

An aerial photograph showing a series of high-voltage electricity pylons and power lines stretching across a lush green landscape. The lines cross a dark lake and descend into a dense forest. In the background, a large mountain peak is partially shrouded in mist. A small substation or control building is visible on a hillside near the lake.

Strengthening National Direction on Renewable Energy Generation and Electricity Transmission

Submission by Transpower New Zealand Limited

1 June 2023

Table of Contents

Executive summary	1
Part A: high level options to address the identified problems	3
1 Rapid expansion of renewable electricity generation and electricity transmission is essential	3
2 Problems and opportunities	4
3 Changes to national direction are required to support this rapid expansion	5
4 Transpower largely supports the objectives of the proposals	5
5 Scope	8
6 Preferred option	9
7 Amendments to national policy statements and national environmental standards are both required	10
8 Priorities	10
Part B: Strengthening national direction for renewable electricity generation	12
9 The national significance of renewable electricity generation	12
10 Recognising transmission in the NPS-REG and NES-REG	12
11 Enabling activities in areas with significant environmental values	13
12 Upgrading and repowering assets	13
Part C: Strengthening national direction for electricity transmission	15
13 Overview	19
14 The Objective	22
15 Recognising benefits (Policies 1 to 3)	23
16 Relationship with the NZCPS (clause 1.4)	30
17 Relationship with NPS-FM and NPS-IB	33
18 Managing effects of National Grid activities	34
19 Managing effects on National Grid activities	39
20 Mechanics for implementation	39
21 Amending the NES-ETA	41
22 The NES-ETA should be more enabling	44
23 Transpower's suggested amendments to the NES-ETA	45
24 Relationship with other NPSs and NESs	49
25 The proposed buffer corridor provisions	50
Part D: Impact assessment	53
Part E: Implementation Monitoring and Review	55

Executive summary¹

Rapid expansion of renewable electricity generation and electricity transmission is essential if New Zealand is to meet its emission reduction targets. New Zealand is well-positioned to lead the world in decarbonisation through electrification and renewable electricity generation investment. The level of investment in new renewable generation, grid connections and capacity, process heat installations, electric vehicle infrastructure and for the deployment of distributed renewables and storage, such as domestic scale photovoltaics and batteries, will represent a sustained level of infrastructure development on a scale New Zealand has not seen before.

But large-scale generation is not effective without transmission. Transmission is essential both to transmit new renewable generation, and to respond to the increasing demand for electricity as consumers and industry move away from fossil fuel-based energy sources.

The current national direction on electricity transmission will not support electrification of New Zealand at the pace and scale required. The NPS-ET was developed many years ago, when climate change appeared less immediate, there were fewer other national direction instruments, and conflicts between policies could be resolved using an overall broad judgement. Consenting processes for both existing and new assets can be complex, lengthy, costly, uncertain and litigious.

The NES-ETA has simplified the consenting of changes to existing transmission lines, by providing a nationally consistent set of rules for some common transmission activities. However, the NES-ETA is not comprehensive, and in some instances it adds to the burden of consenting (rather than reducing that burden). Consents are often required for routine and essential activities such as tree-trimming or foundation strengthening. There are no nationally consistent rules for the protection of the National Grid from the activities of others. Importantly, the NES-ETA does not reconcile conflicts with other national environmental standards which have come into force after the NES-ETA.

The NES-ETA does not apply to new transmission lines or substations (post 14 January 2010), so the NPS-ET must provide strong, directive and comprehensive policy support for consents and designations for these activities.

If New Zealand is going to meet its emission reduction targets the environmental authorisation of renewable electricity generation activities, and electricity transmission activities, needs to occur more quickly, be more permissive, have a more certain outcome, and acknowledge that electricity generation and transmission assets are designed to perform a function, with few alternatives.

Transpower considers the NPS-ET and NES-ETA must be improved to:

- a Recognise the benefits of the National Grid;
- b Protect and enable the operation, maintenance and upgrade of existing National Grid assets, including from reverse sensitivity effects and the effects of third parties; and
- c Be a 'one stop shop' for policy direction in relation to electricity transmission activities.

The amendments proposed in the exposure drafts and set out as part of the options are not sufficient to deliver on the issues above. Transpower's submission outlines the further changes that are needed.

The proposed NPS-ET:

- a Improves on the existing NPS-ET in places but does not go far enough to achieve the reform objectives, or to address the 'problem definitions' and achieve the 'policy intent';

¹ Transpower has read and acknowledges the Privacy Statement.

- b Introduces new issues in terms of the effects management framework, and in terms of the interrelationship with the NZCPS. As proposed, these changes would be disenabling, rather than enabling, of electricity transmission activities, relative to the existing NPS-ET; and
- c Omits valuable aspects of the existing NPS-ET, including in relation to the management of 'direct effects' of third party activities on the network.

In addition to the issues identified as part of the consultation, Transpower considers the NES-ETA can do better at:

- a Aligning its definitions with other documents, including the National Planning Standards;
- b Ensuring its definitions are workable in practice and do not have operational limitations;
- c Addressing gaps in workability identified by Transpower;
- d Being more efficient in relation to the consenting of discrete works;
- e Being more enabling of activities that are mandatory under other legislation and/or essential for the operation of the National Grid, such as vegetation control;
- f Regulating activities based on their environmental impacts rather than amenity values;
- g Protecting the National Grid from the activities of third parties; and
- h Being clear in the context of overlapping national direction.

Transpower considers changes to both national policy and national environmental standards are required now, and one should not be prioritised over the other, even if one can occur more quickly.

This submission includes Transpower's initial thoughts on suggested drafting for the NPS-ET and NES-ETA. The suggested amendments are intended to better deliver on the Government's objectives for this proposal. Transpower would welcome the opportunity to present to you on these matters.

Part A: high level options to address the identified problems

Question	Answer
Questions on problems, objectives and scope	
0.1 - To what extent do you agree with the problems and opportunities identified in this section?	<p>Strongly disagree</p> <p>Disagree</p> <p>Neither</p> <p><u>Agree</u></p> <p>Strongly agree</p> <p>Don't know</p>
0.2 - To what extent do you agree with the policy objectives of the proposals?	<p>Strongly disagree</p> <p>Disagree</p> <p>Neither</p> <p><u>Agree</u></p> <p>Strongly agree</p> <p>Don't know</p>
0.3 - To what extent do you agree with the scope of the proposals?	<p>Strongly disagree</p> <p>Disagree</p> <p>Neither</p> <p><u>Agree</u></p> <p>Strongly agree</p> <p>Don't know</p>
0.4 - Please provide any comments about this section.	Please see below.

1 Rapid expansion of renewable electricity generation and electricity transmission is essential

- 1.1 For a number of years, Transpower has been considering how New Zealand's electricity supply and demand will change in response to the challenges of climate change. In 2018 Transpower launched *Te Mauri Hiko* to start a discussion on New Zealand's energy future. Since that time, the pace of social, political, scientific and environmental concern around climate change has continued to accelerate. In 2020 the Government declared a climate emergency in recognition of the significant impacts of climate change.
- 1.2 Since 2018, the rate of development and price reductions across a range of renewable energy technologies has continued to increase.² Transpower has seen very strong interest in both new renewable generation and demand enquiries.³ Peak demand for electricity is also ramping up,⁴ with the top 10 largest peak demands all occurring in the past two winters and 6 out of those 10 occurring during 2022.⁵

² *Whakamana i Te Mauri Hiko Monitoring Report*, September 2022, page 2.

³ *Whakamana i Te Mauri Hiko Monitoring Report*, March 2023, page 3.

⁴ Peak demand time includes winter mornings and evenings each day.

⁵ *Whakamana i Te Mauri Hiko Monitoring Report*, September 2022, page 3.

- 1.3 As the Consultation Document explains, New Zealand will require a rapid expansion of renewable electricity generation if it is to meet emission reduction targets. But large-scale generation is not effective without transmission. Electricity transmission is essential to:
- a Transport new and existing renewable electricity generation to electricity users;
 - b Provide investment certainty to the developers of renewable electricity, that new generation will be able to connect to electricity users; and
 - c Support increases in electricity demand as more New Zealanders use electricity to power their cars and heat their homes, and as schools, hospitals, dairy factories and other industries shift away from fossil fuel based heating and power.

2 Problems and opportunities

- 2.1 Transpower agrees with the problems and opportunities identified in the Consultation Document, but these are not comprehensive – further problems exist.
- 2.2 Transpower agrees that the current resource management settings do not allow renewable electricity infrastructure to be built at the pace and scale required:
- a Renewable electricity generation needs to increase by approximately 50% over the next 10 years. A step change is required.
 - b As at 13 May 2023, 75% of Transpower’s new connection inquiries seek a connection by the end of 2025. Change must come quickly.
- 2.3 However, there is no evidence that the existing NPS-ET and NPS-REG have delivered a greater number of consents (or permitted activity rules) for renewable electricity (and related connections), nor have they increased the pace of consenting (compared to a non-NPS scenario). New Zealand must rapidly expand its renewable electricity infrastructure in order to meet future energy demand in a low-emissions economy, but the existing policy statements will not facilitate this expansion.
- 2.4 The existing NPS-ET and NPS-REG are also insufficiently directive, particularly when compared to strongly protective national policy statements relating to the coast, highly productive land, freshwater management, and the proposed national policy statement for indigenous biodiversity. Conflicts between national directions must be resolved in order to provide certainty – for plan and policy statement provisions, for consenting, and for project development.
- 2.5 Transpower has an extensive programme of work to support councils to implement the NPS-ET, but some councils have still not implemented the NPS-ET (15 years after it was gazetted). Even where councils have implemented the NPS-ET in their plans and policy statements:
- a The provisions are often the subject of extensive debate (and appeals), but the resulting provisions have substantially the same effect across the country (despite differences in expression); and
 - b The NPS-ET does not explicitly discuss matters such as biodiversity, heritage, and Māori sites of significance, which leads to uncertainty about its application to these values.
- 2.6 All of the key problems identified with the NPS-REG on page 2 of the Consultation Document are also problems with the NPS-ET.
- 2.7 The NES-ETA has simplified the consenting of changes to existing transmission lines, by providing a nationally consistent set of rules for some common transmission activities. However, the NES-ETA is not comprehensive, and in some instances it adds to the burden of consenting (rather than reducing that burden). Importantly, the NES-ETA does not reconcile conflicts with other national environmental standards which have come into force after the NES-ETA (such as the NES-F and NES-CS). Improvements to national direction are essential if New Zealand is going to increase renewable electricity generation at the necessary pace and scale.

3 Changes to national direction are required to support this rapid expansion

- 3.1 Transpower agrees with the Government that existing RMA national direction for renewable electricity generation and electricity transmission is no longer appropriate to achieve the pace of change required.⁶ Transpower agrees that the current national direction can lead to consenting processes (for both existing and new assets) that are complex, lengthy, costly, uncertain and litigious.⁷
- 3.2 If New Zealand is going to meet its emission reduction targets, the environmental authorisation of renewable electricity generation activities, and electricity transmission activities, needs to:
- a Occur more quickly. Delays to consenting not only extend New Zealand's reliance on carbon-emitting energy sources, but can also affect investment certainty, and potentially affect the resilience and safety of the National Grid;
 - b Be more permissive. The scale of investment required to meet New Zealand's emission reduction targets means renewable electricity generation and transmission activities will need to occur in a greater number and range of locations. Incremental improvements will not be enough; significant expansion is required;
 - c Have a more certain outcome. Policy and regulation should reflect the fact that the effects of renewable electricity and transmission activities are generally known;
 - d Focus on actions which are reasonably available, so that any consenting process serves a purpose (rather than just being a step to complete). Page 9 of the Consultation Document states that *'it is reasonable for renewable electricity projects to have to go through a thorough and effective consenting process and for some projects to be refused consent ...'* This might be true for new generation in areas with significant environmental values, but consenting processes for routine work on, or upgrading or repowering of, existing assets simply adds costs, delay and uncertainty; and
 - e Acknowledge that electricity generation and transmission assets are designed to perform a function. There are often few alternatives to the activities proposed, particularly where those activities relate to existing assets. While renewable electricity generation and transmission are essential to help avoid catastrophic climate change, at a local level it will not always be possible for electricity generation and transmission activities to 'protect, enhance and restore nature' (as suggested on page 9 of the Consultation Document). If these aspirations are framed as regulatory requirements they will hinder New Zealand's ability to address the larger environmental challenge of climate change.

4 Transpower largely supports the objectives of the proposals

- 4.1 Transpower supports changes to strengthen national direction on renewable electricity generation and electricity transmission, as the most effective way to improve consenting under the RMA, and ahead of changes to the resource management system taking effect.⁸ In particular, Transpower supports:
- a The emphasis on a substantial increase in renewable electricity generation output. Incremental improvements will not be sufficient to achieve New Zealand's greenhouse gas emission reduction targets. A step change is required.
 - b The requirement for a more enabling policy direction. However, the focus should not just be on policy. Many transmission activities could have permitted or controlled activity status. It is not sufficient to just create a consenting pathway – particularly if that pathway is uncertain, expensive and time-consuming. The Paper⁹ seeking Cabinet's approval to undertake public consultation on the proposals included four objectives. The fourth objective was:

⁶ Strengthening National Direction on Renewable Electricity Generation and Electricity Transmission, Consultation Document, April 2023, Message from Ministers.

⁷ Strengthening National Direction on Renewable Electricity Generation and Electricity Transmission, Consultation Document, April 2023, Page 5.

⁸ Strengthening National Direction on Renewable Electricity Generation and Electricity Transmission, A Summary of Proposed Changes, April 2023, page 1.

⁹ Cabinet Paper: Strengthening National Direction on Renewable Electricity Generation and Electricity Transmission, February 2023, proactively released on 11 May 2023, para 2.4.

Provide clearer, nationally consistent and more efficient consenting pathways for developing and upgrading REG and ET projects.

Transpower supports this fourth objective, as it recognises that changes to consenting pathways are required, not just changes to policy.

- c The focus on competing interests. However, the objective should not be to 'manage' competing interests, but to 'resolve' them. Some aspects of the NPS-ET are in direct conflict with provisions in the NZCPS, and this conflict has led to litigation, unnecessary expense, and has hindered efforts to move an at risk transmission pole from an erosion-prone area. Conflicts between the NPS-REG and NPS-FM have also caused uncertainty regarding the consenting of renewable electricity generation, which has, in turn, hampered forward planning for the National Grid. Page 4 of the Consultation Document states that the NPS-ET has had a positive impact on Transpower's ability to establish new infrastructure, but this is more true for projects developed prior to commencement of the current strongly directive NZCPS and NPS-FM, and prior to the *King Salmon* decision. The NPS-ET has not proved to be determinative for more recent projects, such as the Hairini project in Tauranga Harbour. In any event, the rate of development predicted to occur over the next 10 years is many times greater than that experienced over the last 10 years. This is demonstrated by **Figure 1** below. Even if the NPS-ET had positively impacted consenting, this does not mean it is the right tool for the future.

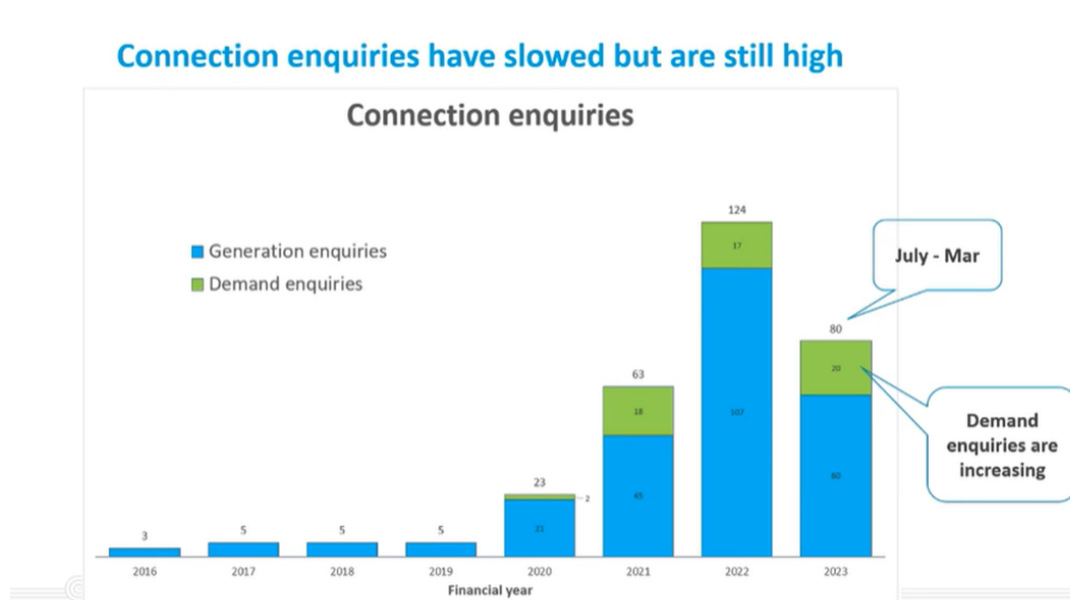


Figure 1: Connection enquiries

- 4.2 Establishing and clarifying the relationships between national direction instruments will be crucial to the success of the proposals. However, the Consultation Document and the Cabinet Paper which supports the consultation process both show an unwillingness by Government to address this issue directly. The Summary of Proposed Changes describes the preferred option as providing:

...a single consenting pathway that acts as a 'one stop shop' for the consideration of projects where they are proposed to be located in areas with significant environment values.

- 4.3 Transpower supports the 'one stop shop' approach, but the proposals do not deliver this:

- a On 27 March 2023 Cabinet decided¹⁰ not to include amendments to the NZCPS, seemingly because of a reluctance to consult on a proposed consenting pathway for any NPS-REG and NPS-ET which conflicted with the NZCPS; and

¹⁰ Cabinet Minute of Decision CAB-23-0104, 27 March 2023, para 5.

- b While the same Cabinet Minute notes that “...the proposed National Policy Statements will provide that REG and ET are prioritized in all other areas...”, this prioritisation is not explicit in the national policy statements themselves.

4.4 **Table 1** below sets out the relationships between the existing and proposed NPS-ET and other national policy statements, together with the relationship which would exist if amended as Transpower suggests. The table focusses on the NPS-ET, but similar uncertainty arises in respect of the proposed NPS-REG. Clause 1.4 of the proposed NPS-REG provides that the NPS-FM prevails in relation to hydro-generation, but does not resolve (or acknowledge) conflicts created by wetland provisions in the NPS-FM (and NES-F).

NPS	Existing NPS-ET	Proposed NPS-ET	Proposed NPS-ET as amended by Transpower
NZCPS	NZCPS and NPS-ET both apply. Outcome dependent on directiveness of language.	NZCPS prevails. However, NPS-ET also regulates effects on natural character, landscapes and biodiversity in the coastal environment. Overlap and potential for conflict.	NPS-ET prevails (‘one stop shop’ for policy). NPS-ET regulates effects of ETN activities on natural character, landscapes and biodiversity in the coastal environment.
NPS-FM (regulation of impacts on wetlands).	NPS-FM and NPS-ET both apply. Outcome dependent on directiveness of language. NPS-ET does not explicitly address wetlands.	NPS-FM and NPS-ET both apply, and overlap re wetland regulation. Outcome dependent on directiveness of language.	NPS-ET prevails (‘one stop shop’ for policy). NPS-ET regulates effects of ETN activities on landscapes (including waterbodies), and biodiversity. Wetlands protected through NPS-ET.
NPS-IB (once issued)	NPS-IB and NPS-ET both apply. Outcome dependent on directiveness of language. NPS-ET does not explicitly address biodiversity,	Silent as to status of NPS-IB, so both would apply. Overlap, but not duplication of biodiversity protection, so potential for conflict.	NPS-ET prevails (‘one stop shop’ for policy). NPS-ET regulates effects of ETN activities on biodiversity.

Table 1: Relationship between national policy statements

- 4.5 Transpower suggests that a further objective of the proposal should be to protect and maximise the ongoing operation of existing renewable electricity generation and transmission. The Consultation Document¹¹ acknowledges the importance of building on what we already have, rather than letting existing generation erode. Protecting the operation, maintenance and upgrade of existing generation and transmission, including from reverse sensitivity effects and the effects of third parties, avoids the effects of establishing replacement assets elsewhere, makes efficient use of existing infrastructure, and provides certainty for communities and asset owners.
- 4.6 This submission suggests changes to RMA national direction which Transpower considers will better achieve these objectives. This is explained in **Table 2** below.
- 4.7 The criteria set out in Table 2 of the *Consultation Document*¹² (and the questions which guide the application of those criteria) do not accurately reflect the objectives of the proposal. The question regarding efficiency and certainty of consenting is useful, but other questions do not reflect the step change required. This submission instead focuses on the objectives themselves.

¹¹ Page 48.

¹² *Strengthening National Direction on Renewable Electricity Generation and Electricity Transmission, Consultation Document*, April 2023, Page 11.

Proposal objective	Consultation proposal ¹³	With changes suggested by Transpower
<u>Overarching objective</u> : Substantially increase renewable electricity generation output and to achieve this by improving the consenting of renewable electricity generation and electricity transmission while managing adverse effects on the environment.	Provides additional support for renewable electricity generation and supporting transmission, but will not deliver a substantial increase in output. Manages adverse effects on the environment.	Provides for a step change in renewable electricity generation and supporting transmission by resolving conflicts with other national direction instruments, reducing the number of consenting hurdles to overcome, providing greater certainty of outcome, and supporting a greater number and range of permitted activities. Manages adverse effects on the environment.
<u>Supporting objective</u> : Provide more enabling policy direction for renewable electricity generation and electricity transmission.	Provides policy support for renewable electricity generation and transmission, but does not resolve conflicts with national direction, and imposes onerous consenting hurdles.	Clearly resolves national direction by providing a policy 'code' for electricity transmission. Constrains offsetting and compensation requirements to matters of indigenous biodiversity, therefore reducing uncertainty.
<u>Supporting objective</u> : Better manage competing interests with other Part 2 RMA matters, particularly environmental outcomes which are listed in section 6 as "matters of national importance" through nationally consistent consenting pathways.	Makes the national direction subject to the NZCPS, and some aspects of the NPS-FM. Provides no guidance on the application of wetlands policies in the NPS-FM. NES-ETA and NES-REG would provide nationally consistent consenting pathways for the activities they regulate. No indication that conflicts with other national direction will be resolved.	Provides a policy 'code' for electricity transmission, so that the NZCPS and other NPSs need not be considered. NES-ETA and NES-REG would provide nationally consistent consenting pathways for the activities they regulate.
<u>Supporting objective</u> : Provide for Māori interests for the consenting of renewable electricity generation and electricity transmission projects and incorporate the principles of te Tiriti o Waitangi.	Requires engagement with tangata whenua, protection of Maori sites of significance, and supports small scale generation.	Requires engagement with tangata whenua, protection of Maori sites of significance, and supports small scale generation. Recognises that it may not always be possible to protect sites of significance impacted by transmission activities, but requires efforts to achieve this.

Table 2: Achieving the objectives of the Consultation

5 Scope

- 5.1 Regardless of the scope adopted for the NPS-REG and NES-REG, the scope of the NPS-ET and NES-ETA proposals should relate to all renewable electricity generation. There is substantial interest in developing off-shore wind generation in New Zealand. Approximately half of the inquiries which Transpower has received for wind generation connections are for offshore wind.¹⁴ Some of these developers wish to seek environmental approvals as soon as 2024 – too early for the NPF to be relied on for guidance. Offshore wind

¹³ Shading reflects the extent to which the assessed solution better achieves (dark green), mostly achieves (pale green), or fails to achieve (pale red) the stated objective.

¹⁴ Whakamana i Te Mauri Hiko Monitoring Report, September 2022, page 4.

requires connections through the coastal marine area to the National Grid, as well as substantial land-based transmission infrastructure (such as substations and new lines or major upgrades of lines) to move the electricity around New Zealand. Improvements made to the NPS-ET now would support the transmission and use of all types of renewable electricity – even those types which are outside the scope of the consultation for the NPS-REG.

- 5.2 We recognise the reasons for off-shore wind and hydro being out of scope. However, we note that much existing hydro generation needs to be re-consented. Any reduction in existing hydro generation would need to be replaced with new generation – increasing the scale of new build required. Further, there are off-shore wind generation projects under investigation now. Both the reconsenting of existing hydro generation, and potentially consenting of off-shore wind, will need to be faced through the transition. Strong enabling policies will be needed under the RMA in the short term.

Questions on high-level options	
Part A	
0.5 - To what extent do you agree the preferred option will best address the problem and meet the policy objectives?	<p>Strongly disagree</p> <p>Disagree</p> <p>Neither</p> <p><u>Agree</u></p> <p>Strongly agree</p> <p>don't know</p>
0.6 - Do you agree that the NPS-REG and NPS-ET amendments are of higher priority than progressing the NES-ETA amendments and a new NES-REG?	<p>Yes</p> <p><u>No</u></p> <p>don't know</p>
0.7 - Please provide any comments about this section.	Please see below.

6 Preferred option

- 6.1 Transpower supports the preferred option, being to amend the NPS-REG, NPS-ET and NES-ETA, and develop a new NES-REG. This is the only option which can change requirements to obtain resource consent, create a consistent approach to consenting across New Zealand, resolve conflicts with other national direction, and direct that activities must be enabled.
- 6.2 The other options considered (NPF, call-in, fast track consenting, guidance):
- Rely on the new resource management system, which will not be fully operative until several years after the Natural and Built Environment Act is passed (as it will take time for the NPF, RSSs, and NBEA plans to be developed), and currently remains uncertain in some respects (for example, the availability of the specified housing and infrastructure fast-track consenting pathway);
 - Simply delay making the hard judgements. The NPF will be established under the new resource management system (assuming the Natural and Built Environment Act is passed), and so will not provide a solution for a number of years. The problems identified in the Consultation Document exist now –

under the RMA, and so should be fixed now so as to not compromise New Zealand meeting its climate change commitments. The NPF will not make the development of solutions any easier;

- c Cannot create permitted or controlled activities, and a lenient activity status is the most efficient way to enable increased renewable electricity generation and supporting transmission;
- d Provide a faster consenting process, but no more certainty that consent will be granted;
- e Are only available for another month (the COVID-19 Recovery (Fast-track Consenting) Act 2020); or
- f Will not change the considerations when assessing consent applications, nor address the higher order policy conflicts and competing national and local interests.

6.3 Only the preferred option has the potential to achieve a step change in renewable electricity generation.

7 Amendments to national policy statements and national environmental standards are both required

7.1 The existing NPS-ET and NPS-REG are weak and not comprehensive. These problems must be solved in order to achieve a step change in renewable electricity generation (and necessary transmission). The Consultation Document suggests the policy statements could be amended to include clear policy direction, including on how to resolve competing national and local interests.¹⁵ Transpower agrees that improvements are possible, but the amendments proposed in the exposure drafts will not be sufficient:

- a The provisions still allow discretion and inconsistent interpretations in consenting decisions.
- b National policy statements will assist with decision making on resource consent applications and designations, but this is in the context of an often expensive and time-consuming application. A more enabling approach would be to remove the need for consent altogether (or to at most require controlled activity consent) – particularly for routine activities and activities in areas without significant environmental values. National policy statements cannot create permitted and controlled activities – this can only be achieved by district or regional plan rules, or in a national environmental standard.
- c Permitted or controlled activity status in a national environmental standard will provide the investment certainty to support increased investment in renewable electricity generation and the transmission which supports this.
- d National policy statements must be given effect to by councils (i.e. implemented in their policy statements and plans) in order to be effective. Implementation adds delay and increases the workload for councils. Transpower's experience with the existing NPS-ET is that councils can take many years to give effect to national direction in their plans and policy statements, if they do so at all. Transpower strongly supports the approach taken in the draft national policy statements whereby provisions are required to be directly inserted into plans and policy statements. Transpower considers that this approach could be extended to further policies.

7.2 While strengthening the NPS-ET, NPS-REG and NES-ETA, and creating a new NES-REG will assist, other legislative barriers to increased renewable electricity generation, and necessary transmission, will remain. Transmission activities (including routine activities on existing lines) can also require approvals under the Conservation Act 1987, Wildlife Act 1953, Heritage New Zealand Pouhere Taonga Act 2014 and Reserves Act 1977. These regulatory barriers should also be considered in the creation of any 'one stop shop' for renewable electricity generation and transmission.

8 Priorities

8.1 The option preferred in the Consultation Document includes the prioritisation of amendments to the NPS-ET and NPS-REG ahead of changes to (or creation of new) national environmental standards. While Transpower

¹⁵ *Strengthening National Direction on Renewable Electricity Generation and Electricity Transmission, Consultation Document, April 2023, Page 18.*

considers that changes to the NPS-ET and NPS-REG could be achieved more quickly than changes to national environmental standards, it does not agree that the NPS work should be prioritised over work relating to national environmental standards.

- 8.2 As explained above, national environmental standards have immediate effect – they do not rely on councils to give effect to them, and they can create permitted activities. For this reason, national environmental standards can deliver the certainty, and scale and pace of change required. By comparison, the benefits arising from changes to the NPS-ET and NPS-REG will be slower to materialise, and could be diluted through the implementation process.
- 8.3 The NES-ETA is an existing document, relied upon on a daily basis to regulate transmission activities. Changes to the NES-ETA (particularly changes to address inefficiencies highlighted in this submission) will immediately provide consenting benefits.
- 8.4 In summary, Transpower considers that changes to both national policy and national environmental standards are required now, and one should not be prioritised over the other simply because it can occur more quickly.

Part B: Strengthening national direction for renewable electricity generation

9 The national significance of renewable electricity generation

- 9.1 Part B of the Consultation Document contains a number of questions regarding renewable electricity generation. Transpower does not generate electricity, and so has no view on many of the questions posed. Nonetheless, Transpower:
- a Supports a strong electricity system in New Zealand, and recognises that renewable electricity is an essential, and growing, part of that system;
 - b Has reviewed a draft submission by the Electricity Sector Environmental Group, and agrees with the issues it raises. In particular, Transpower supports:
 - i Ensuring a true, complete, and effective “nationally consistent consenting pathway” for new renewable electricity generation which is not undermined by conflicting national direction;
 - ii Employing language which is directive and enabling;
 - iii Acknowledging the urgent need for renewable electricity generation, and benefits for climate change; and
 - iv Protecting existing renewable electricity generation, as a springboard for the significant increases in generation required and
 - c Has the following confined comments, based on its experience of operating under the existing NPS-ET and NES-ETA, and arising from the interactions between generation and transmission.
- 9.2 The proposal provides increased support for renewable electricity generation, when compared to the existing NPS-REG, but does not provide for the step-change required. The proposed NPS-REG will not deliver additional renewable electricity generation just by including supporting policies and creating a policy pathway for consent. The revised NPS-REG must also provide certainty of outcome and process, remove uncertainties created by conflicts with other national direction (such as the NPS-HPL, NZCPS, NPS-FM and proposed NPS-IB) and support a greater number of permitted activities which do not require consent at all.
- 9.3 The Consultation Document suggests that the revised NPS-REG will give greater ‘weight’ to renewable electricity generation in planning decisions. However, decision makers no longer have the ability to decide how much weight to give to particular policies. Where a restrictive policy is very directive (e.g. “avoid”) this is akin to a rule, and decision makers cannot choose to counter-balance this with a strongly worded enabling policy – to do so would be to apply an ‘overall broad judgement’, which the Supreme Court has determined is an incorrect approach.
- 9.4 Transpower considers it is appropriate for the proposed NPS-REG and NPS-ET to be considered alongside one another, given the obvious inter-relationship between renewable electricity generation and transmission. That said, it does not follow that exactly the same policy approaches or ‘tests’ need to be applied for REG assets/activities and ETN assets/activities. In particular, the nature of the ETN as linear infrastructure means it has different operational and functional needs, and correspondingly different constraints on its in its ability to avoid, remedy or mitigate adverse effects on the environment, to those experienced by REG activities.
- 9.5 Accordingly, while in many respects it may be sensible for the two instruments to be aligned, this will not always be the case, and it will be necessary to carefully consider the differences between ETN and REG activities rather than adopting a ‘one size fits all’ approach.

10 Recognising transmission in the NPS-REG and NES-REG

- 10.1 Policy C1(c) of the existing NPS-REG requires decision makers to have particular regard to “*the need to connect renewable electricity generation activity to the national grid*”. This consideration should be retained in the revised NPS-REG. Transpower generally owns the connections between the National Grid and new

electricity generation and is often responsible for obtaining the necessary consents. The location of the connection is dependent on the location of the new generation and the closest point on the existing National Grid. Because of this, Transpower often has very few options for where the connection is located and the values it impacts. These issues should be considered at the time the new electricity generation is consented, to ensure that consents for connections will be forthcoming.

10.2 Consistent with this, Transpower suggests that:

- a Any matters of discretion included in the NES-REG should include the need to connect new generation activity to the National Grid; and
- b The lapse dates provided for renewable energy generation are long enough to allow for consents to be obtained for transmission connections. It would be unfortunate if a generation consent was granted with a short lapse date, but the associated transmission consents could not be obtained before the lapse date (for example, if consents were appealed).

10.3 In addition, the issue of where generation stops and transmission starts within grid injection points needs to be carefully worked through, particularly if the NES-ETA is to apply to a broader suite of assets, and the NES-REG is drafted to cover substation assets.

11 Enabling activities in areas with significant environmental values

11.1 Part C of this submission discusses the extent of National Grid infrastructure in areas with significant environmental values. For example, the coastal environment can extend a significant way inland, and so the 'avoid' policies in the NZCPS can prevent renewable electricity generation and related transmission in these locations. This is particularly the case for natural character and landscape protections in the coastal environment, which can be extensive.

11.2 The NZCPS requires the avoidance of all adverse effects in valued areas, and the avoidance of significant adverse effects in all other areas. Just like electricity transmission, renewable electricity generation can struggle to satisfy these requirements because of the functional designs of the assets they use – wind turbines, solar panels and transmission towers are all large structures which can be ineffective or unsafe if their size is reduced. They also require earthworks and access tracks for construction and maintenance. Locational constraints mean that renewable generation needs to locate where the resource is, and transmission needs to locate where the generation is. It can be difficult to reduce their effects to a less than significant level. For this reason, the proposal for the NZCPS to prevail over both the NPS-REG and NPS-ET in the event of conflict will be a major constraint.

11.3 The Consultation Document states that the options are intended to provide a clear 'consenting pathway' for renewable electricity generation. The Document correctly describes such a pathway as meaning a set of requirements or gateways which must be satisfied before the project can progress. This description is correct and demonstrates that a consenting pathway simply creates gateways to pass through, and the possibility of consent at the end – there is no guarantee that a project which passes through the gateways will receive consent, as a project could 'pass' these gateways but still be declined for other reasons. A consenting pathway alone will not deliver a substantial increase in renewable electricity generation. A consenting pathway is not a consent.

12 Upgrading and repowering assets

12.1 Transpower supports the upgrading and repowering provisions in the proposed NPS-REG, which support the continued provision of existing renewable electricity generation. Upgrading and repowering of existing generation sites makes efficient use of those sites, but also makes efficient use of the transmission infrastructure which connects to those sites. If existing generation cannot be maintained, then additional new generation will be required to offset losses. Replacement generation is likely to impact new communities and environments, require greater construction effects, and require new transmission lines to support it.

- 12.2 The policy support for upgrading and repowering should extend to all forms of renewable electricity generation. Transpower disagrees with retaining the status quo for upgrading and repowering hydro-generation. New Zealand's electricity system is founded upon the large electricity baseload provided by existing hydro-generation. The National Grid has been designed to efficiently accommodate the existing hydro-generation, and would need extensive (and costly) changes if the existing hydro-generation was not reconsented, or if restrictions were applied to generation capacity. Providing greater certainty about the reconsenting of existing hydro-generation will allow better planning and development of the National Grid.
- 12.3 Transpower considers that the supportive approach to upgrading and repowering of renewable electricity generation should be better reflected in the related provisions of the NPS-ET and NES-ETA:
- a Just as generation assets require upgrading or repowering when they reach the end of their life, so too do National Grid assets. Indeed, much of the National Grid was established during the 1920s and 1950s. Despite this age, if properly maintained, the assets will endure; and
 - b The National Grid may also need to be changed in response to the upgrade or repowering of generation.
- 12.4 Part C of this submission suggests changes to the NPS-ET and NES-ETA to better enable these routine activities on existing assets.
- 12.5 Based on its experience with similar provisions in the NES-ETA, Transpower suggests that activity standards and thresholds in any NES-REG better acknowledge that upgrading or repowering may result in fewer, but larger, structures. For this reason it is important that the standards are clear as to whether they refer to individual structures, or the entire wind or solar farm, and whether supporting infrastructure such as switching stations and access tracks are included in any calculations of a 10% or 25% increase. Terms such as 'development footprint', 'site coverage' and 'footprint of the activities' could be applied on either an individual structure basis, or for the wind or solar farm as a whole. In some instances Transpower owns and operates assets within switching stations or substations for wind or solar farms. It is not clear whether changes to that infrastructure, required to support upgrading or repowering, would be captured by the standards proposed.
- 12.6 In addition, the proposed focus on changes to the footprint of activities may not allow decision makers to acknowledge the benefits of removing wind turbines as part of an upgrade or repowering. The proposed permitted and controlled activity standards require any 'change in the footprint of the activities' to occur outside of areas with significant environmental values. These provisions would make it difficult to remove structures from areas with significant environmental values, if this was proposed as part of an upgrade or repowering. Transpower has experienced similar difficulties with provisions in the existing NES-ETA which specify an allowable percentage change.

Part C: Strengthening national direction for electricity transmission

Question	Answer
9. Recognising and providing for national significance of electricity transmission	
9.1. To what extent do you agree with the problem statement for this section?	<p>Strongly disagree</p> <p>Disagree</p> <p>Neither</p> <p><u>Agree</u></p> <p>Strongly agree</p> <p>Don't know</p>
9.2. To what extent do you agree that the proposal appropriately addresses the problem and the policy objectives?	<p>Strongly disagree</p> <p><u>Disagree</u></p> <p>Neither</p> <p>Agree</p> <p>Strongly agree</p> <p>Don't know</p>
9.3. Are there other benefits from electricity transmission activities that have not been identified?	<p><u>Yes</u></p> <p>No</p> <p>Don't know</p>
9.4. Are there any relevant provisions from the existing NPS-ET that in your view should be retained?	<p><u>Yes</u></p> <p>No</p> <p>Don't know</p>
9.5. Please provide any evidence or examples to support your view.	<p>Transpower partially agrees with the problem statement; see comments at section 13 below.</p> <p>Transpower considers that the benefits of the ETN with regard to emissions reductions need to be further particularised in the NPS-ET: refer discussion at section 15 below.</p> <p>Transpower seeks retention of elements of a number of existing NPS-ET provisions, including in particular:</p> <ul style="list-style-type: none"> • Clause 4, which acknowledges the ETN as a matter of national significance: see discussion at section 14 below. • Existing NPS-ET Policy 3 (or similar wording), regarding consideration of constraints on achieving measures to avoid remedy or mitigate adverse effects imposed by the technical and operational requirements of the network: see discussion at section 18 below. • Existing Policy 10 insofar as it applies to direct effects of third party activities, not just reverse sensitivity effects: see discussion at section 19 below.

9.6. Please provide any comments about this section.	<p>Transpower broadly agrees with the reform objectives, and partially agrees with the problem statement in this section.</p> <p>Transpower seeks a number of refinements to the provisions relating to the national significance of the ETN, and its benefits (refer attached drafting at Appendix A).</p> <p>However, fundamentally Transpower is concerned that the recognition of benefits is not sufficient to achieve the reform objectives, if:</p> <ul style="list-style-type: none"> • Tensions with other provisions of this NPS and other national policy statements are not resolved; and • Routine activities are not enabled. <p>See further comments below.</p>
--	---

10. Managing the environmental and amenity effects of electricity transmission

10.1.To what extent do you agree with the problem statement for this section?	<p>Strongly disagree</p> <p>Disagree</p> <p><u>Neither</u></p> <p>Agree</p> <p>Strongly agree</p> <p>Don't know</p>
10.2.To what extent do you agree that the New Zealand Coastal Policy Statement poses particular challenges for consenting transmission activities onshore in the coastal environment?	<p>Strongly disagree</p> <p>Disagree</p> <p>Neither</p> <p>Agree</p> <p><u>Strongly agree</u></p> <p>Don't know</p>
10.3.To what extent do you agree that the proposal appropriately addresses the problem and the policy objectives?	<p><u>Strongly disagree</u></p> <p>Disagree</p> <p>Neither</p> <p>Agree</p> <p>Strongly agree</p> <p>Don't know</p>
10.4.To what extent do you agree with the definition of minor ETN activities?	<p><u>Strongly disagree</u></p> <p>Disagree</p> <p>Neither</p> <p>Agree</p> <p>Strongly agree</p> <p>Don't know</p>

10.5.How can the proposals better provide for the operation, maintenance, and upgrade of existing transmission activities in the coastal environment?	See comments at section 16 below, and drafting changes sought by Transpower in Appendix A .
10.6.To what extent do you agree with the definition of ETN development activities?	<p><u>Strongly disagree</u></p> <p>Disagree</p> <p>Neither</p> <p>Agree</p> <p>Strongly agree</p> <p>Don't know</p>
10.7.To what extent do you agree that the options for ETN development activities should be consistent with the options for the REG in section 2 (enabling ET in areas with significant environmental values?)	<p>Strongly disagree</p> <p><u>Disagree</u></p> <p>Neither</p> <p>Agree</p> <p>Strongly agree</p> <p>Don't know</p>
10.8.Please rank the options in order of preference: [Option 1, Option 2A, Option 2B, Option 2C or status quo].	<p>Rank in order of preference:</p> <p>Option 1 <u>Fourth</u></p> <p>Option 2A <u>Third</u></p> <p>Option 2B <u>First</u></p> <p>Option 2C <u>Second</u></p> <p>or status quo <u>Fifth</u></p>
10.9.In your view, does the effects management hierarchy for ET in option 2 work for all significant environment values?	<p>Yes</p> <p><u>No</u></p> <p>Don't know</p>
10.10. To what extent do you agree that the options for ETN development	<p>Strongly disagree</p> <p><u>Disagree</u></p> <p>Neither</p>

activities should be consistent with the options for the REG in section 3 (enabling ET in other areas, including areas with amenity values)?	<p>Agree</p> <p>Strongly agree</p> <p>Don't know</p>
10.11. To what extent do you agree that the options for ETN development activities should be consistent with the options for the REG in section 4 (recognising and providing for Māori interests)?	<p>Strongly disagree</p> <p>Disagree</p> <p><u>Neither</u></p> <p>Agree</p> <p>Strongly agree</p> <p>Don't know</p>
10.12. Please provide any evidence or examples to support your view.	Regarding the challenges posed by the NZCPS (even with reference to the existing NPS-ET) refer to the Hairini and Cook Strait Cable case studies in Appendix C .
10.13. Please provide any comments about this section.	<p>See comments regarding the problem statement at section 12 below.</p> <p>Key concerns are that the existing NPS-ET does not 'cover the field' with regard to effects on different environments and values, resulting in uncertainty (or gaps) in terms of how it applies. In addition, the existing NPS-ET policies generally give way to stronger policy wording such as to 'avoid' effects in the NZCPS. This is a matter of the directiveness of language in the different policies and instruments, rather than a matter of 'weight'.</p> <p>Transpower considers that the only way to resolve these issues and achieve the proposal objectives is to have the NPS-ET serve as a 'one stop shop' that resolves the tension between the national significance and benefits of the ETN, and environmental values.</p> <p>See further comments at section 16 below, and amendments sought by Transpower in Appendix A.</p>

National Policy Statement on Electricity Transmission

13 Overview

- 13.1 Transpower supports amending or updating the NPS-ET in order to provide stronger and clearer national direction in relation to electricity transmission. It also partially agrees with the ‘problem statements’ in sections 9 and 10 of the Consultation Document, in relation to shortcomings of the existing NPS-ET, although this list does not fully capture Transpower’s concerns.

Problem statements

- 13.2 In summary, Transpower’s comments on the problems identified are as follows:
- a We agree that the existing NPS-ET does not adequately address the critical role of the electricity transmission network in supporting reductions in emissions.¹⁶
 - b We also agree that there is either room for improvement in, or it is timely to revisit, the various NPS-ET policies that address how the effects of transmission activities should be managed (including Policies 6, 7, 8, 9).¹⁷ However, in terms of these:
 - i It is not quite accurate to describe the issue here as relating to the ‘weight’ to be given to the significance and benefits of the ETN. As noted above, this language suggests the use of an ‘overall broad judgement’ approach that the Supreme Court has determined is incorrect when interpreting and applying different policies. Put simply, if policies of this kind direct that certain outcomes must be ‘avoided’, decision makers cannot choose to counter-balance this with earlier enabling policies. As such, in light of the recent case law a more prescriptive approach is now required in drafting these policies, that identifies the circumstances in which ETN activities are to be *enabled*.
 - ii More accurately (as identified later in the Consultation Document), the issue with these policies is that they do not clearly ‘cover the field’ in terms of the different environments and values that might be affected by ETN activities,¹⁸ such that it is currently necessary to categorise all environments as either “rural” or “urban” for the purposes of applying the NPS-ET. Transpower considers that the revised NPS-ET needs to ‘cover the field’ and provide a ‘one stop shop’ in terms of how the effects of ETN activities on different environments are to be managed.
 - iii Transpower’s experience is that the phrase “seek to avoid” has been of more assistance than the Consultation Document suggests. As such we do not agree that assessing whether effects can be avoided ‘serves no resource management purpose’, as this direction is generally understood to provide a high hurdle, and mean that effects should be avoided where practicable, while acknowledging that this might not always be the case (and to put the onus on Transpower to explain why not, in those instances). That said, we agree that different wording can be used in the proposed NPS-ET, more in line with the ‘effects management hierarchies’ developed in other national policy statements.
 - c Policy 9 regarding managing electric and magnetic fields is not causing any difficulties at present given it already refers to ICNIRP “or revisions thereof”.¹⁹
 - d We agree that there have been implementation issues in providing for ‘buffer corridors’ in district plans pursuant to existing Policy 11; Transpower has expended significant effort on this over the years, and several district plans still lack buffer corridors despite this being a requirement since 2008.²⁰ There is also variability in the wording (but generally not the substantive restrictions) in the corridor provisions

¹⁶ Consultation Document, p 74.

¹⁷ Consultation Document, p 74-75.

¹⁸ Being silent on the coastal environment, significant natural areas (SNAs), and values of significance to mana whenua.

¹⁹ Consultation Document, p 75. Transpower’s concern has been the discrepancy between the NPS-ET applying the revised ICNIRP MF limit of 200uT, while the NES-ETA applied the outdated 100uT limit.

²⁰ Consultation Document, page 76.

as a result of the individual plan change processes. Whilst the outcomes are broadly the same but differently expressed, this has come at inordinate expense to resolve on a Council by Council basis. \$14 million has been spent to date on provisions in approximately 63% of plans.

- e We agree that the existing NPS-ET provisions do not adequately recognise the importance of allowing essential maintenance activities that typically have minor effects (although as discussed further below, Transpower considers this aspect of the problem statement should be framed more broadly, in terms of the 'routine' activities that are essential to secure the ongoing operation of the National Grid, and which it has no real choice but to undertake).
- f We agree that the distinctions drawn in the existing NPS-ET between 'minor', 'major', and 'substantial' upgrades are somewhat unclear, and have been difficult to implement in plans.
- g We also agree that other national policy statements include new effects-management requirements (often a form of 'effects management hierarchy'), which can trigger additional consenting processes for routine maintenance and electricity transmission upgrade activities. Transpower supports the policy framework in the NPS-ET being expanded to fill these gaps, so that it can act as a 'one stop shop' for policy direction with respect to electricity transmission activities.
- h Finally, we consider the problem statement and related text fails to sufficiently acknowledge the advanced age of many ETN assets (being constructed in the 1920s or 1950s), and the corresponding need for the NPS-ET (and NES-ETA) to enable a rolling programme of maintenance, updates and replacements to this existing network. Provided this programme can proceed, the assets will endure (despite their age). Associated with this is the need to increase the resilience of the network, and its capacity to accommodate both growing demand in a general sense as well as increased demand associated with the electrification of the economy (for example the electrification of transport and process heat) – this is also an important way in which the ETN helps reduce New Zealand's emissions (i.e. it is not just about new connections to renewables).

Option 1 – stronger policy direction

- 13.3 Accordingly, Transpower supports the stated policy intent of 'Option 1 (proposed)' in Section 9 of the Consultation Document, being to ensure:²¹
- a There is more specific recognition of the technical, operational, and functional needs of the electricity transmission network.
 - b It is more reflective of the activities and infrastructure that form part of the operation of the electricity transmission network, including access tracks and vegetation clearance and trimming associated with routine activities.
 - c There is greater recognition of the full range of national, regional, and local benefits associated with sustainable, secure, and efficient electricity transmission.
 - d Decision-makers recognise the significant linkages with the NPS-REG and the need for the electricity transmission network to support a timely and significant increase in renewable electricity generation capacity.
- 13.4 However, Transpower does not consider the proposed NPS-ET drafting achieves these aims, and seeks a number of amendments.

Option 1 – minor ETN activities

- 13.5 At a very high level, Transpower also supports the policy intent of 'Option 1 – minor ETN activities' in Section 10, which is to enable "minor ETN activities" to occur in a timely and efficient way without restriction, while

²¹ Consultation Document, page 75.

still ensuring that Transpower takes appropriate steps to avoid or mitigate adverse effects on the environment to the extent practicable (acknowledging that these are existing assets).

- 13.6 However, the framing of ‘minor’ ETN activities is too narrow or restrictive, to the point that it is unlikely to be of much practical assistance. This also means that, as drafted in the proposed NPS-ET, the corresponding category of ETN development activities is much too broad.²²
- 13.7 Accordingly, Transpower seeks that in order to enable ETN activities and achieve the reform objectives, this category is reframed and expanded to refer to ‘routine’ transmission activities, being those which are ‘business as usual’, must be carried out in order to secure the ongoing function of the National Grid, and in respect of which Transpower has no real choices to make in respect of the way (and environment) in which they occur.
- 13.8 In addition, rather than having everything else categorised as “Development”, it is appropriate to draw a further distinction between ‘non-routine’ activities that nonetheless relate to existing assets, and activities involved in the construction of a new transmission line or substation.

Options in relation to (non-routine and) development activities

- 13.9 With respect to the policy options for managing the effects of transmission activities on ‘areas of significant environment values’, Transpower is seeking a number of changes to the drafting of clause 3.8. The drafting approach is most in line with the Consultation Document’s Option 2B, in the sense that it requires significant residual effects to be avoided in relation to SNAs (and also natural inland wetlands), but not on other values.
- 13.10 However, Transpower proposes that these policies draw a distinction between:
- a Non-routine activities on existing lines (which should be subject to a version of the ‘effects management hierarchy’, but which should not be required to demonstrate operational or functional need to occur in their location, given they relate to existing assets or lines); and
 - b ETN development activities (essentially, new transmission lines, substations or facilities), which Transpower considers should be subject to both an ‘operational or functional need’ assessment with regard to their location (unless they are a new connection for renewable generation), and a version of the effects management hierarchy.

Overall concerns with the proposed NPS-ET

- 13.11 Overall, Transpower’s position on the proposed NPS-ET is that:
- a While in some respects it improves on the existing NPS-ET, in other respects it does not go far enough to achieve the reform objectives discussed in Part 1 of this submission, or to address the ‘problem definitions’ and achieve the ‘policy intent’ identified above.
 - b The proposed NPS-ET also introduces new issues in terms of the effects management framework, and in terms of the interrelationship with the NZCPS. At present these changes would be disabling, rather than enabling, of ETN activities, relative to the existing NPS-ET.
 - c Valuable aspects of the existing NPS-ET drafting have been omitted, including in relation to the management of ‘direct effects’ of third party activities on the network.
- 13.12 Transpower has prepared a ‘marked up’ version of the proposed NPS-ET, illustrating the refinements it is seeking, which is attached as **Appendix A** to this submission. We would be very happy to discuss the drafting further as the process moves forward.
- 13.13 The balance of this part of Transpower’s submission addresses key themes or concerns with the proposed drafting, under the following topics:

²² See the discussion around transmission line components and routine activities in Appendix C.

- a The objective;
- b Recognising benefits;
- c Relationship with the NZCPS and other national direction;
- d Managing effects of National Grid activities (including EMF);
- e Managing effects on National Grid activities;
- f Long term planning; and
- g Mechanics for implementation.

14 The Objective

14.1 Transpower has proposed a number of refinements to the objective at clause 2.1 of the proposed NPS-ET. By way of explanation of the changes sought, and in order to assist with any further drafting, we offer the following commentary:

- a Transpower supports the framing of the Objective as an ‘outcome statement’ or end point (i.e. the ETN “is” developed, operated, maintained and upgraded in the manner specified). We consider this is a slightly stronger and more actionable direction than the requirements in the existing NPS-ET (which are to ‘recognise and provide for’ the national significance of the network by ‘facilitating’ various activities).
- b That said, we do not consider the descriptors ‘effective, efficient, and safe’ to be helpful, in terms of how this is to occur. In particular, it is not clear if the effect of this wording would be to enable ETN activities and projects or to constrain them, by adding an additional hurdle or test that needs to be addressed in seeking RMA approvals. In particular, the words ‘efficient’ and ‘effective’ are generally associated with the section 32 RMA evaluation of plan provisions, and could invite second guessing of whether a given ETN project is efficient or effective, rather than helping to enable it (which, in light of the reform objectives, we presume is the intent).
- c Instead, Transpower seeks language that is more focussed on and relevant to the ETN, being references to resilience, capacity to meet increasing demand, and the contribution of the ETN (in conjunction with renewable generation) to achieving New Zealand’s emissions reductions targets.²³
- d In addition, Transpower seeks that the list of ‘verbs’ or activities to be enabled in relation to the ETN include ‘protection’. Managing adverse effects of third parties on the transmission network is an important focus of the existing NPS-ET (Part 8, Policies 10 and 11), and should remain a focus in the new NPS-ET (we later suggest it should be its own subpart).
- e Consistent with this, Transpower seeks that the reference to managing the effects of ‘other activities’ on the ETN is retained as part of the objective (so that, as per the existing NPS-ET objective, there is a dual focus on managing effects “of”, and also “on”, the ETN).
- f Transpower also seeks language acknowledging that the ETN is a matter of national significance. This is currently stated in clause 4 of the existing NPS-ET, and Transpower considers that clause to be helpful as a reminder to decision makers. In essence, this should be a starting premise of any decision making in relation to the NPS-ET, rather than Transpower having to bring evidence in respect of significance through every hearing process. A clause to this effect also appears in the existing NPS-REG, and reflects the statutory purpose of a national policy statement which is to state objectives and policies ‘for matters of national significance that are relevant to achieving the purpose of this Act’.²⁴ Transpower would support a clause to this effect being retained in the revised NPS-ET. However, if that is no longer the

²³ Consistent with the reform objectives and policy intent identified in the Consultation Document.

²⁴ Section 45(1) RMA.

favoured drafting approach, we have suggested that reference to the national significance of the ETN should be included in the objective (consistent with the later references in Policy 2 and clause 3.2).

- g Finally, Transpower considers that the Objective should include stronger references to emission reductions and/or enabling renewables,²⁵ consistent with the reform objectives and policy intent. Currently the only reference to renewables or emissions reductions in the proposed NPS-ET is contained in the policy text at clause 3.2. Transpower considers this to be insufficient (and rather surprising, given the objectives of the review process), including because clause 3.2 is a policy to be inserted directly into RPS and Plans, rather than being an 'operative' policy or direction in the NPS-ET itself which subsidiary instruments must 'give effect to'.²⁶

15 Recognising benefits (Policies 1 to 3)

- 15.1 Transpower supports Policy 1 of the proposed NPS-ET, and also Policy 2 with some refinements. However, it considers that substantial changes are required to Policy 3 and the way in which different categories of ETN activities are enabled or considered through consenting processes.

Policy 1 – realisation of benefits

- 15.2 Transpower considers Policy 1 of the proposed NPS-ET is strongly worded, and supports in particular the use of the phrase "is realised", which it considers is more directive than "recognised and provided for". The only suggested change to this policy is to replace the phrase "electricity transmission network" with the abbreviation "ETN".
- 15.3 However, it needs to be emphasised that the recognition of benefits (or even a policy directing that they are realised), while appropriate, is not sufficient to enable them to be realised, unless the tensions with other policy directions (in terms of managing effects) are resolved. Even a very broad 'benefits' policy is likely to give way to an 'avoid' policy, in RMA decision making. We address this further below in sections 4 and 5 of this chapter.

Clause 3.2 – benefits policy to be inserted into other instruments

- 15.4 Transpower generally supports clause 3.2, and seeks relatively minor refinements to the wording (including to refer to increasing capacity and providing direct connections, in the context of reducing greenhouse gas emissions).

Policy 2 – planning decisions

- 15.5 Transpower considers that Policy 2 as drafted is helpful, but needs to go further. As set out in **Appendix A**, Transpower is seeking changes to:
- a Reference the different spatial scales at which the ETN operates and delivers benefits. The ETN is an interconnected linear system that stretches across New Zealand, and its national significance needs to be recognised at all levels.
 - b Incorporate reference to the role of the ETN in contributing to emissions reductions (which, despite being a major focus of the reform process, and referred to in Policy 1 of the NPS-ET, is absent in the Objective or Policies of the Draft NPS-ET). Transpower also suggests that the different ways in which the ETN contributes to emissions reductions can usefully be particularised here as: providing connection to renewable generation, increasing capacity to accommodate accelerated electrification of the economy, and 'direct connections' to enable fossil fuel conversions (e.g. for process heat).
- 15.6 It is appropriate to include a reference to emissions reductions in the policies, consistent with the reform objectives and the existing NPS-ET. If this matter is not addressed in the policies (and only addressed in

²⁵ Transpower's suggested drafting at **Appendix A** introduces emissions reductions as a broader goal in the objective, and then breaks this down as including enabling renewables (among other things) in later provisions.

²⁶ In terms of sections 62(3), 67(3)(a), and 75(3)(a) RMA.

clause 3.2), then that change (relative to the existing NPS-ET) could be interpreted as deliberate so that the new NPS-ET is less enabling of these matters, rather than more so.

- 15.7 Finally, Transpower considers that the reference in Policy 2 to recognising and providing for the operational and functional needs of the ETN is helpful, and proposes amendments to clause 3.3 (discussed below) in order to provide more comprehensive guidance as to what this means in practice.

Policy 3 – “minor ETN activities” vs routine activities

- 15.8 Transpower supports what it understands to be the intent of Policy 3, being to specify a class of ETN activity at the lower or more routine end of the spectrum which is to be ‘enabled’ in an unqualified way (while a greater level of scrutiny is applied to ‘development’ activities). It seeks that a policy of this kind remain, but considers that the concept and definition of ‘minor ETN activities’ in the proposed NPS-ET is not fit for purpose.
- 15.9 It is noted that Policy 3 of the proposed NPS-ET is significantly less enabling than the similar Policy 9 of the proposed NPS-REG, which relates not just to minor activities but states that “the timely and efficient *upgrade and repowering* of existing wind and solar REG assets are enabled”. It is not clear why upgrades of REG assets are enabled in the NPS-REG while only minor ETN activities are enabled in the proposed NPS-ET, particularly given the interrelationship between the two.
- 15.10 Transpower’s principal concern with proposed Policy 3 NPS-ET is that the definition of ‘minor ETN activities’ is too narrowly drawn. There are a wide range of everyday or routine activities that it is necessary for Transpower to carry out in order to keep the ETN in working order. This includes works necessary to maintain safety, or to replace aging or worn components (which is a significant component of the work programme given much of the National Grid was constructed in the 1920s and 1950s). It includes replacing conductors, duplexing (where single electrical conductors are replaced with two conductors in each phase to increase capacity, or reduce corona noise),²⁷ and associated tower strengthening, foundation works, or earthworks to provide electrical clearances.²⁸
- 15.11 The common theme is that this is work that needs to happen, in the sense that Transpower cannot responsibly choose not to do it, and which relates to work on existing lines,²⁹ in circumstances where there is limited or no practical means to reduce any adverse effects. In such circumstances Transpower considers that a consenting or hearing process would serve no useful purpose. However, many of these activities would not meet the definition of ‘minor ETN activities’, so would be treated as ‘development’ under the proposed NPS-ET.³⁰
- 15.12 In particular, in terms of the ‘minor ETN activities’ definition:
- a There is a risk that some routine activities may not be considered to have only ‘minor’ effects (and in any event, having to meet or rely on such a test would necessitate extensive expert effects assessments, in respect of matters on which reasonable experts can sometimes differ, in circumstances where the work needs to be carried out and effects cannot practicably be avoided in any event).
 - b Replacement structures will be very unlikely to occupy the same physical space, including because the modern version of an aging structure in need of replacement may have a different design (including more extensive foundations), or it may not even be desirable for ETN assets to occupy the same space (e.g. for safety or environmental reasons moving out of wetlands or away from cultural sites of significance).
 - c If retained, these ‘limbs’ of the definition should be expressed in the alternative (with an “or”) rather than being conjunctive (with an “and”).

²⁷ See photos 10 and 11 in Appendix C.

²⁸ See the discussion around transmission line components and routine activities in Appendix C.

²⁹ ‘Existing’ is used in this part of the submission to mean existing at the time that the work in question is carried out, rather than existing at some set time in the past.

³⁰ Transpower has raised similar concerns in relation to the NPS-FM, see page 8 of Transpower’s submission on the exposure draft changes to the NPS-FM and NES-F.

- d While including examples as part of the definition is helpful, Transpower does not replace structures with “like for like” structures as part of its routine activities, as it is not desirable to do so (bearing in mind that many of the structures in question are now 70-100 years old). There are many reasons why a ‘like for like’ structure is not appropriate, given engineering design standards have changed over this timeframe.
- e We note that it may have been intended that the first part of the definition ‘activities required for or associated with the operation or maintenance of the ETN’ would not be subject to the requirements in subclauses (i) and (ii) of the definition. If so, Transpower supports that approach. In any event, Transpower’s suggested drafting would separate clause (a) into two clauses to more clearly achieve this outcome.

15.13 Accordingly, Transpower seeks that this definition is reframed as “Routine ETN activities”, and expanded to include a slightly broader range of activities. The proposed definition, rationale, and examples of activities it is intended to cover are set out in more detail in the table below.

15.14 It is noted that while the new definition retains the current limbs (i) and (ii), in the disjunctive (or) rather than conjunctive (and), both are likely to be of relatively limited utility. New limb (iii) would provide for replacement of assets with their modern equivalent, substitute, or replacement of the existing ETN assets, which more accurately describes much routine work (and would require less onerous assessment on a case by case basis). This limb is also intended to include some work that is equivalent to the concept of ‘repowering’ as defined and enabled in the NPS-REG.

Non-routine activities

15.15 In addition, Transpower proposes an intermediate category of “non-routine” activities that relate to existing transmission lines. This category is intended to cover upgrades or other works that are more substantial and where there is a greater degree of choice to be exercised in their design, such that it is appropriate for them to be subject to the ‘effects management hierarchy’ (with some modifications, discussed below).

15.16 However, because they relate to established transmission lines, it is not sensible or appropriate for such works to be considered in terms of whether they have a functional or operational need to be in a given location.

15.17 This concept would be defined by reference to ‘routine’ ETN activities, as: *‘the upgrade of, or changes to ETN assets that exist at the time of construction, but which are not a routine ETN activity’*

ETN development activities

15.18 The final category is ETN development activities. In light of the addition of the intermediate ‘non-routine’ category, Transpower seeks that development activities would be confined to:

- a The construction of new ETN assets (in the sense of new transmission lines or substations, rather than individual structures);
- b Rebuilding or replacement of existing transmission lines;
- c ‘customer driven projects’ (being defined as works intended to enable a third party project, such as connections to generation or demand, or relocation or undergrounding of a transmission line in order to make way for urban or infrastructure development)

15.19 Given the more discretionary nature of ETN development activities, and greater ability to avoid or minimise effects through design, Transpower considers that they should *generally* be subject to both the ‘functional or operational needs test’ and the ‘effects minimisation hierarchy’. (The one exception to this, discussed further in section 18 below, is that new connections to renewable generation would not be subject to a separate functional or operational needs test).

- 15.20 The policy settings Transpower proposes should apply to each of these categories of ETN activity are outlined in more detail at section 18 and **Table 4** below.

Policy 3 – wording

- 15.21 In light of the above, Transpower seeks amendments to Policy 3 to:
- a Refer to “routine ETN activities” rather than “minor ETN activities”; and
 - b Provide that these activities are to be enabled in “all locations and environments”.

New Policy 3A – non-routine activities

- 15.22 In light of the new category of ETN activity it is seeking, Transpower also seeks a new Policy 3A to the effect that non-routine ETN activities are enabled in areas that are not ‘areas with significant environment values’. Further changes are sought to clause 3.8 in terms of the considerations that apply where non-routine activities do occur within areas with significant environment values.

Defined term	Definition (as per Appendix A)	Description	Examples	Project examples
Routine ETN activities	<p>Means:</p> <ul style="list-style-type: none"> a activities required for or associated with the operation or maintenance of ETN assets; or b the upgrade of, or addition or alteration to, ETN assets where the upgrade or other change: <ul style="list-style-type: none"> i will, once the activity is complete, have no more than minor adverse effects on the environment; or ii results in the assets occupying a physical space, in any direction, that is the same as, or is not significantly greater than, the existing ETN assets; or iii implements the modern equivalent, substitute, or replacement of the existing ETN assets; or c the removal or dismantling of ETN assets; and d includes associated activities such as vegetation clearance, tree trimming, maintaining and improving access tracks, replacing structures, reconductoring, foundation works, altering or relocating of structures, undergrounding, and realignment up to five spans of a transmission line. 	<p>These are (typically) low-effects activities that Transpower must carry out on a regular day-to-day basis and has very minimal choice/ scope to amend how they undertake the works/ control effects.</p> <p>The activities relate to existing ETN assets, and are generally required to maintain safety, or maintain or replace aging or worn components. These activities may also be required in order to ensure the ETN assets can continue to withstand increasing risks from flooding, coastal inundation, and landslips, and meet current and future resilience expectations.</p> <p>See Appendix C</p>	<ul style="list-style-type: none"> • vegetation clearance • tree trimming • maintaining and improving access tracks • replacing structures • reconductoring • adding an overhead conductor so that there is an additional circuit, where the existing structure is capable of taking that circuit • changing a duplex transmission line to a triplex line • foundation works • altering, relocating, and replacing support structures • realignment of up to five sequential spans of a transmission line • increasing voltage or current rating • erecting temporary structures • temporary line deviation • removal of transmission lines and structures [define transmission line as including support structures] 	<p>BPE-HAY</p> <p>See Case Study 5 in Appendix C</p> <p>Rangitata River</p> <p><i>After the 2019 Rangitata River flooding, Transpower increased the foundations on the replacement structures with a much larger footprint to “future proof” them from future adverse flood effects (by doubling the depth of the foundations from 10-20m).</i></p>

Defined term	Definition (as per Appendix A)	Description	Examples	Project examples
			<ul style="list-style-type: none"> installing or modifying telecommunication devices and signs tower maintenance works including tower cleaning, painting, and blasting earthworks for the purposes of creating working platforms e.g. crane pads etc mid-span earthworks to provide electrical clearances 	
Non-routine ETN activities	Means the upgrade of, or changes to, ETN assets, or other ETN activities, where the upgrade, or change, or activity is not a routine ETN activity	<p>All work in relation to existing ETN assets which does not come within the definition of 'routine ETN activities'. Generally, this will be work not related to keeping the existing asset operational/ maintained.</p> <p>Upgrades that have more than minor adverse effects/ are more advanced</p> <p>Works where Transpower has some scope for choice in how they are carried out.</p>	<ul style="list-style-type: none"> construction of an additional large strain tower at the intersection of an existing line and a new customer connection realignment or rebuilding of more than five sequential spans of a transmission line adding an additional circuit to a single pole line, where the line has only been constructed to carry one circuit changing a single circuit line to a triplex or quad circuit line rebuilding a 110kV line, so that it was 220kV (or greater), where the line was not originally constructed to operate at that voltage 	

Defined term	Definition (as per Appendix A)	Description	Examples	Project examples
ETN development activities	<p>Means:</p> <ul style="list-style-type: none"> a the construction of new ETN assets that is not carried out on or related to transmission lines or cables, or at substation sites, that exist at the time of construction; or b rebuilding or replacement of transmission lines not otherwise provided for as Non-routine ETN activities; or c customer driven projects 	<p>These works are for new ETN assets (i.e. new transmission lines, not just towers or conductors).</p>	<ul style="list-style-type: none"> • new transmission lines • new substations • customer driven projects 	<p>Transpower is currently investigating a long-list of options to address capacity constraints in moving electricity beyond the central North Island. The most extensive option would be a new line between Bunnythorpe and Whakamaru.</p> <p>The Tararua and Wairarapa regions have been identified as being ideal for wind generation. Most existing wind generation is located in these regions. There is a large scale consented, but unimplemented, wind generation project at Castle Hill. Other potential wind developments have been explored in the Wairarapa. To connect the entire consented generation, and future generation, to the Grid would likely require construction of a new 220kV line to a 220kV line/substation to the main Grid backbone lines near Palmerston North.</p>

Table 3: Definitions of ETN activities

16 Relationship with the NZCPS (clause 1.4)

- 16.1 Transpower is concerned by, and strongly opposed to, clause 1.4 of the proposed NPS-ET, which provides that the NZCPS ‘prevails over’ the provisions of the NPS-ET ‘in the event of conflict’.
- 16.2 The policy rationale for this approach is not articulated in the Consultation Document. At most, the Consultation Document states that it is currently not proposed that the NPS-ET will prevail over the NZCPS. However, clause 1.4 goes much further than this, in providing that the NZCPS will actively prevail over the NPS-ET. This is a significant change from the relationship between the NZCPS and the existing NPS-ET. The consequences of this would be significant, and it is not clear that they have been adequately considered.
- 16.3 Accordingly, Transpower seeks as a bare minimum that clause 1.4 in its current form be deleted, so that the NPS-ET and NZCPS would both apply to ETN activities. This approach would maintain the status quo. However, given the Consultation Document accepts that the status quo is unacceptable, and in order to achieve the reform objectives and enable ETN activities, Transpower considers it is necessary for clause 1.4 to provide that the NPSE-ET resolves tensions between the two instruments such that, in the event of conflict, the NPS-ET prevails. In other words Transpower is seeking that the NPS-ET provide a comprehensive framework for the management of the effects associated with ETN activities.
- 16.4 Transpower also considers the same considerations apply to the NPS-FM (particularly in relation to activities occurring in or near wetlands), and to the proposed NPS-IB.
- 16.5 The reasons for this position are set out below.

Extent of the Coastal Environment

- 16.6 The landward extent of the “coastal environment” (to which the NZCPS applies) is defined by individual councils in line with the broad direction in Policy 1 of the NZCPS, and can vary considerably. In this regard the Consultation Document observes that:³¹

The jurisdiction of the NZCPS includes both the coastal marine area (territorial sea out to 12 nautical miles) and the inland coastal environment which requires local authorities to define its extent. This can range from 500m to 5km from the shoreline based on reviewing a few local authority plans, although in most cases is not likely to [be] much further than 1km from the shoreline.

- 16.7 That is broadly consistent with Transpower’s own analysis. For example, the Kapiti District Plan has a 4km coastal environment identified in some areas, the proposed Wellington City Plan has common coastal environment setbacks of 500-1140m, the proposed Porirua City Plan has many in the range of 350-1080m, and the Far North Proposed District Plan has many in the range of 890-1869m.
- 16.8 However, the implications of even an average 1km coastal environment for ETN activities should not be minimised. Transpower has conducted a GIS mapping exercise adopting a somewhat conservative 1km coastal environment layer, in order to assess the implications for its existing ETN assets. Excerpts from this mapping exercise are shown in Case Study 2 in **Appendix C**. That analysis indicates that there are approximately 437km of overhead transmission lines, more than 1100 structures and more than 20 substations within this 1km coastal setback area.
- 16.9 In addition, it needs to be borne in mind that constraints of this kind are cumulative; if it is necessary to completely avoid all areas of significant environment value (including wetlands, SNAs, and outstanding landscapes, then Transpower’s constraints mapping shows that very quickly it is impossible to locate anywhere. By way of example, **Figure 2** below shows ecological constraints mapping undertaken for Northland, indicating the locations of SNAs. If wetlands and outstanding landscapes were also added to this constraints map, the potential to find transmission routes through become almost impossible.

³¹ At page 29.

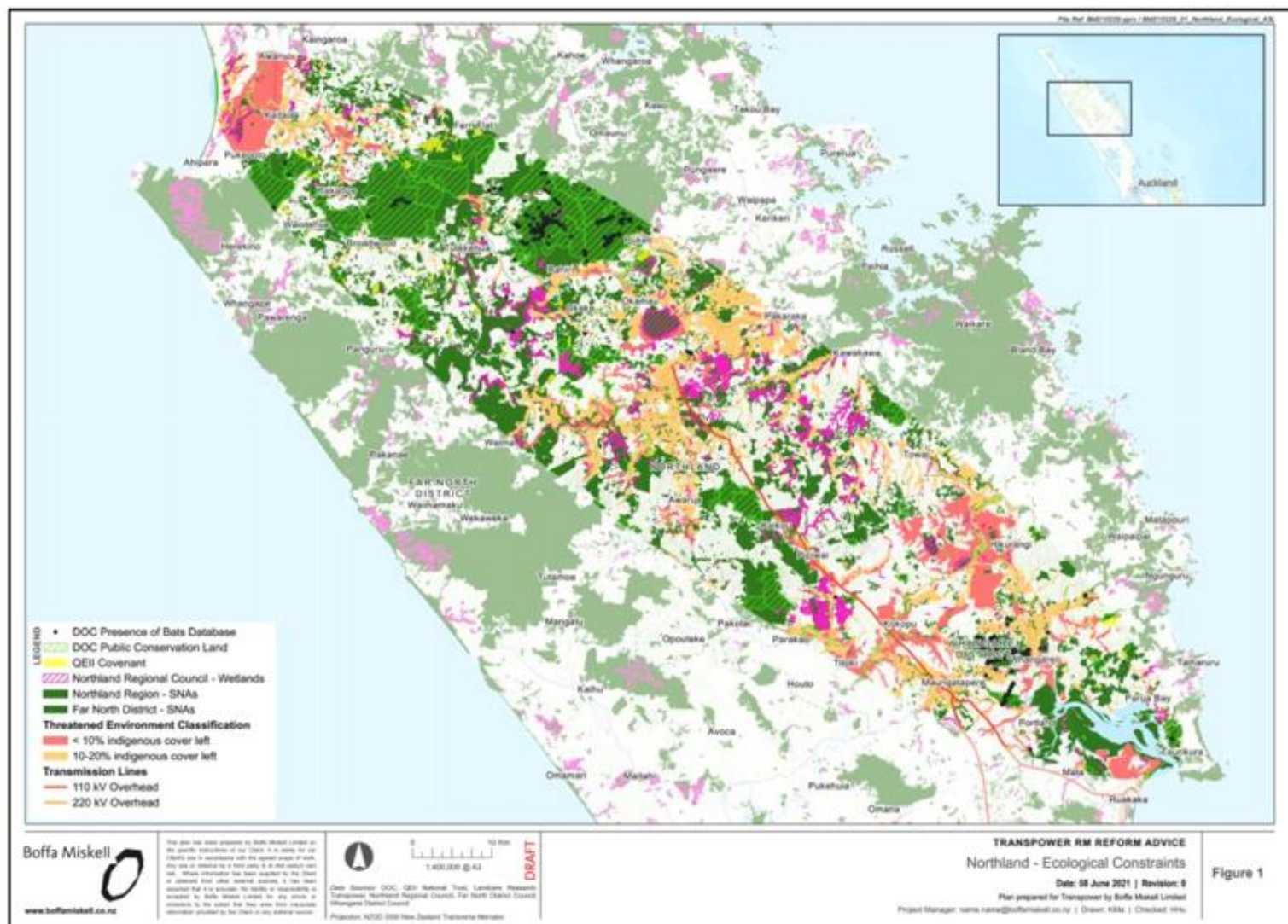


Figure 2: Northland ecological constraints mapping

- 16.10 Existing assets in these areas need to be maintained, and routine and non-routine activities in respect of them need to be provided for in the NPS-ET, without this being 'overruled' or 'prevailed over' by the protective and disabling policies of the NZCPS.
- 16.11 In addition, it is reasonable to assume that there will be an increasing need for the ETN to connect to renewable generation projects in the coastal environment (including the CMA) in the years to come, including offshore wind, and potentially also wave and tidal generation. It is completely contrary to the objectives of the reform for such connections to be prevented or hindered by the NZCPS.
- 16.12 Navigating the NZCPS has been a substantial concern for Transpower already, as illustrated by the Cook Strait Cables (Case Study 3,) and Hairini (Case Study 4) case studies set out in **Appendix C**.

Implications for existing plan provisions

- 16.13 Transpower and other parties have expended significant effort on the provisions of district and regional plans that attempt to (as far as possible) reconcile the competing directions in the existing NPS-ET and the NZCPS. Often these provisions are confirmed through mediation, and couple a 'seek to avoid' direction (as per Policy 8 of the NPS-ET) with a statement that in some instances effects on high value areas of the coastal environment need to be avoided (as per Policies 13 and 15 of the NZCPS).
- 16.14 While imperfect and uncertain, these provisions generally provide something of a 'consenting pathway' for ETN activities, while acknowledging that the coastal environment contains areas of significant value.
- 16.15 Having the new NPS-ET provide that the NZCPS 'prevails over' it would undermine that work, and put those provisions at risk in the next plan change process (or potentially sooner, in relation to the protective policies in the proposed NPS-ET that are intended to be inserted directly into plans and policy statements).
- 16.16 This is because, if the NZCPS simply 'prevails over' the NPS-ET then there is no need to attempt to reconcile any tensions between them, which will result in one-sided policies. Overall, this would represent a significant backwards step for the enablement of transmission activities, relative to what has been achieved under the existing NPS-ET.

The need to enable ETN activities

- 16.17 For the reasons set out above, deletion of clause 1.4 would be necessary to maintain the status quo level of policy support for ETN activities in the coastal environment. However, to actually achieve the objectives of the reform, it is necessary to provide that the NPS-ET reconciles the tensions between the two instruments and prevails over the NZCPS with respect to ETN activities.
- 16.18 The need to provide stronger national direction and policy support for ETN activities is well articulated in the Consultation Document, and further addressed in Chapter 1 of this submission. Quite simply, clause 1.4 would be counter to that objective in respect of ETN activities in the coastal environment.
- 16.19 Transpower seeks that the NPS-ET prevail over the NZCPS on the basis that:
 - a The ETN is a matter of national significance, a vital public good, and has a key role in responding to the existential crisis of climate change by enabling greater utilisation of renewable electricity generation. It is also linear infrastructure with limited scope to avoid effects (particularly visual, landscape, or amenity affects). In that context it is not appropriate for ETN activities to be subject to the same restrictions that apply to private development or other discretionary 'everyday' activities that might seek to locate in the coastal environment.
 - b The revised NPS-ET is intended to fill the 'gaps' in the existing NPS-ET so that effects on environmental values (including in the coastal environment) are appropriately considered. An important function of the NPS-ET is to reconcile the tension between the need to enable ETN activities and the need to appropriately provide for environmental values, including in the coast, and provide clear policy direction. As such, it is appropriate for the NPS-ET to operate as a complete 'code' with respect to ETN

activities, and it would be inappropriate and uncertain for the NPS-ET (which seeks to reconcile those values internally) to itself need to be reconciled with the NZCPS in RMA decision making.

16.20 If clause 1.4 were simply deleted, then the best-case interpretation (from an ETN perspective) would be that the NPS-ET provisions would need to be considered alongside, and on par with, the directions in the NZCPS. Decision makers would be tasked with reconciling any tensions through the plan making process and in their assessment of resource consent applications or notices of requirement. However, in practical terms, protective ‘avoid’ policies are inherently more directive than ‘enabling’ policies. In short, enabling policies tend to state that an activity should be generally enabled (but do not have to be enabled in every location), while ‘avoid’ policies are unequivocal in stating that certain effects must be avoided in all areas to which those policies apply.

16.21 This principle is well illustrated in the *NZ King Salmon* decision, where the Supreme Court was tasked with reconciling an enabling direction in Policy 8 of the NZCPS (to ‘provide for’ aquaculture in ‘appropriate locations’) with protective directions in Policies 13 and 15 (to ‘avoid’ effects on outstanding values). In reading these provisions together, the Court concluded they could be ‘reconciled’ in the following way:³²

Policies 13(1)(a) and 15(a) provide protections against adverse effects of development in particular limited areas of the coastal region – areas of outstanding natural character, of outstanding natural features and of outstanding natural landscapes (which, as the use of the word “outstanding” indicates, will not be the norm). Policy 8 recognises the need for sufficient provision for salmon farming in areas suitable for salmon farming, but this is against the background that salmon farming **cannot occur** in one of the outstanding areas if it will have an adverse effect on the outstanding qualities of the area. So interpreted, the policies do not conflict.

16.22 There is a real risk that a similar result would follow where NPS-ET policies were read alongside protective NZCPS policies, no matter how ‘enabling’ the NPS-ET policies were expressed to be.

16.23 Accordingly, Transpower is concerned that even if the other changes it seeks to the NPS-ET are adopted, the objective of the reforms will not be realised unless the NPS-ET also expressly prevails over the NZCPS.

17 Relationship with NPS-FM and NPS-IB

17.1 For similar reasons as set out above in relation to the NZCPS, Transpower also considers that the new NPS-ET needs to reconcile tensions with, and otherwise prevail over, the NPS-FM in order to provide a comprehensive ‘one stop shop’ approach to the management of ETN activities.

17.2 A particular issue with respect to the NPS-FM is that policies inserted under clause 3.22 of the NPS-FM make very little provision for ETN activities, as any ETN activity that is not classified as “maintenance” or “operation” would instead be classified as “construction”, and subject to a functional needs test, regional benefits test, and application of the mitigation hierarchy.³³ Transpower does not consider these tests to be appropriate for routine ETN activities, for the reasons set out above. Accordingly, in relation to ETN activities at or near wetlands there would be little benefit in the NPS-ET not requiring a functional needs test if this was nonetheless imposed under the NPS-FM.

17.3 For this reason, Transpower seeks that clause 1.4 also note that the NPS-ET reconciles tensions with the NPS-FM and also prevails over this instrument in the event of conflict. In order to avoid a policy ‘gap’ and make sure that the NPS-ET ‘covers the field’, Transpower also suggests that the definition of “areas with significant environment values” in the proposed NPS-ET is expanded to include natural inland wetlands over 500m².

17.4 Finally, Transpower envisages that very similar issues could arise in relation to the proposed NPS-IB, if and when it is gazetted. Accordingly, Transpower’s suggested wording in **Appendix A** also states that the NPS-ET

³² *NZ King Salmon v EDS*, at [131] (emphasis added).

³³ A related issue is that the permitted activity standard in regulation 46(4)(b) of the NES-ETA provides a maintenance activity cannot be for the purpose of increasing the size, or replacing part, of the specified infrastructure unless the increase or replacement is to provide for fish passage. This permitted regulation will rarely be met, given the age of the Grid infrastructure.

is intended to reconcile tensions with and prevail over other policy statements in relation to matters of biodiversity as well.

18 Managing effects of National Grid activities

- 18.1 Transpower seeks a number of changes to the provisions of the proposed NPS-ET that pertain to the management of effects of ETN activities. In broad terms, these changes are necessary to provide greater certainty around the values being protected, clearer direction regarding the functional and operational needs of the ETN, and rationalisation of some of the policy hurdles or 'tests' to be satisfied.

Definitions – 'areas with significant environment values'

- 18.2 Transpower is concerned that this definition is too broad in a number of respects, such that the associated policies are unduly onerous. It seeks changes to the effect that:
- a The definition applies to these values where they are identified in plans. This change is necessary to provide a degree of certainty as to where these values exist, in order to enable Transpower to sensibly consider alternative routes in the context of the functional and operational need and effects management hierarchy tests. While Transpower would consider measures to reduce effects on values that might be identified at a later time, it is inappropriate to review the alternatives assessment against values that were not identified or identifiable at the time that this exercise was carried out.
 - b The reference to natural character is qualified so as to refer to outstanding (or at least 'high') natural character. The current unqualified reference to (any level of) 'natural character environment' is especially broad. Almost all rural areas of the coast have some degree of natural character, even if it is low. It seems unlikely that all such areas were intended to qualify as 'areas of significant environment values'.
 - c In a similar way, that the reference to heritage is confined to 'sites' of significant historic heritage value, rather than any 'areas' that may be perceived as having heritage value.

Recognising and providing for Māori interests in relation to ETN activities (Policy 4 and clause 3.4)

- 18.3 The NPS-ET does not currently discuss impacts on Māori interests, and this gap creates uncertainty for consenting processes and outcomes. Transpower's proposed realignment in Rangataua Bay, Tauranga Harbour is an example of the uncertainty caused by the NPS-ET's failure to provide direction on these issues. The High Court found that the proposal would have significant adverse effects on an area of cultural significance, and the realignment has not progressed.
- 18.4 Transpower supports the addition of provisions addressing Māori interests, as this is a material gap in the existing NPS-ET. Transpower already seeks to engage with mana whenua as a matter of course, and agrees that effects on sites of significance should be avoided where practicable.
- 18.5 However, it does not support the nature of the direction provided in the proposed NPS-ET. In particular, the requirement for activities on or near sites of significance to be undertaken in a way that 'provides for the significance of the site' creates additional uncertainties. For example:
- a Where are the sites of significance located? The direction would be more certain if it related only to sites identified in district plans or by Heritage New Zealand Pouhere Taonga. It is also not clear how 'near' is 'near'.
 - b How do activities provide for the significance of those sites? Only mana whenua can answer this question, but sometimes mana whenua do not have the resources, or do not wish to assist with solutions. Or, there may be different views between mana whenua groups as to how significance should be provided for.

- 18.6 As such, the drafting of Policy 4 and clause 3.4 of the proposed NPS-ET raises some concerns, given that:
- a Clause 3.4 is not limited to sites of significance identified in district and regional plans. Even if clause 3.4 was limited to identified sites of significance, these can be defined very broadly in district and regional plans; and
 - b The requirement to ensure protection of sites does not acknowledge that this may not be practicable in all circumstances, particularly where assets are already located in sites of significance.

18.7 Accordingly, to ensure these provisions are workable, Transpower seeks:

- a Amendments to Policy 4 so that the obligation is to seek that the values of *identified* sites of significance are protected, rather than the unqualified ‘protection’ of sometimes widely-drawn sites (or sites that are not identified in plans at all) from all effects; and
- b Amendments to clause 3.4 to refer to active engagement with tangata whenua to the extent that they wish to be involved, and to direct that activities are ‘as far as practicable’ undertaken in a way that provides for *identified* sites of significance.

Functional and operational need (cl 3.3)

- 18.8 Transpower considers that it is helpful for the NPS-ET to spell out the relevant considerations when considering the functional and/or operational needs of the ETN, in order to provide greater guidance to decision makers (noting that both terms are defined in the National Planning Standards).
- 18.9 Transpower also agrees with the considerations referred to in clause 3.3, but seeks refinements to also:
- a Refer to the need to replace aging components of the ETN, and to increase capacity to meet increasing demand; and
 - b Recognise the need for the ETN to connect to electricity generation (including renewables) and also to demand, wherever they happen to be located.
- 18.10 As a drafting matter, Transpower seeks that these items are framed as matters that the functional or operational needs of the ETN “includes” (rather than matters to be recognised and provided for alongside operational and functional need).
- 18.11 Finally, and as a more substantive point, the drafting of clause 3.3 confines consideration of operational and functional need to whether or not the ETN assets need to be in a particular location. In other words, operational and functional need is considered as a policy hurdle or test. However, the other important way in which operational and functional need relevant to decision making about ETN activities is in considering the extent to which functional and operational needs of the ETN constrain its ability to avoid or mitigate effects of ETN activities on the environment. This consideration is expressed in slightly different wording in Policy 3 of the existing NPS-ET (as “constraints imposed by the technical and operational requirements of the network”).
- 18.12 Transpower regards this as an important consideration (particularly in the context of applying an effects management hierarchy and considering what is “practicable”), which should be retained. Transpower does not understand there to be any policy rationale for removing the Policy 3 NPS-ET consideration. Accordingly, it seeks that clause 3.3. is amended to refer to the consideration of functional or operational need when considering measures to avoid remedy or mitigate the effects of activities. A corresponding addition is sought at 3.8(4) in relation to the effects management hierarchy.

Policy settings for different classes of ETN activity

- 18.13 Transpower seeks substantial changes to the policies and clauses that address how effects of different categories of ETN activity should be considered in different receiving environments.

18.14 In short, the settings that Transpower proposes are that:

- a *Routine ETN activities* are to be enabled in all locations (Policy 3), subject to a requirement to avoid remedy or mitigate, where practicable: *significant* effects on the environment outside of areas of significant environment value, or *any* effects within those areas (clause 3.7). These are necessary, everyday activities, which Transpower cannot realistically opt not to carry out, and in respect of which there is limited scope to further reduce effects. Accordingly, Transpower seeks that Policies 5, 6, and clause 3.8 should only apply to non-routine or development ETN activities, but not to routine activities.
- b *Non-routine activities* are to be:
 - i Enabled outside of areas of significant environment value (Policy 3A), subject to a requirement to avoid or mitigate significant effects on the environment where practicable (clause 3.7);
 - ii Subject to the effects management hierarchy (with refinements) within areas of significant environment values, but not subject to an operational or functional need test with respect to their location (given that, by definition, their location is determined by the location of the existing assets to which they relate³⁴).
- c *ETN Development activities* to be:
 - i Enabled outside of areas of significant environment value, provided that significant effects are avoided, remedied or mitigated to the extent practicable (Policy 6 and clause 3.9).
 - ii Subject to both the effects management hierarchy (with refinements) and consideration of their operational or functional need to be in a given location, where they are proposed to locate in areas of significant environment value (clause 3.8). However, where the activity is a connection to existing, permitted, or consented renewable generation facility, then Transpower proposes that, in light of reform objectives, that is sufficient justification for ETN development to occur in that location so that the functional and operational need test would not apply. The effects management hierarchy would still require consideration of whether the effects of the activity could practicably be avoided or minimised.

18.15 These settings are summarised in **Table 4** below.

Activity type	Outside areas of SEV	Within areas of SEV	Rationale
Routine ETN activities	Enabled in all locations Avoid remedy or mitigate significant effects, where practicable	Enabled in all locations Avoid remedy or mitigate effects, where practicable	Necessary everyday activities on existing lines, wherever they happen to be; limited scope to avoid effects
Non-routine ETN activities	Enabled, subject to requirement to avoid or mitigate significant effects where practicable	Only allowed if effects management hierarchy applied, and no significant residual effects on SNAs	Activities include more substantial upgrades and/or further departures from what exists currently. Appropriate to apply effects management hierarchy
ETN development activities	Enabled, subject to requirement to avoid or mitigate significant effects where practicable	Only allowed if: <ul style="list-style-type: none">- effects management hierarchy applied, and no significant residual effects on SNAs	Activity is a new ETN facility (transmission line, substation, cable etc), and there is greater scope to avoid or manage adverse effects. However,

³⁴ Noting that the effects management hierarchy nonetheless encourages the consideration of options in terms of how effects can practicably be avoided or minimized.

Activity type	Outside areas of SEV	Within areas of SEV	Rationale
		- activity is connection for new renewables or otherwise has a functional or operational need to be in that location	there is less scope for choice in providing connections for renewables so functional and operational need test not applied in that context.

Table 4: Policy setting for ETN activities

Justifying benefits of ETN activities

- 18.16 Transpower is opposed to, and seeks the deletion of, references in the proposed NPS-ET to projects having to demonstrate that they have regionally or nationally significant benefits (clause 3.8), or that their benefits ‘outweigh’ the remaining adverse effects (Policy 5, clause 3.8).
- 18.17 The purpose of the NPS-ET is to provide for the ETN as a matter of national significance. A number of provisions are aimed at recognising its benefits. This exercise would be undermined by a requirement for Transpower to have to demonstrate that a particular project or part of the ETN has significant benefits, and that these apply at a regional or national scale:
- It should not be necessary to demonstrate that every project that occurs in an area with significant environment values has (at least) regional benefits. This should be a given, seeing as the ETN itself is a matter of national significance. Any such requirement would also overlook the fact that the ETN is an integrated nationwide network, and all parts are integral.
 - This kind of requirement could require extensive evidence, and be the subject of debate or competing expert opinion, which would not make the consenting of projects more timely or efficient.
 - It is difficult to see why such a test is necessary, or what it adds to the operational/functional need and effects management hierarchy considerations. Transpower does not undertake major projects lightly, and in most cases the associated investment is subject to scrutiny by the Commerce Commission through a separate regulatory process. (The exception is customer driven projects, and for that reason Transpower has proposed that these would be subject to a benefits assessment except where they are necessary to provide a connection to new renewable generation).
 - There is no policy rationale for declining consent for a development that needs to traverse an area of significant environment value (i.e. has ‘passed’ the operational functional need test), and which complies with the effects management hierarchy, on the basis that its benefits only arise at a district or sub-regional level. (Such an outcome would also be inconsistent with Policy 1, which is that the benefits of the ETN are *realised* at a ‘national, regional, and local level’).
- 18.18 Transpower appreciates that the references in Policy 5 and clause 3.8 to benefits outweighing effects might be intended as a kind of ‘circuit breaker’ to the effects management hierarchy, so as to enable an ‘overall judgment’ of the benefits of a project relative to its environmental effects. However, this still introduces a considerable amount of uncertainty, as well as scope for debate and litigation regarding how environmental effects and benefits are each to be quantified for comparison on an ‘apples with apples’ basis. Accordingly, Transpower instead seeks that development activities are enabled after going through the effects management hierarchy, provided their effects on significant natural areas are not significant and their effects on other areas with significant environment values are avoided, minimised, or remedied where practicable.

Effects management hierarchy (clause 3.8) – SNAs or all areas of significant environment value?

- 18.19 The Consultation Document sought feedback on the effects management hierarchy, in respect of whether this should be applied to all kinds of environmental values, or just to SNAs.
- 18.20 Transpower is strongly of the view that the requirement to avoid significant effects (after avoidance, minimisation, offsetting, and finally compensation are considered) should be confined to SNAs (this being

Option 2B in the Consultation Document). In part, effects on other values (particularly character and landscape considerations that are related in part to visual effects) are generally associated with the physical shape and size of ETN assets, which are difficult to avoid and not possible to offset or compensate for. Consistent with its position that the NPS-ET should reconcile tensions with the NPS-FM, Transpower also suggests this be extended to apply to wetlands over 500m² as well.

- 18.21 As such, Transpower considers it is also necessary to provide in clause 3.8 that it is only effects on SNAs (i.e. effects on biological diversity) and wetlands that need be considered in terms of offsetting or compensation. That is for the simple reason that the other kinds of effects of the ETN are not amenable to being offset, particularly those that correspond to the mere existence and visual effects of ETN structures in the environment such as effects on landscape and natural character. There is no established practice for offsetting or compensation for cultural, landscape, natural character and heritage effects. The possibility that offsetting and compensation of these values may be required will introduce unacceptable uncertainty.
- 18.22 Transpower also seeks to replace clause 3.8(3) with reference to a new schedule for offsetting and compensation in relation to ETN activities, consistent with changes that Transpower has previously sought to the principles or guidance in the proposed NPS-IB and NPS-FM. (See NPS-ET drafting at **Appendix A**).

Amenity values

- 18.23 Clause 3.9, regarding effects on areas that are not 'areas with significant environment values', includes a statement to the effect that changes in amenity are not in and of themselves an adverse effect. Transpower considers this a useful statement.
- 18.24 However, this clause also introduces a new phrase, being 'local amenity values'. Section 7 of the RMA simply uses the term 'amenity', and Transpower suggests this simple and defined term is used instead of introducing a new phrase. The phrase 'local amenity values' will add uncertainty as applicants, decision-makers and submitters will need to decide:
- a What does 'local' mean? Where is the boundary between local and non-local values? Are these local to affected parties, or local to the project site? Does this include construction traffic travelling to and from the site? Renewable electricity generation and transmission projects can be visually prominent, and able to be seen from long distances, so the 'local' qualifier adds uncertainty.
 - b What are the 'values' being referred to? The RMA uses the phrase 'amenity values', but this has caused uncertainty when implemented in district plans. For example, landscapes which are not outstanding are sometimes protected for their amenity values, but it is not clear what those values are. This uncertainty should not be perpetuated by the NPS-ET.
- 18.25 Transpower supports clarification in clause 3.9 of the proposed NPS-ET that changes in amenity are not necessarily adverse. This is an improvement on the status quo.
- 18.26 However, the direction to consider diversity of opinions about amenity, and to consider the benefits provided by activities with amenity effects, will not be effective, but will simply add uncertainty. Accordingly, Transpower seeks that clause 3.9(2)(a) and (b) are deleted.

Electric and magnetic fields (cl 3.11)

- 18.27 Transpower agrees with the updated ICNIRP reference in clause 3.11 of the proposed NPS-ET. However, it also considers that the WHO monograph should remain part of this reference.
- 18.28 In addition, Transpower considers that a prescriptive policy direction of this kind can appropriately be directly inserted into plans via section 55 (and referenced at clause 1.5 of the NPS-ET), without the need for it to be implemented using the Schedule 1 process.

19 Managing effects on National Grid activities

- 19.1 As set out earlier in this Chapter, Transpower considers that the protection of the ETN, and managing third party activities to avoid effects on it, are important functions of a national policy statement on electricity transmission.
- 19.2 The Consultation Document does not suggest otherwise. However, in a number of respects the Draft NPS-ET fails to carry over policy directions from the existing NPS-ET. Transpower is concerned that this change will be interpreted as deliberate, and as meaning that there would be less need to manage effects on ETN assets under the proposed NPS-ET than there is under the existing one.
- 19.3 Accordingly, Transpower seeks:
- a Express references to protection and managing third party activities in the Objective;
 - b Amendments to proposed Policies 7 and 8 to refer more broadly to both direct and reverse sensitivity effects, and reinstate some of the language of existing Policy 10.
 - c That clause 3.10 is relocated to a new subpart 3 ‘managing effects on ETN activities, and renamed from ‘avoiding reverse sensitivity effects’ to ‘avoiding activities which compromise ETN activities’. The revised drafting at **Appendix A** also proposes other changes to refer to ‘direct effects’ as well as reverse sensitivity effects, and separate the requirement to manage effects on the ETN from the requirement to identify buffer corridors (given that, in a number of cases, councils have not yet put them in place despite this being a requirement of the existing NPS-ET since 2008).
- 19.4 The main respect in which Transpower considers the proposed NPS-ET wording misses the mark is that it focusses exclusively on reverse sensitivity effects, when in reality this is only part of the problem. ‘Direct effects’ on the ETN (i.e. activities which compromise ETN assets) are at least of equal concern, and are a major focus for Transpower in seeking to ensure that the NPS-ET is appropriately given effect to in district and regional plans. Direct effects can include or relate to ‘underbuild’ (and associated safety risks), access issues, earthworks, and vegetation. These different scenarios are illustrated by the National Grid Corridor Case Study at **Appendix C** (Case Study 1).
- 19.5 These matters are also discussed in the Implementation Guidance for Local Authorities³⁵ and Further Guidance on Risks of Development near High-voltage Transmission Lines.³⁶

Long term planning

- 19.6 Transpower supports Policy 8 which requires councils to facilitate the implementation of medium to long term plans for the development of the ETN. Transpower’s experience to date is that this direction (currently part of NPS-ET) has not led to much in the way of meaningful planning, but we consider it could be important in future as there is need to plan new connections to new renewable generation and to increase the capacity of the grid to accommodate new connections and increasing demand for electricity. Transpower suggests minor refinements to require councils to engage with Transpower in this regard.

20 Mechanics for implementation

- 20.1 Finally, Transpower considers that aspects of the implementation process could (and should) be fast-tracked. Given the intention of these reforms to support new generation of renewable electricity as soon as possible (and before the Natural and Built Environment Act is fully implemented and becomes the operative planning statute), the contemplated timeframes of waiting for the next plan review to implement the new NPS-ET are too slow for any benefits to be realised. Transpower instead seeks that the time period to implement the NPS-ET be reduced to two years.

³⁵ Ministry for the Environment. 2010. National Policy Statement on Electricity Transmission: Implementation Guidance for Local Authorities. Wellington: Ministry for the Environment, section 3.4 “managing the adverse effects of third parties on the transmission network”.

³⁶ Ministry for the Environment. 2010. National Policy Statement on Electricity Transmission Further Guidance on Risks of Development near High-voltage Transmission Lines. Wellington: Ministry for the Environment.

- 20.2 In addition, Transpower considers that there are other matters that should be provided for in policies to be directly inserted into policy statements and plans (as listed in clause 1.5). Currently the list of 'ready made' policies largely focus on managing environmental effects (and in broad terms recognising benefits). It is appropriate that the policies which are intended to enable activities should be inserted into plans and policy statements at the same time.
- 20.3 Accordingly, Transpower proposes that the NPS-ET include additional 'ready made' policies in relation to:
- a Providing for routine activities;
 - b Providing for non-routine activities outside of areas of significant environment values;
 - c Electric and magnetic fields; and
 - d Managing effects on transmission line activities.

21 Amending the NES-ETA

Question	Answer
11.1.To what extent do you agree with the problem statement for this section?	Strongly disagree Disagree Neither <u>Agree</u> Strongly agree Don't know
11.2.To what extent do you agree that the NES proposal appropriately addresses the problem and the policy objectives?	Strongly disagree Disagree <u>Neither</u> Agree Strongly agree Don't know
11.3.Do you think that improvements to the NES-ETA should be progressed as amendments to existing regulations under the RMA or through the development of the NPF? Please explain why.	<u>Progressed as amended comments to the existing regulations under the RMA</u> Progressed through the development of the NPF Don't know
11.4.Please provide any evidence or examples to support your view.	See the case studies provided with this submission.
11.5.Please provide any comments about this section.	See the submission below

Advantages of the NES-ETA

21.1 The NES-ETA:

- a Facilitates the operation, maintenance and upgrading of the existing transmission network;
- b Replaces local rules (which can vary) with a nationally consistent set of regulations for electricity transmission activities relating to 'existing transmission lines'³⁷;
- c Provides certainty to Transpower that substantial portions of projects and routine activities can be carried out without the burden of having to apply for resource consents, or there is a pathway for obtaining them;
- d Provides an equal amount of certainty to consent authorities that a process is followed to ensure potential adverse effects on the environment are avoided and/or appropriately managed;
- e Makes the consenting pathways more efficient, which is particularly relevant when projects are carried out across multiple regions and/or districts; and
- f Reduces the time and cost of obtaining resource consent.

³⁷ Defined by the NES-ETA as meaning (in summary) a transmission line able to be operated at the commencement of the NES-ETA in 2010, and including transmission lines which have been altered, relocated or replaced in accordance with NES-ETA.

- 21.2 A good example of the effectiveness of the NES-ETA is for reconductoring projects where lines are maintained and/or upgraded with very few consents needing to be obtained. Case Study 5 provided in **Appendix C** to this submission explains a reconductoring project on the Bunnythorpe to Haywards (BPE-HAY) transmission lines. This project required only 14 RMA approvals. The main activity associated with the project – replacing the old conductor with larger conductor - was permitted under the NES-ETA.

The NES-ETA needs to be improved

- 21.3 Transpower agrees with the problem statement in section 11 of the Consultation Document. As outlined above, Transpower considers the NES-ETA is critical and delivers many benefits in its current state. However, as set out in the problem statement, the NES-ETA must be improved to better:
- a Streamline consent processes, especially for assets located in areas with significant environmental values;
 - b Support New Zealand's climate change targets; and
 - c Better enable routine activities.
- 21.4 Transpower has drafted proposed amendments to the NES-ETA, which are shown in **Appendix B** to this submission. **Appendix B** also explains the reasons for the amendments sought, and the extent to which those amendments align with the options in the Consultation Document. The amendments are intended as a starting point for discussion, as there are a range of possible solutions to the problems which Transpower has identified.

The Consultation Options

- 21.5 In terms of the options identified through the Consultation, Transpower prefers Option 2 but considers the amendments should go further. Option 1 is an improvement but does not go far enough to achieve the objectives of the proposal. Consent processes must be more enabling to allow the National Grid to be upgraded to accommodate renewable energy sources, especially if the NES-ETA is to be relied upon during the long transition to the NPF (during which time a step change in renewable electricity generation and use is required).
- 21.6 The Consultation Document³⁸ explains that the differences between Options 1 and 2 are that:
- a Option 2 would apply a more permissive regulatory framework to a wider range of transmission activities;
 - b That wider range of transmission activities could result in adverse environmental effects or potentially have implications for landowners; and
 - c Those environmental effects are unclear, or there is insufficient evidence that current national environmental standards are unsuitable to regulate these activities.
- 21.7 The commentary in the Consultation Document is both:
- a Incorrect – transmission activities have occurred in New Zealand for almost 100 years and their effects are well known. Regulation via the existing NES-ETA has occurred for over 10 years, and so the effects of regulation are also well known; and
 - b Based on a flawed premise. The focus should be on which option best achieves the objectives of the Consultation. That is, which option:
 - i provides more enabling policy direction for renewable electricity generation and electricity transmission?

³⁸ *Strengthening National Direction on Renewable Electricity Generation and Electricity Transmission, Consultation Document*, April 2023, Page 91.

- ii better manages competing interests with other Part 2 RMA matters?
- iii provides for Māori interests for the consenting of renewable electricity generation and electricity transmission projects and incorporates the principles of Te Tiriti o Waitangi?

21.8 In relation to implications for landowners of the buffer corridor rules:

- a Buffer corridor rules have been included in the majority of plans in New Zealand;
- b The proposed corridor rules in the NES-ETA would only affect a small number of properties which are not already subject to buffer corridor rules, but should be. As at 2023, there are two remaining district councils that have not instigated any consultative process to give effect to the NPS-ET corridor provisions;
- c The NPS-ET policies (which require the buffer corridor provisions at a district plan level) were extensively assessed as part of a Board of Inquiry process at the time the NPS-ET was developed. The Board of Inquiry considered alternatives which were eventually ruled out, including easements and designations. The Electricity Act provides Transpower with many of the same rights as would be provided by designations, and designating all existing transmission lines in New Zealand could impose greater restrictions on landowners, and at a much higher cost for Transpower (and therefore electricity customers); and
- d The buffer corridor rules have been relatively settled since 2012, when Environment Court appeals were lodged in relation to the Western Bay of Plenty and Waimate district plans. These appeals involved rural stakeholders, and subsequently settled after multiple mediation sessions. The agreed provisions have been in all plans since – they are now relatively formulaic.³⁹ Since 2012, they have also been tested in the Environment and High Courts and by independent panels chaired by judges. In all instances, provisions consistent with those sought in this submission were imposed.

21.9 In relation to implications for landowners of the NES-ETA being more enabling:

- a Landowner property rights are protected through the Electricity Act. Transpower uses agreements under the Electricity Act (including compensation) and other property tools, such as easements, to appropriately address any 'injurious affection';
- b The NES-ETA will still address adverse effects under the RMA for those activities that require consent, or can otherwise be addressed through permitted activity conditions;
- c Property rights are a separate issue, covered by an existing and separate regime. They are not an RMA reason why the NES-ETA should not be more enabling.

21.10 Transpower prefers Option 2 (with additional amendments shown in **Appendix B**) as:

- a There *is* sufficient evidence that these changes are needed to the NES-ETA; and
- b It better meets the objectives of the Consultation than Option 1 or the status quo.

21.11 In addition to the issues identified as part of the problem statement, Transpower considers the NES-ETA can do better at:

- a Aligning its definitions with other documents, including the National Planning Standards;
- b Ensuring its definitions are workable in practice and do not have operational limitations;
- c Addressing gaps in workability identified by Transpower;
- d Being more efficient in relation to the consenting of discrete works and utilising existing National Grid assets;

³⁹ The only exception is the manner of mapping the subdivision corridor in the Auckland Unitary Plan - which involved a span by span approach, rather than a uniform distance. The restrictions within this distance are however the same.

- e Being more enabling of activities that are mandatory under other legislation and/or essential for the operation of the National Grid, such as vegetation control;
- f Regulating activities based on their environmental impacts rather than amenity values;
- g Protecting the National Grid from the activities of third parties; and
- h Being clear in the context of overlapping national direction.

The NES-ETA amendments should be progressed now

- 21.12 The Consultation Document asks whether improvements to the NES-ETA should be progressed as amendments to existing regulations under the RMA or through the development of the NPF.
- 21.13 The NES-ETA is a RMA document and must be amended under the RMA. Once the NES-ETA is amended, and the Natural and Built Environment Act has become law, the NES-ETA can be incorporated into the NPF, and amended to reflect the legislative framework of the Natural and Built Environment Act.
- 21.14 Transpower also has a substantial amount of works under development which could be better enabled by the NES-ETA. Transpower needs to do this work now (and continue to do so) to ensure the National Grid has the capacity to accommodate increasing demand for, and supply of, renewable electricity. This work cannot wait 7-10 years for the NPF and new resource management system to be fully operative.
- 21.15 Amending the NES-ETA prior to development of the NPF would streamline the consenting of these works and enable routine activities, with an added benefit of a smoother transition over to the new legislation and NPF.
- 21.16 Transpower anticipates increasing maintenance costs in the next 10 years at least, due to its aging asset base. During Regulatory Control Period 4 (2025-2030), Transpower estimates that approximately \$600million in funding will be required to support its maintenance plan.⁴⁰ This is a 10% increase compared to the previous five years.

22 The NES-ETA should be more enabling

- 22.1 Transpower needs to have certainty that it can complete essential operation and maintenance activities in a timely manner. Activities that have minor environmental impacts should be permitted to allow the National Grid to operate efficiently. Where activities may create environmental impacts (i.e. permitted activity standards are breached), Transpower still needs to have certainty that consent will be granted for activities which need to be undertaken on existing infrastructure. In such cases, the effects can be managed by controlled activity consent conditions.
- 22.2 The NES-ETA contains a range of restricted discretionary, discretionary and non-complying activities. Part of the rationale for Option 2 of the Consultation Document is to *“provide a more enabling activity status (e.g. from controlled, to permitted, or from restricted discretionary to controlled) where the effects can be suitably managed by standards and conditions”*.⁴¹ Transpower supports this.
- 22.3 The NES-ETA provides certainty to Transpower that substantial portions of projects can be carried out without the burden of having to apply for resource consents, but also provides an equal amount of certainty to consent authorities that a process is followed to ensure potential adverse effects on the environment are appropriately managed. This is particularly relevant when projects are carried out across multiple regions and/or districts as it makes the consenting pathways consistent.
- 22.4 However, the NES-ETA has resulted in **inefficiencies** (particularly for routine works) for projects in districts with more permissive rules than the rules in the NES-ETA (where references back to plan rules provide restrictions), where more significant structural changes are required to the National Grid, or where the National Grid assets are located in more sensitive areas. Over the next 10 years, the ETN will require

⁴⁰ Transpower RCP4 Consultation, dated September 2022, section 3.3, page 53.

⁴¹ *Strengthening National Direction on Renewable Electricity Generation and Electricity Transmission, Consultation Document*, April 2023, Page 95.

improvements to improve resilience and enable electrification of the energy sector, but these improvements are not readily accommodated in the operative NES-ETA. This consultation provides an opportunity to remove these inefficiencies.

- 22.5 The NES-ETA can efficiently enable and regulate work on the National Grid, including in sensitive and highly valued environments, using permitted activity conditions and some resource consents.
- 22.6 In addition, the NES-ETA consent requirements are **process-focused** – there is very little variation in the actual outcome, or methods for managing and undertaking the works. The result is an inefficient, time consuming and costly process. In Transpower’s experience:
- a There are often delays around the country in processing the applications for consent under the NES-ETA, which has implications for Transpower’s maintenance and routine work programmes;
 - b Consents have been granted for short periods (such as 10 years for vegetation work, which in some cases may only cover two or three trim cycles), meaning Transpower will need to reapply for consent even though the maintenance will be required in perpetuity;
 - c There is a lack of understanding by councils as to the interplay between district plans, regional plans, NES-ETA and other regulations;
 - d Each consent for routine maintenance can cost well in excess of \$10,000, regardless of the scale of work covered by the consent. These costs have at times related to trimming a single tree, or to carry out earthworks of 6 m³ for a single pole replacement;
 - e Council approaches to processing applications vary substantially across the country; even if the same environment or ‘natural area’ is being worked in for cross-district works;
 - f Some of the consent trigger thresholds are set at a level that do not reflect the nature of effects, resulting in consent being required for routine and small-scale activities;
 - g The resource consents often do not influence or improve the nature of the works; and
 - h The matters of discretion for restricted discretionary activities do not include the positive outcomes of National Grid projects, meaning the focus of consenting is on mitigating adverse effects.
- 22.7 The discussion on vegetation clearance / tree trimming in the section of **Appendix C** on Routine Activities further illustrates some of the inefficiencies of the consenting framework for vegetation control.
- 22.8 In general, Transpower seeks a more permissive activity status for the activities included in the NES-ETA, better reflecting the nature of the works and scale of effects. Transpower’s routine activities are critical and must be undertaken in a timely manner. These activities are carried out using best practice techniques, and appropriate management of effects, and there is often little scope to do anything differently. They just need to be done quickly and effectively to ensure the National Grid can continue to operate and does not endanger people, property and the natural environment.

23 Transpower’s suggested amendments to the NES-ETA

- 23.1 **Appendix B** to this submission is a table which suggests amendments to the NES-ETA and provides explanation for those changes. The changes are not discussed on the basis of the ‘categories’ assigned to them in the Consultation Document, because Transpower does not agree with those categories, and wishes to suggest further changes for consideration. In summary, addressing the changes by topic:
- a New regulation 4A has been added to state which regulations address **district matters and which address regional matters**. In addition, the Consultation proposes that plans can be more lenient but not more stringent than the NES-REG.⁴² Transpower seeks that same apply to the NES-ETA, i.e. plans or resource consents can be more lenient but not more stringent (noting the ability for more stringent plan rules is sought for the buffer corridor rules). This has the potential to deliver significant improvements in

⁴² Page 58.

the ability to undertake routine transmission activities as Transpower can use the most lenient rule applicable in the circumstances. In this regard, we note that Transpower has triggered consents under the existing NES-ETA for activities which if carried out by a distribution company would not require consent.

- b New regulation 4B states which **other national environmental standards and national policy statements** apply to activities regulated by the NES-ETA. This is necessary because the expanded NES-ETA would apply to a much wider range of, and is intended to be a 'one stop shop' for most transmission activities (so that it will no longer be necessary for other regulations or policy directions to apply) – consistent with Option 2. **Appendix B** contains a thorough explanation of why each of the stated provisions should prevail, and this is further addressed in the table below. Further changes should be made to these provisions if a decision was made to extend the 'one stop shop' approach to encompass activities such as weirs and culverts which are currently regulated under the NES-F. Any future National Environmental Standards (such as the proposed Drinking Water NES⁴³) will need to be carefully drafted to ensure that no unintended consenting requirements are triggered in relation to National Grid activities.
- c Transpower supports changes to the definitions and regulations relating to **permitted and controlled activity envelopes** for towers. A more flexible permitted activity envelope could remove the need for temporary structures (because a new structure could be built alongside, rather in exactly the same place as, the existing structure).⁴⁴ Bigger footprints also provide flexibility to move structures out of sensitive locations, and to allow bigger structures with longer spans (so fewer structures).
- d Transpower supports Option 2 relating to removal of regulations and related definitions based on '**base**' **measurements**, as the survey work and record-keeping for this is extensive. Any implications of structure and alignment changes for landowners are dealt with by way of landowner agreements/easements.
- e Transpower supports changes included in Option 1 relating to the number of **conductors** (regs 6-9, 12).
- f Transpower seeks additional regulations (regs 9A and 9B) relating to **operational noise**. In relation to this, Option 2 of the Consultation was to add new regulations to establish an operational noise standard. Currently, the NES-ETA does not specify operational noise requirements for transmission lines.
- g Transpower supports changes included in Options 1 and 2 relating to transmission structure **footprint and height changes**. The 15% height limit in regulation 14 is too restrictive, especially when undertaking thermal up-ratings⁴⁵ and correcting mid-span under-clearances⁴⁶. Transpower also seeks that reference **to public view shafts** be removed, as it is not practicable to avoid such view shafts given the state of technology for necessary upgrades (acknowledging the assets are existing). **Figure 3** below shows the overlap between Transpower's assets in Auckland with viewshafts, and why it is not practicable to avoid viewshafts. The alternative would be to relocate the line, which would likely have much greater effects (regs 14-16).
- h In relation to **voltage and current rating**, Transpower supports changes to regulation 10(2), to increase the microtesla limit, so it is consistent with the most up to date International Commission on Non-Ionizing Radiation Protection standard, and to simplify the reference to climatic conditions in regulation 10(6).
- i Transpower agrees with Option 2 in relation to **temporary structures**, but seeks that the permitted activity condition be changed from 20 working days to 60 working days to erect or remove the temporary structure. Having to consent the temporary structures due to them being in place for an extra 40 days is very unlikely to cause any variation in the way Transpower undertakes the works.

⁴³ Transpower's [submission](#) on the Consultation Document for National Environmental Standards for Sources of Human Drinking Water raised concerns that the proposed provisions may prohibit some routine transmission activities.

⁴⁴ See the examples at photos 7 and 8 in Appendix C.

⁴⁵ Thermal up-ratings are changes made at substations which allow more electricity to flow through the line, causing the conductors to heat up and sag lower to the ground.

⁴⁶ In this regard, an under-clearance (of the minimum ground to conductor distance) could be addressed by either raising the structure, and therefore conductor, or potentially carrying out mid-span earthworks. If the site is in an area with archaeological risk, it may be preferable to raise the structure.

Transpower simply puts the structures up when they are needed and then starts works as soon as practicable; removing them as soon as they are no longer required as long as it is safe to do so.

- j Transpower supports the 'Option 2' changes to the **telecommunications devices and signs** regulations.⁴⁷ These changes provide a more enabling activity status, and allow the benefits of the National Grid to be taken into account (regs 21-24).
- k Transpower regularly undertakes **blasting** activities to remove coatings or corrosion on a transmission line structure surface. Transpower seeks to rationalise the blasting provisions in Regulations 25 to 27 of the NES-ETA so they are consistent and clear. Transpower agrees that the definitions should be aligned with the National Planning Standard (with further suggested amendments). Transpower is neutral on those parts of Option 2 which would extend application of the regulations to new transmission lines, but supports those parts of Option 2 which include a more enabling approach to activity status. Extending the blasting provisions to apply to new transmission lines would mean that the NES-ETA would regulate some aspects of new lines, but not others. This could be confusing for councils and others who need to consider approvals (including designations) for new lines.
- l Transpower agrees with Option 2 in relation to **tree trimming and removal** (regs 30-32). The current provisions create unnecessary barriers and obstacles to the trimming and felling of trees and vegetation where required for the safe operation and maintenance of the National Grid. There is also a cascade 'error' in the vegetation provisions that causes interpretation issues for both Transpower and consent authorities. Overall, regulation of trimming, felling and removing trees and vegetation should be less stringent to reduce hazards and risks to and from transmission lines and structures. The amendments to the permitted activity regulation reflect the fact that:
 - i A wide range of indigenous vegetation, notable trees and other vegetation exist under and around the Grid; and
 - ii This vegetation can require trimming or removal to comply with the Electricity (Hazards from Trees) Regulations, and to avoid damage to transmission lines including fires and loss of supply, as well as maintaining access to transmission lines.
- m Option 2 also proposes to **broaden the scope of these regulations** regarding tree trimming and discharges to water to relate to the National Grid generally (i.e. all assets, not just 'existing transmission lines' as defined in the NES-ETA). Transpower does not agree with this part of Option 2. Given that the NES-ETA prevails over designations that are made after the NES came into force,⁴⁸ this change would prevent Transpower from relying on its designations to authorise these works, and would oblige Transpower to apply for additional consents. This would reduce efficiency.
- n Option 1 of the Consultation Document proposes to remove the **earthworks** regulations (regs 33-36) condition relating to contaminated soils as this risk is adequately addressed by the NES-CS. Transpower agrees (or agrees in part) with deleting the contaminated soil condition and the default restricted discretionary activity status that applied if that condition was not complied with. However, Transpower does not consider that this issue should be regulated by the NES-CS. Instead (as explained in Appendix B), Transpower suggests a new (or amended) district level rule be inserted into the NES-ETA to regulate works on contaminated land which covers disturbance, disposal and sampling.
- o Transpower also seeks a range of **regional rules** be inserted into the NES-ETA (regs 40-59). These rules were not included as part of the Consultation, but relate to:
 - i River crossings;
 - ii Dewatering;
 - iii Stormwater discharges;

⁴⁷ Regulations 21-24.

⁴⁸ RMA, s43D(4).

- iv Signage in waterbodies and the Coastal Marine Area;
- v Structures in the Coastal Marine Area;
- vi Earthworks (including contaminated land management at a regional level) and vegetation clearance.

The reasons for these rules are explained in **Appendix B**.

- p Transpower supports nationally consistent **buffer corridors** and related rules (regs 60-66), to protect the National Grid from third party activities. Transpower has spent millions of dollars and many years attempting to ensure the third party activity policies in the NPS-ET are given effect to in district and regional planning documents. This could more efficiently be achieved through a national environmental standard. Transpower's drafting is in Part 2 of the proposed NES-ETA, but it would be possible to put these rules in a separate national environmental standard, to clarify that they apply to everyone (not just Transpower), and they also apply to all non-designated Transpower assets (whereas the NES-ETA generally applies only to 'existing transmission lines' (as defined)). The buffer corridor provisions are explained further in **Appendix B** and section 25 below.
- q The Consultation suggests these buffer corridor rules may have **implications for landowners**.⁴⁹ Transpower notes that there are rules in the majority of plans around the country now, and these rules have been required to be inserted into district plans since 2012.⁵⁰ The NPS-ET policies (which require provisions at a district plan level) were extensively assessed as part of a Board of Inquiry process at the time the NPS-ET was developed. The provisions sought by Transpower have been extensively tested through engagement with Federated Farmers and Horticulture NZ to ensure they minimise impacts on landowners whilst protecting the grid. The provisions Transpower seeks to give effect to policies 10 and 11 have also been extensively tested during the AUP process, the Christchurch Replacement Plan process, and by the Board of Inquiry into the Ruakura Plan Change to the Hamilton City Plan. More recently, the provisions have been subject to an Environment Court Determination in the context of the Queenstown Lakes District Plan. Further, the proposed corridor rules in the NES-ETA will affect only a small number of properties which are not already regulated by equivalent rules in district plans (but should be), but the national consistency arising from regulation via the NES-ETA will provide certainty and consistency for Transpower, landowners and councils. Finally, landowner property rights are protected through the Electricity Act and easements or property agreements.
- r Transpower seeks a range of **minor clarifications**. Some of these were listed as options in the Consultation, while others were not included. These broadly relate to alignment of definitions, clarifications or consequential changes to regulations, and consistency with the NPS-ET.

⁴⁹ Page 93.

⁵⁰ Local authorities were required to give effect to the NPS-ET 2008 in plans made under the RMA within four years of its approval.

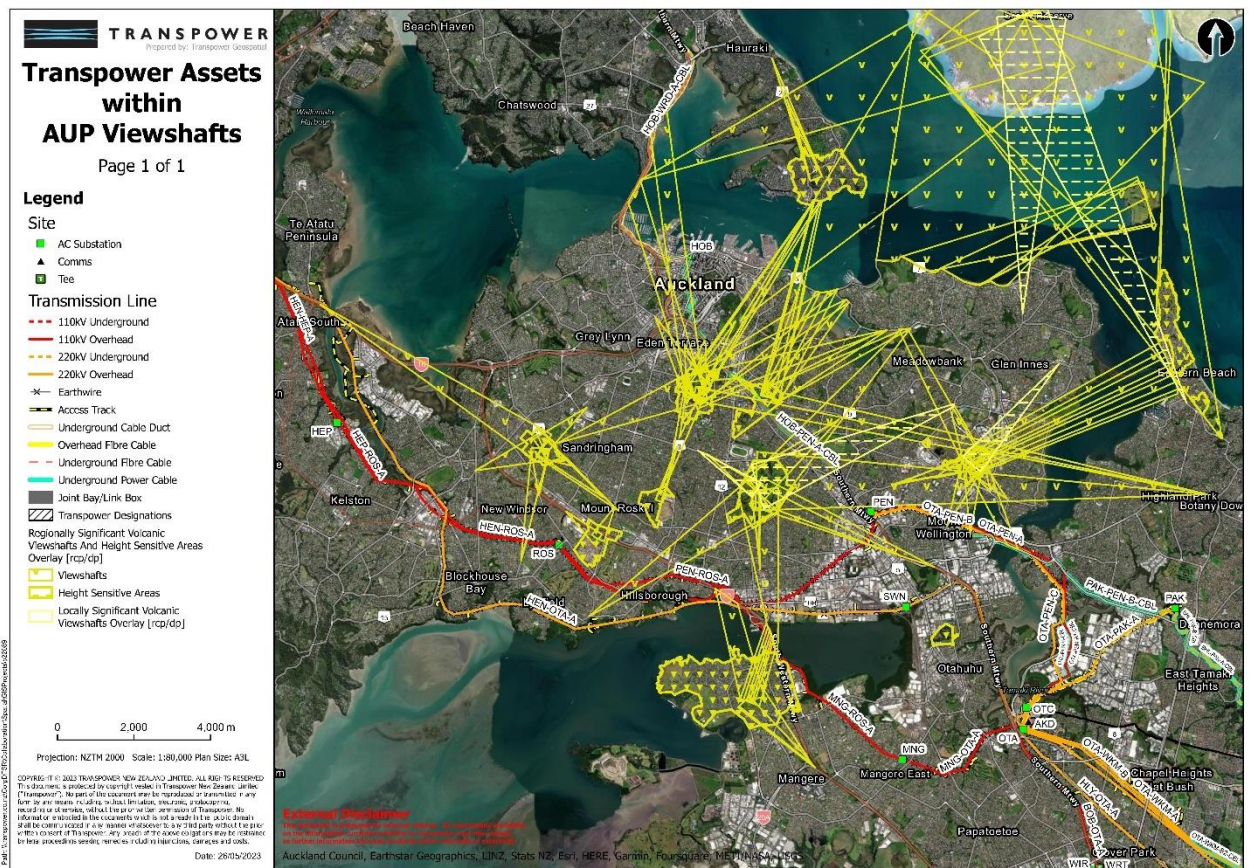


Figure 3: The overlap between Transpower’s assets in Auckland with viewshafts

24 Relationship with other NPSs and NESs

24.1 As noted above, the proposed NES-ETA amendments been drafted after considering the treatment of activities under all national policy statements and national environmental standards. **Table 5** below sets out the relationships between the existing NES-ETA and other national policy statements and national environmental standards, together with the relationship which would exist if amended as Transpower suggests. It is noted that the evaluation below only applies to ‘existing transmission lines’ subject to the NES-ETA.

NPS/ NES	Existing NES-ETA	NES-ETA as amended by Transpower
NZCPS	NZCPS and NES-ETA both apply. Where consent is required by the NES-ETA, the enabling NES-ETA provisions can be undermined by directive policies in the NZCPS (e.g. Hairini project).	NES-ETA prevails in respect of earthworks, vegetation works and regional function activities. NES-ETA regulates effects of earthworks and regional function activities on areas with high or outstanding natural character in the coastal environment. The revised NPS-ET also applies to the coastal environment (so reference to the NZCPS is unnecessary).
NPS-FM	NPS-FM and NES-ETA both apply. Where consent is required by the NES-ETA, the enabling NES-ETA provisions can be undermined by directive policies in the NPS-FM. NES-ETA does not address wetlands.	NES-ETA regulates support structure works, transmission line removal, earthworks, vegetation works and regional function activities. NES-ETA also defers to the NES-FW subject to exemption from some standards. The revised NPS-ET policy framework extends to wetlands

NPS/ NES	Existing NES-ETA	NES-ETA as amended by Transpower
		(and therefore reference to the NPS-FM is unnecessary).
NES-FW	NES-FW and NES-ETA both apply. NES-ETA does not address wetlands.	NES-ETA regulates support structure works, transmission line removal, earthworks, vegetation works and regional function activities. NES-ETA defers to the NES-FW subject to exemption from some wetland standards.
NPS-IB (once issued)	NPS-IB and NES-ETA both apply. Where consent is required by the NES-ETA, the enabling NES-ETA provisions could be undermined by directive policies in the NPS-IB.	NES-ETA regulates earthworks, vegetation works and regional function activities, with a specific management framework for SNA's. The revised NPS-ET applies to indigenous biodiversity, specifically significant natural areas (so reference to the NPS-IB is unnecessary).
NPS-HPL	NPS-HPL and NES-ETA both apply. NES-ETA does not address highly productive land.	NES-ETA is a 'one stop shop' for existing transmission lines. The revised NPS-ET provides policy direction on all ETN activities (so reference to the NPS-HPL is unnecessary).
NES-CS	NES-ETA predominantly applies. However, depending on the extent of regional rules applying to earthworks on contaminated land, regulation coverage can be interpreted to overlap and can be confusing to both Transpower and the councils to apply.	NES-ETA prevails. NES-ETA regulates effects of existing transmission line activities in relation to contaminated soil (both for regional and district activities). NES-CS does not apply to these activities
Other NESs	Other NESs and NES-ETA both apply.	Other NESs and NES-ETA both apply, noting no apparent conflicts exist.

Table 5: Relationship between NES-ETA and other national direction

25 The proposed buffer corridor provisions

25.1 The relevant directions in the existing NPS-ET broadly require that decision makers must:

- a To the extent reasonably possible, manage activities to avoid reverse sensitivity effects on the National Grid and ensure that the National Grid is not compromised (Policy 10); and
- b Consult with Transpower to identify an appropriate buffer corridor within which sensitive activities are 'generally not ... provided for' (Policy 11).

25.2 In considering the direction in Policy 10 the High Court has observed that:⁵¹

Policy 10, though subject to the "reasonably possible" proviso, is, in my judgment, relatively prescriptive. It requires that decision-makers "must" manage activities to avoid reverse sensitivity

⁵¹ *Transpower New Zealand Ltd v Auckland Council* [2017] NZHC 281 at [85].

effects on the electricity transmission network, and “must” ensure that the operation, maintenance, upgrading and development of the electricity transmission network is not compromised. What is sought to be protected is the national electricity transmission grid – an asset which the NPS-ET recognises is of national significance. A mandatory requirement to ensure that an asset of national significance is not compromised is, in my judgment, a relatively strong directive.

- 25.3 Accordingly, Transpower considers that Policy 10 being framed in terms of managing activities ‘to the extent reasonably possible’ does not preclude the NES-ETA from including relatively strong controls. That is on the basis that:
- a A clear National Grid corridor is provided;
 - b To the extent reasonably possible (not ‘practical’) is still a strong direction;
 - c Including National Grid corridor regulations in the NES-ETA will allow for an efficient and nationally consistent approach, and will ensure National Grid assets are protected.
- 25.4 Transpower also, for completeness, considers (and the High Court has confirmed) that Policy 10 relates not just to reverse sensitivity effects, but also to other ‘direct’ effects that might ‘compromise’ the operation, maintenance, upgrading, and development of the electricity transmission network (this dual focus is reflected in the comments of the High Court quoted above).

Inappropriate development, land use and subdivision in close proximity to the National Grid

- 25.5 Inappropriate development, land use and subdivision in close proximity to the National Grid is a significant resource management issue across New Zealand. As set out earlier in Part C of this Submission, third party activities can compromise the operation, maintenance, development and upgrade of the National Grid, with the three primary reasons for restricting third party activities being:
- a Electrical risk (health and safety);
 - b Annoyance caused by transmission lines and reverse sensitivity; and
 - c Restrictions on the ability of Transpower to access, maintain, upgrade and develop the transmission lines, as well as third party development directly affecting and compromising the assets themselves.
- 25.6 This Submission provides examples of large scale, intensively used, and sensitive activities that can compromise Transpower’s ability to carry out National Grid activities.
- 25.7 The National Grid Corridor approach has several important purposes:
- a To enable uncompromised access and maintenance;
 - b To avoid reverse sensitivity effects;
 - c To provide a consistent approach to managing the potential for adverse effects on the National Grid;
 - d To reduce risks of damage to structures and their foundations as a result of adjacent structures and land disturbance; and
 - e To avoid safety hazards.
- 25.8 The National Grid Subdivision Corridor is also important as subdivision is considered the most effective point at which to ensure future reverse sensitivity effects, 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). This is explained further in Transpower’s [Development Guide](#).
- 25.9 The corridors Transpower seeks reflect the minimum areas considered necessary for the protection and operation/maintenance of the National Grid. The corridors have not been sized to provide for major rebuilds or new lines. The proposed areas do not *fully* address such matters as amenity and reverse sensitivity.

- 25.10 Specific to the 10-12m 'National Grid Yard', Transpower is satisfied that there are some activities within the National Grid Yard that will not compromise the operation, maintenance or any upgrade of the network, due to their nature and small scale. Certain structures (such as rural hay barns, pump sheds and implement sheds) are less problematic within 12m of the line (noting that they will still need to be set back 12m from National Grid support structures and meet mandatory safety clearances stipulated in other regulations) on the basis they are unlikely to "build out" a transmission line. The access or use of these structures can be restricted without causing animal welfare or business disruption issues, and they do not introduce intensive uses or heavily frequented workplaces with long durations of exposure to risk.
- 25.11 The provisions proposed⁵² by Transpower would allow for paddocks, fencing (as high as deer fences), landscaping and small sheds, and larger farm buildings not used for intensive farming purposes, in proximity to conductors. Grazing, cropping, and car parking are further examples of activities not restricted by Transpower's preferred rule framework.
- 25.12 Conversely, examples of development that should be avoided within the National Grid Yard include sensitive activities, commercial buildings and intensive uses/development, dairy sheds, piggeries, poultry sheds, and commercial greenhouses. Land disturbance also requires careful management as land disturbance can undermine support structures or reduce conductor to ground clearance distances to unsafe levels.
- 25.13 The provisions proposed by Transpower provide for these activities to occur, where appropriate and subject to certain standards being met.
- 25.14 As well as avoiding direct and reverse sensitivity effects, the National Grid Corridor approach is also necessary to 'enable' access for maintenance and other activities, in the sense of not preventing access.
- 25.15 Case Study 1 in **Appendix C** provides examples of risks to the National Grid where incompatible activities take place too close to the transmission lines or other National Grid assets.
- 25.16 In implementing the current buffer corridor rules in district plans, the argument is sometimes put forward by submitters that many of the effects are already managed under the New Zealand Electrical Code of Practice for Electrical Safe Distances 2001 ("NZECP34"). Transpower does not support reliance on NZECP34 alone to give effect to the NPS-ET.
- 25.17 NZECP34 does not recognise the significance of the National Grid as it applies to all electricity lines. In addition, 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 ensure third party activities do not compromise access, operation, maintenance and development. It does not prevent underbuild or distinguish between land use types (so as to prevent the establishment of sensitive activities). NZECP34 is also less well understood and less easily enforced, as compared to district plan provisions.
- 25.18 Transpower has proposed drafting for the buffer corridor provisions in **Appendix B**. Further thought needs to be given to where the appropriate place for these corridor provisions is. They could form a separate NES, for example.

⁵² Regulations 54-60.

Part D: Impact assessment

13. Questions on the impact assessment	
13.1.To what extent do you agree with the preliminary impact analysis of these options?	<p>Strongly disagree</p> <p>Disagree</p> <p><u>Neither</u></p> <p>Agree</p> <p>Strongly agree</p> <p>Don't know</p>
13.2.Please provide any evidence or examples to support your view.	See the case studies provided in Appendix C of this submission.
13.3.Please provide any comments about this section.	<p>Transpower partially agrees with the preliminary impact analysis of the consultation options for the reasons set out below.</p> <p>Additional costs and risks table (Table 30 and text on pages 104-105)</p> <p>Transpower does not agree that the proposals provide greater specificity for applicants on what is expected for a successful consent application regarding addressing the “interests of Māori”:</p> <ol style="list-style-type: none"> 1. There is no certainty about how to “recognise and provide for Māori interests”. 2. The requirement to consult with Māori is more explicit, but Transpower engages with iwi/Māori anyway, and Transpower’s experience is that early engagement does not prevent iwi changing their mind, or resolve differences in view between mana whenua groups (as demonstrated by the Hairini decision⁵³). 3. The policy direction relating to sites of significance is not clear. <p>Concerns are raised on page 105 regarding the impact of a ‘prevailing’ approach on protected customary rights. This risk is not clearly explained. Transpower’s proposed approach does not affect the application of the Marine and Coastal Area (Takutai Moana) Act 2011.</p> <p>In relation to the risks relating to uncertainty:</p> <ol style="list-style-type: none"> 1. The proposals as provided in the consultation options do not provide certainty as they do not resolve conflicts between national direction (as set out earlier in this submission). Transpower agrees with the comment that various avoid policies, if not reconciled, will encourage those areas to be avoided (due to consenting risks/barriers) and force development into areas where effects may be worse overall. 2. The Consultation correctly recognises risk arising from differing council interpretations of the term “minor”. Transpower’s suggested amendments reduce this risk by using different (defined) terms. 3. Transpower disagrees with the comments regarding the extent to which section 6 matters create resource/geographic barriers. This submission explains that Transpower already has extensive assets in these locations, and their regulatory protection provides a barrier for even routine activities. 4. Transpower agrees that the preferred proposals do not result in high levels of confidence as to the balance being right in relation to the NZCPS, pNPS-IB and NPS-FM.

⁵³ *Tauranga Environmental Protection Society v Tauranga City Council* [2021] NZHC 1201.

Transpower agrees with the assessment of additional costs and risks for local government, as set out in Table 30.

In terms of the impact of the local communities, this can be mitigated by distinguishing between new and existing assets, as proposed for upgrades and repowering of renewable electricity generation, and as Transpower has suggested in its amendments for the NPS-ET.

In terms of the impact on electricity consumers, Transpower's costs, including consenting costs, are borne by electricity consumers. So, the more efficient and certain the process, the lower the costs.

In terms of the impact on the electricity industry, Transpower agrees that upskilling will be required, Transpower is willing to incur the costs of this if it will be offset by more certainty/more efficient consenting.

In terms of the impact on landowners, Transpower partially agrees. The greater the consenting burden, the more likely Transpower will seek affected party approvals from landowners in relation consent applications for work on their land. This time and effort would be over and above agreements in relation to land access that is more simply agreed. In terms of the impact on the environment and the public, the evidence certainty for the NES-ETA changes are medium-high (not low). The National Grid has existed for approximately 100 years and has been operating under the existing NES-ETA for almost 10 years – the requirements of the National Grid, its effects, and its regulation are well known.

Additional benefits table (Table 31)

Transpower agrees with the comments in Table 31 regarding:

1. Iwi/Māori;
2. Local government, provided that Transpower's suggested amendments are adopted, so that conflicts between national direction are resolved. The draft NPS-ET and NPS-REG provided as part of the Consultation do not resolve these conflicts;
3. The electricity sector.

In terms of the additional benefits of the proposed approach for local communities, Transpower considers that any additional job and training opportunities will be small. Transpower aims to employ local workers where possible – but Transpower's workforce is predominantly highly specialised.

In terms of the additional benefits of the proposed approach for landowners:

1. It is important to note that landowners will retain their rights under other legislation, such as the Electricity Act, for matters such as access and compensation; and
2. Increases in the revenue for landowners hosting renewable electricity generation are often reliant on the generation securing a connection to the National Grid. Accordingly, a more enabling approach to the National Grid will unlock benefits for landowners hosting renewable electricity generation.

Part E: Implementation Monitoring and Review

14. Questions on implementation	
14.1. Do you support the use of section 55(2A) to direct local authorities to insert relevant provisions from national policy statements into regional policy statements, regional plans and district plans without using the standard plan-making process in Schedule 1 of the RMA?	<p><u>Yes</u></p> <p>No</p> <p>Don't know</p>
14.2. Do you support providing non-statutory guidance for developing and maintaining renewable electricity generation?	<p><u>Yes</u></p> <p>No</p> <p>Don't know</p>
14.3. Do support further central government or other institutional support for councils in making their consenting decisions?	<p><u>Yes</u></p> <p>No</p> <p>Don't know</p>
14.4. Are there any implementation risks the government should be aware of?	<p><u>Yes</u></p> <p>No</p> <p>Don't know</p>
14.5. Please provide any evidence or examples to support your view.	None.
14.6. Please provide any comments about this section.	<p>Implementation options</p> <p>The assessment of implementation options in table 32 should also recognise that:</p> <ol style="list-style-type: none"> 1. The First Schedule process is highly litigious, with most plan decisions being appealed. Even if proposed changes are notified within the suggested 2 year timeframe, the appeals process will mean the provisions are unlikely to be operative for at least 4 years. 2. Transpower's experience with implementing the existing NPS-ET using the First Schedule process is that there is <u>not</u> a high level of certainty that the amended NPSs will be given effect to. 3. An improved NPS-ET would be useful even if the NES-ETA is not also improved. Transpower anticipates significant numbers of consents will be required for new assets, and some of those may have non-complying activity status (not the discretionary status suggested in Table 32). 4. Policies 10 and 11 of the existing NPS-ET provide no protection to the National Grid unless they are implemented via plan rules. This is because the activities which they apply to wouldn't normally require a resource

14. Questions on implementation

	<p>consent. If no consent is required, then there is no opportunity to consider the policies in the NPS-ET.</p> <p>Further central government or other institutional support</p> <p>Transpower would support development of a standard set of conditions (including as to duration) which councils could use.</p> <p>Transpower would also support the provision of additional government funding to entities such as the Department of Conservation and Heritage New Zealand Pouhere Taonga, to assist with processing approvals under the legislation they are responsible for.</p> <p>Implementation risks</p> <p>If the NZCPS is to prevail (as suggested in the Consultation drafts of the NPS-REG and NPS-ET), councils would need to review their plans to determine if there is a conflict with existing provisions (and, if necessary amend them using the process in the First Schedule to the RMA).</p>
--	--

15. Questions on monitoring and review

Part D	
15.1. Do you agree with the proposed monitoring and evaluation arrangements?	<p>Yes</p> <p>No</p> <p><u>Don't know</u></p>
15.2. To what extent do you agree councils should be required to monitor specific aspects of their implementation of the NPSs and NESSs?	<p>Strongly disagree</p> <p><u>Disagree</u></p> <p>Neither</p> <p>Agree</p> <p>Strongly agree</p> <p>Don't know</p>
15.4. What is the key information to be collected, reported and/or published?	<p>Transpower holds many consents in relation to National Grid activities – many of them relating to routine activities. Indeed, Transpower has so many consents that it has a database to manage compliance with them and an inhouse planning team to assist. The administration costs of publishing all of these existing consents on a public website would be significant for what would seem little gain.</p> <p>It may be appropriate for new consents relating to National Grid 'development activities' (as defined in the NPS-ET discussion) to be publicly available.</p>
15.5. To what extent do you agree standard conditions should be developed for energy related consents (REG and ET), including requirements for monitoring specific environmental indicators	<p>Strongly disagree</p> <p>Disagree</p> <p>Neither</p> <p><u>Agree</u></p> <p>Strongly agree</p> <p>Don't know</p>

15. Questions on monitoring and review

Part D	
15.6. Please provide any evidence or examples to support your view.	None
15.7. Please provide any comments about this section.	<p>Proposed monitoring and evaluation arrangements</p> <p>Many of the activities which Transpower requires consent for are routine, with few effects, and it can be difficult to monitor the risks associated with them. The evaluation needs to include the effectiveness of permitted activity rules in the NES-ETA, as well as activities which require a consent. There is very little information provided in the Consultation Document about the precise monitoring proposed, so it is difficult to comment further.</p> <p>Transpower considers that MfE should monitor the effectiveness of the NPSs. Council staff could provide MfE with information about their approach to implementation.</p> <p>Transpower also considers that councils (not the EPA or MfE) are best placed to monitor compliance with consents relating to the National Grid.</p>

Proposed National Policy Statement on Electricity Transmission [2023]

Draft for consultation v3.1 30/3/23

Authority

This National Policy Statement is issued by the Minister for the Environment under section 54 of the Resource Management Act 1991.

Contents

Subpart 1 - Approaches to implementing this National Policy Statement	6
Subpart 2 – Managing effects on the environment	8
<u>Subpart 3 – Managing effects on the ETN</u>	<u>12</u>

Part 1: Preliminary provisions

1.1 Title

(1) This is the National Policy Statement on Electricity Transmission [date].

1.2 Commencement

(1) This National Policy Statement comes into force on [to come –the date should be specified and be at least 28 days after the NPS is gazetted].

1.3 Definitions

(1) In this National Policy Statement:

Act means the Resource Management Act 1991

areas with significant environment values means any or all of the following identified in a district or regional plan:

- a areas with outstanding natural character in the coastal environment:
- b outstanding natural features and landscapes, both within and outside the coastal environment:
- c ~~sites areas~~ with significant historic heritage value, including sites of significance to Māori and wāhi tapu:
- d significant natural areas, and natural inland wetlands over 500m²

commencement date means the date on which this National Policy Statement comes into force, as identified in clause 1.2.

customer driven project means ETN activities that a third party has requested Transpower to carry out, such as new connections to generation or demand, or relocation or undergrounding of a transmission line or other ETN asset in order to enable urban or infrastructure development.

decision-maker means any person exercising functions or powers under the Act

effects management hierarchy means the effects management hierarchy described in clause 3.8

electricity transmission network or ETN means the electricity transmission network that:

- a comprises the network of transmission lines, cables, stations, substations facilities, and works used to connect grid injection points and grid exit points ~~used~~ to convey electricity in New Zealand; and
- b is owned or used by Transpower New Zealand Limited; and
- c is commonly known as the National Grid

ETN activities means any activity required for the operation, maintenance, upgrade, or development of ETN assets

ETN assets means the physical components of the electricity transmission network, including associated telecommunication assets, along with all access ~~roads and~~ tracks ~~required to operate and maintain~~ those assets

ETN development activities means:

- a the construction of new ETN assets that is not carried out on or related to transmission lines, or cables, or at substation sites, that exist at the time of construction; or
- b rebuilding or replacement of transmission lines that is not otherwise provided for as non-routine ETN activities; or
- c customer driven projects.

Natural inland wetland has the same meaning as in the National Policy Statement for Freshwater Management 2020

Non-routine ETN activities means:

the upgrade of, or changes to, ETN assets, or other ETN activities, where the upgrade, or change, or activity is not a ~~minor routine~~ ETN activity ~~and:~~

~~i will or may have more than minor adverse effects on the environment.~~

~~Minor Routine~~ **ETN activities** means:

- a activities required for or associated with the operation or maintenance of ETN assets; or
- b the upgrade of, or addition or alteration ~~changes~~ to, ETN assets where the upgrade or other change:
 - i will, once the activity is complete, have no more than minor adverse effects on the environment ~~over time; and or~~
 - ii results in the assets occupying a physical space, in any direction, that is the same as, or is not significantly greater than, the existing ETN assets; ~~and or~~
 - iii implements the modern equivalent, substitute, or replacement of the existing ETN assets; or
- c the removal or dismantling of ETN assets; and
- d includes associated activities such as vegetation clearance, tree trimming, maintaining and improving access ~~roads and~~ tracks, ~~and~~ replacing structures ~~with like-for-like structures, reconductoring, foundation works, altering or relocating of structures, undergrounding, and realignment up to five spans of a transmission line.~~

planning decision means a decision on any of the following:

- a a resource consent or designation:
- b a regional policy statement or proposed regional policy statement:
- c a regional plan or proposed regional plan:
- d a district plan or proposed district plan.

significant natural area means an area identified in a regional policy statement or plan ~~or through a resource consent process~~ as an area of significant indigenous vegetation or significant habitat of indigenous fauna, following an assessment by a suitably qualified ecologist using ecological significance criteria.

Sensitive activities includes hospitals, schools, and residential buildings.¹

Transmission line means:²

- a the ETN assets used for or associated with the overhead or underground transmission of electricity in the ETN:
- b includes transmission line support structures, telecommunication cables, and telecommunication devices; but
- c does not include an electricity substation

- (1) Terms defined in the Act and used in this National Policy Statement have the meanings in the Act, unless otherwise specified.
- (2) Terms defined in the National Planning Standard issued under section 58E of the Act and used in this National Policy Statement have the meanings in that Standard, unless otherwise specified.

1.4 Relationship with the New Zealand Coastal Policy Statement 2010 and National Policy Statement for Freshwater Management

This National Policy Statement provides a comprehensive framework for the management of the effects associated with ETN activities, including on indigenous biodiversity and aspects of the environment that are provided for in other policy statements. Accordingly, this National Policy Statement prevails over the provisions of t~~The New Zealand Coastal Policy Statement 2010 prevails over the provisions of this National Policy Statement~~ and the National Policy Statement for Freshwater Management 2020 if there is conflict between them.

1.5 Application of section 55(2A) of Act

The change to regional plans, district plans and regional policy statements required by the following clauses are amendments referred to in section 55(2) of the Act (which, because of section 55(2A), means that the changes must be made without using a process in Schedule 1 of the Act):

- a 3.2 (Consideration of national significance and benefits of electricity transmission network):
- b 3.3 (Consideration of operational and functional needs of ETN assets):
- c 3.4 (Recognising and providing for Māori interests in relation to ETN activities)
- d 3.7B (Routine ETN activities)
- e 3.7C (Non-routine ETN activities outside areas of significant environment values)
- f 3.8 (Areas with significant environment values):
- g 3.9 (Areas that are not areas with significant environment values).
- h 3.11A (Policy for electric and magnetic fields)
- i 3.12A (Managing effects on ETN activities)

¹ Definition from NPS-ET 2008.

² Definition adapted from the NES-ETA.

2 Objective and policies

2.1 Objectives

The Objective of this National Policy Statement is that the ~~ETN electricity transmission network~~ is protected, developed, operated, maintained, and upgraded in an ~~effective, efficient, and safe~~ manner that:

- a recognises and provides for its national significance;
- b secures the resilience of the ETN, including in relation to the effects of climate change;
- c meets the needs of present and future generations, including by increasing transmission capacity over time;
- d recognises and provides for the role of the ETN in achieving New Zealand's emissions reduction targets, emissions budgets, energy targets, and associated commitments under any emissions reduction plan,

while managing the:

- i adverse effects of the ETN on the environment; and
- ii adverse effects of other activities on the ETN.

2.2 Policies

The Policies for electricity transmission are as follows:

Policy 1: The benefits of the ~~ETN electricity transmission network~~ are realised at a national, regional, and local level.

Policy 2: Planning decisions:

- a recognise and provide for the national significance of the ~~ETN electricity transmission network~~ at a national, regional and local level; and
- b enable ETN activities to occur in a timely and efficient way; ~~and~~
- c recognise and provide for the operational and functional needs of the ~~ETN electricity transmission network~~;
- d enable the ETN to contribute to emissions reductions, including by:
 - i providing connections for new, or increased, renewable electricity generation;
 - ii increasing the capacity of the ETN in order to meet increased demand associated with the accelerated electrification of the economy; and
 - iii providing direct connections in order to facilitate fossil fuel conversions

Policy 3: ~~Minor Routine~~ ETN activities are enabled in all locations and environments, and in a timely and efficient manner.

Policy 3A: Non-routine ETN activities are enabled in all areas that are not areas with significant environment values.

Policy 4: Māori interests in relation to ETN activities are recognised and provided for, including through early engagement and ~~seeking to protect protection~~ of ~~the values of identified~~ sites of significance.

Policy 5: ~~It is recognised that~~ Non-routine ETN activities ~~and ETN development activities may need are~~ allowed to take place in areas with significant environment values, ~~including and,~~ where adverse effects remain after applying the effects management hierarchy, ~~ETN activities are enabled if the national significance and benefits of the ETN activities outweigh those remaining adverse effects.~~

Policy 6: In areas that are not areas with significant environment values, ETN development activities are ~~allowed-enabled~~ provided any significant adverse effects on the values of those areas, including on local amenity values, ~~including on local amenity values,~~ are avoided, remedied, or mitigated to the extent practicable.

Policy 7: ~~The effects of other activities in proximity to the ETN, including direct and reverse sensitivity effects, are avoided in order to ensure that the ETN and ETN activities are not compromised. Reverse sensitivity effects on ETN activities are avoided or mitigated where practicable.~~

Policy 8: Local authorities must:

- a identify buffer corridors within which sensitive activities are avoided, and
- b engage with the operator of the ETN to facilitate the implementation of medium to long-term plans for the development of the ETN electricity transmission network.

3 Implementation

3.1 Outline of Part

- (1) This Part sets out a non-exhaustive list of things that must be done to give effect to the objective and policies of this National Policy Statement, but nothing in this Part limits the general obligation under the Act to give effect to that objective and those policies.
- (2) In this Part:
 - a subpart 1 sets out matters that decision-makers must consider whenever they make planning decisions relating to the ~~ETN electricity transmission network.~~; and
 - b subpart 2 sets out how the environmental effects of ETN activities are to be managed.
 - c subpart 3 sets out how the effects of other activities on ETN activities are to be managed.

Subpart 1 – Approaches to implementing this National Policy Statement

3.2 Consideration of national significance and benefits of electricity transmission network

- (1) Every regional council must include the following policy (or words to the same effect) in its regional policy statement and regional plan, and every territorial authority must include it in its district plan:

“(1) When making decisions about ETN activities, recognise and provide for:

- (a) the national significance of the electricity transmission network; and
- (b) the need for the electricity transmission network to be developed, operated, maintained, and upgraded, in an efficient and timely manner; and
- (c) the benefits of the electricity transmission network to be realised, which include ~~all~~ the following:

- (i) supporting reductions in greenhouse gas emissions and the accelerated electrification of the economy, including by increasing transmission capacity and providing direct connections for industry:
- (ii) facilitating the development of new, or expanded or increased, renewable electricity generation:
- (iii) providing secure supply of electricity to communities, homes, and businesses
- (iv) providing for the economic, social and cultural well-being of people and communities.”

3.3 Consideration of operational and functional needs of electricity transmission network

- (1) Every regional council must include the following policy (or words to the same effect) in its regional policy statement and regional plan, and every territorial authority must include it in its district plan:

“(1) When considering the operational and functional needs of ETN assets to be in a particular location, and when considering measures to avoid, remedy or mitigate adverse environmental effects of ETN activities, recognise ~~and provide for that the operational and functional needs of the ETN~~ include:

- (a) the need for ETN assets to transport electricity over long distances, including:
 - (i) within and across urban, rural, and coastal environments; and
 - (ii) within valued and sensitive environments; and
 - (iii) across jurisdictional boundaries within and across regions; and
- (b) the need for the ~~ETN electricity transmission network~~ to operate as an interconnected linear system across New Zealand; and
- (c) the requirement for regular maintenance and upgrading of the ~~ETN, due to its age, the need to improve resilience, and the need to increase capacity to meet increasing demand; and electricity transmission network~~
- (d) the need for the ETN to connect to electricity generation, and to demand, wherever located.

3.4 Recognising and providing for Māori interests in relation to ETN activities

Every regional council must include the following policy (or words to the same effect) in its regional policy statement and regional plan, and every territorial authority must include it in its district plan:

“(1) When making decisions about ETN activities, recognise and provide for Māori interests, including through:

- (c) actively involving tangata whenua (to the extent they wish to be involved) through early engagement ~~with tangata whenua in a way~~ that is early, meaningful and, as far as practicable, in accordance with tikanga Māori; and
- (d) ~~seeking ensuring~~ that ETN activities on or near identified sites of significance to tangata whenua (including ~~wāhi~~ tapu) are, as far as

practicable, undertaken in a way that provides for the significance of the sites.”

3.5 Considerations for ETN development activities and non-routine ETN activities

- (1) When considering the environmental effects of ETN development activities or (where relevant) non-routine ETN activities in areas of significant environment values, decision-makers must consider the extent to which any adverse effects have been avoided, minimised, or remedied by the route, site, and method selection.

3.6 Facilitating planned development of the ETN electricity transmission network

- (1) Regional councils must include objectives, policies, and methods to facilitate long-term planning for investment in ETN assets. ~~and the integration of the electricity transmission network with other land uses.~~
- (2) Decision-makers must recognise that the designation process can facilitate long-term planning for the operation, maintenance, upgrade, and development of the ETN electricity transmission network.

Subpart 2 – Managing effects on the environment

3.7 Minor Routine ETN activities

- (1) Decision-makers must enable ~~minor routine~~ ETN activities to occur without restriction in all locations and environments, except that persons undertaking ~~minor routine~~ ETN activities:
 - a. outside areas with significant environment values must should avoid remedy or mitigate significant adverse effects on the environment of the ETN activities where practicable, acknowledging the existing nature of the assets.
 - b. inside areas with significant environment values, should avoid remedy or mitigate adverse effects on the environment of the ETN activities where practicable, acknowledging the existing nature of the assets.

3.7A Non-routine ETN activities outside areas with significant environment values

- (1) Outside areas with significant environment values, decision-makers must enable non-routine ETN activities to occur without restriction, except that persons undertaking non-routine ETN activities should avoid or mitigate significant adverse effects on the environment where practicable.

3.7B Policy for routine ETN activities

Every regional council must include the following policy (or words to the same effect) in its regional policy statement and regional plan, and every territorial authority must include it in its district plan:

“(1) Enable routine ETN activities in all locations and environments, provided that:

- (a) outside areas with significant environment values, significant adverse effects on the environment of the ETN activities should be avoided, remedied or mitigated where practicable, acknowledging the existing nature of the assets.
- (b) inside areas with significant environment values, adverse effects on the environment of the ETN activities should be avoided, remedied or mitigated where practicable, acknowledging the existing nature of the assets.”

3.7C Non-routine ETN activities outside areas of significant environment values

Every regional council must include the following policy (or words to the same effect) in its regional policy statement and regional plan, and every territorial authority must include it in its district plan:

“(1) In relation to areas that are not areas with significant environment values, enable non-routine ETN activities to occur without restriction provided that significant adverse effects on the environment should be avoided or mitigated where practicable.”

3.8 Non-routine and ETN Development activities within a **Areas with significant environment values**

- (1) Every regional council must include the following policy (or words to the same effect) in its regional policy statement and regional plan, and every territorial authority must include it in its district plan:

“(1) Allow non-routine ETN activities in areas with significant environmental values only if:

- ~~(a) — there is an operational or functional need for the ETN assets to be located in that area; and~~
- ~~(b) — the ETN activities are nationally or regionally significant; and~~
- (c) the effects management hierarchy is applied.

(1A) Allow ETN development activities in areas with significant environmental values only if:

- (a) the activity is either a connection to existing, permitted, or consented renewable generation, or there is otherwise an operational or functional need for the ETN assets to be located in that area; and
- (b) the effects management hierarchy is applied.

“(2) The effects management hierarchy is as follows:

- (a) adverse effects are avoided where practicable; then
- (b) where adverse effects cannot be avoided, they are minimised where practicable; then
- (c) where adverse effects cannot be minimised, they are remedied where practicable; then
- (d) in significant natural areas or identified natural inland wetlands greater than 500m², where more than minor residual adverse effects cannot be avoided, minimised, or remedied, offsetting is provided where practicable; then
- (e) in significant natural areas or identified natural inland wetlands greater than 500m², if offsetting of more than minor adverse effects is not practicable, compensation is provided; then
- ~~(f) — Option 2A (same rule for all) if compensation is not appropriate to address any residual adverse effects:~~
 - ~~(i) — the ETN activities must be avoided if the residual adverse effects are significant; but~~

- ~~(ii) — if the residual adverse effects are not significant, the ETN activities must be enabled if the national significance and benefits of the ETN activities outweigh the residual adverse effects.~~
- (f) ~~Option 2B (special rule for in~~ significant natural areas) ~~or identified natural inland wetlands great than 500m²~~ if compensation is not appropriate to address any residual adverse effects:
 - ~~(i) — in the case of ETN activities with adverse effects on a significant natural area:~~
 - (A) the ETN activities must be avoided if the residual adverse effects are significant; but
 - (B) if the residual adverse effects are not significant, the ETN activities must be enabled, provided that in the case of customer driven projects that are not a connection to renewable generation, the benefits of the activity outweigh the residual adverse effects if the national significance and benefits of the ETN activities outweigh the residual adverse effects; and
- (g) in all other areas with significant environment values, where more than minor residual adverse effects cannot practicably be avoided, minimised, or remedied, then the ETN activities must be enabled provided that in the case of customer driven projects that are not a connection to renewable generation, the benefits of the activity outweigh the residual adverse effects if the national significance and benefits of the ETN activities outweigh the residual adverse effects.

“(3) When considering offsetting and compensation, have regard to any relevant principles relating to offsetting and compensation set out in Schedule 1. ~~any other National Policy Statement or, if there are no relevant principles in a National Policy Statement, any other relevant nationally or internationally recognised principles.~~”

“(4) When considering measures to avoid minimise or remedy adverse effects on the environment for the purposes of clause (2), consider the constraints imposed on achieving those measures by the functional or operational needs of the ETN.”

3.9 ETN Development activities within a **Areas that are not areas with significant environment values**

- (1) Every regional council must include the following policy (or words to the same effect) in its regional policy statement and regional plan, and every territorial authority must include it in its district plan:

“(1) In relation to areas that are not areas with significant environment values, enable ETN development activities provided ~~the any significant~~ adverse effects of the ETN development activities on the values of the area, ~~including any local amenity values,~~ are avoided, remedied, or mitigated to the extent practicable.

“(2) When considering changes in ~~local~~ amenity ~~values~~ from ETN development activities, recognise that changes in amenity ~~values~~ are not, of themselves, an adverse effect, ~~and that:~~

- ~~(a) — changes that may detract from local amenity values appreciated by some people may result in amenity values appreciated by other people; and~~

- ~~(b) the changes are likely to have wider benefits to the wellbeing of people and communities, including future generations."~~

~~3.10 Avoiding reverse sensitivity effects~~

- ~~(1) In order to assist avoiding reverse sensitivity effects on the electricity transmission network:~~
- ~~a territorial authorities must identify any ETN assets in their district, whether they are designated or not; and~~
 - ~~b local authorities must identify in regional and district plans appropriate buffer corridors around ETN assets.~~
- ~~(2) The purpose of buffer corridors is to identify areas in which sensitive activities that might have reverse sensitivity effects on ETN assets or activities (such as residential housing, schools, and hospitals) are generally not provided for in plans, and resource consents are not granted for them.~~

3.11 Electric and magnetic fields

Provisions in regional or district plans that deal with electric or magnetic fields associated with the electricity transmission network must be based on International Commission on Non-ionising Radiation Protection Guidelines for limiting exposure to time varying electric magnetic fields (1Hz – 100Hz), (Health Physics 99(6):818-836; 2010) (ICNIRP Guidelines) or its revisions, or any other applicable New Zealand standards.

3.11A Policy for electric and magnetic fields

Every territorial authority must include the following policy (or words to the same effect) in its district plan:

"(1) The electric and magnetic fields produced by the transmission of electricity at 50 Hz through overhead or underground alternating current transmission lines must, after being modelled in accordance with clauses (3) to (6), be demonstrated to either—

(a) not exceed the following reference levels for public exposure:

i. electric field strength of 5 kV/m; and

ii. magnetic flux density of 200 microteslas; or

(b) not exceed the basic restriction level of 2 mA/m² for the density of electric current induced in the body.

(2) The static electric field strength produced by the transmission of electricity through overhead direct current transmission lines must be demonstrated to have no likely adverse human health effects after—

(a) modelling the field strength in accordance with clauses (4) to (5) as if references to electric field strength were references to static electric field strength; and

(b) including the likely contribution to the field strength from the space charge around the transmission line caused by corona discharge.

(3) The electric field strength and magnetic flux density of a transmission line must be modelled at whichever of the following locations is closest to the line:

(a) 1 metre above the ground in an area above, below, or next to the line that is reasonably accessible to the public; or

(b) 1 metre above the highest floor level of an occupied building.

(4) The electric field strength and magnetic flux density of a transmission line may be modelled to take account of any shielding effect from buildings.

(5) The electric field strength and magnetic flux density of an overhead transmission line must be modelled to result in the highest electric and magnetic fields likely under normal operating conditions using conservative climatic conditions to determine conductor position.

(6) The magnetic flux density of an underground transmission line must be modelled to result in the highest magnetic field likely under normal operating conditions.

(7) The results of modelling the electric field strength, magnetic flux density, density of electric current induced in the body, or static electric field strength under this policy must be provided to the council if requested by council.

(9) In clauses (5) and (6), normal operating conditions—

(a) means the conditions associated with the highest load current; but

(b) does not include conditions in which a short-term increase in voltage or current is caused by a fault such as switching, a lightning strike, a short circuit, or an abnormal operating state of a direct current transmission line.

Subpart 3: Managing effects on ETN activities

3.12 Avoiding activities which compromise ETN activities

(1) In order to avoid effects on the ETN, including both direct and reverse sensitivity effects:

- a territorial authorities must identify any ETN assets in their district, whether they are designated or not;
- b local authorities must identify in regional and district plans appropriate buffer corridors around ETN assets, within which sensitive activities are not to be provided for;
- c local authorities must manage activities in proximity to ETN assets in order to ensure that the safe and efficient operation, maintenance, upgrading and development of the ETN are not compromised, and reasonable access to the ETN is maintained.

3.12A Managing effects on ETN activities

Every regional council must include the following policy (or words to the same effect) in its regional policy statement and regional plan, and every territorial authority must include it in its district plan:

“(1) Within National Grid buffer corridors, avoid both direct and reverse sensitivity effects on the ETN by:

- (a) Managing activities, buildings and structures to ensure the ETN is not compromised, and reasonable access to the ETN is maintained; and
- (b) Avoiding sensitive activities.”

4 Timing

4.1 Time by which National Policy Statement to be implemented

- (1) This National Policy Statement applies from the commencement date.**
- (2) Provisions required by this National Policy Statement to be inserted into regional policy statements, regional plans, and district plans must be inserted within six months of gazettal.**
- (3) All other changes to regional policy statements and regional or district plans that are required to give effect to this National Policy Statement must be made within two years of gazettal ~~need not be made until the next review of the policy statement or plan.~~**

Schedule 1: Principles for biodiversity offsetting and compensation

Principles for offsetting in relation to ETN activities

The following sets out a framework of principles to have regard to for the use of biodiversity or aquatic offsetting in relation to ETN activities. These principles represent a standard for offsetting and must be complied with for an action to qualify as a offset.

1. **Adherence to effects management hierarchy:** An offset is a commitment to redress any more than minor residual adverse effects and should be contemplated only after steps to avoid, minimise, and remedy adverse effects are demonstrated to have been sequentially exhausted.
2. **When ETN offsetting is not appropriate:** Offsets are not appropriate in situations where biodiversity or aquatic values cannot be offset to achieve a net gain outcome, and if those values are adversely affected, they will be permanently lost. This principle reflects a standard of acceptability for demonstrating, and then achieving, a net gain in the extent and values. Examples of where an offset would be inappropriate include where:
 - a. residual adverse effects cannot be offset because of the irreplaceability of the extent or values affected; or
 - b. there are no technically feasible options by which to secure gains.
3. **No net loss and preferably a net gain:** This is achieved when the extent or values gained at the offset site (measured by type, amount and condition) are equivalent to or exceed those being lost at the impact site.
4. **Additionality:** An offset achieves gains in extent or values above and beyond gains that would have occurred in the absence of the offset, such as gains that are additional to any minimisation and remediation undertaken in relation to the adverse effects of the activity.
5. **Leakage:** Offset design and implementation avoids displacing harm to other locations (including harm to existing biodiversity at the offset site).
6. **Landscape context:** An offset action is undertaken where this will result in the best ecological outcome, preferably close to the impact site or within the same ecological district, and consider the landscape context of both the impact site and the offset site, taking into account interactions between species, habitats and ecosystems, spatial connections, and ecosystem function.
7. **Long-term outcomes:** offsets are managed to secure outcomes of the activity that last at least as long as the impacts, and preferably in perpetuity. Consideration must be given to long-term issues around funding, location, management and monitoring.
8. **Time lags:** The delay between loss of indigenous biodiversity at the impact site and gain or maturity of indigenous biodiversity at the offset site is minimised so that the calculated gains are achieved within the consent period consent period or, as appropriate, a longer period (but not more than 35 years).
9. **Science and mātauranga Māori:** The design and implementation of an offset is a documented process informed by science and mātauranga Māori where available.
10. **Stakeholder participation:** Opportunity for the effective and early participation of stakeholders is demonstrated when planning for offsets, including their evaluation, selection, design, implementation, and monitoring. For the avoidance of doubt, when planning offsets, assessments by ecologists as to the outcomes to be achieved take priority over stakeholder's views.
11. **Transparency:** The design and implementation of an offset, and communication of its results to the public, is undertaken in a transparent and timely manner.

Principles for biodiversity compensation in relation to ETN activities

The following sets out a framework of principles to have regard to for the use of biodiversity or aquatic compensation and apply to the use of compensation for the loss of extent or values of SNAs or natural inland wetlands ("extent or values" below).

1. **Adherence to effects management hierarchy:** compensation is a commitment to redress more than minor residual adverse impacts, and should be contemplated only after steps to avoid, minimise, remedy, and offset adverse effects are demonstrated to have been sequentially exhausted.
2. **When compensation is not appropriate:** compensation is not appropriate where the extent or values are not able to be compensated for, for example because:
 - a. the affected part of the natural inland wetland or SNA or its values, including species, are irreplaceable ; or
 - b. there are no technically feasible options through compensation by which to secure proposed gains.
3. **Scale of aquatic compensation:** The extent or values to be lost through the activity to which the aquatic compensation applies are addressed by positive effects that outweigh the adverse effects.
4. **Additionality:** Compensation achieves gains in extent or values above and beyond gains that would have occurred in the absence of the compensation, such as gains that are additional to any minimisation and remediation or offsetting undertaken in relation to the adverse effects of the activity.
5. **Leakage:** The design and implementation avoid displacing harmful activities or environmental factors to other locations (including harm to existing biodiversity at the compensation site).
6. **Landscape context:** compensation actions are undertaken where this will result in the best ecological outcome, preferably close to the impact site or within the same ecological district. The actions consider the landscape context of both the impact site and the compensation site, taking into account interactions between species, habitats and ecosystems, spatial connections, and ecosystem function.
7. **Long-term outcomes:** compensation is managed to secure outcomes of the activity that last as least as long as the impacts, and preferably in perpetuity. Consideration must be given to long-term issues around funding, location, management, and monitoring.
8. **Time lags:** The delay between loss of indigenous biodiversity at the impact site and gain or maturity of indigenous biodiversity at the compensation site is minimised so that the calculated gains are achieved within the consent period or, as appropriate, a longer period (but not more than 35 years).
9. **Trading up:** When trading up forms part of compensation, the proposal demonstrates that the values gained are demonstrably of higher value than those lost. The proposal also shows the values lost are not to Threatened or At Risk species or to species considered vulnerable or irreplaceable.
10. **Financial contributions:** A financial contribution is only considered if it directly funds an intended aquatic gain or benefit that complies with the rest of these principles.
11. **Science and mātauranga Māori:** The design and implementation of biodiversity compensation is a documented process informed by science and mātauranga Māori where available.
12. **Stakeholder participation:** Opportunity for the effective and early participation of stakeholders is demonstrated when planning for biodiversity compensation, including its evaluation, selection, design, implementation, and monitoring. For the avoidance of doubt, when planning compensation, assessments by ecologists as to the outcomes to be achieved take priority over stakeholder's views.
13. **Transparency:** The design and implementation of biodiversity compensation, and communication of its results to the public, is undertaken in a transparent and timely manner

Appendix B

1 June 2023

TRANSPOWER’S SUGGESTED AMENDMENTS TO THE RESOURCE MANAGEMENT (NATIONAL ENVIRONMENTAL STANDARDS FOR ELECTRICITY TRANSMISSION ACTIVITIES) REGULATIONS 2009

The table below provides Transpower’s suggested amendments to the NESETA (shown in tracking to the current version of the Regulations, reprint as at 20 May 2014).

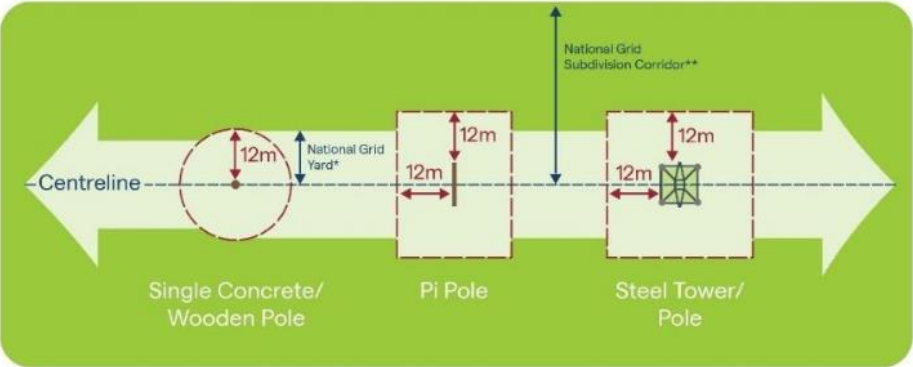
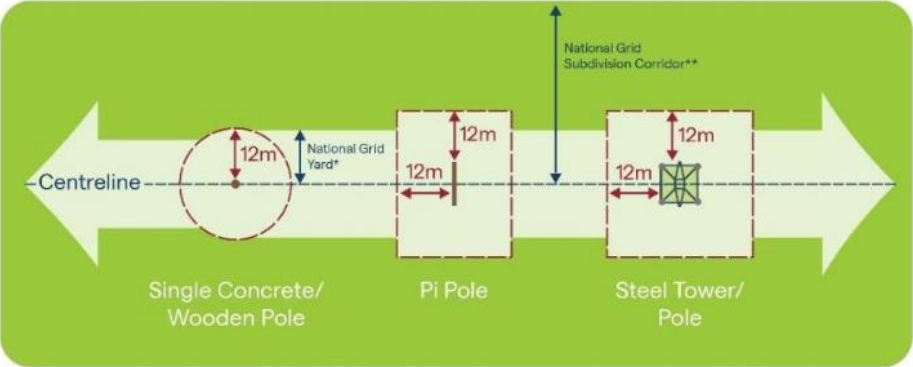
These suggested amendments are a starting point for discussion and demonstrate how the changes Transpower is requesting could be set out. Transpower acknowledges that further refinement and testing is needed, including whether a separate NES would be more appropriate for National Grid Yard/Third party activities.

NESETA Provision mark up <i>shown in red</i>	Transpower comments
1. Title <i>These regulations are the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.</i>	
2. Commencement <i>These regulations come into force on 14 January 2010.</i>	
3. Interpretation 1) <i>In these regulations, unless the context requires another meaning,—</i>	
abrasive blasting <i> means wet abrasive blasting and dry abrasive blasting</i> <i>the cleaning, smoothing, roughening, cutting or removal of part of the surface (including impurities of the surface) of any article by the use, as an abrasive, of a jet of sand/garnet, metal, shot or grit or other material propelled by a blast of compressed air or steam or water or by a wheel.</i>	<p>Transpower agrees that the adopting of definitions from the National Planning Standards relating to ‘blasting’ activities is appropriate; however, some minor changes to the definitions are proposed to reflect matters specific to Transpower (as outlined below) and hence are still provided in the NES-ETA definitions.</p> <p>For the avoidance of doubt, Transpower would like to see ‘garnet’ added to the list of materials as this is typically the abrasive material used for abrasive blasting activities. Garnet is an inert material similar to sand.</p> <p>In addition, Transpower considers that the ‘cleaning or removal of any impurities of the surface/part of the surface’ should also be added. This would avoid any doubt that impurities are being removed and not always the actual surface of the structure. Impurities include salt, dust and other debris.</p>
Act means the Resource Management Act 1991	
Assessment point <i>means, for the purpose of regulation 9A, any point over the footprint of a building containing a residential unit, at a height of 4 metres above ground level for a single storey building and with an additional 3 metres height for each additional storey for multiple storey buildings</i>	<p>Option 2: Add new regulations to establish an operational noise standard</p> <p>Position: Agree with Option 2</p> <p>Comment: Transpower proposes this definition as part of the operational noise regulations.</p>
base footprint <i>means the footprint of a tower, below ground level, at the commencement of these regulations. It does not include any land occupied by a guy-wire.</i> base height <i>means the height of a transmission line support structure at the commencement of these regulations</i> base position <i>means the position of a pole at the commencement of these regulations</i> base width <i>means the length of the longest side of a tower's base footprint</i>	<p>Option 2: Remove definitions, reflecting changes to the regulations</p> <p>Position: Partly agree with Option 2</p> <p>Comment: Transpower seeks removal of the terms ‘base height’ and ‘base position’, as these terms are no longer used in the NES-ETA.</p> <p>Transpower also seeks deletion of ‘at the commencement of the regulations’. This requires extremely accurate survey work to be undertaken and this information to be retained long term. This is an onerous task and will become more onerous over time. The changes made to the height and position of structures are necessary for safety and security of supply and for whatever reason the structure is moved (routine replacement/natural hazard encroachment/new road/underbuild clearances, removal from a wetland etc) then the move should be enabled. In addition, the assessment of effects should be carried out on the</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
	<p>current height and position, and not what it might have been at the commencement of the regulations, which could be decades.</p> <p>Transpower suggests the likelihood of structures being moved more than once in their lifetime would be low and does not justify the requirement (and associated costs) to maintain these records.</p> <p>Towers include occupation of space below ground level (including tower legs, foundations (eg concrete encased legs and pile foundations) and other associated below ground elements). As such, Transpower seeks amendments to the definitions of ‘footprint’, ‘base footprint’ and ‘envelope for permitted activities’, and the regulation relating to altering, relocating or replacing support structures so that the permitted envelope for tower works includes the part of a tower as it occupies space below ground level.</p>
blasting means water blasting, and abrasive blasting <u>wet abrasive blasting and dry abrasive blasting</u>	Blasting definition amended to provide for all types of blasting, including water blasting which currently has no definition in the National Planning Standards.
circuit means conductors on a transmission line that together form a single electrical connection between 2 or more system nodes	
conductor (a) means wire or cable used for carrying electric current along a transmission line; and (b) includes any hardware and insulation associated with the wire or cable	
Compromised Span means, for the purpose of regulation 54, a span identified in the Auckland Unitary Plan as being compromised.	
dry abrasive blasting means <u>abrasive blasting using materials to which no water has been added</u> . using abrasive material in air and directing it at pressure to wear down or remove the coatings or corrosion on a structure's surface	<p>Option 1: Update to align with definitions in other planning documents and plans. The definition of dry abrasive blasting has been adopted from the National Planning Standards.</p> <p>Position: Agree with Option 1</p>
earth-wire— (a) means a protective wire that provides a path to ground for electrical current from a fault or lightning strike; and (b) includes an earth-wire that contains optic fibres; and (c) includes any hardware associated with the wire.	
earthworks <u>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.</u> means the disturbance of the surface of land by activities including blading, tracking, boring, contouring, ripping, moving, removing, stockpiling, placing, replacing, recompacting, excavating, cutting, and filling earth (or any other matter constituting the land, such as soil, clay, sand, or rock)	<p>Option 1: Update to align with definitions in other planning documents and plans.</p> <p>Position: Agree with Option 1</p> <p>Comment: Transpower seeks amendment to the Earthworks definition to ensure consistency with National Planning Standards and to better align with current Grid activities.</p>
envelope for controlled activities means the quadrangle formed by moving each side of a tower's base footprint outwards by 150% of the tower's base width and joining the sides (as shown in the second diagram in the Schedule)	<p>Option 2: Remove definitions, reflecting changes to the regulations</p> <p>Position: Agree with Option 2</p> <p>Comment: See definition of ‘envelope for permitted activities’ and rule changes below.</p> <p>Given the expansion of the permitted activities envelope to the controlled envelope, the controlled activity envelope is no longer needed.</p>
envelope for permitted activities means the quadrangle formed by moving each side of a tower's base footprint <u>below ground level</u> outwards by 6 <u>150</u> % of the tower's base width and joining the sides (as shown in the first diagram in the <u>Schedule 1</u>).	<p>Transpower seeks to increase the envelope for permitted activities for practical reasons, as the current envelopes are insufficient for many routine activities.</p> <p>Upgrading existing lines to allow for additional conductors (and additionally larger foundations and sized towers) will also enable more efficient upgrades to support rapid electrification.</p> <p>Further envelope room will also enable Transpower to avoid effects on the ground – for example, if an archaeological site is discovered then working around the area will be more straightforward – flexibility of this kind is incorporated into designations for new lines that Transpower obtains.</p>

NESETA Provision mark up shown in red	Transpower comments
	Works on towers include work below ground level (on foundations etc). As such, Transpower seeks amendments to the definitions of ‘footprint’ and ‘envelope for permitted activities’, and the regulation relating to altering, relocating or replacing support structures so that the permitted envelope for tower works includes the part of a tower below ground level.
<p><u>ETN development activities means, in relation to existing transmission lines:</u></p> <p><u>a the construction of new ETN assets that is not carried out on or related to transmission lines, or cables, that exist at the time of construction; or</u></p> <p><u>b rebuilding or replacement of transmission lines not otherwise provided for as non-routine ETN activities; or</u></p> <p><u>c customer driven projects.</u></p>	<p>Option: Replace ‘upgrading’ with definitions for ‘routine maintenance activities’ and ‘substantial/major upgrade activities’.</p> <p>Position: Agree with Option 2</p> <p>Comment: Transpower seeks to replace the definition of ‘upgrading’ to provide greater certainty and clarity. Transpower also seeks that this definition be consistent with the proposed NPSET.</p>
<p>existing transmission line—</p> <p>(d) means a transmission line that was operational, or was able to be operated, at <u>14 January 2010 (being the commencement of these original regulations)</u>; and</p> <p>(e) includes a transmission line described in paragraph (a) that is altered or relocated in accordance with these regulations; and</p> <p>(f) includes a transmission line that, in accordance with these regulations, replaces a transmission line described in paragraph (a)</p>	<p>Insertion to provide clarity about the lines that the [revised] NES-ETA applies to. In particular, and given section 43D of the RMA, Transpower seeks that the [revised] NES-ETA provisions relating to works on the Grid are not extended to other lines. Capturing designated lines will result in inefficiencies.</p> <p>Transpower’s preference is that any extension of the NES-ETA to other assets is considered in the context of the NBA and NPF.</p>
<u>footprint means the outline of the land occupied by a tower, formed by drawing straight lines between the outermost edges of the outermost parts of the tower at below ground level. It does not include any land occupied by a guy-wire.</u>	Towers include occupation of space below ground level (including tower legs, foundations (eg concrete encased legs and pile foundations) and other associated below ground elements)). As such, Transpower seeks amendments to the definitions of ‘footprint’ and ‘envelope for permitted activities’, and the regulation relating to altering, relocating or replacing support structures so that the permitted envelope for tower works includes the part of a tower as it occupies space below ground level.
<u>Guy wire is a cable or wire designed to add stability to a structure, including any associated pole or anchor block.</u>	<p>Option 2: New definition</p> <p>Position: Agree with Option 2.</p> <p>Comment: Transpower proposes to insert this definition to provide clarity given guy-wires are provided for in the rules. Adding this definition does not pose any implications for landowners or conflicts with other values as it is simply giving a definition to a regular part of Transpower’s transmission line parts.</p>
<u>height, in relation to a transmission line support structure, means the height of the structure measured vertically from the ground level at the centre of the structure to the highest point of the structure (including conductors, but excluding telecommunication devices, earth peaks, and lightning rods)</u>	
<p>historic heritage area item or settings</p> <p>(a) means a <u>building, item or area that is identified as having n-area that is protected by a rule because of its</u> historic heritage <u>values in a district plan</u>; and</p> <p>(b) to avoid doubt, includes an area that is <u>protected by a rule because it is identified in a district plan as</u> a site of significance to Māori</p>	<p>Option 1: Update to align with definitions in other planning documents and plans.</p> <p>Position: Agree with Option 2</p> <p>Comment: Transpower seeks amendment to remove reference to “protected by a rule” – this phrase has caused Transpower issues, as even a permitted activity rule with standards can be triggered as this arguably provides some “protection.” Having this applied to items or settings identified in a district plan map provides greater clarity and removes interpretation issues.</p>
<p>land includes—</p> <p>(a) land covered by water and the air space above land; and</p> <p>(b) the bed of a lake or river; and</p> <p>(c) the surface of water in a lake or river</p>	<p>Option: Remove and rely on the interpretation in the RMA.</p> <p>Position: Agree with Option 1</p> <p>Comment:</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
	<p>The current definition in the NESETA includes the bed of a lake or river, while the RMA definition does not.</p> <p>Transpower prefers to rely on the definition in the RMA, given inconsistencies with the NESETA definition. The differences between the two definitions have caused Transpower jurisdictional issues in relation to who the consent authority is for certain applications.</p>
<p><u><i>LAeq(15min) has the same meaning as in NZS 6801:2008 Acoustics – Measurement of environmental sound</i></u></p>	<p>Option 2: Add new regulations to establish an operational noise standard</p> <p>Position: Agree with Option 2</p> <p>Comment: Transpower proposes this definition as part of the operational noise regulations.</p>
<p><u><i>Mechanical preparation of a surface means removing impurities or corrosion of part of the surface using hand-held tools with an abrasive surface.</i></u></p>	<p>Comment: An alternative method of removing impurities/corrosion is the mechanical or manual preparation of the steel surface. This is done by hand held tools (both powered and non-powered) with an abrasive surface (eg tungsten and wire brushes) and is a method not reflective of the defined abrasive blasting activities.</p>
<p><u><i>Modelled conductor noise levels means calculated noise levels based on the transmission line and conductor configuration, taking into account new wet conductor characteristics, ignoring the presence of any buildings, and without any adjustments for special audible characteristics (which has the same meaning as in NZS 6802 means NZS 6802:2008 Acoustics – Environmental noise).</i></u></p>	<p>Option 2: Add new regulations to establish an operational noise standard</p> <p>Position: Agree with Option 2</p> <p>Comment: Transpower proposes this definition as part of the operational noise regulations.</p>
<p><u><i>National Grid means the lines and cables (aerial, underground, undersea, including the high-voltage direct current link), stations and substations, structures and facilities and other works used or owned by Transpower to connect grid injection points and grid exit points to convey electricity throughout and between the North and South Islands, together with any activities on or for access tracks or required to maintain clearances around lines.</i></u></p> <p><i>national grid means the network that transmits high voltage electricity in New Zealand and that, at the commencement of these regulations, is owned and operated by Transpower New Zealand Limited, including—</i></p> <ul style="list-style-type: none"> • <i>(a) transmission lines; and</i> • <i>(b) electricity substations</i> 	<p>Option 1: Better represent the full range of activities which are associated with operation, maintenance, upgrade and development of the transmission network used or owned by Transpower.</p> <p>Position: Agree with Option 1</p> <p>Comment: There are a number of potential gaps in the definition of the National Grid in the [existing] NES-ETA. Transpower seeks a new definition that is comprehensive, to remove any issues.</p>
<p><u><i>National Grid Subdivision Corridor Means the area measured either side of the centreline of above ground National Grid transmission lines as follows (and illustrated in the darker green below):</i></u></p> <ul style="list-style-type: none"> <u><i>• 14 metres for 66 kV and 110 kV transmission lines on single poles;</i></u> <u><i>• 16 metres for 66 kV and 110 kV transmission lines on pi poles;</i></u> <u><i>• 32 metres for 66 kV and 110 kV transmission lines on towers (including tubular steel towers where these replace steel lattice towers);</i></u> <u><i>• 37 metres for 220 kV transmission lines;</i></u> <u><i>• 39 metres for 350 kV transmission lines.</i></u> <p><u><i>The corridor does not apply to designated assets.</i></u></p>	<p>Option 2: Introduce nationally consistent rules for the buffer corridor and protection from third parties</p> <p>Position: Agree with Option 2</p> <p>A wider area than the National Grid Yard is sought for subdivision which extends to the width defined by the swing of the conductors in high wind conditions. These areas are a bare minimum to ensure that Transpower’s maintenance, repair, upgrade and operation activities are not compromised.</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<div><p>The diagram illustrates the National Grid Yard and Subdivision Corridor for three types of poles: Single Concrete/Wooden Pole, Pi Pole, and Steel Tower/Pole. A central dashed line represents the Centreline. For the Single Concrete/Wooden Pole, a 12m National Grid Yard is shown on either side of the Centreline. For the Pi Pole and Steel Tower/Pole, a 12m National Grid Yard is shown on either side of the pole structure. A larger National Grid Subdivision Corridor is also indicated, extending further from the Centreline. Below the diagram, two footnotes are provided: * 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.</p></div>	
<div><p><u>National Grid Yard Means (as illustrated in light green below):</u></p><ul style="list-style-type: none"><u>the area located 10 metres either side of the centreline of an overhead 110 kV National Grid transmission line on single poles;</u><u>the area located 10 metres either side of the centreline of an overhead 66 kV National Grid transmission line on single poles, pi poles or towers;</u><u>the area located 12 metres either side of the centreline of any overhead 110kV, 220kV, or 350kV National Grid transmission line on pi poles or towers (including tubular steel towers where these replace steel lattice towers);</u><u>the area located 12 metres in any direction from the outer visible edge of a National Grid support structure.</u></div> <div><p>This diagram is identical to the one in the first row, showing the National Grid Yard and Subdivision Corridor for three types of poles: Single Concrete/Wooden Pole, Pi Pole, and Steel Tower/Pole. It includes the same footnotes: * 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.</p></div>	<p>Option 2: Introduce nationally consistent rules for the buffer corridor and protection from third parties</p> <p>Position: Agree with Option 2</p> <p>The 10m or 12m National Grid Yard is the general area beneath the conductors in “everyday” wind conditions, being the conditions when line maintenance can be carried out. A 12m setback around each tower or support structure is also sought for access, maintenance and safety purposes.</p>
<p><u>natural area means an area that is protected by a rule because it has outstanding natural features or landscapes, significant indigenous vegetation, or significant habitats of indigenous fauna</u></p>	<p>Option 2: Replace with a definition of ‘protected areas’, aligning its use in provisions with the definitions and rules in district plans.</p> <p>Position: Agree with Option 2</p> <p>Comment:</p> <p>The definition of ‘natural area’ is used in Regulation 30 and 31 in relation to vegetation and Regulation 33 Earthworks. Transpower seeks the definition is replaced by a definition of ‘Protected area’, which also aligns with the proposed NPSET. The definition of natural area is too vague and does not align with definitions/rules in district plans, making it difficult to apply the relevant rules.</p> <p>The replacement definition (<i>Protected area</i>) is intended to be used in Regulation 33 Earthworks. While <i>natural area</i> is currently used within Regulation 30 (Vegetation works) a new consenting framework is proposed for this activity and reference to <i>natural area</i> or <i>protected area</i> is not required (as the rule trigger is dependent on the vegetation as opposed to the underlying site features).</p>
<p><u>Natural inland wetland</u> has the same meaning as in the National Policy Statement for Freshwater Management 2020</p>	<p>Included for consistency with the pNPS-ET</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<i>normal operating conditions</i> has the meaning given by regulation 10(9)	
<p><i>Non-routine ETN activities means, in relation to existing transmission lines:</i></p> <p><i>the upgrade of, or changes to, ETN assets, or other ETN activities, where the upgrade or change or activity is not a routine ETN activity</i></p>	<p>Option: Replace ‘upgrading’ with definitions for ‘routine maintenance activities’ and ‘substantial/major upgrade activities’.</p> <p>Position: Agree with Option 2</p> <p>Comment: Transpower seeks to replace the definition of ‘upgrading’ to provide greater certainty and clarity. Transpower also seeks that this definition be consistent with the proposed NPSET.</p>
<i>occupied building</i> means a building that is, or is intended to be, regularly occupied by 1 or more people	
<i>operation</i> means the use of a transmission line to convey electricity	
<i>overland flow path</i> means the path that water takes over land if there is flooding	<p>Option 2: Remove definitions, reflecting changes to the regulations</p> <p>Position: Agree with Option 2</p> <p>Comment: Removed as the later regulations referring to overland flow path are also suggested for removal. Definition is arbitrary.</p>
<p>pole—</p> <p>(a) means a structure that supports conductors as part of a transmission line and that—</p> <p>(i) has no more than 3 vertical supports, <i>not including a pole that forms part of a guy wire</i>; and</p> <p>(ii) is not a steel-lattice structure; and</p> <p>(b) includes the hardware associated with the structure (such as insulators, cross-arms, and guy-wires) and the structure's foundations; <i>and</i></p> <p>(c) <i>can be made of wood, reinforced concrete, steel or other material.</i></p>	<p>Option 2: Amending the definition of a pole to clarify that poles that form part of a guy wire are excluded from the definition of ‘pole’ and that poles can be made from a variety of materials. The material used will be dependent on factors such as design, availability of materials and environmental factors (eg corrosiveness of the site and ground conditions).</p> <p>Position: Agree with Option 2</p> <p>Comment: Poles are made from a range of materials as explained above. There have been questions around whether large (often steel) ‘monopole’ structures would fall under the definition of pole, as they are steel (rather than the usual wood or concrete) and will often replace towers. It may seem obvious that these are ‘poles’ but including steel in this definition is helpful. In addition, often Transpower will replace older wooden poles with concrete and sometimes steel and while these might be ‘like for like’ in terms of height/size/location, a change in material may question the ‘like for like’ status.</p> <p>A change has also been made to make it clear that the 3 vertical support structure restriction does not include poles that form part of a ‘guy wire’.</p>
<p><i>protected area means an area with significant environmental values identified in a district or regional plan as any or all of the following:</i></p> <p>a) <i>Areas with high or outstanding natural character in the Coastal Environment;</i></p> <p>b) <i>Outstanding natural features and landscapes, both within and outside the Coastal Environment;</i></p> <p>c) <i>Areas with historic heritage, including sites of significance to Māori and wāhi tapu;</i></p> <p>d) <i>Significant natural areas;</i></p> <p>e) <i>Natural inland wetlands over 500m².</i></p>	<p>Comment: Transpower seeks the definition of <i>Natural area</i> be replaced with <i>Protected area</i>. The definition is intended to be used in Regulation 33 (Earthworks). While <i>natural area</i> is currently used within Regulation 30 (Vegetation works) a new consenting framework is proposed for this activity and reference to <i>natural area</i> or <i>protected area</i> is not required (as the rule trigger is dependent on the vegetation as opposed to the underlying site features) and is limited to Significant Natural Areas only.</p> <p>The existing definition of <i>Natural area</i> is also vague and does not align with definitions/rules in district plans, making it difficult to apply the relevant rules to determine whether the definition of natural area, and hence the regulations, is triggered.</p> <p>This change is also better aligned with the proposed NPSET.</p>
<p><i>routine ETN activities means, in relation to existing transmission lines:</i></p> <p>a <i>activities required for or associated with the operation or maintenance of ETN assets; or</i></p> <p>b <i>the upgrade of, or addition or alteration to, ETN assets where the upgrade or other change:</i></p> <p>i <i>will, once the activity is complete, have no more than minor adverse effects on the environment; or</i></p>	<p>Option: Replace with ‘upgrading’ with definitions for ‘routine maintenance activities’ and ‘substantial/major upgrade activities’.</p> <p>Position: Agree with Option 2</p> <p>Comment: Transpower seeks to replace the definition of ‘upgrading’ to provide greater certainty and clarity.</p>

NESETA Provision mark up shown in red	Transpower comments
<p>ii <u>results in the assets occupying a physical space, in any direction, that is the same as, or is not significantly greater than, the existing ETN assets; or</u></p> <p>iii <u>implements the modern equivalent, substitute, or replacement of the existing ETN assets; or</u></p> <p>c <u>the removal or dismantling of ETN assets; and</u></p> <p>d <u>includes associated activities such as vegetation clearance, tree trimming, maintaining and improving access tracks, replacing structures, reconductoring, foundation works, altering or relocating of structures, undergrounding, and realignment up to five spans of a transmission line.</u></p>	<p>Transpower also seeks that this definition be consistent with the proposed NPSET.</p>
<p>sensitive land-use activities includes hospitals, schools, and residential buildings . includes the use of land for a childcare facility, school, residential building, or hospital</p>	<p>Comment: Transpower seeks amendment to the definition to be consistent with the operative NPSET. While the Consultation version of the NPSET no longer contains a definition, Transpower supports its retention in the NES-ETA given the importance of the term and trigger for consenting.</p>
<p>telecommunication cable—</p> <p>(a) means a wire or cable used for telecommunication; and</p> <p>(b) includes any hardware associated with the wire or cable</p>	
<p>telecommunication device—</p> <p>(a) means a device (for example, an antenna) that—</p> <p>(i) facilitates the operation of a transmission line; and</p> <p>(ii) receives or transmits telecommunication signals; and</p> <p>(b) includes any hardware associated with the device; but</p> <p>(c) does not include a telecommunication cable</p>	
<p>temporary line deviation means the construction and use of a temporary section of transmission line to divert electricity transmission during the maintenance or upgrading of an existing section of transmission line</p>	<p>Option 1: Remove ‘during maintenance and upgrades’</p> <p>Position: Agree with Option 1</p> <p>Comment: Transpower seeks removal to simplify the definition and to enable a temporary deviation under any circumstance as required.</p>
<p>temporary structure—</p> <p>v. means a non-permanent structure, and any associated lighting, erected only for a specific maintenance or upgrading task; but</p> <p>v. does not include a transmission line that is part of a temporary line deviation</p>	
<p>termination structure means a tower or pole, <u>and/or gantry</u> used for the transition between an overhead and an underground transmission line</p>	<p>Option 1: Include ‘gantry’ in the definition.</p> <p>Position: Agree with Option 1.</p> <p>Comment: Transpower seeks amendment to recognise that sometimes it is not just a tower or pole used as the termination structure, it may be a gantry, particularly if this is at a substation but the gantry at that point technically may not form part of the substation (or may only form part of it) and not be able to be covered by the designation/OPW. 220kV lines may require two structures to transition from an overhead line to underground cable – with one potentially being a gantry. While undergrounding of 220kV lines is rare, and amendment is sought for clarity.</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p>tower—</p> <p>(f) means a steel-lattice structure that supports conductors as part of a transmission line; and</p> <p>(g) includes the hardware associated with the structure (such as insulators, cross-arms, and guy-wires) and the structure's foundations</p>	
<p>transmission line—</p> <p>(a) means the facilities and structures used for, or associated with, the overhead <u>and/or</u> underground transmission of electricity in the national grid, <u>including the transition from overhead to underground</u>; and</p> <p>(b) includes <u>conductors</u>, transmission line support structures, telecommunication cables, and telecommunication devices to which paragraph (a) applies; <u>and</u></p> <p>(c) <u>for the avoidance of doubt includes cables located over land, within waterbodies (including the coastal marine area), on the bed of lakes and rivers, on the bed and foreshore of the coastal marine area and on bridges and other waterway crossings; but</u></p> <p>(d) does not include an electricity substation.</p>	<p>Option 1: Replace ‘overhead or underground transmission’ with ‘overhead and/or underground transmission’.</p> <p>Option 2: Adding ‘conductors’ in the definition</p> <p>Position: Agree with Option 1 and Option 2.</p> <p>Comment: Transpower seeks amendment to clarify that this definition should capture the area between overhead and underground more specifically, including where cables are in waterbodies. Under the current regime, how the transition area is treated can be ambiguous.</p> <p>Addition of “conductors” is sought for the avoidance of doubt.</p>
<p>transmission line support structure means a tower or pole or termination structure.</p>	<p>Adding ‘termination structure’ given it is a support structure of an existing transmission line and clarifies it as such. A termination structure may have been able to be defined as a pole under the current NES-ETA, but the definition of termination structure now proposes to use ‘gantry’ which is not a pole.</p>
<p>undergrounding—</p> <p>(a) means replacing overhead transmission lines with underground transmission lines; and</p> <p>(b) includes altering, relocating, or replacing a tower or pole at 1 or both ends of the underground transmission lines so that the tower or pole becomes a termination structure.</p>	
<p>upgrading means increasing the carrying capacity, efficiency, security, or safety of a transmission line</p>	<p>Option: Replace with definitions for ‘routine maintenance activities’ and ‘substantial/major upgrade activities’.</p> <p>Position: Agree with Option 2</p> <p>Comment: This definition is overly broad, as even maintenance activities will trigger these outcomes. As per its comments on the NP-SET, Transpower considers the NPS--ET and NESETA should provide for “routine activities”, “non-routine activities” and “ETN development activities”. Further, the activity descriptions in the various rules are sufficient to determine what activities are covered.</p> <p>Transpower also seeks that the sought definitions (“routine activities”, “non-routine activities” and “ETN development activities”) be consistent with the proposed NPS-ET.</p>
<p>water blasting means directing water at pressure to clean or wash a structure's surface</p>	
<p>wet abrasive blasting means <u>abrasive blasting using material to which water has been added, and includes air assisted wet abrasive blasting</u></p>	<p>Option 1: Update to align with definitions in other planning documents and plans, specifically the National Planning Standards. Transpower is seeking an addition to the National Planning Standard which is the inclusion of air assisted wet abrasive blasting, in order to clarify that this method of wet abrasive blasting is captured.</p> <p>Position: Agree with Option 1.</p>
<p>2) If a transmission line support structure is altered, relocated, or replaced after the commencement of these regulations, the altered, relocated, or replacement structure retains the base footprint, base height, base position, base width, envelope for controlled activities, and envelope for permitted activities of the first structure.</p>	<p>Option 2: Remove so that the reference to ‘base requirements’ is deleted.</p> <p>Position: Agree with option 2</p> <p>Comment: This provision is unnecessarily constraining and becomes highly impractical to manage over time as assets are upgraded and replaced. The requirement is overly onerous and effects should be based on the existing structure rather than the original structure.</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p>3) Unless the context requires another meaning, a term or expression that is defined in the Act and used, but not defined, in these regulations has the meaning given by the Act.</p>	
<p>4. Regulations apply only to certain activities relating to existing transmission lines</p> <p>1) <u>Part 1 of these regulations apply only to an activity that relates to the operation, maintenance, upgrading, ETN development activities, routine ETN activities, Non-routine ETN activities, relocation, or removal of an existing transmission line, including any of the following activities that relate to those things:</u></p> <p>(a) a construction activity;</p> <p>(b) a use of land or occupation of the coastal marine area (within the meanings of use and occupy given by section 2(1) of the Act);</p> <p>(c) an activity relating to an access track to an existing transmission line;</p> <p>(d) undergrounding an existing transmission line.</p> <p><u>1A) Part 2 of these regulations apply to all activities undertaken by all persons on land identified in those provisions.</u></p> <p>2) However, these regulations do not apply to—</p> <p>(a) the construction or use of a bridge or culvert to access an existing transmission line; or</p> <p>(b) the control of the use of land for the purpose of the prevention or mitigation of any adverse effects of the storage, use, disposal, or transportation of hazardous substances; or</p> <p>(c) the refuelling of a vehicle or equipment; or</p> <p>(d) the use of land as a landing area for helicopters; or</p> <p>(e) an activity carried out in relation to an electricity substation; or</p> <p>earthworks to the extent that they are subject to a regional rule.</p>	<p>Transpower has sought to add provisions related to ‘river crossings’ so the term ‘bridge’ can be removed.</p> <p>Transpower also seeks to add regional rules relating to earthworks so ‘earthworks to the extent they are subject to a regional rule’ can be removed.</p> <p>Transpower seeks to add definitions from the proposed NPS-ET for consistency.</p> <p>Transpower also seeks to add clarification that Part 2 of these regulations (National Grid corridor rules) apply to third party activities rather than Transpower’s activities.</p>
<p><u>4A. Roles and responsibilities of consent authorities</u></p> <p>1) <u>With the exception of regulations of 40-53, these regulations deal with territorial authority functions under section 31 of the Act.</u></p> <p>2) <u>Regulations 40-53 deal with regional council functions under section 30 of the Act.</u></p> <p>3) <u>Regulations 38A-38F deals with the functions of regional councils under section 30 of the Act, and territorial authorities under section 31 of the Act. Any resource consent applications under these regulations should be made to the relevant regional council.</u></p> <p>4) <u>Where a rule or a resource consent is more permissive or lenient than a provision in Part 1 of these regulations, the more lenient or permissive rule applies and prevails.</u></p> <p>5) <u>Where a rule or a resource consent is more stringent than a provision in Part 2 of these regulations, the more stringent rule or resource consent applies and prevails.</u></p>	<p>Option 2: Add new regulations to Clarify the roles and responsibilities of consent authorities in relation to transmission activities</p> <p>Position: Agree with Option 2</p> <p>Comment: An interim change could be made to this effect to provide clarity on consent authority roles and responsibilities. NESs generally prevail over plan rules, except where a NES expressly states plan rules can be more stringent or lenient.</p> <p>Transpower seeks that same apply to the NESETA, i.e. plans or resource consents can be more lenient but not more stringent. This has the potential to deliver significant improvements in the ability to undertake routine transmission activities as Transpower can use the most lenient rule applicable in the circumstances.</p> <p>Transpower also suggests consequential amendments to Regulation 4, resulting from insertion of the buffer corridor provisions in the NES-ETA (see below in Part 2). These buffer corridor provisions are intended to apply to all persons carrying out activities on the identified land. Regulation 4 has been amended to clarify this.</p>
<p><u>4B. Relationship of these regulations with other policy statements and regulations</u></p> <p>1) <u>The following National Environmental Standards apply in addition to the provisions in this Regulation unless otherwise specified:</u></p> <p>(a) <u>National Environmental Standards for Air Quality 2004</u></p> <p>(b) <u>National Environmental Standard for Sources of Drinking Water 2007</u></p> <p>(c) <u>National Environmental Standards for Telecommunications Facilities 2016</u></p> <p>(d) <u>National Environmental Standard for Storing Tyres Outdoors 2021.</u></p>	<p>Option 2: Add new regulations to:</p> <p>Encompass the matters covered in other national direction relevant to transmission, so that the NES-ETA becomes a ‘one stop shop’ for regulating existing transmission line activities.</p> <p>Position: Agree with Option 2</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p>2) <i>(e) National Environmental Standards for Freshwater 2020 (subject to exemptions within Regulation 4B(2)(b)).</i></p> <p><i>(a) Clauses 3.22 and 3.24 of the National Policy Statement for Freshwater Management 2020 do not apply in relation to activities that are subject to regulations 14-16, 19-20, 30-36 and Schedule 4 of this NES</i></p> <p><i>(b) Regulations 46(4)(b), 46(4)(c) and 46(4)(d) of the National Environmental Standards for Freshwater 2020 do not apply in relation to activities that are subject to regulations 14-16, 19-20, 30-36 and Schedule 4 of this NES</i></p> <p><i>(c) Clause 3.9 of the National Policy Statement for Highly Productive Land 2022 does not apply in relation to all activities that are subject to the regulations of this NES.</i></p> <p><i>(d) Clauses 3.10, 3.11 and 3.16 [exposure draft version] of the National Policy Statement for Indigenous Biodiversity does not apply in relation to activities that are subject to regulations 30-36 and Schedule 4 of this NES</i></p> <p><i>(e) Policies 11, 13 and 15 of the New Zealand Coastal Policy Statement do not apply in relation to activities that are subject to regulation 33 to 36 and Schedule 4 of this NES</i></p> <p><i>(f) The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011 does not apply in relation to all activities that are subject to the regulations of this NES.</i></p>	<p>Comment: Transpower considers the NES-ETA should be a ‘one stop shop’ for regulating existing transmission line activities. Transpower has moved towards this by addressing activities in wetlands within the NES-ETA. Further changes could be made to provide a comprehensive ‘one stop shop’ for existing transmission activities., Transpower needs to carry out its activities expeditiously and it should be clear and simple as to whether consent is needed for transmission activities and users should not have to look elsewhere.</p> <p>Transpower considers that national direction that provides protection for national level natural values (such as indigenous biodiversity, productive soils and freshwater values) should not apply insofar as they manage the effects of National Grid activities. Specifics on each document is provided in the NES-ETA chapter of the main submission.</p> <p>Transpower proposes that National Grid activities that would otherwise be managed under those protective provisions instead be required to apply the effects management approaches set out in the proposed NPS-ET (noting that this only applies to prescribed activities within protected areas (defined as areas with sensitive environmental values in the NPS-ET).</p> <p>Certain National Environmental Standards that do not directly manage the effects of National Grid activities can continue to apply to the NES-ETA.</p> <p>Any future National Environmental Standards (such as the proposed Drinking Water NES) will need to be carefully drafted to ensure that no unintended consenting requirements trigger in relation to National Grid activities.</p> <p>NPS-FM</p> <p>Transpower seeks that the NPS-FM provisions relating to the upgrade of specified infrastructure in wetlands and the loss of river extent and values (3.22 and 3.24) do not apply in relation to altering, relocation and replacing support structures, transmission line removal, tree trimming, earthworks and the regional rules. The reasons for this are:</p> <ul style="list-style-type: none"> Upgrades of National Grid infrastructure are listed alongside construction activities, rather than as part of operation and maintenance activities, and will therefore be subject to the effects management hierarchy. This is not appropriate where the relevant upgrades are routine and being undertaken as part of the operation and maintenance of the National Grid. Transpower does not consider that it is appropriate to treat upgrade activities differently from maintenance and operation activities. Instead, upgrades should be enabled through the consenting process, as this is a more efficient use of resources which utilises existing National Grid infrastructure. This is the approach which Transpower suggests for the NPS-ET, but it would be undermined if the NPS-FM was to continue to apply. Transpower assumes that any upgrades to existing specified infrastructure would currently be captured as a discretionary activity as “constructing specified infrastructure” under regulation 45 of the NES-F and would not be considered to be a permitted activity as “maintenance or operation of specified infrastructure” under regulation 46 of the NES-F, due to the limitation in regulation 46(4)(b) requiring no increase in size. If this is correct, it is particularly onerous as it ignores the reality of Transpower’s maintenance and upgrade activities which often involve strengthened foundations (including encasing existing steel in concrete or installing deeper foundations)., and would result in routine activities requiring discretionary activity consent. Instead Transpower considers that upgrades should be permitted subject to conditions. The requirement for there to be a functional need under Clauses 3.22 and 3.24 of the NPS-FM is too onerous, and not appropriate for existing linear infrastructure. Transpower is subject to locational and operational constraints and, as a consequence of the linear nature of the National Grid, Transpower occasionally needs to locate new assets near natural wetlands. Functional need is defined in the NPS-FM as meaning the need for a proposal or activity to traverse, locate or operate in a particular environment because the activity can only occur in that environment. Transpower considers this interpretation of ‘functional need’ is problematic, because if an alternative is technically feasible it is possible, whatever the cost. It is hard to envisage a situation where there will not be an alternative to avoid adverse effects if costs and/or the necessity for third party action and/or technical preferences are disregarded. This difficulty is recognised by suggested changes to the NPS-ET, which seek to clarify the application of ‘functional need’ and ‘operational need’ for the

NESETA Provision mark up <i>shown in red</i>	Transpower comments
	<p>National Grid. However, those clarifications would be undermined if the provisions of the NPS-FM were to continue to apply.</p> <ul style="list-style-type: none"> • Transpower should not have to demonstrate that the activity being undertaken has significant national or regional benefits, when the NPS-ET already identifies the National Grid as being of national significance. • An extensive list of additional requirements applies to the operation and maintenance of existing infrastructure in wetlands, and also all activities that may cause loss of river and extent values. These requirements are unreasonable for routine works on existing infrastructure. • The requirement to offset and compensate, and associated principles in Appendix 6 and 7 of the NPS-FM, should not apply to operation, maintenance, and upgrade activities. While the principles in Appendix 6 and 7 may be appropriate for new large scale infrastructure projects, Transpower queries whether such principles are appropriate for operation, maintenance, and upgrade activities, which would include routine works undertaken by Transpower (and often on a repeated basis as the vegetation example above shows). In such circumstances, the principles set out in Appendix 6 and 7 are not appropriate as they are too onerous and it would be inefficient to have regard to them. The requirement to offset and compensate, and associated principles in Appendix 6 and 7, should not apply to operation, maintenance, and upgrade activities. <p>NES-F</p> <p>Transpower seeks that Regulations 46(4)(b), 46(4)(c) and 46(4)(d) of the NES-F do not apply in relation to altering, relocation and replacing support structures, transmission line removal, tree trimming, earthworks and the regional rules.</p> <p>Regulation 46(4)(b) of the NES-FW prevents works which increase the size of, or replace part of, specified infrastructure, and therefore prevents Transpower carrying out routine works that increase the size of National Grid infrastructure. Examples of these works include:</p> <ul style="list-style-type: none"> • Foundation works, which often only involve minor earthworks as part of routine activities but the activity will still be considered a restricted discretionary activity, or possibly a discretionary activity under the NES-F, despite the effects on a natural wetland being minor, less than minor or transitory/negligible. • Construction of a new access track in close proximity to a wetland to replace an existing access track located within an existing wetland. There would be a positive ecological outcome by removing an existing access track from a wetland, yet the activity will still be subject to an onerous consenting pathway under the NES-F. In such circumstances, the construction of an access track should be permitted to recognise that constructing a new access track outside of the existing wetland is a better ecological outcome. <p>Regulation 46(4)(c) requires that the activity must not form new pathways or other accessways. This regulation creates an unnecessary barrier for earthworks relating to access tracks that are required to maintain the ability to access the National Grid to carry out routine activities to ensure ongoing supply and safety.</p> <p>Regulation 46(4)(d) relates to vegetation clearance, earthworks or land disturbance in a wetland. Transpower has vegetation clearance activities that need to be undertaken in order to comply with the Electricity (Hazards from Trees) Regulations and to otherwise access structures. The NES-F provisions create unnecessary barriers and obstacles to earthworks and the trimming and felling of trees and vegetation where required for the safe operation and maintenance (including access) of the National Grid. In undertaking the above activities Transpower adopts best practice to manage the effects. Should resource consent be required under the NES-ETA, the prescribed matters of control or discretion provide an appropriate framework in which to both assess and manage the effects.</p> <p>NPS-HPL</p> <p>Transpower seeks that Clause 3.9 of the National Policy Statement for Highly Productive Land does not apply to the activities regulated by the NES-ETA.</p> <p>Clause 3.9 provides a pathway for specified infrastructure to occur on highly productive land. As part of this pathway, territorial authorities must take measures to ensure that any use or development on highly productive land minimises or mitigates the loss of availability and productive capacity of highly productive land, and avoids (if possible, or otherwise mitigates), reverse sensitivity effects on primary production activities.</p> <p>The National Grid has ~15,000 transmission line support structures (towers or poles) Land Use Classification 1-3 - just over a third of Transpower's asset base. National Grid substations intersect with LUC 1-3 104 times. Further, Transpower has 4 communications sites within LUC 2-3. The vast majority of these assets would have been established well before the LUC system was developed.</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
	<p>The National Grid has operational requirements and engineering constraints that both dictate and constrain the way it is managed, including due to its linear and interconnected nature. These requirements and constraints mean it will not always be feasible to avoid highly productive land. The operational requirements relating to the Grid are set out in various legislation, rules and regulations governing the National Grid, including the Electricity Act 1992, the Electricity Industry Participation Code, and the Electricity (Hazards from Trees) Regulations 2003.</p> <p>The NPS-HPL provisions impose significant requirements and constraints on Transpower’s activities – either because the NPS-HPL will be considered at the time any resource consents are required, or because district plan rules which give effect to this clause (and are more stringent than the NES-ETA) would apply to Transpower’s activities, unless the NES-ETA states otherwise. Minimising or mitigating effects on highly productive land may not be feasible as a large number of Transpower assets are already located on highly productive land.</p> <p>In light of the above, Transpower considers that clause 3.9 of the NPS-HPL should not apply to the activities regulated by the NES-ETA.</p> <p>Proposed NPS-IB</p> <p>Transpower seeks that Clauses 3.10, 3.11 and 3.16 of the exposure draft version of the NPS-IB should not apply¹ in relation to the tree trimming,² earthworks³ and the regional rules.⁴</p> <p>These policies provide a pathway for ‘specific infrastructure’ that adversely eaffect SNAs (clauses 3.10 and 3.11) or indigenous biodiversity outside SNAs (clause 3.16).</p> <p>As outlined in Transpower’s submission on the Exposure Draft of the NPS-IB, the current approach in the NPS-IB does not provide for routine activities carried out by Transpower. Instead, because routine activities will not fall within the ‘existing activity’ provisions, many routine activities will be required to go through the same hurdles as if new infrastructure was proposed – in relation to the assessments to be undertaken, the information requirements of any consent applications, and ultimately any offsetting. The proposed NPS-IB currently applies the effects management hierarchy to routine activities which is unduly onerous.</p> <p>The outcome under the proposed NPS-IB is inefficient, costly, and likely to hinder necessary and routine work on the National Grid.</p> <p>Transpower’s activities may trigger consent under the NES-ETA. However, if the NPS-IB also applies it will drive certain processes and outcomes, including whether the effects management hierarchy applies, and the assessments that must be undertaken and information requirements of any consent applications. This is overly onerous and will not allow Transpower to undertake routine activities in an efficient and timely manner. It is also unnecessary as the proposed NPS-ET addresses indigenous biodiversity matters through regulations 30 and ,31 , and would provide the appropriate direction and management framework required.</p> <p>NZCPS</p> <p>Transpower seeks that Policies 11, 13 and 15 of the NZCPS, which relate to the adverse effects of activities on indigenous biodiversity, natural character, natural features and natural landscapes do not apply⁵ to tree trimming,⁶ earthworks⁷ and the regional rules.⁸</p> <p>Transpower has extensive existing assets in the coastal environment, and as with all its assets, must carry out routine activities with minimal scope as to how these can be undertaken or the effects of them managed . Transpower has significant concerns about the ability to consent necessary activities in the coastal environment, if these very directive policies apply and are considered at the time any resource consents are sought. It is also unnecessary for these NZCPS policies to apply to National Grid activities, as the proposed</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
	<p>NPS-ET provides policy direction on these matters. If the NZCPS was to also apply, it would simply undermine the changes proposed to the NPS-ET.</p> <p>NES-CS</p> <p>As discussed below, Transpower is seeking amendments to NES-ETA rules relating to earthworks on contaminated land.. The current NES-ETA regulations applicable to contaminated land (Reg 33(9) and 36) cover both district and regional contaminated land requirements. These provisions pre-date CS (which applies to district rules only) where human health matters (district rules) were made. The Consultation Document proposes to remove the contaminated land regulation from the NES-ETA and apply the NES-CS as it may be better aligned. However, Transpower does not support this and would prefer to retain contaminated land rules in the NES-ETA, but apply a rule framework that incorporates some elements of the NES-CS wording. This approach would support a ‘one stop shop’ approach and management of contaminated land would cover both district and regional considerations for existing transmission lines. Transpower seeks that these regulations apply to existing transmission lines rather than the NESCS.</p>
Operation of transmission line or use of access track	
<p>5. Permitted activities</p> <p>(1) The operation of an existing transmission line is a permitted activity.</p> <p>(2) The use of an access track to an existing transmission line is a permitted activity.</p> <p><i>(3) The occupation of land for an existing transmission line is a permitted activity.</i></p>	<p>Transpower seeks a minor amendment to clarify that occupation is a permitted activity.</p>
Overhead conductors, earth-wires, overhead telecommunication cables, and adding overhead circuits	
<p>6. Permitted activities: overhead conductors and circuits</p> <p>1) Adding an overhead conductor <i>or circuit</i>, or part of an overhead conductor <i>or circuit</i>, to an existing transmission line (except as part of adding an overhead circuit) is a permitted activity if—</p> <p>(a) both of the conditions in subclauses (4) and (45) <i>is</i>are complied with; and</p> <p>(b) all of the applicable conditions in regulation 10(2) to (8) are complied with.</p> <p>2) Replacing an overhead conductor <i>or circuit</i>, or part of an overhead conductor, on an existing transmission line is a permitted activity if the condition in subclause (56) is complied with.</p> <p>3) Maintaining an overhead conductor on an existing transmission line is a permitted activity.</p> <p>Conditions</p> <p>4) The conductors must be configured so that there are no more than 2 conductors in the same phase (duplex configuration).</p> <p><u>4)</u> The diameter of a new conductor, or a new part of a conductor, must not exceed 50 mm.</p> <p><u>5)</u> The diameter of a replacement conductor, or a replacement part of a conductor, must not exceed—</p> <p>(a) the diameter of the existing conductor or part; or</p> <p>(b) 50 mm, if the diameter of the existing conductor or part is less than 50 mm.</p>	<p>Option 1: Increasing the number of conductors that are permitted in the same phase, as part of the configurations of new overhead conductors, from two (duplex configuration) to four (allowing triplex and quad configurations).</p> <p>Amending the provision to permit the addition of overhead conductors when these are part of adding an overhead circuit.</p> <p>Position: Agree with Option 1</p> <p>Comment: Clause 1 and 2 – addition of “circuit” – this has been amended to enable the merging of regulation 8 for efficiency.</p> <p>Clause 4 is proposed to be removed as Transpower considers that limiting conductor configurations to duplex, rather than triplex (or quad) provides an unnecessary constraint to upgrade activities, which should be enabled. Further, in practice the number of conductors will not be noticeable to the untrained eye. Transpower also notes that it only has one triplex line (which is designated) and no quad configured lines in NZ.</p>
<p>7. Permitted activities: earth-wires and overhead telecommunication cables</p> <p>1) Adding an earth-wire or overhead telecommunication cable, or part of an earth-wire or overhead telecommunication cable, to an existing transmission line is a permitted activity if both of the conditions in subclauses (4) and (5) <i>are is</i> complied with.</p>	<p>Option 1: Removing the restriction on the number of earth wires and telecommunication cables per transmission line support structure.</p> <p>Position: Agree with Option 1</p> <p>Comment: Clause 4 is proposed to be deleted for the same general reasons as discussed in relation to Regulation 6 above. The amendments would streamline the regulations and reduce the consenting burden</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p>2) <i>Replacing an earth-wire or overhead telecommunication cable, or part of an earth-wire or overhead telecommunication cable, on an existing transmission line is a permitted activity if the condition in subclause (56) is complied with.</i></p> <p>3) <i>Maintaining an earth-wire or overhead telecommunication cable on an existing transmission line is a permitted activity.</i></p> <p>Conditions</p> <p>4) The number of wires and cables must not exceed—</p> <p>(a) 3 earth-wires, or 2 earth-wires and 1 telecommunication cable, per transmission line support structure; or</p> <p>(b) the existing number of wires and cables, if that number is more than is permitted by paragraph (a).</p> <p>4) <u>The diameter of a new wire or cable, or a new part of a wire or cable, must not exceed 25 mm.</u></p> <p>5) <u>The diameter of a replacement wire or cable, or a replacement part of a wire or cable, must not exceed—</u></p> <p>(c) <i>the diameter of the existing wire, cable, or part (as the case may be); or</i></p> <p>(d) <i>25 mm, if the diameter of the existing wire, cable, or part (as the case may be) is less than 25 mm.</i></p>	<p>by ensuring they are enabling of new technologies and more efficient configurations. This would result in some increase in visual amenity effects, however the change to overhead conductors, circuits, earth-wires, and telecommunication cables on existing assets covered by the regulation is likely to be outweighed by the national benefits of a more efficient national grid that makes best use of existing infrastructure.</p>
<p>8. Permitted activities: adding overhead circuits</p> <p>1) Adding an overhead circuit to an existing transmission line is a permitted activity if—</p> <p>(a) the condition in subclause (2) is complied with; and</p> <p>(b) both of the conditions in regulation 6(4) and (5) are complied with; and</p> <p>(c) all of the applicable conditions in regulation 10(2) to (8) are complied with.</p> <p>Condition</p> <p>2) The transmission line support structures of the transmission line must have been designed and built, at the commencement of these regulations, to carry the additional circuit.</p>	<p>Option 1: Remove the condition requiring transmission line support structures to have been designed and built for additional circuits in order for additional circuits to be installed as a permitted activity.</p> <p>Option 2: Refine provisions to simplify the NES (e.g., Regulation 6 and 8 relating to overhead conductors and circuits could be combined).</p> <p>Provide a more enabling activity status (e.g., from controlled, to permitted, or from restricted discretionary to controlled) where the effects can be suitably managed by standards and conditions.</p> <p>Position: Agree with Option 2</p> <p>Comment: Deleted and merged with Regulation 6 above for efficiency. Note the “condition” has not been carried over. Given the current state of technology, the condition is too restrictive and prevents upgrades which can have minimal effect.</p>
<p>9 <u>Controlled Restricted discretionary activities</u></p> <p>1) Adding an overhead conductor <u>or circuit</u>, or part of an overhead conductor <u>or circuit</u>, to an existing transmission line (except as part of adding an overhead circuit) is a restricted discretionary controlled activity if—</p> <p>(a) 1 or both of the conditions in regulation 6(4) and (5) are is breached; but</p> <p>(b) all of the applicable conditions in regulation 10(2) to 10(8) are complied with.</p> <p>2) Replacing an overhead conductor <u>or circuit</u>, or part of an overhead conductor <u>or circuit</u>, on an existing transmission line is a restricted discretionary controlled activity if the condition in regulation 6(6)(5) is breached.</p> <p>3) Adding an earth-wire or overhead telecommunication cable, or part of an earth-wire or overhead telecommunication cable, to an existing transmission line is a restricted discretionary controlled activity if 1 or both of the conditions in regulation 7(4) and 7(5) are is breached.</p> <p>4) Replacing an earth-wire or overhead telecommunication cable, or part of an earth-wire or overhead telecommunication cable, on an existing transmission line is a restricted discretionary controlled activity if the condition in regulation 7(6)(5) is breached.</p> <p>5) Adding an overhead circuit to an existing transmission line is a restricted discretionary activity if—</p> <p>(a) first,—</p> <p>(i) the condition in regulation 8(2) is breached; or</p>	<p>Option 1: Remove regulation as the matters of discretion are limited to visual effects. Instead, these activities will be permitted activities, as covered by amended Regulations 6 to 8.</p> <p>Option 2: Provide a more enabling activity status (e.g., from controlled, to permitted, or from restricted discretionary to controlled) where the effects can be suitably managed by standards and conditions.</p> <p>Position: Agree with Option 1 and 2</p> <p>Comment: Transpower seeks a more permissive activity status for adding overhead conductors. These are critical routine activities which must be undertaken in a timely manner. There is often little scope to amend how these activities are undertaken. They just need to be done quickly and effectively to ensure the National Grid can continue to operate and does not endanger people, property and the natural environment.</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p>(ii) 1 or both of the conditions in regulation 6(4) and (5) are breached; and</p> <p>(a) second, all of the applicable conditions in regulation 10(2) to (8) are complied with.</p> <p>Matters to which discretion restricted</p> <p>6) Discretion Control is restricted-reserved to the following matters in relation to a restricted-discretionary <u>controlled</u> activity under this regulation:</p> <p>(a) visual effects; and</p> <p>(b) the effects and timing of construction works; and</p> <p>(c) the effects on services and infrastructure.</p>	
<p><u>Noise from operational activities</u></p>	
<p><u>9A. Permitted activities</u></p> <p>(1) <u>The generation of operational noise from:</u></p> <p><u>(a) New conductors on existing transmission lines, or</u></p> <p><u>(b) Changes to existing transmission lines involving increasing the voltage or current rating;</u></p> <p><u>operating at or above 220kV, is a permitted activity if the conditions in subclause (2) and (3) are complied with.</u></p> <p><u>Conditions</u></p> <p><u>(2) Modelled conductor noise levels must not exceed the following noise limits at any assessment point</u></p> <p><u>(i) 48 dB LAeq(15min) in residential zones;</u></p> <p><u>(ii) 45 dB LAeq(15min) in all other zones.</u></p> <p><u>(3) For new conductors, if modelled conductor noise levels exceed 40 dB LAeq(15min) at any assessment point in residential zones, the new conductor must have:</u></p> <p><u>(i) a clean surface free from grease; and</u></p> <p><u>(ii) a matt surface finish; or</u></p> <p><u>(iii) trapezoidal shaped strands; or</u></p> <p><u>(iv) a strand geometry and surface treatment proven to mitigate tonal noise in service; and</u></p> <p><u>(i) a clean surface free from grease.</u></p>	<p>Option 2: Add new regulations to establish an operational noise standard</p> <p>Position: Agree with Option 2</p> <p>Comment:</p> <p>Transpower seeks additional regulations relating to operational noise.</p> <p>Conductors can cause noise that is audible below an overhead transmission line and potentially in a corridor extending for a distance either side of the line. Noise is heard primarily when ambient sound levels are low and conductors are wet/drying, such as during or after rain. When present, the noise generally comprises a background ‘corona’ crackling sometimes with a distinctive tonal hum, primarily at a sound frequency of 100 Hz.</p> <p>Conductor noise varies depending on the line voltage, line configuration/geometry, conductor type and conductor age/condition.</p> <p>There is no design standard applicable for noise from new conductors. Over the last six years Transpower has undertaken significant work investigating design parameters affecting conductor noise, and its effects on communities.</p> <p>Transpower has conducted tests confirming only minor noise and tonality from new conductors on 110kV lines. As such, the proposed standard applies only to lines that are 220kV or more.</p> <p>Where it occurs, conductor noise has unusual characteristics compared to most other environmental noise in that it happens intermittently mainly in or following wet conditions, for new conductors it usually has a distinctive tonal sound (hum), it has relatively low sound levels, it can come from directly above houses (rather than being generated off-site), and it reduces over years as a conductor ages/weathers. Due to these factors, a noise limit applied in isolation is unlikely to provide a reasonable delineation between acceptable and unacceptable conductor noise effects. Any permitted activity standard for conductor noise is likely to require multiple components to account for the particular characteristics of conductor noise.</p> <p>Despite the limitations, conventional noise limits for the overall (frequency-weighted) sound provides a starting point for regulating conductor noise. Noise experts recommended to Transpower that a conductor noise criterion of 45 dB LAeq(15 min) should be applied outside houses at 4 metres above ground level, with no additional tonal penalty applied.</p>
<p><u>9B. Controlled activities</u></p> <p><u>1) The generation of operational noise from a new conductor or changes to existing transmission lines involving increasing the voltage or current rating and operating at or above 220kV, is a controlled activity if 1 or more of the conditions in regulation 9A(2) and (3) are breached.</u></p> <p><u>Matters over which control reserved</u></p> <p><u>2) Control is reserved over the following matters in relation to a controlled activity under this regulation:</u></p>	<p>Option 2: Add new regulations to establish an operational noise standard</p> <p>Position: Agree with Option 2</p> <p>Comment:</p> <p>Transpower seeks additional regulations relating to operational noise.</p> <p>See reasoning in Regulation 9A.</p>

NESETA Provision mark up shown in red	Transpower comments
<p><i><u>(a) The frequency, intensity, duration and offensiveness of the noise generated;</u></i> <i><u>(b) The operational (including economic) and functional needs of the National Grid; and</u></i> <i><u>(c) Benefits to and of the National Grid</u></i></p>	
<p>Increasing voltage or current rating, underground conductors, and undergrounding transmission lines</p> <p>10 Permitted activities: increasing voltage or current rating</p> <p>1) <i>Increasing the voltage or current rating of an existing transmission line is a permitted activity if all of the applicable conditions in subclauses (2) to (9) are complied with.</i></p> <p>Conditions</p> <p>2) <i>The electric and magnetic fields produced by the transmission of electricity at 50 Hz through overhead or underground alternating current transmission lines must, after being modelled in accordance with subclauses (4) to (7), be demonstrated to either—</i> <i>(a) not exceed the following reference levels for public exposure:</i> <i>i. electric field strength of 5 kV/m; and</i> <i>ii. magnetic flux density of 2400 microteslas; or</i> <i>(b) not exceed the basic restriction level of 2 mA/m² for the density of electric current induced in the body.</i></p> <p>3) <i>The static electric field strength produced by the transmission of electricity through overhead direct current transmission lines must be demonstrated to have no likely adverse human health effects after—</i> <i>(a) modelling the field strength in accordance with subclauses (4) to (6) as if references to electric field strength were references to static electric field strength; and</i> <i>(b) including the likely contribution to the field strength from the space charge around the transmission line caused by corona discharge.</i></p> <p>4) <i>The electric field strength and magnetic flux density of a transmission line must be modelled at whichever of the following locations is closest to the line:</i> <i>(a) 1 metre above the ground in an area above, below, or next to the line that is reasonably accessible to the public; or</i> <i>(b) 1 metre above the highest floor level of an occupied building.</i></p> <p>5) <i>The electric field strength and magnetic flux density of a transmission line may be modelled to take account of any shielding effect from buildings.</i></p> <p>6) <i>The electric field strength and magnetic flux density of an overhead transmission line must be modelled to result in the highest electric and magnetic fields likely under normal operating conditions using the following conservative climatic conditions to determine conductor position.</i> <i>(a) ambient temperature of 20°C in winter and 30°C in summer;</i> <i>(b) maximum solar radiation of 1 000 W/m²;</i> <i>(c) dry conditions;</i> <i>(d) wind speed of 0.6 m/s.</i></p> <p>7) <i>The magnetic flux density of an underground transmission line must be modelled to result in the highest magnetic field likely under normal operating conditions</i></p> <p>8) <i>The results of modelling the electric field strength, magnetic flux density, density of electric current induced in the body, or static electric field strength under this regulation must be provided to the relevant territorial authority if requested by the territorial authority.</i></p> <p>9) <i>In subclauses (6) and (7), normal operating conditions—</i> <i>(a) means the conditions associated with the highest load current; but</i> <i>(b) does not include conditions in which a short-term increase in voltage or current is caused by a fault such as switching, a lightning strike, a short circuit, or an abnormal operating state of a direct current transmission line.</i></p>	<p>Option 1: Update the conditions to reflect the latest international thinking on magnetic flux density exposure and ensure electromagnetic field modelling undertaken by the national grid operator aligns with current line rating practices.</p> <p>Option 2: Align the climatic conditions with Transpower’s common practice for modelling EMF (e.g., replace stated conditions, and instead state ‘using conservative climactic conditions’).</p> <p>Position: Agree with Options 1 and 2.</p> <p>Comment: Two changes are sought to Regulation 10. Firstly, to increase the microtesla limit, so as it is consistent with the most up to date ICNIRP standard (as per policy 9 NPSET).</p> <p>The second change is practical in nature – to ensure that the process outlined for modelling EMF in the NESETA aligns with what occurs in practice and Transpower’s systems. Supporting technical explanation is below.</p> <p>The outcome will be to meet the ICNIRP requirements and WHO monograph.</p> <p>The climatic conditions used to determine conductor position specified in Section 10(6) of the NES come from a line rating method developed by the IEEE. Line ‘rating’ in the design process, ensures conductor clearances from ground, buildings etc meet all safety requirements during line operation. The line rating method currently used in NZ for the majority of our lines is the ‘Latta’ line rating method. This is different from IEEE in that solar radiation, (required to be considered in condition 10(6)), is not considered. Transpower has assessed the effect of not considering solar radiation through use of the Latta method and identified that it results in a more conservative assessment as regards EMF. That is, the use of the Latta method results in higher predicted EMF values than would be the case were other line rating methods adopted. As such, were the line to be seen to approach the EMF limits with Latta method, the line design might be altered, for example increasing the conductor height, to achieve compliance, where such an intervention would not be necessary with other rating methods. However, in a strict sense, use of Latta does not comply with the NES requirements for consideration of climatic conditions, in particular solar radiation.</p> <p>Moving to an alternative to the Latta rating method would impact on the operation of the NZ national grid, and there would need to be a significant change to tools and market activities to enable such a change.</p> <p>To avoid any potential for infringement of the NES conditions, (in spite of the current approach being more conservative), Transpower is seeking an alteration to condition 10(6) so that it simply requires that conservative climatic conditions are assumed in determining conductor position.</p> <p>Transpower notes that it is unusual for rules that regulate EMF to go into any detail about the methodology for complying with ICNIRP. In this regard, Transpower is not aware of any district plan provisions that do. Despite being unusual, Transpower is comfortable retaining regulation 10, provided it is workable at a practical level.</p>
<p>11. Permitted activities: underground conductors</p> <p>1) <i>Adding an underground conductor, or part of an underground conductor, to an existing transmission line is a permitted activity if all of the applicable conditions in <u>regulation 10(2) to (8)</u> are complied with.</i></p>	

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p>2) Replacing an underground conductor, or part of an underground conductor, on an existing transmission line is a permitted activity.</p> <p>3) Maintaining an underground conductor on an existing transmission line is a permitted activity.</p>	
<p>12. Controlled activities: undergrounding transmission lines</p> <p>1) Undergrounding an existing transmission line is a controlled activity if all of the applicable conditions in regulation 10(2) to (8) are complied with.</p> <p>Matters over which control reserved</p> <p>2) Control is reserved over the following matters in relation to a controlled activity under this regulation:</p> <p>(a) the location of termination structures, and the route of underground cables, in relation to—</p> <p>(i) visual, landscape, and ecological effects; and</p> <p>(ii) the effects on historic heritage; and</p> <p>(b) the extent and nature of earthworks and control of sediment; and</p> <p>(c) the effects and timing of construction works; and</p> <p>(d) the effects on services and infrastructure.</p>	<p>Option 1: Removing the matter of control/restricted discretion in relation to visual effects</p> <p>Position: Agree with Option 2</p> <p>Comment: The deletion of reference to visual effect recognises the regulation relates to undergrounding of transmission lines.</p>
<p>13. Non-complying activities</p> <p>1) Each of the following Activities<u>Any activity ies</u> is a non-complying activity if 1 or more of the applicable conditions in regulation 10(2) to (8) are breached:</p> <p>(a) adding an overhead conductor, or part of an overhead conductor, to an existing transmission line</p> <p>(b) adding an overhead circuit to an existing transmission line:</p> <p>(c) increasing the voltage or current rating of an existing transmission line</p> <p>(d) adding an underground conductor, or part of an underground conductor, to an existing transmission line</p> <p>(e) undergrounding an existing transmission line.</p> <p>2) Altering, relocating, or replacing a transmission line support structure of an existing transmission line (other than as part of a temporary line deviation or undergrounding) is a non-complying activity if—</p> <p>○ (a) the requirement described in regulation 15(1)(c) or (2)(c) is breached; and</p> <p>○ (b) 1 or more of the applicable conditions in regulation 10(2) to (8) are breached.</p>	<p>Option 2: Simplify the wording of the regulation to state that any breach of the permitted and controlled activity standards is non-complying.</p> <p>Position: Agree with Option 2.</p> <p>Comment: These are drafting changes, noting it is not necessary to state the activities covered.</p>
<p>Transmission line support structures: Alteration, relocation and replacement</p>	
<p>14. Permitted activities</p> <p>1) Altering, relocating, or replacing a tower of an existing transmission line (other than as part of a temporary line deviation or undergrounding) is a permitted activity if all of the applicable conditions in subclauses (3) to (6) are complied with.</p> <p>2) Altering, relocating, or replacing a pole of an existing transmission line (other than as part of a temporary line deviation or undergrounding) is a permitted activity if all of the applicable conditions in subclauses (3), (4), and (7), and (8) are complied with.</p> <p>Conditions</p> <p>3) If a transmission line support structure is increased in height (including by being replaced with another structure),—</p> <p>(a) the structure may be made no more than 2<u>15</u>% higher than its than its base height; current height; and</p> <p>(b) the additional height must comply with any height restrictions for airport purposes, or any public view shafts, specified in a rule.</p>	<p>Option 1: Amend the conditions to allow transmission line support structures to be increased an additional 10 percent in height than the current permitted activity standard (from 15 per cent to 25 per cent). Also allow poles to be replaced with towers and allow towers to be replaced by other replacement support structures (so long as they are within the tower envelope for permitted activities).</p> <p>Option 2: Increase the permitted footprint and height of transmission line support structures from 15 per cent to 25 per cent, and remove the condition that additional height must comply with public view shafts.</p> <p>Position: Agree with Options 1 and 2.</p> <p>Comment: Transpower considers that the height limit should be amended to be more enabling of upgrades and current technology and given height changes of the magnitude enabled will have little visual impact. In some cases, 15% has been very minor (a matter of centimetres). In many cases the height change has been an overall</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p>4) A transmission line support structure must not be relocated, or replaced with another transmission line support structure, so that any part of the structure at ground level is—</p> <p>(a) within 12 metres of an occupied building (measured horizontally); or</p> <p>(b) any closer to an occupied building, if the existing structure is within 12 metres of the building (measured horizontally).</p> <p>5) If a tower is widened (including by being replaced with another tower), each side of the tower's footprint may be made no longer than the total of—more than 25% greater than the current length of each side.</p> <p>(a) the length of that side of the tower's footprint; and</p> <p>(b) 25% of the tower's base width.</p> <p>6) A tower must not be relocated, or replaced with another tower structure, so that any part of the tower replacement structure <u>is below</u> ground level falls outside the tower's envelope for permitted activities.</p> <p>7) A pole must not be replaced with a tower.</p> <p>8) A pole must not be relocated, or replaced with another pole, more than 5-10 metres from the pole's base position (measured horizontally).</p>	<p>visual improvement by removing cross arms from view. A 25% change in height won't be visually noticeable/perceptible</p> <p>Reference to public view shafts has also been removed, as it is not practicable to avoid such view shafts given the state of technology for necessary upgrades (acknowledging the assets are existing). The operative regulation means Transpower requires consent for routine work on existing activities - regardless of the scale of the work. The alternative would be to move a line elsewhere, which will likely have much greater effects.</p> <p>In relation to the deletion of clause 7, the change allows flexibility for Transpower to use the most appropriate technical solution to deliver the best outcome for the environment, and in some cases this may be by replacing a pole with a tower.</p> <p>Works on towers include work below ground level (on foundations etc). As such, Transpower seeks amendments to the definitions of 'footprint' and 'envelope for permitted activities', and the regulation relating to altering, relocating or replacing support structures so that the permitted envelope for tower works includes the part of a tower below ground level.</p>
<p>15. Controlled activities</p> <p>1) Altering, relocating, or replacing a tower of an existing transmission line (other than as part of a temporary line deviation or undergrounding) is a controlled activity if —</p> <p>(a) all any of the applicable conditions in <u>regulation 14(3) to (5)</u> are complied with;</p> <p>(b) and the condition in regulation 14(6) is breached; but</p> <p>(c) the tower is not relocated, or replaced with another tower, so that any part of the tower at ground level falls outside the tower's envelope for controlled activities.</p> <p>2) Altering, relocating, or replacing a pole of an existing transmission line (other than as part of a temporary line deviation or undergrounding) is a controlled activity if —</p> <p>(a) all of any of the applicable conditions in <u>regulation 14(3), (4) and (7)</u> are complied with; and</p> <p>(b) the condition in regulation 14(8) is breached; but</p> <p>(c) the pole is not relocated, or replaced with another pole, more than 10 metres from the pole's base position (measured horizontally).</p> <p><u>3) Altering, relocating, or replacing a tower or pole of an existing transmission line as part of undergrounding, so that the tower or pole becomes a termination structure, is a controlled activity if all of the applicable conditions in regulation 14(3), (4), and (7) are complied with.</u></p> <p>Matters over which control reserved</p> <p><u>4) Control is reserved over the following matters in relation to a controlled activity under this regulation:</u></p> <p>(a) visual, landscape, and ecological effects; and</p> <p>(b) the effects on historic heritage; and</p> <p><u>(a) The location and height of the transmission line support structures in relation to –</u></p> <p><u>(i) landscape, and ecological effects; and</u></p>	<p>Option 1: Removing the matter of control/restricted discretion in relation to visual effects</p> <p>Option 2: Delete clause 15(1)(c) and clause 15(3) relating to the controlled activity envelope and repositioning more than 10m from the pole base position. Add a matter of control related to earthworks, clearance of trees and vegetation and the restoration of land.</p> <p>Position: Agree with Options 1 and 2</p> <p>Comment: Refer above reasoning for Regulation 14.</p> <p>Transpower partly agrees with Option 2 and seeks the first two changes: The permitted activity envelope has been sought to be expanded (for reasons discussed above) which means the controlled activity envelope no longer applies. Given Transpower suggests the restricted discretionary activity rule be deleted, the controlled activity rule becomes the default rule. This means the requirement for the pole to remain within 10 metres of its base position can be moved to the permitted activity rule as there will be no further default rule if this standard is not complied with. Transpower does not seek a matter of control relating to earthworks, clearance of trees and restoration of land. These matters are already addressed by the other regulations in NES-ETA on earthworks and tree trimming. However, other matters of control are either suggested or carried through,</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<div>(ii) <i>the effects on historic heritage item or setting; and</i> (iii) <i>the effects on sensitive activities; and</i> (b) <i>the effects and timing of construction works; and</i> (c) <i>the effects on services and infrastructure</i></div>	
<div><p>16. Restricted discretionary activities</p><p>1) Altering, relocating, or replacing a tower of an existing transmission line (other than as part of a temporary line deviation or undergrounding) is a restricted discretionary activity if—</p><p>(1) 1 or more of the conditions in regulation 14(3) to (5) are breached; or both of the following apply: (i) the requirement described in regulation 15(1)(c) is breached; but (ii) all of the applicable conditions in regulation 10(2) to (8) are complied with.</p><p>2) Altering, relocating, or replacing a pole of an existing transmission line (other than as part of a temporary line deviation or undergrounding) is a restricted discretionary activity if—</p><p>(1) 1 or more of the conditions in regulation 14(3), (4), and (7) are breached; or both of the following apply: (i) the requirement described in regulation 15(2)(c) is breached; but (ii) all of the applicable conditions in regulation 10(2) to (8) are complied with.</p><p>3) Altering, relocating, or replacing a tower or pole of an existing transmission line as part of undergrounding, so that the tower or pole becomes a termination structure, is a restricted discretionary activity if 1 or more of the conditions in are breached.</p><p>Matters to which discretion restricted</p><p>4) Discretion is restricted to the following matters in relation to a restricted discretionary activity under this regulation:</p><p>(a) the location and height of the transmission line support structures in relation to— (i) visual, landscape, and ecological effects; and (ii) the effects on historic heritage; and (iii) the effects on sensitive land uses; and (b) earthworks, clearance of trees and vegetation, and restoration of the land; and (c) the effects and timing of construction works.</p></div>	<div><p>Option 1: Removing the matter of control/restricted discretion in relation to visual effects</p><p>Option 2: Provide a more enabling activity status (e.g., from controlled, to permitted, or from restricted discretionary to controlled) where the effects can be suitably managed by standards and conditions.</p><p>Position: Agree with Option 2</p><p>Comment: Refer above reasoning for Regulation 14. Regulation 15 is the default rule and therefore Regulation 16 is not required.</p></div>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p>Temporary structures and temporary line deviation</p> <p>17. Permitted activities</p> <p>1) Erecting or using a temporary structure in relation to an existing transmission line (other than including as part of a temporary line deviation) is a permitted activity if the condition in subclause (32) is complied with.</p> <p>2) Carrying out a temporary line deviation of an existing transmission line is a permitted activity if the condition in subclause (4) is complied with.</p> <p>Conditions</p> <p>3) Any temporary structures must be—</p> <p>(a) erected no earlier than 20 working days before the start of the relevant maintenance or upgrading; and</p> <p>(b) removed no later than 20 working days after the end of the maintenance or upgrading.</p> <p>4) 2) Any temporary structure or structures involved in a temporary line deviation must be—</p> <p>(a) erected no earlier than 60 working days before the start of the relevant work on the existing transmission line maintenance or upgrading; and</p> <p>(b) removed no later than 60 working days after the end of the relevant work on the existing transmission line maintenance or upgrading.</p>	<p>Option 2: Amend 17(3)(a) and 17(3)(b) so that temporary structures can be erected and removed up to 60 working days before the start/end of maintenance and upgrading, as opposed to 20 working days which is the current permitted standard.</p> <p>Position: Agree with Option 2</p> <p>Comment: Transpower seeks amendment to regulation 17 as the timeframe is too restrictive, particularly for difficult work and somewhat arbitrary. In practice Transpower erects the temporary structures when they are needed and removes them expeditiously when works are complete. The timing of works needs to fit in with many constraints, including planned outages and customer work such as Waka Kotahi timeframes near state highways. The temporary structures themselves can take days or weeks to construct and similarly for their removal. Transpower needs to have the flexibility to erect the structures in advance of the works and then have a reasonable period of flexibility to begin the works to align with the constraints explained above. Consenting for this type of activity adds no real value.</p> <p>A consequential amendment is proposed to include temporary line deviation alongside other temporary structures as temporary line deviations already had 60 working days to erect and remove.</p>
<p>18. Controlled activities</p> <p>1) Erecting or using a temporary structure in relation to an existing transmission line (other than including as part of a temporary line deviation) is a controlled activity if the condition in <u>regulation 17(32)</u> is breached.</p> <p>Carrying out a temporary line deviation of an existing transmission line is a controlled activity if the condition in <u>regulation 17(4)</u> is breached.</p> <p>Matters over which control reserved</p> <p>2) 3) Control is reserved over the following matters in relation to a controlled activity under this regulation:</p> <p>(a) the duration of any works; and</p> <p>(b) the effects and timing of construction works.</p>	<p>Consequential amendments to reflect the changes to Regulation 17.</p>
<p>Transmission lines: Removal</p> <p>19. Permitted activities</p> <p>1) Removing an existing transmission line, or part of an existing transmission line, is a permitted activity if both of the conditions in subclauses (2) and (3) are complied with.</p> <p>Conditions</p> <p>2) The transmission line, or the part of the transmission line, and any associated construction or demolition material must be removed from the land.</p>	

NESETA Provision mark up <i>shown in red</i>	Transpower comments
3) Any ground that is disturbed from the removal must be restored in a way that minimises the risk of soil erosion, sediment run-off, and weed invasion.	
<p>20. Controlled activities</p> <p>1) Removing an existing transmission line, or part of an existing transmission line, is a controlled activity if 1 or both of the conditions in regulation 19(2) and (3) are breached.</p> <p>Matters over which control reserved</p> <p>2) Control is reserved over the following matters in relation to a controlled activity under this regulation:</p> <p>(a) earthworks, clearance of trees and vegetation, and restoration of the land; and</p> <p>(b) the effects and timing of construction <u>and/or removal</u> works.</p>	<p>Option 2: Include the effects of removal works as a matter of control in relation to the removal of transmission lines (regulation 20(2)(b)).</p> <p>Position: Agree with option 2.</p> <p>Comment: Minor addition to provide clarity and certainty that construction can include removal works.</p>
Telecommunication devices	
<p>21. Permitted activities</p> <p>1) Installing or modifying a telecommunication device on a transmission line support structure of an existing transmission line is a permitted activity if both of the conditions in subclauses (3) and (4) are complied with.</p> <p>2) Maintaining a telecommunication device on a transmission line support structure of an existing transmission line is a permitted activity.</p> <p>Conditions</p> <p>3) The width of the telecommunication device must not exceed 1.8 metres.</p> <p>4) The telecommunication device must extend no more than 2.5 metres above the height of the structure.</p>	
<p>22. <u>Controlled Restricted discretionary activities</u></p> <p>1) Installing or modifying a telecommunication device on a transmission line support structure of an existing transmission line is a restricted discretionary activity if 1 or both of the conditions in regulation 27(3) and (4) are breached.</p> <p>Matters <u>over which control reserved to which discretion restricted</u></p> <p>2) <u>Control is reserved Discretion is restricted</u> to the following matters in relation to a <u>controlled restricted discretionary</u> activity under this regulation:</p> <p>(a) <u>Benefits to and of the National Grid;</u></p> <p>(b) <u>The operational and functional needs of the National Grid</u></p> <p>(c) the size, height, and number of telecommunication devices and associated telecommunication cables; and</p> <p>(d) visual and landscape effects.</p>	<p>Option 2: Provide a more enabling activity status (e.g., from controlled, to permitted, or from restricted discretionary to controlled) where the effects can be suitably managed by standards and conditions.</p> <p>Allow consideration of the benefits to and of the national grid, and the operational and functional needs of the national grid when considering applications for installing or modifying telecommunications devices and signs.</p> <p>Position: Agree with Option 2</p> <p>Comment: The National Grid requires its own system of telecommunication devices to operate. The matters Council can consider when assessing an application should include recognition of this. The NES-TF is not appropriate or specific to the National Grid given the nature (including linear) of the National Grid assets.</p> <p>The activity status should be controlled on the basis that the effects are known, and these are routine works. Given the operational and safety functions of telecommunications devices, Transpower should have certainty that consent will be granted as a controlled activity, rather than the uncertainty caused by restricted discretionary status.</p>
Signs	
<p>23. Permitted activities</p>	<p>Comment: Transpower seeks that installing or modifying a sign <u>next to</u> (in addition to <u>on</u>) a transmission line support structure be a permitted activity (subject to size restrictions) rather than controlled. The signs are primarily for safety purposes and the effects are very confined. Transpower also considers signs on or next to a</p>

NESETA Provision mark up shown in red	Transpower comments
<p>1) <i>Installing or modifying a sign on a transmission line support structure of an existing transmission line that is intended to identify the structure or its owner, or is intended to help with safety or navigation, is a permitted activity if the applicable condition in subclause (23) or (34) is complied with.</i></p> <p>2) <u><i>Installing or modifying a sign next to a transmission line support structure of an existing transmission line that is intended to identify the structure or its owner, or is intended to help with safety or navigation, is a permitted activity if the applicable condition in subclause (3) or (4) is complied with.</i></u></p> <p>Conditions</p> <p>3) <i>The signs on, <u>or next to</u> a transmission line support structure that are intended to identify the structure or its owner must together cover an area of no more than 1 m².</i></p> <p>4) <i>The signs on, <u>or next to</u> a transmission line support structure that are intended to help with safety or navigation must together cover an area of no more than 612 m².</i></p>	<p>support structure that are for safety and navigation should be allowed to be up to 12m² so as to allow people to see and avoid them.</p> <p>Transpower has had issues where the harbour master has been unhappy with the signs and considered them not to be visible enough.</p>
<p>24. Controlled Restricted discretionary activities</p> <p>1) <i>Installing or modifying a sign on a transmission line support structure of an existing transmission line that is intended to identify the structure or its owner, or is intended to help with safety or navigation, is a restricted discretionary <u>controlled</u> activity if the applicable condition in <u>regulation 23(2) or (3)</u> is breached.</i></p> <p><i>Installing or modifying a sign next to a transmission line support structure of an existing transmission line that is intended to identify the structure or its owner, or is intended to help with safety or navigation, is a restricted discretionary activity. Matters <u>over which control reserved to which discretion</u> restricted</i></p> <p><u>2)</u> <i>Discretion is restricted to the following matters in relation to a restricted discretionary <u>controlled</u> activity under this regulation:</i></p> <p>(a) <u><i>Benefits to and of the National Grid;</i></u></p> <p>(b) <u><i>The operational and functional needs of the National Grid.</i></u></p> <p>(c) <i>visual effects visibility of the sign for its readers;</i> and</p> <p>(d) <i>the effects on services and infrastructure.</i></p>	<p>Option 2: Provide a more enabling activity status (e.g., from controlled, to permitted, or from restricted discretionary to controlled) where the effects can be suitably managed by standards and conditions.</p> <p>Allow consideration of the benefits to and of the national grid, and the operational and functional needs of the national grid when considering applications for installing or modifying telecommunications devices and signs.</p> <p>Position: Agree with option 2</p> <p>Comment: The National Grid requires discrete signage to operate (primarily for safety purposes). The matters Council can consider when assessing an application should include recognition of this. The provision of signage is a very limited component of the National Grid assets and the effects are very confined. Given the operational and safety functions of signage, Transpower should have certainty that consent will be granted as a controlled activity, rather than the uncertainty caused by restricted discretionary status.</p> <p>Instead of visual effects of the sign, a decision maker should be able to impose conditions relating to its size/visibility for people who read it.</p>
<p>Transmission line support structures: Discharges from blasting and applying protective coatings</p>	
<p>25. Permitted activities</p> <p>1) <i>Blasting a transmission line support structure of an existing transmission line, or preparing the structure to receive protective coatings, is a permitted activity if all of the applicable conditions in subclauses (4) to (10) are complied with.</i></p> <p>2) <i>Applying protective coatings to a transmission line support structure of an existing transmission line is a permitted activity if the condition in subclause (11) is complied with.</i></p> <p>3) <u><i>Mechanical preparation of a surface of a transmission line support structure of an existing transmission line is a permitted activity</i></u></p> <p>Conditions</p> <p>4) <u><i>Wet abrasive B</i></u><i>blasting</i> <i>must not be done within 50 metres of a water body or the coastal marine area.</i></p> <p>5) <u><i>Wet abrasive B</i></u><i>blasting</i> <i>must not be done—</i></p> <p>(a) <i>within 50 metres of a public road; or</i></p> <p>(b) <i>within 100 metres of an occupied building.</i></p>	<p>Option 2: Amend the permitted activity conditions for both dry and wet blasting to refer to setbacks from a ‘sensitive land use activity’ rather than an ‘occupied building’. Amend the provisions to allow dry blasting to take place closer to water bodies (10m setback instead of 50m) and sensitive activities (20m instead of 100m). Increase the permitted height of dry blasting activities from 1m to 2m above ground level.</p> <p>Position: Partly agree with Option 2</p> <p>Comment: As noted earlier, Transpower seeks to rationalise the blasting provisions so that they are consistent and clearer.</p> <p>The changes Transpower seeks are to separate wet and dry abrasive blasting to reflect observations in the field.</p> <p>Changes are sought to Clause 4 and 5 to clarify these conditions apply to wet abrasive blasting only.</p> <p>Effects on all ‘occupied buildings’ of blasting should be managed, not just sensitive ones.</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p>6) Abrasive material used in abrasive blasting must contain no more than 5% free silica by dry weight.</p> <p>7) Waste and debris resulting from abrasive blasting must be removed from the site of the blasting to the extent practicable.</p> <p>8) Dry abrasive blasting—</p> <p class="padding-left: 20px;">(a) must be done no more than <u>12 metres</u> above ground level; and</p> <p class="padding-left: 20px;">(b) may be done only if covers or screens are used to mitigate the effects of any contaminants discharged by the blasting; <u>and</u></p> <p class="padding-left: 20px;">(c) <u>must not be done:</u></p> <p class="padding-left: 40px;">(i) <u>within 10 metres of a water body or the coastal marine area or a public road;</u></p> <p class="padding-left: 40px;">(ii) <u>within 20 metres of an occupied building</u></p> <p>9) If abrasive blasting is done on a tower coated with lead-based paint, the waste and debris (including abrasive material) resulting from the blasting must be captured and removed by using geotextile material of a filter quality or by any equivalent method.</p> <p>10) The following substances must not be used for surface preparation: paint strippers (unless used on a solvent rag to degrease a surface), fungicides, acids, alkalis, sodium hypochlorite, or any other oxidising agent.</p> <p>11) Protective coatings must be applied—</p> <p class="padding-left: 20px;">(a) by hand; or</p> <p class="padding-left: 20px;">(b) by pressurised spray used no more than 1 metre above ground level.</p>	<p>Changes are sought to clause 8) as dry blasting activities are undertaken close to the ground, often below ground level within an open excavation and the drift is minimal. Emissions are therefore contained to a small area to the extent there are any. It is rare that dry blasting occurs higher up the tower (this is usually wet blasting) - and dry blasting so close to the ground (either 1 or 2 metres) is usually short duration (blasting foundations, base plates or lower extremities of the tower legs) with very little material fallout far from the tower. 50m/100m for dry blasting low to the ground is a relatively long distance where material typically won't travel more than a few metres. Often dry blasting is also below ground level once foundations have been exposed for maintenance meaning the blast material is fully (or mostly) contained.</p> <p>Transpower suggests mechanical preparation of a surface be added as a permitted activity to reflect all the methods to prepare surfaces that are actually used in practice. As the work is done by hand held tools (both powered and non-powered), there is very minimal contaminants discharged, and the works are unlikely to cause any adverse effects.</p> <p>Mechanical or manual preparation of the steel surface is an alternative method of removing impurities/corrosion. This is done by hand-held tools (power tools and non-powered tools) with an abrasive surface (e.g. tungsten or wire brushes). This method is only done at selective sites, for example along motorways where there is potential for distraction of drivers if abrasive blasting 'clouds' are visible, or sometimes close to sensitive sites where there is less potential of fallout travelling far from the tower (although drop sheets and other methods of mitigation are followed as per the abrasive blasting methods). Transpower suggests this mechanical preparation method be added as a permitted activity to reflect the methods that are actually used in practice. As the work is done by hand-held tools, there are minimal contaminants discharged, fallout is in close proximity to the tower, propelled in a downward direction with minimal force and collected, and overall the works are unlikely to cause any adverse effects.</p> <p>Mechanical preparation takes longer, is more fatiguing for the workers and can result in a less effective surface preparation, therefore, Transpower prefers to use wet blasting.</p>
<p>26. Controlled activities</p> <p>1) Blasting a transmission line support structure of an existing transmission line, or preparing the structure to receive protective coatings, is a controlled activity if –</p> <p class="padding-left: 20px;">(a) It is not done over a water body or the coastal marine area; or and</p> <p class="padding-left: 20px;">(b) <u>1 or more of the conditions in regulation 25(4) to (10) are breached</u> the applicable conditions in regulation 25(4) and (7) are complied with; and</p> <p class="padding-left: 20px;">(c) <u>1 or both of the following apply:</u></p> <p class="padding-left: 40px;">(i) it is done within 50 metres of a water body or the coastal marine area;</p> <p class="padding-left: 40px;">(ii) 1 or more of the conditions in regulation 25(5), (6), (8), and (9) are breached.</p> <p>2) Applying protective coatings to a transmission line support structure of an existing transmission line-is a controlled activity if the condition in <u>regulation 25(10)</u> is breached.</p> <p style="padding-left: 40px;">Matters over which control reserved</p> <p>3) Control is reserved over the following matters in relation to a controlled activity under this regulation:</p> <p class="padding-left: 20px;">(a) the effects on water quality and ecologically-sensitive receiving environments; and</p> <p class="padding-left: 20px;">(b) the effects on-occupied buildings <u>and use of public roads</u>; and</p> <p class="padding-left: 20px;">(c) the risk of contamination of soil; and</p> <p class="padding-left: 20px;">(d) the effects on health.</p>	<p>Option 2: Broaden provision to apply not only to discharges from blasting existing transmission lines, and refine the matters of control to cover the effects on human health (instead of "health") and the effects on sensitive activities and use of public roads (instead of "occupied buildings").</p> <p>Position: Neutral on Option 2</p> <p>Comment:</p> <p>Transpower is neutral on Option 2 and no longer seeks the changes outlined (in respect of matters of control), except for the addition of 'public roads' to the matters of control, for the following reasons:</p> <p>a The NES applies to existing transmission lines and the blasting regulations should only apply to existing transmission lines and not new lines.</p> <p>b Most of Transpower's assets are on rural land. Therefore, effects shouldn't be limited to human health as they should also cover animal health.</p> <p>c Effects on all 'occupied buildings' of blasting should be managed, not just sensitive ones. Effects on public roads should also be managed.</p>
<p>27. Restricted discretionary activities</p>	<p>Option 2: Provide a more enabling activity status (e.g., from controlled, to permitted, or from restricted discretionary to controlled) where the effects can be suitably managed by standards and conditions.</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p>1) Blasting a transmission line support structure of an existing transmission line, or preparing the structure to receive protective coatings, is a restricted discretionary activity if—</p> <p>(a) it is done over a water body or the coastal marine area; or</p> <p>1 or both of the conditions in regulation 25(4) and (7) are breached.</p> <p>Matters to which discretion restricted</p> <p>2) Discretion is restricted to the following matters in relation to a restricted discretionary activity under this regulation:</p> <p>(a) the effects on water quality and ecologically sensitive receiving environments; and</p> <p>the effects on occupied buildings and use of public roads; and</p> <p>the risk of contamination of soil; and</p> <p>the effects on health.</p>	<p>Position: Agree with Option 2</p> <p>Comment: Transpower needs to carry out blasting on its assets to ensure they can operate (i.e. do not corrode). An uncertain consenting pathway (where consent can be declined) does not offer sufficient certainty for Transpower to undertake these activities. The standards which result in restricted discretionary activity status can be mitigated through consent conditions. Allowing a consent to be declined would only add cost, time and uncertainty, and would not add any value in terms of the way the activities are undertaken.</p>
Discharges to water	
<p>28 Permitted activities</p> <p>1) Discharging contaminants into water, <u>or onto land where they may enter water</u>, in relation to an existing transmission line is a permitted activity if, after the water and contaminants are reasonably mixed together, all of the conditions in subclauses (2) to (6) are complied with.</p> <p>Conditions</p> <p>2) The discharge must not produce conspicuous—</p> <p>(a) films of oil or grease; or</p> <p>(b) scums or foams; or</p> <p>(c) floatable or suspended materials.</p> <p>3) The discharge must not create a conspicuous change in colour or visual clarity.</p> <p>4) The discharge must not emit an objectionable odour.</p> <p>5) The discharge must not make fresh water unsuitable for farm animals to drink.</p> <p>6) The discharge must not have adverse effects on aquatic life that are more than minor.</p>	<p>Option 2: Broaden the scope by amending the wording to the “National Grid” in place of “an existing transmission line”. Amend provisions so that discharges to land where they may enter water are also covered by the permitted activity standards.</p> <p>Position: Partly agree with Option 2</p> <p>Comment: Transpower seeks amendment to provide consistency with regional rules.</p> <p>The NESETA should continue to apply existing transmission lines only</p>
<p>29. Controlled activities</p> <p>1) Discharging contaminants into water, <u>or onto land where they may enter water</u>, in relation to an existing transmission line is a controlled activity if, after the water and contaminants are reasonably mixed together, 1 or more of the conditions in regulation 28(2) to (6) are breached.</p> <p>Matters over which control reserved</p> <p>2) Control is reserved over the following matters in relation to a controlled activity under this regulation:</p> <p>(d) the effects on water quality; and</p> <p>(e) the effects on aquatic life.</p>	<p>Option 2: Broaden the scope by amending the wording to the “National Grid” in place of “an existing transmission line”. Amend provisions so that discharges to land where they may enter water are also covered by the permitted activity standards.</p> <p>Position: Partly agree with Option 2</p> <p>Comment: Refer above reasoning for Regulation 28.</p> <p>Additional regional rules within the revised NESETA are outlined in Schedule 4 below.</p>
Trimming, felling, and removing of trees and vegetation	

NESETA Provision mark up shown in red	Transpower comments
<p>30. Permitted activities</p> <p>1. Trimming, felling, or removing any tree or vegetation, in relation to an existing transmission line, is a permitted activity if all of the applicable conditions in subclauses (2) to (6) are complied with.</p> <p>Within a Significant Natural Area identified and mapped in a district or regional plan, the trimming, felling or removal of any tree or vegetation in relation to the National Grid, of:</p> <p>(a) indigenous vegetation required by statute or regulations including the Electricity (Hazards from Trees) Regulations 2003, or where a tree or vegetation is damaging, or threatening to damage a transmission line; or</p> <p>(b) grass, pest weed or exotic vegetation; or</p> <p>(c) indigenous vegetation required to maintain an existing access track, and is limited to an area within 2m of the existing access track; or</p> <p>(d) indigenous vegetation not otherwise provided for in Clauses (1)(a), if all of the applicable conditions in Schedule 2 are complied with;</p> <p>is a permitted activity.</p> <p>(2) Outside a Significant Natural Area identified and mapped in a district or regional plan, the trimming, felling or removal of any tree or vegetation in relation to the National Grid, of:</p> <p>(a) indigenous vegetation, including on road reserve, revegetation planting and amenity planting; or</p> <p>(b) grass, pest weed or exotic vegetation;</p> <p>is a permitted activity.</p> <p>(3) In relation to the National Grid, trimming, felling or removal of a tree or vegetation identified in a district plan as a Notable tree, is a permitted activity where the trimming, felling or removal is limited to:</p> <p>(a) trimming branches that do not exceed a diameter of 50mm at the point of severance; or</p> <p>(b) the removal of less than 10% of live growth of the tree in any one calendar year; or</p> <p>(c) works required by statute or regulations including the Electricity (Hazards from Trees) Regulations 2003, or where a tree or vegetation is damaging, or threatening to damage a transmission line; or</p> <p>(d) works not otherwise provided for in Clauses (3)(a)-(c), if all of the applicable conditions in Schedule 2 are complied with.</p> <p>Conditions</p> <p>3) Any tree or vegetation must not be trimmed, felled, or removed if—</p> <p>(a) a rule prohibits or restricts its trimming, felling, or removal (as the case may be); or</p> <p>(b) it is in a natural area.</p> <p>4) Any tree or vegetation located on any land must not be felled or removed if a regional plan controls the use of the land for the purpose of—</p> <p>(c) soil conservation; or</p> <p>(d) avoiding or mitigating flooding.</p> <p>5) Any tree or vegetation must not be trimmed, felled, or removed if it is on land administered by the Department of Conservation under the Conservation Act 1987 or an Act specified in Schedule 1 of that Act.</p> <p>6) The felling or removal of any tree or vegetation must not create or contribute to—</p> <p>(e) instability of a slope or another land surface; or</p> <p>(f) erosion of the bed or bank of a water body or the coastal marine area.</p> <p>Debris resulting from the trimming, felling, or removal must not enter a water body or the coastal marine area.</p>	<p>Option 2: Broaden the trees and vegetation trimming permitted activity provisions to specifically cover the removal of indigenous vegetation, revegetation planting, amenity planting, indigenous vegetation in road reserve and exotic vegetation as required to ensure the ongoing and safe operation and maintenance of the National Grid subject to Schedule 2 (added in place of the current conditions).</p> <p>Position: Agree with option 2</p> <p>Comment: The National Grid extends from Kaikohe in the North Island to Tiwai Point in the South Island – including ~11,000km of overhead transmission lines. There are significant areas of vegetation and forestry under and around the Grid – ranging from specimen trees, to national parks, to commercial plantation forestry and shelter belt planting on rural land.</p> <p>Risks from inappropriately planted, and poorly maintained, trees apply regardless of whether the tree is for amenity planting, shelter belts, commercial forestry or crops. Risks also exist in national parks or conservation areas. Transpower has an extensive and ongoing programme to manage vegetation around lines.</p> <p>Planting and growing trees and vegetation near transmission (and distribution) lines creates risks to the assets, people and stock and other property, and significant costs are incurred managing these risks. The main risks are:</p> <ul style="list-style-type: none"> a Vegetation causing loss of supply. Vegetation blown into overhead lines can cause a fault when vegetation comes too close to the conductors or into the line envelope, as a flashover can occur; b Vegetation causing asset damage. Trees and branches can fall into transmission lines, and can damage conductors (wires), poles and towers. Additional health and safety risks, and risks of trees striking lines, occur when forestry is felled. Slash also causes asset damage; c Vegetation causing a flashover resulting in wildfire. Vegetation related flashovers have the potential to ignite a fire. Under the right conditions, the fire can be sustained and widespread property loss could result; and d Access being restricted and/or made more difficult, due to the location of the planting or slash. <p>The ultimate consequence of these risks is “lights out” for communities, especially smaller regional communities with limited redundancy in the network.</p> <p>The Electricity (Hazards from Trees) Regulations require tree trimming, felling and removal. Notwithstanding the need to undertake vegetation works which are outside the scope of the regulations and for works on access tracks, it is overly onerous, costly and time consuming to require a resource consent, especially a restricted discretionary activity (and in some instances discretionary) that can be declined, for works that are mandatory under these Regulations.</p> <p>Transpower’s experience has been that consenting requirements have resulted in:</p> <ul style="list-style-type: none"> a Unreasonable delays due to slow consent processing; b Significant and unreasonable costs (see examples below); c Insufficient or short consent durations, requiring ongoing consent applications as the trees continue to grow; d Consent conditions that are onerous or unreasonable, such as trimming to the Growth Limit Zone (the legal minimum space around the line which must be kept clear), resulting in the tree breaching that zone as soon as it grows; and e Risks of work being carried out before consent applications are processed, due to the urgency of needing to carry out vegetation work before resource consents are in place, and confusion

NESETA Provision mark up <i>shown in red</i>	Transpower comments
	<p>for Transpower’s service providers where vegetation work may be permitted in one district but not others (given the reference back to plan rules).</p> <p>Examples of costs incurred for consenting necessary tree trimming are:</p> <ul style="list-style-type: none">a ~\$19,000 to consent ongoing vegetation works in Waipuna Reserve (Auckland), which included consultant fees for planting and assessment of effects assessment and ecologist fees. There are ongoing costs associated with compliance with consent conditions. Council processing costs were ~\$3500;b ~\$8,000 to consent mid-span vegetation works in a QEII covenanted area (Kapiti Coast District) which included a planning report, ecological assessment, consent lodgement fee and replacement planting;c ~\$6,000 to obtain a resource consent for vegetation control works on land administered by the Department of Conservation (DOC) in the Wairarapa, including a planning report and engagement with DOC, and consent lodgement fees. <p>Transpower seeks amendment to these provisions to address gaps and anomalies that have arisen in practice (for example, removal of weed species being captured by these provisions) and provide a complete vegetation framework for the National Grid.</p> <p>Current provisions create unnecessary barriers and obstacles to the trimming and felling of trees and vegetation where required for the safe operation and maintenance of the National Grid. Overall, regulation of trimming, felling and removing trees and vegetation should be less stringent to reduce and hazards and risks to and from transmission lines and structures.</p> <p>The suite of changes are intended to rationalise the provisions and address the issues previously identified and explained.</p> <p>The application of the regulation to the “National Grid” ensures vegetation works on access tracks are also provided for in the regulation.</p>
<p>31. Controlled activities</p> <p>(1) Trimming, felling, or removing any tree or vegetation in relation to an existing transmission line <u>the National Grid</u>, is a controlled activity if <u>the activity is not provided for as a permitted activity in regulation 30(1)-(63)</u>—</p> <p>(a) first,—</p> <p>(i) the condition in regulation 30(2) is breached because the tree or vegetation is in a natural area; but</p> <p>(ii) the trimming, felling, or removal is done to reduce the risk to a transmission line; and</p> <p>(b) second, all of the applicable conditions in regulation 30(3) to (6) are complied with.</p> <p>Matters over which control reserved</p> <p>(2) Control is reserved over the following matters in relation to a controlled activity under this regulation:</p> <p>(a) replanting; and</p> <p>(b) disposal of trees and vegetation; and</p> <p>(c) visual, landscape, and ecological effects.</p>	<p>Option 2: Broaden the scope by amending the wording to the “National Grid” in place of “an existing transmission line”.</p> <p>Position: Agree with option 2.</p> <p>Comment: Refer above reasoning for Regulation 30.</p>
<p>32 Restricted discretionary activities</p> <p>(1) Trimming, felling, or removing any tree or vegetation, in relation to an existing transmission line, is a restricted discretionary activity if 1 or both of the following paragraphs apply:</p> <p>(a) first,—</p> <p>i. the condition in regulation 30(2) is breached; and</p>	<p>Option 2: Provide a more enabling activity status (e.g., from controlled, to permitted, or from restricted discretionary to controlled) where the effects can be suitably managed by standards and conditions.</p> <p>Position: Agree with Option 2</p> <p>Comment: Refer above reasoning for Regulation 30.</p>

NESETA Provision mark up shown in red	Transpower comments
<p>ii.—it does not satisfy the exception in regulation 31(1)(a)(ii); (b) second, 1 or more of the conditions in regulation 30(3) to (6) are breached.</p> <p>Matters to which discretion restricted</p> <p>(2) Discretion is restricted to the following matters in relation to a restricted discretionary activity under this regulation: (a) replanting; and (b) disposal of trees and vegetation; and (c) control of erosion and sediment; and (d) visual, landscape, and ecological effects; and (e) the effects on drainage, flooding, and overland flow paths.</p>	
Earthworks	
<p>33. Permitted activities</p> <p>(1) Earthworks relating to an existing transmission line, or access to an existing line, are a permitted activity if all of the conditions in subclauses (2) to (9) are complied with.</p> <p>Conditions</p> <p>(2) Earthworks in a natural <u>protected</u> area must not, in a calendar year, exceed—</p> <p>(a) 50 m² per transmission line support structure; or</p> <p>(b) <u>20m² per 100m² of access track</u> or 100 m² (whichever is larger) per access track; (c) <u>50 m² per mid-span earthworks;</u> (d) <u>50 m² for works platforms, per transmission line support structure.</u></p> <p>(3) <u>Where earthworks are within 50 metres of a waterbody, Natural inland wetlands over 500m2 and/or the coastal marine area erosion sediment control must be applied and maintained at the site of earthworks, during and after the earthworks, to avoid the adverse effects of sediment on water bodies and the coastal marine area.</u></p> <p>(4) All areas of soil exposed by the earthworks must be stabilised against erosion as soon as practicable after the earthworks end to avoid the adverse effects of sediment on water bodies and the coastal marine area.</p> <p>(5) The earthworks must not create or contribute to—</p> <p>(a) instability or subsidence of a slope or another land surface; or</p> <p>(b) erosion of the bed or bank of a water body or the coastal marine area; or</p> <p>drainage problems or flooding of overland flow paths. <u>(c) flood risk in identified flood hazard areas.</u></p> <p>(6) Soil or debris from the earthworks must not be placed where it can enter a water body or the coastal marine area.</p> <p>7) Earthworks must not be carried out on the bed of a lake or river or in the coastal marine area.</p> <p>8) (7) Earthworks must not be carried out in a on a site containing an identified -historic heritage area item or setting unless they are carried out on an archaeological site in accordance with the Heritage New Zealand Pouhere Taonga Act 2014.</p> <p>9) Earthworks must not be carried out on land that a local authority has identified as containing, or possibly containing, contaminants that pose a risk to the environment must not exceed 50 m²; unless accompanied by a DSI.</p>	<p>Option 1: Remove 33 (9) – adequately addressed by applying the NESCS.</p> <p>Option 2: Refer to a protected area in place of natural area in the regulations setting out the permitted earthworks activities. Add additional permitted activities standards, that earthworks within a protected areas must not exceed 50m3 per mid span earthworks and 50m3 for works platforms, per transmission line support structure</p> <p>.</p> <p>Clarify that erosion sediment control must be applied and maintained within 50m of a waterbody and/or the coastal marine area.</p> <p>Replace the wording in the permitted activity standard that earthworks must not create or contribute to ‘drainage problems or flooding of overland flow paths’ with the wording it must not create or contribute to ‘flood risk in identified flood hazard areas.</p> <p>Remove the permitted activity standard requiring that earthworks must not be carried out on the bed of a lake or river in the coastal marine area.</p> <p>Amend the permitted activity standard for earthworks requiring that these not be carried out "in a historic heritage area unless they are carried out on an archaeological site in accordance with the Heritage New Zealand Pouhere Taonga Act 2014". Replace this wording to state that earthworks must not be carried out “on a site containing an identified historic heritage item or setting”.</p> <p>Position: Agree with Options 1 and 2</p> <p>Comment: Transpower seeks the following amendments:</p> <p>Clause 2 – Additions for clarification and to address gap in previous version. The 100m² permitted limit (as amended) for earthworks for access tracks is too restrictive where it applies to lengthy access tracks, e.g. 25kms long. Transpower seeks that the access track limit be amended to apply to 20m² per 100m² of access track or 100m² per access track, whatever is larger.</p> <p>Clause 3 – Clearer standard in terms of the effects to be managed and avoids unnecessary controls on sites that do not present risks.</p> <p>Clause 5 – Changes for clarification and to reflect where flooding risk applies.</p> <p>Clause 7 – Already covered by regional rules so deleted for clarity.</p> <p>Clause 8 – for consistency with definition change.</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p>34. Controlled activities</p> <p>(1) Earthworks relating to an existing transmission line-are a controlled activity if—</p> <p>(a) 1 or more of the conditions in <i>regulation 33 (2) to (9)</i> are breached; but</p> <p>(b) both of the conditions in regulation 33(8) and (9) are complied with.</p> <p>Matters over which control reserved</p> <p>2) Control is reserved over the following matters in relation to a controlled activity under this regulation:</p> <p>(a) the extent and nature of any disturbance; and</p> <p>(b) management of the earthworks and the methods used to carry out the earthworks; and</p> <p>(c) control of erosion and sediment and restoration of the land; and</p> <p>(d) visual, landscape, and ecological effects; and</p> <p>(e) the effects on historic heritage; and</p> <p>(f) the effects on-on instability, erosion or flood risk drainage, flooding, and overland flow paths.</p> <p>(g) Benefits to and of the National Grid.</p>	<p>Clause 9 - Transpower has sought to delete the condition relating to contaminated or potentially contaminated land with a new suite of bespoke contaminated land regulations provided.</p> <p>Change to m² as the purpose of the regulation is to control erosion and sediment control (so surface area is most relevant).</p> <p>Option 2: Amend 34(2)(f) so that control is reserved over the effects of “instability, erosions or flood risk” rather than “drainage, flooding and overland flow paths”.</p> <p>Position: Agree with Option 2</p> <p>Comment: Transpower seeks changes to provide consistency with other changes sought in other regulations. Given earthworks are for essential National Grid activities, Transpower considers that effects on historic heritage can be managed by the permitted and controlled rules and/ or any archaeological authority that is required. Recognition of benefits is also sought.</p>
<p>35. Restricted discretionary activities: historic heritage areas</p> <p>1) Earthworks relating to an existing transmission line are a restricted discretionary activity if the condition in regulation 33(8) is breached.</p> <p>Matters to which discretion restricted</p> <p>(7) Discretion is restricted to the following matters in relation to a restricted discretionary activity under this regulation:</p> <p>(a) the extent and nature of any disturbance; and</p> <p>(b) management of the earthworks and the methods used to carry out the earthworks; and</p> <p>(c) control of erosion and sediment and restoration of the land; and</p> <p>(d) visual, landscape, and ecological effects; and</p> <p>(e) the effects on historic heritage; and</p> <p>(f) the effects from flood risk in an identified flood hazard areason drainage, flooding, and overland flow path</p>	<p>Option 2: Remove “effects on drainage, flooding and overland flow path”.</p> <p>Amend the matters of restricted discretion to allow consideration of the benefits to and of the national grid, the operational and functional needs of the national grid and the effects from flood risk in an identified flood hazard area.</p> <p>Position: Disagree with Option 2</p> <p>Comment: The matter is addressed under Regulation 33 and Regulation 34. Furthermore, the Heritage New Zealand Pouhere Taonga Act 2014 applies with an archaeological authority required.</p>
<p>36 Restricted discretionary activities: potentially contaminated land</p> <p>1) Earthworks relating to an existing transmission line are a restricted discretionary activity if the condition in regulation 33(9) is breached.</p> <p>Matters to which discretion restricted</p> <p>2) Discretion is restricted to the following matters in relation to a restricted discretionary activity under this regulation:</p> <p>(a) restoration of the land; and</p> <p>(b) management of the earthworks and the methods used to carry out the earthworks; and</p>	<p>Option 2: Provide a more enabling activity status (e.g., from controlled, to permitted, or from restricted discretionary to controlled) where the effects can be suitably managed by standards and conditions.</p> <p>Position: Agree with option 2</p> <p>Comment: The matter is addressed under proposed regulations 38A to 38F which allows works on contaminated land as a permitted activity, whereas the current regulation does not allow any earthworks to take place on contaminated or potentially contaminated land, and often consent needs to be sought for earthworks for minor earthworks, for example for 6m³ for earthworks to enable a pole replacement. The drafted earthworks and vegetation regulation to cover regional rules also addresses the requirement to appropriately manage work on contaminated land.</p>

NESETA Provision mark up shown in red	Transpower comments
(c) the extent and nature of any disturbance in relation to ecological and health effects.	
Noise and vibration from construction activity	
<p>37. Permitted activities</p> <p>1) A construction activity relating to an existing transmission line is a permitted activity if both of the conditions in subclauses (2) and (3) are complied with.</p> <p>Conditions</p> <p>(8) The noise from the construction activity must comply with New Zealand Standard NZS 6803:1999 Acoustics—Construction Noise.</p> <p>(9) The vibrations from the construction activity must comply with the peak particle velocity limits in table 1 of German Standard DIN 4150–3:1999 Structural Vibration—Effects of Vibration on Structures.</p>	
<p>38. Controlled activities</p> <p>1) A construction activity relating to an existing transmission line is a controlled activity if 1 or both of the conditions in regulation 37(2) and (3) are breached.</p> <p>Matters over which control reserved</p> <p>(10)Control is reserved over the following matters in relation to a controlled activity under this regulation:</p> <p>(a) the timing of the works; and</p> <p>(b) the effects on sensitive land uses activities; and</p> <p>(c) the giving of notice of the works to parties who may be affected.</p>	<p>Minor amendment sought to update the matters of control to refer to ‘sensitive activities’ instead of ‘sensitive land uses’.</p>
<u>Works on land identified by a local authority as being contaminated</u>	
<p><u>38A. Permitted activities: Soil disturbance and sampling on land identified by a local authority as being contaminated</u></p> <p><u>(1) Soil disturbance, or soil sampling relating to existing transmission lines on land identified by a local authority as being contaminated, is a permitted activity if all the conditions in subclauses (2) to (4) are complied with.</u></p> <p><u>Conditions</u></p> <p><u>(2) A Site Management Plan (SMP) is prepared in accordance with the current and applicable Contaminated Land Management Guidelines and provided to the relevant Council prior to works commencing.</u></p> <p><u>(3) The SMP is implemented for the duration of works.</u></p> <p><u>(4) A surface which appropriately mitigates risks from the contaminants of concern is installed, over the area of disturbance only, at the completion of works.</u></p>	<p>Transpower is seeking a partial amendment/wider ranging rule framework relating to contaminated land. The rules sought are consistent with those suggested as part of the 2016 consultation on proposed changes to the NES-SC. The proposed rule framework also allows earthworks on contaminated land as a permitted activity (with appropriate management standards) where the NES-ETA currently does not.</p> <p>As outlined in the 2016 consultation document:</p> <ul style="list-style-type: none"> a Transpower often triggers the NESCS when undertaking routine activities due to the volume of soil disturbance. b It may not be appropriate or necessary for the NESCS to require consent for soil disturbances by Transpower as: <ul style="list-style-type: none"> i the NESCS resource consent process imposes unjustified costs and inefficiencies on operators – obtaining NESCS resource consent for National Grid projects can cause significant delays on individual projects, and can carry significant costs for operators. To mitigate these costs and inefficiencies, Transpower has been successful in obtaining global resource consents, which enable it to carry out activities across a district without needing to obtain individual consents for each activity. Councils are not consistently granting global consents, however, and even if Transpower was able to obtain global consents in all districts, it would need to obtain a minimum of 67 consents (one in each district) at an estimated cost of more than \$1.3 million per operator. It would be much more efficient to incorporate the management required by the global consents into the

NESETA Provision mark up <i>shown in red</i>	Transpower comments
	<p>NES-ETA, so they apply across the country and Transpower no longer needs to seek the global consents.</p> <p>ii The risks associated with these types of soil disturbance are generally low in relation to the NESCS objectives, as:</p> <p>A the effects are often consistent (so can be managed in a consistent manner);</p> <p>B the operators are experienced in appropriately managing risks;</p> <p>C the main people exposed to the soil are workers (not the general public), and risks to their health are addressed by health and safety regulations. The NESCS was not intended to cover risks to workers undertaking soil disturbance, as they are covered by health and safety regulations.</p> <p>c Network utility operators are also generally subject to a robust industry management system, (i.e. there are existing controls in place to manage adverse effects to human health).</p> <p>1.2 While these comments were made in the context of soil disturbance, similar themes were raised in respect of soil sampling and disposal and the regulation has been drafted accordingly. The regulation negates the need for the application of the NESCS.</p>
<p><u>38B. Controlled Activities:</u></p> <p><u>(1) Soil disturbance or soil sampling relating to existing transmission lines on land identified by a local authority as being contaminated is a controlled activity if:</u></p> <p><u>(a) 1 or more of the conditions in regulation 38A(2) to (4) are breached; but</u></p> <p><u>(b) A Detailed Site Investigation (DSI) (as defined in the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011) is prepared.</u></p> <p><u>Matters over which control reserved</u></p> <p><u>(2) Control is reserved over the following matters in relation to a controlled activity under this regulation:</u></p> <p><u>(a) The approach to managing the soil disturbance and sampling, including the adequacy of the SMP; and</u></p> <p><u>(b) The adequacy and findings of the DSI; and</u></p> <p><u>(c) The scale and duration of the works; and</u></p> <p><u>(d) The restoration of the land; and</u></p> <p><u>(d) The extent and nature of any disturbance in relation to ecological and health effects.</u></p>	<p>Refer reasoning in Regulation 38A.</p>
<p><u>38C. Restricted Discretionary Activities:</u></p> <p><u>(1) Soil disturbance or soil sampling relating to existing transmission lines on land identified by a local authority as being contaminated, is a restricted discretionary activity if:</u></p> <p><u>(a) 1 or more of the conditions in regulation 38A(2) to (4) are breached; and</u></p> <p><u>(b) A DSI is not prepared.</u></p> <p><u>Matters to which discretion restricted</u></p> <p><u>(2) Discretion is restricted to the following matters in relation to a restricted discretionary activity under this regulation:</u></p> <p><u>(a) The approach to managing the soil disturbance and sampling, including the adequacy of the SMP; and</u></p> <p><u>(b) The reasons why a DSI has not been prepared; and</u></p> <p><u>(c) The scale and duration of the works; and</u></p> <p><u>(d) The restoration of the land; and</u></p> <p><u>(e) The extent and nature of any disturbance in relation to ecological and health effects.</u></p> <p><u>Note: Soil disposal associated with the above activities is managed under regulation (57).</u></p>	<p>Refer reasoning in Regulation 38A.</p>

NESETA Provision mark up shown in red	Transpower comments
<p><u>38D. Permitted activities:</u> <i>Soil disposal on land identified by a local authority as being contaminated</i></p> <p><i>(1) Soil disposal relating to existing transmission lines on land identified by a local authority as being contaminated, is a permitted activity if all the conditions in subclauses (2) and (3) are complied with.</i></p> <p><u>Conditions</u></p> <p><i>(2) The nature of material is such that either:</i></p> <p><i>(a) The volume of disposal material is no greater than 5m³ per 500m² of the net site area; or</i></p> <p><i>(b) A Detailed Site Investigation (DSI) (as defined in the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011).</i></p> <p><i>(3) Method of disposal:</i></p> <p><i>(a) The disposal is to a facility authorised to receive soil of that kind; and</i></p> <p><i>(b) The disposal location is provided to council in notice prior to the of commencement of work; and</i></p> <p><i>(c) The results of testing and confirmation of disposal location are provided to council at the completion of works.</i></p>	Refer reasoning in Regulation 38A.
<p><u>38E. Controlled Activities:</u></p> <p><i>(1) Soil disposal relating to existing transmission lines on land identified by a local authority as being contaminated, is a controlled activity if 1 of the conditions in regulation 38D(2) and (3) is breached (but the other is complied with).</i></p> <p><u>Matters over which control reserved</u></p> <p><i>(2) Control is reserved over the following matters in relation to a controlled activity under this regulation:</i></p> <p><i>(a) The approach to managing the soil disposal including soil testing requirements, disposal location, transport method, and monitoring and reporting of disposal; and</i></p> <p><i>(b) The adequacy and findings of the DSI (if prepared); and</i></p> <p><i>(c) The nature of the disposal material; and</i></p> <p><i>(d) The scale and duration of the works.</i></p>	Refer reasoning in Regulation 38A.
<p><u>38F. Restricted Discretionary Activities:</u></p> <p><i>(1) Soil disposal relating to existing transmission lines on contaminated land, land is a restricted discretionary activity if both of the conditions 38D(2) and 38D(3) are breached.</i></p> <p><u>Matters to which discretion restricted</u></p> <p><i>(2) Discretion is restricted to the following matters in relation to a restricted discretionary activity under this regulation:</i></p> <p><i>(a) The approach to managing the soil disposal including soil testing requirements, disposal location, transport method, and monitoring and reporting of disposal; and</i></p> <p><i>(b) The reasons why a DSI has not been prepared; and</i></p> <p><i>(c) The nature of the disposal material; and</i></p> <p><i>(d) The scale and duration of the works.</i></p>	Refer reasoning in Regulation 38A.
Other transmission activities	
39. Discretionary activities	

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p><i>An activity to which these regulations apply (under regulation 4) is a discretionary activity if it is not described in these regulations as a permitted activity, controlled activity, restricted discretionary activity, or non-complying activity.</i></p>	
<p><u>Regional Rules</u></p>	<p>These regional rules have been inserted to stimulate discussion and prompt a consideration of how transmission activities can be better enabled. Transpower would welcome the opportunity to discuss and refine them together with other stakeholders.</p>
<p><u>River crossings</u></p>	
<p><u>40. Permitted Activities</u></p> <p><u>1) The placement or construction of a river crossing structure for an existing transmission line, including a ford or bridge, but excluding a culvert, that is fixed in, on, under or over the bed of a river, if the conditions in subclauses 4) to 11) are complied with.</u></p> <p><u>2) Maintenance, repair, replacement, upgrade or use of a river crossing structure, including a ford or bridge, but excluding a culvert, if the conditions in subclauses 4 to 10 are complied with.</u></p> <p><u>3) The following activities, where they are associated with an activity described in subclause (1) to (2):</u></p> <p><u>(a) Disturbance of the river or lake bed;</u></p> <p><u>(b) Deposition on the river or lake bed;</u></p> <p><u>(c) Diversion of water;</u></p> <p><u>(d) Discharge of sediment to water; and</u></p> <p><u>(e) Temporary damming of water.</u></p> <p><u>Conditions</u></p> <p><u>4) The crossing structure is no wider than what is required for the purpose of the crossing and the total area of the structure in or on the bed is no greater than 20m². This does not limit the area of the structure over the bed.</u></p> <p><u>5) The structure does not reduce the ability of the river to convey flood flows.</u></p> <p><u>6) There is no discharge of contaminants to water or the bed, except where this is the result of disturbance of sediment and other materials already existing in the water or bed.</u></p> <p><u>7) No cleaning or refuelling of machinery or equipment, or storage of fuel, takes place in, or within 10m of, the bed.</u></p> <p><u>8) All equipment, machinery and materials used for the activity is removed from the bed on completion of the activity.</u></p> <p><u>9) The works or structures do not prevent any existing fish passage.</u></p> <p><u>10) The activity does not result in erosion or scour of the river banks or the flooding of any other property.</u></p> <p><u>11) The activity does not take place within a site identified by a local authority on planning maps as an area identified by a local authority on planning maps as a significant indigenous biodiversity ecosystem or habitat, having mana whenua values, historic heritage values, or as an area of high or outstanding natural character.</u></p>	<p>Transpower undertakes a range of river crossing works to facilitate the ongoing operation and maintenance of the National Grid. The provision of a specific rule will provide consistency in the way these activities are treated and managed.</p> <p>The standards provide a framework in which to manage the effects. Where the standards cannot be met, a controlled activity status would apply thereby enabling a full assessment of the effects and imposition of appropriate conditions, whilst also recognising the existing nature and operational requirements of the National Grid assets.</p>
<p><u>41. Controlled Activities</u></p> <p><u>1) A river crossing structure for an existing transmission line is a controlled activity, if 1 or more of the conditions in subclauses (40).4) to 11) are breached.</u></p>	
<p><u>Groundwater take and use, and dewatering</u></p>	

NESETA Provision mark up shown in red	Transpower comments
<p><u>42. Permitted Activities</u></p> <p><u>1) The take and use of groundwater and the associated diversion and discharge of that water for the purpose of dewatering, undertaken during the maintenance, repair, replacement or upgrading, ETN development activities, routine ETN activities, Non-routine ETN activities of an existing transmission line, if the conditions in subclauses 2) to 9) are complied with.</u></p> <p><u>Conditions</u></p> <p><u>2) The take of water continues only for the time required to carry out the work and does not exceed one month.</u></p> <p><u>3) The discharge point is not located within 20m of a bore used for water abstraction for potable or stock water supply.</u></p> <p><u>4) The take and diversion is not from land where an activity or industry described in the HAIL is, or has been undertaken.</u></p> <p><u>5) The take does not cause ground subsidence.</u></p> <p><u>6) The take does not deplete water in a surface water body.</u></p> <p><u>7) There is no flooding beyond the boundary of the property on which the discharge occurs.</u></p> <p><u>8) Where the discharge is to water, or onto or into to land where it may enter a surface water body:</u></p> <p><u>(a) at the point of discharge the quality of the discharge does not exceed</u></p> <p><u>(i) 50g/m³ of total suspended solids where the discharge is within an area identified by a local authority on planning maps as a significant indigenous biodiversity ecosystem or habitat, having mana whenua values, or as a contact recreation area; or</u></p> <p><u>(ii) 100g/m³ of total suspended solids where the discharge is not within an area identified by a local authority on planning maps as a significant indigenous biodiversity ecosystem or habitat, having mana whenua values, or as a contact recreation area.</u></p> <p><u>(b) after the zone of reasonable mixing, the discharge does not cause a relevant value in the ANZECC guidelines to be exceeded</u></p> <p><u>9) Where a discharge is onto or into land where it may enter groundwater or a surface water body within a drinking water source protection area, the quality of the discharge at the discharge point does not exceed the maximum acceptable value (MAV) for any determinand in the Drinking Water Standards</u></p>	<p>Transpower undertakes dewatering when undertaking a range of maintenance and operation activities.. The provision of a specific rule will provide consistency in the way these activities are treated and managed.</p> <p>The standards provide a framework in which to manage the effects. Where the standards cannot be met, a controlled activity status would apply thereby enabling a full assessment of the effects and imposition of appropriate conditions, whilst also recognising the existing nature and operational requirements of the National Grid assets.</p>
<p><u>43. Controlled Activities</u></p> <p><u>1) The take of groundwater and the associated diversion and discharge of that water for the purpose of dewatering, undertaken during the maintenance, repair, replacement or ETN development activities, routine ETN activities, Non-routine ETN activities of an existing transmission lane, if the conditions in subclauses (42).2) to 9) are breached.</u></p>	
<p>Stormwater discharges</p>	

NESETA Provision mark up shown in red	Transpower comments
<p><u>44 Permitted Activities</u></p> <p><u>1) The discharge of stormwater into water or into or onto land where a contaminant may enter water, undertaken during the maintenance, repair, replacement or ETN development activities, routine ETN activities, Non-routine ETN activities of an existing transmission line, if the conditions in subclauses 2) to 7) are complied with.</u></p> <p><u>Conditions</u></p> <p><u>2) The discharge is not to a natural inland wetland.</u></p> <p><u>3) The discharge does not originate from land where an activity or industry described in the HAIL is, or has been undertaken, unless the stormwater does not come into direct contact with the land.</u></p> <p><u>4) The discharge does not cause any erosion of the channel or banks of the receiving water body.</u></p> <p><u>5) There is no flooding beyond the boundary of the property on which the discharge occurs.</u></p> <p><u>6) Where the discharge is to water, or onto or into to land where it may enter a surface water body:</u></p> <p><u>(a) at the point of discharge the quality of the discharge does not exceed:</u></p> <p><u>(i) 50g/m³ of total suspended solids where the discharge is within an area identified by a local authority on planning maps as a significant indigenous biodiversity ecosystem or habitat, having mana whenua values, or as a contact recreation area; or</u></p> <p><u>(ii) 100g/m³ of total suspended solids where the discharge is not within a an area identified by a local authority on planning maps as a significant indigenous biodiversity ecosystem or habitat, having mana whenua values, or as a contact recreation area.</u></p> <p><u>(b) after the zone of reasonable mixing, the discharge does not cause a relevant value in the ANZECC guidelines to be exceeded.</u></p> <p><u>7) Where a discharge is onto or into land where it may enter groundwater or a surface water body within a drinking water source protection area, the quality of the discharge at the discharge point does not exceed the maximum acceptable value (MAV) for any determinant in the Drinking Water Standards.</u></p>	<p>Transpower undertakes stormwater discharges to facilitate the ongoing operation and maintenance of the National Grid. The provision of a specific rule will provide consistency in the way these activities are treated and managed.</p> <p>The standards provide a framework in which to manage the effects. Where the standards cannot be met, a controlled activity status would apply thereby enabling a full assessment of the effects and imposition of appropriate conditions, whilst also recognising the existing nature and operational requirements of the National Grid assets.</p>
<p><u>45 Controlled Activities</u></p> <p><u>1) The take of groundwater and the associated diversion and discharge of that water for the purpose of dewatering, undertaken during the maintenance, repair, replacement or ETN development activities, routine ETN activities, Non-routine ETN activities of an existing transmission line, if the conditions in subclauses (44).2) to 7) are breached.</u></p>	
<p><u>Structures in the Coastal Marine Area</u></p>	

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p><u>46 Permitted Activities</u></p> <p><u>1) Occupation, maintenance, repair, replacement, ETN development activities, routine ETN activities, Non-routine ETN activities or use of the an existing transmission line in the coastal marine area, if the conditions in subclauses 3) to 7) are complied with.</u></p> <p><u>2) The following activities, where they are associated with an activity described in subclause (1) or (2):</u></p> <p><u>(a) Occupation of space in the coastal marine area;</u></p> <p><u>(b) Disturbance of the foreshore or seabed;</u></p> <p><u>(c) Deposition in, on or under the foreshore or seabed;</u></p> <p><u>(d) Discharge of contaminants; and</u></p> <p><u>(e) Diversion of open coastal water.</u></p> <p><u>Conditions</u></p> <p><u>3) The height, width, length, volume, plan area, or cross-sectional area, of the structure in the coastal marine area is increased by no more than 5% in any 12 month period.</u></p> <p><u>4) The structure is not in an identified port area, navigation protection area or protected coastal marine area.</u></p> <p><u>5) There is no discharge of contaminants to water or the coastal marine area, except where this is the result of disturbance of sediment and other materials already existing in the coastal marine area.</u></p> <p><u>6) No cleaning or refuelling of machinery or equipment, or storage of fuel, takes place in, or within 10m of, the coastal marine area.</u></p> <p><u>7) All equipment, machinery and materials used for the activity is removed from the coastal marine area on completion of the activity.</u></p>	<p>Transpower undertakes stormwater discharges to facilitate the ongoing operation and maintenance of the National Grid. The provision of a specific rule will provide consistency in the way these activities are treated and managed on land and within the CMA. Case Study 2 of Appendix C of this Submission describes some of the National Grid assets in the CMA, including the Cook Strait cables.</p> <p>The standards provide a framework in which to manage the effects. Where the standards cannot be met, a controlled activity status would apply thereby enabling a full assessment of the effects and imposition of appropriate conditions, whilst also recognising the existing nature and operational requirements of the National Grid assets.</p>
<p><u>47 Controlled Activities</u></p> <p><u>1) Occupation, maintenance, repair, replacement, ETN development activities, routine ETN activities, Non-routine ETN activities or use of the an existing transmission line in the coastal marine area, if the conditions in subclauses (46).3) to 7) are breached</u></p> <p><u>Matters of control</u></p> <p><u>2) Effects on public access, navigation and safety</u></p> <p><u>3) Effects of construction or works methods, and timing and hours of operation</u></p> <p><u>4) Effects on coastal processes</u></p> <p><u>5) Effects on values of protected coastal marine areas</u></p> <p><u>6) Benefits of the continued operation of the National Grid</u></p>	
<p><u>Earthworks or vegetation clearance</u></p>	

NESETA Provision mark up shown in red	Transpower comments
<p><u>48. Permitted activities</u></p> <p><u>(1) The use of land, and the associated discharge of sediment into water or onto land where it may enter water from the following earthworks or vegetation clearance activity associated with an existing transmission line is a permitted activity if all the conditions in subclause (2) to (6) are complied with:</u></p> <p><u>(a) Earthworks or vegetation clearance on land identified, defined or managed in a regional plan for erosion control purposes.</u></p> <p><u>(b) Earthworks or vegetation clearance within 5m of waterbody or the coastal marine area.</u></p> <p><u>(c) Earthworks /or vegetation clearance up to a total area of 3,000m2 per property per 12 month period.</u></p> <p><u>(d) Discharges of contaminants to land or water from earthworks on land identified by a local authority as being contaminated.</u></p> <p><u>Conditions</u></p> <p><u>(2) Soil or debris from the earthworks or vegetation must not be placed where it can enter a water body or the coastal marine area.</u></p> <p><u>(3) Where earthworks or vegetation clearance are within 5 metres of a waterbody and/or the coastal marine area erosion sediment control must be applied and maintained at the site of works, during and after the works, to avoid the adverse effects of sediment on water bodies and the coastal marine area.</u></p> <p><u>(4) All areas of soil exposed by the earthworks or vegetation clearance must be stabilised against erosion as soon as practicable after the works end to avoid the adverse effects of sediment on water bodies and the coastal marine area.</u></p> <p><u>(5) Any earthworks or vegetation clearance shall not, after the zone of reasonable mixing, result in any of the following effects in receiving waters:</u></p> <p><u>(a) the production of conspicuous oil or grease films, scums of foams, or floatable or suspended materials, or</u></p> <p><u>(b) any conspicuous change in colour or visual clarity, or</u></p> <p><u>(c) any emission of objectionable odour, or</u></p> <p><u>(d) the rendering of fresh water unsuitable for consumption by animals, or</u></p> <p><u>(e) any significant adverse effect on aquatic life; and</u></p> <p><u>(5) The earthworks or vegetation clearance must not create or contribute to—</u></p> <p><u>(a) instability or subsidence of a slope or another land surface; or</u></p> <p><u>(b) erosion of the bed or bank of a water body or the coastal marine area; or</u></p> <p><u>(c) flood risk in identified flood hazard areas.</u></p> <p><u>(6) Discharges of contaminants to land or water from earthworks on land identified by a local authority as being contaminated shall be undertaken in accordance with a site management plan.</u></p>	<p>A new regional rule is proposed for earthworks or vegetation clearance, including associated discharges. Transpower has to regularly undertake these activities to carry out routine activities in relation to existing transmission lines and having to obtain regional consents for earthworks is onerous and adds unnecessary time and cost, given it is currently excluded from the NES-ETA due to Regulation 4(2)(f). While regional vegetation provisions are generally covered by the NES-ETA already, having an explicit regional rule focussing on earthworks and vegetation clearance where management may be required on erosion prone land or near waterbodies is proposed.</p>
<p><u>49. Controlled activities</u></p> <p><u>1) Earthworks or vegetation clearance relating to an existing transmission line are a controlled activity if—</u></p> <p><u>(a) The standard in regulation 48(1)(c) is breached.</u></p> <p><u>(b) 1 or more of the conditions in regulation 48(2) to (6) are breached.</u></p> <p><u>Matters over which control reserved</u></p> <p><u>2) Control is reserved over the following matters in relation to a controlled activity under this regulation:</u></p> <p><u>(a) the extent, duration and nature of the works; and</u></p> <p><u>(b) management of the works and the methods used to carry out the works; and</u></p> <p><u>(c) control of erosion and sediment and restoration of the land; and</u></p> <p><u>(d) ecological effects; and</u></p> <p><u>(e) the effects on instability, erosion or flood risk.</u></p>	
<p><u>Works within the bed of a lake or river</u></p>	
<p><u>50. Permitted activities</u></p> <p><u>(1) The installation, maintenance, use and removal of any structure or equipment relating to an existing transmission line, including any bund, weir, bank, retaining wall, rock or erosion protection structure, groyne, or vegetation (including anchored tree protection),</u></p>	<p>Transpower undertakes works within the bed of a lake or river to facilitate the ongoing operation and maintenance of the National Grid.</p> <p>The standards provide a framework in which to manage the effects. Where the standards cannot be met, a controlled activity status would apply thereby enabling a full assessment of the effects and imposition of</p>

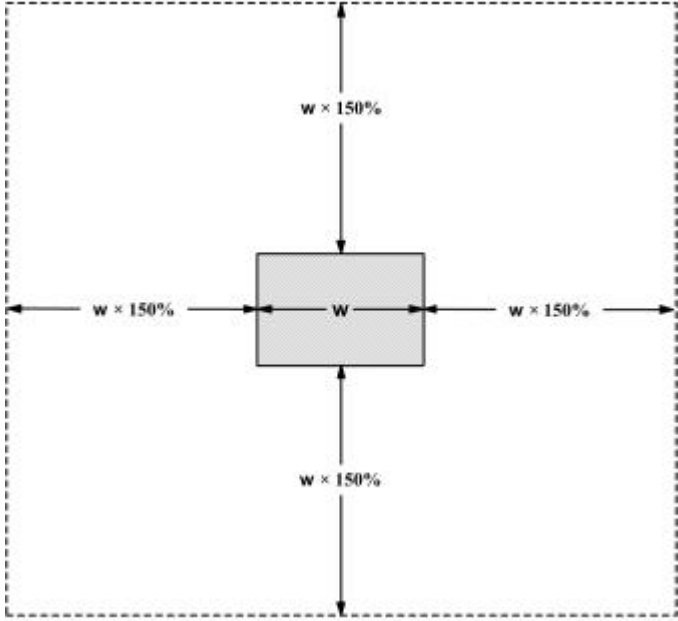
NESETA Provision mark up shown in red	Transpower comments
<p><u>(excluding dams), that is designed to have the effect of stopping, diverting, controlling, restricting or otherwise regulating the flow, energy or spread of water, including floodwaters, in or out of a waterbody, including:</u></p> <p>a. <u>the associated deposition of substances on, in or under the bed of a lake river and</u></p> <p>b. <u>excavation and associated diversion and discharge of sediment or other disturbance of the bed of a lake or river</u></p> <p><u>is a permitted activity, if all the conditions in subclause (2) to (5) are complied with:</u></p> <p><u>Conditions</u></p> <p>b. <u>The activity does not prevent access in any way to lawfully established structures; and</u></p> <p>c. <u>The works or structures do not prevent any existing fish passage; and</u></p> <p>d. <u>The activity is not in, on, or under the bed of any river or lake identified and protected in the regional plan as having:</u></p> <p><u>(i) Cultural values</u></p> <p><u>(ii) Areas of significant indigenous vegetation, and significant habitats of indigenous fauna</u></p> <p><u>(iii) Outstanding natural features and landscapes and natural character</u></p> <p><u>(iv) Amenity values (including recreation)</u></p> <p><u>(5) The activity is undertaken in accordance with a plan submitted to the relevant regional council hydrologic engineer (or equivalent).</u></p>	<p>appropriate conditions, whilst also recognising the existing nature and operational requirements of the National Grid assets.</p>
<p><u>51. Restricted discretionary activities</u></p> <p><u>(1) The installation, maintenance, use and removal of any structure or equipment outlined in regulation 1. relating to an existing transmission line is a restricted discretionary activity if 1 or more of the conditions in regulation 51(2) to (5) are breached.</u></p> <p><u>Matters to which discretion is restricted</u></p> <p><u>(2) Discretion is restricted to the following matters in relation to a restricted discretionary activity under this regulation:</u></p> <p><u>the effects on the areas and values identified in regulation 51(4); and</u></p> <p><u>the extent, duration and nature of the works; and</u></p> <p><u>management of the works and the methods used to carry out the works; and</u></p> <p><u>control of erosion and sediment and restoration; and</u></p> <p><u>ecological effects; and</u></p> <p><u>the effects on instability, erosion or flood risk.</u></p>	
<p><u>Signage within the bed of a lake or river or coastal marine area</u></p> <p><u>52. Permitted activities</u></p> <p><u>(1) The use, erection, reconstruction, placement, alteration or extension of a sign associated with an existing transmission line, in, on, or over the bed of a river, stream, or lake, or coastal marine area, and associated occupation, is a permitted activity if all the conditions in subclause (2) to (10) are complied with:</u></p> <p><u>Conditions</u></p> <p><u>(2) All practicable steps shall be taken to avoid, remedy or mitigate the release of sediment during construction of the sign structure.</u></p> <p><u>(3) The disturbance of the bed shall be limited to the extent necessary to carry out the activity.</u></p> <p><u>(4) The signage activity shall not prevent the passage of migrating fish.</u></p> <p><u>(5) The signage shall not compromise the structural integrity or use of any other authorised structure of activity in the bed of the stream, river or lake, including flood control works.</u></p> <p><u>(6) The signage shall not cause a hazard to navigation in navigable rivers and lakes.</u></p> <p><u>(7) The signage shall not alter the natural course of the river.</u></p>	<p>The National Grid requires discrete signage to operate (primarily for safety purposes). The provision of signage is a very limited component of the National Grid assets and the effects are very confined. Given the operational and safety functions of signage, Transpower should have certainty provided by a specific regulation rule.</p>

NESETA Provision mark up shown in red	Transpower comments
<p><u>(8) The signage shall at all times be maintained in a sound condition for the purpose for which for which it was constructed, and be kept clear of accumulated debris.</u></p> <p><u>(9) The signage shall be constructed to ensure that the structure can not break free and cause a blockage or erosion.</u></p> <p><u>(10) Signage in, on or over the beds of lakes shall be designed and constructed to account for natural lake water level fluctuations.</u></p>	
<p><u>53. Controlled activities</u></p> <p><u>(1) The use, erection, reconstruction, placement, alteration or extension of a sign associated with an existing transmission line, in, on, or over the bed of a river, stream, or lake, or coastal marine area, and associated occupation, is a controlled activity if any of the conditions in regulation 52(2) to (10) are breached.</u></p> <p><u>Matters over which control reserved</u></p> <p><u>(2) Control is reserved over the following matters in relation to a controlled activity under this regulation:</u></p> <p><u>(a) The matter in the condition that is breached; and</u></p> <p><u>(b) The operational and functional need of the National Grid; and</u></p> <p><u>(c) The purpose and benefits (including safety) of the signage.</u></p>	Transpower supports a controlled activity status within confined matters of control.
<p><u>Part 2 – Rules applying to activities in the National Grid Corridor</u></p>	
<p><u>54 . Permitted activities within the National Grid yard</u></p> <p><u>1) Alterations and additions to an existing building or structure for a sensitive activity that does not involve an increase in the building height or footprint.</u></p> <p><u>2) Accessory buildings for sensitive activities located more than 12m from a National Grid support structure, that are no more than 2.5m in height and no more than 10m² in area.</u></p> <p><u>3) Network utilities as defined in section 166 of the RMA and electricity generation that connects to the National Grid</u></p> <p><u>4) Fences located at least 5m from a National Grid pole support structure, and at least 6m from a National Grid tower</u></p> <p><u>5) Ancillary stockyards and platforms, including those associated with milking sheds (relates to rural activities) located more than 12m from a National Grid support structure</u></p> <p><u>6) Uninhabited farm and horticultural buildings and structures located more than 12m from a National Grid support structure and alterations to these buildings and structures</u></p> <p><u>7) Artificial crop protection structures or crop support structures not exceeding 2.5 metres in height and located at least 8 metres from a National Grid transmission line pole that:</u></p> <p><u>a) Are removable or temporary to allow a clear working space of 12 metres from the pole for maintenance; and</u></p> <p><u>b) Allow all weather access to the pole and a sufficient area for maintenance equipment, including a crane; or</u></p> <p><u>c) Meet the requirements of clause 2.4.1 of the New Zealand Electrical Code of Practice for Safe Electrical Distances (NZECP34:2001).</u></p> <p><u>8) Any new building or structure, and alterations, that is not for a Sensitive Activity, in a Compromised Span.</u></p> <p><u>Permitted activity standards</u></p> <p><u>1) All buildings or structures in the National Grid Yard must comply with the New Zealand Electrical Code of Practice for Safe Electrical Distances (NZECP34:2001).</u></p> <p><u>2) Any building, structure or activity must not permanently physically impede vehicular access to a National Grid support structure.</u></p>	<p>Option 2: Introduce nationally consistent rules for the buffer corridor and protection from third parties</p> <p>Position: Agree with Option 2</p> <p>Comment: In addition to the health and safety issues of activities locating within proximity of the National Grid, the National Grid can be affected by other activities that establish beneath or in close proximity to its lines and/or structures. Such activities can generate reverse sensitivity effects where landowners/ operators request a Council to impose constraints on existing infrastructure to manage effects such as noise, reduced visual amenity, radio and television interference, perceived Electric and Magnetic Field (‘EMF’) effects, or interference with business activities beneath the lines. Other activities also directly affect Grid lines – and the Grid needs to be protected from those activities.</p> <p>The provisions sought in relation to the National Grid Yard are intended to allow for the reasonable use of land inside the transmission line corridor, with standards and rules imposed to ensure that any land use and development that might compromise the National Grid is either managed or avoided. Specific to the 10-12 m ‘National Grid Yard’, Transpower is satisfied that there are some activities within the National Grid Yard that will not compromise the network, due to their nature and small scale. Certain structures (such as rural hay barns, pump sheds and implement sheds) are less problematic within 12 m of the line (noting that they will still need to be set back 12 m from National Grid support structures and meet mandatory safety clearances stipulated in other regulations) on the basis they are unlikely to “build out” a transmission line. The access or use of these structures can be restricted without causing animal welfare or business disruption issues, and they do not introduce intensive uses or heavily frequented workplaces with long durations of exposure to risk. Conversely, examples of development that should be avoided within the National Grid Yard include sensitive activities, commercial buildings and intensive uses/development, dairy sheds, piggeries, poultry sheds, and commercial greenhouses. The location of buildings and activities, particularly ‘sensitive activities’ such as schools and residential properties, beneath or in close proximity to lines and/or structures can also compromise Transpower’s ability to maintain, upgrade and develop the National Grid. Additionally, the stability of National Grid lines can be affected by earthworks that destabilise support structures resulting in their need to be relocated. Of particular relevance in terms of the effects of activities on the National Grid are NPSET Policies 10 and 11. These policies act as the primary guide to inform how adverse effects on the National Grid are managed. The policies seek to:</p> <ul style="list-style-type: none"> - Avoid sensitive activities near electricity transmission lines and infrastructure; - Manage other activities to avoid reverse sensitivity effects on the Grid; and - Manage activities to ensure the operation, maintenance, upgrading and development of the Grid is not compromised.

NESETA Provision mark up <i>shown in red</i>	Transpower comments
	<p>Specific commentary on the individual clauses is provided below:</p> <ol style="list-style-type: none"> 1) Recognises existing use rights/presence of existing sensitive activity underbuild, provided the intensity of the activity, and therefore the adverse effects, are not increased through additions/alterations. 2) Provides for garden sheds or relatively small structures that could not easily be converted into a sensitive activity. Also small scale reduces likelihood of physical impediment to National Grid support structures/conductors. 3) Network utility operators generally understand the requirements of working in the vicinity of the National Grid, including NZECP34 compliance and any necessary requirements to consult Transpower. 4) Reflects NZECP34 5) Reflects that these structures are used transiently, are often open low-level structures and their use is less time critical than the associated intensive farm buildings such as milking sheds 6) Reflects low level of human and/or animal occupation. Buildings such as hay barns, tractor/implement sheds, shearing sheds. These buildings occur very infrequently under transmission lines, and are less likely to compromise the Grid where they do occur. 7) This rule has been agreed with Horticulture New Zealand as striking a balance between enabling horticultural activities and not compromising the Grid. It is described further in the joint Transpower, Hort NZ and NZKGI “Kiwifruit Growers Guide”. 8) Transpower notes that a bespoke approach is provided in the Auckland Unitary Plan distinguishes between compromised and uncompromised spans. This bespoke approach required a large amount of technical input. The approach requires span by span identification, and so a link to the Auckland Unitary Plan is made in the regulation. Transpower considers that this approach remains appropriate, given the extensive underbuild in Auckland, and the fact that for the purpose of the existing policy 10 NPS-ET, the relevant spans are already compromised. Further, development of sensitive activities should however be prevented. <p>Transpower Notes/Comments on permitted activity standards:</p> <ol style="list-style-type: none"> 1) To ensure compliance with NZECP34 regardless of the activity 2) If vehicles cannot access National Grid support structures this could compromise the ability of Transpower to effectively maintain, operate, upgrade and develop the National Grid. This would be inconsistent with the NPSET and Policy 10 in particular.
<p><u>55. Non-complying activities for National Grid yard</u></p> <ol style="list-style-type: none"> 1) <u>Establishing sensitive activities in an existing building or a new building.</u> 2) <u>Alterations and additions to an existing building or structure for a sensitive activity that involves an increase in the building height or footprint.</u> 3) <u>Wintering barns.</u> 4) <u>Commercial greenhouses.</u> 5) <u>Immoveable protective canopies.</u> 6) <u>Produce packing facilities.</u> 7) <u>Milking sheds.</u> 8) <u>Buildings or structures for the handling or storage of hazardous substances with explosive or flammable intrinsic properties (except that this does not apply to the accessory use and storage of hazardous substances in domestic scale quantities)</u> 9) <u>Any permitted activity, building or structure that does not meet either of the permitted activity standards within regulation 60.</u> 10) <u>Any building or structure not otherwise provided for in regulation 60..</u> 	<p>Non-complying Activities within a National Grid Yard (aside from earthworks). A non-complying activity status is sought. A discretionary activity status is not considered appropriate - as consent can be granted.</p> <ol style="list-style-type: none"> 1) As per Policy 11 of the NPSET 2) Recognises existing use rights/presence of existing sensitive activity underbuild, provided the intensity of the activity, and therefore the adverse effects, aren’t increased through additions/alterations. 3) to 7) These activities are non-complying generally due to their large scale, the level and extent of occupation, the potential for disruption in the event of National Grid outages. The issue with wintering barns is not related to human occupation, but animal occupation/welfare – they are intensively used, and the animals cannot simply be put in the field to allow maintenance and upgrade of the Grid to occur. Similar issues arise with milking sheds. 9) For completeness. 10) Covers off commercial/industrial buildings etc and anything else that the permitted rules did not list.
<p><u>56. Permitted activities for National Grid yard earthworks, land disturbance, and vertical holes</u> <u>Earthworks, land disturbance and vertical holes are permitted activities provided they:</u></p>	<p>Transpower supports the provision of standards specific to earthworks and land disturbance on the basis such activities can compromise the National Grid and are a form of development contemplated by the NPSET. Specifically, earthworks restrictions are supported as earthworks have the potential to undermine transmission line structures, generate dust, and reduce the clearances between the ground and conductors. They also have the potential to restrict Transpower’s ability to access the line and locate the heavy</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p><u>1. are no deeper than 300 mm within 6 metres of the outer visible edge of a foundation of a National Grid transmission line tower or pole.</u></p> <p><u>2. are no deeper than 3 metres between 6 m and 12 m of the outer visible edge of a foundation of a National Grid transmission line tower or pole</u></p> <p><u>3. do not compromise the stability of a National Grid transmission line tower or pole.</u></p> <p><u>4. do not 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).</u></p> <p><u>5. do not permanently physically impede access to a National Grid support structure</u></p> <p><u>6. Clauses 1 – 5 do not apply to the following:</u></p> <p><u>(a) Earthworks and land disturbance undertaken for the repair or resealing of a road, footpath, driveway or farm track.</u></p> <p><u>(b) Excavation of a vertical hole, not exceeding 500mm in diameter, that is more than 1.5 metres from outer visible edge of foundation of a National Grid transmission line pole or stay wire.</u></p> <p><u>(c) Earthworks, land disturbance and vertical holes that otherwise comply with clause 2.4.1 of NZECP34:2001, or activities subject to a dispensation from Transpower under NZECP34:2001</u></p>	<p>machinery required to maintain support structures around the lines and may lead to potential tower failure and significant constraints on the operation of the line. Land disturbance is also included as the temporary works may have an effect, noting permitted thresholds are provided.</p> <p>The definition of earthworks reflects that in the National Planning Standards. “ The combination of the rule and definition must also regulate fence post holes, as this is excluded from the National Planning Standards definition. Includes a pathway for NZECP34 Clause 2.4.1 dispensation as an alternative to non complying activity status resource consent application.</p>
<p><u>57. Non-complying activities for National Grid yard earthworks, land disturbance or vertical holes</u></p> <p><u>1) Earthworks or vertical holes in the National Grid yard are a non-complying activity if any of the standards in regulation 62(1)-(5) are breached.</u></p>	<p>A non-complying activity status is considered the most effective means of giving effect to the NPS-ET’s objective of managing the adverse effects of the network and managing the adverse effects of other activities on the network. In particular, a non-complying activity status is the best method to manage other activities to ensure the network is not compromised. The NPS-ET provides a strong direction that cannot be achieved by use of the restricted discretionary activity status. Such policy direction can only be achieved by way of a non-complying activity status</p>
<p><u>58. Permitted activities for National Grid Subdivision Corridor</u></p> <p><u>Where the allotment is for access or a network utility.</u></p>	<p>Recognises again that network utility activities are unlikely to compromise the National Grid.</p>
<p><u>59. Restricted discretionary activities for National Grid Subdivision Corridor</u></p>	<p>Provides a consenting regime for subdivision within the defined National Grid Subdivision Corridor. Subdivision is considered the most effective point at which to ensure future reverse sensitivity effects, access issues, and adverse effects on 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). 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.</p>

NESETA Provision mark up shown in red	Transpower comments
<p>1) <u>Subdivision in the National Grid Subdivision Corridor is a permitted activity if both the conditions in (a) and (b) below are complied with:</u></p> <p><u>(a) a building platform for a new dwelling or principal building can be accommodated outside of the National Grid Yard.</u></p> <p><u>(b) Vehicle access to National Grid assets is maintained.</u></p> <p><u>Matters of assessment include:</u></p> <p>1. <u>The extent to which the subdivision allows for earthworks, buildings and structures to comply with the safe distance requirements of the New Zealand Electrical Code of Practice for Safe Electrical Distances (NZECP 34:2001).</u></p> <p>2. <u>The provision for the on-going efficient operation, maintenance, development and ETN development activities, routine ETN activities, Non-routine ETN activities of the National Grid, including the ability for continued reasonable access to existing transmission lines (including any support structures) for maintenance, inspections and upgrading, ETN development activities, routine ETN activities, Non-routine ETN activities.</u></p> <p>3. <u>The extent to which potential adverse effects (including visual and reverse sensitivity effects) are mitigated through the location of building platforms.</u></p> <p>4. <u>The extent to which the design and construction of the subdivision allows for activities to be setback from the National Grid to ensure adverse effects on, and from, the National Grid and on public safety and property are appropriately avoided, remedied or mitigated, for example, through the location of roads and reserves under the transmission lines.</u></p> <p>5. <u>The nature and location of any proposed vegetation to be planted.</u></p> <p>6. <u>The outcome of any consultation with, and technical advice from, Transpower.</u></p> <p>7. <u>The extent to which the subdivision plan clearly identifies the National Grid and proposed building platforms.</u></p> <p>8. <u>The outcome of any consultation with Transpower.</u></p>	
<p>60. <u>Non-complying activities for National Grid subdivision corridor</u></p> <p>1 <u>Subdivision in the National Grid Subdivision Corridor is a non-complying activity if either of the standards in regulation 65(1) are breached..</u></p>	<p>A non-complying activity status is sought. The activity status reflects the Yard rules in relation to building platforms.</p>
<p>Schedule 1</p> <p>Envelopes for activities relating to towers</p> <p><u>Envelope for permitted activities</u></p> <div></div> <p>where—</p> <ul style="list-style-type: none">- w is the base width- the inner rectangle is the base footprint	<p>Option 2: Expand the permitted activity envelope for towers from 60% to 150% and delete the controlled activity envelope.</p> <p>Position: Agree with Option 2</p> <p>Comment: Transpower seeks amendment to the diagrams in Schedule 1 (envelopes for activities relating to towers) to ensure they match the changes requested above e.g. making the controlled activity envelope the envelope for permitted activities.</p>

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p><i>- the outer rectangle (dashed) is the envelope for permitted activities.</i></p> <p>Envelope for controlled<i>permitted</i> activities</p>  <p>where—</p> <p><i>w is the base width</i></p> <p><i>the inner rectangle is the base footprint</i></p> <p><i>the outer rectangle (dashed) is the envelope for controlled<i>permitted</i> activities.</i></p>	
<p><u>Schedule 2</u></p> <p><u>Requirements for indigenous vegetation trimming, felling and removal</u></p> <p>1) <u>Initial appraisal</u></p> <p>(a) <i>A field assessment will be undertaken by a suitably qualified expert to confirm and describe the ecological features and values present, and potential risks to these values associated with the proposed works.</i></p> <p>(b) <i>Management recommendations are to be produced, including specific protocols to ensure identified ecological values are maintained. Where significant ecological values concern impacts on birds, bats and/ or lizards, fauna management protocols detailed below will be followed.</i></p> <p>(c) <i>Specific to felling, where the management response includes revegetation, as far as practicable replanting will be undertaken within the current or next planting season (i.e. autumn to spring) immediately following completion of vegetation felling works on the site. The final location and extent of the replacement planting will take into consideration the potential for future issues with the overhead transmission network and ensure a suitable location that seeks to avoid future conflicts. A replacement planting plan will be provided to Council in accordance with Clause 10.</i></p> <p>2) <u>Bird Nesting Management</u></p> <p>i. <i>Where possible, vegetation trimming, felling or removal will occur outside the main native bird nesting season (early September until the end of February) to minimise any disturbance to nesting birds.</i></p> <p>ii. <i>For works undertaken during the nesting season, or if immediately prior to or at any time during the initial vegetation works the presence of native nesting birds is detected by the arborist undertaking the work, then the following protocol will be followed:</i></p> <p>i. <i>An approved and experienced ecologist or ornithologist will visually inspect the tree proposed for felling within 24 hours of felling to identify any active native bird nests. This includes checking cavities and hollows for nesting native birds. Should any nesting be observed, a 10-metre buffer of vegetation will be required to remain around the nest site until an approved and</i></p>	<p>Option 2: Add a new schedule to set out the requirements for indigenous vegetation trimming, felling and removal which is carried out as a permitted activity; covering initial appraisal, site assessment, bird nesting management, bat roost management, lizard management, works within 5 metres of a waterbody, works to be undertaken by an arborist, storage and stockpiling of chemicals and contaminants, effects on surrounding areas, managing debris and pre-commencement information requirements.</p> <p>Position: Partly agree with Option 2</p> <p>Comment: See earlier comments regarding rationalisation of provisions and replacement of the standards within Regulations 30-32 with those in the new Schedule 2.</p> <p>It is onerous to carry out requirements such as bird nesting management, bat roosting management and lizard management nearly every time Transpower needs to remove a tree. It is more efficient to apply these requirements in situations that are not otherwise provided for by the permitted activities. Schedule 2 as proposed by Transpower provides a comprehensive assessment and management framework for works within a SNA or to a Notable tree that is not otherwise provided for. The Schedule 2 framework requires input from an ecologist and prescribes processes and standards in relation to bird nesting, bats, lizards, and other matters such as distance from waterbodies, use of an arborist, use of contaminants, debris management and prior notification to council.</p>

NESETA Provision mark up shown in red	Transpower comments
<p><u>experienced ecologist or ornithologist has confirmed that the nest has failed, or the chicks have hatched and naturally left the natal site.</u></p> <p>3) <u>Bat Roost Management</u></p> <p>(d) <u>Where the assessment undertaken in clause (1) of this Schedule identifies the potential for bats, and a review of the Department of Conservation bat database indicates bats have been recorded in the vicinity, an appropriately qualified bat specialist must assess the trees and determine whether the vegetation to be trimmed or felled includes potential bat roost habitat.</u></p> <p>i. <u>Where trees need to be climbed in order to inspect possible roost features, work can be undertaken by an arborist under the direction of a bat specialist.</u></p> <p>ii. <u>If visual inspections of potential roost features are not practicable, a pre-dawn acoustic survey with a hand-held detector is to be undertaken on the site immediately prior to scheduled felling or trimming. Valid survey nights must have the following features:</u></p> <p>(i) <u>Begin one hour before official dusk and end one hour after official dawn</u></p> <p>(ii) <u>Temperature between 10 and 17°C</u></p> <p>(iii) <u>Relative humidity > 70 %</u></p> <p>(iv) <u>Precipitation < 2.5mm in the first 2 hours after dusk</u></p> <p>(v) <u>No full moon</u></p> <p>iii. <u>If no bats are present, the tree/s can be trimmed or felled on the day immediately following the survey. If a solitary day-roost is detected, works are not to commence until re-inspection confirms no bats are present.</u></p> <p>iv. <u>If a maternity roost is detected, works are not to commence until a site-specific bat management plan has been prepared in consultation with the Department of Conservation.</u></p> <p>4) <u>Lizard management</u></p> <p>(e) <u>Where the assessment undertaken in clause (1) of this Schedule identifies the potential for arboreal lizards to be present, an appropriately qualified herpetologist must assess the site and determine whether the site contains suitable lizard habitat. If the site contains intact habitat and/ or there are records of arboreal lizards from the site or in the vicinity, visual searches are to be undertaken in accordance with best practice and a site-specific lizard management plan is to be prepared.</u></p> <p>i. <u>Where lizards are confirmed as present in the canopy of trees to be trimmed or felled, a qualified herpetologist must check foliage for lizards as it is removed. Any lizards found will be salvaged and moved to an appropriate release site (the release site and management provisions are to be specified by a herpetologist prior to the commencement of works).</u></p> <p>ii. <u>Where suitable habitat is present but no lizards have been detected in surveys, canopy foliage will be carefully placed in a location with suitable cover (to be identified by a herpetologist prior to the commencement of works) and allowed to decompose naturally, or if no suitable site is available to allow this, left for a minimum of 48 hours to allow any lizards present to disperse prior to mulching or processing the material.</u></p> <p>iii. <u>If, immediately prior to or at any time during the initial vegetation works the presence of native lizards is detected then the following protocols will be followed:</u></p> <p>(i) <u>All works will immediately cease on the site and will not recommence until the requirements set out below are met.</u></p> <p>(ii) <u>A suitably qualified herpetologist must identify and specify requirements for a lizard release site, and be present on-site during all felling and processing of plant material as it is removed to salvage and relocate lizards.</u></p> <p>(iii) <u>Upon completion of works, all findings resulting from the lizard search and rescue during vegetation felling condition will be recorded by a suitably qualified and experienced ecologist/herpetologist on an Amphibian/Reptile Distribution Scheme (ARDS) Card (or similar form that provides the same information) and sent to the Council.</u></p> <p>5) <u>5m of a Waterbody</u></p> <p>(a) <u>Where the vegetation is within 5m of a waterbody, all branch works and foliage are to be slash cut and piled in a suitable location to ensure they do not enter the waterbody. Any off-cut material which has potential to fall into the stream will be collected as it is trimmed.</u></p> <p>6) <u>Works to be undertaken by an Arborist</u></p> <p>(a) <u>The arboricultural works will be undertaken by a suitably qualified and experienced arborist, including utility arborist, in accordance with currently accepted arboricultural industry best practices guidelines.</u></p>	

NESETA Provision mark up <i>shown in red</i>	Transpower comments
<p>7) <u>Storage and stockpiling of chemicals and contaminants</u> (a) <u>No storage of materials, leaching of chemicals, tracking of any machinery, stockpiling of spoil, trenching or alteration of soil grade or other contamination will occur.</u></p> <p>8) <u>Effects on surrounding areas</u> (a) <u>The work will be carried out in such a way as to minimise damage to surrounding tree/vegetation cover, whilst working within appropriate safety parameters.</u></p> <p>9) <u>Managing debris</u> (a) <u>All woody branches and foliage from the vegetation works are to be either mulched, left in situ, slash cut and piled in suitable locations, to be utilised by the landowner/s or be left to decompose naturally within the site.</u></p> <p>10) <u>Pre-Commencement information requirements</u> (a) <u>The Council will be notified, at least ten (10) working days prior to any trimming or felling works being undertaken, of the proposed works. This notification will include, but not necessarily be limited to, the following:</u> (i) <u>Identification of the vegetation to be trimmed or felled and the nature and extent of the vegetation works to be undertaken;</u> (ii) <u>Proposed works methodology and mitigation measures;</u> (ii) <u>Replacement planting plan (if required); and</u> (iv) <u>Timing and duration of the works.</u></p>	

Appendix C

Transmission Line Components.....	2
Routine Activities	4
Foundation Strengthening	4
Tower Refurbishment.....	5
Tower Replacement / Additional Structures / Increased permitted envelope	6
Conductor/ Tower Raising	7
Reconductoring / Duplexing	8
Work space / Hurdles	9
Maintaining and Improving Access Tracks	10
Other works	12
Vegetation Clearance / Tree trimming	12
Case Study 1: National Grid Corridors	17
Case Study 2: Assets in Coastal Setback Area	29
Case Study 3: Cook Strait Cable.....	32
Case Study 4: Hairini.....	34
Case Study 5: Bunnythorpe-Haywards Reconductoring	35

Transmission Line Components

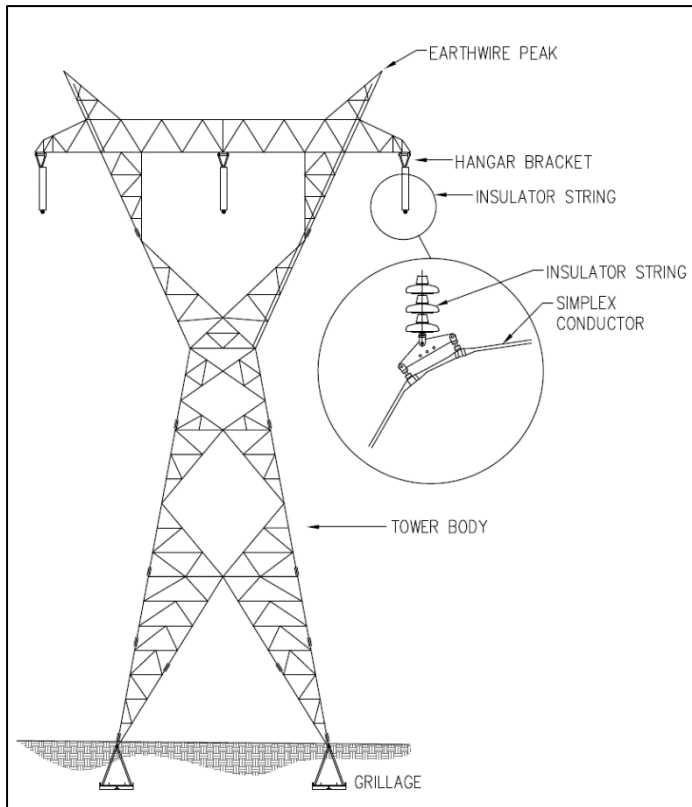


Figure 11:2 Flat top tower – simplex conductor

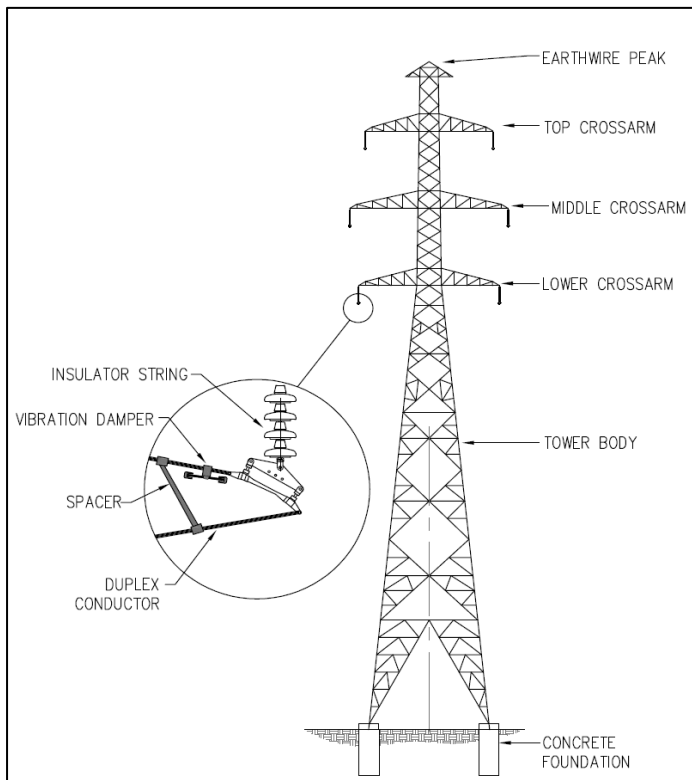


Figure 2: Double circuit tower – duplex conductor

Conductors

Conductors (wires) are the physical connections that transport live electrical energy at high voltages between substations (that is, between generators and substation supply points). Conductors usually consist of a number of aluminium stranded wires wrapped around an internal stranded steel support wire. In some cases, hard drawn copper is used, but these conductors are being phased out as they age.

Conductors are arranged in different configurations and with different spacing between them, depending on the structure types and circuit voltage. 220kV lines typically have 5.5m, and 110kV have a 3.25m, vertical separation. Where conductors are duplexed (two conductors per phase), sub-conductor spaces are installed to separate the two wires to prevent them twisting and clashing, particularly in windy conditions.

Structures

Structures support the conductors and earth wires above the ground or other obstacles to maintain safe electrical clearances. Structures take many forms – for example, self-supporting steel towers, concrete and wood poles, and steel tubular poles (monopoles).

Transmission line structures are designed for specific line characteristics, including voltage, conductor size, conductor tension, climatic conditions (wind and snow), and topographic criteria (span length, line angle, and tower height).

Insulator sets

Insulators electrically insulate the live conductors from the earthed structures and prevent any loss of energy to earth. Each phase on each structure requires an insulator set. The sets consist of insulators that may be manufactured of glass, ceramic porcelain or a composite material, and the steel hardware assemblies which attached the insulators to the structure and the conductors. In most cases, the insulators are suspended from the pole or tower crossarms.

Foundations

Foundations form the base on which each tower sits. Foundations for steel lattice towers typically consist of three main designs:

- directly buried lattice steel (grillages), where a lattice steel configuration sits on a formed platform below the ground and the entire configuration is directly backfilled and buried;
- concrete encased buried steel (grillages), where a corroded or understrength buried steel grillage is retrofitted with a buried concrete foundation;
- formed concrete foundations that connect the tower by either a bolted base plate arrangement or a concrete encased steel connection.

Wooden and concrete poles are generally directly buried. Steel monopoles can be either directly buried or will have a foundation system.

Earthwires

Earthwires are used to bond all conductive structures together and form a protective shield to help mitigate lightning strikes on the conductors. In some parts of the Transpower network, fibre optics are encased in the earthwire and serve as a communication system, and providing protection systems and a communication link between substations.

Not all assets have a full length earthwire installed. They are typically installed for at least the first 5 structures out from all substations and generation sites.

Routine Activities

Transpower carries out routine activities on its existing line fleet to have a perpetual life. It is vital that Transpower is able to carry out these activities on the Grid on a daily basis - to make it fit for purpose, whether that is more resilient, more secure, or to address safety or capacity issues. The examples in this part of the appendix show those activities. Non-routine and development activities are equally as important.

Transmission line components corrode and wear as any similar steel infrastructure does in the New Zealand environment. This corrosion and wear comes about by the constant exposure of the line to the elements, such as wind, rain, and pollutants. Some of Transpower's routine activities are described further below.

Foundation Strengthening

The majority of the Grid lines were constructed in the 1920s and 1950s. At that time, foundations consisted of direct buried steel (i.e. grillage foundations). Transpower has a programme of refurbishing the foundations by encasing them in concrete. The images below show foundation works, including the amount of earthworks for a typical grillage strengthening project. These photos illustrate that in carrying out this work, the footprint of the assets change. Further, the foundations are not "like for like."



Photo 1. Grillage foundation replacement



Photo 2. Earthworks during foundation strengthening work



Photo 3. Coconut matting used during ground reinstatement



Photo 4: Regrassing

Tower Refurbishment

Tower painting is a significant ongoing routine activity for Transpower. Painted transmission towers have a coating life of approximately 14-18 years. Once the galvanising on a tower reaches its end life, the bare steel shows a combination of alloying with rust breakdown in more corrosive areas (see Photo 5 below). The longer a tower is left to corrode the more expensive the secondary preparation is, therefore increasing the cost of the painting work (additional steel and bolt replacement may also increase with time). Tower painting can typically range from \$70,000-\$180,000 per tower.



Photo 5: Tower corrosion

During tower painting, geotextile matting can be laid under structures to capture debris from tower painting. See photo 6 below.



Photo 6: Abrasive blasting protection

Tower Replacement / Additional Structures / Increased permitted envelope

In some instances, rather than work on an existing tower, a structure is replaced with a new structure. More recently, Transpower has replaced towers with steel poles. Steel poles have a smaller base width, but are solid – their effects are different.

Photos 7 and 8 show a tower being replaced by poles on the Arapuni-Ongarue B 110kV transmission line.



Photo 7: Replacement structure being put in place



Photo 8: replacement pole manoeuvred in to position adjacent to existing tower structure to be removed

Photo 8 above also illustrates the need for a larger permitted envelope. The new structure has been erected a reasonable distance from the original structure, so that the original structure can remain in place until the conductors are moved from it to the new structure, and the original structure then dismantled. Using the original structure in this way shortens the duration of the works (and any electricity outage required), and avoids the need for a temporary structure to be constructed to hold the conductor short term. The latter would be required if the replacement structure had to be located closer to, or in the same location as, the original structure.

New or replacement structures may also be required due to damage caused by natural events, such as storms. Photo 9 below shows an additional structure that was required as part of our response to Cyclone Gabrielle, due to the original tower collapsing. While this is a new structure, the foundations are much deeper than in the damaged structure.



Photo 9: New 31 metre pole installed on Fernhill-Redclyffe B 110kV transmission line.

Conductor/ Tower Raising

Tower raising can be required for a number of reasons. It may be required due to a conductor sagging lower and needing to be raised to meet minimum ground to conductor clearances. Conductors can sag lower due to more electricity being transported through a line, or as a result of reconductoring by heavier conductors.

In some circumstances, and depending on topography, minimum ground to conductor clearance could be achieved by carrying out mid-span earthworks (to lower ground level). However, mid-span earthworks may not be appropriate if there is known or suspected archaeology or sites of significance to Māori. As a result, tower raising may be preferred.



Photo 10. Tower being raised (additional steel section added in middle of tower)

Reconductoring / Duplexing

Like other parts of a line, conductors age and need to be replaced. This process is called reconductoring. Reconductoring would usually involve replacement of conductor of a different size, and potentially make up (given the age of the aged conductor). The choice of conductor to be used is based on a number of considerations, including the amount of electricity to be transported through the line and the environment it is located in. In some instances, a simplex line is replaced by a duplex line (see Photos 11 and 12 below). Duplexed lines can reduce the corona noise emitted by the conductors. .



Photo 11: simplex conductor



Photo 12 duplex conductor

Case study 5 below discusses the Bunnythorpe-Haywards reconductoring project.



Photo 13: Crane being used for conductor stringing



Photo 14: Wiring pad site where equipment is set up to pull the old conductor off through the towers and the new conductor is then pulled on.

Work space / Hurdles

Clear working space and good access is required, particularly around the base of structures and in some cases under conductors, to move plant and equipment in, and to set it up correctly. Cordons must be installed around the work site to minimise hazards and restrict access, other than for the trained work party.

When work is carried out on a structure, the effective work area for health and safety purposes includes the spans either side of that structure. Accordingly, cordons are important and may cover a large area.

Hurdles may be required for some projects. Photo 15 below shows typical hurdles. Hurdles can be installed to protect traffic on access roads, public areas, or properties from risks associated with potential dropped conductors. In some instances, inhabitants would need to be evacuated while work was carried out.



Photo 15: typical hurdles

In some instances, more significant hurdles are required to be constructed. Photo 16 below shows a hurdle constructed from scaffolding.



Photo 16: scaffolding protection structure

In recent times, Transpower has been trialling the use of a catenary support system, as an alternative to hurdles in certain situations. Catenary support involves a span of conductor being supported by numerous pulley blocks on an independent rope line. In the event of a conductor fail, it would not fall, as the conductor would be contained by the support pulleys.



Photo 17: catenary support system in use in urban Waikanae

Maintaining and Improving Access Tracks

Transpower has over 15,000 kilometres of access tracks that must be fit for purpose. Many access tracks have been in place since the lines were constructed, and are predominantly used by landowners for farm vehicles.

Transpower will often need to widen or regrade access tracks, and add aggregate to improve traction, to enable construction plant to access a site. By way of example, cranes and concrete trucks require wider and lower gradient tracks than is necessary for smaller vehicles. Both earthworks and vegetation trimming may need to occur to ensure access is the required standard.

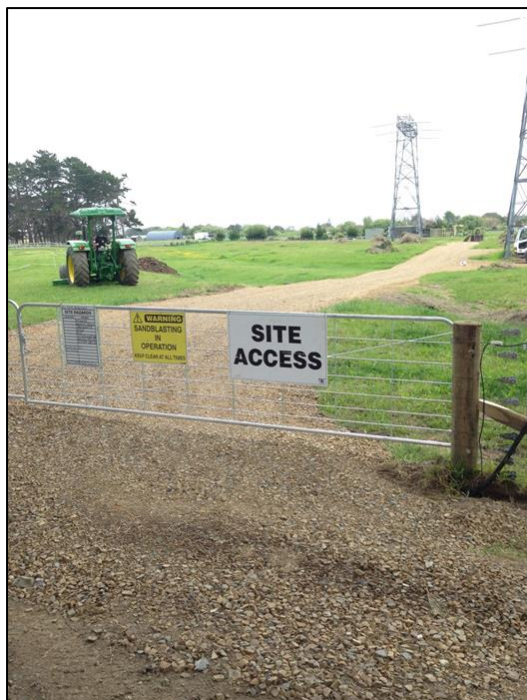


Photo 18: Upgraded access track

From time to time, work is required on access tracks due to slips. Depending on the circumstances, we would either clear the slip, or construct a new section of access track. In other instances, we have to construct new access track due to landowner requirements.



Photo 19: Clearing a slip along an access track to the Islington-Kikawa line.

Transpower must access its assets wherever they are located. Like our lines, access tracks will be in, or traverse, many sensitive environments, including the coast, fresh water, wetlands, and ONLs.

By way of example, Transpower has assets in the Denniston Plateau, which is a scheduled wetland in the West Coast Regional Plan. When carrying out foundation work, a short section of access track was required to be constructed to the back legs of the tower (shown by red notations in photo 20 below).



Photo 20: Track access earthworks on the Denniston Plateau

Other works

Other works are often required, either ancillary to, or as an alternative to the work described above. As an example, culverts are required to be installed in access tracks. As discussed earlier, mid-span earthworks can be an alternative to works on a structure to address ground to conductor clearance. A further examples is where foundation stability issues can be addressed by shoring up the land. Photo 21 below show risks to a structure adjacent to the Clarence River. In this instance, gabion baskets were placed around the tower legs that were at risk. In Canterbury alone, Transpower has ~60 structures in waterways. Various solutions are required to keep them resilient. Sometimes deeper foundations are constructed (as occurred after towers were damaged during flooding of the Rangitata River in 2019, where the foundation depth was doubled).



Photo 21 – two views of an at risk structure adjacent to the Clarence River

Vegetation Clearance / Tree trimming

Currently, ~6000km of Transpower overhead lines are at risk from inappropriately located trees. Of this 6000km, ~900km of lines have plantation forestry within 40m (this is generally the “fall distance” – the distance where a tree could fall into a line and cause damage).

Risks from inappropriately planted, and poorly maintained, trees arise regardless of whether a tree is for amenity planting, shelter belts, commercial forestry or crops. Risks also exist in national parks and conservation areas. Transpower has an extensive and ongoing programme to manage vegetation around lines. Climate change is increasing the frequency and intensity of storms and the impacts of fire risk. It is crucially important that the extent of existing inappropriately located trees reduces over time, and new planting avoids such risks. Transpower’s submission on the Review of the Electricity (Hazards from Trees) Regulations 2003 discusses these issues in more detail¹

Planting and growing trees near transmission lines creates risks to the assets, people and stock and other property. The main risks are:

- vegetation causing a loss of supply. Vegetation blown into overhead lines can cause a fault when vegetation comes too close to the conductors or into the line envelope, as a flashover (ie. electricity “jumping” to a tree) can occur;

¹ Transpower’s submission can be located [here](#).

- vegetation causing asset damage. Trees and branches can fall into transmission lines, causing damage. Additional health and safety risks, and risks of trees striking lines, occur when forestry is felled. Slash is also causing asset damage;
- vegetation causing a flashover resulting in wildfire. Vegetation related flashovers have the potential to ignite a fire. Under the right conditions, the fire can be sustained, and widespread property loss could result;
- access being restricted and/or made more difficult, due to the location of planting or slash.

Photo 22 below shows a damaged tower on the Bunnythorpe-Wairakei A transmission line. The damage was caused by plantation forestry falling into the line near Rangipo in 2012. New foundations and tower repairs were in the order of \$500,000. Extensive damage was done to the lines in this area during the recent severe weather events, when 42 spans of line was struck by forestry.



Photo 22: Damage to BPE-WRK A line



Photo 23: Tree fall example

Photo 23 above is one of many images of tree fall during the recent severe weather event, which resulted in electricity supply being interrupted. Given the number of trees striking the lines it was incredibly lucky entire regions did not lose electricity supply. Extensive damage was done, requiring weeks of repair work to Grid lines.

The Electricity (Hazards from Trees) Regulations mandates the trimming of some trees that are creating risks to lines (but does not address tree fall risks). Transpower must address all risks, whether mandated by the regulations or not. Despite the known risks, the NES-ETA requires consent for necessary vegetation trimming and removal in many instances. Further, the NES-ETA consent triggers and activity status is influenced by the relevant district plan provisions, rather than being nationally consistent. To illustrate the issue:

- Under Regulation 30 of the NES-ETA, resource consent is required if a number of conditions are not met.
- Over the past five years, Transpower has sought approximately 40-50 resource consents for tree works, of which approximately 20-30% are for trimming with the remaining 70-80% for both trimming and removal, depending on the tree type.
- The consent requirement is process focused – there is very little variation in the actual outcome, or methods for managing and undertaking the works. The result is an inefficient, time consuming and costly process for essential vegetation works.

There is also inconsistency across the country, given the link to plan rules, as to when and why resource consent is required, adding further complexity to the process.



Photo 24: Before and after tree trimming HAM-MER A line



Photo 25: Palm trees beneath HEN-HEP-A line in urban Auckland (trees were removed)

Transpower is also required to trim or remove vegetation that has grown over, or is on the edge of, access tracks when we need to bring them up to a suitable standard for construction vehicles. This vegetation work is also routinely carried out.



Photo 26: Trees beneath the OTA-PEN-C line in Waipuna Reserve (Natural Area)

Transpower has assets in sensitive environments, with examples in photos 25 and 25A. Photo 25A shows Transpower's Manapouri-Tiwai line, which is located in Fiordland National Park. In order to maintain the transmission corridor, vegetation was trimmed and felled under/around the line. Instead of clearing all vegetation debris following felling, vegetation was laid down underneath the line to provide a lower profile canopy that allows cover for fauna. Vegetation was also laid down following emergency access track works in 2021, as this allows seeds to disperse under the line and for the forest to naturally regenerate. Ecological advice was sought on this approach.

Where areas of clearance are modest, and will be readily infilled by natural regeneration, Transpower has obtained expert ecological advice that this approach is preferable to replacement planting with nursery sourced plants, which have risks of pests, pathogens and if Kauri dieback is present, may exacerbate the spread through soil disturbance. Replanting can also cause concerns in relation to disturbance of unknown archaeological features. These issues illustrate that a default requirement to offset when vegetation is trimmed is inappropriate and precludes other options which can result in good, if not better, ecological outcomes.



Photo 26A: Regenerating vegetation under and around lines

Case Study 1: National Grid Corridors

This case study has been included to describe the effects managed by National Grid corridor provisions in District Plans. It also sets out the approach to the corridors, provides data on the extent to which policies 10 and 11 of the existing NPS-ET have been given effect to and the formulaic nature of the corridor provisions in plans across the country. In the interests of brevity, this case study includes a sample of the safety risks and effects that underpin the approach to the National Grid corridors. Transpower has an extensive evidence base for the National Grid corridors that can be provided if further information is useful.

Risks arising from the National Grid

Transpower operates its assets as safely as possible, but the transmission network gives rise to specific risks, such as lethal electric shocks. Lethal electric shocks can be caused by earth potential rise (step, touch and transferred voltages), conductor drop and flashovers. Hazards can also be caused by trees, mobile plant and other materials coming into contact with overhead lines.

To expand on one example, conductors can drop to the ground should a mechanical failure occur to the support structures, insulators or hardware, the failure of pressed mid-span joints, or due to electrical failure. While it is rare for a support structure, conductor or the conductor hardware to fail, it can happen. Photo 27 shows the result of conductor drop over a house. In an urban setting, intensive development in proximity to ETN assets places more people and property at risk. Conductors on a typical duplex 220kV line weigh approximately 3kg/m, meaning the weight of a conductor at the point of impact could be as high as 900kg.



Photo 27: Conductor drop in urban setting



Photo 28: Electrical damage following conductor drop due to significant transfer of voltages to earth from a transmission line

Sensitive and incompatible activities

Transmission lines can also cause concern or annoyance, because of how they look, their mechanical or electrical noise, electrical interference, and perceived health effects. These effects can lead to requests for Transpower to underground lines, relocate lines, or to raise or lower conductors. Photo 29 below shows a residential dwelling inappropriately close to an ETN support structure.



Photo 29: Inappropriate dwelling location

Transpower's routine maintenance activities, such as tower painting, can also inconvenience people and businesses when buildings are located under the lines. Photo 30 shows extensive polythene sheet protection over a house where routine tower painting is being carried out.



Photo 30. Tower painting in an urban setting

Preventing sensitive and incompatible activities from establishing under the transmission lines, along with controls on activities that will occur near electricity transmission lines, will assist the ETN to be reliable and safe while serving future generations.

While the National Grid can pose risks to people and property locating in close proximity to it, the Grid can be compromised by inappropriate land use, subdivision and development in the form of direct effects.

Access

Transmission line components require ongoing inspection and routine maintenance, to address aging, wilful damage or corrosion and degradation due to wind, rain and pollutants. Physical access to transmission lines is required for all maintenance and project work, including for staff, vehicles, helicopters and large construction equipment. A regulated transmission corridor is essential for providing adequate access and working space at the poles, towers and mid-span.

When a system fault occurs, the National Grid needs to be restored quickly to reduce impacts on businesses and communities. Restoring supply becomes challenging if transmission lines are difficult to access due to intensive developments that may be constructed under and around them. Undergrounded transmission lines can have significantly longer restoration times, and are not without impact, particularly on the road network². Photos 31 and 32 illustrate situations where ETN assets have been built out, meaning assets are compromised or unable to be accessed for maintenance or and/or to expediently address system faults.

² Underground cables are often located in roads.



Photo 31: Inability to access tower and foundations for maintenance – Auckland



Photo 32: Corridor exists, but buildings too close to structures

Preventing access is one example of direct effect that has the potential to compromise the National Grid. Earthworks is another.

Earthworks

Earthworks adjacent to towers or poles can undermine the stability of the structure foundations, causing the structure to lean or, worse, collapse.

Excavations or mounding mid-span can also increase risks by reducing the clearance between the ground and conductors. Earthworks activities can (and do) create unstable batters or result in ground to conductor clearance violations, causing significant safety risks, as well as risks to security of supply.

In determining appropriate setback distances for earthworks from National Grid support structures, a common assumption is the National Grid will not be compromised if the earthworks comply with the NZ Code of Practice for Electrical Safe Distances NZECP 34:2001. However, this is not the case.

The NZECP 34 compliant example below illustrates that NZECP 34:2001, on its own, does not adequately ensure that the National Grid is not compromised and maintenance can occur.



Photo 33: NZECP 34 compliant earthworks adjacent to the National Grid

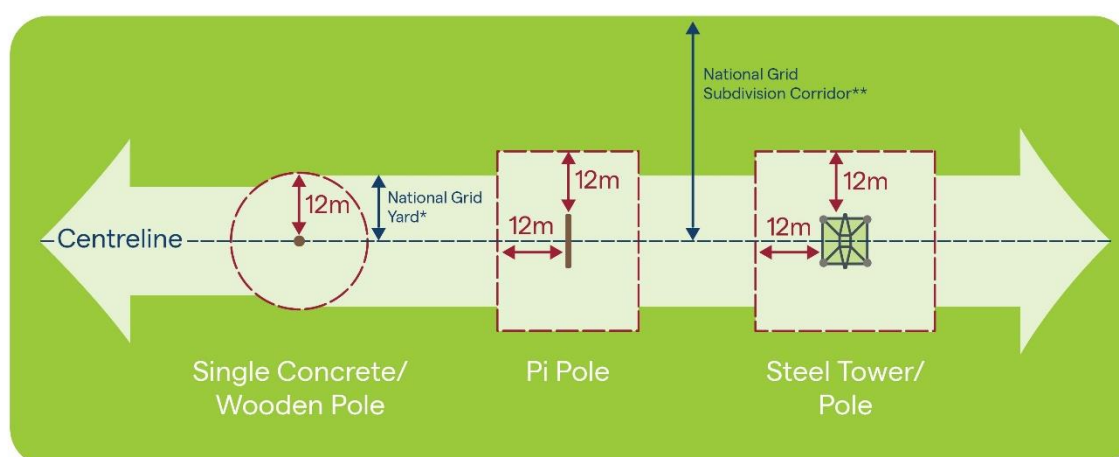
National Grid Corridor Provisions

Prudently designing buildings, structures or activities with the transmission line in mind (including beneath conductors) ensures vital National Grid infrastructure is protected and can be maintained and upgraded. 'Underbuild' can delay, restrict or compromise the ability of Transpower to undertake maintenance or project work.

As explained in Section 25 of its submission, Transpower has developed a corridor management approach to give effect to Policies 10 and 11 of the existing NPS-ET. It includes land use setbacks, subdivision corridors and rules underpinned by robust evidence (engineering, maintenance, planning, farming impacts, economic). The examples in this case study focus on land use, however there is an opportunity to design around the lines at the subdivision stage. As a result, the National Grid Subdivision Corridor rules are a core component of giving effect to policies 10 and 11.

The 12m National Grid Yard (either side of the centreline) is the area (measured horizontally) beneath the conductors in "everyday" wind conditions, being the conditions when line maintenance can be carried out. A 12m setback around each tower or support structure is also required for access, maintenance and safety purposes. The wider National Grid Subdivision Corridor is the area sought for subdivision which extends to the width defined by the swing of the conductors in high wind conditions. These areas are the bare minimum to ensure that Transpower's maintenance, repair, upgrade and operation activities are not compromised. Sensitive activities, commercial buildings and intensive development (including some farm buildings) should be avoided beneath transmission lines because of electrical risk, annoyance caused by the transmission lines, and the challenges presented by these activities when Transpower needs to access, maintain, upgrade and develop the lines.

Figure 3 shows the approach to the National Grid Yard and Subdivision Corridor that has been developed by Transpower in response to the NPSET and usually incorporated within the definitions sections of District Plans. Regardless of how the setback is defined or mapped in District Plans in each instance, the distances only vary according to the characteristics of the National Grid line(s) that traverse the district.



* 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 3: Example of National Grid Yard and Subdivision Corridor setback distances

Despite there being no local variability³ in the intent or restrictions the provisions provide, repeated debates occur about how to fit the provisions in to the local plan framework. This has not substantially improved with the introduction of the National Planning Standards in 2019. Transpower has carried out a stocktake of NPS-ET policy 10 and 11 implementation (see table B below). This work establishes that the rules are relatively settled in terms of the restrictions they apply.

The existing NPS-ET requires councils to give effect to it within four years (i.e. by 2012). As at June 2023, only 40 of the 64 councils have now done so. This is despite there being consistency in how the NPS-ET is given effect for over 10 years. Transpower notes that of the 24 councils that have not given effect to the NPS-ET, 22 of these are now at various stages of consultation on the provisions, generally as part of Schedule 1 wholesale District Plan reviews. However, Transpower predicts that it is likely to be many years until all the remaining councils' provisions are operative given the number at pre-notification stage.

In some cases, e.g. Far North District Plan, the National Grid corridor-specific plan change was only declared operative in April 2017 and the Council has already notified its comprehensive district plan review where Transpower is participating to ensure that the NPS-ET is given effect to, for a second time in six years. The same recently occurred in relation to the Porirua District Plan.

Table A: NPS-ET National Grid corridors implementation status

Status	Number
District Plans with operative National Grid Corridor provisions	40 (63%)
Councils underway with consultation processes to implement the National Grid Corridors	22 (34%)
Councils that have not yet started any process	2 (3%)

³ Except the variable width corridor for Auckland described in section 21 of Transpower's submission (footnote 36)

Table B lists the implementation status of National Grid corridor provisions for the relevant district councils, along with a stocktake of the rules which clearly shows their formulaic nature.

Table B: Stocktake of District Plan Implementation of Policies 10 and 11 of the NPSET in Rules

District / Unitary Plan	Year operative	Sensitive activities, buildings or structures in the National Grid Yard		Earthworks in the National Grid Yard		Subdivision in National Grid Subdivision Corridor		
		Rules in Plan	Activity status	Rules in Plan	Activity status (standard/s not achieved)	Rules in Plan	Activity status (standards achieved)	Activity status (standard/s not achieved)
Operative National Grid Corridors								
Waimakariri District	2008	✓	Discretionary	✓	Restricted discretionary	✓	Restricted discretionary	-
Stratford District	2009	✘	Discretionary	✘	-	✘	-	-
Kawerau District	2011	✓	Restricted discretionary and non-complying)	✓	Restricted discretionary	✓	Restricted discretionary	-
Upper Hutt City	2012	✓	Restricted discretionary and non-complying	✘	-	✓	Restricted discretionary	-
Ōtorohanga District	2012	✓	Discretionary	✓	Discretionary	✓	Permitted	Discretionary
Ashburton District	2012	✓	Non-complying	✘	-	✓	Controlled, restricted discretionary and discretionary	Non-complying
Tauranga City	2012	✓	Restricted discretionary, discretionary and non-complying	✓	Discretionary	✓	Restricted discretionary	-
Western Bay of Plenty District	2013	✓	Non-complying	✓	Non-complying	✓	Controlled, restricted discretionary and discretionary	Non-complying

District / Unitary Plan	Year operative	Sensitive activities, buildings or structures in the National Grid Yard		Earthworks in the National Grid Yard		Subdivision in National Grid Subdivision Corridor		
		Rules in Plan	Activity status	Rules in Plan	Activity status (standard/s not achieved)	Rules in Plan	Activity status (standards achieved)	Activity status (standard/s not achieved)
Central Otago District	2013	✓	Non-complying	✓	Restricted discretionary	✓	Restricted discretionary	-
Waimate District	2013	✓	Non-complying	✗	-	✓	Restricted discretionary	Non-complying
Horowhenua District	2013	✓	Non-complying	✓	Non-complying	✗	-	-
Rangitikei District	2013	✓	Discretionary	✓	Discretionary	✓	Restricted discretionary	Discretionary
Ruapehu District	2013	✓	Restricted discretionary, discretionary and non-complying	✓	Restricted discretionary	✓	Restricted discretionary	-
Whangārei District	2014	✓	Non-complying	✓	Non-complying	✓	Restricted discretionary	Non-complying
Hauraki District	2014	✓	Non-complying	✓	Restricted discretionary	✓	Restricted discretionary	-
Matamata-Piako District	2014	✓	Non-complying	✓	Restricted discretionary and non-complying	✓	Restricted discretionary	Non-complying
South Waikato District	2015	✓	Non-complying	✓	Non-complying	✓	Restricted discretionary	Non-complying
Rotorua District	2015	✓	Non-complying	✓	Non-complying	✓	Restricted discretionary	Non-complying
Waipa District	2015	✓	Non-complying	✓	Non-complying	✓	Restricted discretionary	Non-complying
Grey District	2015	✓	Non-complying	✓	Discretionary and non-complying	✓	Controlled	Non-complying
Southland District	2015	✓	Non-complying	✓	Non-complying	✓	Discretionary	Non-complying
Hastings District	2016	✓	Non-complying	✓	Non-complying	✓	Controlled	Restricted discretionary

District / Unitary Plan	Year operative	Sensitive activities, buildings or structures in the National Grid Yard		Earthworks in the National Grid Yard		Subdivision in National Grid Subdivision Corridor		
		Rules in Plan	Activity status	Rules in Plan	Activity status (standard/s not achieved)	Rules in Plan	Activity status (standards achieved)	Activity status (standard/s not achieved)
Porirua City	2016	✓	Restricted discretionary and non-complying	✓	Restricted discretionary and non-complying	✓	Restricted discretionary	Non-complying
Hutt City	2016	✓	Non-complying	✗	-	✓	Restricted discretionary	Non-complying
Napier City	2016	✓	Non-complying	✓	Non-complying	✓	Restricted discretionary	Non-complying
Far North District	2017	✓	Non-complying	✓	Non-complying	✓	Controlled	Non-complying
Kaipara District	2017	✓	Non-complying	✓	Restricted discretionary	✓	Restricted discretionary	Discretionary
Thames-Coromandel District	2017	✓	Non-complying	✓	Restricted discretionary and non-complying	✓	Restricted discretionary	Non-complying
Auckland	2017	✓	Non-complying	✓	Restricted discretionary and non-complying	✓	Restricted discretionary	Non-complying
Hamilton City	2017	✓	Non-complying	✓	Non-complying	✓	Restricted discretionary	Non-complying
Whakatāne District	2017	✓	Non-complying	✓	Restricted discretionary	✓	Restricted discretionary	Non-complying
South Taranaki District	2017	✓	Non-complying	✓	Restricted discretionary and non-complying	✓	Restricted discretionary	Non-complying
Palmerston North City	2017	✓	Non-complying	✓	Restricted discretionary and non-complying	✓	Restricted discretionary	Non-complying
Whanganui District	2017	✓	Non-complying	✓	Non-complying	✓	Restricted discretionary	Non-complying
Ōpōtiki District	2019	✓	Non-complying	✓	Restricted discretionary and non-complying	✓	Restricted discretionary, discretionary and non-complying	Non-complying
Manawatū District	TBC	✓	Non-complying	✓	Restricted discretionary and non-complying	✓	Restricted discretionary	-

District / Unitary Plan	Year operative	Sensitive activities, buildings or structures in the National Grid Yard		Earthworks in the National Grid Yard		Subdivision in National Grid Subdivision Corridor		
		Rules in Plan	Activity status	Rules in Plan	Activity status (standard/s not achieved)	Rules in Plan	Activity status (standards achieved)	Activity status (standard/s not achieved)
Christchurch City	2017	✓	Non-complying	✓	Non-complying	✓	Restricted discretionary	Non-complying
Invercargill City	2017	✓	Non-complying	✓	Non-complying	✓	Discretionary	Non-complying
Hurunui District	2017	✓	Non-complying	✓	Non-complying	✓	Controlled	Non-complying
Kāpiti Coast District	2018	✓	Non-complying	✓	Restricted discretionary and non-complying	✓	Restricted discretionary	Non-complying
Clutha District	2015	✓	Non-complying	✓	Restricted discretionary and non-complying	✓	Restricted discretionary	-
Councils underway with consultation processes to implement the National Grid Corridors⁴								
Dunedin City	Appeals	✓	Non-complying	✓	subject to appeal	subject to appeal	subject to appeal	subject to appeal
Queenstown-Lakes District	Appeals	✓	Non-complying	✓	Non-complying	✓	Restricted discretionary	Non-complying
Taupō District	Submissions	✓	Restricted discretionary	✗	-	✗	-	-
Waikato District	Appeals	✓	Subject to appeal	✓	Subject to appeal;	✓	Subject to appeal	Subject to appeal
Waitomo District	Submissions	✗	-	✗	-	✓	Discretionary	-
New Plymouth District	Hearings	✓	Discretionary	✗	-	✗	-	-
Central Hawke's Bay District	Decisions	✗	-	✗	-	✗	-	-

⁴ 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 NPS-ET.

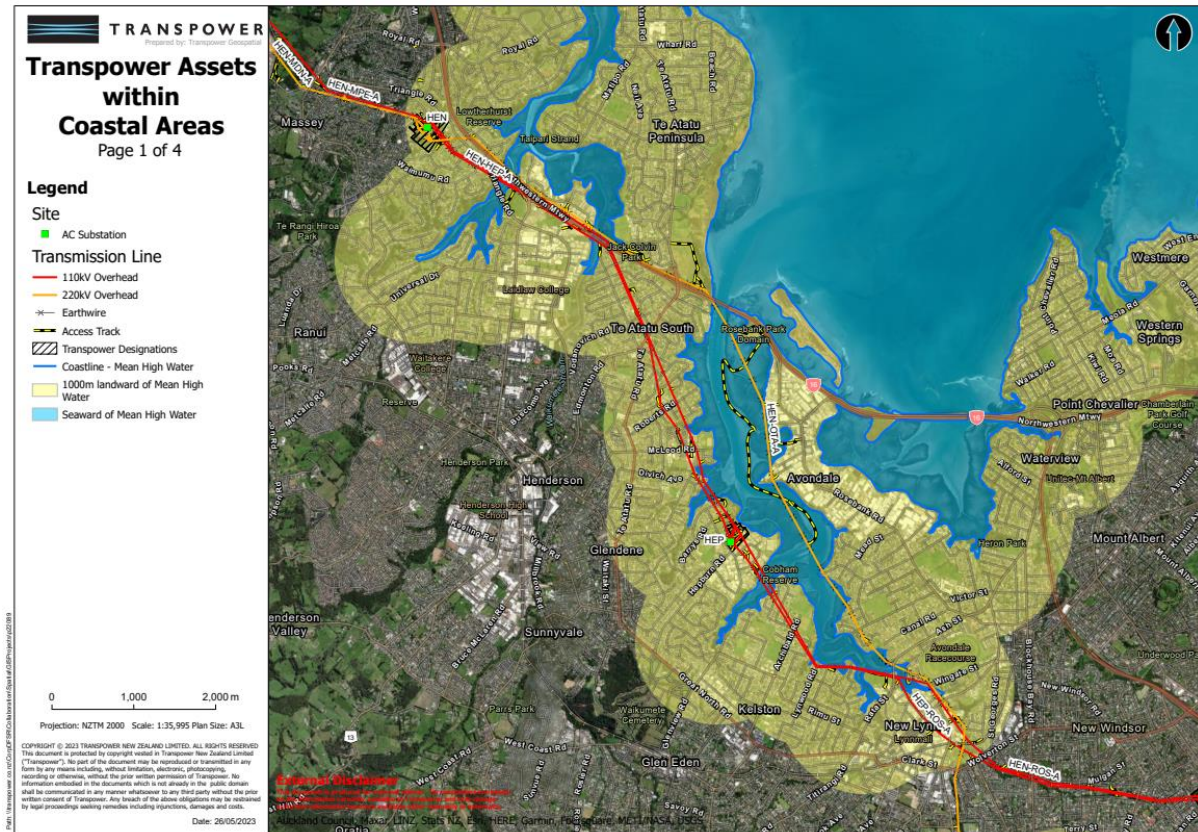
District / Unitary Plan	Year operative	Sensitive activities, buildings or structures in the National Grid Yard		Earthworks in the National Grid Yard		Subdivision in National Grid Subdivision Corridor		
		Rules in Plan	Activity status	Rules in Plan	Activity status (standard/s not achieved)	Rules in Plan	Activity status (standards achieved)	Activity status (standard/s not achieved)
Tasman District	Pre-notification	✗	-	✗	-	✗	-	-
Nelson City	Pre-notification	✓	Discretionary	✗	-	✗	-	-
Marlborough District	Appeals	✓	Subject to appeal	✓	Subject to appeal	✓	Restricted discretionary	Subject to appeal
Buller District	Submissions (Te Tai o Poutini)	✗	-	✗	-	✗	-	-
Mackenzie District	Pre-notification	✗	-	✗	-	✗	-	-
Selwyn District	Hearings	✗	-	✗	-	✗	-	-
Timaru District	Pre-notification	✗	-	✗	-	✗	-	-
Carterton District	Pre-notification	✓	Restricted discretionary	✗	-	✓	Discretionary	-
Masterton District	Pre-notification	✓	Restricted discretionary	✗	-	✓	Discretionary	-
South Wairarapa District	Pre-notification	✓	Restricted discretionary	✗	-	✓	Discretionary	-
Wellington City	Hearings	✓	Restricted discretionary	✗	-	✓	Controlled	Restricted discretionary
Waitaki District	Pre-notification	✗	-	✗	-	✗	-	-
Gore District	N/A	✗	-	✗	-	✗	-	-

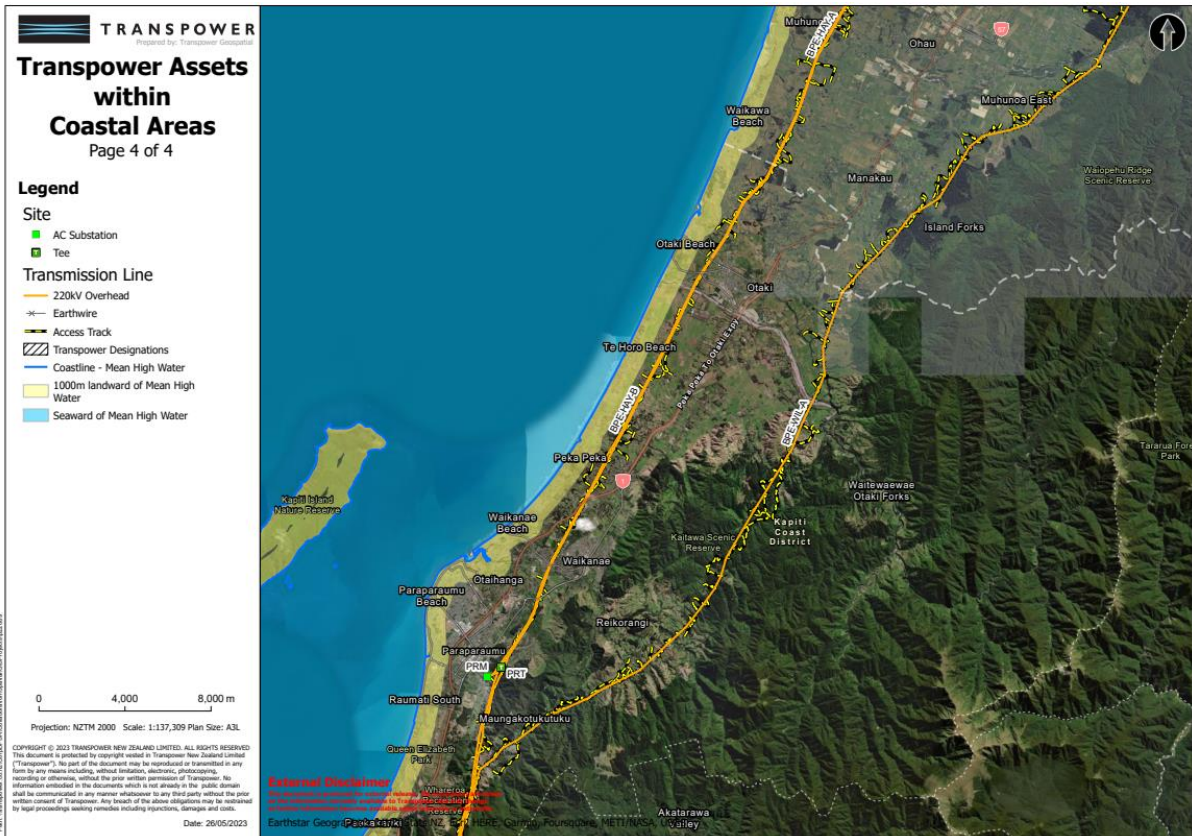
District / Unitary Plan	Year operative	Sensitive activities, buildings or structures in the National Grid Yard		Earthworks in the National Grid Yard		Subdivision in National Grid Subdivision Corridor		
		Rules in Plan	Activity status	Rules in Plan	Activity status (standard/s not achieved)	Rules in Plan	Activity status (standards achieved)	Activity status (standard/s not achieved)
Councils that have not yet started any process to give effect to Policies 10 and 11 of the NPSET ⁵								
Wairoa District	N/A	✘	-	✘	-	✓	Controlled	-
Tararua District	N/A	✓	Discretionary	✘	-	✘	-	-
Gisborne District	N/A	No provisions necessary – No National Grid infrastructure located in this jurisdiction						
Westland District	N/A	No provisions necessary – No National Grid infrastructure located in this jurisdiction						
Kaikōura District	N/A	No provisions necessary – No National Grid infrastructure located in this jurisdiction						
Chatham Islands	N/A	No provisions necessary – No National Grid infrastructure located in this jurisdiction						

⁵ These are councils that have not instigated any consultation to give effect to the NPSET (that Transpower is aware of). The district plans may have some provisions that regulate activities near the National Grid, but the provisions may not give effect to the NPS-ET.

Case Study 2: Assets in Coastal Setback Area

Transpower has extensive assets in Coastal Areas – including over 437km of overhead lines, more than 1100 structures and more than 20 substations. Transpower carried out a GIS mapping exercise of assets within 1km of the coast. Excerpts of that mapping exercise are below. Pages 1 and 2 relate to Auckland, Page 3 shows part of Tauranga, and Page 4 the Kāpiti Coast.





Case Study 3: Cook Strait Cable

This case study relates to the Northern end of Transpower's HVDC fibre cable replacement project, which was carried out in 2020. The North and South Island power systems are joined by a High Voltage Direct Current (HVDC) link. This link has three HVDC under sea power cables, along with smaller fibre optic cables. They run from Fighting Bay in Marlborough, across Cook Strait to Oteranga Bay, on Wellington's South Coast. The fibre optic cables link together and enable the control and monitoring of the components that make up the National Grid. They are a critical component of operating the Grid, and are used by New Zealand's main telecommunication companies for data and communications between both Islands. To protect the cables from damage, a corridor across Cook Strait has been established by statute - the Cook Strait Cable Protection Zone (CPZ). The extent of the CPZ is shown in Figure 4.

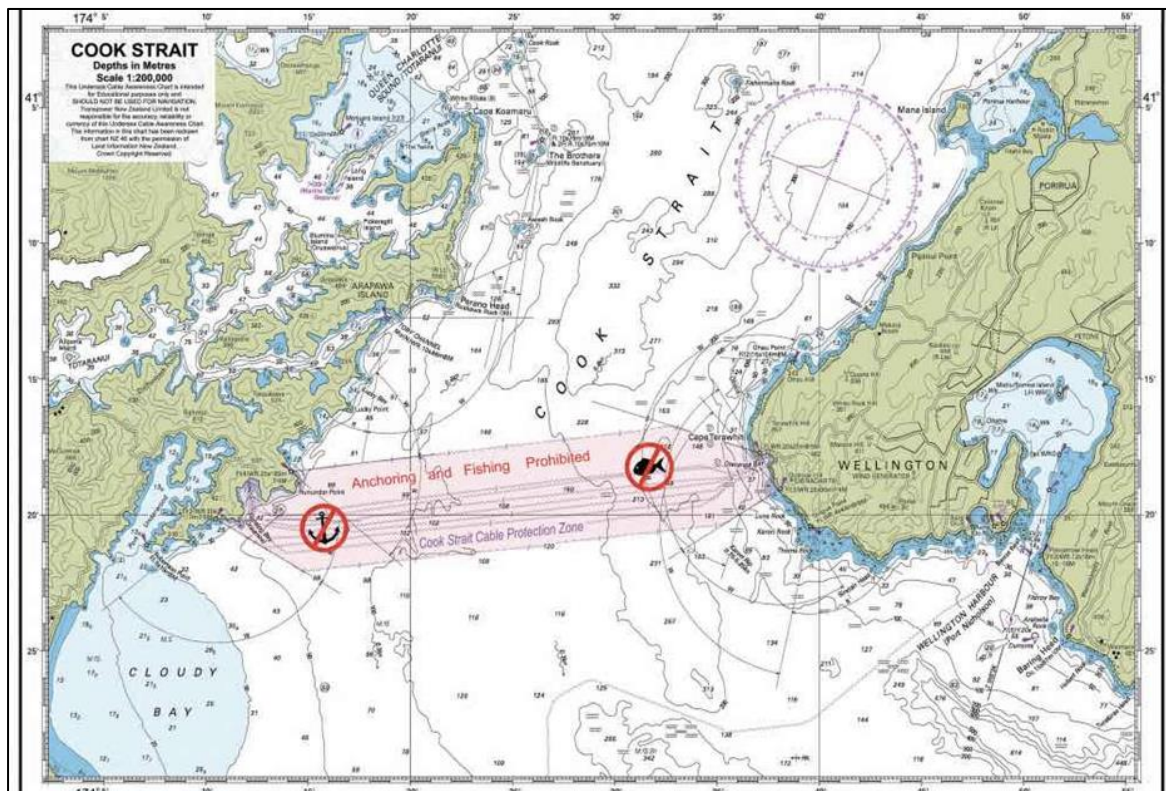


Figure 43: Extent of Cook Strait Cable Protection Zone

The 2020 fibre optic cable replacement project required a discretionary activity consent under the Greater Wellington Regional Coastal Plan, in part due to Oteranga Bay being a site of significance to Ngāti Toa Rangatira and Taranaki Whānui ki te Upoko o te Ika a Maui.

Overall, the physical impacts of the project were low (including a small amount of trenching and very short construction timeframe). However, a number of important ecological, cultural and archaeological values were identified. If policies had required adverse effects on any of the identified values to be avoided there would have been significant barriers to consenting this project, despite the importance of the project to the operation of the Grid, overall security of electricity supply for the country and other lifeline telecommunications infrastructure.

This environment is also relevant to the three HVDC power cables that will be due to be replaced around 2030, which will be a very major undertaking. An additional fourth power cable is also being investigated as part of Transpower's NZGP project. Given the transition to the NBA, the HVDC power cable replacement and fourth cable will likely be consented under the RMA.

Ecology

The Greater Wellington Regional Council (GWRC) planning documents do not identify Oteranga Bay as having significant ecological values or habitat for indigenous species.

However, threatened banded dotterel have been recorded as utilising the land around the stream mouth and coastal lagoon, including nesting at this location. A number of management measures were employed to address ecological concerns and consent conditions imposed requiring:

- avoidance of dotterels, frequent surveys and limitations of work allowed during nesting season, including halting of works if nesting birds are found within the defined works area, and a wildlife authority not obtained.
- an ecological survey for penguin habitats and activity;
- bird deterrents were set up around the beach and foreshore area in the proposed cable locations to encourage birds to nest outside the work area;
- an ecologist surveyed the site before and after site works, and at regular intervals during works to check for any dotterel, and particularly any nests in the work area;
- where areas of scabweed were disturbed during construction, the scabweed was retained and replaced at completion of the work.

The Oteranga Bay part of the project ran during the banded dotterel breeding season. The operational requirements of the project (including suitable weather conditions, and scheduling of the international ship required to undertake the works) meant the breeding season could not be avoided. There was no halt to construction or need for a wildlife permit as nesting birds were found within only the urupā area and not within the construction area. The area of the proposed works and urupā are shown in Figure 5 below. The urupā has been identified by a circle of boulders and no cables or other transmission facilities cross this site.

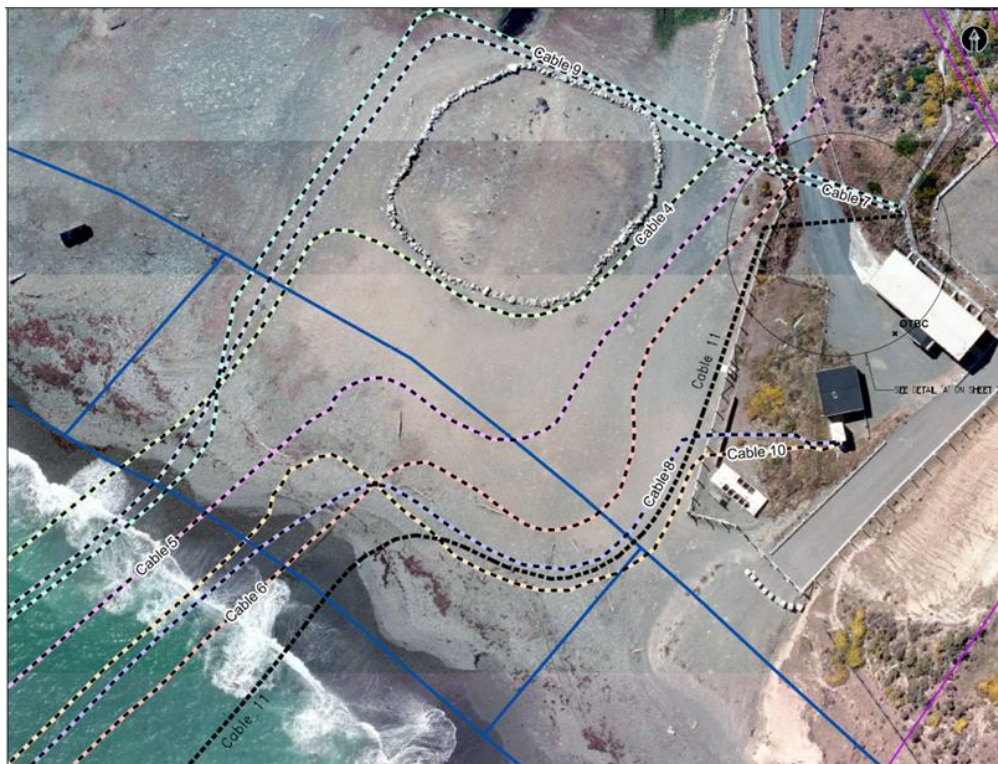


Figure 54: Extent of works at Oteranga Bay

Cultural values and archaeology

Oteranga Bay contains a number of recorded and known archaeological sites, including raised rim pits, ovens and middens, in addition to the urupā. Earthworks were avoided around the urupā site.

An archaeological authority was obtained and all works were supervised by an archaeologist, in accordance with the conditions of this approval. Cultural matters were addressed by obtaining values statements, and affected party approval, from both iwi prior to consent lodgment. Ngāti Toa provided a cultural monitor to observe site works during excavation. Taranaki Whānui was offered the same opportunity. This project highlights how Transpower's works can be effectively managed in a sensitive environment through building relationships with local iwi, compliance with resource consent conditions, and utilising practical resources to manage on-site effects.

However, it is important to note that the Regional Policy Statement became operative in 2013, and the policy framework can be expected to change in the future to be consistent with *King Salmon*. In particular, if the NZCPS prevails over the NPS-ET, it is likely that strict 'avoid' policies and potentially non-complying activity status would apply in relation to these necessary ETN activities that need to be carried out in the coastal environment. In addition, it was very fortunate for the project that on this occasion seabirds were nesting in the urupā area (which Transpower was already avoiding) rather than in the construction area. In slightly different circumstances, where nesting sites or other coastal values could not be completely avoided, then this would likely result in non-complying activity status coupled with a strict 'avoid' policy.

Case Study 4: Hairini

Transpower sought to realign sections of its Hairini to Mount Maunganui 110 kV transmission line – by removing the line off Te Arika Park (a site of significance to Ngāti Hē) and from over residential properties and moving it into the road corridor (and onto an existing line in places). A structure was also proposed to be removed from the harbour. Tauranga Environmental Project Society Inc and Maungatapu Marae Trustees from Ngāti Hē opposed the realignment as the project would traverse an ONL (the harbour) and a structure would be located in front of the Maungatapu marae.

Ultimately, Transpower was prevented from pursuing this project by the High Court due to the effects on an ONL, which had cultural significance and which was protected by strong avoidance policies. However, avoidance was considered impossible due to the need for the project to cross the harbour, which was broadly categorised as an ONL.

This project is an example of the NPS-ET not being sufficiently directive to allow upgrades or alterations to lines, even when there was no viable alternative. In the Hairini case, when the NZCPS and NPS-ET were reconciled and given effect in the Regional Plan, the resulting Regional Plan provisions directed that adverse effects had to be "avoided" unless avoidance of effects is not possible".⁶ The High Court found that an option was "possible" where it was "technically feasible ... whatever the cost" and that avoidance of adverse effects was "possible" in this case.⁷

⁶ *Tauranga Environmental Protection Society v Tauranga City Council* [2021] NZHC 1201 at [129].

⁷ *Tauranga Environmental Protection Society v Tauranga City Council* [2021] NZHC 1201 at [149] – [150].

Case Study 5: Bunnythorpe-Haywards Reconductoring

This example shows how efficient large-scale maintenance and upgrade activities have been under the NES-ETA, in areas where consent is not triggered.

The Bunnythorpe-Haywards A and B 220kV transmission lines (BPE-HAY A and B) run from Haywards Substation in Wellington to Bunnythorpe Substation near Palmerston North. Both of these 118km transmission lines are critical in transporting electricity across the lower North Island. These lines are also the only source of electricity supply to the Kāpiti Coast via the connection at Paraparaumu Substation.

Due to the proximity of the coast, both the conductors (wires) and steel frames corrode quicker than other less exposed lines – greater maintenance is required. Transpower undertook a \$90 million reconductoring project between 2014 and 2019, replacing the old corroded conductor with a modern-day conductor. Technically, the project resulted in an overall upgrade – as a 3mm larger conductor was used – although this was not the driver for the project.



Figure 6: BPE-HAY project area

Resource consenting overview

As well as replacing 236km of conductor, associated works were required. These works included:

- 155 tower foundations strengthening;
- 300 towers strengthened (additional steel members added);
- 79 towers raised;
- 42 midspan earthworks carried out to increase line clearance;
- 74 hurdles installed for road crossings (37 for each line);
- 26 catenary support system spans over road crossings (13 for each line);
- 200 existing access tracks maintained or upgraded;
- 2 new access tracks formed;
- 5 culverts replaced/upgraded;
- 10 new culverts installed; and
- 1 new bridge constructed.

The main activity associated with the project – replacing the old conductor with a new, slightly larger, conductor - was permitted under the NES-ETA (Regulation 6(2)). In case of community queries about how the work was authorised, Transpower obtained Certificates of Compliance for three sections of the project that ran through the Kāpiti Coast District (this being the main urban area affected by the project).

Some discrete consents were required, including for earthworks on a former horticultural property (contaminated land) and in a natural area. In addition to the few NES-ETA resource consents required, Transpower relied on existing “global” region-wide consents granted by both Wellington and Manawātū-Whanganui Regional Councils. These consents authorise discharges from dry abrasive blasting to air and land (where it may enter water) associated with the preparation of tower foundation strengthening and refurbishment work. Having this consent “on the shelf” meant Transpower did not need to apply for project specific consents for a small percentage of the 155 towers that had foundation strengthening which required blasting close to houses, roads or waterbodies.

Environmental management

Due to the linear nature of the project, work occurred in all types of environments. Transpower carefully managed the adverse effects of the project – in the absence of consent requirements. A Transpower Environmental Planner was assigned to the project over the duration of project. This allowed for effective monitoring of sites to ensure permitted standards were being met, or work was carried out in accordance with consent conditions.

The planner attended regular “toolbox” briefings with contractors and was able to inform contractors about environmental best practice methods; discuss and clearly set out what works are authorised under the permitted activity standards; and advise what work was subject to, and needed to comply, with resource consents.

The assigned project planner enabled proactive environmental management of all works and provided a point of contact for the consent authorities. Where appropriate, compliance schedules and management plans (such as for erosion and sediment control, ecological management and contaminated land management) were used to inform and guide work methodology. An archaeological accidental discovery protocol was in place for all earthworks, and there was an archaeologist monitoring earthwork sites subject to an archaeological authority.

There were also opportunities to reduce potential environmental and safety impacts. An example of this was the use of some innovative technology which reduced the requirement to install hurdles

(temporary pole structures with a net) which are used to protect roads, rail and houses etc from the dropping of conductors, if this should occur.

Transpower's Clutha Upper Waitaki Lines Project (CUWLP) which was completed in 2022, was a more significant upgrade than the BPE-HAY reconductoring project, and was also largely permitted under the NES-ETA.

Appendix D Acronyms table

ACRONYMS TABLE	
ACRONYM	FULL NAME
EMH	Effects management hierarchy
ET	Electricity transmission
ETN	Electricity transmission network
NES-ETA	Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009
NES-F	Resource Management (National Environmental Standards for Freshwater) Regulations 2020
NES-SC	Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011
NPF	National Planning Framework
NPS	National Policy Statement
NPS-ET/NPSET	National Policy Statement on Electricity Transmission
NPS-FM	National Policy Statement for Freshwater Management
NPS-HPL	National Policy Statement for Highly Productive Land
NPS-IB	National Policy Statement for Indigenous Biodiversity
NPS-REG	National Policy Statement for Renewable Electricity Generation 2011
NZCPS	New Zealand Coastal Policy Statement 2010
NZGP	Net Zero Grid Pathways
pNPS-IB	Proposed National Policy Statement for Indigenous Biodiversity
REG	Renewable energy generation
RMA	Resource Management Act 1991
SNA	Significant Natural Area