Before the Proposed Porirua District Plan Hearings Panel
In Porirua

Under	the Resource Management Act 1991 (the Act)
In the matter of	the Proposed Porirua District Plan – Hearing Stream 4: Strategic Directions, Energy, Infrastructure and Transport, General District-Wide Matters.
Between	**Porirua City Council** Local authority
And	**Transpower New Zealand Limited** Submitter 60 and Further Submitter FS04

Statement of evidence of Rebecca Eng for Transpower New Zealand Limited

Dated 21 January 2022

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1 Executive Summary

1.1 The majority of Transpower's transmission lines are regulated under the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009 ("NESETA"). The NESETA does not provide any provisions to regulate subdivision, land use or development carried out by third parties near the National Grid.

1.2 Transpower relies on local authorities to give effect to the National Policy Statement on Electricity Transmission ("NPSET") so that better management controls are in place to protect the National Grid from inappropriate subdivision, land use and development.

1.3 Transpower's preferred approach to implement the NPSET in District Plans is to require land use setbacks (the 'National Grid Yard' and a subdivision corridor (the 'National Grid Subdivision Corridor') with associated rules. This approach implements the NPSET in District Plans and ensures the safe and sustainable management of the National Grid, third party activities and landowner and occupier usage near the assets. The provisions sought in Porirua are generally consistent with operative provisions in other jurisdictions around the country.

1.4 Buildings and activities within the National Grid Yard and National Grid Subdivision Corridor can limit the operational and maintenance needs of the National Grid. The 12m National Grid Yard setback will allow the support structures and conductors to be accessed and provides sufficient space for most maintenance activities.

1.5 Regulating subdivision within the vicinity of the National Grid will enable the Council to give effect to Policies 10 and 11 of the NPSET. Further, the Council will be able to manage the potential effects of a subdivision on the operation/maintenance and upgrading of the network as Transpower is not always recognised as being affected by subdivision applications.

1.6 Subdivision can disrupt access to land and therefore the physical ability to access the lines. To avoid land use conflicts, the rule framework needs to provide the opportunity for Transpower and the Council to consider whether buildings in a subdivision can be sited in a safe manner and so as to avoid direct or reverse sensitivity effects on the National Grid.

1.7 The NESETA does not apply to new transmission lines. Transpower has developed a systematic process that it applies when upgrading and developing the National Grid network. This methodology, known as the 'ACRE' model, is based on a progressive filtering approach – more specialised detail is provided

on environmental, property and engineering constraints to enable the identification of preferred routes and sites. The ACRE process ensures that Transpower explores all practicable options for avoiding or reducing effects of new transmission assets.

1.8 Transpower's relief is critical for the future development of Porirua City as it will ensure integrated management of activities through the Proposed Porirua District Plan ("PPDP") of both the National Grid and other natural and physical resources.

2 Introduction

2.1 My full name is Rebecca Mary Eng. I am the Technical Lead - Policy at Transpower New Zealand Limited ("Transpower"), within the Environmental Regulatory Team.[1]

2.2 For my qualifications and experience and other introductory comments, please refer to paragraphs 1-3 and Appendix A of my statement of evidence for Hearing Stream 1 ("Hearing 1 Evidence"), dated 10 September 2021.

2.3 I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Consolidated Practice Note (2014), and I agree to comply with it. As I am employed by Transpower, I acknowledge I am not independent; however, I have sought to comply with the Code of Conduct when preparing my written statement of evidence and will do so when I give oral evidence before the Hearings Panel. Unless stated otherwise, this evidence is within my sphere of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

3 Scope of Evidence

3.1 My evidence will address the following:

a The 'ACRE' methodology that Transpower follows to select the route of any new transmission line or the site of new substations;

b Inappropriate development under and near the National Grid, including the background context for the National Policy Statement on Electricity Transmission (**NPSET**);

c The purposes of the National Grid Corridor approach that Transpower supports;

[1] This is a new title for me at Transpower; I was formerly a Senior Environmental Planner, as recorded in my earlier statement of evidence in these proceedings. My responsibilities still include those set out at paragraph 2.1 of my Hearing Stream 1 evidence.

d A description of Transpower's preferred approach to implementing Policies 10 and 11 of the NPSET via a National Grid Corridor;

e How subdivision near the National Grid can occur in the context of National Grid Subdivision Corridor provisions, supported by examples; and

f Conclusions.

4 Transpower's process for selecting the location of new transmission assets

4.1 The NESETA does not apply to National Grid substations or transmission lines constructed after 14 January 2010. This means that Transpower relies on other tools to authorise any new National Grid assets constructed after this date.

4.2 When selecting the route of any new transmission line or the site of any new substation, Transpower follows the 'ACRE' process. Transpower developed the ACRE model to identify and secure the most suitable location for transmission infrastructure. It is based on a progressive filtering approach, where increasing and more specialised detail is provided on environmental, property and engineering constraints throughout the process to enable the identification of a preferred route or site.

4.3 The key stages of the ACRE process are summarised below (these can be modified or combined, depending on the scale and nature of the project):

a A –Area (identification of the wider study area within which the project might occur; undertaking constraints and opportunities mapping);

b C – Corridor (identification and confirmation of alternative corridors, ranking and selection of preferred corridor);

c R – Route (selection and evaluation of a route, or alternative routes, within the preferred corridor, consultation on one or more routes and confirmation of preferred route, following public consultation); and

d E – Easement/Designation (identification and confirmation of the easement and designation centreline). There are two further process steps, referred to as "D" and "S":

e D – Documentation (preparation of full documentation for lodgement with councils); and

f S – Statutory Process (lodgement of documents for statutory approvals under the RMA, board of inquiry/council hearings, Environment Court appeal process where relevant).

4.4 During the Area, Corridor, Route and Easement/Designation stages, consideration is given to the location of the proposed infrastructure, with negative scoring being given to any special areas, such as Significant Natural Areas or Outstanding Natural Landscapes ('ONLs').

4.5 The ACRE process allows for a trade-off between a number of factors, with the intent of finding a preferred solution:

a It takes into account technical and operational requirements, such as the need to connect to existing assets, or maintain safety clearances;

b It demonstrates that adverse effects have been avoided through the site, route and method selection – although it will not always be possible to avoid all adverse effects;

c Sensitive activities such as residential areas can be mapped, so that options which avoid effects on sensitive activities are known and appropriately factored in; and

d Town centres and other valued locations such as areas of high recreational value, ONLs, ecological areas and areas of high natural character are also mapped, so that consideration to avoiding those areas can occur.

4.6 Often it is not practicable to avoid effects on all identified values. For example:

a Avoidance of urban areas and sensitive activities can often deflect assets towards areas with greater landscape, natural character or recreational value (i.e. non-urban locations);

b Avoiding particular locations can also mean a National Grid line must take a longer route, impacting a greater number of people and values along that longer route, and costing more to develop, operate and maintain (that cost being borne by electricity users);

c Reducing the height of lines (to reduce their visibility) can mean that a greater number of support structures (towers or poles) are required in order to maintain safe ground-to-conductor clearances. Lower conductors can require greater vegetation clearance, and more extensive access tracks for the greater number of support structures; and

d Undergrounding lines is often prohibitively expensive, still requires earthworks, a clear corridor (including clear of vegetation and above-ground structures) and can complicate maintenance and repairs.

4.7 I would support a district plan framework which supports the ACRE process and recognises this process as a key tool for managing the effects of National Grid development, particularly given that it is not always possible to avoid effects.

5 Inappropriate development under and near the National Grid

5.1 Most National Grid transmission lines and substations were originally built in the early to mid-twentieth century in (what were then) rural areas over open land which posed little to no constraint on the ability to operate, maintain, upgrade and develop the National Grid. Nationwide, only a very small proportion of transmission lines are designated, and in particular none of the six transmission lines that traverse Porirua City (as described in my Hearing 1 evidence2) are designated.

5.2 Over time, urban boundaries have expanded and both urban and rural development has occurred under, and in close proximity to, National Grid assets. Under the Electricity Act 1992, Transpower has little direct control over activities underneath or adjacent to its assets that have been constructed under, and in close proximity to, the National Grid. The risks and effects of inappropriate land use and development of this nature is covered in detail within Mr Cartwright's evidence.

5.3 The NESETA does not include any provisions to regulate subdivision, land use or development carried out by third parties near the National Grid. Under the RMA, the NPSET was developed (in part) as a mechanism to provide better management controls. Policies 10 and 11 provide direction to protect the National Grid from inappropriate subdivision, land use and development, albeit these policies are not prescriptive in the form of rules or definitions.3 Policy 12 of the NPSET directs territorial authorities to identify the National Grid on their relevant planning maps, whether or not the network is designated.4 Ms Whitney's Hearing Stream 1 evidence sets out the specific wording of Policies 10 and 11 of the NPSET5 and includes a copy of the NPSET itself at Appendix A.

5.4 While Mr Cartwright's evidence describes what the risks and effects of inappropriate subdivision, land use and development are to the National Grid, the purpose of my evidence is to describe the "how", that is, the strategic planning approach that Transpower supports for implementing Policies 10 and 11 of the NPSET in the form of definitions and rules within District Plans. My evidence also provides examples of Transpower working constructively with

[2] Hearing Stream 1 evidence, dated 10 September 2021, at section 6.1 and Appendix B. The Pāuatahanui substation is however designated in the District Plan.
[3] See also Whitney evidence, 10 September 2021, paras 5.5 – 5.18.
[4] In this regard, the relevant transmission lines are shown in the PPDP e-Plan maps.
[5] Whitney, 10 September 2021, para 8.9.

landowners/developers on subdivision proposals near the National Grid, to demonstrate how mutually beneficial outcomes can be achieved at the subdivision stage.

6 National Grid Corridor Purpose

6.1 The National Grid corridor approach supported by Transpower has eight important purposes, namely:[6]

a To ensure that sensitive activities, such as residential development, are generally not provided for near National Grid structures and lines: Sensitive activities include the establishment of dwellings, schools and papakāinga close to the Grid. The purpose of Policy 11 of the NPSET is to prevent sensitive activities (including the expansion of existing sensitive activities) such as these from being established near the National Grid;

b **To manage reverse sensitivity effects**: These effects occur when people undertake activities close to an existing line or structure. For example, National Grid lines can cause noise (especially in damp weather), reduced visual amenity, radio and television interference, perceived effects of electric and magnetic fields from the lines, and interference with landowners' business activities beneath the lines. These effects often lead to neighbouring landowners/occupiers wanting to constrain operation or alter the existing lines. Landowner complaints can ultimately lead to constraints on the operation, maintenance and upgrade of existing National Grid assets;

c **To protect the integrity of the National Grid (structures and lines):** Structures, earthworks and other land use activities that are too close to a transmission line and support structures can affect the stability of that line and contribute to electricity outages. The presence of these structures and activities can also increase the need for, and thereby the risk associated with, mobile plant (such as cranes, forestry haulers and excavators) and other equipment. Transpower wishes to ensure that safe distances are maintained so the risk of coming into contact with the lines is minimised;

d **To enable efficient and safe operation, maintenance and potential upgrade operations:** National Grid Yards/Corridors provide a relatively clear area for line workers to gain access to the line and structures in order to conduct operational maintenance on high voltage equipment, sometimes at great heights. Examples of these activities are provided in **Mr Cartwright**'s evidence. The National Grid corridors also limit the need for

[6] Some of these are also addressed in the evidence of Mr Cartwright.

costly workarounds (for example, bypass lines), when maintaining and operating the Grid. In addition to this, corridors can also preserve the ability to undertake upgrades in the future, rather than potentially having to construct a new asset;

e **Reliable and secure electricity supply:** To provide the residential, rural, commercial and industrial electricity users in Porirua City with a reliable and secure supply of electricity;

f **To provide the community, Council and Transpower with the knowledge and confidence that the lines are being managed in a safe and sustainable manner**: To provide certainty as to how that management is being achieved in response to the policy framework established by the NPSET; and

g **To minimise safety hazards**: Electricity transported at high voltages can cause serious, or even fatal, injuries to people who come in close contact with the lines. Corridor management is therefore of paramount importance as it provides for the wellbeing, health and safety of people.

7 Transpower's Preferred Approach to National Grid Corridor Implementation

7.1 Councils were required to implement the NPSET within their relevant statutory planning documents by 10 April 2012.[7] As at January 2022, 40 out of 64 district plans have given effect to Policies 10 and 11 of the NPSET through the inclusion of objectives, policies, definitions and rules within their district plans. The table below (**Table 1**) indicates the extent of progress across all territorial authority plans in giving effect to the NPSET since 2008. **Appendix A** includes a full list of progress towards implementing the NPSET corridors by council.

District Plans with operative National Grid Corridor provisions	40 (62.5%)
Councils underway with consultation processes to implement the National Grid Corridors[8]	20 (31.25%)
Councils that have not yet started any process	4 (6.25%)
Councils that are reviewing operative National Grid provisions as part of plan review for a second time (as a subset of the green category above).	Far North, Porirua, Waimakariri, Grey (as part of Te Tai o Poutini Plan)

Table 1: Giving effect to the NPSET in territorial authority plans

[7] The NPSET "Explanatory note" on page 4 states: "*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*." The NPSET came in to force on 10 April 2008.
[8] This is both pre-notification consultation and RMA Schedule 1 consultation processes.

7.2 Porirua City Council is included in the last category as it has previously implemented the NPSET within the Operative District Plan via Plan Change 16 (for which Transpower was a submitter).

7.3 Transpower's preferred approach to implementing the NPSET in District Plans across the country has been to require land use setbacks (referred to as the "National Grid Yard") and a subdivision corridor with associated rules (referred to as the "National Grid Subdivision Corridor"), to ensure the safe and sustainable management of the National Grid, third party activities, and landowner and occupier usage near the assets. These outcomes have been achieved through the ongoing policy and plan review and plan change processes undertaken by district and city councils throughout New Zealand since 2008.

7.4 The current approach supported by Transpower has been largely settled since 2012 following Environment Court appeals, Boards of Inquiry, Independent Hearings Panel processes and ongoing engagement with Transpower's key stakeholders such as Federated Farmers and Horticulture New Zealand. The provisions Transpower seeks in Porirua are broadly consistent with operative provisions in other jurisdictions around the country, including Hutt City, Upper Hutt City, Invercargill, Ōpōtiki, Hurunui, Kāpiti Coast, Far North and Whangārei.

7.5 Transpower values its relationship with councils, the community and landowners, and endeavours to work with them to reach the best outcome for all parties concerned. Transpower works with councils around the country prior to, and after notification of plan changes and plan reviews to give effect to the NPSET. Transpower continues to engage with councils once operative plan provisions are in place, including involvement in the resource consent process. It has a team of staff members and an online enquiry portal dedicated to this task.

National Grid Yard

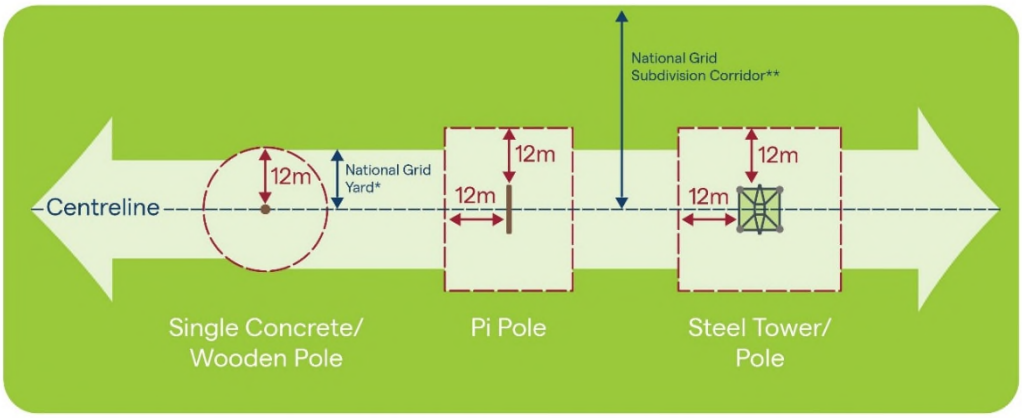
7.6 Transpower generally seeks, and has sought in the Proposed Porirua District Plan ("**PPDP**"), a 12 metre or 10 metre setback either side of the transmission line centreline. The National Grid Yard is also defined to include a setback from National Grid support structures, as shown in **Figure 1**. As well as certain buildings and structures which may have direct effects on, or compromise, the Grid, sensitive activities, intensively used buildings, and certain earthworks are a non-complying activity within the National Grid Yard. This area is shown in pale green in **Figure 1**.

National Grid Subdivision Corridor

7.7 Transpower supports a subdivision corridor to be set at a specified width depending on the voltage of the line. Subdivision has a restricted discretionary activity status within this corridor, provided a complying building platform can be accommodated outside of the 10 or 12 metre National Grid Yard setback (as measured from the centreline or support structure). Under Transpower's preferred regime, subdivision requires non-complying resource consent if the building platform is located within the National Grid Yard. I note that only the definition of National Grid Subdivision Corridor is being heard at Hearing Stream 4 and the rules will be considered by the Panel at a future hearing. This information has been included now to provide the overall context.

National Grid Substation Corridor

7.8 Transpower also seeks a land use and/or subdivision corridor around substations. In the PPDP, Transpower has sought a 30-metre substation corridor for Pāuatahanui Substation. The substation corridor is primarily intended to regulate development in proximity to substations in order to manage earth potential rise ("**EPR**") risks and/or reverse sensitivity effects where development is proposed within a specified distance of the substation boundary. **Mr Cartwright**'s evidence describes EPR in the context of transmission line support structures. It is also a risk associated with substations. The specified corridor around the substation varies depending on the context but is usually intended to act as a trigger for restricted discretionary activity consent. The consent process enables developers work with Transpower to (among other considerations) ensure that buildings or buried services are constructed with materials that mitigate EPR risk as well as subsequent damage to buildings or services from a fault.



* National Grid Yard: 10m for single concrete/wooden pole lines, 12m for all other line types

** National Grid Subdivision Corridor: 14m, 32m, 37m or 39m depending on line voltage

Figure 1: National Grid Yard (Light Green) and National Grid Subdivision Corridor (Green)

7.9 The National Grid Yard and National Grid Subdivision Corridor provisions Transpower seeks in District Plans are informed by:

a Conductor swing calculations: The 12m National Grid Yard reflects the position of the conductors in normal “every day” wind conditions, when operation and maintenance activities would generally be carried out. The subdivision corridor broadly reflects the area of land that could be beneath the conductors in high wind conditions. The approach to calculating the National Grid Yard and National Grid Subdivision Corridor is described further in **Mr Cartwright**’s evidence;[9]

b The maintenance, access and workspace requirements: The 12m National Grid Yard will allow the support structures and conductors to be accessed and provide sufficient space for most (but not all) maintenance activities. The 12m National Grid Yard will not eliminate all inconvenience caused by operation and maintenance activities, nor necessarily ensure full access for maintenance activities is provided in all circumstances - it attempts to strike a reasonable balance in absence of more comprehensive property rights and protections;

c An understanding that restrictions on land uses (both the geographical extent of land restricted and the range of uses restricted) need to be justified and allow for continuing reasonable use of the land. Some of Transpower's operation, maintenance, upgrading and development could be carried out more efficiently if larger National Grid Corridors were provided (and/or if the corridors were linked to more stringent land use restrictions). However, as day-to-day maintenance is not carried out in high winds, it was considered more reasonable to focus on the 12m National Grid Yard for restricting land use;

d Whether activities could compromise the Grid. Transpower does not seek a clear corridor, as there are some limited activities that are unlikely to compromise the National Grid now or in the future. Requiring resource consent for all development would add unnecessary costs, both for the landowner and Transpower (who would be notified of the applications). Instead, the rule framework Transpower proposes has some limited permitted activities; and

e The need for the District Plan provisions to be clearly understood by Plan users, and enforceable by councils.

[9] Cartwright, 21 January 2022, paras 12.6-12.9.

7.10 The corridors are based on the operational and maintenance needs of Transpower's existing assets. They have not been sized to provide for major rebuilds or new lines. For new lines projects, Transpower's general approach is to obtain a designated corridor and an easement over the affected properties involved in the project. Both the designation and easement would contain restrictions on the activities within the designated/easement area, that is Transpower seeks clear corridors to ensure the safe and efficient operation of the line. Transpower seeks a corridor that is clear of buildings and structures (other than fences) and restricts all earthworks unless Transpower agrees. Such a restrictive approach is not considered appropriate for the corridors that are required to implement Policies 10 and 11 of the NPSET – those corridors are the minimum Transpower requires and are a compromised position.

7.11 The corridor and yard provisions sought by Transpower necessarily go beyond compliance with the New Zealand Electrical Code of Practice for Electrical Safe Distances ('**NZECP34:2001**'). NZECP34:2001 relates to electrical safe distances - it does not address the resource management matters in Policies 10 and 11 of the NPSET. Transpower does not support simple reliance upon NZECP34:2001, as it does not ensure the National Grid infrastructure and surrounding land are proactively and sustainably managed for the future. For example, NZECP34:2001 compliant development can still prevent access to National Grid support structures and does not distinguish between land use types (e.g. sensitive activities).

7.12 The National Grid corridor rule framework that Transpower supports within district plans comprises of specified subdivision, land use and development controls as well as NZECP34:2001 compliance. In my opinion this is an effective and efficient way to draw plan users' and councils' attention to the mandatory compliance requirements of NZECP34:2001 in the context of development near transmission lines. It sits within a suite of controls that together are intended to (among other things) ensure that the National Grid is not compromised and manage health and safety risks to people and property.

8 Subdivision

8.1 The regulation of subdivision in the vicinity of the National Grid will enable Council to give effect to Policies 10 and 11 of the NPSET and to manage the potential effects of a subdivision on the operation/maintenance and upgrading of the network - including retaining an area for access to the network.

8.2 In my view subdivision within Porirua City should be regulated near the transmission lines because:

a Transpower wants to avoid the creation of allotments on which it would be difficult or impossible to construct a complying dwelling;

b Subdivision is an opportunity to design around the transmission lines, so that subsequent development can occur safely and not compromise the National Grid;

c The public has an expectation that at least one dwelling can be constructed on each legal title. The requirement to demonstrate complying building platforms is consistent with this;[10]

d Subdivision can disrupt access to lines because it often precedes changes to land uses, including fences and driveways (which can prevent or facilitate access to land). Transpower has the legal right under the Electricity Act 1992 to access the lines but the physical ability to access the lines also needs to be protected;

e Transpower cannot rely on NZECP34:2001 to protect the National Grid from the effects of subdivision, as it does not restrict the subdivision of land near lines or substations and it does not prevent underbuilding;

f Subdivision also means Transpower will in the future need to manage its operations around a greater number of landowners and their activities; and

g Transpower is not always recognised by councils or applicants as being affected by subdivision applications.

8.3 Subdivision provides the framework for future land use and is enduring. Integrated planning at the subdivision stage can avoid land use conflicts later. In particular, restricted discretionary activity status (defaulting to non-complying if certain requirements are not met) at the subdivision stage provides the opportunity for Transpower and the Council to consider whether buildings can be sited in a safe manner, and in a way that avoids transmission activities being compromised. It also avoids reverse sensitivity effects arising from the visual, noise and other impacts of the National Grid (consistent with Policy 10 of the NPSET).

8.4 The PPDP needs to establish rules to avoid potential future adverse effects on National Grid infrastructure. Given the significance of the issues involved, and the directives of the NPSET, this is an appropriately proactive approach to pursue.

[10] I note that the National Grid subdivision corridor rules are not being heard at this hearing, but the standard I refer to here is consistent with Transpower's submission on the PPDP and the approach in other jurisdictions.

8.5 The following are some examples of successful subdivision outcomes near the National Grid, to demonstrate how the National Grid Subdivision Corridor provisions can be implemented in practice. This includes the provision of roads underneath the lines and lot configuration that provides fully complying and usable lots.

Figure 2: Subdivision at Lake Hayes, Queenstown

8.6 Compatible development of greenfield sites is possible, especially if those plans take account of Transpower infrastructure. The subdivision in **Figure 2** in Queenstown is an example where Transpower has supported subdivision around the National Grid. The application was approved with “no build” consent notices imposed as conditions over some residential allotments within the corridor, which is shown running horizontally through the centre of the image. The “no build” areas are indicated by the diagonal striping over parts of some lots on the south side of the road. In consultation with Transpower, the developer designed the subdivision so that the transmission line corridor traversed primarily roads and reserves.

8.7 **Figure 3** is an aerial photo of this subdivision scheme plan, post-construction. It shows the road broadly following the alignment of the transmission line centreline, with dwellings set back.

Figure 3: Implemented subdivision at Lake Hayes, Queenstown

8.8 Another example of compatible greenfields subdivision development is the Industrial Highbrook Development in South Auckland (**Figures 4 and 5**) where the roads and industrial buildings were planned and constructed to minimise the impacts on Transpower's infrastructure, and consequently the road users and owners/occupiers of the neighbouring land. As can be seen from the photos, the road has been designed around a clear yard and comparatively clear corridor.

Figure 4: Highbrook Development in South Auckland

Figure 5: Highbrook Development in South Auckland

8.9 A local example is a subdivision at Navigation Drive/Schooner Place, in Whitby (**Figure 6**). Transpower provided affected party approval to this subdivision in October 2017.

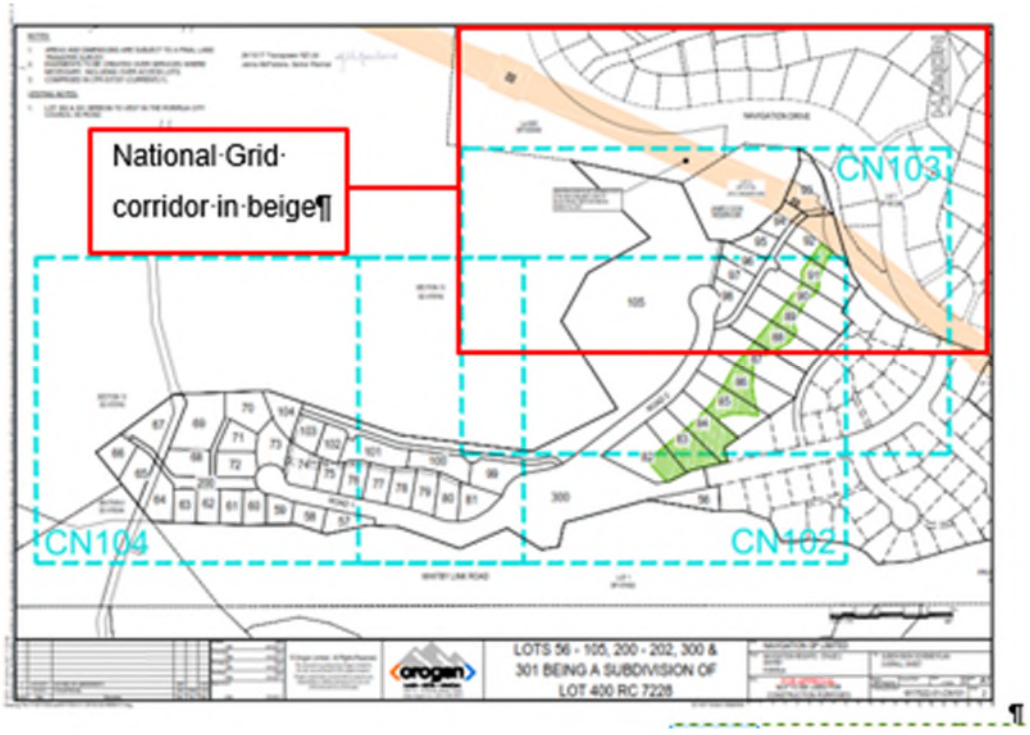


Figure 6: Navigation Drive Subdivision, Whitby

8.10 **Figure 6** shows the general location of the Paekakariki-Takapu Road A 110kV transmission line running diagonally in beige across the top right-hand corner of the image. This subdivision was designed to accommodate the transmission line

and conditions were included on the subdivision consent to ensure that (among other matters), any earthworks around Tower 56 in between Lots 93 and 94 would be carried out safely. The subdivision layout was oriented to position the existing National Grid line over roads and reserves where possible, again to maximise yield.

9 Conclusions

9.1 The National Grid is critical to the social and economic wellbeing of Porirua City and our nation generally. It will also play a critical role in New Zealand's carbon zero commitment and mitigating the effects of climate change. This will necessitate the upgrade of existing, and construction of new, National Grid assets. As an infrastructure asset of national significance, the NPSET requires that the National Grid be recognised and provided for in the PPDP.

9.2 Policies 10 and 11 of the NPSET also require that other activities around the National Grid do not compromise the operation, maintenance, development and upgrading of the infrastructure, that reverse sensitivity effects are managed, and that sensitive activities are generally not provided for around the infrastructure. Transpower has refined its approach to the implementation of the NPSET in districts around the country. For the reasons set out above, Transpower requests that the PPDP include the provisions recommended in **Ms Whitney's** evidence.

9.3 This relief will ensure integrated management of activities through the PPDP to provide for sustainable development of both the National Grid infrastructure and other natural and physical resources, both of which are critical for the future development of Porirua City.

Rebecca Eng

21 January 2022

Appendix A District Plans with Operative National Grid Corridor Provisions

Legend	
"Operative" National Grid corridor provisions	
Councils underway with consultation processes to implement the National Grid Corridors[11]	
Councils that have not yet started any process to give effect to Policies 10 and 11 of the NPSET (that Transpower is aware of)	

District/ Unitary Plan	Year operative
Waimakariri District	2008
Stratford District	2009
Kawerau District	2011
Upper Hutt City	2012
Ōtorohanga District	2012
Ashburton District	2012
Tauranga City	2012
Western Bay of Plenty District	2013
Central Otago District	2013
Waimate District	2013
Horowhenua District	2013
Rangitikei District	2013
Ruapehu District	2013
Whangārei District	2014
Hauraki District	2014
Matamata-Piako District	2014
South Waikato District	2015

[11] This is both pre-notification consultation and RMA Schedule 1 consultation processes. These councils may have some form of regulation of land use and development near the National Grid but the provisions may not give effect to the NPSET.

District/ Unitary Plan	Year operative
Rotorua District	2015
Waipa District	2015
Grey District	2015
Southland District	2015
Hastings District	2016
Porirua City	2016
Hutt City	2016
Napier City	2016
Far North District	2017
Kaipara District	2017
Thames-Coromandel District	2017
Auckland	2017
Hamilton City	2017
Whakatāne District	2017
South Taranaki District	2017
Palmerston North City	2017
Whanganui District	2017
Ōpōtiki District	2019
Manawatū District	TBC
Christchurch City	2017
Invercargill City	2017
Hurunui District	2017
Kāpiti Coast District	2018
Clutha District	2015
Dunedin City	Appeals
Queenstown-Lakes District	Appeals

District/ Unitary Plan	Year operative
Taupō District	Pre-notification
Waikato District	Decisions
Waitomo District	Pre-notification
New Plymouth District	Hearings
Central Hawke's Bay District	Submissions
Tasman District	Pre-notification
Nelson City	Pre-notification
Marlborough District	Appeals
Buller, Westland and Grey	Pre-notification (Te Tai o Poutini Combined District Plan)
Mackenzie District	Pre-notification
Selwyn District	Hearings
Timaru District	Pre-notification
Masterton, Carterton and South Wairarapa Districts (combined plan)	Pre-notification
Wellington City	Pre-notification
Wairoa District	N/A
Tararua District	N/A
Waitaki District	N/A
Gore District	N/A
Gisborne District (No national Grid assets)	N/A
Kaikōura District (no National Grid assets)	N/A
Chatham Islands (no National Grid assets)	N/A