Before the Wellington City Council Proposed District Plan Hearings Panel

Under the Resource Management Act 1991 (the Act)

In the matter of the Wellington City Council Proposed District Plan-

Hearing Stream 5

General District Wide Matters:

Natural Hazards (NH) and Coastal Hazards

Earthworks (EW) Subdivision (SUB) Three Waters (THW) Noise - (NOISE)

Between Wellington City Council

Local authority

And Transpower New Zealand Limited

Submitter 315 and Further Submitter FS29

Statement of evidence of Pauline Mary Whitney for Transpower New Zealand Limited

Dated 18 July 2022

1 Executive Summary

- 1.1. As outlined in my Hearing Stream 1 Evidence, Transpower owns and operates the National Grid, which transmits electricity throughout New Zealand from energy generation sources to distribution networks and direct-connect customers. The need to operate, maintain, develop and upgrade the electricity transmission network is recognised as a matter of national significance through the National Policy Statement on Electricity Transmission 2008 ('NPSET').
- 1.2. Transpower's submission on the Wellington City Proposed District Plan ("PDP") was extensive. Transpower's submission will be heard across multiple hearings and therefore Transpower requests the panel refer to the Transpower evidence to Hearing Stream 1 in considering the submission points relevant to Hearing Stream 5. For the sake of efficiency, the background, and planning contextual information will not be repeated.
- 1.3. Specific to Hearing Stream 5, Transpower lodged 14 submission points (13 original and one further point), relating to the Subdivision and Earthworks provisions. It should be noted the policy framework relating to subdivision and earthworks (as it relates to the effects of such activities on Infrastructure and specifically the National Grid) are intended to be provided in the Infrastructure chapter as opposed to the Earthworks chapter noting that in my opinion such effects are not sufficiently or adequately addressed in the Infrastructure chapter. However, that is a matter to be addressed at subsequent hearings. In its submission, Transpower sought a specific policy relating to earthworks within the National Grid Yard or, a new policy within the Infrastructure chapter relating to the effects of activities on the National Grid (noting INF-P7 as notified is considered lacking and does not give effect to the National Policy Statement on Electricity Transmission 2008 ("NPSET").
- 1.4. Specific to **subdivision**, in its submission Transpower largely supported the provisions as they apply to the National Grid, noting confined changes were sought to the matters of discretion for subdivision within the National Grid Subdivision Corridor. The submission also sought guidance within the introduction to the Subdivision chapter that the objectives and policies relating to subdivision within the National Grid Yard are provided within the Infrastructure Chapter. Deletion of Rule SUB-R27 subdivision within the National Grid Substation Buffer, was also sought in the submission.
- 1.5. Specific to **earthworks**, noting the lack of policies relating to earthworks in proximity of the National Grid (or on infrastructure generally) Transpower sought a specific

National Grid earthworks policy within either the Infrastructure chapter or the Earthworks chapter. An amendment was also sought to National Grid Yard earthworks rule EW-R22 and standard EW-S15.

- 1.6. Given the limited number of submission points relating to this hearing and the largely favourable S42A Report recommendations, there is only one outstanding matter within this evidence¹. This relating to the default activity status for earthworks within the National Grid Yard that do not comply with the standards. In its submission Transpower sought a non-complying activity. The officer has rejected this and recommended the proposed restricted discretionary activity status be retained. I also propose a minor amendment within Rule ER-R18 (formerly R22) to clarify the permitted depth within clause 1.a.ii. is 3 metres, and insertion of reference to vertical holes to reflect other officer recommended insertions.
- 1.7. No further submissions were made to Transpower's original submission points relating to this hearing.
- 1.8. Attached as Appendix B to my evidence is a table outlining all the submission points relevant to Hearing Stream 5.
- 1.9. Attached as Appendix C is a Section 32AA evaluation of the change in activity status to Rule EW-R2218.

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¹ S315.176

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2. Qualifications and Experience

- 2.1. My full name is Pauline Mary Whitney.
- 2.2. For my qualifications and experience and other introductory comments, please refer to paragraphs 2.1 2.8 of my statement of evidence for Hearing Stream 1 ("Hearing 1 Evidence"), dated 7 February 2023.
- 2.3. I have read the Code of Conduct for Expert Witnesses contained in Section 9 of the Environment Court Consolidated Practice Note (2023), and I agree to comply with it.

3. Scope of Evidence

- 3.1. My evidence will address the following:
 - A brief outline of the National Grid Framework and Transpower's interests in Hearing Stream 5; and
 - 3.1.2. Responses to the officer recommendations, focusing on those amendments sought in this evidence.

4. The National Grid Policy Framework

- 4.1. As outlined in my Hearing 1 Evidence, Transpower owns and operates the National Grid, which transmits electricity throughout New Zealand from energy generation sources to distribution networks and direct-connect customers. The need to operate, maintain, develop and upgrade the electricity transmission network is recognised as a matter of national significance through the National Policy Statement on Electricity Transmission 2008 ('NPSET'). This significance applies universally across the country regardless of the nature of the specific National Grid asset.
- 4.2. In my Hearing 1 evidence I outlined the three broad aspects to the NPSET which must be given effect to in local authority policies and plans, being:
 - Enabling the National Grid,
 - Managing the effects of the National Grid; and
 - Managing the effects on the National Grid.

4.3. Of specific relevance to this hearing are effects on the National Grid with details provided within my Hearing 1 evidence as to the basis and reasoning for National Grid corridor provisions. My earlier evidence stands and is applicable to this hearing.

5. Summary of Hearing Stream 5 Submission Points

5.1. Transpower lodged 14 submission points (13 original and one further points) allocated to Hearing Stream 5, relating to Subdivision and Earthworks. No further submissions were lodged on the Transpower original submission points. The submission points to Hearing Stream 5 are summarised as follows:

Subdivision

- 5.2. In its submission Transpower largely supported the provisions (rules) as they apply to the National Grid, noting confined changes were sought to the matters of discretion for subdivision within the National Grid Subdivision Corridor including:
 - Reference to support structures within clause 2 (in addition to the existing reference to transmission lines);
 - Inclusion of the impacts of landscaping on the Grid;
 - Reference to the risks of electrical hazard on safety and the risks of property damage.
- 5.3. Deletion of Rule SUB-R27 Subdivision within the National Grid Substation Buffer, was also sought in the submission on the basis the buffer is not defined and the rule is no longer relevant.

Earthworks

5.4. Specific to earthworks, the PDP contains no specific policies relating to the effects of earthworks on infrastructure or more specifically, the National Grid. In its submission Transpower sought a specific National Grid earthworks policy within either the Infrastructure chapter (and a reference² within the Earthworks chapter) or the Earthworks chapter³. An amendment is also sought to National Grid Yard earthworks rule and standard EW-R22 (renumbered EW-R18) and EW-S15, primarily to:

² Infrastructure - the earthworks chapter includes rules to implement objectives and policies in the Infrastructure Chapter where certain types of earthworks are within the National Grid Yard.

³ New Policy - Earthworks or vertical holes within the National Grid Yard

Avoid earthworks or vertical holes within the National Grid Yard which may compromise the safe and efficient functioning, operation, maintenance and repair, upgrading and development of the National Grid.

- Include reference to vertical holes (on the basis the definition of Earthworks excludes vertical holes)
- Remove the standards within EW-S15 and insertion of replacement standards within EW-R22, and that they do not distinguish between pole and tower support structures.
- Insert a further standard within EW-S15 that the stability of a National Grid support structure is not compromised.
- Change the activity status within EW-R22 for non-compliance with the standards from restricted discretionary to non-complying. It is noted no other parties submitted on rule EW-R22.
- Remove the notification clauses within EW-R22.

6. Response to the Section 42A Report Recommendations

- 6.1. The following section responds to the Hearing Stream 5 S42A Report recommendations on Transpower's submission points.
- 6.2. For clarity, attached as **Appendix B** is a table outlining all the submission points relevant to Hearing Stream 5, and my response. I note Transpower concurs with my reasoning and response as provided in Appendix B.
- 6.3. The Transpower submission points can be broadly categorised under two 'topics':
 - Subdivision
 - Earthworks

Subdivision

6.4. For completeness, I concur with the officer recommendations relating to the subdivision provisions⁴ relevant to the Transpower submission⁵. The deletion of Rule SUB-R27 is supported. For the reasons outlined in the Transpower submission, the officer recommended revised matters of discretion within SUB-R28 (renumbered SUB-R27) are supported. No further submissions were made to the Transpower submission

⁴ Subdivision Chapter – Introductory text, Rule SUB-R27, and Rule SUB-R28

⁵ Transpower Submission Points 315.166 – 315.173

points. The submission by WCC supports the deletion of Rule SUB-R27 (as supported by Transpower).

Earthworks

- 6.5. Specific to earthworks, Transpower supports the provision of standards specific to earthworks on the basis such activities are a form of development contemplated by the NPSET that can compromise the National Grid. As outlined in the evidence of Mr Noble, earthworks adjacent to towers or poles can undermine the stability of the structure foundations, causing the structure to lean or, worse, collapse, leading to power outages. Excavations or mounding mid-span can increase risks by reducing the clearance between the ground and conductors. Excavated areas or piles of earthworks can also restrict Transpower's ability to access and locate the heavy machinery required to maintain support structures and conductors around the lines, including in emergency situations. For these reasons, Transpower seeks control on earthworks near the National Grid. The provision of a rule framework achieves Policies 2 and 10 of the NPSET in that it protects the integrity of the National Grid and the ability to maintain and operate it.
- 6.6. Specific to earthworks, in its submission Transpower supported the definition of earthworks⁶, sought a specific National Grid earthworks policy within either the Infrastructure chapter (and a reference within the Earthworks chapter) or the Earthworks chapter policies⁷, and amendment to Rule EW-R22 (renumbered in the S42A Report as EW-R18)⁸ and standard EW-S15⁹.
- 6.7. My response to the above submission points is detailed in the attached Appendix B to this evidence.
- 6.8. Specific to the policy framework, in its submission Transpower sought a specific policy¹⁰ relating to earthworks within the National Grid Yard or, a new policy within the Infrastructure chapter relating to the effects of activities on the National Grid (noting INF-P7 as notified is considered lacking. It does not give effect to the National Policy Statement on Electricity Transmission 2008 ("NPSET") and specifically does not address the effect of earthworks on the National Grid in that it only relates to

Earthworks or vertical holes within the National Grid Yard

⁶ Transpower Submission point S315.1

⁷ Transpower Submission point S315.174 and 175

⁸ Transpower Submission point S315.176

⁹ Transpower Submission point S315.177

¹⁰ Policy sought in the Transpower submission point S315.174

Avoid earthworks or vertical holes within the National Grid Yard which may compromise the safe and efficient functioning, operation, maintenance and repair, upgrading and development of the National Grid.

earthworks associated with subdivision for sensitive activities). Paragraph 606 of the S42A Report rejects the insertion of a policy in the earthworks chapter on the basis "EW-R22 implicitly relies on objectives and policies in the Infrastructure chapter and that the matters of discretion are comprehensive. To this extent, I cannot undertake a full assessment of whether additional policies are necessary within the Earthworks chapter without knowing the outcomes of Hearing Stream 9. The reason being is that the approach of the PDP is that it is to be read on the whole – in this instance in conjunction with the objectives and policies of the Infrastructure parent chapter."

- 6.9. As such the policy context is in reality paused until Hearing Stream 9. This is not helpful as the objective and policies inform the rules. In my opinion it would have been helpful for the reporting officer to provide some evaluation of the notified PDP policy context relating to EW-R2218 and at a minimum provide an interim recommendation or assessment. I remain supportive of a policy within the earthworks chapter. Transpower reserves its position on the policy framework until Hearing Stream 9.
- 6.10. The only outstanding submission point is S315.176 relating to Rule EW-R2218. All other officer recommendations are either accepted or supported, noting that the policy approach relating to earthworks in the National Grid Yard will be addressed at Hearing Stream 9. Two minor addition are sought to clarify the permitted depth within clause 1.a.ii. is 3 metres, and insertion of reference to vertical holes to reflect other officer recommended insertions.

Rule EW-R2218

- 6.11. The sought amendments to Rule EW-R2218 include reference to vertical holes; removal of the standards within EW-S15 and insertion of replacement standards within R2218 that do not distinguish between pole and tower support structures and amendment to the setbacks and depth standards; change in the default activity status from restricted discretionary to non-complying; and deletion of the notification notes.
- 6.12. Before I address the specific changes, I note and draw from the evidence of Mr Noble which outlines the ways in which earthworks can compromise the National Grid, specifically in relation to earthworks that:
 - 1. Exceed the depth standards
 - 2. Compromise stability of support structures
 - 3. Result in ground to conductor clearance violations; and

- 4. Compromise access to National Grid support structures.
- 6.13. These issues are addressed through the rule framework within EW-R2218 and EW-S15.
- 6.14. The S42A Report has in part addressed the relief sought in the Transpower submission. The outstanding matters addressed in this evidence relate to:
 - Minor additional reference to vertical holes
 - A minor amendment to the depth standard; and
 - Default activity status.
- 6.15. Specific to Vertical holes, reference was sought to capture Vertical holes that are excluded from the (National Planning Standards) definition of Earthworks¹¹. Specific reference is sought in EW-2218 to capture the activity, noting an exemption is provided in the rule to reflect that within NZEPC34. The S42A Report recommendation has accepted the relief sought but for completeness and clarity, I have suggested additional reference in the rule and note (refer paragraph 6.31 below).
- 6.16. Specific to the depth standards within clause a., I support the S42A Report recommended relocation and refinement of the depth standards. However I support a minor correction/amendment through this evidence to include reference to 3m within clause 1.a.ii. The depth standard is missing from the notified rule and without it, the rule does not make sense. The reference to 3m reflects that within clause 2.2.3 of NZECP34 (and the Porirua PDP earthworks rule referenced in the S42A Report). The amendment is shown in paragraph 6.31 below.
- 6.17. Specific to the default activity status, in its submission Transpower sought a default non-complying activity status. This relief was rejected by the reporting officer. In determining the appropriate default activity status where the standards are not met, I refer the panel to the evidence of Mr Noble which outlines the issues and effects associated with earthworks within the National Grid Yard. Based on the evidence of Mr Noble, from a planning perspective, for the following reasons, I am supportive of a

¹¹ WCC PDP definition of Earthworks: Earthworks means the alteration or disturbance of land, including by moving, removing, placing, blading, cutting, contouring, filling or excavation of earth (or any matter constituting the land including soil, clay, sand and rock); but excludes gardening, cultivation, and disturbance of land for the installation of fence posts.

non-complying activity status where any of the standards (relating to depth, access, stability and clearance) are not met.

- 6.18. <u>National Direction</u> Policy 10 of the NPSET is very directive in requiring the management of activities to ensure the "operation, maintenance, upgrading and development of the electricity transmission network is not compromised". Earthworks are such an activity.
- 6.19. WCC PDP and GWRC RPS Policy Framework As notified, there are no policies within the Earthworks chapter that relate to the effects of earthworks on the National Grid, or infrastructure generally. Instead, I understand the intent is for policies to be provided in the Infrastructure chapter (which are to be heard in Hearing Stream 9). In its submission, Transpower sought¹² a specific policy relating to the effects of activities on the National Grid (noting in my opinion the relevant notified policy INF-P7¹³ is lacking in that it only relates to earthworks associated with subdivision for sensitive

Manage the establishment or alteration of sensitive activities near existing lawfully established infrastructure, including by:

- 1. Requiring subdivision of sites containing the National Grid to:
 - a. Retain the ability for the network utility operator to access, operate, maintain, repair and upgrade National Grid; and
 - b. Ensure that future buildings, earthworks and construction activities maintain safe electrical clearance distances under all building and National Grid operating conditions;
- 2. Managing land disturbance and activities sensitive to gas transmission to avoid or mitigate potential adverse effects of, and on, gas transmission pipelines;
- 3. Requiring subdivision of sites containing a gas transmission pipeline to retain the ability for the network utility operator to access, operate, maintain, repair and upgrade the gas transmission pipeline; and
- 4. Managing the activities of others through set-backs and design controls where it is necessary to achieve appropriate protection of infrastructure.

¹² Transpower proposed submission policy: *INF-NG-P4 Adverse effects on the National Grid*Protect the safe and efficient operation, maintenance and repair, upgrading, removal and development of National Grid from adverse effects by:

^{1.} Avoiding land uses (including sensitive activities) and buildings and structures within the National Grid Yard that may directly affect or otherwise compromise the National Grid;

^{2.} Avoiding reverse sensitivity effects on the National Grid.

^{3.} Only allowing subdivision within the National Grid Subdivision Corridor where it can be demonstrated that the National Grid will not be compromised taking into account:

a. The impact of the subdivision layout and design on the operation, maintenance, and potential upgrade and development of the National Grid, including the ability for continued reasonable access to existing transmission assets for maintenance, inspections and upgrading;

b. The ability of any potential future development to comply with NZECP 34.2001 New Zealand Electrical Code of Practice for Electrical Safety Distances;

c. The extent to which the design and layout of the subdivision demonstrates that a suitable building platform(s) for a principal building or dwelling can be provided outside of the National Grid Yard for each new lot;

d. The risk to the structural integrity of the National Grid;

e. The extent to which the subdivision design and consequential development will minimise the risk of injury and/or property damage from the National Grid and the potential reverse sensitivity on and amenity and nuisance effects of the National Grid assets;

f. The nature and location of any proposed vegetation to be planted in the vicinity of the National Grid;

g. The outcome of any consultation with, and technical advice from, Transpower.

^{4.} Only allowing earthworks within the National Grid Yard where it can be demonstrated that the safe and efficient functioning, operation, maintenance and repair, upgrading and development of the National Grid will not be compromised, taking into account:

a. The extent to which the earthworks may compromise the safe access to and operation, maintenance and repair, upgrading and development of the National Grid;

b. The stability of land within and adjacent to the National Grid;

c. Risks relating to health or public safety, including the risk of property damage; and

d. Technical advice provided by the owner and operator of the National Grid.

¹³ WCC PDP INF-P7 Reverse sensitivity

- activities and does not give effect to the NPSET). Relevant PDP policies are Objective EW-O1, INF-O1 and INF-O3.
- 6.20. Under Policy 7 of the Greater Wellington Regional Council Regional Policy Statement ("RPS") all District Plans across the region are required to include policies and/or methods that recognise the benefits of regionally significant infrastructure. Policy 8¹⁴ extends this further by requiring that plans include policies and rules to protect such infrastructure from incompatible new subdivision, use and development occurring under, over, or adjacent to it. The explanation to Policy 8 specifically references Policy 11 of the NPSET and states that "in achieving protection for the transmission network, consultation occurs with the operator of the national grid to identify appropriate buffer corridors". Proposed Plan Change 1 to the RPS does not amend Policy 8.
- 6.21. In my opinion, given the existing policy void in the PDP in managing the wider effects of earthworks on the National Grid, the strong directive within NPSET Policy 10 and RPS Policy 8 require greater consideration and support a non complying activity status. As noted above, Transpower will be seeking this policy void be addressed at Hearing Stream 9.
- 6.22. Purpose of Non-complying activities As provided on the Quality Planning Website¹⁵, "non-complying activities are those that the RMA, regulations (including a national environmental standard), or a plan describes as non-complying. This activity status is often reserved for those activities where the potential adverse effects are great but do not necessarily warrant prohibition". As outlined in the evidence of Mr Noble, the potential adverse effects of earthworks on the National Grid are great, bearing in mind the national significance of the electricity transmission network as recognised in the NPSET.
- 6.23. The use of Restricted Discretionary activity status is further discussed on the Quality Planning website with advice provided to:

"Avoid:

 making the matters over which discretion is restricted so wide as to make the restriction meaningless. Where the matters over which discretion is to be restricted are wide consider using the (unrestricted) 'discretionary' activity status instead

¹⁴ GWRC RPS Policy 8: Protecting regionally significant infrastructure – regional and district plans
District and regional plans shall include policies and rules that protect regionally significant infrastructure from incompatible new subdivision, use and development occurring under, over, or adjacent to the infrastructure.

¹⁵ https://www.qualityplanning.org.nz/node/611

- using the restricted discretionary status for activities where the intent is to only grant consent in 'exceptional circumstances' (consider, for example, using the noncomplying status with clear policy direction as to what 'exceptional circumstances' may be instead)."
- 6.24. In my opinion both the matters above apply in how Rule EW-R2218 is framed in that the matters of discretion are incredibly wide and in effect meaningless, and the resulting effects from earthworks within the National Grid Yard are such that consent would only be granted in exceptional circumstances. For completeness I do not support a discretionary activity status. As also outlined on the Quality Planning Website¹⁶, "Other reasons that may give rise to an activity being classed as discretionary in a plan: where it is not suitable in all locations in a zone, where the effects of the activity are so variable that it is not possible to prescribe standards to control them in advance; where an activity defaults to discretionary because it cannot meet all the standards for a permitted activity, where activities are not suitable in most locations in a zone or part of a zone but may be suitable in a few locations".
- 6.25. In response to the commentary in paragraph 613 of the S42A Report that the "suggested change in activity status would create a very onerous pathway for potentially minor earthworks" I note that any minor earthworks which exceed the depth standard and are subject to a dispensation from Transpower under the New Zealand Electrical Code of Practice for Safe Electrical Distances 2001 ISSN 01140663 ("NZECP 34"), are exempt from requiring resource consent (noting they still need to ensure access, clearance and not compromise stability). While I acknowledge from a planning perspective having a standard based on third party 'approval' is not ideal, given the confined nature of the approval, that Transpower is the only party who can provide the dispensation, and the technical/engineering basis for the approval, I am comfortable with the standard and consider it pragmatic, efficient and effective. I am not aware where such a rule/standard has caused issues in the past.
- 6.26. <u>Consistency with NZECP34</u> In considering the appropriateness of a non-complying activity status I am also mindful of the requirements under NZECP34. As outlined in the evidence of Mr Noble, the scope and purpose of NZECP34 is confined to safety. It is the Code of Practice that sets minimum safe distances to primarily protect persons, property, vehicles and mobile plant from harm or damage from electrical hazards and is focused only on minimum safety standards. It does not address the wider third-party effects that compromise the National Grid, which are managed by the NPSET and

¹⁶ https://www.qualityplanning.org.nz/node/611

required to be managed in the district plan, including by the directive within Policy 8 of the RPS.

- 6.27. As highlighted in the evidence of Mr Noble, there are very limited circumstances in which Transpower would provide a dispensation under NZECP34. In my opinion it would be an anomaly to provide a more permissive consenting pathway under the district plan for earthworks, which are not appropriate to provide a dispensation under NZECP34.
- 6.28. Consistency with other district plans I have been involved within assisting Transpower on numerous district plan reviews across New Zealand. During that time in response to new and changing national direction and on the ground effects of certain activities, I have seen rules and policies evolve. The 'overall' activity status for earthworks is one such evolution. In the past Transpower has accepted a restricted discretionary activity where the depth standards (in EW-R1822 1.a.) are exceeded, but still adopting a non-complying activity status where the access, stability and clearance standards (in EW-S15) are not met. This approach was sought in hearing stream 4 evidence to the Porirua PDP (reflecting that sought in the submission).
- 6.29. Notwithstanding the activity status sought through other district plan processes, Transpower's position, and one that I support based on the evidence of Mr Noble and the policy directive within Policy 8 of the RPS and Policy 10 of the NPSET, is for a default non complying activity status where any of the standards are not met.
- 6.30. <u>Costs and Benefits</u> Attached as Appendix C is a Section 32AA evaluation of the change in activity status to Rule EW-R2218.
- 6.31. Based on the above, the amendments I would support are as follows (amendments recommended in the S42A report and which I support are shown as red text. Further amendments sought through this evidence are shown as blue text):

EW-R2218 Earthworks or vertical holes in the National Gerid Yyard

1. Activity status: Permitted

Where:

a. Earthworks or vertical hole depth must be no greater (measured vertically) than:

<u>i. 300 millimetres within 6 metres of the outer visible edge of a foundation of any National</u> <u>Grid support structure: or</u> <u>ii. 3 metres between within 6 metres and 12 metres from the outer visible edge of a foundation of any National Grid support structure</u>

b. Compliance is achieved with EW-S15

Note:

The following earthworks or vertical hole activities are exempt from EW-R2218.1:

- 1. Earthworks <u>or vertical holes</u>, excluding mining and quarrying, that are undertaken by the operator of the National Grid;
- 2. Earthworks, excluding mining and quarrying, for the repair, sealing or resealing of a footpath, driveway or farm track;
- 3. Vertical holes not exceeding 500 millimetres in diameter that:
 - a. are more than 1.5 metres from the outer edge of the pole support structure or stay wire; or
 - b. are a post hole for a farm fence or horticulture structure more than 6 metres from the visible outer edge of a tower or support structure foundation; and
- Earthworks or vertical holes subject to a dispensation from Transpower under the New Zealand Electrical Code of Practice for Safe Electrical Distances (NZECP 34:2001) ISSN 01140663

All Zones 2. Activity status: Restricted Discretionary Non complying

Where:

a. Compliance with any of the requirements of EW-R2218.1 cannot be achieved.

Matters of discretion are:

- 1. The extent and effect of non-compliance with any relevant standard as specified in the associated assessment criteria for the infringed standards;
- 2. Impacts on the operation, maintenance, upgrading and development of the National Grid;
- 3. The risk to the structural integrity of the affected National Grid support structure(s);
- 4. Any impact on the ability of Transpower to access the National Grid;

- 5. The risk of electrical hazards affecting public or individual safety, and the risk of property;
- 6. Technical advice provided by Transpower; and
- 7. Any effects on National Grid support structures including the creation of an unstable batter.

Notification Status:

An application for resource consent made in respect of rule EW-R2218.2 is precluded from being publicly notified.

Notice of any application for resource consent under this rule must be served on Transpower New Zealand Limited in accordance with Clause 10(2)(i) of the Resource Management (Forms, Fees, and Procedures) Regulations 2003.

- 6.32. Attached as Appendix C is a Section 32AA evaluation of the amendments recommended though this evidence.
- 6.33. For completeness, I note I support the recommended amendments to EW-S15¹⁷.

7. Conclusion

- 7.1. The National Grid is recognised as a matter of national significance through the NPSET, which seeks to ensure a nationally consistent approach to managing this important national resource.
- 7.2. Specific to Hearing Stream 5, Transpower lodged 14 submission points (13 original and one further point) relating to Subdivision and Earthworks. No further submissions were lodged on the Transpower original submission points

 $^{^{17}}$ EW-S15 Earthworks in the Neational Gerid Yyard

^{1.} Earthworks or vertical holes in the Nnational Gerid Yyard must comply with the following:

a. Earthworks or vertical hole/s depth must be no greater than

⁻i. 300 millimetres within 2.2 metres of any National Grid support poles or stay wires; or

ii. 750 millimetres between 2.2 metres and 5 metres of the pole or stay wire.

G. Earthworks or vertical hole depth must be no greater than:

i. 300 millimetres within 6 metres of the outer visible edge of a foundation of any National Grid support tower (including any tubular steel tower that replaces a steel lattice tower); or

ii. Between 6 metres and 12 metres from the outer visible edge of a foundation of any National Grid support tower (including any tubular steel tower that replaces a steel lattice tower).

c. The earthworks must nN ot result in a reduction in the ground to conductor clearance distances as required in Table 4 of the New Zealand Electrical Code of Practice for Safe Electrical Distances (NZECP 34:2001) ISSN 01140663.

d. The earthworks must nNot result in vehicular access to a National Grid support structure being permanently obstructed. e. Not compromise the stability of the National Grid Support Structure.

^{2.} Earthworks within the gas transmission pipeline corridor must comply with the following:

7.3. I have reviewed the S42A Report recommendations and largely support or accept the majority of the officer recommendations. The only changes I support through this evidence are to rule EW-R2218.

Pauline Mary Whitney

18 July 2023

Appendix A			
National Policy Statement or	Electricity	Transmission	2008

NATIONAL POLICY STATEMENT

on Electricity Transmission

Issued by notice in the Gazette on 13 March 2008

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newzealand.govt.nz

Preamble

This national policy statement sets out the objective and policies to enable the management of the effects of the electricity transmission network under the Resource Management Act 1991.

In accordance with section 55(2A)(a) of the Act, and within four years of approval of this national policy statement, local authorities are to notify and process under the First Schedule to the Act a plan change or review to give effect as appropriate to the provisions of this national policy statement.

The efficient transmission of electricity on the national grid plays a vital role in the well-being of New Zealand, its people and the environment. Electricity transmission has special characteristics that create challenges for its management under the Act. These include:

- Transporting electricity efficiently over long distances requires support structures (towers or poles), conductors, wires and cables, and sub-stations and switching stations.
- These facilities can create environmental effects of a local, regional and national scale. Some of these effects can be significant.
- The transmission network is an extensive and linear system which makes it important that there are consistent policy and regulatory approaches by local authorities.
- Technical, operational and security requirements associated with the transmission network
 can limit the extent to which it is feasible to avoid or mitigate all adverse environmental
 effects.
- The operation, maintenance and future development of the transmission network can be significantly constrained by the adverse environmental impact of third party activities and development.
- The adverse environmental effects of the transmission network are often local while the benefits may be in a different locality and/or extend beyond the local to the regional and national making it important that those exercising powers and functions under the Act balance local, regional and national environmental effects (positive and negative).
- Ongoing investment in the transmission network and significant upgrades are expected
 to be required to meet the demand for electricity and to meet the Government's objective
 for a renewable energy future, therefore strategic planning to provide for transmission
 infrastructure is required.

The national policy statement is to be applied by decision-makers under the Act. The objective and policies are intended to guide decision-makers in drafting plan rules, in making decisions on the notification of the resource consents and in the determination of resource consent applications, and in considering notices of requirement for designations for transmission activities.

However, the national policy statement is not meant to be a substitute for, or prevail over, the Act's statutory purpose or the statutory tests already in existence. Further, the national policy statement is subject to Part 2 of the Act.

For decision-makers under the Act, the national policy statement is intended to be a relevant consideration to be weighed along with other considerations in achieving the sustainable management purpose of the Act.

This preamble may assist the interpretation of the national policy statement, where this is needed to resolve uncertainty.

1. Title

This national policy statement is the National Policy Statement on Electricity Transmission 2008.

2. Commencement

This national policy statement comes into force on the 28th day after the date on which it is notified in the *Gazette*.

Interpretation

In this national policy statement, unless the context otherwise requires: **Act** means the Resource Management Act 1991.

Decision-makers means all persons exercising functions and powers under the Act.

Electricity transmission network, electricity transmission and transmission activities/ assets/infrastructure/resources/system all mean part of the national grid of transmission lines and cables (aerial, underground and undersea, including the high-voltage direct current link), stations and sub-stations and other works used to connect grid injection points and grid exit points to convey electricity throughout the North and South Islands of New Zealand.

National environmental standard means a standard prescribed by regulations made under the Act.

National grid means the assets used or owned by Transpower NZ Limited. **Sensitive activities** includes schools, residential buildings and hospitals.

4. Matter of national significance

The matter of national significance to which this national policy statement applies is the need to operate, maintain, develop and upgrade the electricity transmission network.

Objective

To recognise the national significance of the electricity transmission network by facilitating the operation, maintenance and upgrade of the existing transmission network and the establishment of new transmission resources to meet the needs of present and future generations, while:

- managing the adverse environmental effects of the network; and
- managing the adverse effects of other activities on the network.

6. Recognition of the national benefits of transmission

POLICY 1

In achieving the purpose of the Act, decision-makers must recognise and provide for the national, regional and local benefits of sustainable, secure and efficient electricity transmission. The benefits relevant to any particular project or development of the electricity transmission network may include:

- i) maintained or improved security of supply of electricity; or
- ii) efficient transfer of energy through a reduction of transmission losses; or
- iii) the facilitation of the use and development of new electricity generation, including renewable generation which assists in the management of the effects of climate change; or
- iv) enhanced supply of electricity through the removal of points of congestion.

The above list of benefits is not intended to be exhaustive and a particular policy, plan, project or development may have or recognise other benefits.

7. Managing the environmental effects of transmission

POLICY 2

In achieving the purpose of the Act, decision-makers must recognise and provide for the effective operation, maintenance, upgrading and development of the electricity transmission network.

POLICY 3

When considering measures to avoid, remedy or mitigate adverse environmental effects of transmission activities, decision-makers must consider the constraints imposed on achieving those measures by the technical and operational requirements of the network.

POLICY 4

When considering the environmental effects of new transmission infrastructure or major upgrades of existing transmission infrastructure, decision-makers must have regard to the extent to which any adverse effects have been avoided, remedied or mitigated by the route, site and method selection.

POLICY 5

When considering the environmental effects of transmission activities associated with transmission assets, decision-makers must enable the reasonable operational, maintenance and minor upgrade requirements of established electricity transmission assets.

POLICY 6

Substantial upgrades of transmission infrastructure should be used as an opportunity to reduce existing adverse effects of transmission including such effects on sensitive activities where appropriate.

POLICY 7

Planning and development of the transmission system should minimise adverse effects on urban amenity and avoid adverse effects on town centres and areas of high recreational value or amenity and existing sensitive activities.

POLICY 8

In rural environments, planning and development of the transmission system should seek to avoid adverse effects on outstanding natural landscapes, areas of high natural character and areas of high recreation value and amenity and existing sensitive activities.

POLICY 9

Provisions dealing with electric and magnetic fields associated with the electricity transmission network must be based on the International Commission on Non-ioninsing Radiation Protection *Guidelines for limiting exposure to time varying electric magnetic fields (up to 300 GHz)* (Health Physics, 1998, 74(4): 494-522) and recommendations from the World Health Organisation monograph *Environment Health Criteria* (No 238, June 2007) or revisions thereof and any applicable New Zealand standards or national environmental standards.

8. Managing the adverse effects of third parties on the transmission network

POLICY 10

In achieving the purpose of the Act, 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.

POLICY 11

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. To assist local authorities to identify these corridors, they may request the operator of the national grid to provide local authorities with its medium to long-term plans for the alteration or upgrading of each affected section of the national grid (so as to facilitate the long-term strategic planning of the grid).

9. Maps

POLICY 12

Territorial authorities must identify the electricity transmission network on their relevant planning maps whether or not the network is designated.

10.Long-term strategic planning for transmission assets

POLICY 13

Decision-makers must recognise that the designation process can facilitate long-term planning for the development, operation and maintenance of electricity transmission infrastructure.

POLICY 14

Regional councils must include objectives, policies and methods to facilitate long-term planning for investment in transmission infrastructure and its integration with land uses.

Explanatory note

This note is not part of the national policy statement but is intended to indicate its general effect

This national policy statement comes into force 28 days after the date of its notification in
the *Gazette*. It provides that electricity transmission is a matter of national significance under the

Resource Management Act 1991 and prescribes an objective and policies to guide the making of resource management decisions.

The national policy statement requires local authorities to give effect to its provisions in plans made under the Resource Management Act 1991 by initiating a plan change or review within four years of its approval.



Point	Plan Part / Sub-part / Chapter /Provision	Position	Summary of Submission	Decisions Requested	S42A response	Response to S42A recommendation
Subdivisi	ion					
315.166	Part 2 / Subdivision chapter / Subdivision / General SUB	Amend	interpretation and application, reference to the National Grid as a qualifying matter within the introductory/plan relationship text of the subdivision chapter of the PDP should be included.	Amend the introduction to the Subdivision Chapter as follows: Other relevant District Plan provisions It is important to note that in addition to the provisions in this chapter, subdivision must comply with all applicable rules and standards for qualifying matter areas and a number of other Part 2: District-Wide chapters also contain provisions that may be relevant, including: - Infrastructure - the subdivision chapter includes rules to implement objectives and policies in the Infrastructure Chapter where certain types of subdivision are in close proximity to some network utilities. The National Grid is a qualifying matter with its rules to be applied Resource consent may therefore be required under rules in this chapter as well as other chapters. Unless specifically stated in a rule or in this chapter, resource consent is required under each relevant rule. The steps to determine the status of	Reasoning: Section 42A Report Subdivision Para 90. In response to Transpower [315.166] I note that qualifying matters were addressed in Hearing Stream 1 and are now beyond consideration. This matter was assessed in the Hearing Stream 1 s42A Report4 and in the Hearing Stream 1 Right of Reply,5 with the s42A Report noting that as elected representatives decided that the provisions identified by Transpower should not be progressed through the ISPP that this decision cannot be changed post notification of the PDP.	The recommendation is not accepted on the basis the panel does have the power to introduce qualifying matters. However, it is accepted the matter has been addressed in hearing stream 1 and therefore is to not pursued through evidence to this hearing stream.
_	Part 2 / Subdivision chapter / Subdivision / General SUB	Support	specific and topic specific provisions apply. A minor amendment is sought to amend the reference 'topic specific' to 'district wide' as it is considered the term 'topic specific' is not otherwise used in the plan and therefore	Retain the Introductory text to the Subdivision Chapter, subject to a minor amendment as follows: Rule SUB-R1 relates specifically to subdivision of land for the purpose of the construction and use of residential units in the Medium Density Residential Zone and the High Density Residential Zone. Subdivisions under Rule SUB-R1 are not subject to Rules SUB-R2 — SUB-R5, but are subject to the area specific and topic-specific district wide rules where the land also contains a corresponding planning notation or overlay	Reasoning: Section 42A Report Subdivision Para 91. In response to Transpower [315.167 and 315.168], I agree that the introduction should state 'district-wide' instead of 'topic-specific' as the term 'topic specific' is not otherwise used in the plan and therefore it may be unclear to plan users to which provisions the term applies. This will ensure clarity in referring to the 'district-wide' matters as drafted in the PDP. Amend the introduction as follows: Subdivisions under Rule SUB-R1 are not subject to Rules SUB-R2 – SUB-R5, but are subject to the area-specific and topic-specific district wide rules where the land also contains a corresponding planning notation or overlay. In addition to those general provisions, the area-specific and topic-specific district wide policies and rules apply to subdivisions affecting land subject to the applicable planning notation or overlay. This includes Policies SUB-P9 – SUB-P26, and Rules SUB-R6 – SUB-R31.	Support the recommendation. The recommended amendments reflect that sought in the Transpower submission.
315.169	Part 2 / Subdivision chapter / Subdivision / General SUB	Support	Supports guidance provided within the introduction to the PDP that clarifies for plan users that the objectives and policies relating to subdivision within the National Grid Yard are provided within the INF Chapter. Considers such direction is necessary given the PDP chapters separates the rules from the supporting	Seeks to retain the text within the 'Other relevant District Plan provisions' section of the Introduction to the Subdivision chapter.	Officer Recommendation: Accept Reasoning: Section 42A Report Subdivision No specific reasoning. Text retained with amendment supported in submission points 315.167 and 315.168.	Support the recommendation.

315.170 Part 2 / Subdivision chapter / Subdivision / SUB-R27	Oppose	Submitter is not supportive of the rule and will not be pursuing it through the PDP process, noting there is no supporting definition of the substation buffer area to direct where the rule applies.	Delete Rule SUB-R27 (Subdivision in the National Grid substation buffer) in its entirety.	Reasoning: Section 42A Report Subdivision Para 659. I agree with the submission points of Transpower [315.170] and WCC [266.110] which seek to delete SUB-R27, on the basis that the 'National Grid substation buffer' has been removed and there is no supporting definition of the substation buffer area to direct where the rule applies. I therefore reject the relief sought by WCC Environmental Reference Group	
315.171 Part 2 / Subdivision chapter / Subdivision / SUB-R28	Amend	Considers that on the basis the National Grid is a qualifying matter, the subdivision rule SUB-R28 should be addressed as part of the ISPP process.	Seeks that, subject to other amendments sought by the submitter to SUB-R28 (Subdivision in the National Grid Subdivision corridor) the rule be included within the IPI and made subject to the ISPP process.	Reasoning: Section 42A Report Subdivision 665. In response to Transpower [315.171], I note that qualifying matters were addressed in Hearing Stream 1, and are now beyond consideration. This matter was assessed in the Hearing Stream 1 s42A Report40 and in the Hearing Stream 1 Right of Reply, 41 with the s42A Report noting that as elected representatives decided that the provisions identified by Transpower should not be progressed through the ISPP that this decision cannot be changed post notification of the PDP.	The submission point is not being pursued through evidence.
	Support in part	Supports SUB-R28 on the basis the rule gives effect to Policy 10 and Policy 11 of the NPS-ET and provides for the outcomes sought in INF-P7 (noting Transpower is seeking amendment to the policy). In particular the activity status is supported and reflects the approach in other district plans across New Zealand. Considers a restricted discretionary activity status for subdivision provides an appropriate incentive and opportunity to design subdivision layouts that avoid building sites within the National Grid Yard. Considers that Subdivision is the most effective point at which to ensure future reverse sensitivity effects, maintenance access issues, and adverse effects of transmission lines (including amenity issues) are avoided. This can be achieved by designing subdivision layouts to properly accommodate transmission corridors (including, for example, through the creation of reserves and/or open space where buffer corridors are located). The default non-complying status is supported where the standards cannot be met and reflects the strong policy directive of the NPS-ET. Seeks the following amendments: - Amend clause 2. to provide clarity and certainty the consideration also applies to the support structures, noting that transmission lines are not defined in the PDP. - Amend clause 5. to provide further direction as to the matters to consider when considering vegetation planting. - Provide as a matter of discretion, the risk of electrical hazards (new clause 8.).	Retain SUB-R28 (Subdivision in the National Grid subdivision corridor), subject to amendment as follows: Matters of discretion are: 2. The provision for the on-going efficient operation, maintenance, development and upgrade of the National Grid, including the ability for continued reasonable access to existing transmission lines and support structures for maintenance, inspections and upgrading; 5. The nature and location of any proposed vegetation to be planted in the vicinity of the National Grid, and how such landscaping will impact on the operation, maintenance, upgrade and development (including access) of the National Grid; Grid; G. The outcome of any consultation with Transpower; and 7. The extent to which the design and layout of the subdivision demonstrates that a suitable building platform or platforms for a principal building or dwelling can be located outside of the National Grid Yard for each new allotment. 8. The risk of electrical hazards affecting public or individual safety, and the risk of property damage	Reasoning: Section 42A Report Subdivision Through their submission, Transpower [315.175] and 315.173] has sought a number of amendments. As the changes are consistent with the purpose of the NPS-ET and the NZECP for safe separation distances, and for the reasons set out below, I agree with all of the requested amendments. 667. Amendments to SUB-R28.2: Including 'support structures' provides clarity and certainty that the matter also includes these. This is particularly useful as 'transmission lines' are not defined in the PDP. The definition of 'National grid' aligns with the NPS-ET and includes all assets used or owned by Transpower NZ Limited, which usefully narrows the interpretation of these terms to the intended scope. However, it was always intended that access would also be provided to the structures supporting transmission lines given that they are a necessary element to enabling the ongoing operation, maintenance, development and upgrade of the National Grid. 668. Amendments to SUB-R28.5: I am of the view that including reference to consideration of the potential impact of any landscaping on the operation, maintenance, upgrade and development of the National Grid is an important clarification and provides useful direction to inform the assessment of subdivision with the National Grid corridor. It also gives further effect to Policy 10 of the NPS-ET which directs that activities are managed to avoid reverse sensitivity effects and ensure that operation, maintenance, upgrading, and development of the electricity transmission network is not compromised. 669. Amendments to SUB-R28.8: NPS-ET Policy 11 requires the creation of a buffer corridor to manage the issue of sensitive activities establishing too close to the existing transmission network. The NPS-ET defines sensitive activities as including 'schools, residential buildings and hospitals', with the supporting Further Guidance on Risks of Development near High-voltage Transmission Lines section 2.2 – Risks to Persons and Property: Health, Safety and	

Earthwo	orks				
315.174	Interpretation Subpart / Definitions / EARTHWORKS Part 2 / General District wide	 Supports this definition as it reflects the National Planning Standards. Earthworks are an activity which can directly impact on the National Grid and the submitter supports the provision of a Considers the structure of the PDP is such that rules relating to earthworks and subdivision in proximity of the National Grid are addressed under the respective	Retain the definition of 'Earthworks' as notified. Amend the Earthworks Chapter to provide appropriate policy recognition to managing earthworks within the National Grid Yard and provide the policy direction for EW-R22. Subject to the inclusion of a specific National Grid policy within the INF	Officer Recommendation: Accept Reasoning: Section 42A Report Earthworks 62. HS5-EW-Rec3: That the definition of 'earthworks' be retained as notified. Officer Recommendation: Accept Reasoning: Section 42A Report Earthworks 604. I agree with Transpower that there should be clarity between the provision	Support the recommendation It reflects the relief sought in the Transpower submission. Support the recommendation on the basis the intent reflects the
	Matters / Earthworks / General EW	Earthworks and Subdivision chapters. Considers that while not necessarily the submitter's preference, they are not opposed to this approach subject to appropriate linkages between the chapters so that plan users can clearly understand (and find) the relevant rules and corresponding policy framework. Considers that for Rule EW-R22 there is no supporting policy framework and no guidance within the introductory text to the Earthworks Chapter to refer plan users to the Infrastructure Chapter. The submitter seeks specific National Grid provisions as outlined in separate submission points. [Refer to original submission for full reason] Submitter seeks either: • Subject to the inclusion of a specific	chapter, cross reference to that chapter as follows: Other relevant District Plan provisions It is important to note that in addition to the provisions in this chapter, the following Part 2: District-Wide chapters may also be of relevance, including: • Transport - The Transport Chapter contains provisions relating to transport matters. • Subdivision - The Subdivision Chapter contains provisions which manage subdivision of land. • Trees – The Notable Tree chapter contains specific provisions	framework for the national grid (and gas transmission pipeline corridor) across the Infrastructure and Earthworks chapters. In my view this is already achieved, in that: a. The introduction to the Infrastructure chapter states: "The provisions within this chapter apply on a City-wide basis. As such the rules in the zone chapters and earthworks chapter do not apply to infrastructure unless specifically stated within an infrastructure rule or standard." b. The Earthworks chapter do not apply in relation to activities provided for in the Infrastructure Chapter, unless specifically stated in the rule or standard concerned." 605. I note that Transpower [315.48, 315.50-315.55] have sought a separate suite of National Grid provisions within a separate Infrastructure sub-chapter, including a number of new National Grid policies. These submission points will be addressed in Hearing Stream 9. As to whether cross reference in the 'Other relevant District Plan provisions' in the Earthworks chapter introduction is necessary, this will depend on any amendments to the Infrastructure chapter arising from Hearing Stream 9. However, to the extent relevant to earthworks, I disagree with Transpower's proposed wording as it creates a reverse situation (in that the rules are already in the Earthworks chapter, so a cross-reference to it from within the chapter does not make sense). 606. As to whether a specific National Grid policy within the Earthworks chapter is necessary, I note that EW-R22 implicitly relies on objectives and policies in the Infrastructure chapter and that the matters of discretion are comprehensive. To this extent, I cannot undertake a full assessment of whether additional policies are necessary within the Earthworks chapter without knowing the outcomes of Hearing Stream 9. The reason being is that the approach of the PDP is that it is to be read on the whole — in this instance in conjunction with the objectives and policies of the Infrastructure parent chapter. 607. HS5-EW-Rec123: That the Earthworks introduc	relief sought in the Transpower submission. It is noted the poli- framework will be addressed in Hearing Stream 9.

315.175	Part 2 /	Support	Supports the provision of standards specific	Supports EW provisions, subject to amendments.	Officer Recommendation: Accept in part	Accept the
	General	1	to earthworks on the basis such activities	·	Reasoning: Section 42A Report Earthworks	recommendation
	District		can compromise the National Grid and are a		603. Transpower [315.175] submit that the provision of a rule framework achieves Policies	noting the
	wide		form of development contemplated by the		2 and 10 of the NPS-ET in that it protects the integrity of the National Grid and the ability	submission point
	Matters /		NPS-ET.		to operate it. Transpower also support the provision of standards specific to earthworks on	is of a generic
	Earthworks				the basis such activities can compromise the National Grid and are a form of development	nature.
	/ General				contemplated by the NPS-ET.	
	EW					
315.176				Amend EW-R22 (Earthworks in the national grid yard) as	Officer Recommendation: Accept in part	The
	General		to earthworks on the basis such activities	follows:	Describe Coults 404 Described to	recommendation
	District		can compromise the National Grid and are a		Reasoning: Section 42A Report Earthworks	is both
	wide			EW-R22 Earthworks <u>or vertical holes</u> in the national grid yard		supported and
	Matters /		NPS-ET. Considers that earthworks also	All Zones	structures around the lines. Consequently Transpower considers that the depth standards	opposed.
	Earthworks		have the potential to restrict Transpower's	1. Activity status: Permitted Where:	for EW-S15 be moved to EW-R22 for clarity and connection to the exemptions and	The
	/ EW-R22		ability to access the line and locate the	a. <u>Earthworks or vertical hole depth must be no greater</u>	· · · · · · · · · · · · · · · · · · ·	recommendation
			heavy machinery required to maintain	(measured vertically) than: i.300 millimetres within 6 metres of the outer visible edge of	to the NPS-ET's objective of managing the adverse effects of the network and managing	is supported in
			support structures around the lines and may		the adverse effects of other activities on the network as required by NPS-ET Policy 2 and	term of the
			lead to potential tower failure and	<u>a foundation of any National Grid support structure: or</u> ii.Between 6 metres and 12 metres from the outer visible	Policy 10.	amendment to
			significant constraints on the operation of	edge of a foundation of any National		clause 1.a. for
			the line. Considers the provision of a rule framework achieves Policies 2 and 10 of the	Grid support structure		the insertion of
			NPS-ET.		activity depth and distance can be moved from EW-S15.1(a)-(b) to EW-R22. I note that the metrics proposed are largely consistent with the Porirua District Plan which is important	
			INP3-E1.	— b. Compliance is achieved with EW-S15.1		However an amendment is
			Seeks amendments to Rule EW-R22 to:		submitter has changed from specific references to 'stay wires', 'poles' and 'support towers'	
			Seeks amendments to raie EW-R22 to.		to 'support structures' more broadly. I understand that this amendment to the depths	reference to 3m
			- Move the depth standards from the	All Zones	better reflects NZECP34 but with all support structures treated the same in respect of	within clause
			standard EW-S15 to the rule to provide	2. Activity status: Restricted Discretionary Non complying	setbacks, thereby recognising the risks to the National Grid extend beyond those	1.a.ii.
			more clarity and provide a clear	3. Where:	addressed by NZECP34.	
			relationship to the exemptions;	a. Compliance with any of the requirements of EW-R22.1		The
			- Amend the default activity status to non-	cannot be achieved.	612. I agree with the suggested amendment to add reference to clause (1) of EW-S15	recommendation
			complying where permitted conditions are	Matters of discretion are:		is opposed in so
			not complied with (and as a subsequent	1.The extent and effect of non-compliance with any relevant	EW-S15 refers to gas transmission pipeline corridors, so it is important that EW-R22 provides for this differentiation.	far as it retains the default
			amendment, deletion of the discretionary	standard as specified in the associated assessment criteria fo	provides for this differentiation.	restricted
			matter and notification clause). A non-	r the infringed standards;	613. I disagree that it is appropriate to amend the restricted discretionary activity status	discretionary
			complying activity status is considered the	2. Impacts on the operation, maintenance, upgrading and development of the National Grid;	under EWR22.2 to non-complying activity status as per the submitter's relief sought. I also	•
			most effective means of giving effect to the	3. The risk to the structural integrity of the affected National	disagree with the associated relief sought by the submitter to delete the matters of	opposed to
			NPS-ET's objective of managing the adverse	Grid support structure(s);	discretion in EW-R22.2 and notification clauses. I consider that this suggested change in	recommending a
			effects of the network and managing the	3. Any impact on the ability of Transpower to access the Natio		non-complying
			adverse effects of other activities on the	nal Grid;	,	activity where
			network.	4. The risk of electrical hazards affecting public or individual	1, , , , , , , , , , , , , , , , , , ,	they are not
				safety, and the risk of property;	that the activity would need to pass the 'gateway test', and resource consent would likely only be granted in exceptional circumstances. This would be disproportionate to the	complied with.
			[Refer to original submission for full reason]	5. Technical advice provided by Transpower; and	activity and its effects. I consider that restricted discretionary activity status is appropriate,	
				6. Any effects on National Grid support structures including	particularly given the comprehensive matters of discretion that EW-R22.2 provides for.	
				the creation of an unstable batter.	, , , , , , , , , , , , , , , , , , , ,	
				Notification Status:	614. On this basis, it is my view that it is important to preserve the requirement for notice	
				An application for resource consent made in respect of rule EW-		
				R22.2 is precluded from being publicly notified. Notice of any	accordance with clause 10(2)(i) of the Resource Management (Forms, Fees and	
				application for resource consent under this rule must be served	Procedures) Regulations 2003). I consider that this adequately protects the interests of the	
				on transpower tew Zearana Emiliea in accordance with clause	grid operator.	
				10(2)(i) of the Resource Management (Forms, Fees, and	615. HS5-EW-Rec125: That EW-R22 is amended as set out below and detailed in App A.	
				Procedures) Regulations 2003	·	
					EW-R <mark>2218</mark> Earthworks <u>or vertical holes</u> in the national grid yard 1. Activity status: Permitted Where:	
					a. Earthworks or vertical hole depth must be no greater (measured vertically) than:	
					i. 300 millimetres within 6 metres of the outer visible edge of a foundation of any	
					National Grid support structure: or	
					ii. Between 6 metres and 12 metres from the outer visible edge of a foundation of	
					any National Grid support structure	
I					iii. i . Compliance is achieved with EW-S15	

Part 2 / General	Amend	Related to EW-R22, seeks amendment to	Amend EW-S15 (Earthworks in the national grid yard and	Officer Recommendation: Accept	The recommendat
7 Part 2 / General District wide Matters / Earthworks / EW-S15		the standard EW-S15 for those provisions specific to the National Grid. Seeks an amendment to the depth standard to move the standard to the rule. Considers the depths should be amended to better reflect NZECP34 but with all support structures treated the same in respect of setbacks (thereby recognising the risks to the National Grid extend beyond those addressed by NZECP34). An additional clause is sought to ensure ongoing access is maintained to support structures. Seeks minor grammatical and wording refinements. Seeks the separating of the National Grid from the Gas Transmission	gas transmission pipeline corridor) as follows: EW-S15 Earthworks in the Neational Gerid Yyard and gas transmission pipeline corridor All Zones 1. Earthworks or vertical holes in the Neational Gerid Yyard must comply with the following: a. Earthworks or vertical hole/s depth must be no greater than: i. 300 millimetres within 2.2 metres of any National Grid support poles or stay wires; or ii. 750 millimetres between 2.2 metres and 5 metres of the pole or stay wire. b. Earthworks or vertical hole depth must be no greater than: i.300 millimetres within 6 metres of the outer visible edge of a foundation of any National Grid support tower (including any tubular steel tower that replaces a steel lattice tower); o	Reasoning: Section 42A Report Earthworks 630. Turning to the matters raised by Transpower [315.177], as per my associated assessment for EW-R22 above I consider the amendments sought to EW-S15 are appropriate. I concur with the submitter that EW-R22 and EW-S15 achieves Policies 2 and 10 of the NPS-ET in that it protects the integrity of the National Grid and the ability to operate it. 631. In response to Transpower [315.177] I agree that separating the standards for the National Grid from the Gas Transmission Pipeline Corridor would improve clarity in separating out the matters into individual standards as is the approach in EW-R22 and EW-R23. On this basis I recommend that EW-S15 be amended to just specify that standards for the National Grid Yard, and that the standards for the Gas Transmission Pipeline Corridor be split out into a new standard- EW-S16. 632. HS5-EW-Rec129: That EW-S15 and a new EW-S16 are amended as set out below and detailed in Appendix A.	recommendatis accepted noting the amended provisions rethe relief sout in the Transpower submission.
		pipeline to avoid confusion to plan users	ii.Between 6 metres and 12 metres from the outer visible- edge of a foundation of any National Grid support tower (including any tubular steel tower that replaces a steel- lattice tower). a. c. The earthworks must nNot result in a reduction in the ground to conductor clearance distances as required in Table 4 of the New Zealand Electrical Code of Practice for Safe Electrical Distances (NZECP 34:2001) ISSN 01140663. bd. The earthworks must nNot result in vehicular access to a National Grid support structure being permanently obstructed. c.Not compromise the stability of a National Grid support structure	EW-S15 Earthworks in the Neational Gerid Yyard 1. Earthworks or vertical holes in the Neational Gerid Yyard must comply with the following: -a. Earthworks or vertical hole/s depth must be no greater than: -i. 300 millimetres within 2.2 metres of any National Grid support poles or stay wires; or -ii. 750 millimetres between 2.2 metres and 5 metres of the pole or stay wireb. Earthworks or vertical hole depth must be no greater than: -i. 300 millimetres within 6 metres of the outer visible edge of a foundation of any National Grid support tower (including any tubular steel tower that replaces a steel lattice tower); or -ii. Between 6 metres and 12 metres from the outer visible edge of a foundation of any National Grid support tower (including any tubular steel tower that replaces a steel lattice tower)c. The earthworks must nNot result in a reduction in the ground to conductor clearance distances as required in Table 4 of the New Zealand Electrical Code of Practice for Safe Electrical Distances (NZECP 34:2001) ISSN 01140663d. The earthworks must nNot result in vehicular access to a National Grid support structure being permanently obstructede. Not compromise the stability of the National Grid Support Structure.	

Appendix C

Section 32AA – Change in activity status to Rule EW-R18 (formerly R22)

Amendments recommended in the S42A report and which I support are shown as red text. Further amendments sought through this evidence are shown as blue text

EW-R2218 Earthworks or vertical holes in the National Ggrid Yyard

1. Activity status: Permitted

Where:

a. Earthworks or vertical hole depth must be no greater (measured vertically) than:

i. 300 millimetres within 6 metres of the outer visible edge of a foundation of any National Grid support structure: or

ii. 3 metres between within 6 metres and 12 metres from the outer visible edge of a foundation of any National Grid support structure

b. Compliance is achieved with EW-S15

Note:

The following earthworks or vertical hole activities are exempt from EW-R2218.1:

- Earthworks <u>or vertical holes</u>, excluding mining and quarrying, that are undertaken by the operator of the National Grid;
- 2. Earthworks, excluding mining and quarrying, for the repair, sealing or resealing of a footpath, driveway or farm track;

Other reasonably practicable options

The other reasonably practical options are:

- 1. No changes to the activity status rule
- 2. Deletion of a National Grid specific rule

Given the policy directive within Policy 8 of the RPS and requirement that a district plan give effect to the NPSET, the deletion of the earthworks rule is not an option that could be considered the most appropriate way to give effect to the NPSET and achieve WCC PDP objective INF-O3.

Based on the evidence provided by Transpower, the retention of the rule as notified is also not considered the most appropriate way.

Costs and benefits

A number of amendments have been recommended by the reporting officer to Rule EW-R2218, the majority of which are supported.

This evidence seeks a change in the default activity status. The benefits of the recommended change are to provide a robust and comprehensive rule framework for earthworks within the National Grid Yard to ensure the Grid assets are not compromised and security of supply is ensured. As discussed in evidence, there is arguably a policy void in which to consider any consent application. This is to be addressed in hearing stream 9. To address the void, reference is made to the higher order NPSET Policy 10, and RPS policy 8.

The costs are that the amended activity status will impose a more stringent consenting regime for earthworks near the National Grid. However, it is noted that the need for resource consent does not change. As such the costs do not outweigh the benefits of ensuring a continued safe and secure supply of electricity.

Effectiveness and efficiency

The amended policy will be effective in achieving Objective EW-O1, INF-O1 and

- 3. Vertical holes not exceeding 500 millimetres in diameter that:
 - a. are more than 1.5 metres from the outer edge of the pole support structure or stay wire; or
 - b. are a post hole for a farm fence or horticulture structure more than 6 metres from the visible outer edge of a tower or support structure foundation; and
- Earthworks or vertical holes subject to a dispensation from Transpower under New Zealand Electrical Code of Practice for Safe Electrical Distances (NZECP 34:2001) ISSN 01140663

All Zones 2. Activity status: Restricted Discretionary Non complying

Where:

a. Compliance with any of the requirements of EW-R2218.1 cannot be achieved.

Matters of discretion are:

- 1. The extent and effect of non-compliance with any relevant standard as specified in the associated assessment criteria for the infringed standards;
- 2. Impacts on the operation, maintenance, upgrading and development of the National Grid:

INF-O3, and giving effect to the NPSET Policy 10 and RPS Policy 8.

Risk of acting or not acting

The risk of not acting is extremely significant in terms of risk to the integrity of the National Grid which could affect thousands of homes and businesses. There is also a high risk to both structures and lives if inappropriate earthworks are within close proximity to the lines and support structures. The Grid is a linear network so an issue on one component can have wider ramifications.

Decision about most appropriate option

Having considered the costs and benefits, the benefits outweigh the costs, and the amended activity status within the rule will be effective in achieving Objectives EW-O1, INF-O1 and INF-O3, and giving effect to the NPSET and Policy 8 of the RPS.

- 3. The risk to the structural integrity of the affected National Grid support structure(s);
- 4. Any impact on the ability of Transpower to access the National Grid;
- 5. The risk of electrical hazards affecting public or individual safety, and the risk of property;
- 6. Technical advice provided by Transpower; and
- 7. Any effects on National Grid support structures including the creation of an unstable batter.

Notification Status:

An application for resource consent made in respect of rule EW-R2218.2 is precluded from being publicly notified.

Notice of any application for resource consent under this rule must be served on Transpower New Zealand Limited in accordance with Clause 10(2)(i) of the Resource Management (Forms, Fees, and Procedures) Regulations 2003.