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Electricity RMA Project Team
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Submission on Strengthening national direction on renewable electricity generation and electricity transmission

Introduction

1. Orion New Zealand Limited (**Orion**) welcomes the opportunity to make a submission on the proposals for strengthening national direction on renewable electricity generation and electricity transmission.
2. We own and operate the electricity distribution infrastructure in Central Canterbury, including Ōtautahi Christchurch. Our 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. We deliver electricity to more than 220,000 homes and businesses and are New Zealand's third largest Electricity Distribution Business (EDB).
3. Central Canterbury is a place of rapid growth and transformation, embracing change and innovation, with Ōtautahi Christchurch at the heart of this diverse and vibrant region. Electricity distribution has always been an essential service that underpins regional, community and economic wellbeing. Our service is vital to the wellbeing and livelihood of the people and businesses who live and operate here. Now, it also has a critical part to play in New Zealand's transition to a low carbon economy.
4. In this context Orion's Purpose of "Powering a cleaner and brighter future with our community" is central to all we do. As Aotearoa New Zealand transitions to a low carbon economy, the energy sector has a critical part to play. Orion has established its purpose to be a vital player in that transition for our community and our region. We are focused on helping our community realise its dreams for a future that is new, better, and more sustainable over the long term.



5. To this end, our strategy is as follows:



6. As you can see, three of our focus areas are

- facilitating decarbonisation and hosting capacity at lowest cost,
- investing to maintain a safe, reliable, resilient network at lowest total lifecycle cost, and
- being a force for good in the communities we serve.

7. Orion, along with Aotearoa New Zealand’s other electricity distributors, has a key role to play in enabling decarbonisation and the electrification of the economy in service of New Zealand’s target for net zero greenhouse gas emissions by 2050. That is why we are one of the founding members of Powering Change, an initiative that sets out progress on New Zealand’s climate change goals and details the collective action of members, who represent a broad cross section of electricity and gas companies.

8. With that background in mind, we provide some comment on section 12 of the Discussion Document and the questions posed in relation to high voltage electricity lines not owned or operated by the national grid.

High voltage electricity lines not owned or operated by the national grid

9. The Discussion Document notes that there is currently no national direction applicable to distribution networks. However, high-voltage lines, defined as those at or above 110 kV, play identical roles and have identical effects whether they are owned and operated by the national grid or another party.

10. The Document goes onto state that high-voltage lines play a critical role in the electricity system, connecting electricity flows from electricity generation facilities the national grid to consumers and communities across the country. It also states that the wider distribution network is different from the national grid in several ways, including scale and operating environments (for example, local power lines

are often located within road reserve). The operation, maintenance and upgrading of these distribution activities can be well provided for in the planning system through designations and network utility rules.

11. The Orion distribution network does not include any 110kV lines. However, Orion has 259 km of 66kV overhead lines, 242 km of 33kV overhead lines and 3047 km of 11kV lines. Of that we note the following approximate percentages

- 53% of our 66kV lines cross private land **and are not located** in the road reserve,
- 40% of our 33 kV lines cross private land **and are not located** in the road reserve,
- 40% of our 11kV lines cross private land **and are not located** in the road reserve.

12. In terms of the specific questions you have raised

12.1. Do you agree that electricity transmission provisions that apply to the national grid should be extended to also cover high-voltage transmission lines not owned and operated by the national grid?

13. Yes. We agree that that electricity transmission provisions that apply to the national grid should be extended to also cover high-voltage transmission lines not owned and operated by the national grid. As stated, high-voltage lines play a critical role in the electricity system, connecting electricity flows from electricity generation facilities to the national grid and to consumers and communities across the country. Orion's high voltage lines carry out the same function as those owned by Transpower.

14. In our view, our subtransmission network (66kV and 33kV) is the backbone of our service to customers. These lines are supported by 396 towers and 5,405 poles. Any failure of our subtransmission network has the potential to severely affect our safety and performance objectives, and disrupt our customer's lives. We think this part of our network deserves better recognition and protection, and easier consenting pathways.

12.2. In your view is 110 kV an appropriate threshold for determining high-voltage transmission?

15. No. We would support 33kV being the appropriate threshold for determining high-voltage transmission, particularly given the extent of this part of the network that is not located in the road reserve. As a general principle, we look to install Orion assets within the road corridor but we need to use private land if no other feasible options are available.

16. This will come into sharper focus once new renewable generation comes on board. For example, we currently have more than 600MW of utility scale solar generation being considered in the Orion network area. As context, our peak load is approximately 650MW.

12.3. Are there any technical or other differences that policymakers should be aware of that could result in unintended consequences?

17. We do not envisage any significant unintended consequences would arise from providing for a lower threshold of high-voltage lines. That said, we would suggest that if such a change is made then the provisions should be reviewed to assess how they would impact where there are high voltage lines in urban areas. There is likely to be a higher volume of lines between 33kV and 110kV located in urban areas where some of the more restrictive policies might overly restrict development in already built-up areas. It will be important to ensure a consenting pathway exists where appropriate.

12.4. Please provide any evidence or examples to support your view.

18. We refer to the percentages above at paragraph 10. You can also find descriptions of our subtransmission assets in our most recent Asset Management Plan which can be found at <https://www.oriongroup.co.nz/assets/Company/Corporate-publications/Orion-AMP-March-2023.pdf>

12.5. Please provide any comments about this section.

19. As discussed above, the Discussion Document notes that the operation, maintenance and upgrading of these distribution activities can be well provided for in the planning system through designations and network utility rules. It does not follow that these methods are necessarily straightforward, or that there will not be a protracted hearing process in some instances.

20. It is also important to highlight that the provisions of the NPSET relate to other activities in the vicinity of transmission lines; the application of the provisions to Orion's 33kV and 66kV lines would assist with the protection of these important assets from inappropriate activity located close to the lines.

Concluding remarks

21. Thank you for the opportunity to provide this submission.

22. We do not consider that any part of this submission is confidential. We have read and acknowledge the Privacy Statement in the Discussion Document for this consultation.

23. We also support the submission of Electricity Networks Aotearoa.

24. If you have any questions about this submission please contact Vivienne Wilson, Policy Lead, Orion New Zealand Ltd at vivienne.wilson@oriongroup.co.nz or 027 202 2718.

Yours sincerely

A handwritten signature in blue ink that reads "Vivienne Wilson". The signature is written in a cursive, flowing style.

Vivienne Wilson
Policy Lead