Connection of Distributed Generation) Regulations 2007 were transferred into Code. The Authority itself did not make this decision.

---

[1] Government Expectations for Good Regulatory Practice page 2

[2] At 3.24

14. We understand that any constraint upon the ability of EDBs to enter into new connection agreements should be based on clear statutory authority. We invite the Authority to articulate the legal basis upon which the Code may require distributors to grant connections to all access seekers on the terms proposed.

15. To be clear, Vector's current understanding is that there is no statutory basis for the Authority to amend the Code so as to impose a new obligation to connect new load. This is even clearer in relation to the further obligation suggested by the Authority (as quoted above), being an implied obligation to "*provide the necessary infrastructure for approved applications to connect*". Vector's strong concern is that the Authority is acting outside of its statutory mandate. This concern is exacerbated because the Authority has failed to address this point.

16. A related but separate point is that the Authority's consultation documents do not expressly address the economic costs and benefits of the proposed new obligation to connect, particularly in the context of the separate ongoing consultation regarding limits on connection pricing.

17. The Authority should also provide details of its engagement with the Commerce Commission on this, especially on whether the obligation to connect changes the riskiness of EDBs, which could require a reassessment of EDB cost of capital. The Authority must therefore provide the legal basis on which it considers it has the right to introduce an obligation to connect as well as its cost benefit analysis supporting the reasons for its decision in advance of the conclusion of the current consultation so that affected parties may provide meaningful feedback.

The obligation to connect load imposes an obligation to invest

18. When combined with the reliance limit (as proposed in the connections pricing submission), which effectively limits the proportion of up-front capital expenditure EDBs can recover from connecting load, the proposed obligation to connect load ultimately imposes on obligation for distributors to *invest* their own capital, and effectively increase the size of their regulated asset base.

19. Importantly, the Authority does not appear to appreciate that this is *not consistent* with the approach to DG in Part 6 of the Code. For DG, while there is an obligation on EDBs to connect, there is *no limit* on cost recovery for the incremental costs of that DG connection. This means there is no obligation for the EDB to invest its own capital and to socialise the residual costs among its consumer base. This appears to us to be highly unusual. We are not aware of any other business entity in New Zealand that is obliged by law or regulation to invest capital and/or enter into commercial arrangements. This would appear to have far-reaching consequences that go well beyond the limited considerations the Authority has attempted to identify in this paper.

20. Again, we invite the Authority to articulate the statutory basis on which it is proposing to impose an obligation on EDBs to both connect and invest its own capital for third party connections.

Potential competition impacts of an obligation to connect load

21. Along with our concern about the legal basis for imposing an obligation to connect, we are also concerned it has the potential to undermine competition for contestable connections.

22. The consultation states that, "*The Authority's view is this implies a further obligation on distributors to provide the necessary infrastructure for approved applications to connect.*" This suggests an obligation for distributors to construct the assets themselves.

23. There are clear competition benefits where customers can seek their own connection services (provided they meet the minimum standards specified by distributors).

24. Accordingly, we have significant concerns that the Authority has not adequately considered the competition impacts of its proposals in terms of contestable connections, both in terms of the proposed obligation to connect and the Authority's pricing proposals.

Potential undermining of incentives created by an obligation to connect load

25. As the Authority is aware, distributors have significant capex requirements to support electrification and population growth in an environment of constrained capital.

26. We are concerned that obliging distributors to connect load creates risks undermining distributors' ability to manage their capex programmes (particularly in conjunction with the proposed changes to connection pricing). For example, if a distributor has planned expenditure on reliability or resilience, but instead is obligated to undertake unforeseen connection expenditure, this could compromise their ability to meet their quality targets.

27. This could compromise efficient investment and undermine the Commission's incentive framework under Part 4 of the Commerce Act.

Connection size should not be used as a proxy for the complexity of a connection

28. We strongly support and recommend the alternative posed by the Authority, whereby EDBs establish methodologies for classifying DG and Load applications as 'simple' and 'complex', rather than using the strict capacity-based categorisation proposed in the consultation. Many high-capacity connections can be quite simple to enable, and vice versa.

29. This aligns with Vector's current approach, and with long-term customer benefits, ensuring that only the more complex connections require more complex processes and

processing, while simple connections are processed more quickly and efficiently thereby reducing delays and administrative burdens and costs.

30. This is also similar to the connection policies implemented in Australia where the *complexity* of the connection drives the type of process and service applicants receive. Put simply, the size of a connection is not the best indication of the effort needed to process the connection. The level of complexity is the better criteria, and EDBs are the parties best placed to understand the local conditions that drive increased complexity for a new connection.

Complexity of prioritising final applications based on the regulator's objective

31. Clauses 9 and 14 of the Authority's proposed Code amendments require distributors to prioritise final applications for medium and large DG and load in terms of the long-term benefit to consumers.

32. We recognise the Authority's intent in prioritising applications to promote the long-term benefit to consumers. However, in our view it would be highly unusual for a regulator to pass its statutory obligation down to a market participant, and expect decisions to be made on the same basis, especially where this is not reflected in a distributor's incentive regime or its Board's statutory obligations. We are concerned that requiring distributors to determine priority based on their own interpretation of the Authority's statutory obligation exposes distributors to unmanageable risk, and is a potential source of dispute from those who find themselves de-prioritised on those grounds.

33. For example, it is not obvious how a distributor would prioritise between multiple new connections to enable, for example, new social housing, a hospital, a data centre, large DG, an EV charging station, or a process heat decarbonisation initiative. All are worthy candidates for rapid connection, and a case could be made for each of them promoting various aspects of long-term benefits to consumers.

34. Further, it is not clear to us that there is a problem with the methods EDBs have been using for the past several decades to determine the relative priority of connection projects. We believe this aspect of the Authority's proposals should be bolstered by clear evidence before any decisions are made.

35. We support the Authority's approach of allowing EDBs to develop the details of the management and queuing policy (e.g. through ENA) and would encourage more aspects of the connections processes be developed by industry first, while the Authority monitors the outcomes to determine if additional interventions are needed, rather than dictating the processes in the Code. The Authority's role should be focussed on guidance, monitoring and incentivisation, not imposing centralised micromanagement.

The Authority will likely need to use s54V of the Commerce Act to re-open price-paths to allow distributors to recover costs associated with developing new processes and procedures

36. Our submission on the Connection Pricing consultation highlights that the Authority will need to request the Commerce Commission (Commission) re-open the price path using s54V of the Commerce Act in relation to the proposed reliance limit (if the Authority maintains this proposal).

37. Under the current re-opener regime, the threshold for re-opening the price-path may not be met if each distributor applies to the Commission for re-opening individually. However, the significant costs associated with additional compliance and implementation should be accounted for. The Authority must request the Commission re-open the price-path on behalf of distributors. This will allow distributors to recover costs associated with the resources needed to develop and implement new systems, policies and procedures to comply with the amendments associated with both the Connection Pricing and Network Connections – Stage One consultation.

38. This would follow precedent from the Transmission Pricing Methodology (TPM) consultations where the Authority requested the Commission re-open Transpower's price path to allow it to recover costs associated with developing the TPM.

39. As noted above, and in our submission on the concurrent Connection Pricing proposals, the new obligations to invest (and inability to sheet home charges to those who cause them) will significantly increase distributors' capital expenditure requirements.

40. The most significant capability build to support compliance with the new process proposals is likely to be the development of new digital capability that supports the applications, tracking and queue management of connections to comply with the proposed requirements. Given the high number of connection applications Vector receives per year, we expect complying with these requirements will require significant investment in digital systems to effectively automate the capture of the required data and report on the applications we receive. This is likely to be a major digital project that we anticipate would take 12-18 months to complete, based on the requirements outlined in the consultation documents.

41. There will be additional constraints related to key systems and our wider digital delivery programme, which may limit our ability to begin work on this project until late 2025. Absent a re-opener, for Vector (and likely other distributors), this scale of digital project would either:
    - Result in a financial penalty under the Commission's IRIS, solely for doing the work to comply with new Code requirements; or
    - Prevent other planned digital projects from going ahead to avoid overspending our DPP4 allowances. Delaying projects could impact the provision of other services to the long-term detriment of consumers and our ability to meet quality standards.

42. For completeness, we also recommend against creating an additional disclosure regime for the Authority, when existing processes with the Commission are well established.

43. Below we respond to the set questions in the Authority's consultation paper. Our responses should be considered within the context of our comments above – i.e. the macro issues above must be addressed first by the Authority, and, once addressed, may result in many of the proposals not being required or requiring amendment.

44. Vector is a strong advocate for direct engagement within regulatory consultation processes. We consider that this consultation could have benefitted from greater directed engagement with EDB staff, including workshops with EDBs prior to the consultation papers being released. We would welcome further engagement with the Authority on points contained in this submission including making available our planning, customer connection, digital and data teams to share more details about how Vector currently handles connection requests, and the challenges of implementing the new processes proposed in this consultation.

Yours sincerely

Dr James Tipping
GM Market Strategy / Regulation

Appendix A: Authority consultation 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?
Vector currently considers DG applications based on both the total installed capacity and the maximum export capacity of the system. We believe both pieces of information, are important to fully assess the network impacts of a DG installation, and that the Authority should be consistent when asking for the disclosure of the maximum export capacity that they also ask for the disclosure of total installed capacity. The nameplate capacity will determine the type of protection settings and equipment that are likely to be installed at the site, which is critical information giving EDBs a better understanding of expected behaviour in both normal and adverse conditions. The maximum export capacity is a calculated value that is highly dependent on how generation and load at a site interact with each other and drives our network investment decisions to support the connection. We are happy to work together with DG installers, other EDBs and the EEA to come up with useful methodologies for calculating the maximum export power that can be used in assessing DG applications. The Authority needs to consider how this information will be recorded in the DG portion of the ICP registry as well. We don't currently keep a record of both nameplate capacity and the calculated maximum export capacity for all DG connections and therefore would need to change our systems and processes to ensure that we capture both pieces of information. We suggest tracking both with separate fields in the registry to minimise confusion and enhance our ability to assess DG installations going forward.
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?
The Authority proposes that an alternative to having medium and large DG classifications is to leave the category as >10kW and develop methods to classify simple and complex installations within this category. We believe that this approach is more adaptable than arbitrarily creating the 'medium' and 'large' classifications in the Code based on the maximum export capacity. This allows more flexibility and more importantly enables the streamlined connection processes workstream, that Electricity Networks Aotearoa (ENA) is working on in parallel with the Authority and the Electrical Engineers Association, to find and implement effective and efficient processes that support different installation types and capacities.

If the Authority goes forward with these proposed classifications for medium and large connections, we have very little flexibility in how we treat different applicant types or to find efficiencies through industry alignment on application processes. In that case, we would instead seek to align our processes as closely as possible with the proposed processes in the Code to ensure we meet those obligations and expectations.

The AS/NZS 4777.1 inverter standards specify the electrical and safety installation requirements for inverter-based DG and there is a threshold specified in the standard where installations exceeding 200kVA require grid interface protection. The current proposed 300kVA threshold does not match this requirement in the inverter specification, which does not seem sensible. There is also an obligation for any generator exceeding 1MVA to notify Transpower so that they can review the upstream impacts of large generation connections at each GXP, which does not appear to align with the chosen 300kVA threshold.

The proposed processes create strict timelines with potentially negative outcomes for EDBs if we fail to meet them, where applications are deemed to be approved if the distributor misses a notification or decision timeline. We note that there do not appear to be any incentives for an EDB to excel at connecting customers, and exceed the minimum standards, which is the stated purpose for introducing these new processes. We believe that performance-based incentives, such as those implemented in the RIIO regime in the UK[3] , are something that the Authority should consider if its intention is to genuinely create an environment where customer connections are efficient and expedient. In our view, this may fit better under the Commerce Commission's incentive regime. We are happy to discuss this further.

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?

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

If the Authority adopts the proposed stages for DG, we propose simplifying the application process for both medium and large DG projects by consolidating them into two stages, rather than having three stages for large DG and two stages for medium DG.

To achieve this, we recommend identifying steps with overlapping requirements or objectives and combining them into a single stage. This will help reduce redundancy and streamline the process. Additionally, where feasible, certain steps should be conducted in parallel rather than sequentially, significantly reducing the overall time required.

[3] https://blob-static.vector.co.nz/blob/vector/media/vector-regulatory-disclosures/appendix-2-brattle-group-on-behalf-of-ena-incentive-mechanisms.pdf

For the majority of cases, in our experience, customers prefer us to treat their initial application as their final submission. By streamlining the application process, we can save customers time and make it more convenient for them. This not only enhances their experience but also encourages more applications.

Each additional step in the process demands significant time and effort from both parties. The distributor also needs a system that is capable of monitoring the timelines, leading to increased costs and more time spent on paperwork and document verification. This detracts from strategic decision-making to drive towards network optimisation.

Two-stage process counter-proposal:
The distributed generator submits an initial application with basic project details using the distributor's specified form and pays the required fees. The distributor then performs an initial screening and system impact study, collaborating with the distributed generator on the study results, detailed design, and connection arrangements. This stage ensures that all technical and operational details are thoroughly reviewed and agreed upon before proceeding to the final application.

After resolving all preliminary issues, the distributed generator submits a final application. Upon approval, capacity rights are granted, allowing the project to move forward to construction and commissioning.

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

We agree with having the industry develop the detailed policies that support the Code changes proposed in the paper. Development of the detailed policies for prioritising and managing the queue / pipeline of large projects should sit with industry participants who have in-depth and detailed experience as well as an understanding of the complexities, context and variants that can arise during the process. This can be co-developed with representatives of customer groups, much like the current ENA development process.

The queueing and management policy
To set the queueing and management policy, we support Clause 21 of Appendix 3, Schedule 6.1 of the Code, which lists some milestones and allows for additional ones as needed. This flexibility is crucial as milestones may vary among participants. Within a central framework, all participants can set their own queueing and management policies based on their distribution network.

Prioritisation policy
Industry participants have the practical knowledge and skills to address their own challenges and develop effective prioritisation policies. The distributors can readily update and refine the prioritisation policy to ensure they remain relevant and effective in response to changing market conditions.

We acknowledge that the Authority has proposed managing DG applications through a queueing and management process, which includes revoking clause 15A of schedule 6.2, "*Distributed generator must construct distributed generation within 18 months of approval*."

However, while the milestone-based approach for DG projects is applied before the final application approval, it does not prevent projects from never starting construction. Therefore, the Code should include a clause stating that if a project does not commence construction within a specified period, the approval can be revoked, and the capacity reallocated to other projects. In other words, the option to connect should have an expiry date.

We note that Ofgem's latest queue management rules specifically allow non-viable or stalled projects to be removed from the connections pipeline[4]. We suggest two possible actions for the Authority's consideration: (1) amend clause 22 of appendix 3 to enable generators that consistently fail to meet milestones to be removed from the pipeline; or (2) specify that an EDB is able to define the framework for removing projects that aren't progressing within the definition of the queuing and management policy. This will make more capacity available to applicants that *are* progressing projects towards connection, and ensure that those who are ready to connect can connect faster.

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

As mentioned in our response to question D, we do not support the three-stage process for large DG, as the interim application stage is redundant. Based on our experience, customers prefer a simpler process. Simplifying the application stages will better meet customer expectations and improve efficiency.

Our concern with capacity rights allocation is ensuring that EDBs can set milestones in our queueing and management policies and hold DG applicants accountable if they do not meet those milestones. We do not want to be in a position of reserving capacity rights for a DG applicant that never builds their proposed project, and not having any recourse to free up that capacity because they have completed all the application steps. In the current proposal, the Authority does appear to give EDBs and the industry the opportunity to develop their queueing and management policies in a way that is appropriate for their network and region(s).

Regardless of whether they are medium or large DG applications, capacity rights should only be committed at the final application stage, ensuring a clear and accurate assessment of grid impact. This approach enables capacity to be granted only for projects that have met all necessary technical criteria. If an interim process is introduced by the Authority, during the initial and/or interim stages, , introducing provisional capacity rights can lead to inefficiencies,

[4] https://www.ofgem.gov.uk/press-release/ofgem-announces-tough-new-policy-clear-zombie-projects-and-cut-waiting-time-energy-grid-connection

as initial estimates may change as the application process evolves, as mentioned above. These earlier stages help in resource planning, however, only applications that have met all technical and regulatory requirements at the final stage should be granted capacity rights to ensure network stability and reliability. Prematurely treating initial applications as final applications could undermine this process.

The proposed drafted Code does not make it clear whether EDBs will have the ability to remove an applicant with capacity rights from the queue if they consistently fail to meet milestones and have no intention of completing their project. Such an inability, if not addressed, could lead to outcomes harmful to the long-term interests of consumers.

The drafted Code appears to imply that applicants who miss milestones remain in the queue and can only be moved to a lower priority after re-negotiating milestones and missing those re-negotiated milestones, all the while retaining their reserved capacity. The Authority indicates that they expect distributors can manage capacity rights within the text of the consultation, but the drafted Code does not reflect this in the definition of the queueing and management policy, nor in the sections of the Code that describe "*Treatment of approved applications at the same network location*". As copied below, (1) suggests applicants retain their place in the pipeline if they miss milestones, (2) suggests that distributors must notify an applicant of an application in the same area and re-negotiate milestones, (3) suggests that after missing re-negotiated milestones distributors may prioritise another project ahead of the applicant, and (4) suggests that our queueing and management policy will dictate how we move applications within the queue but provides no indication that we can remove applicants from the queue or revoke their capacity rights:

> **"22 Treatment of approved applications at the same network location**
>
> (1) A **distributed generator** may miss milestones and retain its place in a **distributor**'s **network connections pipeline** if no other **final application** is received in respect of that part of the **distributor's network**.
>
> (2) If a **distributed generator** misses a milestone and another **final application** is approved for that part of the **network**, the **distributor** must inform the **distributed generator** within five **business days** and work with the **distributed generator** to set renegotiated milestones.
>
> (3) If a project fails to meet any renegotiated milestones after following the process in subclause (2) above, the **distributor** may prioritise another application ahead of this project. The **distributor** must consider the purpose of Part 6 of this Code when making this decision.
>
> (4) A **distributor** must adhere to its **queueing and management policy** when making decisions on the priority positions of projects in its **network connections pipeline**."

Proposal B questions: Add application processes for larger-capacity load
G) For Process 4 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?

We strongly disagree with the Authority's view that duplicating the DG connection processes for load connections will introduce operational efficiencies for EDBs. These two types of connections are different and benefit from different approaches. Further, as noted in our cover letter, there is a key difference between DG and load, in that distributors are allowed under Part 6 to recover all incremental costs from connecting DG. This will not be the case for load, therefore the Authority is effectively imposing both an obligation to connect and an obligation to invest.

We recommend creating 'Simple' and 'Complex' processes rather than 'Medium' and 'Large' Processes to better utilise our engineering resources to process applications

We do not support the proposed Process 4 or Process 5. We note that one of the alternatives posed by the Authority is a regime where EDBs establish 'simple' and 'complex' processes rather than using the strict capacity-based processes proposed in the consultation. We strongly support this alternative as it aligns with our current approach[5], and will ultimately deliver more efficient outcomes. Furthermore, using simple and complex distinctions better align with the long-term customer benefits as it ensures that only more complex connections face more complex processes and simple connections are processed more quickly and efficiently reducing delays and administrative burdens and costs – effectively enabling a 'horses for courses' approach.

We further note that this would be similar to the connection policies implemented in Australia where the complexity of the connection drives the type of process and service the applicant receives. Put simply, the size of a connection is not the best indication of the effort needed to process the connection – the level of complexity is.

As noted on our website, when we receive an application we classify each connection request into a simple and complex request using criteria such as the following:

- availability of existing network connection;
- the type of network connection supply point required – which depends on the available capacity;
- the number of connections required and whether the connections are temporary or permanent;

[5] https://www.vector.co.nz/personal/electricity/new-connection

- the available capacity, as well as fuse and phase requirements; and
- whether an easement may be required to allow gas and electricity equipment owned by Vector to be installed and to remain on private property.

We currently have the flexibility to move applications between simple and complex categories, which typically occurs in the design stage. Prior to the design stage we provide an option for an indicative quote for those applications that have been classified as complex. Customers can opt to receive an indicative estimate instead of going straight to design. The indicative estimate is free, and customers appreciate the approximate indication of costs as part of their site investigation without having to spend any money or commit to a project or site. The difference between the indicative estimate and design stage on our end is that the indicative stage is a high-level desktop exercise, which does not involve any load checks, studies or other detailed designs and is therefore not as resource-intensive for our engineering and planning teams.

Of the approximately 3,800 load connection applications that we received last year and provided a quote for, approximately 1,110 of those applications were requesting capacities greater than 69kVA. We've estimated that around 890 of the 1,110 applications would have gone through Process 4 (69kVa – 300kVA) with around 220 going through process 5 (>300kVA).

Using our current process of classifying projects into either simple or complex connections, we had around 760 applications go through our more complex connections process, whereas under the proposed changes with capacity thresholds we would see a 50% increase to around 1,110 applications going through a more complex connections process (processes 4 and 5).

We believe that it is in the best interest of consumers, both existing consumers that fund our operational costs and new / connecting customers, to minimise the administrative overhead and inherent cost of processing new connection requests, if possible. The current proposal would have introduced significant additional administrative overhead for nearly half of the 69kVA - 300kVA load applications we connected last year.

With the ability to classify applications into simple and complex processes (and move applications between processes if necessary) we can direct our engineering and planning resources to the more complex connection applications (>69kVA and complex), avoid bogging them down in administrative task to check boxes for simple applications, and thus speed up connections for both types of applications. As proposed, Process 4 would require that we provide some detailed network information to every medium application that comes in the door regardless of whether Vector or that applicant need that information to progress their connection request.

The proposed processes allow the approved initial applications to be on hold for up to 12 months, during which time EDBs will have an obligation to review and notify the applicant whenever a final application is submitted to notify them of a potential impact on their initial application.

Given the volume of connection applications we receive, we believe this would require significant investment in our digital systems and would still be administratively intensive for many of the applications, which we typically classify as simple connections.

Prioritising and Grouping Applications should be more flexible and does not need to be a part of the Simple Process

The proposal to group together applications to avoid first-mover disadvantages seems overly strict and administratively challenging. A preferable approach would be to allow distributors to use reasonable discretion to group final applications being considered simultaneously on the same area of the network. In most cases for simple connection requests, there is no benefit to any of the applicants to grouping applications together.

If the Authority adopts the proposed capacity-based processes, which includes requiring distributors to group and prioritise applications for all medium connection requests, this will have the perverse outcome of extending processing times for many applications due to the administrative overhead.

The Authority is already proposing thorough and frequent reporting criteria for both DG and Load applications, which would give the Authority the ability to monitor and assess whether there are issues with applicants facing a first-mover disadvantage. If issues are identified in the future, then the Authority could initiate a targeted consultation on potential actions that could be taken to address them. However, absent an identified issue now for simple connections, it seems highly premature to add such complexity through this reform.

Distributors can make decisions based on efficient network outcomes

We recognise the desired alignment with the Authority's statutory objectives when asking distributors to prioritise applications according to the long-term benefit to consumers. However, as noted in our cover letter, we are concerned that requiring distributors to determine what is the long-term benefit of consumers exposes distributors to risk and is a potential source of dispute from those de-prioritised.

If the Authority proceeds with the proposed amendment to clause 9 of Appendices 2 and 4, and clause 14 of Appendices 3 and 5 of Schedule 6.1 regarding the priority of final applications, we recommend that it also take steps to mitigate the risk of disputes over the application of the "long-term benefit criteria". This could be achieved by providing additional guidance on how the Authority expects a distributor to carry out this assessment for both load and DG applications.

H) For Process 5 for large load (≥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 large load application process, if any?

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?

We do not support the proposed process for the same reasons outlined in our response to question G above regarding the proposed Process 4.

While we estimated that there were approximately a few hundred connection requests that we approved last year that would have been in Process 5, many initial investigations for large connections are not submitted via the application page on our website, but rather via an email or conversation directly with our Customer Experience team.

The role of processing large (often complex) load connections should sit with the distributor. Each distributor has unique circumstances, methods, network configurations and thresholds, for example, we classify 4MVA and above as 'large' load connections. Each step is collaborative with proactive meetings and ongoing communication with applicants, significantly influencing the duration of each step. The Authority should promote collaboration, instead of imposing a uniform standard that could limit the flexibility needed for distributors to tailor their processes to local conditions and better meet customer outcomes.

Additionally, we do not support using the same stage processes and timeframes for load applications as those used for Distributed Generation (DG) applications. This approach is inappropriate because load applications and DG applications have fundamentally different engineering requirements and complexities. Applying identical stage processes and timeframes to both can result in inefficiencies and misunderstandings.

Each large load connection follows its own trajectory appropriate to addressing the customer's specific requirements. Significant engineering, planning and design is required along with precise communication that are always bespoke in nature. We suggest that Authority has overlooked a significant element of complexity on this issue and would encourage the Authority to instead defer to the engineering and planning expertise of the relevant EDB.

We have few disputes related to our connection processes, suggesting that we are managing varied cases effectively. A centralised, "one-rule-for-all" standard or process does not allow flexibility for distributors to prioritise applications based on urgency or complexity in high-growth areas like Auckland.

The Authority's role should be focussed on guidance, monitoring and incentivisation, not imposing centralised micromanagement.

Prioritising and grouping applications should be more flexible within the Complex Process

The current proposed process that defines how distributors must group together and consider applications seems overly strict and administratively challenging. A preferable approach would be to allow distributors to use their reasonable discretion to group final applications being considered simultaneously on the same area of the network. The Authority is already proposing very thorough and frequent reporting criteria for both DG and Load applications, which would give it the ability to monitor and demonstrate whether there is an issue with applicants facing a first-mover disadvantage. If the Authority identifies an issue in the future, then a targeted consultation on potential actions could be taken to address those based on the evidence.

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

As we have stated in previous sections, the proposed drafted Code does not make it clear whether EDBs will have the ability to remove an applicant with capacity rights from the queue if they consistently fail to meet milestones and have no intention of completing their project. Customers tend not to actively advise us when they have decided not to proceed, so jobs can sit open unnecessarily if we have no ability to rescind or re-evaluate the allocation of capacity rights. We do not wish to have applicants with reserved capacity preventing others from being able to connect if they are ready. We also do not want to see the proposed reserved capacity mechanism being used by some parties to deliberately restrict their competitors from getting access to capacity. Without an explicit ability for us to re-evaluate or rescind allocations, there is a real risk that this could occur, undermining competition in Aotearoa New Zealand.

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

The Authority should consider collaborating with distributors to develop region-specific incentive programs that prioritise renewable energy integration, load management and grid efficiency improvement. Instead of enforcing one-size-fits-all rules, performance-based mechanisms can be introduced to reward distributors. Considering these types of incentives would clearly need to be done in collaboration with the Commerce Commission to ensure there is alignment between the regulatory agencies. Distributors, being closer to the local grid conditions and customer needs, have the expertise to develop tailored solutions that can efficiently integrate renewable energy and manage load. When distributors are incentivised, rather than constrained by rules, they are more likely to invest in the right technologies and innovate faster to enable better consumer outcomes in connecting DG and load to distribution networks.

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?
There is not a clear explanation of how the published data on the network connections pipeline will be processed and utilised by the Authority which we also note is in addition to the extensive information disclosure regulation all EDBs are already subject to from the Commerce Commission Information Disclosure regulations. The root of forming effective investment decisions lies in creating a supportive and stable environment, rather than simply imposing more rules for publishing information. Investment decisions by potential applicants are heavily influenced by market signals and incentives. Policies that provide useful information and clear incentives can drive more effective investment decisions than merely publishing data. If the Authority does not actively engage in analysing the data provided by distributors and whether that information does provide benefits to applicants, the effort of collecting and publishing the information becomes a mere compliance exercise with little practical benefit (and potentially duplicative of the Commerce Commission information disclosure requirements). On the other hand, each distributor has a unique network pipeline tailored to their specific infrastructure and regional conditions and characteristics such as population and resilience adaptation features. Centralised rules for publishing this information may not account for these differences. If the purpose of publishing a network connections pipeline is to drive more efficient investment decisions, we believe this goal cannot be fully achieved without direct engagement with distributors. Investors (and market monitors) may miss critical insights that are not captured in published data. Each investor and customer has unique needs and priorities, and the electricity market is dynamic, with conditions changing rapidly. Published information may quickly become outdated, failing to provide the real-time data necessary for timely investment decisions. We recommend that the Authority engages in thorough consultation with distributors to understand the practical challenges and limitations, ensuring the information being collected and published is useful to both investors and customers. For example, we currently face significant challenges with the underlying data and systems to provide the proposed information within the timeframes, and do not currently have the systems and tracking in place to meet a quarterly update. We also recommend the Authority considers how this obligation on EDBs to maintain a pipeline for load connections is now misaligned with obligations on Transpower, which has no obligation to maintain such a pipeline. Applicants with very large load connections will often be looking at options for connecting directly to the transmission network rather than through the EDB, and there are often transmission network upgrades necessary before a distribution-connected load can be livened. If the distribution-connected project is large enough, it will be

dependant on both the EDB and Transpower to make investments. This may affect the ability to meet the proposed timelines in the newly proposed processes.

In terms of the specific information being asked about the project pipeline, we do not think it will be simple to select a fuel type or load type from the options proposed. As an example, of one of the load types is “process heat” which is one of many loads found within a large industrial connection. It may be better to use a standardised identifier of the business type, like the Business Industry Classification Code, to understand what types of businesses are requesting these connections than trying to identify a specific end use within the facility (like transportation or process heat).

The same thinking applies to the proposed fuel type options for DG connections, which should be anticipating the types of information we expect to capture in the more comprehensive DER registry that the Authority has noted is part of its future workplan. We anticipate that larger DG connections are more likely to have multiple generation and storage options on site, and selecting one of the options from the proposed list of fuel types will be quite challenging and potentially not very useful.

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

The Authority has not clearly defined the purpose of this requirement or the specific outcomes that will be improved by having access to this detailed information. Without understanding the intended outcomes or metrics that the Authority will be using to determine the success of this proposed change, this approach risks becoming a burdensome compliance exercise rather than addressing real issues. It is also unclear to us why existing mechanisms such as the Commerce Commission’s information disclosure regulation cannot be used to gather necessary information rather than a second regulator commencing a second information disclosure regulation with different timetables and requirements.

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? O) What are your thoughts on the scope and granularity of the information to be published?
We appreciate the recognition that distributors are still transitioning to a better understanding of their low voltage networks, with the Commerce Commission having recognised investment in low voltage visibility as part of DPP4 which begins next year. While the Authority notes that "more granular information would be published only where it is known", the availability, methodologies, and verification needed for these data may lead to more granular information only being available in certain areas of the network in the near term and it is unclear at this stage how quickly that will expand to cover more of the network. We recommend the Authority should collaborate with the Commission to create a single report that satisfies both the requirements of both the Authority and the Commission related to information about the low-voltage portions of our networks. This will reduce the workload for distributors, which currently face the burden and significant expense of meeting multiple reporting requirements. We anticipate that the most significant challenge to sharing accurate information about network capacity will be related to contingency support. Part of prudent network design is to include normally open switching which allows alternative pathways for supply of electricity in the event of a contingent event, such as a vehicle striking a power pole and bringing down a section of the electricity network. A simple example consists of two feeders, where each feeder is available to provide contingency support to the other. In this case, when an upgrade is needed on one feeder to serve load growth or a new connection that would trigger a review of the design and an upgrade to both feeders so that they are still able to provide contingency support to each other. In reality, the network is much more complex and there are normally open switches all over the network that can be used to minimize the number of customers impacted by a contingency event. Rarely is there a simple 1:1 relationship, as in the first example, and we are not aware of an international best practice for calculating the time of use capacity that includes the constraints related to maintaining contingency. Often these methodologies rely on significant assumptions around expected consumption and generation patterns, and do not take into account the impacts of coordinated responses to control or pricing signals. Therefore, we have concerns about the interpretations of the information when it is widely available to outside parties, who may have significantly different levels of sophistication and understanding of how electrical networks are designed and operated, because this increases the likelihood of misunderstandings and misplaced expectations leading into the application processes.

Proposal E questions: Update the regulated terms for DG
P) What are your thoughts on the proposed changes to the regulated terms?
We agree that there can be synergies in having consistent DG terms to improve consistency across distribution businesses where appropriate to do so. We suggest that the 'contractual terms' alternative would be beneficial, to allow EDBs to develop such terms collectively (e.g., through ENA) to the extent appropriate, while allowing for differences across EDBs where relevant (similar to the Default Distributor Agreement approach which has a mixture of compulsory and optional / bespoke terms). We have commented on the revocation of the 18-month DG construction requirement elsewhere in this submission. An EDB should have the ability to withdraw approval for projects that do not commence construction within a specified period.
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?
We suggest that the contractual terms alternative would be beneficial to allow EDBs to develop relevant terms, either individually or collectively (e.g., through ENA) to the extent appropriate, while also allowing for differences across EDBs..
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?
We would suggest a longer time for resolutions is needed than 20-business days.
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?
As above, alternative contractual terms will allow the industry to agree on appropriate terms.

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?
Under the Privacy Act 2020, businesses in New Zealand must retain personal data only as long as necessary for its intended purpose, and the Authority has already indicated that some of the information related to these applications may be considered personal data. On the other hand, the tax administration act 1994 requires taxpayers to keep business records for a retention period of seven years. The Authority's consultation paper doesn't clearly define its role in controlling record-keeping periods. Any control the Authority proposes should align with existing laws and standards. If their proposal overlaps with or contradicts current laws, it might be unnecessary, as there are already comprehensive laws and standards in place for record-keeping.
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? V) What other terms do you think the Authority should define and what definitions do you propose for those terms?
We recommend the Authority set up a separate submission process for the technical review of the Code following the cross-submission stage. A separate submission process allows for a more focused and detailed technical review and would allow an opportunity to address errors that are likely given the complexity of the subject matter. There is precedent for such a 'technical' consultation, including the refinement of the Consumer Care guidelines in early 2021. We suggest using inclusive and forward-looking language in the definitions. Instead of listing specific technologies, broader terms should be used. For example, "Generating Plant" could be defined as "Equipment used to generate electricity, including but not limited to energy storage systems, bi-directional chargers, inverters, solar energy converters, and other advanced energy systems that inject electricity into a distribution network."
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?
We recommend the Authority set up a separate submission process for the technical review of the Code following the cross-submission stage. A separate submission process, allowing for a more focused and detailed technical review, may be needed because there are many

substantive and interrelated changes to consider as part of this consultation. It may be impractical for submitters to think through the minor and incidental changes at this stage as well, when so much of the content remains to be settled.

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.

We welcome the view that some proposals may require a shorter transition period, while others might require a longer one. This flexibility can accommodate the varying readiness and requirements for all parties. A detailed analysis should be conducted to identify proposals that can come into effect immediately upon release and those that need more time for a smooth transition. This approach ensures that simpler changes are not delayed unnecessarily, while more complex ones receive the attention they need, and the inevitable changes to the Code that will be needed to clarify the complexity.

The transition period should be discussed in greater detail during the cross-submission stage including the consideration of the maximum 12-month transition period, as we noted in our opening letter, there will be a significant amount of work to develop new digital capability and system change to support the applications, tracking and queue management of connections to comply with the proposed requirements. Given the number of connection applications Vector receives per year, we expect complying with the requirements will require some form of an automated system to effectively capture the required data and report on the applications we receive. This is likely to be a major digital project that we anticipate would take 12-18 months to complete, based on the requirements outlined in the consultation documents. There are additional constraints related to key systems and our wider digital delivery programme, which may limit our ability to begin work on this project until late 2025. We note that Vector has a team focussed on the scoping, design, and implementation of digital solutions. Smaller EDBs may not have (or need) this level of maturity within their businesses, and it is too early to say whether there are other constraints to their ability to meet these obligations within this timeline.

During the cross-submission stage, submitters will take into account any new proposals or modifications that may arise, ensuring that the transition period is flexible and responsive.

Y) What proposals do you consider the most important? How long do you think is needed to implement these?

It is challenging to determine the importance of each of the nine proposals particularly when we object to the use of thresholds to define medium and large processes for both DG and load, and when we are not convinced that the current proposals meet the objective of creating a faster connections process with reduced administrative burden.

The proposals set out by the Authority aim to promote the efficient operation of connection processes and the competitive benefits, aligning with the Authority's main statutory objective.

For distributors, this means more efficient use of resources, reduced administrative burdens, and faster processing times. For applicants, it promises quicker and easier application processing.

However, the proposals focusing on sequential stages (initial, interim, and final stages) rather than parallel processing, introduce significant inefficiencies. Sequential stages require greater resource allocation for monitoring milestones and managing overlapping timelines for multiple applications. For example, it requires distributors to juggle multiple deadlines without prioritising network impacts. Often, we need to handle cases individually, which further complicates the streamlined approach. This diverts energy and time towards managing these processes rather than achieving real efficiency gains.

The growth and development of energy networks vary significantly across different regions. A one-size-fits-all approach would not accommodate these differences.

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?

While the Code changes drafted were used to respond to this consultation, the volume of new Code is significant and we did not focus our efforts on annotating and correcting minor issues in the timeframe that we had to respond.

To ensure the new sections of the Code are thoroughly reviewed, and all feedback from the consultation process is accurately incorporated, we recommend that the Authority engage a third party for a comprehensive review, and/or running a subsequent 'technical' consultation to test the practicability of the revised Code changes. As noted above, there is precedent for such a process.

We also recommend extending the cross-submission consultation periods to give all participants more time to review and provide valuable feedback, rather than rushing the process over a few weeks, during the summer holiday period. With the deadline set for 5pm on Friday, January 24, 2025, submitters have only two weeks to review a large volume of feedback and prepare their cross-submissions. This timeframe is rushed, considering that many companies only reopen in the second week of January. Extending the cross-submission deadline would allow submitters to provide more thorough and quality feedback, benefiting the overall consultation process.

Pending the Authority's consideration of the recommendations received during this consultation period, particularly our own that suggest a 'simple' and 'complex' approach (rather than the 'medium' and 'large' approach in the drafted Code), there may be an additional detailed drafting review phase needed to review the revised Code when that is ready. This could also include the minor, technical revisions that were proposed.