

**BEFORE THE INDEPENDENT HEARING PANEL APPOINTED
BY THE WAIMAKARIRI DISTRICT COUNCIL**

In the matter of

the Resource Management Act 1991

and

**Proposed Plan Change 31 to the
Operative Waimakariri District Plan
(Rolleston Industrial Developments
Limited)**

**Statement of Evidence of Ainsley Jean McLeod on
behalf of Transpower New Zealand Limited
(Submitter reference 191)
dated 21 July 2023**

INTRODUCTION

1. My full name is Ainsley Jean McLeod. I am a planner and director of Ainsley McLeod Consulting Limited. I hold the qualifications of a Bachelor of Arts (Geography and Anthropology) and a Master of Regional and Resource Planning, both from the University of Otago. I am a full member of the New Zealand Planning Institute.
2. I have over 20 years' experience in planning practice, primarily as a consultant planner based in Wellington, Christchurch and Otago, during which time I have undertaken consenting, designation, and policy planning work. I have provided professional planning advice to a range of clients including central and local government, and the private sector.
3. I have particular expertise in respect of infrastructure and network utilities, having provided planning advice in relation to power transmission, distribution and generation, water and waste, rail and roading, and telecommunications projects. I have acted as an expert witness before hearings panels, boards of inquiry and the Environment Court.
4. I have provided expert planning advice to Transpower New Zealand Limited ("Transpower") since 2001 in relation to new and upgraded National Grid transmission lines and substations, along with the relevant planning instruments including the National Policy Statement on Electricity Transmission 2008 ("NPSET") and the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009 ("NESETA"). I am familiar with the ways in which plans and policy documents respond to these higher order planning instruments, having advised Transpower in respect of a number of regional policy statement, regional plan and district plan reviews. This includes the current review of the Waimakariri District Plan ("Proposed District Plan").
5. I assisted with the preparation of Transpower's submission on Proposed Plan Change 31 ("Proposed Plan Change") to the Operative Waimakariri District Plan ("Operative District Plan") and am now engaged by Transpower to provide expert planning evidence in relation the matters that have been raised in Transpower's submission.
6. I am familiar with the site subject to the Proposed Plan Change and the Ohoka and Mandeville locality.

CODE OF CONDUCT

7. Although this matter is not before the Environment Court, I confirm that I have read the Environment Court's Code of Conduct for Expert Witnesses as contained in the Court's 2023 Practice Note. I have complied with the Code of Conduct when preparing my written statement of evidence and will do so when I give oral evidence before the Hearings Panel.
8. My qualifications as an expert are set out above. I confirm that the issues addressed in this statement of evidence are within my area of expertise. The data, information, facts and assumptions I have considered in forming my opinions are set out in my evidence to follow.

The reasons for the opinions expressed are also set out in the evidence. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

SCOPE OF EVIDENCE

9. My evidence:
 - a. briefly describes the role of Transpower and the National Grid as it relates to the Proposed Plan Change;
 - b. describes how the '*Request for Change to the Waimakariri District Plan prepared for Rolleston Industrial Developments Limited, 535 Mill Road, Ohoka*' dated June 2022 ("Plan Change Request") addresses the NPSET and the National Grid;
 - c. sets out the relief sought in Transpower's submission;
 - d. summarises the '*Section 42A Report RCP031 Ohoka Plan Change prepared for the Hearings on the Operative Waimakariri District Plan*' dated 3 August 2023 ("Section 42A Report") response to Transpower's submission;
 - e. summarises the Rolleston Industrial Developments Limited ("RIDL") evidence response to Transpower's submission; and
 - f. considers the relief sought in Transpower's submission in the context of the relevant statutory framework.
10. In addition to the documents referred to above, in preparing this evidence I have also reviewed the following documents insofar as they relate to Transpower's submission:
 - a. the relevant further submission;
 - b. the National Policy Statement on Urban Development 2020 ("NPSUD");
 - c. the Canterbury Regional Policy Statement ("CRPS");
 - d. New Zealand Electrical Code of Practice for Electrical Safe Distances ("NZECP 34:2001");
 - e. Transpower's submission on the Proposed District Plan; and
 - f. the Electricity (Hazards from Trees) Regulations 2003 ("Hazards from Trees Regulations").
11. I visited the site earlier this week specifically to inform the preparation of this statement of evidence.

BACKGROUND TO TRANSPOWER'S SUBMISSION

Transpower and the National Grid

12. Transpower is the state-owned enterprise that plans, builds, maintains, owns and operates New Zealand's high voltage electricity transmission network, known as the National Grid, that carries electricity across the country.
13. The National Grid comprises some 11,000 kilometres of transmission lines and cables and more than 170 substations that connect power stations, owned by electricity generating companies, to substations feeding the local networks that distribute electricity to homes and businesses. This role is distinct from electricity generation, distribution or retail with Transpower transporting electricity from the point of generation to local lines distribution companies that, in turn, supply electricity to everyday users.
14. A National Grid transmission line traverses the site subject to the Proposed Plan Change. This transmission line is the Islington – Southbrook A (ISL-SBK-A) 66kV overhead double circuit transmission line on steel towers. This line starts at the Islington Substation in Christchurch and extends through the Christchurch, Waimakariri and Hurunui districts. The line reconnects to the 220kV network at the Waipara Substation site. This transmission line supplies electricity to the Southbrook Substation that, in turn, supplies electricity to the people and communities in Waimakariri District. Figure 1 shows the location of the ISL-SBK-A transmission line across the site subject to the Proposed Plan Change and photograph of the transmission line is included in Figure 2.

Figure 1: Aerial photograph of the site subject to the Proposed Plan Change showing the location of the ISL-SBK-A transmission line (with the portion of the transmission line circled in red)



**Figure 2: The ISL-SBK-A transmission line within the site subject to the Proposed Plan Change
(view to the south from Bradleys Road)**



15. The National Grid has operational requirements and engineering constraints that dictate and limit where it is located and the way it is operated, maintained, upgraded and developed. Operational requirements are set out in legislation, rules and regulations that govern the National Grid, including the Electricity Act 1992, the Electricity Industry Participation Code, the New Zealand Electrical Code of Practice for Electrical Safe Distances (“NZECP 34:2001”); the Electricity (Hazards from Trees) Regulations 2003 (“Hazards from Trees Regulations”) and the Public Works Act 1981 (“PWA”) that imposes mandatory restrictions on activities near the National Grid¹.

The Plan Change Request

16. In the simplest of terms, the Proposed Plan Change seeks to amend the Operative District Plan zone that applies to the area of the subject site that is traversed by the National Grid from Rural to Residential 4a.

¹ Section 237 of the PWA.

17. The Plan Change Request acknowledges the presence of the National Grid and includes 'Overhead 66kV Power Lines' on the Proposed Outline Development Plan.² The Proposed Outline Development Plan also shows a range of features, such as 'landscape treatment areas' and 'green networks' that are traversed by the National Grid.
18. The Section 32 Evaluation that accompanies the Plan Change Request³ identifies the NPSET as a relevant statutory consideration and states that "*any development will comply with required setbacks and restrictions relating to works and activities near the transmission lines*"⁴. This is supported by the 'Infrastructure Assessment' at Appendix G to the Plan Change Request that acknowledges the need for incompatible activities to be set back from the National Grid. Beyond this, the National Grid is not identified as a constraint on development or residential yield.
19. In addition I note that, while the site subject to the Proposed Plan Change is traversed by the National Grid, the Plan Change Request does not describe any consultation with Transpower as part of the development of the Proposed Plan Change.

Transpower's Submission

20. Transpower's submission seeks that the Proposed Plan Change is amended to:
 - a. retain the existing Rural Zone over the area of land that is traversed by the National Grid, including an area that provides an appropriate buffer corridor within which sensitive activities will be avoided and ensures that Transpower's ability to operate, maintain, upgrade and develop the National Grid is not compromised;
 - b. include provisions for subdivision and land use activities in the vicinity of the National Grid that reflect the provisions sought and supported in Transpower's submission on the Proposed District Plan;
 - c. include an explicit requirement for Transpower to be consulted as part of any application for subdivision consent to ensure that any future subdivision design does not compromise Transpower's ability to operate, maintain, upgrade and develop the National Grid (including through the maintenance of on-going access to the transmission line support structures); and
 - d. include explicit direction that landscape treatments in the vicinity of the National Grid be designed and implemented to achieve compliance with NZECP 34:2001 and the

² Attachment 4 to the Plan Change Request.

³ Attachment 5 to the Plan Change Request.

⁴ Paragraph 166.

Electricity (Hazards from Trees) Regulations 2003 (including when planting reaches maturity).

21. Transpower's submission is supported by the further submission made by Vodafone NZ Ltd/One NZ. No further submissions oppose the relief sought by Transpower.

Section 42A Report Recommendation

22. The Section 42A Report acknowledges that the NPSET is a relevant statutory consideration under section 75 of the Resource Management Act 1991 ("RMA") and agrees with the conclusion in the section 32 that *"the proposal is consistent with the NPS for Electricity Transmission 2008"*.⁵
23. The Section 42A Report (at Appendix 2) recommends that Transpower's submission be accepted on the basis that the overarching *"recommendation to decline the proposal will retain the rural zone over the national grid corridor"*. The Report considers Transpower's submission as follows:

*"Transpower considers that the proposed residential zone over land traversed by the National Grid gives rise to a misleading, unreasonable and inappropriate expectation that this part of the plan change site may be available for residential development or other urban activities and buildings. Transpower sought changes to the proposal. Consistent with my conclusion for Vodafone, I do not consider that the proposal will result in additional infrastructure not being available to service the proposal."*⁶

RIDL Evidence

24. I have reviewed the evidence filed on behalf of RIDL and note that Transpower's submission is not explicitly addressed in this evidence. However, in his evidence Mr Walsh states that if a matter is not specifically dealt with in this evidence, it can be assumed that there is no dispute with the position set out in the Officer's Report.⁷
25. Because it is not clear whether Mr Walsh supported the Section 42A Report recommendation to accept Transpower's submission, I have contacted Mr Walsh to seek confirmation. Mr Walsh has responded that *"RIDL does not agree that the existing rural zoning needs to be retained under the transmission corridor ... paragraph 15 covers it with reference to paragraph 6.7.4 in the Officer's report"*.⁸ I take this to mean Mr Walsh adopts the position of RIDL, along

⁵ Paragraph 7.3.2.

⁶ Paragraph 6.7.4.

⁷ Paragraph 15.

⁸ Email correspondence dated 18 July 2023.

with the paragraph 6.7.4 of the Section 42A Report, but not the recommendation in accompanying Appendix 2.

CONSIDERATION OF TRANSPOWER'S SUBMISSION

Relevant Statutory Framework

26. My consideration of the relief sought by Transpower is informed by the statutory framework for decisions on the Proposed Plan Change.⁹ This statutory framework is clearly and succinctly described in the Section 42A Report. I rely on this description and emphasise that the Proposed Plan Change must give effect to the NPSET and the CRPS and that 'give effect to' is a strong directive that requires the Proposed Plan Change to reflect the direction and intent of the NPSET and CRPS. As such, where the Proposed Plan Change intersects with the National Grid, the following are particularly relevant (and have not been explicitly identified in the Plan Change Request, the Section 42A Report or the RIDL evidence):
- a. Policy 1 of the NPSET that requires that *"decision-makers must recognise and provide for the national, regional and local benefits of sustainable, secure and efficient electricity transmission"*;
 - b. Policy 2 of the NPSET that requires that *"decision-makers must recognise and provide for the effective operation, maintenance, upgrading and development of the electricity transmission network"*;
 - c. Policy 10 of the NPSET that requires *"decision-makers must to the extent reasonably possible manage activities to avoid reverse sensitivity effects on the electricity transmission network and to ensure that operation, maintenance, upgrading, and development of the electricity transmission network is not compromised"*;
 - d. Policy 11 of the NPSET that requires *"local authorities must consult with the operator of the National Grid, to identify an appropriate buffer corridor within which it can be expected that sensitive activities will generally not be provided for in plans and/or given resource consent"*;
 - e. clause 2 of Policy 16.3.4 of the CRPS that requires *"avoiding subdivision, use and development including urban or semi urban development patterns, which would otherwise limit the ability of the electricity transmission network to be operated, maintained, upgraded and developed"*; and
 - f. Policy 11.2.1.2 of the Operative District Plan directs:

⁹ Set out in the RMA and the on-going guidance provided by the modified Long Bay test (*Long Bay – Okura Great Park Society v North Shore City Council* EnvC A078/2008, 16 July 2008, at [34], *High Country Rosehip Orchards Ltd v Mackenzie District Council* [2011] NZEnvC 387 and *Colonial Vineyard v Marlborough District Council* [2014] NZEnvC 55).

“To minimise any actual or potential risks to health and safety from, and to the operation, maintenance and upgrading of, high voltage transmission lines by:

- a. encouraging the location of lines away from incompatible land uses; and*
- b. avoiding development and/or land use activities which might increase those risks;*
- c. avoiding earthworks which may compromise the stability of support structures or reduce conductor clearances.”*

27. As identified in the Plan Change Request and the Section 42A Report, the NPSUD is also relevant to the Proposed Plan Change. In this regard, I highlight Policy 4 of the NPSUD as follows:

“Regional policy statements and district plans applying to tier 1 urban environments modify the relevant building height or density requirements under Policy 3 only to the extent necessary (as specified in subpart 6) to accommodate a qualifying matter in that area.”

28. Subpart 6 Clause 3.31(2) of the NPSUD further directs:

“If the territorial authority considers that it is necessary to modify the building height or densities in order to provide for a qualifying matter (as permitted under Policy 4), it must:

- (a) identify, by location, where the qualifying matter applies; and*
- (b) specify the alternate building heights and density proposed for those areas.”*

29. ‘Qualifying matters’ are defined by Subpart 6 Clause 3.32 of the NPSUD as:

“... ”

- (b) a matter required to give effect to any other National Policy Statement*
- (c) any matter required for the purpose of ensuring the safe or efficient operation of nationally significant infrastructure. ...”*

30. Consistent with Variation 1 to the Proposed District Plan, I consider that the protection of the National Grid is a ‘qualifying matter’ warranting modification in respect of urban density and form in the Proposed Plan Change.

31. The remainder of my evidence considers the appropriateness of the Proposed Plan Change, insofar as it relates to the National Grid, with reference to this statutory framework, and relative to the relevant statutes, rules and regulations (referred to above) that direct, constrain and protect the operation, maintenance, upgrade and development of the National Grid.

The provisions of the Proposed Plan Change

32. The RIDL evidence and Section 42A Report rely on “*compliance with the required setbacks*” to be ‘consistent with’ the NPSET. Reaching this conclusion requires an assumption that the standards in the Operative District Plan requiring structures to be setback from transmission lines gives effect to the NPSET.
33. In this regard, I have reviewed the Operative District Plan provisions and conclude that:
- a. the setback rules alone do not fully give effect to the NPSET on the basis that there are no provisions that address sensitive activities in the vicinity of the National Grid (as required by Policy 11);
 - b. the setback rules alone, in the absence of appropriate policy direction, do not give effect to the NPSET, and
 - c. the provisions are not aligned or equivalent to Transpower’s nationally consistent, evidence based, approach to giving effect to the NPSET.
34. The inadequacy of the Operative District Plan provisions that relate to the National Grid is explicitly acknowledged in the context of the Proposed District Plan,¹⁰ including through the introduction of a suite of significantly revised provisions.
35. Given these limitations, the Proposed Plan Change has the potential to give rise to adverse effects on the operation, maintenance, development and upgrade of the National Grid in a manner that is contrary to the NPSET.
36. On the basis that the Operative District Plan provisions do not give effect to the NPSET, it is my conclusion that relying on these provisions in the context of the Proposed Plan Change, as suggested in the Plan Change Request and Section 42A Report, similarly does not give effect to the NPSET.
37. I consider that, should the Proposed Plan Change be approved, the provisions of the Proposed Plan Change must be amended to reflect Transpower’s nationally consistent approach to provisions that manage activities (including subdivision) in the vicinity of the National Grid and I note that this approach is reflected in the Proposed District Plan along with further amendments sought in Transpower’s submission on the Proposed District Plan.

The National Grid as a ‘qualifying matter’

38. As set out above, it is my conclusion that the National Grid (and provisions that protect the National Grid) is clearly a qualifying matter in respect of the NPSUD because:

¹⁰ ‘Section 32 Report *Pūngao me te hanganga hapori/Energy and Infrastructure prepared for the Proposed Waimakariri District Plan*’ dated 18 September 2021

- a. protective provisions are required to give effect to the NPSET being a national policy statement (other than the NPS-UD); and
 - b. the provisions are required for the purpose of ensuring the safe or efficient operation of nationally significant infrastructure.
39. As such, it is my view that the NPSUD provides clear direction to, and rationale for, distinguishing the part of the site subject to the Proposed Plan Change that is traversed by the National Grid and avoiding inappropriate activities in that location.

Managing activities to avoid reverse sensitivity effects and not compromise the National Grid

40. As set out above, Policy 10 of the NPSET requires decision-makers must 'the extent reasonably possible' manage activities to avoid reverse sensitivity effects on the electricity transmission network and to ensure that operation, maintenance, upgrading, and development of the electricity transmission network is not compromised.
41. In my opinion, 'reasonably possible' implies that decision-makers must do all that they are able to manage activities that may compromise the National Grid and I am of the view that:
- a. zoning is a commonly used planning tool to manage appropriate, and inappropriate, activities in certain locations;
 - b. it is reasonably possible to manage activities that may compromise the National Grid, or give rise to reverse sensitivity effects, through the use of zoning;
 - c. when compared to a residential zone, a rural zone better provides for the avoidance of reverse sensitivity effects, and activities that may compromise the National Grid, and better indicates that sensitive activities¹¹ are generally not provided for (Policy 11 of the NPSET); and
 - d. therefore, retaining a rural zone over that part of the site subject to the Proposed Plan Change that is traversed by the National Grid is reasonably possible, necessary and appropriate to manage activities that may compromise the National Grid.

The expectations of plan users

42. In addition, I consider that rezoning land in the vicinity of the National Grid for urban land uses gives rise to a misleading and unreasonable expectation in respect of future uses of the land and, therefore, the development capacity or 'yield' of the site.
43. That is, while the Residential 4a Zone is intended to allow low-density residential development, in the vicinity of the National Grid such development is constrained or, in some cases, prevented by:
- a. the relatively stringent policy direction in the NPSET and CRPS;

¹¹ 'Sensitive activities' are defined by the NPSET as '*including schools, residential buildings and hospitals*'.

- b. setback rules in the Operative District Plan;
 - c. NZECP34:2001; and
 - d. Section 237 of the PWA.
44. In my opinion, applying a residential zone to an area where residential development is significantly constrained or prevented is counterintuitive and inappropriate.

Zoning vs rules

45. I have given consideration to the relevant merits of zoning as a tool to give effect to the NPSET as opposed to relying on rules to regulate activities near the National Grid. I have concluded that rules that relate to a National Grid Yard and National Grid Subdivision Corridor are a tool that has been applied uniformly within district plans across the country to 'overlay' existing spatial or zone frameworks. Whereas, plan changes that alter zones provide the opportunity to signal future land uses and direct the spatial layout of development. This is precisely the purpose of the Proposed Outline Development Plan, although the constraints of, and protections for, the National Grid are absent.
46. I therefore conclude that, in addition to appropriate National Grid Yard and National Grid Subdivision Corridor rules, it is appropriate to signal the realistic future use of the area of land in the vicinity of the National Grid, having regard to the constraints set out above.

The Section 42A Report

47. As set out above, in respect of Transpower's submission the Section 42A Report concludes that the Proposed Plan Change will not result "*in additional infrastructure not being available to service the proposal*".
48. I do not consider that this conclusion is relevant to Transpower's submission. Transpower's submission does not seek to, or otherwise refer to, servicing the Proposed Plan Change area. That said, I am of the view that, through enabling residential development in close proximity to the National Grid, the Proposed Plan Change has the potential to give rise to reverse sensitivity effects and may compromise operation, maintenance, development, or upgrade of the National Grid in a manner that limits the ability of the National Grid to supply electricity to the wider Waimakariri District.

Relationship with the NESETA

49. In terms of the NESETA, it is my conclusion that the Proposed Plan Change does not result in any duplication or conflict with the NESETA Regulations. However, altering the zone that applies to land traversed by the ISL-SBK-A transmission line may result in additional 'matters over which control is reserved' and 'matters to which discretion is restricted' in the NESETA

Regulations being relevant to any resource consent sought under the NESETA. The Proposed Plan Change has not contemplated the impact or appropriateness of additional regulation on the ability to maintain and upgrade the National Grid.

Section 32 considerations

50. In terms of the relevant consideration under section 32 of the RMA, I am of the opinion that introducing the Residential 4a Zone over the area of the Proposed Plan Change site that is traversed by the National Grid is inefficient and ineffective because the land is not practically able to be fully developed for residential purposes such that the Residential 4a Zone does not correctly signal or direct the future use of the land.
51. Further, it is considered that the Proposed Plan Change, noting the inadequacy of the Operative District Plan provisions that protect the National Grid, has the potential to give rise to significant costs as a result of any development that is facilitated by the Proposed Plan Change having the potential to give rise to reverse sensitivity effects and/or compromising the operation, maintenance, development and upgrading of the National Grid.

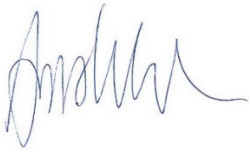
‘Landscape Treatment Areas’ and the ‘Green Network’

52. As a final matter, the Section 42A Report and RIDL evidence do not give any consideration to the part of Transpower’s submission seeking that the Proposed Plan Change be amended to include direction that landscaping work complies with NZECP34:2001 and the Hazards from Trees Regulations.
53. These Regulations are made under the Electricity Act 1992 and are in place to provide safe distances from electricity infrastructure for people, machinery, structures and vegetation. Should the Proposed Plan Change be approved, I am of the opinion the need to achieve compliance with these Regulations (including through the selection of appropriate plant species) should be addressed through the inclusion of an advice note in the Plan Change provisions and in the Outline Development Plan. An advice note of this nature gives effect to Policies 2 and 10 of the NPSET and achieves the purpose of the RMA by providing for the health and safety of people.

CONCLUSION

54. My evidence:
 - a. confirms that the need to operate, maintain, develop and upgrade the National Grid is a matter of national significance and acknowledges the need for the Proposed Plan Change to give effect to, in particular, Policies 10 and 11 of the NPSET; Policy 4 of the NPSUD and Policy 16.3.4 of the CRPS; and

- b. concludes that the Proposed Plan Change does not give effect to the NPSET including because the Operative District Plan provisions are inadequate.
55. Further, based on the restrictions imposed on the development of land in the vicinity of the National Grid by higher order policies, rules in the Operative District Plan, NZECP34:2001 and the PWA, I consider that the land in the vicinity of the National Grid is not realistically available to accommodate residential development and I have therefore concluded that rezoning land in the vicinity of the National Grid for residential land uses is counterintuitive and:
- a. may give rise to a misleading or unreasonable expectation in respect of the development capacity or 'yield' of the site;
 - b. does not give effect to the NPSET on the basis that:
 - i. it is reasonably possible to manage activities that may compromise the National Grid through a consideration of zoning; and
 - ii. zoning is a planning tool available to local authorities to signal areas within which sensitive activities will generally not be provided for;
 - c. does not represent an efficient, effective or appropriate approach to achieving objectives; and
 - d. therefore does not achieve the purpose of the RMA.



Ainsley Jean McLeod

21 July 2023