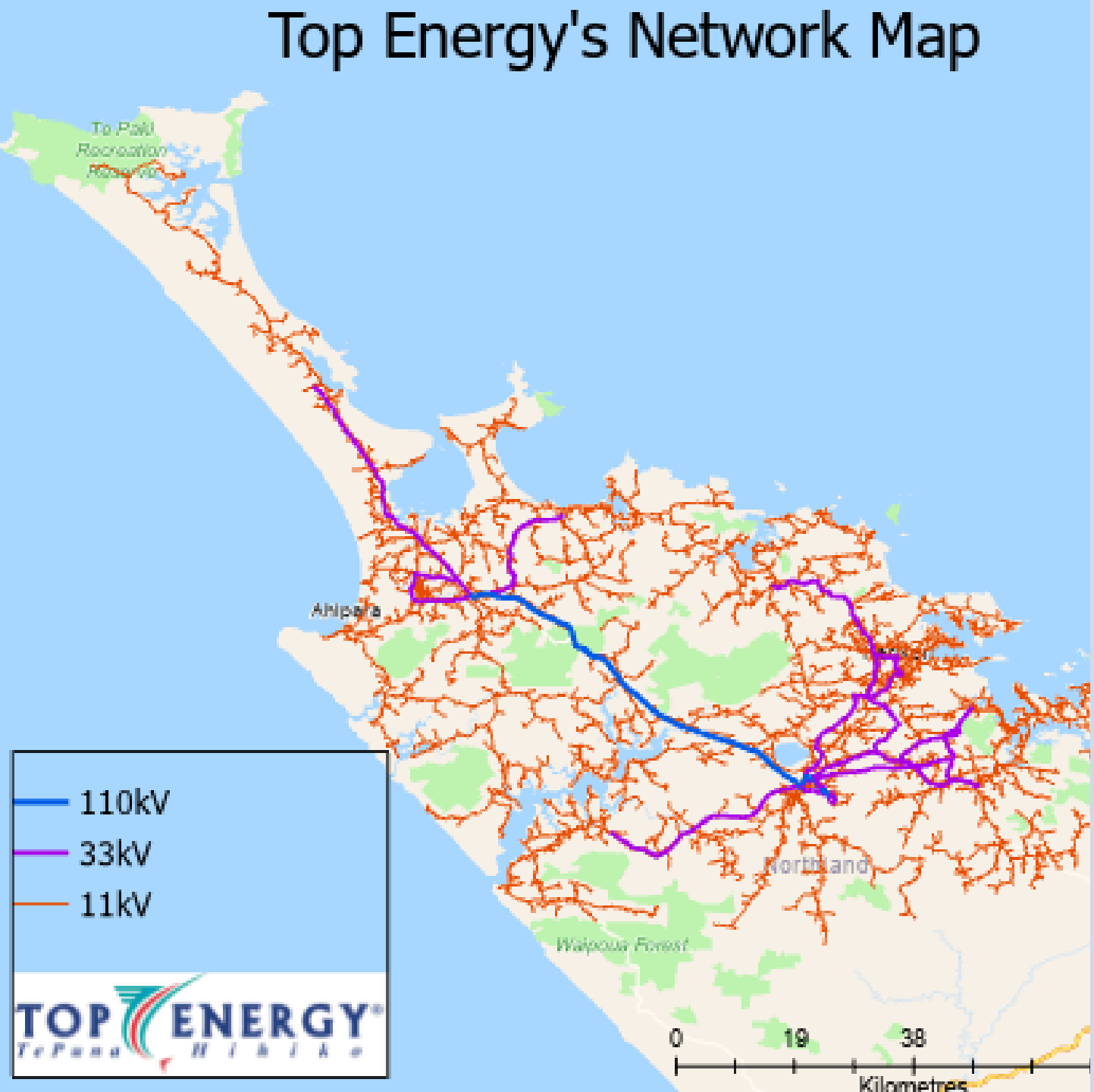
Top Energy – Hearing 11 Presentation

29 April 2025

Agenda

- Top Energy's Network in the Far North
- Critical Electricity Lines and Response to other evidence
- Renewable Electricity
- Infrastructure
- Designations, Transport & Additional Definitions



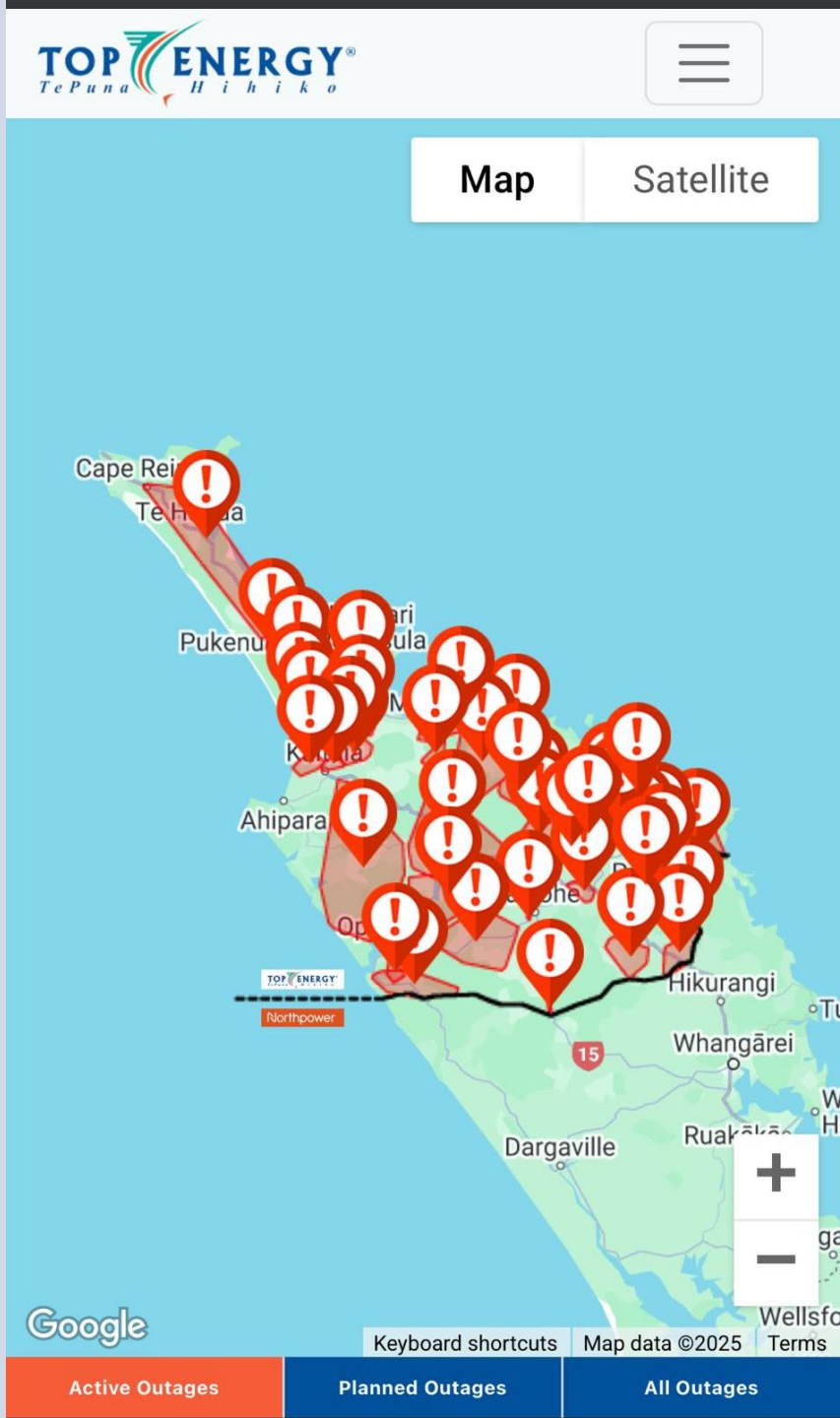
Far North Network

- Servicing an area of approx. 7,000m2.
- Approx. 32,000 customers.
- Total system length of 4,000+km.
- Both above and below ground.
- The network services many isolated and vulnerable communities, with minimal or no alternatives for power supply.

Critical Electricity Lines

Justification for CEL Mapping & Provisions

- Top Energy sought the inclusion of its 33kV network as CEL within the PDP.
- 33kV lines are RSI under the RPS.
- 33kV lines constitute the “sub-transmission network”
- 33kV lines supply:
  - Essential public services (e.g., hospitals, civil defence facilities);
  - Large industrial users;
  - More than 1,000 consumers; and
  - Are difficult to replace with an alternative supply if they are compromised.
- 11kV lines could also be included based on the above (and are in Whangārei), but were not sought by Top Energy.



Justification for CEL Mapping & Provisions

- Give effect to the RPS requirement to identify and protect such infrastructure.
- Establishment of buildings and vegetation within proximity remains a significant cause of supply unreliability.
- Mapping provides clarity for landowners and Council.
- Setbacks are not just about electrical safety — they protect operational access and help avoid reverse sensitivity.
- Aligns with regional approach in Whangārei, noting Northpower have sought the same in the Kaipara District.

Response to Evidence of Mr McPhee and Mr Smith

- Mr McPhee:
  - CEL terminology is appropriate and directly aligned with RPS Regionally Significant Infrastructure definitions.
  - Section 32 evaluation supports the CEL Overlay — robust rationale is provided.
  - Subdivision setback is necessary to avoid reverse sensitivity effects; not duplicative of NZECP34:2001.
- Mr Smith:
  - No compelling evidence provided to justify exempting Ngawha Innovation and Enterprise Park SPZ.
  - Protection of CEL assets should apply consistently across the district.

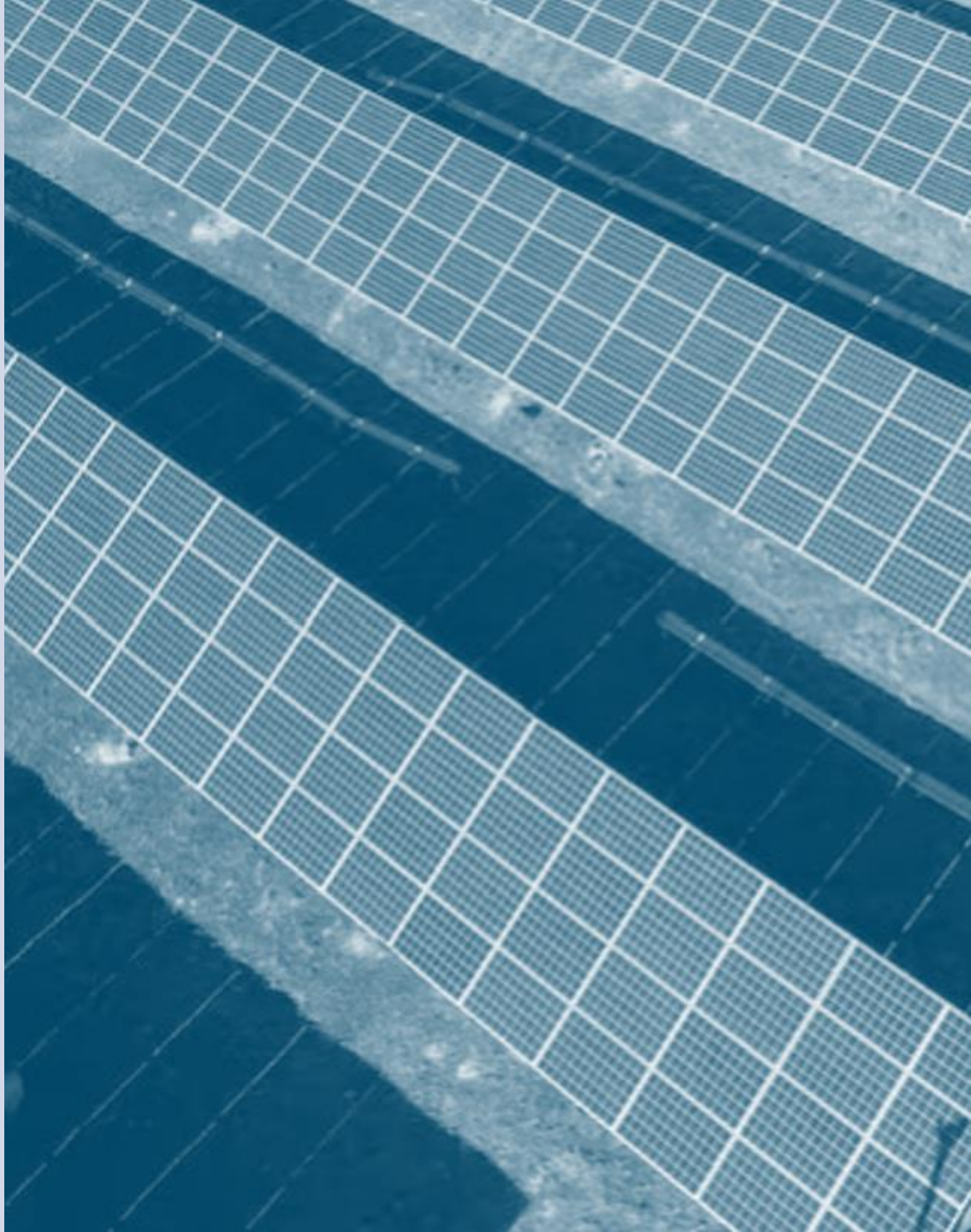
Final Position

- Opposition evidence **does not alter Top Energy's position or my opinion**.
- Inclusion of 33kV lines within the Critical Electricity Lines Overlay is:
  - ➢**Necessary** to give effect to the RPS;
  - ➢**Essential** for protecting existing infrastructure; and
  - ➢**Consistent** with sustainable management purpose of the RMA.
- Therefore, requested amendments are appropriate, necessary, and justified.

Renewable Electricity

Renewable Electricity

- Ambitious target to achieve 100% renewable electricity generation by 2030, and double by 2050.
- Central Government has made recent announcements to facilitate this – RMA amendments, revised NPS-REG and NES-ET and RMA replacement.
- Top Energy seeks an enabling framework for renewable energy generation activities, but also transmission while managing adverse effects.
- No pre-hearing meetings to discuss submissions = more matters to address in evidence.



Objective REG-O1 - Retain

- REG-O1 should be retained as notified.
- REG-O1 and REG-O3 cover separate matters.
- It is important to recognise and provide for the “technical, operational and functional needs and constraints” of renewable electricity generation activities.

Objective REG-O1

“The significant local, regional and national benefits from the use and development of renewable electricity generation activities, and their technical, operational and functional needs and constraints, are recognised and provided for.”

Objective REG-O2 – Amendment

- The benefits of the renewable electricity generation activities should be recognised and provided for in this objective, rather than renewable electricity generation activities being tasked with recognising and providing for the stated benefits themselves.
- I recommend the following wording for REG-O2:

"**Recognise and provide for the following benefits from** **Rr**enewable electricity generation activities ~~**recognise and provide for the following benefits**~~**:**

a. Contribute to the reduction in greenhouse gas emissions;

b. Increase the security of supply of electricity for the district and the region; and

c. Support the economic, social and cultural well-being of people and communities."

Objective REG-O4 and Policy REG-P8 - Amendment

- I oppose the continued inclusion of “or otherwise mitigating” from REG-O4 and “to the extent possible, or otherwise mitigate,” from REG-P8.
- The Reporting Officer recommendations again fail to give effect to Policy 5.1.1(3) of the RPS:

> 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)

Objective REG-O4 and Policy REG-P8 - Amendments

- 5.16 This policy gives a strong avoidance directive for even the potential of reverse sensitivity to arise and that directive must be **given effect** to in the PDP provisions.
- The Reporting Officer's justification that "the RPS policy uses the term "should not" rather than the more directive "must not," allowing some flexibility for mitigation where appropriate" is based on an erroneous interpretation of Policy 5.1.1(e).
- The "should not" in that Policy relates to the outcome of "incompatible land uses in close proximity." It does not relate to "avoid", which stands alone as a directive. On that reading, the use of "avoid" is unqualified as it relates to avoiding the "potential for reverse sensitivity".

Objective REG-O4 and Policy REG-P8 - Amendments

- I therefore recommend the following amendments:

Objective REG-O4

"The ongoing efficient operation, maintenance**, repair** and upgrading of existing renewable electricity generation activities is enabled, including through avoiding, ~~**or otherwise mitigating,**~~ the reverse sensitivity effects from sensitive activities in close proximity to community and large-scale renewable electricity activities."

Policy REG-P8

"Require sensitive activities to be designed and located to avoid ~~**to the extent possible, or otherwise mitigate,**~~ reverse sensitivity effects on existing or consented community scale and large-scale renewable electricity generation activities."

Policy REG-P9 – Deletion

Policy REG-P9

Avoid locating large-scale renewable electricity generation activities outside the Rural Production zone unless it can be demonstrated that adverse effects will be no more than minor.

I recommend the deletion of REG-P9 because:

- Renewable energy resources do not follow zone boundaries and are located throughout the District, not just in the Rural Production Zone.
- A strong "avoid" policy with an arbitrarily low "no more than minor" effects threshold is inconsistent with the NPS-REG, RPS, PDP strategic direction and REG objectives.
- "No more than minor" effects standard is too restrictive and would unnecessarily preclude acceptable renewable energy projects, contrary to higher order planning documents.

Policies REG-P10 and REG-P11 – Delete and Amend

Policy REG-P10

Require that during or following decommission of any renewable electricity generation activity, that all renewable electricity generation structures, buildings and concrete areas are removed or otherwise mitigated to be compatible with future land use.

- REG-P10 should be deleted and REG-P11 redrafted.
- As a standalone policy within REG-P10, there is no specific method or rule implementing this policy, making it redundant.
- Whereas as part of REG-P11, it becomes a relevant matter for consideration when assessing and managing effects or renewable electricity generation activities.

"~~Manage renewable electricity generation activities to address the effects of the activity requiring resource consent, including (but not limited to)~~ Consider~~ation of~~ the following matters where relevant **when assessing and managing the effects of renewable electricity generation activities** ~~to the application~~:

1. Any locational, technical, functional, operational needs and constraints, including the need to be located where renewable resource is located and the need for infrastructure to connect to the local electricity distribution network or the National Grid, or directly to high energy users;
2. Bulk, height or design of any associated buildings or structures;
3. The extent of earthworks, or indigenous vegetation removal **and proposed measures to mitigate any adverse effects;**
4. The degree to which the environment has already been modified;
5. The nature, duration, timing and frequency of any adverse effects;
6. Any adverse effects on areas with cultural and heritage, natural environment values, coastal values and recreational values;
7. Proposed methods to avoid, minimise and remedy adverse effects and any proposed measures to offset or compensate more than minor residual adverse effects;
8. Health, well-being and safety of people and communities, specifically any nuisance or adverse effects from noise, vibration, traffic and light spill;
9. Safe and efficient operation of other infrastructure;
10. The local, regional or national benefits of the project, including the significant social, economic, and cultural benefits of regionally significant infrastructure; and
11. Any historical, spiritual or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.
12. **Plan for rehabilitation of the site following decommissioning of any renewable electricity generation activity, including removal of buildings, and concrete areas.**

New Policy – REG-PX and amend REG-P3

- Include a specific enabling policy for consistency in order to give effect to RPS Method 5.4.3 and the direction within clause (1)(a) to be “as permissible as possible.” Also amend REG-P3 so it is specific to small scale renewable electricity generation activities.

Policy REG-P3

Enable new small scale renewable electricity generation activities ~~and activities associated with the investigation, identification and assessment of potential sites and energy sources for renewable electricity generation~~ where the activity:

a. is of a form, location, and scale that minimises adverse effects on the environment; and

b. will not result in significant adverse effects on the character and amenity values of the zone.

Policy REG-PX

“Enable activities associated with the investigation, identification and assessment of potential sites and energy sources for renewable electricity generation.”

New Permitted Activity Rule to enable Renewable Generation Investigation Activities

- The Reporting Officer's approach to amend REG-R3 only permits the buildings and structures associated with the "renewable energy generation activity", not the activity itself, which is the intent of Top Energy's submission and is in alignment with Method 5.4.3 of the RPS.

REG-RX Renewable energy generation investigation activity.

Permitted

Where:

PER-1

Any building or structure located above ground associated with the investigation activity does not exceed a GFA of 25m^2.

PER-2

Any building or structure can comply with the height, setback, height in relation to boundary performance standards of the underlying zone.

New Restricted Discretionary Rule for Large-scale Solar Renewable Electricity Generation Activity

- Support extension of permitted activity status to both community and large-scale renewable electricity generation.
- Support minor amendment to refer to “notional” boundary for effects assessment.
- Disagree with splitting solar and wind into separate rules — standards are identical and a single rule is simpler and clearer.
- Disagree with discretionary activity status for wind — matters of discretion in REG-R6 are sufficient.
- Rule should apply across All Zones, not just the Rural Production Zone.

REG-R6

~~Solar energy~~ llarge scale **renewable electricity generation activities** or community scale renewable electricity generation activit**ies~~y~~** ~~(new and upgrading)~~

~~**Rural Production zone**~~

~~**Māori Purpose zone**~~

~~**Open Space zone**~~

All Zones

Activity status: Permitted

Where:

PER-1

No structure or device, including any attachments ~~or turbine blades~~, exceeds a maximum height above ground level of 20m.

PER-2

All devices and supporting structures attached to land, including solar panels, cover a total area of no more than 5,000m2.

PER-3

Any structure is setback at least three times the height of the structure (including supporting structures) from the boundary of any other site and is not within the notional boundary of any other site.

PER-4

The setback of any structure from a road, is at least three times the height of structure or 20m, whichever is the greatest distance.

PER-5

Compliance is achieved with NZS 6806:2010 Acoustics – Wind farm noise for any proposal involving wind generation~~. PER-5~~

~~Compliance is achieved with NZS 6806:2010 Acoustics – Wind farm noise for any proposal involving wind generation.~~

Activity status where compliance not achieved with PER-1, PER-2, PER-3, PER-4, or PER-5, PER-6 ~~PER-6 or PER-7~~: Restricted Discretionary

Matters of discretion are restricted to:

a. Location, scale and size of the activity;

b. Adverse effects on any area with historical or cultural values, natural environment values or coastal environment values;

c. Shadow flicker and glare on surrounding sites, waterbodies and private and public roads;

d. Character, level, duration of noise received at the boundary or ~~national~~ notional boundary of another site;

e. Effects on migratory birds using any identified and scientifically established flight path;

f. Function and operational need to be in that location;

g. Alternative design options for the structure; and

h. Colour scheme of structure(s), screening and landscaping.

Revised Definition - Community Scale Renewable Electricity Generation Activities

- Amendments proposed by the Reporting Officer are an improvement e.g., 10mW limit.
- Not demonstrated why there should be a different definition in the PDP to that in the NPS-REG.
- I therefore consider that the definition should be amended to align with the definition in the NPS-REG:

Small and Community Scale Renewable Electricity Generation Activities*

means renewable electricity generation ~~**primarily supplying an immediate community**~~ ~~that is supplied to local electricity users, with provision for excess electricity to be supplied~~ **for the purpose of using electricity on a particular site, or supplying an immediate community, or connecting into** or the distribution network. ~~and where the installed capacity does not exceed 10MW~~.

***definition adopted from the National Policy Statement for Renewable Electricity Generation 2011**

Infrastructure

Infrastructure

- One of the most important topics for Top Energy with the most submission points.
- The Pre-Hearing Meetings have been key to significantly narrowing areas of disagreement.
- Government announcements – updated NES-Electricity Transmission, new NPS-Infrastructure and RMA Reforms.
- Top Energy seeks an enabling framework for infrastructure that adequately manages adverse effects.

Infrastructure in the Roading Corridor – New Objective, Policy and Rule

- Existing provisions (I-O2 and I-P9) are not sufficiently directive — they only encourage, rather than enable, infrastructure within road corridors.
- Enabling all infrastructure (not just linear infrastructure) within road corridors aligns with Objective 3.8 of the RPS and PDP's strategic objectives.
- Most infrastructure is located within the road network — stronger plan support is necessary.
- Recommend a new rule specifically permitting operation, maintenance, repair, and upgrading of electricity and telecommunications infrastructure within road corridors.

Infrastructure in the Roading Corridor – New Objective, Policy and Rule

New Objective I-OX

Recognise and provide for the operation, maintenance, repair and upgrading of other infrastructure including electricity and telecommunications infrastructure within the transport network, in particular the roading corridor.

New Policy I-PX

Recognise and provide for other infrastructure by enabling the operation, maintenance, repair and upgrading of infrastructure in he transport network as a permitted activity.

New Rule I-RX

Operation, maintenance, repair and upgrading of electricity and telecommunications infrastructure within the roading network

Activity status: Permitted

Policy I-P11 – Amendment

- Oppose the strong "avoid" directive — it is overly restrictive and inconsistent with I-O6 and has no basis in other higher order directive.
- New infrastructure may have an operational and functional need to traverse Māori Purpose Zone land and Treaty Settlement areas to support development within, or adjacent to those areas.
- "Owner agreement" wording effectively grants a veto power, which could block important infrastructure serving wider community needs.

~~Avoid~~ Manage new infrastructure **~~where~~** **so that** it will **not unnecessarily constrain** **~~compromise~~** the ability to develop and use land in the Māori Purpose zone or in the Treaty Settlement overlay **~~unless the owners of the land agree to the new infrastructure~~**.

Policy I-P12 – Minor Refinement

- I-P12 should both recognise and **provide for** the benefits of new infrastructure technology.
- Infrastructure improvements are ongoing and will evolve over the PDP's 10-year life.
- Simply "recognising" new technology is insufficient without enabling its use and development.

Recognise **and provide for** the benefits of new technology in infrastructure that:

a. Improve access to, and efficient use of, networks and services;
b. Increases resilience or reliability of networks and services;
c. Protects the on-going safety of the community and the integrity of the network; or
d. Results in environmental benefits or enhancements.

Policy I-P13 – Minor Refinement

- Support final wording of the policy, except for reference to “I-S1 and I-S2”.
- Recommend deleting references to “I-S1 and I-S2” based on Mr Sooknandan’s evidence.
- Flexibility is needed as best practice standards may evolve over time, requiring case-by-case assessment.

Rule I-R3 – Upgrading Existing Network Utilities

- Support Reporting Officer’s amendments:
  - Removal of arbitrary "10-year" references
  - Reference to NZECP 34:2001
  - Restricted discretionary activity status where standards not met
- Disagree with overall structure:
  - Lack of response to Top Energy’s detailed submission points
  - No section 32 justification for current limits
  - Need for greater clarity by specifying infrastructure types within the rule.

Upgrading of existing above ground network utilities

Activity status: Permitted

Where:

General

PER-1

The upgrade of network utility structures or buildings:

1. is within 5m of the existing alignment location of the original structure or building;
2. complies with the zone's permitted setback standards if it is a building; and
3. does not result in an increase to the diameter of a replacement pipe by more than 300mm.

PER-2

The activity complies with standards:

1. I-S1 Radio frequency fields; and
2. I-S2 Electric and magnetic fields.

Electricity

PER-3

In addition to PER 1 and PER 2, the upgrade of electricity network utilities structures or buildings must not result in:

1. Pole or tower height that exceeds 25m above ground level;

2. More than two additional poles; and

3. Additional towers.

PER -4

1. Additional cross arms must not exceed a length of more than 4m;

Gas

PER - 5

In addition to PER 1 and PER 2, the realignment, relocation or replacement of a gas transmission line is within:

1. an existing easement in favour of the pipeline;

2. 12m of the existing alignment or location

Telecommunications

PER 6

In addition to PER 1 and PER 2

1. A replacement panel antenna does not increase the face area by more than 20 percent.

2. A replacement dish antenna does not increase in diameter by more than 20 percent.

Activity Status where compliance not achieved with PER 1, PER 3 – PER 6: Restricted Discretionary

Matters of discretion are restricted to:

Matters of discretion are restricted to:

a. The functional need and operational need of the network utility;

b. The benefits of the network utility;

c. The purpose and necessity of the upgrading;

d. The potential adverse visual effects of the upgrading, including impacts on the amenity values of the locality, and any cumulative adverse effects; and

e. Any measures to avoid, remedy or mitigate adverse effects.

Activity status where compliance not achieved with PER-2: Discretionary

Rule I-R7 – New Overhead Lines and Towers

- Support most of the Reporting Officer's recommended amendments to I-R7.
- Remaining issue: 15m height limit for towers in PER-2 is too low — based on the evidence of Mr Sooknandan, towers are typically 22m+ for operational needs.
- Recommend increasing the height limit to 25m above ground level for consistency and practicality.

Rule I-R7 – New Overhead Lines and Towers

PER-1

Poles or telecommunications poles and attached antenna **(excluding lightning rods)** do not exceed a height **above ground level** of:

1. 25m **in the Rural Production Zone, Rural Lifestyle Zone, Māori Purpose Zone, Light Industrial Zone, Heavy Industrial Zone, Airport Zone, Hospital Zone, Horticulture Zone, Horticulture Processing Facilities Zone;**
2. **20m in the Mixed-Use Zone, Open Space Zone, Sport and Active Recreation Zone, Ngawha Innovation and Precinct Zone, Orongo Bay Zone, Rural Residential Zone;**
3. **15m in the General Residential Zone, and all other special purpose zones; or**
4. **The permitted height of the adjacent zone in clause a to c above if located in the road reserve.**

PER-2

Towers do not exceed a height of **25~~15~~m above ground level**.

PER-3

Where two or more telecommunication facility operators are located on the same pole in the zones referred to in PER-1.a. the pole and attached antenna (excluding lightning rods) do not exceed a height of 30m above ground level.

PER-~~3~~4

The activity complies with the standards:

I-S1 Radio frequency fields; and

I-S2 Electric and magnetic fields.

Rule I-R8 – New telecommunications kiosks

- Support most of the Reporting Officer's recommended amendments to I-R7.
- Concern: 3.5m height limit could mistakenly apply to both kiosk and support structure.
- Risk of misinterpretation leading to unintended restrictions.
- Recommend clarifying PER-1.1 to exclude any support structure from the 3.5m height limit.

PER-1

It does not exceed:

1. A height of 3.5m**, excluding any support structure**; and
2. An area of 1.5m2.

Rule I-R12 – Buildings and Structures near CEL

- Technical evidence from Mr Sooknandan confirms it is not appropriate to permit any buildings or structures within 10m of Critical Electricity Lines, regardless of height.
- NZECP34:2001 requires case-by-case assessment due to site-specific risks to ensure safe clearances.

~~**PER-1**~~

~~1. The building or structure **is less than 3m in height above ground level** does not require a building consent; or~~
~~2. The extension of the building or structure does not exceed the envelope or footprint of the existing building or structure.~~

~~**PER-2**~~

~~**Earthworks:**~~

~~1. Are not directly above underground cables;~~
~~2. Do not result in a reduction of existing ground clearance distances from overhead lines below the minimums prescribed in the New Zealand Code of Practice 34:2001 (NZECP 34:2001); and~~
~~3. Are in accordance with NZECP 34:20091.~~

PER-1~~3~~2

~~**Activities that do not comply with PER-1 or PER-2 provided that:**~~

i. Prior to works notification is provided to Council **that the building or structure complies with the safe distance requirements in the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001)** ~~**and the proposed activity is being carried out in in accordance with the Electricity Act 1991 and associated regulations (NZECP 34:2001, the Electricity Hazards from Trees) Regulations 2003 (SR 20032/375), and the Electricity (Safety) Regulations 2010);**~~
or

ii. The activity is being carried out by a network utility operator or territorial authority in accordance with **the New Zealand Electrical Code of Practice for Electrical Safe Distances** (NZECP 34:2001).

Standards I-S1 and I-S2 – Radio Frequency and Electric Magnetic Fields

- Oppose non-complying activity status if standards are not met — it would create unnecessary consenting hurdles.
- Non-compliance is unlikely, but could arise from operational needs or evolving best practice.
- Mr Sooknandan has highlighted that the standards are old, and could be subject to change over time.
- Recommend a discretionary activity status to allow flexibility for future improvements in standards.

Rule SUB-R10 – Subdivision within proximity to CEL

- Recommend 32m setback from Critical Electricity Lines to manage reverse sensitivity risks.
- Subdivision creates new development rights, increasing risk of encroachment near established regionally significant infrastructure.
- Recommend non-complying activity status. RPS applies strong avoid policies for regionally significant infrastructure and reverse sensitivity broadly, without any specific reference or weight given to the National Grid over Critical Electricity lines or other regionally significant infrastructure.

Activity status: Restricted Discretionary

Where:

RDIS-1

Where: RDIS- 1

Proposed building platforms are identified for each allotment and located at least ~~10~~32m from Critical Electricity Lines Overlay (except where the allotments are for roads, esplanades, accessways and infrastructure).

Matters of discretion are restricted to:

a. the safe and efficient operation and maintenance of the electricity supply network;

b. the location of any future building and access as it relates to the critical electricity line;

c. effects on access to critical electricity lines and associated infrastructure for inspections, maintenance and upgrading purposes;

d. the extent to which the subdivision design allows for any future sensitive activity and associated buildings to be setback from the critical electricity line;

e. the mature size, growth rate, location, and fall zone of any associated tree planting;

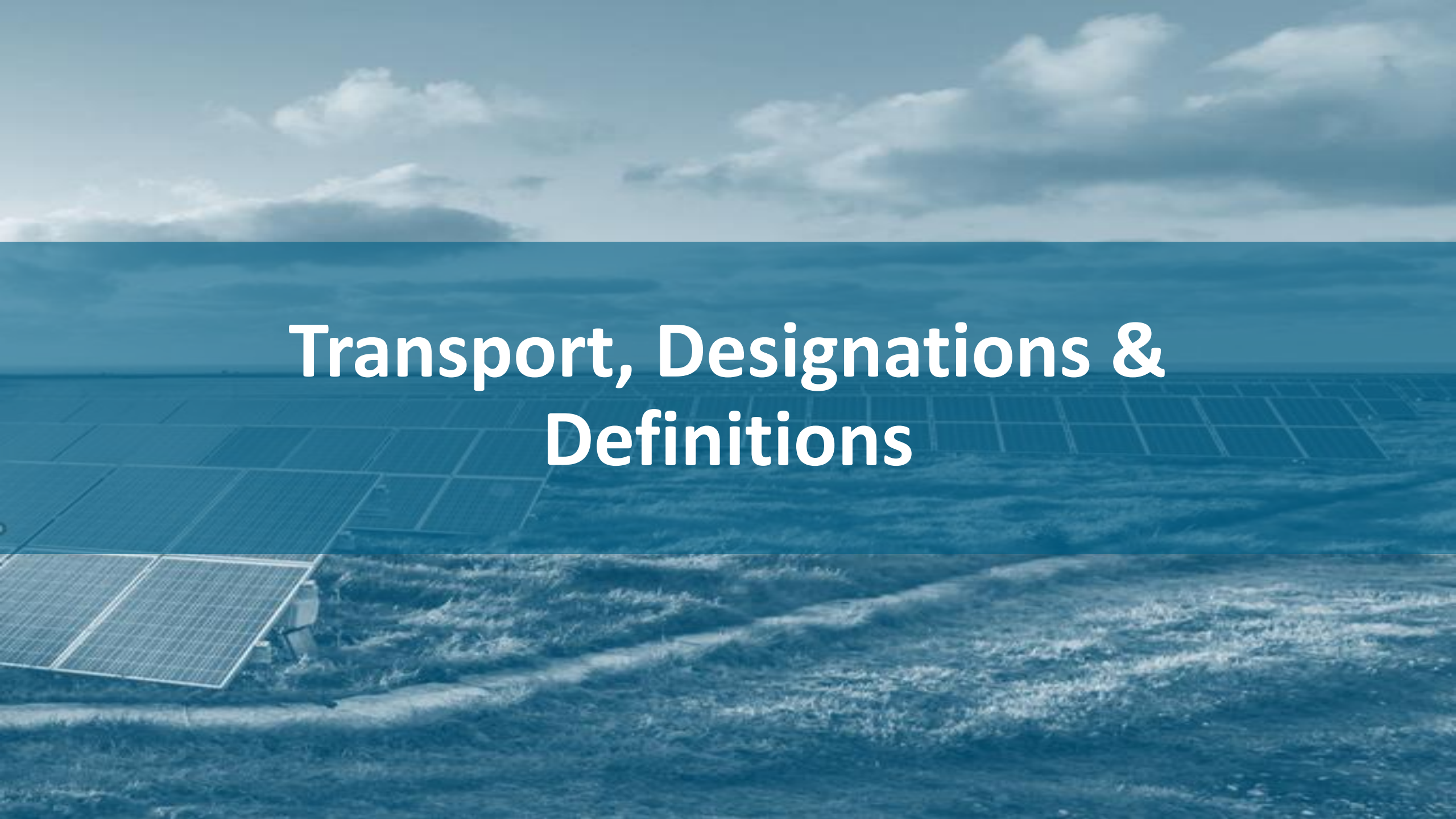
f. including landscape planting and shelterbelts;

g. compliance with NZECP 34: 2001 New Zealand Electricity Code of Practice for Electricity Safe Distances;

h. effects on public health and safety; and

i. the outcome of any consultation with the owner and operator of the potentially affected infrastructure.

Activity Status where not achieved **with RDIS-1:** ~~**Not applicable. Discretionary**~~ **Non complying**



Transport, Designations & Definitions

Designations

- Only minor issues.
- From Ms Morgan's presentation yesterday, understand that she has accepted my minor recommended corrections for TE208 and TE243.
- General approach and condition numbering – there should be conditions in one location. I favour them being within the table for the designations.
- Ms Morgan has questioned my evidence re TE245 and TE249 – I confirm that these are typos, and that it is meant to reference **TE244 and 247**.
- The concern is re numbering of the conditions. All other conditions have been deleted as requested by Top Energy, therefore redundant and confusing to reference the original condition numbering.

Designations – TE244 and TE247

CONDITIONS APPLYING TO TE244

Hazardous Substances

13. The substation shall be operated in accordance with the Top Energy procedure for "oil handling" (Procedure No CS E01 dated February 1996) and subsequent amendments.

Electronic and Magnetic Fields

14. Exposures to extremely low frequency electric and magnetic fields at the boundary of the site and at all publicly accessible areas within the site, shall comply with the guidelines recommended by the International Commission on Non-Ionising Radiation Protection in 1998.

CONDITIONS APPLYING TO TE247

11. The existing landscaping shall be maintained for the duration of the activity in accordance with Resource Consent 2130173.

Transport, Additional Definitions

- Transport s42A largely deferred Top Energy submission points to Infrastructure topic.
- Top Energy's submission points regarding definitions for the following terms have not been addressed:
  - Emergency Tree Works
  - Footprint
  - Operational Need

Summary & Key Takeaways

- Significant progress made on recognising regionally significant infrastructure and renewable electricity generation within the PDP provisions.
- Key issues remain in the Renewable Electricity and Infrastructure Chapters — amendments proposed are necessary and justified.
- Opposing planning evidence of Messer's McPhee and Smith do not alter my opinion – Inclusion of Top Energy’s 33kV network in the Critical Electricity Lines mapping and provisions is appropriate and essential.
- Overall, the changes I have outlined are needed to give effect to higher order policy, achieve sustainable management, and enable more resilient infrastructure for the Far North.


He Patai? | Any Questions?