

Before an Independent Hearings Panel
appointed by Christchurch City Council

under: the Resource Management Act 1991

in the matter of: the hearing of submissions on Plan Change 14 (Housing
and Business Choice) to the Christchurch District Plan

and: **Orion New Zealand Limited**
Submitter 854

Statement of Evidence of Melanie Foote (planning)

Dated: 20 September 2023

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STATEMENT OF EVIDENCE OF MELANIE FOOTE

INTRODUCTION

- 1 My full name is Melanie Karen Foote and I am a Principal Consultant at Resource Management Group Limited in Christchurch.
- 2 I have over 20 years' experience as a planner for local authorities and consultancies in Queenstown, United Kingdom and Christchurch. I hold a Bachelor of Resource Studies and a Post Graduate Diploma in Resource Studies from Lincoln University. I am a full member of the New Zealand Planning Institute.
- 3 I am familiar with the submission made by Orion New Zealand Limited (submitter number 854) (*Orion*) dated 12 May 2023 and the planning issues discussed in that submission. I have been authorised by Orion to provide evidence on its behalf.
- 4 The key documents I have used, or referred to, in forming my view while preparing this statement are:
 - 4.1 Section 42A Report and appendices of **Sarah Oliver** for Council dated 11 August 2023.
 - 4.2 Evidence of **Anthony O'Donnell** for Orion New Zealand Limited dated 20 September 2023.
- 5 Terms and abbreviations used in my evidence include:
 - 5.1 Orion - Orion New Zealand Limited;
 - 5.2 CCC – Christchurch City Council;
 - 5.3 RMA – Resource Management Act;
 - 5.4 SEDL – Significant Electricity Distribution Line;
 - 5.5 MDRS – Medium Density Residential Standards;
 - 5.6 QM – Qualifying matter;
 - 5.7 MDRZ - Medium Density Residential Zone; and
 - 5.8 CDP - Christchurch District Plan.

CODE OF CONDUCT

- 5 Although this is not an Environment Court hearing, I note that in preparing my evidence I have reviewed the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note

2023. I have complied with it in preparing my evidence on technical matters. I confirm that the technical matters on which I give evidence are within my area of expertise, except where relying on the opinion or evidence of other witnesses. I have not omitted to consider material facts known to me that might alter or detract from my opinions expressed.

SCOPE OF EVIDENCE

6 I have been asked to comment on the relief sought by Orion in relation to the proposed Plan Change 14 (Housing and Business Choice) to the Christchurch District Plan (*PC14*).

7 My evidence will address:

7.1 Orion's submissions;

7.2 Evidence;

7.3 Further submissions; and

7.4 Conclusions.

ORION'S SUBMISSIONS ON PC14

8 Orion made submissions on PC14 seeking to ensure that it can build, operate, maintain and upgrade the electricity distribution network in a safe and effective manner. Residential intensification has the potential to negatively affect Orion's infrastructure without the controls proposed.

9 In particular, Orion sought that PC14 protect existing Significant Electricity Distributions Lines (*SEDL's*) via the proposed setbacks. Orion also sought a new electricity servicing standard as contained in the submission.

10 Orion generally supports PC14. In particular, it supports the recognition of Corridor Protection for *SEDL's* as a Qualifying Matter (*QM*) in order to protect against reverse sensitivity effects and to ensure that Orion can build, operate, maintain and upgrade its infrastructure in a safe, efficient and effective manner. However, I consider that refinement of the proposed provisions as notified and (where relevant) as recommended in the Council's Section 42A Report is required. I discuss the refinements I consider are necessary in my evidence as follows.

POLICY AND STATUTORY FRAMEWORK

Canterbury Regional Policy Statement (CRPS)

- 11 PC14 must 'give effect' to the CRPS. Orion's electricity distribution network is specifically defined as 'Regionally Significant Infrastructure' and also 'Strategic Infrastructure'. The Electricity Network is also defined a 'Critical Infrastructure' which is infrastructure necessary to provide services which, if interrupted, would have a serious effect on the communities within the region or a wider population, and which would require immediate reinstatement.
- 12 Objective 5.2.1(f) (Entire Region) requires that 'development is located so that it functions in a way that...is compatible with, and will result in continued safe, efficient and effective use of regionally significant infrastructure'. The explanation notes that regionally significant infrastructure provides considerable economic and social benefits to the region.
- 13 The CRPS directs territorial authorities to avoid reverse sensitivity effects and incompatible land uses in proximity to regionally significant infrastructure through Objective 5.2.2, Policy 5.3.2, Policy 5.3.9, and Objective 6.2.1. Policy 6.3.5 recognises the benefits of strategic infrastructure to community wellbeing, while providing protection and providing for their functional needs.
- 14 There is a clear premise that 'Regionally Significant Infrastructure', 'Critical Infrastructure', and 'Strategic Infrastructure' are all inclusive of Orion's Electricity Distribution Network, and that it should be able to operate, be protected and developed in an efficient manner. The relief sought by Orion would ensure that PC14 gives effect to this direction.

Christchurch District Plan

- 15 The Operative Christchurch District Plan contains a suite of provisions which aim to strike balance between facilitating residential development and protecting the Electricity Distribution Network.
- 16 Chapter 3 (Strategic Directions) establishes the overarching direction for the District Plan and establishes objectives that set the outcomes for the district. Strategic Objective 3.3.12 (Infrastructure) recognises the benefits of Strategic Infrastructure which is defined in the District Plan to include Orion's 66kV and 33kV electricity distributions lines and the Lyttelton 11kV lines as identified on the planning maps. To achieve this, the objective identifies the need to protect infrastructure from incompatible activities and development, including reverse sensitivity effects. Specifically Objective 3.3.12(v) which seeks to manage activities to avoid adverse effects on the

identified 66kV and 33kV electricity distribution lines and the 11kV Heathcote to Lyttelton line.

- 17 Related to this, Objective 3.3.12 (Incompatible activities) recognises the need to control the location of activities to minimise conflicts, and to avoid conflicts where there may be significant adverse health, safety and amenity effects.

The National Policy Statement on Urban Development (NPS-UD)

- 18 Policy 3 establishes requirements for Plan enablement for intensification by way of building height and an urban form density. Policy 4 provides for modifications to building height or density requirements (as specified in subpart 6) under Policy 3 to accommodate a qualifying matter.
- 19 In short, the NPS-UD identifies a pathway whereby intensification may not be appropriate in circumstances where a qualifying matter applies. In principle in my view, this includes the need to ensure the 'safe and efficient operation' of the Electricity Distribution Network.

Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021

- 20 PC14 was notified to respond to the Council's obligations under the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021 (the Enabling Housing Act) and the NPS-UD.
- 21 In summary the Enabling Housing Act requires Council to apply medium density residential standards (MDRS) to relevant residential zones in order to enable residential intensification¹. This has the potential to both increase density but more importantly increase height and reduce setbacks/clearances to Orion's above ground Electricity Distribution network. On this basis in my view the existing SEDL's can be considered as a qualifying matter.

EVIDENCE

General – Qualifying matter for Electricity Transmission, Corridor and Infrastructure

- 22 Orion supports the identification of Electricity Transmission, Corridor and Infrastructure as a QM, subject to the following minor amendment to include distribution in the QM title (additions in **bold** and underlined):

*Electricity Transmission and **Distribution** Corridors and infrastructure*

¹ Resource Management Act 1991, s77G: inserted by Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021, s9.

- 23 I am not clear if this submission point has been accepted by Ms Oliver as the amended provision does not appear to have included the proposed amendments and no assessment has been provided. I consider the amendment appropriate and necessary for clarity.

QM Spatial Extent

- 24 Orion sought that the lower voltage 11kV, 400V and 230V networks be included as part of the QM 'Electricity Transmission Corridor and Infrastructure' as part of the original submission. This represents one of two solutions going forward (either including the lower voltage lines as a QM or alternatively just amending the rule as per paragraph 33 below). Orion is open to further discussion around which option is the most appropriate.

- 25 These lower voltage lines are the most common within any distribution network and comprise the majority of lines in a residential street. The increased building height limits and smaller road boundary setbacks proposed to be enabled by the MDRS have the potential to cause significant issues for large parts of this lower voltage network. **Mr O'Donnell** explains the issues in more detail in his evidence.

- 26 Ms Oliver has rejected this submission point on the basis she does not consider the additional level of detail is appropriate or necessary at this strategic level.² I disagree with her and consider that the potential issues outlined by **Mr O'Donnell** can easily be addressed by including the lower voltage lines as part of the QM and associated rule amendments as outlined in my evidence below.

Planning Maps – the spatial extent of the QM Electricity Transmission Corridor and Infrastructure

- 27 Orion supports retaining the Operative District Plan provisions in relation to SEDLs. I note while it is not reasonably practicable to map all of the lower voltage lines due to the large number of lines and the changeable nature of these which would require regular updates to any maps.

New Electricity Servicing Standard

- 28 Orion seeks a new rule be inserted into the MDRZ and HDRZ to include an electricity servicing standard.³ Ms Oliver does not appear to have given any consideration to the proposed new rule.
- 29 I understand from **Mr O'Donnell** that, in some cases, developers do not approach Orion to discuss servicing matters until after plans for a development are fixed, and often a resource consent has already

² S.42A report of Sarah Oliver for Council, paragraph 9.59, page 56, dated 11 August 2023.

³ Orion also sought inclusion of the rule in the RSTD, RS, FUZ and RH zone but having considered this further I consider the new rule is not needed for these zones because density is not increasing from that contained in the ODP.

been granted. Consequently, developers fail to set aside or include sufficient space on site for the necessary electricity distribution infrastructure. Similarly, Orion encounters resistance from corridor managers and local authorities when seeking to locate new or upgraded infrastructure within berms or local reserves. Orion considers that these existing issues will be exacerbated by PC14 without the relief proposed in its submission.

- 30 A land area of 5.5m² is specified in Orion’s submission as being required for onsite electricity servicing to ensure there is engagement with developers at the initial planning stages of a land intensification project. I rely on the evidence of **Mr O’Donnell** which provides further detail on the issues that Orion experiences. I consider **Mr O’Donnell’s** evidence justifies the need for a proposed new rule from both a technical and operational perspective and that it is therefore an appropriate addition to the planning framework to safeguard Orion’s operations and the provision of electricity to Christchurch City⁴. **Mr O’Donnell** has discussed in detail the costs and benefits and, in summary, the costs of the small area of land space for developers are far outweighed by the benefits to Orion of maintaining the integrity of the network and ensuring clearances are met.
- 31 The new rule sought by Orion will assist with implementing proposed Objective 14.2.5 and Policy 14.2.5.3. This objective and policy both seek to ensure that residential neighbourhoods are a high-quality environment through site layout, building and landscape design. The proposed new rule will ensure that electricity servicing needs are accommodated and integrated as part of a development early on in the process rather than as an ‘add on’ at the last minute which can result in poor urban design outcomes.
- 32 The proposed new rule will assist with implementing Strategic Objective 3.3.7 – Urban growth, form and design. This objective provides for development to change over time to address the diverse and changing needs of people and communities. The proposed new rule provides for infrastructure to occur and to meet that flexibility.

***MDRZ, Commercial zones, High Density Residential zone
Additional Clause to the Non-complying Activities Rules***

- 33 Orion seeks setback clearances via a new clause to provide clearances from the 11kV, 400V and 230V network as follows (additions are shown as **bold** and underlined):

‘a. Sensitive activities

⁴ Evidence of Anthony O’Donnell, PC14 Hearing, dated 20 September 2023, pages 23-24.

...within 3m of the outside overhead conductor of any 11kV, 400V or 230V electricity distribution line.'

- 34 Ms Oliver supports the distribution corridors as a qualifying matter. However, she does not agree with the increase in level of protection sought. Further, she considers that strong evidence is required to show that the New Zealand Electrical Code of practice for Electrical Safe Distances (*NZECP 34:2001*) is insufficient to provide protection to lower voltage class of power lines. I disagree with Ms Oliver for the reasons outlined as follows.
- 35 These lower voltage lines are the most common within the distribution network and comprise the majority of the lines that are seen in residential streets. The increased buildings height limits and smaller boundary setbacks enabled by the medium density residential standards in the MDRZ zones have the potential to cause significant issues for large parts of the electricity distribution network. The issues associated with reduced clearances are outlined in **Mr O'Donnell's** evidence and these issues include both operational difficulties and safety concerns. As well as SEDL's, these same issues can also occur for Orion's lower voltage network, which similarly justifies their protection by PC14.
- 36 As outlined by **Mr O'Donnell**, safety is a key driver for including setback clearances for the lower voltage lines. There are a number of objectives and policies contained within the planning framework (including the Canterbury Regional Policy Statement, National Policy Statement on Urban Development, Christchurch District Plan (Strategic Directions Chapter and RMD Chapter) which all refer to safety. In particular, the protection of the lower voltage lines will ensure that PC14 gives effect to the following higher order provisions of the CRPS:
- 36.1 Canterbury Regional Policy Statement: Objective 5.2.2 Integration of land-use and regionally significant infrastructure;
 - 36.2 National Policy Statement on Urban Development: Objective 1 and 6;
 - 36.3 Strategic Directions: Objective 3.3.13 – Infrastructure and Objective 3.3.15 Incompatible activities; and
 - 36.4 Chapter 14 Residential: Policy 14.2.5.3 v. Quality large scale developments.
- 24 Orion also seeks amendments to the fencing clause to refer to conductive fences and for the setback to apply to the lower voltage 11kV, 400V and 230 V lines. **Mr O'Donnell** has provided detailed evidence around the health and safety issues around conductive

fences being located near electricity lines. These same health and safety issues are also relevant to the lower voltage lines given the MDRZ boundary setbacks proposed and height limits. The following amendments are sought:

d. **Conductive** fences within 5m of a National Grid transmission line support structure foundation or a 66kV, **33kV, 11kV, 400V or 230V** electricity distribution line support structure foundation.

- 37 For the reasons set out above, I consider the setback clearances sought by Orion to be appropriate and necessary.

Strategic Directions

- 38 Orion sought an amendment to the strategic directions to recognise the need to protect and provide for infrastructure such as the lower voltage electricity distribution lines and provide support for the proposed new rule with the additional clause as follows:

“vi managing activities to avoid adverse effects on the 11kV, 400V and 230V electricity distribution network.

- 39 Ms Oliver has recommended rejecting this submission as she does not consider this level of detail to be appropriate or necessary at the strategic level⁵. I disagree with Ms Oliver and consider that the level of detail proposed is consistent with existing clause ‘vi’ which lists specific lines and voltages. As aforementioned safety is a critical issue and is recognised at an objective and policy level across the various planning documents.

Planning Maps

- 40 Orion supports the Planning Maps and the spatial extent of the Qualifying Matter ‘Electricity Transmission Corridor and Infrastructure’. While Orion seeks to include the lower voltage lines as a QM, I note it is not reasonably practicable to map these lines due to the large number lines and the changeable nature of these.

FURTHER SUBMISSIONS

- 41 Orion made a number of further submissions. I discuss the key further submissions below.

6.10A.2.1.3 Policy – Permitted Activities Rule P1 and P2

- 42 Transpower New Zealand Limited (*Transpower*) made a submission⁶ seeking the following advice note be included:

⁵ S.42A Report of Sarah Oliver for Council, paragraph 9.59, page 12, dated 11 August 2023

⁶ Submission of Transpower, submission reference 878.8

Advice Note: Vegetation to be planted around the National Grid and Electricity Distribution Lines should be selected and/or managed to ensure it will not result in that vegetation breaching the Electricity (Hazards from Trees) Regulations 2003.

43 Orion supported this submission point, but I consider that the advice note needs to be amended to include reference to electricity distribution infrastructure as indicated in red as well and not just the National Grid.

44 I note Ms Oliver rejected this submission point but does not seem to have provided an assessment.

14.1 – Residential - Introduction

45 Transpower sought to amend 14.1 Introduction⁷ to provide stronger recognition of the fact that qualifying matters, including in relation to the electricity distribution network, may mean that any residential intensification is inappropriate in a particular area.

46 Orion supported this further submission. However, Ms Oliver does not appear to have provided an assessment justifying rejecting the submission point. I consider the amendment sought by Orion to be appropriate.

14.2.7.1 Policy – Provide for a high density urban form

47 Transpower sought to include an additional clause to policy 14.2.7.1: a. 'Except where limited by a qualifying matter enable...'

48 Orion supported this explicit reference to the qualifying matters in the policy, which I consider to be appropriate. I note Ms Oliver has rejected this submission point but does not appear to have provided an assessment.

Planning Maps

49 Transpower sought⁸ that should the extent of the zones be amended in the vicinity of the National Grid, the qualifying matter should similarly be extended.

50 Orion supported this submission point and seeks the same relief with respect to its electricity distribution assets. Ms Oliver does not appear to have provided any assessment. In my view, the relief sought by Orion is appropriate.

⁷ Submission of Transpower, submission reference 878.11

⁸ Submission of Transpower New Zealand Limited, submission reference 878.20

6.1A Qualifying Matters

- 51 Kainga Ora sought⁹ to retain the Electricity Transmission Corridor QM only to the extent of the corridor as defined in the NES-ET.
- 52 Orion opposed this submission. I consider that the electricity distribution network assets must be recognised as a qualifying matter in PC14 as per Orion's original submission. Orion sought that this submission be rejected and this has been accepted in part by Ms Oliver.

Rule 9.4.4.1.1 P12

- 53 Kainga Ora sought to delete part of P12 as follows: 'employed or contracted by the Council or a network utility operator'.
- 54 Orion opposed this submission point as it is important that network utility operators are able to conduct certain works as a permitted activity in order to maintain, repair and upgrade electricity distribution infrastructure. Ms Oliver has rejected the submission point.

14.2.3.7 Policy – Management of increased building heights

- 55 The fuel companies sought an additional clause be added to recognise reverse sensitivity effects on existing non-residential activities. Orion supported this additional clause, and this has been accepted by Ms Oliver.

CONCLUSION

- 56 Orion's proposed amendments to the PC14 MDRS provisions support the sustainable management of Orion's network and obligations as a Lifeline Utility Operator. With the proposed amendments implemented, I consider that the PC14 provisions are the most appropriate way to achieve the objectives of the CDP and the purpose of the Act.

Melanie Foote

20 September 2023

⁹ Submission of Kainga Ora, submission reference 834.52