

D5 14.5 Electrical distribution

This report section is D5 of Part D Submissions Analysis of the section 42A report on the Infrastructure and Energy topic of the Proposed Waikato District Plan. This report provides consideration of submissions on section 14.5 which contains the rules for the electrical distribution network.

I Introduction

1. The main themes in submissions on Electricity Distribution section are:
 - a. area and height controls, including for support structures, switch-rooms and pole-mounted transformers
 - b. undergrounding of new and existing electricity distribution lines
 - c. flexibility for substations and transformer location in the Rural Zone
 - d. protection of electricity distribution network against reverse sensitivity of sensitive land uses
 - e. protection of Identified Area values.

2 14.5.1 Permitted activities General

Submission point	Submitter	Decision requested
697.21	Waikato District Council	Amend Rule 14.5.1(b) Permitted Activities as follows: (b) Rule 14.2.1.1 will apply to the activities set out in this table unless there is a specific area, height, location and noise condition listed below.
<i>FS1342.188</i>	<i>FFNZ</i>	<i>Supports 697.21</i>

2.1 Analysis

2. **Waikato District Council** [697.21] seeks amendment to Rule 14.5.1(b) as a consequential amendment of its proposed changes to Rule 14.2.1.1(1), which deleted the generic area and height limits. *FS1342.188 FFNZ supports for the same reason.*

2.2 Recommendations

3. For the reasons above, I recommend accepting Waikato District Council [697.21] and *FS1342.188 FFNZ* as a consequential amendment.

2.3 Recommended amendments

4. The following amendments are recommended:

14.5.1(b) Rule 14.2.1.1 will apply to the activities set out in this table unless there is a specific ~~area, height,~~ location and noise condition listed below [697.21 Waikato District Council]

2.4 Section 32AA evaluation

5. As this is a consequential amendment, a s.32AA re-evaluation is not required.

3 14.5.1 PI Below ground distribution lines

Submission point	Submitter	Decision requested
692.17	WEL Networks	Retain Rule 14.5.1 PI Permitted Activities, relating to below ground distribution lines.

3.1 Analysis

6. **WEL Networks** [692.17] supports Rule 14.5.1 PI as it would ensure that below ground distribution lines are a permitted activity.

3.2 Recommendations

7. For the reasons that the notified PWDP provides for the efficient and effective provision of infrastructure, I recommend accepting WEL Networks [692.17].

4 14.5.1 P2 and P3 Overhead distribution lines and support structures within / adjacent to the Rural Zone

Submission point	Submitter	Decision requested
836.18	Powerco	Retain Activity Table 14.5.1 Permitted Activities and in particular, Activity-specific condition 14.5.1.1, except where rules are specifically addressed elsewhere in the submission.
692.66; 692.67	WEL Networks	Retain Rule 14.5.1 P2 Permitted Activities, relating to overhead distribution lines in the Rural Zone, and 14.5.1 P3 Permitted Activities, relating to overhead distribution lines within road or unformed road in the Rural Zone.
405.52	Counties Power	Amend Rule 14.5.1.1 Permitted Activities relating to P2 and P3 Overhead distribution lines to allow for new overhead lines to be constructed in the road corridor adjacent to industrial and open space zones AND Amend Rule 14.5.1.1 Permitted Activities relating to P2 and P3 Overhead distribution lines to allow for new overhead lines to be constructed in the road corridor adjacent to pockets of residential zoning in an otherwise predominantly rural or industrial zone.
680.289	FFNZ	Amend Activity-specific conditions 14.5.1.1 relating to P2 Overhead distribution lines and support structures within the Rural Zone and P3 overhead distribution lines and support structures within road or unformed road located adjacent to the Rural Zone, as follows: (a) Overhead distribution lines and support structures that comply with the following: (i) Do not exceed a voltage up to and including 110kV; and (ii) Do not exceed a maximum height of 25m; or (iii) Do not exceed a maximum height of 30m for colocation of at least two operators; and (iv) Are not located within an Identified Area.
FS1/34.55	Counties Power	Supports in part 680.289

4.1 Analysis

8. **WEL Networks** [692.66 and 692.67] supports retaining P2 and P3, as the rules would ensure that overhead distribution lines and support structures within the Rural Zone, and roads or unformed roads located adjacent to the Rural Zone, would be a permitted activity. Powerco 836.18 also seeks retention of Activity Table 14.5.1 Permitted Activities and in particular Activity specific condition 14.5.1.1 associated with P2 and P3, as this provides for lines and support structures as a permitted activity if not exceeding 110KV, a height of 25m or 30m for co-location of two operators. In my opinion, the rules allow for efficient and effective provision of infrastructure, and recognise the economic value of the extensive rural electrical distribution network. I recommend accepting WEL Networks [692.66 and 692.67]; Powerco [836.18].
9. **Counties Power** [405.52] seeks to amend Rule 14.5.1.1 Permitted Activities relating to P2 and P3 Overhead distribution lines to allow for new overhead lines to be constructed in the road corridor adjacent to industrial and open space zones and amend Rule 14.5.1.1 Permitted Activities relating to P2 and P3 Overhead distribution lines to allow for new overhead lines to be constructed in the road corridor adjacent to pockets of residential zoning in an otherwise predominantly rural or industrial zone. The reason provided by the submission is that P2 and P3 only allow for new overhead lines in the Rural Zone and roads adjacent to the Rural Zone. The submitter considers the Plan needs to allow new overhead lines in Industrial/Heavy Industrial zones at least. The submission notes that substations are allowed as a permitted activity in Heavy Industrial Zones, but not overhead lines.
10. The rule framework allows new overhead distribution lines and support structures as a permitted activity only within the Rural Zone and rural roads. In all other zones, and within the Rural Zone that is also within an Identified Area, the activity is a restricted discretionary or discretionary activity, allowing assessment of needs and benefits, alternatives, co-location, amenity values of the site and locality, and any specific conditions that make undergrounding impractical. I support that approach and believe it should include overhead lines in Industrial Zone and open space zones, and any pockets of residential zoning in an otherwise predominantly rural or industrial area. New electrical distribution within industrial zones should, in my opinion, be underground for resilience as well as amenity reasons. While substations are allowed as a permitted activity in Heavy Industrial Zones, their effects do not extend beyond the sites within that environment. I recommend rejecting Counties Power [405.52].
11. **FFNZ** [680.289] seeks that overhead lines and support structures in the Rural Zone be permitted up to 30m in height, and without restriction of voltage or Identified Area location.
12. The submitter opposes parts of Rule 14.5.1 and conditionally support other parts of it. In the Rural Zone, FFNZ considers there should be few restrictions on overhead electricity distribution lines, as it is inefficient to require undergrounding of electricity and other lines services, because of the greater distances involved compared to urban areas. If the Council is minded to permit co-located overhead lines up to a permitted height of 30 metres, the submitter considers there is practically no visual difference between co-located lines and non-co-located lines mounted on poles up to 30 metres height, and therefore the maximum permitted height should be simplified to 30 metres. The submitter states that Identified Areas overlay many farms and questions the wisdom of restricting farming activity in these areas by imposing extra requirements on infrastructure development. The submitter doubts that there will be any commensurate environmental benefit from requiring farming activity, and ancillary activity such as construction

of electricity distribution lines required to service farms, to trigger resource consent where lines are above-ground. Electricity lines for farms are virtually always characterised by overhead power lines. The submitter states that agriculture and pastoralism form part of the landscape character of rural areas. The wide open spaces and low intensity of built form mean these areas are able to absorb development and land use more easily than urban areas. The submitter questions the validity of extra layers of amenity analysis for these areas for what arguably amounts to little or no environmental benefit.

13. FFNZ considers that it is not appropriate to require infrastructure within any Identified Area that is within the Rural Zone to have to seek resource consent for overhead electricity distribution lines, as getting services into rural areas is difficult and costly - even for overhead lines. FFNZ considers that requiring underground lines in the wide open spaces of rural areas, even though these might exhibit qualities identified within these 'Identified Areas', is nonsensical, and farmers shouldn't be burdened by unnecessary resource consent requirements aimed at managing visual amenity, landscape, natural character and natural features that the Identified Area provisions are aimed at. The submitter states that the trigger for resource consent for such activity is hugely inefficient and presents a highly onerous and inappropriate burden on farmers who need to install, maintain, repair, replace or upgrade infrastructure, including associated earthworks (albeit that these may be within an Identified Area), in order to develop, use or subdivide farms. Separation distances for sensitive activities (including a 'residential activity') in relation to overhead electricity distribution lines, will result in arguably unnecessary cost and delay burden for farm dwellings and building additions to existing dwellings that may be within close proximity to existing power lines, for little or no environmental benefit.
14. *FSI 134.55 Counties Power opposes the deletion of (a)(i) as this rule requires clarification that the voltages include up to and including 110kV. Counties Power also opposes the deletion of (a)(ii) and considers there is no reason why poles should exceed 25m. The submitter further supports the deletion of (iv) as there should be few restrictions on overhead electricity distribution lines. Counties Power considers that, in rural areas, it is inefficient to require undergrounding of electricity and other lines services, because of the greater distances involved compared to urban areas.*
15. P2 and P3 provide for overhead distribution lines and support structures within the Rural Zone or within rural roads as a permitted activity with what are, in my opinion, reasonable activity-specific conditions relating to voltage limits, heights of structures and avoiding Identified Areas. Taller pole heights for co-located lines are, in my opinion, an incentive for that co-location to occur, and poles up to 30m in height carrying co-located lines may also be considered mitigation for what could have been two separate overhead networks. Counties Power in their further submission, considers there is no reason why poles should exceed 25m in height. I understand there are distribution poles of greater than 25m height in existence, which could be established by resource consent, where appropriate. The activity-specific conditions seeking avoidance of Identified Areas are qualified by discretionary activity assessment, if that needs to occur. RMA s.6 and the RPS require protection of Identified Area values of Historic Heritage, Significant Natural Areas, and Maaori Sites and Areas of Significance and, therefore, it is not appropriate for infrastructure such as electrical distribution lines and structures to be a permitted activity in Identified Areas. The voltage limit of 110kV is appropriate for rural electricity distribution, which is not a transmission network. I recommend rejecting FFNZ [680.289] and accepting *FSI 134.55 Counties Power*.

4.2 Recommendations

16. For the reasons above, I recommend the Hearings Panel:

- a. Accept WEL Networks [692.66 and 692.67]; Powerco [836.18].
- b. Reject Counties Power [405.52].
- c. Reject FFNZ [680.289]; accept *FSI 134.55 Counties Power*.

5 14.5.1 P4 Substations and associated transformers and switching stations

Submission point	Submitter	Decision requested
692.68	WEL Networks	Retain Rule 14.5.1 P4 Permitted Activities, relating to substations and associated transformers and switching stations.
405.92	Counties Power	Amend Rule 14.5.1.2 (a) (iii) Permitted Activities relating to P4 Substations and associated transformers and switching stations to increase the floor area to 250m ² per ancillary building.
405.53	Counties Power	Amend Rule 14.5.1.2 Permitted Activities relating to P4 Substations and associated transformers and switching stations to allow for construction of substations in the Rural Zone.
836.19	Powerco	Amend Activity-specific condition 14.5.1.2 Permitted activities relating to P4 as follows: (a) Substations and associated transformers and switching stations distributing electricity that comply with the following: ... (ii) Are located within the Business Zone, Business Town Centre Zone, Tamahere Business zone, Te Kowhai Airpark Zone, Industrial Zone, Heavy Industrial Zone and Motor Sport and Recreation Zone; <u>and the Rural Zone.</u> ...
<i>FSI 134.56</i>	<i>Counties Power</i>	<i>Supports 836.19</i>
697.22	Waikato District Council	Add to Rule 14.5.1.2 Permitted Activities a new clause (v) as follows: <u>(v) Maximum height 10m</u>
<i>FSI 342.189</i>	<i>FFNZ</i>	<i>Supports 697.22</i>

5.1 Analysis

17. **WEL Networks** [692.68] seek to retain Rule 14.5.1 P4 Permitted Activities, relating to substations and associated transformers and switching stations as it would ensure that substations, associated transformers, and switching stations within the Business Zone, Business Town Centre Zone, Tamahere Business Zone, Te Kowhai Airpark Zone, Industrial Zone, Heavy Industrial Zone and Motor Sport and Recreation Zone would be a permitted activity. This rule allows the efficient and effective provision of infrastructure within environments capable of managing amenity effects. I recommend accepting WEL Networks [692.68], noting support for the provision.
18. **Counties Power** [405.92] seeks to increase the floor area to 250m² per ancillary building, as a typical switch room (the submitter presumes this is what is meant by "ancillary building") has a floor area up to 250m².
19. I note that switch rooms or switching areas are a restricted discretionary activity for the National Grid, and are of a larger scale commensurate with the transmission network, such as at Ohinewai (roughly 3000m² structural equipment in a yard). I do not have any information from Counties

Power about the normal size of their substations and switch rooms, apart from the submission statement that a typical switch room has a floor area up to 250m². The activity-specific conditions allow management of effects up to a floor area of 100m². Larger buildings would be assessed via resource consents, with assessment of effects including the functional and operational needs and benefits of the infrastructure as well as amenity values of the site and locality.

20. The intention of the PWDP is to set activity-specific conditions for permitted activities at a no-effect or minimal-effects threshold, and to require a consent for activities of a scale or intensity exceeding those thresholds, through which the actual and potential effects can be assessed. I would be open to more information being presented by the submitter showing actual examples of the ancillary buildings that exceed 100m² area that have no or minimal or mitigated adverse effects. The discretionary activity status for larger ancillary buildings is to ensure that there is a need for them at that larger scale and that their effects are managed. Industrial and rural areas are, in my opinion, more capable of absorbing visual and amenity impacts than residential and open space areas, except where Identified Areas are involved. I recommend rejecting Counties Power [405.92] and note also its submission point on 14.5.3 Discretionary Activities.
21. **Counties Power [405.53]** and **Powerco [836.19]** seek to amend P4 Substations and associated transformers and switching stations to allow for construction of substations in the Rural Zone. Both submitters consider substations and associated transformers and switching stations should also be permitted. *FSI 134.56 Counties Power supports the submission from Powerco.*
22. I agree that substations and associated transformers and switching stations occur frequently within the Rural Zone, and support permitted activity status under the same activity-specific conditions as the other zones. The permitted size of the building is relatively small and able to absorb any visual effects, and gives effect to the RPS by enabling integrated and efficient provision of infrastructure. I recommend accepting 405.53 Counties Power, Powerco 836.19 and *FSI 134.56 Counties Power.*
23. **Waikato District Council [697.22]** seeks to add a standard limiting the maximum height to 10m. *FSI 342.189 FFNZ supports this.*
24. This is a consequential amendment, to provide a maximum height limit for specific activities where the general height limit is deleted in response to other submissions. I recommend accepting Waikato District Council [697.22]; *FSI 342.189 FFNZ.*

5.2 Recommendations

25. For the reasons above, I recommend the Hearings Panel:
 - a. Accept WEL Networks [692.68]
 - b. Reject Counties Power [405.92]
 - c. Accept Counties Power [405.53]
 - d. Accept Powerco [836.19]; *FSI 134.56 Counties Power*
 - e. Accept Waikato District Council [697.22]; *FSI 342.189 FFNZ.*

5.3 Recommended amendments

26. The following amendments are recommended:

P4	Substations and associated transformers and switching stations	<p>14.5.1.2</p> <p>(a) Substations and associated transformers and switching stations distributing electricity that comply with the following:</p> <p>(i) Distribute electricity at a voltage up to and including 110kV; and</p> <p>(ii) Are located within the Business Zone, Business Town Centre Zone, Tamahere Business zone, Te Kowhai Airpark Zone, Industrial Zone, Industrial Zone Heavy and Motor Sport and Recreation Zone; and the Rural Zone [Counties Power 405.53; Powerco 836.19]</p> <p>(iii) Any ancillary buildings do not exceed 100m² in gross floor area; and</p> <p>(iv) Are not located within an Identified Area.</p> <p>(v) Maximum height, 10m [Waikato District Council 697.22]</p>
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5.4 Section 32AA evaluation

27. Substations and associated transformers and switching stations are to be permitted within the Rural Zone, for efficiency. A maximum height of 10m is a consequential amendment from deleting the general minor infrastructure height limit, and also allows for pole-mounted transformers and other equipment, which are an accepted industry standard for efficient electrical distribution. The RPS objectives and policies support the approach to provision of infrastructure. RPS Objective 3.12 states: “Development of the built environment (including transport and other infrastructure) and associated land use occurs in an integrated, sustainable and planned manner which enables positive environmental, social, cultural and economic outcomes” Policies on co-ordinating growth and infrastructure, future infrastructure changes and upgrades, and on reverse sensitivity also support the provisions. The amendments impose a minor cost on the amenity of the visual environment, but a substantial benefit in the efficient provision of infrastructure. No further s.32AA re-evaluation is required.

6 14.5.1 P5 Construction or alteration of a building for a sensitive land use

Submission point	Submitter	Decision requested
692.69	WEL Networks	Retain Rule 14.5.1 P5 Permitted Activities, relating to construction or alteration of a building for a sensitive land use.
680.290	FFNZ	Amend Activity specific condition 14.5.1.3 P5 relating to Construction or alteration of a building for a sensitive land use, as follows: (a) Except within the Rural Zone, t The construction or alteration of a building for a sensitive land use that complies with all of the following conditions:...
<i>FS1258.81</i>	<i>Meridian Energy</i>	<i>Not Stated 680.290</i>
419.106	Hort NZ	Delete the activity specific condition 14.5.1.3 in Rule 14.5.1 Permitted Activities, relating to P5 Construction or alteration of a building for a sensitive land use.

6.1 Analysis

28. **WEL Networks** [692.69] seeks to retain Rule 14.5.1 P5 Permitted Activities relating to construction or alteration of a building for a sensitive land use, as the submitter considers that it would ensure that construction or alteration of a building for a sensitive land use will have a setback minimum of 10m from the centre of line of any electrical distribution or transmission lines.
29. I support the provision as notified and acknowledge agreement from the submitter. The RPS policies on reverse sensitivity and provision of infrastructure support the rule. I recommend accepting WEL Networks [692.69].
30. **FFNZ** [680.290] seeks to amend Activity-specific condition 14.5.1.3 P5 relating to the construction or alteration of a building for a sensitive land use to exempt the Rural Zone.
31. The submitter opposes parts of Rule 14.5.1 and conditionally supports other parts of it. In the Rural Zone, FFNZ considers the separation distances for sensitive activities (including 'residential activity'), in relation to overhead electricity distribution lines, will result in arguably unnecessary cost and delay burden in seeking resource consent for farm dwellings or building additions to existing dwellings that may be within close proximity to existing power lines, for little or no environmental benefit.
32. *FS1258.81 Meridian Energy* does not establish support or opposition, but states that Meridian's own submission seeks that additional rules be inserted to require the setback of sensitive land uses and activities sensitive to noise from lawfully established large scale wind farms. For that reason, Meridian also has an interest in any amendments to the definitions or other provisions relating to "sensitive land use".
33. I agree that the electrical distribution network needs protection against reverse sensitivity effects and needs to manage its effects on sensitive land uses. Rule 14.5.1.3 P5 setbacks assist in ensuring that will occur. The PWDP objectives enable the operation of network utilities and managing reverse sensitivity. Sensitive activities can occur within the Rural Zone. RD2 provides scope for sensitive activities, closer than those permitted activity setbacks, to be assessed and consented where warranted. I recommend rejecting FFNZ [680.290]; accepting in part *FS1258.81 Meridian Energy*, to the extent that it is concerned with setbacks of sensitive land uses.
34. **Hort NZ** [419.106] seeks to delete the activity-specific condition 14.5.1.3 in Rule 14.5.1 Permitted Activities, relating to P5 Construction or alteration of a building for a sensitive land use, because NZECP34:2001 sets out distances that apply within proximity to electrical distribution lines. The submitter does not consider that it is necessary to require additional requirements in the District Plan. The submitter considers that the distances sought in 14.5.1.3 are greater than those required by NZECP34:2001.
35. The scope and purpose of NZECP34:2001 is confined to safety. It is the Code of Practice that sets minimum safe distances to primarily protect persons, property, vehicles and mobile plants from harm or damage from electrical hazards and is only focused on minimum safety standards. As such, clearances in NZECP34:2001 provide guidance on safety distances only and do not provide for access, operation, maintenance and development relating to the distribution network, or distances to manage the adverse effects of third-party activities. Minimum safety requirements in the Code do not seek to protect the integrity of the distribution network from the effects of third parties. Nor does the Code provide for all access, work space, step and touch hazards where activities or infrastructure cause restrictions or create unsafe situations, especially during work activities on either distribution network assets or works by a member of the public under

or near a line. In my opinion, the PWDP objectives appropriately enable the operation of network utilities and managing reverse sensitivity and no amendments are needed. I recommend rejecting Hort NZ [419.106].

6.2 Recommendations

36. For the reasons above, I recommend the Hearings Panel:

- a. Accept WEL Networks [692.69]
- b. Reject FFNZ [680.290]; accept in part *FS/258.8/ Meridian Energy*.
- c. Reject Hort NZ [419.106]

37. There are no recommended amendments arising from consideration of the submissions.

7 14.5.2 Restricted discretionary general

Submission point	Submitter	Decision requested
680.293	FFNZ	Add a new Rule RD3 to Rule 14.5.2 Restricted Discretionary Activities, as follows: <u>RD3 Construction of electricity distribution lines in the Rural Zone that do not comply with Rule 14.5.1.1 (a)</u> <u>Discretion is restricted to:</u> <u>(i) Effects on the amenity values from non-compliance with the permitted activity standard;</u>

7.1 Analysis

38. This amendment is consequential to relief sought by FFNZ in respect of Rule 14.5.1.

39. I do not support the relief sought by Federated Farmers in respect of Rule 14.5.1, as overhead lines are already permitted in the Rural Zone except for within Identified Areas. Therefore, this consequential amendment is unnecessary. Overhead lines within the Rural Zone, that are also within an Identified Area, are recommended to be discretionary activities as an appropriate approach to protection of RMA s.6 matters.

7.2 Recommendations

40. For the reasons above I recommend rejecting FFNZ 680.293

8 14.5.2 RDI Overhead distribution lines and support structures

Submission point	Submitter	Decision requested
836.24	Powerco	Amend the matters of discretion in Rule 14.5.2 RDI Restricted Discretionary Activities as follows [No amendments are stated]: (a) Discretion is restricted to:

		<p>(i) The functional need and operational need of, and benefits derived from, the infrastructure;</p> <p>(ii) The extent to which alternative technologies and techniques have been considered;</p> <p>(iii) The extent to which co-location of overhead lines is technically, economically and practically reasonable;</p> <p>(iv) The extent to which the proposal is in accordance with relevant industry standards and meets specified clearance requirements for operational and safety reasons;</p> <p>(v) The extent to which the proposal will adversely affect the amenity values of the site and locality;</p> <p>(vi) The extent to which there are difficult ground conditions, topography or obstructions which make undergrounding impractical.</p>
680.291	FFNZ	<p>Amend Rule 14.5.2 RDI (a) Restricted Discretionary Activities, as follows:</p> <p>(a) Except within the Rural Zone, overhead distribution lines and support...</p>
<i>FSI 134.57</i>	<i>Counties Power</i>	<i>Supports 680.291</i>
831.7	Gabrielle Parson for Raglan Naturally	Amend Rule 14.5.2 RDI Restricted Discretionary Activities, to require existing lines to be underground when new line work is undertaken.
405.55	Counties Power	<p>Amend Rule 14.5.2 RDI (a) (i) Overhead distribution lines and support structures not exceeding a voltage up to and including 110kV: Not located within the Rural Zone, to allow for new overhead lines to be constructed in the Road corridor adjacent to industrial and open space zones as a Permitted activity</p> <p>AND</p> <p>Amend Rule 14.5.2 RDI (a) (i) Overhead distribution lines and support structures not exceeding a voltage up to and including 110kV: Not located within the Rural Zone, to allow new overhead lines to be constructed in the road corridor adjacent to pockets of Residential zoning in an otherwise predominantly rural or industrial zone, as a Permitted Activity.</p>

8.1 Analysis

41. When assessing the original submission from **Powerco** [836.24] the submitter had only underlined text that was already in the PWDP and therefore it does not seem that the submitter was seeking any amendments. On this basis, I recommend accepting Powerco [836.24].
42. **FFNZ** [680.291] seeks to exempt the Rural Zone from Rule 14.5.2 RDI (a) Restricted Discretionary Activities
43. This is consequential to relief sought in respect of Rule 14.5.1. *FSI 134.57 Counties Power supports.*
44. RDI (a)(i) already excepts overhead distribution lines within the Rural Zone and makes them a permitted activity, provided they are not also within an Identified Area. The consequential amendment is not required. I recommend rejecting FFNZ [680.291]; *FSI 134.57 Counties Power.*

45. **Gabrielle Parson for Raglan Naturally** [831.7] seeks to amend Rule 14.5.2 RDI Restricted Discretionary Activities, to require existing lines to be underground when new line work is undertaken. The submitter considers that overhead power/phone lines currently obstruct views and are generally thought to be unattractive. The submitter acknowledges that cost makes it unlikely that all lines will be underground in terms of this Proposed District Plan, but nevertheless considers it can remain an objective.
46. In my opinion the PWDP cannot reasonably require undergrounding of existing overhead lines, when minor upgrading, maintenance repair and replacement is undertaken. Committing to a rule requiring undergrounding of existing lines, as requested in the submission, would have the consequence of requiring funding by the landowner or the electricity line users, as it would be passed on if required of the providers. The RPS and the PWDP objectives support the operation and maintenance of network utility infrastructure, and the management of reverse sensitivity effects to enable continual operation. I recommend rejecting Gabrielle Parson for Raglan Naturally [831.7].
47. **Counties Power** [405.55] seeks to amend Rule 14.5.2 RDI to allow for new overhead lines to be constructed in the Road corridor adjacent to industrial and open space zones as a permitted activity and to allow new overhead lines to be constructed in the road corridor adjacent to pockets of residential zoning in an otherwise predominantly rural or industrial zone, as a permitted activity. The submitter considers that is an appropriate approach to overhead distribution lines.
48. The rule framework allows new overhead distribution lines and support structures only within the Rural Zone and rural roads as a permitted activity. In all other zones, and within Identified Areas, the activity is a restricted discretionary or discretionary activity. This allows an assessment of needs and benefits, alternatives, co-location, amenity values of site and locality, and any specific conditions that make undergrounding impractical. Undergrounding is primarily on the basis of the maintenance and enhancement of amenity values, and the protection of the values of Identified Areas. I support that approach, including for industrial areas and open space zones. For new electrical distribution in industrial areas (in the road adjacent to an Industrial Zone), resilience of the infrastructure is an additional reason for supporting undergrounding. I recommend rejecting Counties Power [405.55].

8.2 Recommendations

49. For the reasons above, I recommend the Hearings Panel:
- a. Accept Powerco [836.24].
 - b. Reject FFNZ [680.291]; *FSI 134.57 Counties Power*.
 - c. Reject Gabrielle Parson for Raglan Naturally [831.7]
 - d. Reject Counties Power [405.55].
50. There are no recommended amendments arising from consideration of these submissions.

9 14.5.2 RD2 Construction or alteration of a building for a sensitive land use

Submission point	Submitter	Decision requested

836.20	Powerco	Delete Rule 14.5.2 RD2 Restricted Discretionary Activities AND Add a new non-complying activity rule as follows: <u>14.5.4 Non-Complying Activities - The activities listed below are non-complying activities: NCI Construction or alteration of a building for a sensitive land use that does not comply with Rule 14.5.1.3 (a).</u>
680.292	FFNZ	Amend Rule 14.5.2 RD2 Construction or alteration of a building for a sensitive land use that does not comply with Rule 14.5.1.3, as follows: RD2 <u>Except within the Rural Zone, c</u> Construction or alteration of a building for a sensitive land use ...
FS1258.82	Meridian Energy	<i>Not Stated 680.292: Meridian's own submission seeks that additional rules be inserted to require setback of sensitive land use activities and noise sensitive activities from lawfully established large-scale wind farms. For that reason, Meridian also has an interest in any to the definition or other provisions relating to "Sensitive land use".</i>
405.93	Counties Power	Amend Rule 14.5.2 RD2 (a) (iv) Construction or alteration of a building for a sensitive land use that does not comply with Rule 14.5.1.3, so construction of ANY building within the vicinity of overhead electricity lines must comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001).

9.1 Analysis

51. **Powerco** [836.20] seeks to delete Rule 14.5.2 RD2 Restricted Discretionary Activities and make construction or alteration of a building for a sensitive land use that does not comply with the permitted activity standards a non-complying activity instead, to ensure such activities are discouraged.
52. I consider that the activity does not require non-complying activity status. Potential adverse effects will be capable of management as a restricted discretionary activity, provided there is appropriate discretion. I note that the matters of discretion include effects on the amenity values of the site; risk of electrical hazards affecting the safety of people; risk of damage to property; effects on the operation, maintenance and upgrading of the electrical distribution or transmission lines. With the addition in response to another submission of “Effects on the values of Identified Areas” (to ensure they are also taken into account), I consider that these matters appropriately manage effect. In some cases, such as in relation to 40kV and 110kV distribution lines, the separation distances from sensitive activities may not be able to be reduced, not only for day-to-day safety risks, but also for line sway in high winds, reverse sensitivity effects (including amenity), and to allow upgrading to higher voltage. Those effects can be taken into account in the restricted discretionary assessment, which allows the specifics of each line to be considered (for example, less line sway near the support structures) and for the risks to the network to be evaluated. I recommend rejecting Powerco [836.20].
53. **FFNZ** [680.292] seeks to amend Rule 14.5.2 RD2 Construction or alteration of a building for a sensitive land use that does not comply with Rule 14.5.1.3, to exempt Rural Zones. This is consequential relief in relation to relief sought by FFNZ in respect of Rule 14.5.1.
54. *FS1258.82 Meridian Energy does not establish support or opposition, but states that Meridian's own submission seeks that additional rules be inserted to require setback of sensitive land use activities and*

noise activities from lawfully established large-scale wind farms. For that reason, Meridian also has an interest in any amendments to the definitions or other provisions relating to "Sensitive land use".

55. I do not support the relief sought by FFNZ in respect of Rule 14.5.1, as overhead lines are already permitted in Rural Zones except for within Identified Areas, and sensitive activities are required to be set back from these lines. Therefore, this consequential amendment is also unnecessary. The RPS and PWDP objectives on reverse sensitivity and enabling operation of network utilities, support the use of setback provisions for sensitive activities. Overhead lines within the Rural Zone which are also within an Identified Area are recommended to be discretionary activities. In my opinion, even within the Rural Zone, new or expanded sensitive activities within close proximity to the lines should be a restricted discretionary activity. The sensitive activities are the same whether urban or rural, and are no less sensitive within the rural environment. I recommend rejecting FFNZ [680.292]; *FSI 258.82 Meridian Energy*.
56. **Counties Power** [405.93] seeks amendments to Rule 14.5.2 RD2 (a)(iv) so that construction of any building within the vicinity of overhead electricity lines must comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001).
57. New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001) applies regardless of the rules within the PWDP, and I do not consider it necessary to provide multiple references to the Code. The Code is referenced at the beginning of Chapter 14. The electricity distribution lines are not mapped, and if a reference were proposed to NZECP34:2001, then it would more appropriately lie within the Zone provisions, and need to be duplicated across all of the Zones. Also, it is not the role of the District Plan to require compliance with a New Zealand Standard which applies irrespective of a District Plan. I recommend rejecting Counties Power [405.93].

9.2 Recommendations

58. For the reasons above, I recommend the Hearings Panel:

- a. Reject Powerco [836.20].
- b. Reject FFNZ [680.292]; *FSI 258.82 Meridian Energy*
- c. Reject Counties Power [405.93]

59. There are no recommended amendments arising from consideration of the submissions.

10 14.5.3 Discretionary Activities

Submission point	Submitter	Decision requested
559.159	Heritage NZPT	Retain Rule 14.5.3(a) D2 Discretionary activities.
405.94	Counties Power	Amend Rule 14.5.3 D3 Discretionary Activities to increase the floor area of ancillary buildings (substations and associated transformers and switching stations) to 250m ² as a permitted activity.
680.294	FFNZ	Amend Rule 14.5.3 Discretionary Activities, as follows: (a) <u>Except within the Rural Zone,</u> The activities listed below are discretionary activities...
<i>FSI 134.58</i>	<i>Counties Power</i>	<i>Supports 680.294</i>

10.1 Analysis

60. **Heritage NZPT** [559.159] supports retaining Discretionary activity Rule D2, and considers that this level of resource consent activity provides the appropriate level of protection and assessment to provide protection as required under section 6 of the Resource Management Act 1991. I concur and recommend accepting submission 559.159.
61. **Counties Power** [405.94] seeks to amend Rule 14.5.3 D3 Discretionary Activities to increase the floor area of ancillary buildings to 250m² as a permitted activity. The submitter considers that switch rooms cannot be accommodated in a gross floor area of 100m².
62. I note that switch rooms or switching areas are a restricted discretionary activity for the National Grid, and are of a larger scale commensurate with the transmission network, such as at Ohinewai (roughly 3000m² structural equipment in a yard). I do not have any information from Counties Power about the normal size of their substations and switch rooms, apart from the submission statement that a typical switch room has a floor area up to 250m². The activity-specific conditions allow management of effects up to a floor area of 100m². Larger buildings would be assessed as resource consents, with management of effects, including the functional and operational needs and benefits of the infrastructure, as well as amenity values of the site and locality. The intention of the PWDP is to set activity-specific conditions for permitted activities at a no-effect or minimal-effects threshold, and to require a consent for activities of a scale or intensity exceeding those thresholds, within which the actual and potential effects can be assessed. I invite the submitter to show actual examples of the ancillary buildings that exceed 100m² area and have no or minimal or mitigated adverse effects. Until this information is provided, I recommend rejecting Counties Power [405.94].
63. **FFNZ** [680.294] seeks to amend Rule 14.5.3 Discretionary Activities, to exempt application of the rule to the Rural Zone.
64. The submitter considers it is unnecessary to require overhead electricity distribution lines in the Rural Zone to have to obtain resource consent for a Discretionary Activity. The submitter considers that in rural areas, it is inefficient to require undergrounding of electricity and other lines services, because of the greater distances involved compared to urban areas.
65. *FSI 134.58 Counties Power supports.*
66. Overhead distribution lines are permitted activities within the Rural Zone, except where they are to be located in Identified Areas, in which case they are classed as discretionary activities. The policy intent in the Rural Zone is not to require undergrounding, except where that may be required to protect Identified Area values. For some Identified Area types, such as Significant Natural Areas, Heritage Item or Maaori Sites and Areas of Significance, overhead lines may be preferred as they require less land disturbance. For other types of Identified Areas, the discretionary activity status will require assessment of environmental effects and alternative routes and methods.
67. I have addressed the submitter's issues in relation to Rules 14.5.1 Permitted Activities and 14.5.2 Restricted Discretionary Activities against those submission topics. Rule 14.5.3 Discretionary Activities (a) deals with three proposed discretionary activities, being D1 Overhead distribution lines and support structures exceeding a voltage of 110kV; D2 Overhead distribution lines and support structures of any voltage located within an Identified Area; and D3 Substations and associated transformers and switching stations that do not comply with one or more conditions

of Rule 14.5.1.2. I consider that the permitted and restricted discretionary activity statuses are appropriate for the Rural Zone, subject to the addition of substations and associated transformers and switching stations to 14.5.1.2(a)(ii) as a permitted activity. The proposed discretionary activities in 14.5.3 are also appropriate. The discretionary activity classification is more appropriate than non-complying, as the proposed activity may be an efficient use and development of resources. Discretionary activity classification allows account to be taken of the relevant zone and Identified Area objectives and policies. I recommend rejecting FFNZ [680.294]; *FSI 134.58 Counties Power*.

10.2 Recommendations

68. For the reasons above, I recommend the Hearings Panel:

- a. Accept Heritage NZPT [559.159].
- b. Reject Counties Power [405.94].
- c. Reject FFNZ [680.294]; *FSI 134.58 Counties Power*.

69. There are no recommended amendments arising from consideration of these submissions.