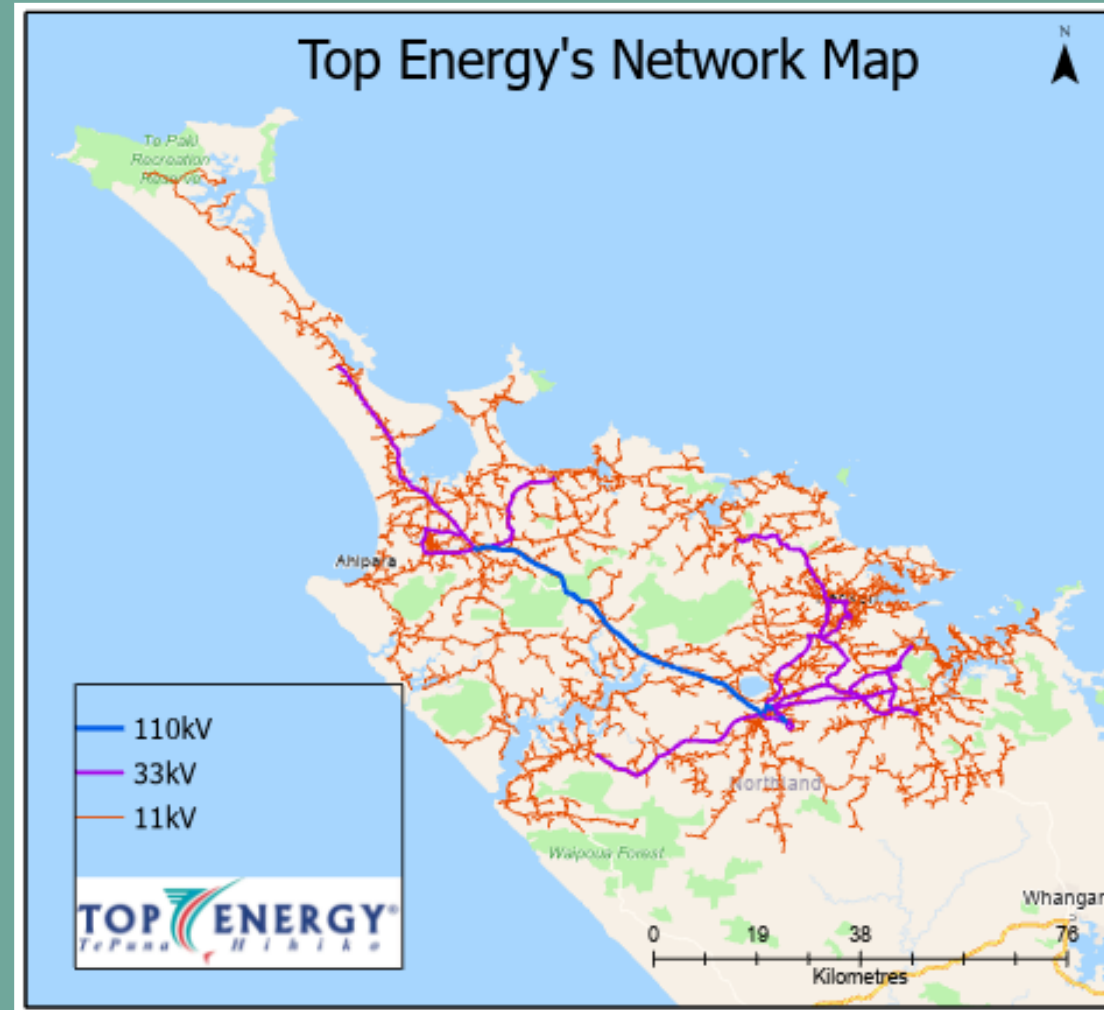


Far North PDP – Top Energy Limited

Hearings 6 & 7 – General District-Wide Matters and Genetically Modified Organisms



22 October 2024

What will be covered

- ❖ The case for the use of “avoid” within NOISE-O2 and NOISE-P2;
- ❖ Noise Note 8 – Generators, highlighting:
 - ❖ Maintenance and testing and planned network maintenance typically undertaken by Top Energy;
 - ❖ Acoustic evidence re use of generators during maintenance and testing and planned network maintenance; and
 - ❖ Planning evidence re amendments to the provisions.
- ❖ Earthworks provisions, in particular EW-S1; and
- ❖ Response to Transpower’s proposed amendments to Rule EW-R2.

NOISE-O2 and NOISE-P2

The case for the use of “avoid”

- ❖ The directive in section 75(3)(c) of the RMA is that the PDP must give effect to the RPS.
- ❖ The wording of NOISE-O2 and NOISE-P2 is clearly out of step with, and does not give effect to the RPS, in particular Policy 5.1.1:

Subdivision, use and development should be located, designed and built in a planned and co-ordinated manner which:

(a) ...

(e) Should not result in incompatible land uses in close proximity **and avoids the potential for reverse sensitivity;**

(f)

(**emphasis** added)

NOISE-O2 and NOISE-P2

The case for the use of “avoid”

❖ And Policy 5.1.3(c):

Avoid the adverse effects, including reverse sensitivity effects
of new subdivision, use and development, particularly residential
development on the following:

(a) ...

(c) **The operation, maintenance or upgrading of existing or
planned regionally significant infrastructure;** and

(d) ...

(**emphasis** added)

NOISE-O2 and NOISE-P2

The case for the use of “avoid”

- ❖ The language within both Policies 5.1.1 and 5.1.3 of the RPS provide a **strong directive to “avoid”** the potential for reverse sensitivity generally, and to “avoid” reverse sensitivity effects on regionally significant infrastructure.
- ❖ The position that the “avoid” directive would be at odds with the proposed provisions for noise sensitive activities within the Noise Chapter of the PDP is misguided, and not the applicable test.
- ❖ In short, the objectives of the PDP, set the direction which the provisions must then implement – it is not the other way around.

NOISE-O2 and NOISE-P2

The case for the use of “avoid”

❖ I therefore support rewording NOISE-O2 as follows:

Objective NOISE-O2

“New noise sensitive activities are designed and/or located to minimise conflict with, and avoid reverse sensitivity effects on, existing lawfully established noise generating activities, and to protect community health and wellbeing.”

NOISE-O2 and NOISE-P2

The case for the use of “avoid”

❖ I therefore support rewording NOISE-P2 as follows:

Policy NOISE-P2

“Ensure noise sensitive activities proposing to be located within the Mixed Use, Light Industrial, on land near state highways and Air Noise Boundary and in close proximity of regionally significant infrastructure in these areas are located, designed, constructed and operated in a way which will minimise adverse noise on community health, safety and wellbeing by having regard to:

- a. Any existing lawfully established noise generating activities and the level of noise that will be received within any noise sensitive building;
- b. The need to avoid any reverse sensitivity effects on lawfully established noise generating activities;
- c. The primary purpose and the frequency of use of the activity; and
- d. The ability to design and construct buildings accommodating noise sensitive activities with sound insulation and/or other mitigation measures to ensure the level of noise received within the building is minimised particularly at night.”

NOISE – Note 8 Generators

Maintenance and testing typically undertaken by Top Energy

- ❖ Generators are utilised during emergency situations, maintenance and testing and to supply electricity during planned maintenance works to minimise disruption to infrastructure, public services and consumers.
- ❖ In summary, the permanent generators are typically run for:
 - ❖ Approximately 5 hours per year for scheduled maintenance. Sometimes longer than this if there is a fault or repair required;
 - ❖ A typical total of 24 hours, over two days every year for planned maintenance of the 110kV line, typically between the hours of 7am and 7pm; and
 - ❖ Infrequent use for an additional 24 hours per year for irregular / variable network maintenance activities which are likely to occur every two or three years at a time.

NOISE – Note 8 Generators

Maintenance and testing typically undertaken by Top Energy

- ❖ This totals approximately 29 hours per year every year and every two to three years, the total could be 53 hours per year.
- ❖ Mobile generators typically run for 20 hours per year, per site, and typically between the hours of 7am and 7pm, of any single generator in any single location.
- ❖ Standard maintenance and testing of the generators to ensure reliable operation is also required for approximately 20 minutes every month, 30 minutes every three months and 30 minutes every year.
- ❖ Generators are very expensive to run and are therefore used for the shortest duration practicable.
- ❖ Generators run for maintenance during the day and are very seldom run at night during planned network maintenance.

NOISE – Note 8 Generators

Acoustic evidence

- ❖ The 12-hour annual limit recommended by the Reporting Officer is relatively arbitrary and more restrictive.
- ❖ Top Energy would find it impracticable to work to a cap of hours per year based on the typical and actual historical usage, as well as unexpected reasons for why they might have to run for longer periods.
- ❖ Such a cap would require the hours on every generator to be counted and tracked at all times, with all emergency use and other use not covered by the exemption to be subtracted from each generator total.
- ❖ The usage described by Top Energy is very occasional and temporary when compared to a permanent activity or even a construction activity.
- ❖ Any noise effects will be temporary and mostly limited to daytime, except in exceptional circumstances.
- ❖ Support for an exemption that does not limit the number of hours of use on the basis that the use is very infrequent over a year, mostly during the day and for the purposes described in the exemption.

NOISE – Note 8 Generators

Planning evidence

- ❖ I am not aware of there being any scope arising from submissions for imposing a more stringent limit than the notified proposal.
- ❖ Regardless, I oppose the more restrictive 12 hours per year limit based on the evidence of Mr Fernandes and Mr Styles.
- ❖ Generators have a critical role within Top Energy's network and are not only used for emergencies and testing and maintenance, but also during critical maintenance of the electricity network.
- ❖ This will likely trigger the requirement for multiple unnecessary resource consents, which operationally, would be very difficult to apply for and obtain, with minimal actual benefit.
- ❖ There is a clear operational and functional need for generator use, and therefore it is important for this use to be provided for in the PDP, without unnecessary time restrictions that lead to costly and inefficient resource consenting requirements.

NOISE – Note 8 Generators

Planning evidence

- ❖ I therefore recommend the following amendments to note 8 (additions in blue underline and deletions in blue strikethrough):

The noise rules and effects standards do not apply to noise generated by the following activities:

1. ...

8. the use of generators and mobile equipment (including vehicles) where they are operated by emergency services or lifeline utilities as defined in the Civil Defence Emergency Management Act 2002 for:

a. emergency purposes; including

b. testing and maintenance; or

c. the ongoing supply of electricity during planned maintenance on the electricity network.

~~not exceeding 48 hours in duration, where they are operated by emergency services or lifeline utilities;~~ provided that the use of generators for testing and maintenance purposes is limited to a cumulative time of 12 hours per year;

9. ...

Earthworks Provisions

Rule EW-S1

- ❖ I agree with the Reporting Officer's recommendation to structurally consolidate the earthworks rules into a single general earthworks rule.
- ❖ I disagree with the Reporting Officer's position regarding the deletion of EW-S1 from EW-R7 and EW-R8.
- ❖ There is a strong policy basis for more enabling provisions for earthworks for infrastructure repair and upgrades in the Strategic Direction Chapter and within the proposed Infrastructure Chapter.
- ❖ I consider that the Reporting Officer is contradicting the position already outlined in Hearing 4. If there is no requirement for maximum earthworks thresholds in sensitive environments such as the Coastal Environment, then logically there should be no requirement for maximum earthworks thresholds in other less sensitive areas.

Earthworks Provisions

Rule EW-S1

- ❖ I recommend the following exemption from maximum earthworks thresholds in EW-S1 (in blue underline):

EW-S1

"...

This standard does not apply to:

- earthworks for septic tanks and associated drainage fields;
- earthworks for the maintenance of existing walking tracks, farm tracks, driveways, roads and accessways;
- earthworks for the maintenance of drains; and
- earthworks for the operation, repair, maintenance and upgrading of existing lawfully established network utilities."

Transpower Amendments to EW-R2

Issues with amendments for Top Energy

- ❖ Transpower have requested the following amendments to Rule EW-R2 as part of their submission:

EW-R2 ~~110kV Transmission lines and~~ National Grid Yard

PER-1 Earthworks must:

1. be no deeper than 300mm within 6 metres of the outer visible edge of a foundation of a 110kV transmission line, tower or pole;
2. be no deeper than 3 metres:
 - a. between 6 metres and 12 metres from the outer visible edge of a foundation of a 110kV ~~or a 220kV~~ transmission line, tower or pole;
~~or~~
 - ~~b. between 6 metres and 10 metres from the outer visible edge of foundation of a 66kV transmission line tower or pole;~~
3. not compromise the stability of a transmission line, ~~or tower~~ or pole;
4. not result in a reduction in the ground to conductor clearance distances as required by New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001); and
5. not permanently physically impede access to a 110kV transmission line or National Grid support structure.

Transpower Amendments to EW-R2

Issues with amendments for Top Energy

NATIONAL GRID

DEFINITION

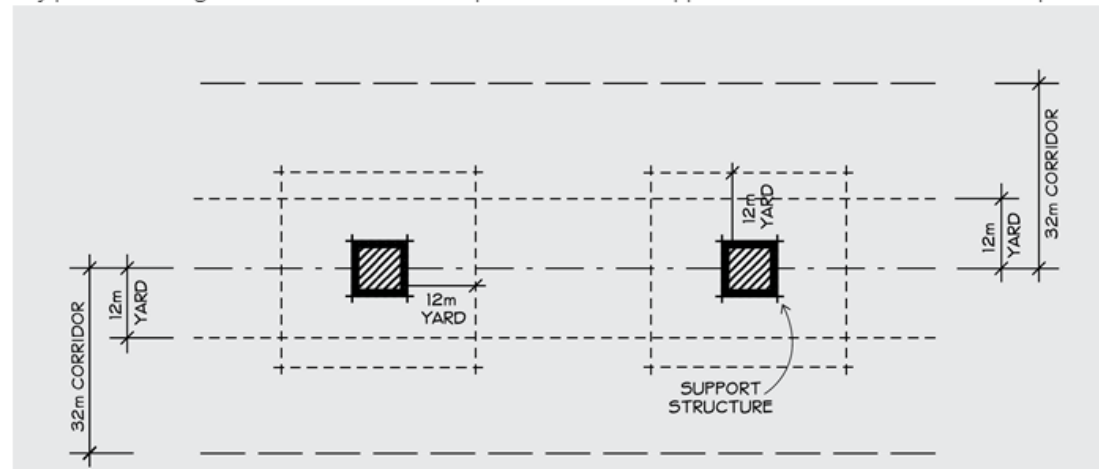
means the assets used or owned by Transpower New Zealand Ltd.

NATIONAL GRID YARD

DEFINITION

means the area located 12 metres in any direction from the outer edge of a National Grid support structure and the area located 12 metres either side of the centreline of an overhead National Grid line.

Note: the measurement of setback distances from National Grid electricity lines shall be taken from the centre line of the National Grid line and the outer edge of any support structure. The centre line at any point is a straight line between the centre points of the two support structures at each end of the span.



Transpower Amendments to EW-R2

Issues with amendments for Top Energy

- ❖ Top Energy is unique as an Electricity Distribution Business as it owns and maintains 110kV transmission lines in the Far North. This was purchased off Transpower in 2012.
- ❖ Transpower's wording would be problematic for Top Energy's 110kV electricity lines, towers or poles which are not part of the National Grid.
- ❖ From a safety perspective, these restrictions should apply irrespective of the ownership of the line.

Transpower Amendments to EW-R2

Issues with amendments for Top Energy

- ❖ Furthermore, while Top Energy don't currently have any 220kV or 66kV, it is possible that a 66kV line could be built in the lifecycle of the plan.
- ❖ Conversations have been held with Transpower regarding the wording of this rule. General agreement has been reached between both parties regarding amendments to the rule, notwithstanding the reference to 66 kV lines. This can be separately confirmed by Transpower.
- ❖ I therefore request that this rule be reworded so that it is applicable to 110kV lines whether they are part of the National Grid or not, and maintains the reference to 66kV lines.

Transpower Amendments to EW-R2

Issues with amendments for Top Energy

- ❖ I therefore recommend the following amendment to Transpower's wording for EW-R2:

EW-R2 **National Grid and Top Energy** Transmission lines **and National Grid Yard**

PER-1 Earthworks must:

1. Be no deeper than 300mm within 6 metres of the outer visible edge of a foundation of a 110kV transmission line, tower or pole;
2. Be no deeper than 3 metres:
 - a. Between 6 metres and 12 metres from the outer visible edge of a foundation of a 110kV **or a 220kV** transmission line, tower or pole; **or**
 - b. Between 6 metres and 10 metres from the outer visible edge of foundation of a 66kV transmission line, tower or pole.**
3. Not compromise the stability of a transmission line, **or** tower or pole;
4. Not result in a reduction in the ground to conductor clearance distances as required by New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001); and
5. Not permanently physically impede access to a 110kV transmission line **or National Grid** support structure.

Summary

Key points

- ❖ NOISE-O2 and NOISE-P2 should be amended to utilise “avoid” to give effect to the strong direction within the RPS regarding reverse sensitivity.
- ❖ Note 8 should be amended to delete the time restriction on generator emergency use, testing and maintenance of generators and use during planned maintenance.
- ❖ There should be an exemption from EW-S1 – Maximum earthworks thresholds where the works are associated with infrastructure owned by a network utility.
- ❖ Transpower’s requested amendments to EW-R2 will not protect Top Energy’s 110kV or potential future 66kV assets from earthworks within proximity. Changes are needed to address this, and there is general agreement with Transpower.

He Pātai | Any Questions?