

**BEFORE THE QUEENSTOWN LAKES DISTRICT COUNCIL  
PROPOSED DISTRICT PLAN HEARINGS PANEL**

Under the Resource Management Act 1991

In the matter of

**The Proposed Queenstown Lakes District Plan – Chapter 30  
Energy and Utilities**

And

**Transpower New Zealand Limited (Submitter 805 and Further  
Submitter 1301)**

Submitter

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**Statement of Evidence in Chief of Ainsley Jean McLeod  
on behalf of Transpower New Zealand Limited  
dated 2 September 2016**

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## Introduction

1. My full name is Ainsley Jean McLeod. I hold the position of Technical Director of Planning at Beca Limited ("**Beca**"). I am a full member of the New Zealand Planning Institute.
2. I have been engaged by Transpower New Zealand Limited ("**Transpower**") to provide expert planning evidence in relation to the submission, and further submissions, made by Transpower on the Queenstown Lakes District Proposed District Plan ("**Proposed District Plan**").
3. This is the second statement of evidence prepared by me in relation to Transpower's submissions. I have also prepared evidence addressing the submissions made by the New Zealand Fire Service Commission on the Proposed District Plan. My qualifications and relevant experience, including as it relates to Transpower's submission and further submissions, are set out in my earlier evidence.<sup>1</sup> For completeness, I confirm that I am familiar with Transpower's roles and responsibilities, having been responsible for Beca's contract to provide planning services since 2001. I am also generally familiar with district plan approaches to providing for infrastructure and utilities across New Zealand.
4. While I have not had discussions with Queenstown Lakes District Council ("**Council**") officers in relation to the Proposed District Plan, I am aware that discussions with representatives of Transpower have taken place.

## Code of Conduct

5. In accordance with the 'Minute and Directions of Hearings Commissioners on Procedures for Hearing of Submissions' dated 25 January 2016, I confirm that I have read the code of conduct for expert witnesses contained in the Environment Court's 2014 Practice Note. I have complied with the Practice Note when

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<sup>1</sup> A McLeod, Statement of Evidence, Chapter 3 – Strategic Direction, 26 February 2016, paragraphs 1.1 to 1.3 and A McLeod, Statement of Evidence, Chapter 27 – Subdivision and Development, 15 July 2016, paragraph 1.4.

preparing my written statement of evidence, and will do so when I give oral evidence before the Hearings Panel.

6. My qualifications as an expert are referenced above. I confirm that the issues addressed in my evidence are within my area of expertise.
7. The data, information, facts and assumptions I have considered in forming my opinion are set out in my evidence. The reasons for the opinions I express are also set out in the evidence to follow. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

### **Scope of Evidence**

8. My evidence specifically addresses:
  - (a) Transpower's submission, and further submissions on Chapter 30 Energy and Utilities;
  - (b) the Section 42A Hearing Report on Chapter 30 Energy and Utilities dated 19 August 2016 ("**Section 42A Report**"), including the recommended revised chapter ("**Revised Chapter**"); and
  - (c) the further submissions made on Transpower's primary submission.
9. I note that Transpower's submission is generally supportive of the approach taken to providing for, and protecting, the National Grid in the Proposed District Plan but seeks specific amendments to provisions to fully give effect to the NPSET.
10. For the purpose of my evidence, I rely on the evidence of **Mr Andrew Renton**, including his earlier evidence and the earlier evidence of **Ms Aileen Crow** filed in relation to past hearing topics, insofar as their evidence is relevant to Chapter 30. In particular, I note that:

- (a) **Mr Renton's** earlier evidence describes the National Grid, including Transpower's assets in Queenstown Lakes District, and sets out the actual and potential effects of third party activities on the National Grid;<sup>2</sup> and
- (b) **Ms Craw's** evidence details how the national significance of the National Grid is recognised by the National Policy Statement on Electricity Transmission 2008 ("**NPSET**") and the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009 ("**NESETA**"); sets out the relevant policies of the Proposed Regional Policy Statement for Otago 2015 ("**Proposed RPS**"); and concludes that amendments to the Proposed District Plan are required in order to give effect to the NPSET.<sup>3</sup>

- 11. My evidence should also be read in conjunction with my earlier evidence and, to avoid repetition, I rely on that evidence insofar as it is relevant to Transpower's submission on Chapter 30. My earlier evidence supports limited amendments to the provisions in Chapter 27 that address subdivision in the vicinity of the National Grid in order to better give effect to Policy 10 and Policy 11 of the NPSET.
- 12. In preparing this evidence I have reviewed a number of documents insofar as they are related to the submissions made by Transpower. These documents are listed in **Attachment A**.
- 13. The remainder of my evidence briefly addresses relevant statutory considerations and goes on to consider the specific relief sought by Transpower. The amendments to the Proposed District Plan suggested in, and supported by, my evidence are included in the body of my evidence (shown in red) and consolidated as **Attachment B**.

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<sup>2</sup> A Renton, Statement of Evidence, Chapter 3 – Strategic Direction, 29 February 2016 and A Renton, Statement of Evidence, Chapter 21 Rural, Chapter 23 Gibbston Character Zone and Chapter 33 Indigenous Vegetation and Biodiversity, 21 April 2016.

<sup>3</sup> A Craw, Statement of Evidence, Chapter 3 – Strategic Direction, 29 February 2016 and A Craw, Statement of Evidence, Chapter 21 Rural, Chapter 23 Gibbston Character Zone and Chapter 33 Indigenous Vegetation and Biodiversity, 21 April 2016.

## Statutory Considerations

14. The RMA framework for decisions on the Proposed District Plan, and the on-going guidance provided by the modified, and recently refined, Long Bay test,<sup>4</sup> inform my analysis and consideration of the relief sought by Transpower. This statutory framework is generally set out in the Section 42A Report, and accompanying Section 32 Report<sup>5</sup>.
15. In her evidence, **Ms Crow** also provides a comprehensive summary of the 'higher order' documents that are of particularly relevance to Transpower's submission. These documents are the NPSET, the NESETA and the Proposed Regional Policy Statement for Otago 2015 ("**Proposed RPS**").<sup>6</sup>
16. Section 75(3) of the Resource Management Act 1991 ("**RMA**") requires the Proposed District Plan to 'give effect to' the NPSET, while, local authorities are required to ensure that there are no duplications or conflicts between the Regulations in the NESETA and a proposed plan.<sup>7</sup> The requirement to 'give effect to' is a strong statutory direction and was interpreted in the *EDS v New Zealand King Salmon* Supreme Court case as meaning 'to implement'.<sup>8</sup>
17. The Proposed District Plan is required to 'give effect to' the Operative Regional Policy Statement for Otago 1998 ("**Operative RPS**")<sup>9</sup> and 'have regard to' the Proposed RPS.<sup>10</sup> That said, I give substantial weight to the provisions of the Proposed RPS that are relevant to Transpower's submission because I have reviewed the decisions requested in submissions and have concluded that no submissions have sought a decision to substantially amend or

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<sup>4</sup> *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.

<sup>5</sup> Section 42A Report, paragraphs 5.1 to 5.27 and Section 32 Report, pages 2 to 4.

<sup>6</sup> A Crow, Statement of Evidence, Chapter 3 – Strategic Direction, 29 February 2016, paragraphs 20 to 31.

<sup>7</sup> Section 44A of the RMA.

<sup>8</sup> *Environmental Defence Society Incorporated v The New Zealand King Salmon Company Limited*, NZSC 38, 17 April 2014.

<sup>9</sup> Section 75(3) of the RMA.

<sup>10</sup> Section 74(2) of the RMA.

'dilute' the policies insofar as they relate to regionally significant infrastructure, rather, Transpower and other infrastructure providers sought amendments to strengthen the content of these policies. This means that when the proposed RPS is made operative, the proposed District Plan is required to give effect to these policies in a same or 'strengthened' form.

### 30.1 Purpose

18. Transpower's submission<sup>11</sup> generally supports the introductory 'Purpose' section in Chapter 30 but seeks further amendments to include reference to:
- (a) electricity transmission;<sup>12</sup> and
  - (b) the on-going operation, maintenance and upgrade of regionally significant infrastructure.<sup>13</sup>
19. The Section 42A Report does not specifically address the relief sought by Transpower, or a number of other submitters, and has not recommended any amendments to the 'Purpose'.
20. I consider that the 'Purpose' statement has a role in setting out the broad approach of, and context for, the provisions that follow in Chapter 30. These Chapter 30 provisions are critical to the Council's statutory obligation to 'give effect to' the NPSET both in terms of providing for, and protecting, the National Grid. It is therefore my opinion that the 'Purpose' should reflect the approach taken to implementing the NPSET. In this regard, I do not agree with the further submission of Federated Farmers, that the amendments sought by Transpower unnecessarily elevated electricity transmission activities. On the contrary, I consider that

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<sup>11</sup> Submission references 805.69 and 805.70.

<sup>12</sup> The further submission of PowerNet Limited ("**PowerNet**") (further submission reference 1159.5) supports Transpower's primary submission on the basis that it is appropriate to recognise electricity transmission activities. The further submission of Federated Farmers of New Zealand ("**Federated Farmers**") (further submission reference 1132.65) opposes Transpower's primary submission because it is considered that electricity generation and transmission activities should not be unnecessarily elevated.

<sup>13</sup> Transpower's primary submission is opposed by the further submission of Contact Energy Limited ("**Contact**") (further submission reference 1186.11) because the proposed changes are considered too specific, and supported by the New Zealand Defence Force ("**NZDF**") (further submission reference 1211.32) on the basis that the amendments appropriately provide for regionally significant infrastructure.

electricity transmission has elevated 'national significance' by virtue of the NPSET and warrants specific mention in the 'Purpose' alongside renewable electricity generation, which is also subject to a national policy statement.<sup>14</sup>

21. I agree, in part, with the further submission made by Contact that suggests the amendments sought by Transpower are too specific, and consider that the Transpower's relief would benefit from further refinement.
  
22. I consider that the following amendments to the 'Purpose' statement provide a more balanced approach to introducing the subsequent provisions in Chapter 30 in a manner that reflects the language and intent of the NPSET (insofar as the 'Purpose' relates to the National Grid) and the Proposed RPS. 'Provide for' is consistent with Policy 2 of the NPSET, while the 'technical and operational constraints' of the National Grid is addressed in Policy 3 of the NPSET and expanding the reference to 'adverse effects' better reflects the effects on the National Grid described in **Mr Renton's** evidence.

### **"30.1 Purpose**

Energy and Utilities are of strategic importance and require a coordinated approach in relation to the development of energy resources, the generation of electricity, the transmission of electricity and the provision of essential infrastructure throughout the District.

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#### **30.1.2 Utilities**

Utilities have the purpose to provide a service to the public and are typically provided by a network utility operator.

Due to the importance of utilities in providing essential services to the community, their often high capital cost to establish, and their long life expectancy; the need for the establishment and on-going functioning, maintenance and upgrading of utilities is recognised and provided for. In addition, some utilities have specific locational, technical and operational requirements needs that need to be accommodated for their operation.

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<sup>14</sup> National Policy Statement for Renewable Electricity Generation 2011.

It is recognised while utilities can have national, regional and local benefits, they can also have adverse effects on surrounding land uses, some of which have been established long before the network utility. The sustainable management of natural and physical resources requires a balance between the effects of different land uses. However, it is also necessary that essential utilities are protected, where possible, from further encroachment by incompatible activities which may give rise to adverse effects on utilities, including be subject to reverse sensitivity effects. This chapter therefore also addresses requirements for sensitive uses and habitable buildings located near to utilities.”

### **Objectives and Policies**

23. Transpower’s submission generally supports the Objectives and Policies in 3.2 but seeks that the recognition given to energy resources be extended to the National Grid, as directed by the NPSET.<sup>15</sup> No further submissions have been made on Transpower’s primary submission. Transpower’s submission goes on to set out the relief sought in relation to specific provisions.

#### Objectives

24. Transpower’s submission:
- (a) supports Objective 30.2.5 to the extent that the Objective recognises that utilities need to be co-ordinated, but seeks that the Objective be expanded to also ‘enable and protect’ the provision of utilities;<sup>16 17</sup>
  - (b) supports Objectives 30.2.6 and 30.2.7, but seeks amendments to better reflect the terminology used in the NPSET; and<sup>18 19</sup>
  - (c) seeks the inclusion of two new Objectives that are specific to ‘recognising and providing for’ the National Grid and avoiding adverse effects on the National Grid.<sup>20 21</sup>

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<sup>15</sup> Submission reference 805.71.

<sup>16</sup> Submission reference 805.72.

<sup>17</sup> Transpower’s submission is supported in part by the further submission made by Contact (further submission reference 1186.12), subject to further amendments.

<sup>18</sup> Submission references 805.74 and 805.80.

<sup>19</sup> Transpower’s submissions are supported in part by the further submission made by Contact (further submission references 1186.14 and 1186.18), subject to further amendments.



25. In terms of Objective 30.2.5 and 30.2.6, the Section 42A Report concludes that the two Objectives are similar and, as such, expresses a preference to merge the Objectives, but recommends amendments that respond to a number of submissions, including Transpower's.<sup>22</sup>
26. I agree with the Section 42A Report to the extent that Objectives 30.2.5 and 30.2.6 overlap, at best, albeit that the revised Objective 30.2.6 more directly provides for new utilities, when compared to revised Objective 30.2.5. I also agree with the Section 42A Report that components of Chapter 30 would benefit from changes to provide better connection with the higher order components of the Proposed District Plan,<sup>23</sup> particularly in Chapter 3 – Strategic Direction.
27. In my opinion Objectives 30.2.6 and 30.2.7 achieve the relief sought by Transpower to the extent that the Objectives reflect the intent of Transpower's submission on these Objectives, if not the terminology in the NPSET. However, when considered as a whole, I do not consider that the Objectives in the Revised Chapter give effect to the NPSET because they do not:
- (a) address the concept of 'protection', or adverse effects on the National Grid in a manner consistent with Policies 10 and 11 of the NPSET and the more general Strategic Direction Policy 3.2.8.1.1; or<sup>24</sup>
  - (b) recognise and provide for the National Grid as required by Policy 2 of the NPSET.

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<sup>20</sup> Submission references and 805.77 and 805.79.

<sup>21</sup> Transpower's submission is opposed by the further submissions of Federated Farmers (further submission references 1132.68 and 132.66) because it is considered that Transpower's relief goes beyond what is required by the NPSET, would unnecessarily elevate the status of electricity transmission and Transpower's concerns are already largely addressed through provisions relating to transmission infrastructure (particularly the National Grid) proposed in the PDP.

<sup>22</sup> Section 42A Report, paragraphs 13.1 to 13.5.

<sup>23</sup> Section 42 A Report, paragraphs 6.1 and 6.2.

<sup>24</sup> As Included In the Reply of Matthew David Paetz on behalf of Queenstown Lakes District Council, Strategic Direction and Urban Development Chapters, Dated 7 April 2016.

28. In order to achieve this, and given the current lack of connection to Policy 3.2.8.1.1, I support the inclusion of the following two new Objectives in Chapter 30. That said, I accept that with redrafting, the Objectives in Chapter 30 could achieve a similar outcome and equally give effect to the NPSET.

**“30.2.x Objective – The ongoing operation, maintenance, development and upgrading of the National Grid is recognised and provided for.”**

**30.2.x Objective – The adverse effects of new land use activities (including reverse sensitivity effects) on the efficient and effective operation, maintenance, upgrading and development of the National Grid are avoided.”**

#### Policies

29. Transpower’s submission:
- (a) supports Policies 30.2.5.3, 30.2.6.1, 30.2.6.2, 30.2.6.3, 30.2.6.5 and 30.2.7.1 but seeks further amendments to give effect to the NPSET;
  - (b) seeks the replacement of Policy 30.2.6.4 with a new policy that addresses activities in the vicinity of the National Grid;
  - (c) seeks that Policy 30.2.7.3 be amended to limit the replacement of overhead services with underground services to reticulation networks only and not the National Grid; and
  - (d) seeks that Policy 30.2.7.4 be amended to take into account the operational and technical requirements associated with regionally significant infrastructure such as the National Grid.
30. As a preliminary matter I note that the Section 42A Report concludes that the organisation of policies could be improved. I strongly agree, and consider that the Revised Chapter does not achieve a sound reorganisation such that a number of Policies have little relation to the Objective they are implementing. I consider that there is

substantial merit in further revision of the policy framework to achieve a more clear and concise suite of provisions.

31. That said, the Section 42A Report also acknowledges that a number of submitters have sought the rewriting of objectives and policies and concludes that the vast majority of the relief sought by these submitters is achieved.
32. I have reviewed the Revised Chapter Policies in relation to the relief sought and summarise my conclusions in relation to the recommendations as follows:
  - (a) The amendments sought to Policy 3.2.5.3 in relation to the protection of the National Grid have not been included and would be unnecessary duplication subject to amendments being made to Policy 30.2.6.4.
  - (b) The amendments sought to Policy 30.2.6.1, to provide for the development of the National Grid, have not been included and are not necessary given the clear National Grid specific Policy 30.2.6.4.
  - (c) The amendments sought, that reflect Policies 1, 3 and 4 of the NPSET have been included in the Revised Chapter and as such give effect to these provisions of the NPSET.
  - (d) The minor amendment sought to Policy 30.2.6.3 to address whether co-location is 'locationally' feasible has not been included and is unnecessary given that the new Policy 30.2.6.2 introduces the concept of locational requirements.
  - (e) Policy 30.2.6.4, that is a National Grid specific policy, has not been replaced. I consider that replacement of this Policy is not necessary in order to give effect to the NPSET, but further amendment to this Policy is necessary to clearly reflect the approach to third party activities in Policies 10 and 11 of the NPSET.

- (f) The amendments sought to Policy 30.2.6.5, to provide for utilities more generally through reliance on the NPSET are not necessary given the new Policy 30.2.6.2 and Policy 30.2.6.4.
- (g) The amendments sought to Policy 30.2.7.1 in relation to effects on protected areas have not been made. It is considered necessary for this Policy to acknowledge that a reduction of adverse effects will not always be possible or practicable for linear network utilities in protected and identified areas.
- (h) The amendments sought to Policies 30.2.7.2 and 30.2.7.3 in relation to undergrounding services and existing lines have not been made. While the Policies could be read as not including the National Grid, I consider limited amendments would be beneficial. In this regard, I note that the NPSET does not require the undergrounding of the National Grid.

33. For the reasons set out above, and particularly to give effect to the NPSET, and in having regard to Policies 3.6.4 and 3.6.5 of the Proposed RPS, I support the following further amendments to the Policies:

“30.2.6.4 ~~Recognise and provide for the benefits of a sustainable, secure and efficient National Grid by enabling its use and development, by managing its adverse effects, and by managing of the electricity transmission network, including within the transmission line corridor, and to protect activities to avoid from the adverse effects on the National Grid of the electricity transmission network,~~ including by:

- ~~Only allowing Controlling the proximity of buildings, structures and earthworks in the National Grid Yard where they will not compromise the operation, maintenance, upgrade and development of the National Grid and vegetation to existing transmission corridors, including buffer distances for managing subdivision and land use development near the National grid.~~
- ~~Discouraging Avoiding sensitive activities from locating within or near to the electricity transmission National Grid Yard to minimise potential reverse sensitivity effects on the transmission network~~

- Managing subdivision within ~~or near to electricity transmission~~ National Grid corridors to achieve the outcomes of this policy to facilitate good amenity and urban design outcomes

- ~~Not compromising the operation or maintenance options or, to the extent practicable, the carrying out of routine and planned upgrade works.~~

...

30.2.7.1 Reduce adverse effects, to the extent possible, associated with utilities by: ...

...

30.2.7.2 Require the undergrounding of new services in new areas of urban development where technically feasible.”

30.2.7.3 Encourage the replacement of existing reticulated overhead services with underground reticulation or the upgrading of existing overhead services where technically feasible.

### 30.3 Other Provisions and Rules

34. Transpower’s submission:

- (a) supports the commentary in relation to the NESETA in 30.3.2.1 subject to very minor wording amendments;<sup>25</sup>
- (b) supports the description of New Zealand Electrical Code of Practice for Electrical Safe Distances (“**NZEC 34:2001**”) in 30.3.2.3 subject to limited amendment;<sup>26</sup>
- (c) acknowledges the direction given in 33.3.3 that the Chapter 30 rules take precedence over other rules, unless specifically stated; and<sup>27</sup>
- (d) seeks the inclusion of references to the Electricity (Hazards from Trees) Regulations 2003.<sup>28 29</sup>

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<sup>25</sup> Submission reference 805.84.

<sup>26</sup> Submission reference 805.85.

<sup>27</sup> Submission reference 805.87

<sup>28</sup> Submission reference 805.88.

<sup>29</sup> Addressed in the Section 42A Report at paragraph 14.44.

35. No further submissions were made on Transpower's primary submission in relation the provisions in 30.3.
36. The Revised Chapter achieves the relief sought by Transpower, with the exception of minor wording differences. I consider these differences to be immaterial and I support Section 30.3 on the basis that it provides clear and succinct directions in relation to both the Proposed District Plan provision and other Standards and Regulations that may apply.

### **Minor Upgrading**

37. Transpower's submission supports Rule 30.4.9 that provides for minor upgrading as a permitted activity.<sup>30</sup> Transpower's submission also generally supports the definition of 'minor upgrading' on the basis that the definition is specific to electricity lines, but seeks amendments to the definition to be consistent with the NESETA and NPSET and the approach taken in other district plans.<sup>31</sup> Transpower's further submission supports the primary submission made by Aurora on the basis that the relief sought is similar to that sought by Transpower.<sup>32</sup> Transpower's further submissions also supports in part the primary submissions of Vodafone NZ and Spark Trading NZ Limited that seek additions to the definition to provide for telecommunications upgrading.<sup>33</sup>
38. The Section 42A Report addresses a range of submissions made in relation the definition of 'minor upgrading' and concludes:

*"The majority of the relief sought is consistent with definitions used in other district plans of Minor Upgrading throughout the country. I recommend accepting in part the relief sought. The components accepted include:*

*a. the addition of lines;*

*b. removing the diameter requirements in the notified (as these are considered too difficult to monitor, and there is a requirement that the minor upgrades be of similar scale and intensity);*

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<sup>30</sup> Submission reference 805.89.

<sup>31</sup> Submission reference 805.11.

<sup>32</sup> Primary submission reference 635.5 and further submission reference 1301.4.

<sup>33</sup> Primary submission reference 179.5 and 191.4, further submission references 1301.5 and 1301.6.

- c. introduction of re-sagging and bonding of conductors;*
- d. the replacement of insulators with more efficient ones; and*
- e. the removal of three additional support structures as a minor upgrade.”<sup>34</sup>*

39. The revised definition of ‘minor upgrading’ generally achieves the relief sought and, subject to one exception, provides for a consistent approach to minor upgrading that is in keeping with the intent of the NPSET, as expressed in the Preamble, and that gives effect to Policy 5.
40. In terms of the exception, the Revised Chapter does not include a clause that provides for an increase in support structure height by 15% when necessary to comply with NZECP 34:2001. The Section 42A Report does not specifically address this element of Transpower’s relief.
41. I support the inclusion of the following clause in the definition of ‘minor upgrading’ on the basis that the positive effects of works that would be permitted through inclusion in the definition would likely to outweigh the minimal adverse effect. This is because raising support structures, and therefore towers, to comply with NZECP 34:2001 provides for the health and safety of people and communities, along with the protection of the electricity line. Further, I consider it appropriate to provide for the increase in a manner that mirrors similar Regulations in the NESETA.

“(x) Increase in support structure height required to comply with NZECP34:2001 by not more than 15% of the base height of the support structure, and where the base height is defined as the height of the structure at date of public notification of the Plan.”

### **Lines and Supporting Structures**

42. Transpower’s submission supports Rule 30.4.11 that provides for new lines and support structures up to a voltage of 110kV as a controlled activity, but seeks new permitted activity status for such activities with a ‘default’ to controlled activity status where the rule

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<sup>34</sup> Section 42A Report, paragraph 9.42.

parameters and/or standards are breached.<sup>35</sup> This submission is supported by the further submission made by Aurora on the basis that it is appropriate to provide a more enabling framework for network utilities.<sup>36</sup>

43. The Section 42A Report does not address the relief sought by Transpower, or Rule 30.4.11 in general (with the exception of potential visual impacts), but makes limited amendments to Rules 30.4.11 and 30.4.12.
44. In a broader sense I also note that the Chapter 30 rules do not provide for electricity lines, at any scale, without the need for resource consent. In my opinion, this approach:
- (a) does not give effect to Policy 2 of the NPSET;
  - (b) does not have regard to Policy 3.6.4 of the Proposed RPS;  
and
  - (c) does not give effect to Policies 30.2.5.4, 30.2.5.5 30.2.6.1 and 30.2.6.4 of the Revised Chapter.
45. I am also of the opinion that the section 32 evaluation of Rule 30.4.11 fails to appropriately weigh the benefits and costs of the provisions including economic and social benefits and costs and does not identify 'other reasonable options'. No consideration is given to the NPSET, or the national significance of the National Grid. In my opinion requiring resource consent for all new electricity lines, and discretionary activity resource consent for most National Grid transmission lines does not effectively provide for the National Grid and imposes greater cost and uncertainty in relation to the consent process.
46. For the reasons set out above, I support the relief sought by Transpower to the extent that Rule 30.4.11 is a permitted activity and Rule 30.4.12 is a controlled activity. In this regard I

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<sup>35</sup> Submission reference 805.95.

<sup>36</sup> Further submission reference 1121.39.



acknowledge that Rule 30.4.11 could be improved to more clearly establish the areas in the district that would be less sensitive to overhead transmission lines or particular height limits for structure types in different zones.

#### **Rules - Buildings and Activities in the National Grid Yard**

47. Transpower's submission indicates general support for Rule 30.4.10, and the accompanying Standard 30.5.10,<sup>37</sup> and seeks refinement to the notified provisions to reflect Transpower's more recent approach to giving effect to Policies 10 and 11 of the NPSET through rules that manage activities and buildings in the vicinity of the National Grid.<sup>38</sup> Federated Farmers have made submissions seeking the notified provision be retained.
48. I note that a number of submissions and further submissions have been made, including by Transpower, in relation to rules that apply equivalent, or similar, 'protection' for Aurora's electricity distribution lines in Rule 30.4.10 and Standard 30.5.9. I address this matter separately later in my evidence.
49. The Section 42A Report does not address the amendments sought by Transpower in detail, but concludes that the "*changes sought to 30.4.10 are largely already covered by the standards in 30.5.10 and 30.5.11*".<sup>39</sup>
50. Irrespective of the 'form' of the provisions, I have compared the differences in regulation between the Revised Proposal and the relief sought in Transpower's submission and I have concluded that the Revised Proposal differs in the following ways:
- (a) the provisions do not establish a clear rule framework for 'activities sensitive to the National Grid' because such activities are excluded from 30.4.10. Standard 30.5.9 only addresses buildings and structures such that it could be

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<sup>37</sup> Redrafted as 30.5.9 in the Section 42A Report version of Chapter 30 and hereafter referred to as 30.5.9.

<sup>38</sup> Submission references 805.90 and 805.91.

<sup>39</sup> Appendix 2 to the Section 42A report for Chapter 30 - Energy and Utilities.

interpreted that activities sensitive to the National Grid are permitted on the basis that no rules or standards 'trigger' the requirement for a resource consent;

- (b) the provisions do not require a separation for **all** buildings (including those buildings that are permitted 'mid-span') from National Grid transmission line support structures;
- (c) the provisions do not provide for some horticultural structures within the National Grid Yard;
- (d) the provisions do not require all buildings and structures to maintain a 10m vertical clearance or comply with NZECP 34:2001;
- (e) the provisions do not include a 'trigger' for factory farming to be a non-complying activity; and
- (f) the provisions do not include direction in relation to notification.

51. In terms of 'activities sensitive to the National Grid', I consider that it is essential that the rule framework clearly establishes that such activities are not provided for in the National Grid Yard because such an approach is firmly directed by Policy 11 of the NPSET.

52. On the basis of the potential adverse effects of buildings and activities in close proximity to transmission line support structures, including on access and tower integrity, as described by **Mr Renton**, I also consider it appropriate that the rule framework requires a separation from transmission line support structures in order to give effect to Policy 10 of the NPSET.

53. Similarly, I also consider it appropriate for the rule framework to ensure that safe conductor clearances are maintained for those buildings and structures that are permitted mid-span. **Mr Renton** has described the mandatory requirements of NZECP 34:2001 and the safety issues and potential effects associated with 'breaches'.

54. In terms of 'factory farming', it is my understanding that the structures typically associated with factory farming can have reverse sensitivity and direct adverse effects on the National Grid, in a similar manner to commercial glasshouses and dairy sheds. These effects include imposing significant constraints on the ability to inspect and maintain transmission lines including because these type of production activities cannot easily be 'paused' or relocated to allow the works to occur safely. It is on this basis, and for consistency, that I support the inclusion of 'factory farming' in the rule framework.
55. The exemptions for horticultural structures sought in Transpower's submission reflect the approach taken to the National Grid Yard elsewhere in New Zealand. No submitters have sought this exemption, but I do not oppose it being included on the basis that inclusion would achieve the consistent policy and regulatory approach referred to in the Preamble to the NPSET.
56. In terms of the inclusion of notification directions, I appreciate that the approach to such matters, in a district plan, is typically a drafting, or whole of plan, matter. I therefore consider the inclusion of such a clause of assistance, but not necessary on the basis that a normal test under the RMA is likely to arrive at the same conclusion that Transpower is the only relevant affected party in relation to an activity that only needs resource consent because it is located in the National Grid Yard.
57. For the reasons set out above, I consider that Rule 3.4.10 and 3.5.9 require further amendments to address the 'gaps' I have identified in order to fully give effect to Policies 10 and 11 of the NPSET and therefore achieve the purpose of the RMA.
58. The amended rule framework I support is set out below and has been revised to effectively 'flip' the provisions so that the 'starting point' is non-complying activity status with exceptions establishing the activities and structures that are appropriate within the National Grid Yard. As a consequence Standard 3.5.9 can be deleted and

the earthworks component of the Rule 3.4.10 is 'split out'. I consider that such an approach offers a clear and simplified approach to protecting the National Grid that better achieves the necessary clarity in relation to 'activities sensitive to the National Grid'.

59. The amended rule set out below also includes further limited amendments that reflect Transpower's current consistent approach to activities and building within the National Grid Yard. The key change in this regard is a more 'relaxed' standard for most network utilities. Further, I do not favour the inclusion of a standard (currently 30.5.9.5) that does no more than is provided for as an existing use under section 10 of the RMA.

	"Activities for Energy and Utilities"	Activity Status
<p><b>Rules for Utilities; and Buildings, Structures and Earthworks within or near to the National Grid Corridor</b></p> <p><b>Note – The rules differentiate between four types of activities: lines and support structures; masts and antennae; utility buildings; and flood protection works &amp; waste management facilities.</b></p>		
30.4.10	<p><b><del>Buildings, and structures and (that are not for National Grid Sensitive Activities), Structures and Earthworks</del> within the National Grid Yard, except the following shall be permitted when they meet the requirements of NZECP34:2001 or have a minimum vertical clearance of 10 metres below a conductor that is part of the National Grid Corridors and Electricity Sub-Transmission lines</b></p> <ul style="list-style-type: none"> <li>● <u>non-conductive fences less than 2.5m in height that are more than 5m from a National Grid transmission line support structure;</u></li> <li>● <u>a network utility (other than a building or structure for the reticulation and storage of water for irrigation purposes);</u></li> <li>● <u>a non-habitable building less than 2.5m high and 10m<sup>2</sup> in floor area that is more than 12m from a National Grid transmission line support structure;</u></li> <li>● <u>a non-habitable farming or horticultural building or structure used for agricultural activities that is not a milking shed/dairy shed, commercial glasshouse, structure associated with irrigation or factory farm, and is more than 12m from a National Grid transmission line support structure;</u></li> <li>● <u>an agricultural or horticultural structure where Transpower has given written approval in accordance with clause 2.4.1 of</u></li> </ul>	PNC"

	<u>NZEC34:2001.</u> <del>(subject to compliance with Rules 30.5.9, 30.5.10 and 30.5.11)</del>	
<u>30.4.x</u>	<u>Earthworks within the National Grid Yard</u> (subject to compliance with 30.5.11)	<u>P</u>

60. Transpower’s submission supports the definition of ‘National Grid Yard’ and seeks a minor wording amendment to clarify that the ‘National Grid Corridor’ does not apply to underground cables or designated transmission lines.<sup>40</sup>
61. The Section 42A Report concludes that Transpower has not provided adequate justification for the proposed amendment.<sup>41</sup> In any case, I do not consider this amendment necessary, give the separate definition of ‘National Grid Corridor’.
62. The Section 42A Report, in response to a submission made by Arcadian Triangle Limited (“**Arcadian Triangle**”),<sup>42</sup> recommends that the diagram included in the ‘National Grid Yard’ definition be replaced.
63. Having considered the ‘National Grid Yard’ definition in the context of Transpower’s assets in Queenstown Lakes District it is my opinion that the diagram included in the definition is unnecessary and potentially confusing because it shows separation distances from pole and pi pole support structures when there are none of these structures in Queenstown Lakes District. I therefore support the deletion of the diagram in its entirety.

### **Rules – Buildings and Activities in the vicinity of the Frankton Substation**

64. Transpower’s submission seeks the inclusion of a new Rule, and Standard in 30.5, to provide for a 150m separation of buildings and sensitive activities from the Frankton Substation<sup>43</sup> in order to protect

<sup>40</sup> Submission reference 805.15.

<sup>41</sup> Section 42A Report, paragraph 9.47.

<sup>42</sup> Submission reference 836.9.

<sup>43</sup> The Frankton Substation is subject to a designation in the Operative and Proposed District Plans. Transpower is the requiring authority for this designation. The underlying zone for the designation is Rural.

the substation from reverse sensitivity effects, including a 'default' to restricted activity status in situations where the proposed standards cannot be met.<sup>44</sup> No further submissions have been made in relation to rule and standard sought by Transpower.

65. The Section 42A Report recommends that the relief sought by Transpower be rejected because:

*"The non-complying activity status of any building or structure within the National Grid Yard at notified Rule 30.5.10 (redrafted 30.5.9) is in my view adequate to counter any reverse sensitivity issues potentially arising from the effects of Transpower's activities inside of these setbacks on activities locating within the National Grid Yard. I consider that reverse sensitivity effects are appropriately accounted for by notified Rule 30.5.10 (redrafted 30.5.9), and recommend the rejection of this submission point."<sup>45</sup>*

66. I do not agree with the conclusion reached in the Section 42A Report because the Report:

- (a) incorrectly assumes that the National Grid Yard applies to the Frankton Substation, whereas the 'National Grid Yard' definition specifically relates to transmission lines (including an explicit exclusion for designations);
- (b) does not distinguish between the potential adverse effects (including reverse sensitivity effects) of, and on, the Frankton Substation and the effects related to transmission lines;
- (c) fails to consider the merits of the restricted discretionary activity status sought by Transpower when compared to the non-complying 'default' in Rule 30.5.10 (redrafted 30.4.9); and
- (d) does not consider the merits of the relief sought by Transpower in the context of the NPSET.

67. In his evidence, **Mr Renton** has set out the risks, potential adverse effects and reverse sensitivity effects that might be expected at

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<sup>44</sup> Submission reference 805.94.

<sup>45</sup> Section 42A Report, paragraphs 14.41 and 14.42.

substations. He also specifically considers the EPR risk and reverse sensitivity effects in the context of the Frankton Substation and has concluded that a reduced setback of 45 metres from the designation boundary sufficiently addresses risks and managed potential adverse effects.

68. **Mr Renton** also considers activities that might be appropriate within 45 metres of Frankton substation and concludes that potential risks and adverse effects of activities can often be managed and mitigated through design and layout decisions being made with cognisance of the relevant issues and consultation with Transpower.
69. On this basis, I consider that relying on the provisions in Chapter 30, as suggested in the Section 42A Report, does not provide adequate protection of the Frankton Substation and it is appropriate for a further rule (set out below) to be included that provides a setback from the Substation boundary at a distance of 45 metres. I also consider that restricted discretionary activity status is appropriate given **Mr Renton's** opinion that buildings and activities may be located within 45m of the Frankton Substation given that adverse effects may be able to be avoided or mitigated.
70. In reaching this conclusion, I have been mindful of the requirements of section 32 of the RMA and consider that the proposed Rule (set out below) is the most appropriate way to:
- (a) implement the Objective of the NPSET;
  - (b) give effect to Policies 10 and 11 of the NPSET;
  - (c) implement Policy 3.3.5 of the Proposed RPS;
  - (d) implement Policy 3.2.8.1.1 of Chapter 3 – Strategic Direction (Council reply version); and therefore
  - (e) achieve the purpose of the RMA.

	Activities for Energy and Utilities	Activity
	<b><u>“Buildings and Activities in the vicinity of the Frankton Substation</u>”</b>	
<u>30.4.x</u>	<p><u>Any building, hazardous facility or National Grid sensitive activity within 45m of the designated boundary of Transpower New Zealand Limited’s Frankton Substation.</u></p> <p><u>Discretion is restricted to all of the following:</u></p> <ul style="list-style-type: none"> <li>● <u>adverse effects on the efficient operation, maintenance, upgrading and development of the substation;</u></li> <li>● <u>extent to which the design and layout enables appropriate separation from the substation;</u></li> <li>● <u>results of any detailed investigations to determine appropriate separation distances from the substation;</u></li> <li>● <u>risk of electrical hazards affecting public or individual safety, and the risk of property damage; and</u></li> <li>● <u>other measures proposed to avoid or mitigate potential adverse effects, including reverse sensitivity effects, on the substation.</u></li> </ul>	<u>RD”</u>

### Earthworks in the National Grid Yard

71. Transpower’s submission seeks the inclusion of a refined Standard 30.5.11, which establishes the permitted activity parameters for earthworks within the National Grid Yard in order to reflect Transpower’s more recent approach to earthworks in the vicinity of the National Grid. The relief sought by Transpower includes restricted discretionary activity and a non-complying activity ‘default’ rules.<sup>46</sup> The further submissions of Chorus, Spark, Vodafone and Federated Farmers oppose the relief sought by Transpower and express a preference for Standard 30.5.11 as notified.<sup>47</sup> Aurora’s primary submission and further submission support the retention of a clause in Standard 30.5.11 that provides for utilities within the National Grid Yard.<sup>48</sup>

72. Transpower’s submission also seeks the inclusion of a new definition of ‘earthworks within the National Grid Yard’ because the

<sup>46</sup> Submission reference 805.93.

<sup>47</sup> Further submission references 1106.11, 1253.11, 1208.11 and 1132.70.

<sup>48</sup> Submission reference 635.69 and further submission reference 1121.40.



definition of 'earthworks' in the Operative Queenstown Lakes District Plan excludes "*the cultivation of land and the digging of holes for offal pits and the erection of posts or poles or the planting of trees*", and these activities should be subject to the earthworks standards that apply to the National Grid Yard.<sup>49</sup> No further submissions have been made in relation to the definition sought by Transpower.

#### Definition of Earthworks

73. By way of background, the provisions sought by Transpower are aligned to the NZECP 34:2001 that sets out, amongst other matters, minimum safe distances for excavation and construction near overhead electric line support structures. Compliance with NZECP 34:2001 is mandatory. Further, section 237 of the Public Works Act 1981 ("**PWA**") also includes mandatory restrictions on excavations near public works, including the National Grid. Both NZECP 34:2001 and section 237 of the PWA control earthworks, or land disturbance that would fall within the 'digging of holes for offal pits and the erection of posts or poles or the planting of trees' exclusion from the Operative District Plan definition of 'earthworks'.
74. The Section 42A Report has concluded that the notified rules appropriately address earthworks in the National Grid Yard without the need to add an 'earthworks within the National Grid Yard' definition on the basis that offal pits, posts and poles and cultivation are captured by the Standard in 30.5.9 and 30.5.11. The Section 42A Report does not address digging holes for tree planting.
75. I do not agree with the section 42A Report that the notified Rules appropriately capture earthworks because works that are exempt from the 'earthworks' definition must then fall into the district definition of 'structure' in order to be controlled by the Standards in 30.5.9. Activities such as tree planting would not be considered a 'structure', and neither would the Standards for earthworks in 30.5.11 apply. This effectively creates a regulatory 'gap' that has the potential to compromise the National Grid in a manner that is

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<sup>49</sup> Submission reference 805.7.

contrary to Policy 10 of the NPSET. It is for this reason, and so that the Proposed District Plan provisions are consistent with NZECP 34:2001 and the PWA, that I support the inclusion of the following new definition:

“Earthworks in the National Grid Yard - Means the disturbance of land surfaces by the removal or depositing of material, excavation, filling or the formation of roads, banks, and tracks.”

#### Standards for Earthworks in the National Grid Yard

76. The Section 42A Report recommends the retention of the notified Standard 30.5.11 in its entirety, but does not give specific consideration to the ways in which the relief sought by Transpower differs to the Revised Chapter.<sup>50</sup> In this regard, no consideration has been given in terms of the appropriateness of a non-complying activity status.
77. I have considered Transpower’s relief alongside the Revised Chapter and note:
- (a) The Section 42A Report recommends amending the Standard to be ‘inclusive’ through the replacement of “being”. I consider that using “include” is inappropriate in the context of a rule due to the inherent uncertainty this creates in terms of what might be included.
  - (b) The Standards in 30.5.11.1 and 30.5.11.2 (Revised Chapter numbering) include standards that are relevant to transmission line pole support structures. I do not consider these provisions are necessary on the basis that there are no pole structures as part of the National Grid in Queenstown Lakes District.
  - (c) The Standards do not establish that the separation distance is measured from the foundation of a support structure in a manner that is consistent with NZECP 34:2001.

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<sup>50</sup> Section 42A Report, paragraph 9.32.

(d) The Standards do not provide clarity in terms of conductor clearances being measured from the ground (Standard 30.5.11.6 Revised Chapter numbering).

78. For the reasons set out above, I support addressing the matters listed in (a) to (d) above, along with some limited drafting matters, in Standard 30.5.11.

79. In terms of the restricted discretionary status and non-complying activity status sought in Transpower's submission, I note that the appropriate activity status in situations where earthworks in the vicinity of the National Grid requires resource consent was considered in some detail in relation to the Christchurch Replacement District Plan. In this context it was considered inappropriate to include a restricted discretionary activity rule because earthworks that do not comply with the permitted activity rule would also not meet the mandatory requirements of NZECP 34:2001 and therefore would not be able to occur, except in rare circumstances, in any case. It is on this basis, and in order to give effect to Policy 10 of the NPSET, that I support non-complying activity status in situations where the Standards in 30.5.11 cannot be met.

80. The amendments to Standard 30.5.11 as set out below:

	Standards for activities	Non-compliance status
30.5.11	<p><b>Earthworks permitted within the National Grid Yard being <del>include</del>are:</b></p> <p><del>30.5.11.1 Earthworks within 2.2 metres of a National Grid pole support structure or stay wire shall be no deeper than 300mm.</del></p> <p><del>30.5.11.2 Earthworks between 2.2 metres to 5 metres of a National Grid pole support structure or stay wire shall be no deeper than 750mm.</del></p> <p>30.5.11.43 Earthworks within 6 metres of the outer visible edge of <u>the foundation of</u> a National Grid <del>t</del>Transmission <u>line Tower</u> <del>S</del>support <del>S</del>structure shall be no deeper than 300mm.</p>	<del>DNC</del>

	<p>30.5.11.<del>24</del> Earthworks between 6 metres to 12 metres from the outer visible edge of <u>the foundation of</u> a National Grid <del>Transmission line Tower</del> support structure shall be no deeper than 3 metres.</p> <p>30.5.11.<del>35</del> Earthworks shall not create an unstable batter that will affect a <u>National Grid</u> transmission <u>line</u> support structure.</p> <p>30.5.11.<del>46</del> Earthworks shall not result in a reduction in the <del>existing ground to</del> conductor clearance distance below what is required by the New Zealand Electrical Code of Practice <u>for Electrical Safe Distances NZECP</u> 34:2001.</p> <p>The following earthworks are exempt from the rules above:</p> <p>30.5.11.<del>57</del> Earthworks undertaken <u>by network utility operators providing the work is not associated with buildings or structures for the storage of water for irrigation purposes in the course of constructing or maintaining utilities</u></p> <p>30.5.11.<del>68</del> Earthworks undertaken as part of agricultural, <u>horticultural activities</u> or domestic <u>cultivation gardening</u></p> <p>30.5.11.<del>79</del> Repair sealing, resealing of an existing road, footpath, farm track or driveway</p> <p><del>Note — Refer to the Definitions for illustration of the National Grid Yard.</del></p>	
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### Electricity Distribution Lines and Associated Definitions

81. Transpower's further submissions address a range of provisions sought by Aurora that together have the effect of providing protective corridors in favour of some of Aurora's assets. Transpower's further submission does not support the use of the term 'critical electricity line' on the basis that the definition and associated provisions serve to confuse plan users. Transpower's further submission suggests alternate approaches that maintain a clear distinction from the National Grid.
82. The Section 42A Report agrees that the definition of 'critical electricity line' is confusing and, in response recommends the inclusion of a new 'electricity sub-transmission lines' definition. In my opinion this term, and the accompanying definition, is no more

clear to the extent that the use of the term ‘transmission’ could still have the effect of confusing National Grid assets and the distribution company assets. This is particularly the case given that the NPSET and NESETA both use the term ‘transmission’ to apply to the National Grid only. I note that The 2007 Board of Inquiry Report to the Minister for the Environment on the proposed National Policy Statement on Electricity Transmission was deliberate in setting apart the National Grid. The report states that:

*“Some supply companies considered that the policy statement should be extended to apply to all high tension lines, whether or not they were part of the national grid. We were not persuaded that this would be appropriate. It is the New Zealand-wide nature of the grid that is one of the principal reasons for it being of national significance. The same cannot be said of supply lines which in most cases are contained within one region. Problems of cut-off points also arise.”*

83. I am only aware of one district plan that includes provisions that are similar to those sought by Aurora (for similar voltage assets), in favour of Orion New Zealand Limited (“**Orion**”) (Christchurch Replacement District Plan). In this instance Orion relies on the definitions of electricity distribution lines and identified electricity distribution lines. In Hurunui, MainPower Limited has sought protective provisions that mirror Orion’s, but no decision has been made on these provisions. In both cases the provisions sought have been developed and advanced as a distinct suite of rules that respond to the asset type without recourse to the NPSET.
84. On this basis I do not support the term “sub-transmission”, and prefer ‘distribution line’ and ‘identified distribution line’ because it is more distinct and also offers the advantage of consistency of terminology across jurisdictions. I also consider that the distinction between the National Grid and distribution assets needs to be equally clear so that plan users can easily understand the rules that may apply.

### **Remaining Definitions**

85. In addition to the definitions I have addressed earlier in my evidence, Transpower’s submission (and further submissions) also addresses

a number of other definitions. These submissions, the Section 42A Report recommendations, and my responses are set out in the table below:

Transpower's submission seeks:	Section 42A Report recommendation and comment
<ul style="list-style-type: none"> <li>the retention of the definition of 'Building'.</li> </ul>	The definition is retained as notified.
<ul style="list-style-type: none"> <li>the inclusion of a new definition of 'National Grid'.</li> </ul>	Includes a definition of 'National Grid' by reference to the definition in NESETA. Transpower's submission sought to reference the NPSET. I consider that either definition would be appropriate, therefore I support the Revised Chapter version.
<ul style="list-style-type: none"> <li>the retention of the definition of 'National Grid Sensitive Activities'</li> </ul>	<p>Amend the definition to merge part of the definition of 'Sensitive Activities – Transmission Corridor' and to align better with the definitions in the Proposed District Plan. I support the amendment to align with 'reliant' definitions, but I do not support the new preamble to the definition because:</p> <ul style="list-style-type: none"> <li>it is inconsistent with the definition in the NPSET;</li> <li>refers to the National Grid Corridor, rather than the 'Yard'; and</li> <li>Does not accurately describe the full range of reasons why the activities might be sensitive.</li> </ul>
<ul style="list-style-type: none"> <li>the inclusion of a new definition of 'Regionally Significant Infrastructure'<sup>51</sup></li> </ul>	Includes a new definition that appropriately aligns with Transpower's relief and Policy 3.1.5 of the Proposed RPS.
<ul style="list-style-type: none"> <li>the inclusion of a new definition of 'Reverse Sensitivity'</li> </ul>	Does not include the definition on the basis that the concept is broadly understood. I accept that view and do not consider that the definition is necessary.
<ul style="list-style-type: none"> <li>the deletion of the definition of 'Sensitive Activities – Transmission Corridor'</li> </ul>	Deletes the definition.
<ul style="list-style-type: none"> <li>minor amendments to the definition of 'Utility'<sup>52</sup></li> </ul>	Amends the definition to include substations as sought.

<sup>51</sup> Transpower's further submission supports in part the primary submission of Aurora seeking a similar definition, but prefers greater alignment with Objective 3.5.1 of the Proposed RPS. Primary submission reference 635.6.

<ul style="list-style-type: none"> <li>the inclusion of a new definition of 'Support Structure'</li> </ul>	Includes a definition of 'Support Structure' as sought.
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86. As set out in the table above, I support further amendment to the definition of 'National Grid Sensitive Activities as follows:

~~"Means those activities that are particularly sensitive to the National Grid transmission lines. Such activities are those activities within the National Grid Corridor that are particularly sensitive to the risks associated with electricity transmission lines because of either the potential for prolonged exposure to the risk or the vulnerability of the equipment or population that is exposed to the risk. Such activities include buildings or parts of buildings used for, or able to be used for the following purposes:~~

- ~~• Child Day Care activity;~~
- Day Care facility activity;
- Educational facility activity, ~~except training related to the National Grid;~~
- ~~• Home Stay;~~
- Healthcare facility ~~Hospital activity;~~
- Papakainga;
- Any Residential activity;
- ~~• Residential Care activity; or~~
- Visitor accommodation."

Ainsley Jean McLeod

2 September 2016

<sup>52</sup> Transpower's further submission supports the primary submission made by Aurora (submission reference 635.9) seeking amendments to the definition of 'Utility'.

## **Attachment A: Documents Reviewed in Preparing this Evidence**

In preparing this evidence I have reviewed the following:

- (a) Section 42A Hearing Report, dated 19 August 2016, included the recommended Revised Chapter, the Section 32 Evaluation Report and the Section 32AA Evaluation – Chapter 30 Energy and Utilities;
- (b) Reply of Nigel Roland Bryce on behalf of Queenstown Lakes District Council 27 Subdivision and Development Chapter, dated 26 August 2016;
- (c) the National Policy Statement on Electricity Transmission 2008, including the 2007 Board of Inquiry Report to the Minister for the Environment in relation to this Policy Statement;
- (d) the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009;
- (e) Operative Regional Policy Statement for Otago 1998;
- (f) Proposed Regional Policy Statement for Otago 2015, including the associated Section 42 Report on Decisions Requested and the summary of submissions received;
- (g) Queenstown Lakes District Council District Plan (February 2016) (Operative);
- (h) New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001);
- (i) Electricity (Hazards from Trees) Regulations 2003; and
- (j) Submissions made by a number of parties in relation to Chapter 30, and further submissions in relation to Transpower's primary submission.



## **Attachment B: Further Revisions to the Revised Chapter Support in Evidence**

The following amendments are proposed to the provisions of the Proposed District Plan Revised Chapter. The Section 42A Report amendments are shown in black and the further amendments supported in evidence are shown in red.

**Amend 30.1** Purpose as follows:

### **“30.1 Purpose**

Energy and Utilities are of strategic importance and require a coordinated approach in relation to the development of energy resources, the generation of electricity, the transmission of electricity and the provision of essential infrastructure throughout the District.

...

#### **30.1.2 Utilities**

Utilities have the purpose to provide a service to the public and are typically provided by a network utility operator.

Due to the importance of utilities in providing essential services to the community, their often high capital cost to establish, and their long life expectancy; the need for the establishment and on-going functioning, maintenance and upgrading of utilities is recognised and provided for. In addition, some utilities have specific locational, technical and operational requirements needs that need to be accommodated for their operation.

...

It is recognised while utilities can have national, regional and local benefits, they can also have adverse effects on surrounding land uses, some of which have been established long before the network utility. The sustainable management of natural and physical resources requires a balance between the effects of different land uses. However, it is also necessary that essential utilities are protected, where possible, from further encroachment by incompatible activities which may give rise to adverse effects on utilities, including be subject to reverse sensitivity effects. This chapter therefore also addresses requirements for sensitive uses and habitable buildings located near to utilities.”

Amend the Objectives and Policies in 30.2 to include the following:

“30.2.x Objective – The ongoing operation, maintenance, development and upgrading of the National Grid is recognised and provided for.”

30.2.x Objective – The adverse effects of new land use activities (including reverse sensitivity effects) on the efficient and effect operation, maintenance, upgrading and development of the National Grid are avoided.”

“30.2.6.4 ~~Recognise and provide for the benefits of a~~ sustainable, secure and efficient National Grid by enabling its use and development, by managing its adverse effects, and by managing of the electricity transmission network, including within the transmission line corridor, and to protect activities to avoid from the adverse effects on the National Grid of the electricity transmission network, including by:

- ~~Only allowing~~ Controlling the proximity of buildings, structures and earthworks in the National Grid Yard where they will not compromise the operation, maintenance, upgrade and development of the National Grid ~~and vegetation to existing transmission corridors, including buffer distances for managing subdivision and land use development near the National grid.~~
- ~~Discouraging~~ Avoiding sensitive activities ~~from locating within or near to the electricity transmission National Grid Yard to minimise potential reverse sensitivity effects on the transmission network~~
- Managing subdivision within ~~or near to electricity transmission National Grid~~ corridors to achieve the outcomes of this policy to facilitate good amenity and urban design outcomes
- ~~Not compromising the operation or maintenance options or, to the extent practicable, the carrying out of routine and planned upgrade works.~~

...

30.2.7.1 Reduce adverse effects, to the extent possible, associated with utilities by: ...

...

30.2.7.2 Require the undergrounding of new services in new areas of urban development where technically feasible.”

30.2.7.3 Encourage the replacement of existing reticulated overhead services with underground reticulation or the upgrading of existing overhead services where technically feasible.”

Amend Rule 3.4.10 as follows:

	“Activities for Energy and Utilities	Activity Status
<p><b>Rules for Utilities; and Buildings, Structures and Earthworks within or near to the National Grid Corridor</b></p> <p><b>Note – The rules differentiate between four types of activities: lines and support structures; masts and antennae; utility buildings; and flood protection works &amp; waste management facilities.</b></p>		
30.4.10	<p><b>Buildings, <del>and structures and (that are not for National Grid Sensitive Activities), Structures and Earthworks</del> within the National Grid Yard, except the following shall be permitted when they meet the requirements of NZECP34:2001 or have a minimum vertical clearance of 10 metres below a conductor that is part of the National Grid Corridors and Electricity Sub-Transmission lines</b></p> <ul style="list-style-type: none"> <li>• <u>non-conductive fences less than 2.5m in height that are more than 5m from a National Grid transmission line support structure;</u></li> <li>• <u>a network utility (other a building or structure for the reticulation and storage of water for irrigation purposes);</u></li> <li>• <u>a non-habitable building less than 2.5m high and 10m<sup>2</sup> in floor area that are more than 12m from a National Grid transmission line support structure;</u></li> <li>• <u>a non-habitable farming or horticultural building or structure used for agricultural activities that is not a milking shed/dairy shed, commercial glasshouse, structure associated with irrigation or factory farm, provided that they are more than 12m from a National Grid transmission line support structure;</u></li> <li>• <u>an agricultural or horticultural structure where Transpower has given written approval in accordance with clause 2.4.1 of NZECP34:2001.</u></li> </ul> <p><del>(subject to compliance with Rules 30.5.9, 30.5.10 and 30.5.11)</del></p>	<u>PNC</u> ”
<u>30.4.x</u>	<u>Earthworks within the National Grid Yard</u> (subject to compliance with 30.5.11)	<u>P</u>

Amend the Rules in 30.4 to include the following:

	Activities for Energy and Utilities	Activity
	<u>“Buildings and Activities in the vicinity of the Frankton Substation</u>	
<u>30.4.x</u>	<u>Any building, hazardous facility or National Grid sensitive activity within 45m of the designated boundary of Transpower New Zealand Limited’s Frankton Substation.</u>	<u>RD</u> ”

	<p><u>Discretion is restricted to all of the following:</u></p> <ul style="list-style-type: none"> <li>● <u>adverse effects on the efficient operation, maintenance, upgrading and development of the substation;</u></li> <li>● <u>extent to which the design and layout enables appropriate separation from the substation</u></li> <li>● <u>results of any detailed investigations to determine appropriate separation distances from the substation</u></li> <li>● <u>risk of electrical hazards affecting public or individual safety, and the risk of property damage</u></li> <li>● <u>other measures proposed to avoid or mitigate potential adverse effects, including reverse sensitivity effects, on the substation.</u></li> </ul>	
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Amend Rule 30.4.11 to be a permitted activity and amend Rule 30.4.12 to be a controlled activity.

Amend Standard 30.5.11 as follows:

	Standards for activities	Non-compliance status
30.5.11	<p><b>Earthworks permitted within the National Grid Yard being <del>include</del>are:</b></p> <p><del>30.5.11.1 Earthworks within 2.2 metres of a National Grid pole support structure or stay wire shall be no deeper than 300mm.</del></p> <p><del>30.5.11.2 Earthworks between 2.2 metres to 5 metres of a National Grid pole support structure or stay wire shall be no deeper than 750mm.</del></p> <p>30.5.11.<del>43</del> Earthworks within 6 metres of the outer visible edge of <u>the foundation of</u> a National Grid <del>t</del>Transmission <del>line Tower</del> <del>S</del>support <del>S</del>structure shall be no deeper than 300mm.</p> <p>30.5.11.<del>24</del> Earthworks between 6 metres to 12 metres from the outer visible edge of <u>the foundation of</u> a National Grid <del>t</del>Transmission <del>line Tower</del> <del>S</del>support structure shall be no deeper than 3 metres.</p> <p>30.5.11.<del>35</del> Earthworks shall not create an unstable batter that will affect a <u>National Grid</u> transmission <u>line</u> support structure.</p> <p>30.5.11.<del>46</del> Earthworks shall not result in a reduction in the <del>existing ground to</del> conductor clearance distance below what is required by the New Zealand Electrical Code of Practice <u>for Electrical Safe Distances NZECP</u> 34:2001.</p> <p>The following earthworks are exempt from the rules above:</p> <p>30.5.11.<del>57</del> Earthworks undertaken <u>by network utility</u></p>	<del>DNC</del>

	<p><del>operators providing the work is not associated with buildings or structures for the storage of water for irrigation purposes in the course of constructing or maintaining utilities</del></p> <p>30.5.11.68 Earthworks undertaken as part of agricultural, horticultural activities or domestic cultivation gardening</p> <p>30.5.11.70 Repair sealing, resealing of an existing road, footpath, farm track or driveway</p> <p><del>Note — Refer to the Definitions for illustration of the National Grid Yard.</del></p>	
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**Amend** the definition of ‘National Grid Yard’ by deleting the diagram included in the definitions along with the accompanying words: “~~(as shown in dark grey in diagram below)~~”.

**Amend** the definitions in Chapter 2 to include:

“Earthworks in the National Grid Yard - Means the disturbance of land surfaces by the removal or depositing of material, excavation, filling or the formation of roads, banks, and tracks.”

**Amend** the definition of ‘minor upgrading’ to include the following additional clause:

“(x) Increase in support structure height required to comply with NZECP34:2001 by not more than 15% of the base height of the support structure, and where the base height is defined as the height of the structure at date of public notification of the Plan.”

**Amend** the definition of ‘National Grid Sensitive Activities’ as follows:

“Means those activities that are particularly sensitive to the National Grid transmission lines. Such activities are ~~these activities within the National Grid Corridor that are particularly sensitive to the risks associated with electricity transmission lines because of either the potential for prolonged exposure to the risk or the vulnerability of the equipment or population that is exposed to the risk. Such activities include buildings or parts of buildings used for, or able to be used for the following purposes:~~

- ~~• Child Day Care activity;~~
- Day Care facility activity;
- Educational facility activity, ~~except training related to the National Grid;~~
- ~~• Home Stay;~~
- Healthcare facility ~~Hospital activity;~~

- Papakainga;
- Any Residential activity;
- ~~Residential Care activity; or~~
- Visitor accommodation.”