16 June 2026

Electricity Authority
PO Box 10041
Wellington 6143

Submitted via email to distribution.feedback@ea.govt.nz

Consultation paper: Improving information on high-voltage network capacity

Introduction

1. Orion welcomes the opportunity to provide feedback to the Electricity Authority (Authority) on the Consultation paper: Improving information on high-voltage network capacity (Consultation Paper).

2. Orion owns and operates the electricity distribution infrastructure in central Canterbury, including Ōtautahi Christchurch City and Selwyn District. The network is both rural and urban and extends over 8,000 square kilometres from the Waimakariri River in the north to the Rakaia River in the south; from the Canterbury coast to Arthur's Pass. Orion delivers electricity to more than 233,000 homes and businesses and is New Zealand's third largest Electricity Distribution Business (EDB).

Submission

3. Orion is supportive of the Authority looking to improve information on high-voltage network capacity. Accessible information will be a key factor in encouraging distributed energy resources (DER) and greater flexibility on distribution networks. Orion has internally recognised this and is actively working towards improving the accuracy of the data held so it can be meaningfully shared.

4. Whilst sharing this information is important, Orion is also of the view that the information provided will only be as good as it is accurate; and currently the accuracy of data varies widely (as discussed throughout this submission). Orion is concerned that a Code change at this time may not meet the expectations of the Authority as much of the information being sought is either unavailable or inaccurate. However, it is important that momentum is kept in this area to ensure distributors get to a point of sharing meaningful data, regularly. Orion sees that a clear roadmap that ends in a Code change would strike the right balance. Milestones within the roadmap would keep the industry moving in the right direction, at pace, without jumping too quickly to a Code solution at a time when distributors are still grappling with getting this data together (and getting it right). This would be similar to the "guidance only" option provided in the Consultation Paper but with a key difference being that the guidance would only be short-term and a Code change would be the end result. Having this Code change planned would mitigate the Authority's concerns that some distributors may not act in accordance with the guidance.

Orion New Zealand Ltd
565 Wairakei Road
PO Box 13896
Christchurch 8141
+64 3 363 9898
oriongroup.co.nz

5. Orion's current process for producing capacity information is to run a power flow simulation that tests the network at each node. This mechanism requires significant manual intervention, but it enables more variables to be included in the calculation, resulting in the most accurate results. Orion could produce information more quickly by not carrying out such extensive testing but sees that the higher the accuracy, the more meaningful the data. Orion is concerned that a Code change at this time may refocus priorities so that information is published quickly, rather than accurately.

6. Furthermore, by not rushing into a Code change there would also be a greater opportunity to work together as an industry to produce a map across all distributors. The current proposed approach would encourage separate maps, all with slightly different ways of presenting the information. Consumers may benefit from having a single map where they could access data from across the motu. Orion encourages the Authority to work with the Commerce Commission to explore this option and avoid any overlap of published information.

7. The following sections highlight some of the issues that Orion is initially seeing with the proposed datasets. These further emphasise why a roadmap would be more appropriate, at this time.

Distributors must publish network maps showing specified network capacity information

8. This data sets look to require the publishing of high-voltage network circuit locations, the design capacity of each circuit, the forecast load capacity, the historical network reliability, and alternatives to network reinforcement.

    - Orion supports the intent of publishing an interactive map with the underlying data that shows the location of high-voltage network circuits. Whilst Orion has this information, the accuracy of it varies widely. It should be made clear that Orion has a good understanding of power flows for operational purposes, but because operations do not use geographic representation, the geographical accuracy of the network is limited. Improving this information is something that is actively being worked on at Orion and so overtime this will improve. However, until this data is improved there is a risk that it will be confusing for consumers. There are similar concerns for providing the design capacity of each circuit. Whilst the design capacity at higher voltages is better known than lower voltages, there still remains accuracy issues and data gaps.

    - Orion considers that the Authority has overstated the usefulness of forecasting capacity out to five years. Any forecast tool looking that far into the future would contain large amounts of assumptions and would not be accurate. There are considerable sensitivities around the timelines for generation projects, and it would be difficult to know which projects to include. For significant projects, including them or not would provide large swings in the data.

- With regards to historical network reliability, Orion submits that System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI) are not appropriate measurements to use. Feeder Average Interruption Duration Index (FAIDI) and Feeder Average Interruption Frequency Index (FAIFI) would provide more meaningful data. SAIDI and SAIFI are systemwide measurements and whilst they technically can be disaggregated to provide locational reporting as a 'contribution' to system reliability, the resulting measures would be so small as to be meaningless. FAIDI and FAIFI would be a more meaningful measure of localised reliability performance as it would represent the performance experienced by the group of customers at specific feeders. Furthermore, network reliability is not influenced by changes in network capacity but is a function of points of isolation. It would make more sense to report reliability at automated network switching points, like auto-reclosers, where localised reliability can potentially change materially. However, care should be taken not to duplicate the disaggregated reliability reporting required by the Commerce Commission's information disclosure regulation.

- Orion is supportive of the price of alternatives to network reinforcement being published. However, there will need to be a clear date in which this requirement is reassessed. As the market develops this requirement may not be necessary in the future.

Distributors must also make high-voltage network capacity information available in downloadable data files

9. Orion considers that this requirement should be deferred and reconsidered at a later date when the accuracy of data is improved. Producing data in this format would be incredibly administration-heavy for distributors at a time when the priority should be to improve the accuracy of data.

Distributors must disclose the methodology used to calculate each data set and indicate the accuracy of the information

10. Orion is supportive of disclosing the methodology used to calculate each data set and indicate the accuracy of the information. As mentioned above, much of the data expected to be provided has varying levels of accuracy and so being transparent about this will be vital.

Distributors must update network-related information on at least a quarterly basis

11. Again, the accuracy of the data distributors will be publishing may not be accurate for some time. Furthermore, the amount of data proposed to be published is significant and it will take time to produce robust automations to make publishing data less administratively heavy. At least initially, until accuracy and systems improve, Orion does not see that any changes would be material enough to support reporting more than once a year. Once data is improved and automations created, then Orion may support more regular reporting. A roadmap would be valuable here as it could make it clear that quarterly reporting will be expected but in the near term may not be appropriate as distributors focus their priorities on data quality and automating processes.

Concluding remarks

12. Orion is supportive of greater transparency of high voltage network capacity and looks forward to working with the Authority in improving the information publicly shared. However, Orion is concerned that a Code change is too soon and the industry would benefit from a bit more time to ensure data is accurate and is able to be presented in a clear and meaningful way. Orion sees that a roadmap moving towards a Code change would be greater able to achieve the Authority's goals.

13. Please see Appendix A for Orion's responses to the specific questions in the Consultation Paper.

Yours sincerely,

Grace Burtin
Regulatory Lead -Electricity Authority

Appendix A

Questions	Comments
Q1. Do you agree with our assessment of the current state of the information and capabilities needed to inform network hosting capacity? If not, please explain why.	Orion does not agree with the assessment that most distributors have a good understanding of the topology and the power flows on their high-voltage networks. Whilst Orion has a good understanding of power flows for operational purposes, Orion's operations are not run by geographic representation. Greater geographic accuracy is something that is being worked towards but has not been achieved yet.
Q2. Do you agree the issues identified by the Authority are worthy of attention? If not, please explain why.	Yes.
Q3. Do you agree with our assessment that now is the time to regulate for network visibility? If not, when do you consider would be the right time?	No. As discussed in the body of this submission, Orion's view is that the Authority should focus on producing a roadmap with clear milestones. The roadmap should end in a Code change but, at a time where accuracy of data is still being worked on, priority should be placed on clarity of direction and expectations for all distributors.
Q4. Do you agree with our assessment of the outcomes that network visibility supports? If not, why not?	Yes.
Q5. Do you consider the proposed amendments to Part 6 of the Code would promote the Authority's statutory objective? If not, why not?	No, not at this stage. Whilst a Code change will be required in the future, there is a risk of stifling collaboration and innovation because not all distributors are yet in a position to engage in regulatory change meaningfully. If the Authority's direction and expectations were clearly laid out in a roadmap, distributors would have the ability to work on their own data and systems without losing momentum (which may be a risk if there was no Code change or roadmap in place). It would also provide an opportunity to work collaboratively to produce a single map where consumers could access data from across the motu.

Q6. Are there any matters you believe are missing from the proposed Code amendment? Please specify.	No.
Q7. Is the indicative timeframe for implementing the proposed Code amendment likely to be adequate? If not, please provide information supporting a different timeframe, including identifying cost savings from a later implementation date.	Yes, Orion could meet this timeframe. However, as discussed throughout this submission there is benefit in delaying a Code change to focus priorities on collaboration and data accuracy.
Q8. What are your views on the proposed approach where detailed information about the data sets captured within the definition of network capacity information would be contained in technical specifications?	Orion agrees with this approach. The information discussed in the Consultation Paper would not be appropriate to be contained in the Code.
Q9. Do you consider that the proposal to develop network visibility specifications in consultation with interested parties would be effective? If not, why not?	No comment.
Q10. Is the proposed timeframe for developing the specifications likely to be sufficient?	No comment.
Q11. Do you agree with the proposal to start with high-voltage network visibility? If not, please share your perspectives on where best to start.	Yes.
Q12. Do you agree with the assumptions the Authority has made? Why/Why not?	No. As discussed in the body of this submission, Orion is concerned that the accuracy of data is not yet sufficient and so does not agree that distributors have good power quality data and understanding of topology.

Q13. Have we correctly identified the benefits of network visibility?	Yes, however, Orion considers that these benefits cannot yet be fully realised. Until there is greater accuracy and consistency between networks, the benefits are likely to be overstated. Whilst the Code change intends to improve accuracy and consistency, it is too soon and a roadmap would better achieve these goals in the short term.
Q14. Do you have any information that might help quantify the value of these benefits? If so, please provide this information.	No comment.
Q15. Have we correctly identified the costs of network visibility?	Yes.
Q16. Do you have any information that might help quantify the costs? If so, please provide this information.	No comment.
Q17. Have we correctly identified the regulatory overlaps?	No comment.
Q18. Do you agree with our assessment that there is a net benefit notwithstanding any regulatory overlap? If not, why not?	Not currently. However, once work has been done to improve accuracy then Orion sees there will be a net benefit from a Code change.
Q19. Do you have any information that might help quantify the costs and benefits associated with the regularly overlap? If so, please provide this information.	No comment
Q20. Do you agree that the Authority should consider reducing the regulatory overlap as the proposed specifications are developed?	Yes. Minimising regulatory overlap is always best regulatory practice.
Q21. Do you agree with our assessment that there will be net benefit from the proposed amendments? If not, why not?	As discussed above, whilst we see a Code change will be necessary, the industry is not ready at this stage.

Q22. Do you agree the proposed amendment is preferable to the other options? If you disagree, please explain your preferred option in terms consistent with the Authority's statutory objective in section 15 of the Electricity Industry Act 2010.	No. Orion sees that the "guidance only" option is the most aligned to the roadmap approach. However, the key difference that Orion sees is that the guidance should have an end point, at which time the Code would be changed. Having this Code change planned would mitigate the Authority's concerns that some distributors may not act in accordance with the guidance.
Q23. Do you agree the Authority's proposed amendments comply with section 32 of the Electricity Industry Act?	No comment.
Q24. Do you have any comments on the drafting of the proposed amendment?	No comment.
Please indicate if you wish to be consulted during the development of the technical specifications supporting the proposed Code amendment.	Yes. Orion would like to be consulted.