



24 January 2025
Electricity Authority
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Submitted via email to connection.feedback@ea.govt.nz

Cross-submission – Network connections project: Stage one amendments

Introduction

- 1 Orion welcomes the opportunity to provide a cross-submission on the consultation paper ‘Network connections project: Stage one amendments.’¹ This cross-submission builds on our initial feedback and provides additional analysis of implementation impacts as committed in our original submission.
- 2 Parts of this cross-submission contain confidential, or commercially sensitive information, and a redacted version has been provided for public disclosure.
- 3 As noted in our initial submission, while we support efforts to improve connection processes, we maintain significant concerns about the practical implementation of the proposed amendments.² This cross-submission provides detailed cost estimates and implementation considerations that we believe must be addressed before the Authority proceeds with the proposed changes.

Implementation and financial considerations

- 4 Orion has conducted an analysis over implementation and resourcing costs to better understand the potential financial implications for our customers. As pointed out by Aurora Energy, “these costs will need to be either passed directly onto new connecting customers or socialised amongst existing customers.”³ Our analysis indicates total first-year implementation costs would likely exceed \$2.5m, comprising:
 - 4.1 **System changes and upgrades:** Estimated at least \$1.8m for comprehensive system development and implementation. This investment encompasses three key areas: First, development of new application management functionality, including the network connections pipeline and clock start/stop tracking mechanisms. Second, enhancement of our reporting systems to meet new compliance requirements. Third, refresh our existing application processes and development of new applications to align with the updated Code requirements. These changes are necessary to ensure our internal and external systems can effectively manage and track applications within the prescribed timeframes while maintaining appropriate documentation and reporting capabilities.
 - 4.2 **Personnel and training costs:** Estimated at least \$600k for additional engineering and technical contract management staff to review and approve applications within mandated timelines, and staff training on new requirements.

¹ [Network connections project - stage one amendments consultation paper](#)

² [Orion submission](#)

³ [Aurora Energy submission](#), page 4.

4.3 **Process and documentation development:** Estimated at least \$100k for reviewing, updating, and developing supporting business processes and documentation, and updating supporting customer application documentation and help guides.

5 Additionally, the proposed Code amendment would oblige Orion to maintain significant on-going operational costs. [REDACTED]

6 Orion cross-submits that, as outlined in our prior submission, we agree with Vector's and Unison and Centralines' concerns about the need for a price-quality path reopener and emphasise the importance of coordination between the Commerce Commission and the Authority. The Authority must consider requesting that the Commerce Commission re-open the price-quality path using s54V of the Commerce Act, on behalf of distributors.⁴

7 Orion cross-submits that the proposed 12-month implementation period is insufficient given the scale and complexity of required changes.⁵ The proposed Code amendments affect multiple integrated systems, require extensive process modifications, demand significant staff training, and necessitate the development of entirely new technical solutions. A longer implementation timeline would better serve both distributors and customers by ensuring robust and well-tested systems are in place.

Application timeframes

8 Several submitters have raised significant concerns about the extent of analysis undertaken to demonstrate systemic issues with connection timeframes. Vector notes that "there is little analysis or assessment undertaken by the Authority on the current performance of existing EDB connection processes" and questions "how the Authority has confidence that the existing processes are not serving the majority of access seekers well."⁶

9 While we acknowledge the desire of access seekers, including NewPower Energy, Drive Electric, ChargeNet, Contact Energy, Meridian, and the Independent Electricity Generators Association (IEGA) to expedite connection processes, we have significant concerns about proposals to halve current timeframes.⁷ As described in our prior submission, our experience with recent grid-scale solar farm projects demonstrates that technical studies alone can take 6-8 months to complete. We invite the Authority to engage with distributors to better understand the complexities and dependencies within our connection processes, particularly around technical studies and network analysis, before finalising any mandated timeframes. This collaborative approach would help ensure that any prescribed timelines are both practical and achievable while maintaining network security and reliability.

⁴ [Orion submission](#), page 3; [Vector submission](#), page 6; [Unison and Centralines submission](#), pages 8-9

⁵ [Network connections project - stage one amendments consultation paper](#), page 76

⁶ [Vector submission](#), page 1

⁷ [NewPower submission](#), pages 7-9; [Drive Electric \(Sapere\) submission](#), pages 10-11; [ChargeNet submission](#), pages 3-4; [Contact Energy submission](#), pages 2-3; [Meridian submission](#), page 3; [IEGA submission](#), pages 2 and 8-9

- 10 Orion cross-submits that we strongly support Transpower’s, Northpower’s, and Counties Energy Trust’s assessments that current timeframes are insufficient where network studies are required. Timeframes for network studies are largely outside of a distributor’s direct control and are often the result of a limited pool of qualified consultants in New Zealand. Transpower’s submission supports this position, noting that “there will be factors outside of a distributor’s control” [that impact the ability of a distributor to meet mandated timeframes], and that the “industry is presently resource constrained and this can have the unintended consequence of slowing down other work.”⁸
- 11 Orion cross-submits that we further support Transpower’s recommendation for a principle-based approach rather than mandated timeframes. Transpower notes that connection timeframes for the completion of an application “are best dealt with through policies and agreements between the applicant and the distributor” and recommends that these “are principle based to reduce rigid compliance obligations.”⁹ This approach would better accommodate the complex realities of connection applications while maintaining appropriate oversight and accountability.
- 12 Orion cross-submits that it disagrees with Sapere’s proposal, on behalf of Drive Electric, for ‘fast-tracked’ homogenous applications.¹⁰ This proposal seems to assume that there is largely a ‘tick-box’ approval process for certain types of connections. This is not the case, as each connection presents unique technical challenges based on location and network conditions. Even seemingly similar applications can require substantially different technical solutions depending on their location in the network, and available network capacity.
- 13 Orion further cross-submits that the Authority should consider aligning the ‘Business Day’ definition in the Code, with the definition of ‘Working Day’ in the Electricity Act 1992. This would allow distributors to ‘pause’ an application in the period between 25 December and 15 January in the following year. This alignment would create consistency across regulatory frameworks and acknowledge the practical operational constraints during the holiday period.

Deemed approval

- 14 Orion cross-submits that it supports Counties Energy Trust’s, Vector’s, and other distributor’s submissions that the remedy for breach of regulated timeframes should not be a “deemed approval” of an application.¹¹ We note that the Commerce Commission’s regulatory approach typically focusses first on information disclosure and understanding industry challenges, before implementing penalties or rewards. We encourage the Authority to adopt a similar approach with these proposed regulations.
- 15 We recommend that prior to implementing this reform, the Authority focus on understanding systemic challenges and barriers to efficient connection processes through:
- 15.1 Investigation of significant timeframe breaches to identify root causes,
 - 15.2 Industry education and capability building,
 - 15.3 Collaborative development of process improvements, and

⁸ [Transpower submission](#), page 1; [Northpower submission](#), page 4; [Counties Energy Trust submission](#), page 2

⁹ [Transpower submission](#), page 1

¹⁰ [Drive Electric \(Sapere\) submission](#), page 17

¹¹ [Counties Energy Trust submission](#), page 4; [Vector submission](#), page 9

15.4 Regular monitoring and reporting of outcomes.

- 16 When the Authority implements these proposed regulations, we recommend that PowerCo’s suggestion of a scorecard is broadened to include connection timeframes that allow distributors to track key performance metrics across the sector, enable sharing of best practices, and demonstrate progress toward compliance targets.¹²

Clock start/stop

- 17 Orion cross-submits that it supports both access seekers and distributors who argue for clearer clock start/stop functionality in the Code. Multiple submitters identified the need for better-defined processes around timeline management – particularly for applications requiring technical studies or external consultation.
- 18 As highlighted in our original submission, we recommend the Authority look to OFGEM’s Connections GSOP Guidance, which provides a framework for connection timeframes and implementing clock start/stop mechanisms.¹³
- 19 Drawing from New Zealand’s regulatory precedents, the Resource Management Act 1991 offers an instructive model for methods on managing complex processing timelines.¹⁴ This framework may offer valuable insights for the Authority when finalising the proposed Code amendment:
- 19.1 What activities trigger clock stops and starts; and
 - 19.2 When processing timeframes are suspended, which time periods are excluded from the overall processing timeframe.
- 20 This approach would provide certainty for both distributors and applicants while maintaining appropriate flexibility for complex technical assessments. The RMA framework has proven effective in managing similar complexity in resource consent processes and could be adapted for electricity connection applications.

Network capacity information and geospatial map

- 21 Orion cross-submits that it supports submissions from both access seekers and distributors that advocate for a comprehensive geospatial mapping solution to share network capacity information. While we endorse PowerCo’s implementation of geospatial maps as an example of good practice, we believe the sector requires a coordinated, national approach – rather than individual distributor solutions.¹⁵

¹² [PowerCo submission](#), pages 9 and 19

¹³ [Orion submission](#), pages 8 and 15

¹⁴ [Resource Management Act 1991](#), clause 88B

¹⁵ [PowerCo submission](#), page 9

- 22 As outlined in our prior submission, we recommend that the Authority look to international examples, particularly the UK electricity sector’s comprehensive approach to network information sharing.¹⁶ The Energy Networks Association (ENA) in the UK has successfully implemented a coordinated framework that includes centralised access to network capacity information and other relevant online resources and tools for connection customers.¹⁷
- 23 Orion cross-submits that it strongly supports ChargeNet’s view that “sufficient regulatory commitment from the ComCom and the EA will be required for [this] transformation to occur...”.¹⁸ To achieve a similar outcome in New Zealand, we recommend that the Authority establish a cross-sector working group comprising representatives from Transpower, distribution networks, generators, access seekers and other relevant stakeholders. This working group should focus on developing one approach to presenting network capacity information, from the transmission to distribution levels, in a geospatial format that is useable by access seekers.
- 24 To ensure successful implementation, funding should be provided directly by the Authority as part of its contracting for market operation service providers. This coordinated approach would deliver significant benefits through reduced duplication of effort across distributors, consistent user experience for connection applicants, and improve visibility of whole-of-system constraints.

Application process classifications and thresholds

- 25 Orion cross-submits that we disagree with the IEGA, NewPower, and other submitters, who argue for a transition to ‘complex’ versus ‘simple’ application processes.¹⁹ While this was proposed as an alternative approach by the Authority for large-scale DG and Load applications, such categorisation would become overly subjective, and difficult to assess consistently. These terms would likely have different definitions between distributors and access seekers, potentially creating unnecessary disputes about classification decisions. It is important to recognise that an application in one part of the network may be considered ‘complex’, while a similar application in another location may be considered ‘simple’ for a number of reasons.
- 26 Orion cross-submits that the application thresholds should remain as outlined in the consultation document, and we support the analysis undertaken by the Authority’s and the Network Connections Technical Working Group’s (NCTG) to support these thresholds.²⁰ Our position is based both on technical requirements, and the applications that we have received:
- 26.1 Connections above 300kVA typically require a new distribution substation or transformers, or modifications or upgrades to existing assets;
- 26.2 The 69kVA – 300kVA category likely require a new kiosk to be installed to support the load; and

¹⁶ [Orion submission](#), pages 2 and 19-20

¹⁷ <https://www.energynetworks.org/industry/connecting-to-the-networks/connections-data>

¹⁸ [ChargeNet submission](#), page 5

¹⁹ [IEGA submission](#), page 2; [NewPower submission](#), pages 6, 9, 12

²⁰ [Network connections project - stage one amendments consultation paper](#), page 31

26.3 Recent experience strongly supports maintaining current thresholds. While ChargeNet, Meridian, and other access seekers argued for higher thresholds to align with their operational requirements, our application data shows limited demand for larger connections in the New Zealand market.²¹ Between September 2023 and December 2024, we received only three CPO applications that exceed 300kVA connection capacity. This is compared to 41 applications that are below this threshold. This data suggests that the current thresholds remain appropriate for New Zealand's market conditions and charging infrastructure requirements.

27 Orion cross-submits that we disagree with a number of access seekers' proposals to increase the large load and DG categories to either 500kVA, 750kVA, 1MVA, 2MW, or 5MW. The assumption that connection applications below these thresholds are not complex is inaccurate for a number of reasons, including location, capacity requirements and network constraints. As a further example to our prior submission, urban regeneration projects involving multiple townhouse units can present significant complexity even in established network areas.

Regulatory considerations and obligation to connect

28 Orion cross-submits that we support the statements from Counties Energy Trust, Vector, the Electricity Networks Aotearoa (ENA), and other distributors regarding the potential new obligation to connect load.²² We refer the Authority to our cross-submission on the Distribution Connection Pricing consultation for further details on this position.

29 Orion cross-submits that we support Energy Trusts of New Zealand's (ETNZ) position that capacity rights should not be embedded in the Code. As they note, "Networks sell access not capacity. With new connections and upgrades they provide a maximum capacity limit within an agreed timeframe. Capacity rights imply ownership and with ownership comes the perception of having something that is tradeable."²³ We agree that creating tradeable capacity rights would introduce unnecessary complexity and potential market distortions that do not align with the Authority's statutory objectives of promoting the "efficient operation" of the electricity industry.²⁴

Technical and administrative considerations

30 Orion cross-submits that it supports the IEGA's proposal regarding the criteria for approving final applications.²⁵ As we outlined in our prior submission, the Authority's proposed change would require distributors to evaluate applications based on both "optimal use of the distribution network" and what "achiev[es] the most long-term benefit for consumers." We agree with IEGA, and other submitters, that this introduces unnecessary subjectivity, as each distributor would need to develop its own interpretation of these criteria. Final applications must be considered in light of Part 6's clear purpose statement: "to enable the connection and continued connection of distributed generation [and load] to a distribution network."²⁶

²¹ [ChargeNet submission](#), page 3; [Meridian submission](#), page 5

²² [Counties Energy Trust submission](#), page 3; [Vector submission](#), pages 3-5; [ENA submission](#), pages 2-3

²³ [ETNZ submission](#), page 5

²⁴ [Electricity Industry Act 2010, s15\(1\)](#)

²⁵ [IEGA submission](#), pages 3 and 10

²⁶ Electricity Industry Participation Code 2010, Schedule 6.1, clause 6.1(a).

- 31 Alternatively, Orion cross-submits that it supports Counties Energy Trust’s recommendation that the Authority consider adopting principles-based requirements similar to those found in the Telecommunications Act 2001.²⁷ That Act’s standard access principles provide a framework requiring services to be provided in a timely manner, consistent with international best practice, and on reasonable terms and conditions (excluding price). This approach could provide appropriate flexibility while maintaining clear standards for connection services.
- 32 Orion cross-submits that it supports Lightyears Solar Limited’s position that application resubmission at no cost should be site and address specific.²⁸ This requirement would prevent gaming of the application process by access seekers.
- 33 Orion cross-submits that it supports Lightyears, Lodestone, ChargeNet, and other access seekers’ assessments that current application fees are insufficient to cover actual processing costs for large scale applications and should be increased to reduce or eliminate placeholder applications.²⁹ We welcome the Authority’s planned review of application fees, as part of the Stage 2 of the ‘Network connections project’.³⁰
- 34 Orion cross-submits that it supports Lodestone’s position that the 18-month construction timeframe requirement should remain in the Code.³¹ We also support Vector’s concerns that the currently drafted Code does not adequately address capacity hoarding risks. Vector notes that applicants who miss milestones appear to remain in the queue while retaining reserved capacity – even after failing to meet renegotiated milestones.³² As highlighted in our original submission regarding OFGEM’s recent queue management reforms, we recommend the Authority strengthen provisions to remove non-viable or stalled projects from the connections pipeline, ensuring capacity is available to projects that are ready to proceed.³³
- 35 Orion cross-submits that it supports Z Energy/Flick’s concerns regarding the requirement for distributors to mediate between connecting parties. As noted in our first submission, and reinforced by Z Energy/Flick’s experience, this mediation requirement can result in a drawn-out and lengthy process – particularly where commercial competitors are involved. We agree with Z Energy/Flick’s assessment that there is no clear process for how commercially competing groups can be brought together effectively. We support their suggestion that distributors should focus on working with applicants to ensure network connections are achieved efficiently, with clear communication about costs and necessary network studies.³⁴

²⁷ [Counties Energy Trust submission](#), page 2; [Telecommunications Act 2001](#), Part 1, Subpart 2, clause 5

²⁸ [Lightyears submission](#), page 3

²⁹ [ibid](#), page 3; [Lodestone submission](#), page 1; [ChargeNet submission](#), page 3

³⁰ [Network Connections project - Stage one](#), page 13

³¹ [Lodestone submission](#), page 3

³² [Vector submission](#), pages 11-12

³³ [Orion's submission on network connections project, stage 1](#), pages 3-4; [Vector submission](#), page 11

³⁴ [Z Energy/Flick submission](#), page 4; [Orion's submission on network connections project, stage 1](#), page 9

36 Building on our first submission regarding notification requirements for all DG and Load applicants, and all existing DG connected customers, the requirement to notify raises a further implementation challenge that requires the Authority's consideration.³⁵ The requirement to notify existing connected DG customers fails to account for changes in ownership, or operation of connected facilities. Orion does not have a direct relationship with most consumers, after final approval of the connection application, particularly where applications were submitted by third parties such as solar installers or electricians. This creates both practical difficulties in maintaining current contact information, and an administrative burden, as property ownership changes and consumer movements cannot be effectively tracked by distributors.³⁶

Concluding remarks

37 If the Authority has any questions or queries on aspects of this cross-submission which you would like to discuss, please contact me on 03 363 9898.

Yours sincerely,



Connor Reich

Regulatory Lead – Electricity Authority

³⁵ [Orion submission](#), pages 11 and 17-18

³⁶ This challenge aligns with issues raised in our submission on the [Consumer Care Obligations](#) (page 6), where we highlighted difficulties in maintaining accurate customer contact information through existing industry processes like EIEP4. These challenges would be exacerbated by additional notification requirements.