

## D6 I4.6 Electricity generation

This report section is D6 of Part D Submissions Analysis of the section 42A report on the Infrastructure and Energy topic, Proposed Waikato District Plan. The report provides consideration of submissions on section I4.6, which contains the rules for renewable electricity generation.

### I Introduction

1. The main themes in submissions on the Electricity Generation section are:
  - a. Area and height controls
  - b. Enable Huntly Power station electricity generation activity
  - c. Manage electricity generation activity effects on roads and within identified Areas
  - d. Flexibility for rural locations and farming activity
  - e. Flexibility for research and exploratory scale equipment
  - f. Protection of Identified Area values
  - g. Provide a complete activity cascade
2. The National Policy Statement for Renewable Electricity Generation (NPSREG) sets out objectives and policies for local authorities to address renewable electricity generation in RMA planning documents, including district plans. The objective requires local authorities to provide national significance recognition and provision for renewable electricity generation activities in their district plan, by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, and to meet or exceed generation targets.
3. The New Zealand Coastal Policy Statement (NZCPS) has relevance to renewable electricity generation, recognising that the provision of infrastructure and energy generation within the coastal environment (wind, tidal, wave and ocean current energy) is important to the social, economic and cultural well-being of people and communities, and addressing issues such as the risk to existing infrastructure from coastal erosion and coastal hazards. NZCPS Objective 6 I states: “To enable people and communities to provide for their social, economic, and cultural wellbeing and their health and safety, through subdivision, use, and development, recognising that the coastal environment contains renewable energy resources of significant value.” Policy 6, in relation to the coastal environment, requires recognition that infrastructure for the generation and transmission of electricity is important to well-being, and that potential renewable resources are available in the coastal environment. Policy 6 also recognises the potential of renewable marine energy resources.
4. The Waikato Regional Policy Statement (RPS) recognises that to provide for increasing energy demands, there is a greater need to manage impacts on existing renewable electricity generation activities and promote new electricity generations from energy sources such as geothermal, wind, hydro, tides, wave energy and possibly biofuels. Development of renewable energy resources results in a range of local and national benefits including those associated with increased security of supply and reduced greenhouse emissions. RPS Objective 3.5 on energy is to recognise and provide for the national significance of electricity transmission and renewable electricity generation. Objective 3.12 on the built environment is to provide for the development, operation, maintenance and upgrading of transmission and renewable electricity generation activities. There are policies on integrated management within the coastal environment, monitoring information

support, encouragement of small and community-scale technologies, built environment and fresh water bodies. The main focus of the RPS in relation to renewable electricity generation is:

- a. To recognise opportunities for new renewable electricity generation structures;
- b. Protect existing renewable electricity generation structures;
- c. Ensure subdivision and development does not compromise existing renewable electricity generation activities; and
- d. Increase the use of renewable electricity generation and decreased dependence of non-renewable energy sources as there are substantial benefits.

## 2 14.6.1 General permitted activities

Submission point	Submitter	Decision requested
405.56	Counties Power	Retain Rule 14.6.1.1(a) - Permitted Activities relating to P1, P2, P3 and P4 as notified.
697.25	Waikato District Council	Amend Rule 14.6.1(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 <del>area, height</del> , location and noise condition listed below.
924.27	Genesis Energy	Retain Rule 14.6.1 - Permitted Activities except for the amendments outlined below AND Add a new permitted activity to Rule 14.6.1 - Permitted Activities as follows: <u>Activity P5 Electricity generation within the Huntly Power Station Heavy Industrial Zone. Activity-Specific Conditions 14.6.1.[X] Electricity generation within the Huntly Power Station Heavy Industrial Zone that complies with the Huntly Power Station Heavy Industrial rules.</u> AND Add a new activity to Rule 14.6.2 - Restricted Discretionary Activities as follows: <u>Activity RD4 Electricity generation within the Huntly Power Station Heavy Industrial Zone that do not comply with one or more conditions of the Rule 14.6.1.[X]. Activity-Specific Conditions Discretion is restricted to the extent of effects associated with the Huntly Power Station Heavy Industrial Zone rules that the activity does not comply with.</u>

### 2.1 Analysis

5. **Genesis Energy** [924.27] seeks to retain Rule 14.6.1 - Permitted Activities, as well as adding a permitted activity rule for electricity generation within the Huntly Power Station, and a restricted discretionary activity status where one or more of the conditions were not complied with.
6. The submitter's reason is that electricity generation is the primary activity undertaken within the Huntly Power Station Heavy Industrial Zone. The submitter considers it to be unclear whether

“electricity generation” is an industrial activity provided for within the zone or whether the electricity generation provisions in section 14.6 apply.

7. Huntly Power Station is only mentioned specifically, in the Industrial Zone Heavy provisions, in relation to noise. The Chapter 13 Definitions (as in the RMA Interpretation Section 2), defines infrastructure to include: “facilities for **the generation of electricity**, lines used or intended to be used to convey electricity, and support structures for lines used or intended to be used to convey electricity” [emphasis added]. The definition reflects an interconnected network, from generation through transmission and distribution to end user. The Industrial Zone Heavy provisions and associated Specific Area/Activity provisions for energy corridor and ash water have been designed to manage effects of the Huntly Power Station. The National Planning Standards may require the electricity generation activity to be within the Infrastructure Energy and Transport section, unless it requires a Special Zone, which I understand was recommended by the reporting planner on the Industrial Zone Heavy. In principle, electricity generation is an industrial activity and those are provided for within the Industrial Zone Heavy, but given the Huntly Power Station gets scarce mention within the Industrial Zone Heavy provisions, I consider it appropriate to give it a more definitive activity status within Section 14.6 Electricity Generation. It is an extension or intensification of an existing activity on the site.
8. I also note that Section 14.6 Electricity Generation appears to only address small-scale and community-scale electricity generation and large-scale wind farms, which is surprising as large-scale electricity generation is significant within Waikato District. There is not a “Huntly Power Station Heavy Industrial Zone”, but there is a Huntly Power Station site within the Industrial Zone Heavy. I consider the requested permitted activity status should apply, but the infringement of activity specific conditions should relate to those of the Industrial Zone Heavy, as follows:
 

P5 Electricity generation within the Huntly Power Station site in the Industrial Zone Heavy. Activity-Specific Conditions 14.6.1.[X] Electricity generation within the Huntly Power Station site in the Heavy Industrial Zone that complies with the Industrial Zone Heavy rules.

Activity RD4 Electricity generation within the Huntly Power Station site in the Industrial Zone Heavy that do not comply with one or more conditions of the Rule 14.6.1.[X]. Activity specific conditions: Discretion is restricted to the extent of effects associated with the Industrial Zone Heavy rules that the activity does not comply with.
9. I recommend accepting in part Genesis Energy [924.27], to the extent that electricity generation is a permitted activity at the Huntly Power Station site, and that rule infringements are those of the Industrial Zone Heavy.
10. **Counties Power** [405.56] seeks to retain Rule 14.6.1.1(a) - Permitted Activities relating to P1, P2, P3 and P4 as notified.
11. For the reasons that the provisions are included within the notified PWDP, which align with the requirements of the NPSREG and RPS, I recommend accepting Counties Power [405.56].
12. **Waikato District Council** [697.25] seek to amend Rule 14.6.1(b) Permitted Activities to delete references to area and height.

This is a consequential amendment of changes to Rule 14.2.1.1(1), which provides for area and height controls specific to activities, rather than generally to infrastructure. In the notified PWDP there was a general permitted activity for minor infrastructure structure of 10m<sup>2</sup> in area and 2.5m

in height. However, the different types of infrastructure need different area and height allowances for their standard equipment and facilities.

## 2.2 Recommendations

13. For the reasons above, I recommend that the Hearings Panel:

- a. Accept in part Genesis Energy [924.27]
- b. Accept Counties Power [405.56]
- c. Accept Waikato District Council [697.25]

## 2.3 Recommended amendments

14. The following amendments are recommended permitted activities 14.6.1:

14.6.1(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. [Waikato District Council 697.25]

And

Activity		Activity specific conditions
P5	<u>Electricity generation within the Huntly Power Station site in the Industrial Zone Heavy <sup>1</sup>.</u>	<u>Electricity generation within the Huntly Power Station site in the Industrial Zone Heavy <sup>2</sup> that complies with the Industrial Zone Heavy <sup>3</sup> rules.<sup>4</sup></u>

And restricted discretionary activities 14.6.2

Activity		Matters of Discretion
RD4	<u>Electricity generation within the Huntly Power Station site in the Industrial Zone Heavy <sup>5</sup> that do not comply with one or more conditions of the Rule 14.6.1.[X].</u>	<u>Discretion is restricted to the extent of effects associated with the Industrial Zone Heavy <sup>6</sup> rules that the activity does not comply with.<sup>7</sup></u>

## 2.4 Section 32AA evaluation

15. Deletion of references to area and height is a consequential amendment. Electricity generation within the Huntly Power Station site in the Industrial Zone Heavy requires clarification of activity status and matters of discretion. No further s.32AA re-evaluation is required.

## 3 14.6.1 PI Small-scale electricity generation

Submission point	Submitter	Decision requested
405.95	Counties Power	Retain Rule 14.6.1 - Permitted Activities relating to PI Small-scale electricity generation as notified.

<sup>1</sup> 697.518 Waikato District Council

<sup>2</sup> 697.518 Waikato District Council

<sup>3</sup> 697.518 Waikato District Council

<sup>4</sup> 924.27 Genesis Energy Limited

<sup>5</sup> 697.518 Waikato District Council

<sup>6</sup> 697.518 Waikato District Council

<sup>7</sup> 924.27 Genesis Energy Limited

559.160	Heritage NZPT	Retain activity specific condition 14.6.1.1(a)(a) relating to P1 Small-scale electricity generation.
697.26	Waikato District Council	Add to Rule 14.6.1.1(a) Permitted Activity a new clause (l) as follows: <u>(l) All other structures not listed above must not be higher than the maximum building height limit of the zone in which they are located.</u>
692.18	WEL Networks	Delete Activity specific condition 14.6.1.1 (a)(b) - Permitted Activities relating to P1 Small-scale electricity generation (or other amendments to give effect to the concerns raised). <del>(b) Is not located on a road, or unformed road.</del>
680.295	FFNZ	Amend Activity specific standard 14.6.1.1 (a)(a) relating to P1 Small-scale electricity generation and P2 community-scale electricity generation, as follows: (a) Small-scale electricity generation and community-scale electricity generation that comply with each of the following conditions where applicable: (a) Is not located within an Identified Area, <u>except within the Rural Zone, where small-scale electricity generation and community-scale electricity generation are permitted in any Identified Area;</u>
836.21	Powerco	Retain Activity Table 14.6.1 Permitted activities, in particular P1 and P4 and the associated performance standards, except where rules are specifically addressed elsewhere in the submission AND Amend Activity-specific condition 14.6.1.1(j) Permitted activities to read: (j) Solar panels on the roof of a building must not exceed 1.5m in height above the existing roof; <u>or attached to a ground-mounted frame</u>

### 3.1 Analysis

16. **Counties Power** [405.95] seeks to retain Rule 14.6.1 - Permitted Activities relating to P1 Small-scale electricity generation as notified. **Heritage NZPT** [559.160] seeks to retain activity-specific condition 14.6.1.1(a)(a) relating to P1 Small-scale electricity generation, as the condition ensures that the activity will provide protection as required under section 6 of the Resource Management Act 1991.
17. For the reasons the provision is in the notified PWDP, to give effect to the NPSREG and enable small-scale and community-scale renewable electricity generation, and for the reason provided by Heritage NZPT to protect RMA s.6 Identified Areas, I recommend accepting Counties Power [405.95]; Heritage NZPT [559.160].
18. **Waikato District Council** [697.26] seeks to add to Rule 14.6.1.1(a) Permitted Activity a new clause (l) controlling the maximum height of structures.

This is to ensure that a maximum height is identified for every activity, as a consequential amendment of changes to 14.2.1(1) P1. I recommend as a consequential amendment accepting Waikato District Council [697.26].

19. **WEL Networks** [692.18] seeks to delete activity-specific condition 14.6.1.1 (a)(b) - Permitted Activities relating to P1 Small-scale electricity generation so that the rule applies to a road or unformed road.

~~(b) Is not located on a road, or unformed road.~~

The submitter is unsure why Council is proposing to restrict community-scale electricity generation within road reserve and unformed roads. The Corridor Access Request (CAR) process would ensure that any safety effects of the proposal are considered.

20. The resource consent process is used to assess and manage a range of effects, not only safety. These effects could include streetscape and amenity, security, space taken up on the roadside, vegetation clearance and shadow flicker. The CAR process does not include management of those effects, with the possible exception of allocating reasonable space within the roadside. I anticipate that at least small-scale and possibly some community-scale renewable electricity generation would be able to locate on roads and unformed roads, and that their effects will be able to be managed by resource consents. I recommend rejecting WEL Networks [692.18].
21. **FFNZ** [680.295] seeks to amend activity specific standard 14.6.1.1 (a)(a) relating to P1 Small-scale electricity generation and P2 community-scale electricity generation, to enable small-scale electricity generation and community-scale electricity generation in any Identified Area in a Rural Zone, as a permitted activity.
22. The submitter conditionally supports Rule 14.6.1 including the definitions of 'small-scale' and 'community-scale' electricity generation, provided that the activity-specific conditions on Identified Areas are removed. The submitter states that Identified Areas overlay many farms and doubts that there will be any environmental benefit from requiring appropriately sized community-scale electricity generation to trigger resource consent. The submitter claims that the relative isolation of rural areas in relation to electricity supply and distribution networks, means that farmers will be penalised on amenity and natural character grounds, if they want to install electricity generation facilities to augment electricity supply and increase rural resilience. The submitter also states that the definitions of the differing types of electricity generation, which restrict maximum sizes of wind turbines and solar cells, will ensure that any adverse effects on amenity and natural character values of rural areas will be minor. FFNZ considers that any noise effects can be appropriately managed through permitted noise levels in rural areas.
23. Within Identified Areas, even within the Rural Zone, a resource consent is in my opinion appropriately used to assess and manage the effects of activities, in order to protect the values of the Identified Areas. RMA s.6 and the RPS require protection of Historic Heritage, Sites and Areas of Significance to Maori, and Significant Natural Areas and Landscapes. As well as the facilities themselves, electricity generation facilities may require access for installation and maintenance, and unhindered access to the wind or solar (or micro-hydro) resource. I recommend rejecting FFNZ [680.295].
24. **Powerco** [836.21] seeks to amend Activity-specific condition 14.6.1.1(j) - Permitted activities to recognise that solar panels could be attached to a frame mounted on the ground.

The submitter states that it has small-scale electricity generation units with solar panels that are at times attached to a ground-mounted frame. The submitter is concerned that solar panels attached in this manner are not covered in the plan and therefore default to a non-complying activity. The submitter considers that the effects of a small-scale solar panel attached to a ground-mounted frame are not significantly different to those attached to a building.

25. I note that the PWDP definition of building would include a ground-mounted structure with a solar panel as a 'roof', which could have implications, for example, for building coverage, setbacks and height-in-relation-to-boundary. However, the ground-mounted solar panels I have seen are mainly close to the ground and could not be considered to be a roofed structure. I agree with the submitter's reasons, and I recommend accepting Powerco [836.21].

### 3.2 Recommendations

26. For the reasons above, I recommend that the Hearings Panel:

- a. Accept Counties Power [405.95]; Heritage NZPT [559.160]
- b. Accept Waikato District Council [697.26]
- c. Reject WEL Networks [692.18]
- d. Reject FFNZ [680.295]
- e. Accept Powerco [836.2]

### 3.3 Recommended amendments

27. The following amendments are recommended to permitted activities 14.6.1.1:

Activity	Activity specific conditions
Small-scale electricity generation	14.6.1.1 (a) Small-scale electricity generation and community-scale electricity generation that comply with each of the following conditions, where applicable: (a) Is not located within an Identified Area; (b) Is not located on a road, or unformed road; (c) Less than 20kW of electricity is generated; (d) Maximum one wind turbine per site in the Residential, Rangitahi Peninsula and Village Zones; (e) Freestanding wind turbines must not exceed the building height limit of the zone in which they are located by more than 3m; (f) Freestanding wind turbines have a maximum blade diameter of 2.5m; (g) Roof-mounted wind turbines must not exceed the building height limit of the zone in which they are located by more than 3m; (h) Roof-mounted wind turbines have a maximum blade diameter of 2.5m; (i) Any wind turbine on a site adjoining Residential, Rangitahi Peninsula or Village Zones must meet the height in relation to boundary limits on the boundary with that adjoining zone; (j) Solar panels on the roof of a building must not exceed 1.5m in height above the existing roof; <u>Solar panels may be attached to a ground mounted frame</u> <sup>8</sup> (k) Wind turbine noise must: (i) Not exceed the background sound level (L95) by more than 5dBA, or a level of 40dBA (L95), whichever is the greater, when measured at operational wind speeds, and for properties located adjacent to the facility when measured at: (1) Any existing building or structure for sensitive land uses; and (2) Any potential building site where a building or structure for sensitive land uses could be located as a permitted activity;
Community-scale electricity generation	

<sup>8</sup> 836.21 Powerco

	(ii) Be measured and assessed in accordance with <b>NZS6808: 2010 Acoustics – Wind Farm Noise</b> <b>(i) All other structures not listed above must not be higher than the maximum building height limit of the zone in which they are located.</b> <sup>9</sup>
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### 3.4 Section 32AA evaluation

28. The height clause is a consequential amendment to ensure every structure has a height limit, following deletion of the general height limit. The allowance for solar panels on ground-mounted frames is for efficiency, and to be effective in achieving the objective and enabling policies of the NPSREG and those in Chapter 6 for renewable electricity generation. No further s.32AA re-evaluation is required.

## 4 14.6.1 P2 Community-scale electricity generation

Submission point	Submitter	Decision requested
405.96	Counties Power	Retain Rule 14.6.1.1 Permitted Activities relating to P2 Community-scale electricity generation as notified.
559.161	Heritage NZPT	Retain activity specific condition 14.6.1.1 (a)(a) relating to P2 Community-scale electricity generation.
692.19	WEL Networks	Delete Rule 14.6.1.1 (a)(b) and (a)(c) - Permitted Activities, relating to P2 Community scale electricity generation (or other amendments to give effect to the concerns raised) as follows: 14.6.1.1 ... (a) is not located within an Identified Area; <del>(b) Is not located on a road, or unformed road;</del> (c) <del>Less than 20kW of electricity is generated;</del>

### 4.1 Analysis

29. **Counties Power** [405.96] and **Heritage NZPT** [559.161] support retaining Rule 14.6.1.1 Permitted Activities relating to P2 Community-scale electricity generation as notified. Heritage NZPT considers that the activity will provide protection as required under section 6 of the Resource Management Act 1991.
30. I agree and therefore recommend accepting Counties Power [405.96]; Heritage NZPT [559.161].
31. **WEL Networks** [692.19] seeks to broaden the rule so that community-scale electricity generation can be located within a road, or unformed road, and to delete the references to the amount of energy generated.
32. The submitter states that the condition requiring energy generation to not exceed 20kW is impractical and unreasonable and would likely discourage this type of generation. The submitter provides a comparison by stating that 5 to 10 kW would likely supply a normal-sized dwelling, therefore 20 kW would likely supply two dwellings. The submitter considers that the other conditions imposed would restrict the size of any structures installed. WEL is unsure why community-scale electricity generation within a road reserve or unformed road would be restricted; The CAR process would ensure any safety effects of the proposal are considered.

<sup>9</sup> 697.26 Waikato District Council

33. The resource consent process is used to assess and manage a range of effects, not only safety. These effects could include streetscape and amenity, security, space taken up on the roadside, vegetation clearance and shadow flicker. The CAR process does not include management of those effects, with the possible exception of allocating reasonable space within the roadside. CAR is also unlikely on its own to be able to manage the effects of higher capacity (community-scale and larger-scale) generation installations.
34. Between 2009 and 2017, Blueskin Energy Ltd pursued establishment of a 'community-scale wind generation project' in Blueskin Bay near Dunedin. The Dunedin City Council declined the original application on the grounds of adverse amenity impacts, particularly from one of the three proposed turbines. In preparation for mediation prior to the Environment Court hearing, BEL revised its proposal to just constructing and operating a single 3MW (sufficient for approximately 1500 household demand) turbine. The Environment Court ultimately declined consent on the basis of the turbine's adverse visual amenity effects in 2017. In the absence of any clear NPSREG guidance on 'community-scale electricity generation', and without renewable electricity generation being a RMA s.6 matter, the effects of community-scale electricity generation are only limited by the activity specific conditions as a permitted activity, and by the targeted matters of discretion for a restricted discretionary activity. The 20kW limit for permitted activity wind turbines would serve as few as two dwellings if they were high power users and feeding any surplus into the grid. It could serve up to seven or eight dwellings, depending on wind conditions, if they were only average power consumers or a supplementary electricity supply, which could include connection to the grid. I recommend rejecting WEL Networks [692.19].

#### 4.2 Recommendations

35. For the reasons above I recommend that the Hearings Panel:
- a. Accept Counties Power [405.96]; Heritage NZPT [559.161]
  - b. Reject WEL Networks [692.19]

## 5 14.6.1 P3 Research and exploratory-scale investigations for renewable electricity generation activities

Submission point	Submitter	Decision requested
559.162	Heritage NZPT	Retain activity specific condition 14.6.1.2(a)(v) relating to P3 Research and exploratory-scale investigations for renewable electricity generation activities.
680.296	FFNZ	Amend Activity specific condition 14.6.1.2 (a)(v) relating to P3 Research and exploratory-scale investigations for renewable electricity generation activities, as follows: (a) Research and exploratory-scale investigations for renewable electricity generation activities that comply with all of the following: ... (v) Is not located within an identified area, <u>except within the Rural Zone, where research and exploratory investigation for renewable electricity generation is permitted in any Identified Area;</u>
692.20	WEL Networks	Amend Activity-specific condition 14.6.1.2 P3 relating to Research and exploratory-scale investigation for renewable electricity generation activities (or other amendments that give effect to the concerns raised) as follows:

		(a) Research and exploratory-scale investigations for renewable electricity generation activities that comply with all of the following: (i) <u>The noise limits that are applicable to the zone, except within the Rural Zone where the height of any equipment must not exceed 20m;</u> (ii) The height of any equipment must not exceed the building height limit of the zone in which they are located by more than 3m; (iii) The size and location of any equipment must not exceed height in relation to boundary relevant to the zone in which it is located; and (iv) Setbacks relevant to the zone in which it is located; (v) Is not located within an identified area <del>(vi) Is not located on a road, or unformed road.</del>
<i>FS1258.91</i>	<i>Meridian Energy</i>	<i>Opposes 692.20</i>
580.5	Meridian Energy	Amend the activity-specific conditions in Rule 14.6.1.2(a)(ii) for research and exploratory-scale investigations for renewable electricity generation activities, as follows: (ii) <del>The height of any equipment must not exceed 80m the building height limit of the zone in which they are located by more than 3m;</del>

## 5.1 Analysis

36. **Heritage NZPT** [559.162] seeks to retain activity-specific condition 14.6.1.2(a)(v) relating to P3 Research and exploratory-scale investigations for renewable electricity generation activities, as the condition ensures that the activity will provide protection as required under section 6 of the Resource Management Act 1991.
37. For the reasons why the provision is in the notified PWDP, and for the reason provided by Heritage NZPT, I recommend accepting Heritage NZPT [559.162].
38. **FFNZ** [680.296] seeks to amend activity specific condition 14.6.1.2 (a)(v) relating to P3 Research and exploratory-scale investigations for renewable electricity generation activities, to enable them in the Rural Zone, in any Identified Area, as a permitted activity.
39. The submitter conditionally supports Rule 14.6.1 including the definitions of ‘small-scale’ and ‘community-scale’ electricity generation, provided that the activity-specific restrictions on Identified Areas is removed; Identified Areas overlay many farms and the submitter questions the wisdom of constraining ability of farms to utilise small-scale and appropriately sized community-scale electricity generation in such areas, especially where this could augment the resilience of farming activity in remoter rural areas. The submitter doubts that there will be any commensurate environmental benefit from requiring small-scale and appropriately sized community-scale electricity generation to trigger resource consent where these are proposed to be located within an Identified Area that is within a Rural Zone. In rural areas, it is inappropriate to require resource consent for small-scale and community-scale electricity generation where these are within an Identified Area in the Rural Zone. The benefits of small-scale, and appropriately sized community-scale, renewable electricity generation far outweigh any adverse effects on visual amenity and natural character in rural areas. The relative isolation of rural areas in relation to electricity supply and distribution networks, means that farmers will be penalised on amenity and natural character grounds, if they want to install small-scale or community-scale renewable electricity generation facilities to augment electricity supply and increase rural resilience. The definitions of these types

of electricity generation, which restrict maximum sizes of wind turbines and solar cells, will ensure that any adverse effects on amenity and natural character values of rural areas will be minor, without needing to resort to triggering resource consent applications where these facilities are proposed to be situated within an Identified Area. The relatively low population density of rural areas (compared to urban areas) will ensure that wind turbine noise from small-scale and appropriately sized community-scale wind turbines, will at most, present only minor adverse effects. Any noise effects can be appropriately managed through triggers on permitted noise levels in rural areas. In comparison to urban areas, rural areas have much wider open space, bigger visual scale and amenity of rural areas, which can absorb development more easily than in urban areas.

40. Within Identified Areas, even within the Rural Zone, a resource consent is, in my opinion, appropriately used to assess and manage the effects of activities in order to protect the values of the Identified Area, particularly where it is a RMA s.6 matter. The RPS also requires protective policy guidance for Identified Areas. As well as any physical facilities themselves, research and exploratory investigation for renewable electricity generation may require access, and unhindered access to the wind or solar (or micro-hydro) resource. I recommend rejecting FFNZ [680.296]
41. **WEL Networks** [692.20] seeks to amend Activity specific condition I4.6.1.2 P3 relating to Research and exploratory-scale investigation for renewable electricity generation activities to increase the height limit to 20m in the Rural Zone. *FS1258.91 Meridian Energy opposes the submission as their own submission requested higher height limits for meteorological installations.* Similarly, **Meridian Energy** [580.5] seeks to increase the maximum height to 80m.
42. Meridian Energy considers that the proposed height limit is too low to practically allow for meaningful investigations of potential wind energy at the height required for large-scale wind farms. WEL Networks submission would have been in relation to small and community-scale renewable electricity generation that would be comparable at most to the scale of a building within a zone.
43. While I note some errors in the submission from WEL Networks, transposing a noise rule with a height rule, the intent is clear and I agree that the Rural Zone should have the same height latitude for research and exploratory-scale investigations for wind-renewable electricity generation activities as for poles in that zone, which is 20m. I do not agree that it should be a permitted activity for structures greater than this height. Additional height would be available for research activities by resource consent, although I would not expect them to be treated as potentially permanent or long-term effects as they are likely to involve full season or yearly data capture. In my opinion, the appropriate height for a permitted activity is at the no-effect or minimal-effects level (in this case being the height limit of the zone plus 3m), or within the Rural Zone, 20m. I agree this could constrain research and exploratory-scale investigations, by requiring resource consent for such activities in relation to large-scale wind farms. However, the restricted discretionary resource consent for additional height would be focused on the matters of discretion. Those are functional and operational needs and benefits of infrastructure, visual and amenity effects including noise, shadow flicker, public and individual safety and risk of property damage, and Identified Area values. There is currently no area scale limit for this activity, which could mean up to a very large-scale parabolic dish, or exploratory-type wind turbine.
44. I recommend accepting in part WEL Networks [692.20], to the extent of allowing up to 20m height for research and exploratory-scale investigations for wind renewable-energy electricity generation activities within the Rural Zone, with such exception to be located at the end of I4.6.1.2(a)(ii), and I recommend rejecting *FS1258.91 Meridian Energy* and Meridian Energy [580.5].

45. WEL Networks seeks deletion of the requirement to have the structure outside a road or indicative road. WEL is unsure why Council is proposing to restrict research and exploratory-scale investigations for renewable electricity generation activities within a road reserve and unformed roads. The CAR process would ensure that any safety effects of the proposal are considered, so (vi) should be deleted. All structures not exceeding 20m within the Rural Zone would be in line with the permitted height of poles and masts in that zone.
46. In terms of location on a road, the resource consent process is used to assess and manage a range of effects, not only safety. These effects could include streetscape and amenity, security, space taken up on the roadside, vegetation clearance and shadow flicker. The CAR process does not include management of those effects, with the possible exception of allocating reasonable space within the roadside. The scale of research and exploratory-scale investigations could vary widely, from a pole-mounted anemometer to an array of various solar panels or wind turbines. For this reason, I do not consider that such a structure is appropriate as a permitted activity in a road or indicative road.

## 5.2 Recommendations

47. For the reasons above I recommend that the Hearings Panel:
- Accept Heritage NZPT [559.162]
  - Reject FFNZ [680.296]
  - Accept in part WEL Networks [692.20], to the extent of allowing up to 20m height for wind within the Rural Zone; reject *FS1258.91 Meridian Energy*
  - Reject Meridian Energy [580.5].

## 5.3 Recommended amendments

48. The following amendments are recommended to permitted activities 14.6.1.2:

Activity		Activity specific conditions
P3	Research and exploratory-scale investigations for renewable electricity generation activities	<p>14.6.1.2</p> <p>(a) Research and exploratory-scale investigations for renewable electricity generation activities that comply with all of the following:</p> <p>(i) The noise limits that are applicable to the zone;</p> <p>(ii) The height of any equipment must not exceed the building height limit of the zone in which they are located by more than 3m, <u>or within the Rural Zone must not exceed 20m total height:</u><sup>10</sup></p> <p>(iii) The size and location of any equipment must not exceed height in relation to boundary relevant to the zone in which it is located; and</p> <p>(iv) Setbacks relevant to the zone in which it is located;</p> <p>(v) Is not located within an identified area;</p> <p>(vi) Is not located on a road, or unformed road.</p>

<sup>10</sup> 692.20 WEL Networks Limited

## 6 14.6.1 P4 Temporary diesel-fuelled electricity generation activities

Submission point	Submitter	Decision requested
692.21	WEL Networks	Retain Rule 14.6.1 P4 - Permitted Activities relating to temporary diesel-fuelled electricity generation activities.
405.97	Counties Power	Retain Rule 14.6.1.1 - Permitted Activities relating to P4 Temporary diesel-fuelled electricity generation activities as notified.

### 6.1 Analysis

49. Both submitters support the retention of Rule 14.6.1 P4 - Permitted Activities relating to temporary diesel-fuelled electricity generation activities. I agree that a permitted activity for temporary generators is appropriate and its inclusion provides clarity for Plan users.

### 6.2 Recommendations

50. I recommend accepting WEL Networks [692.21]; Counties Power [405.97], and make no amendments to Rule 14.6.1 P4.

## 7 14.6.2 Restricted Discretionary Activities General

Submission point	Submitter	Decision requested
585.11	Department of Conservation	Add additional matters of discretion to Rule 14.6.2 Restricted Discretionary activities to address any adverse effects to the environment associated with the construction, operation and decommissioning of small-scale and community-scale electricity generation projects, particularly wind farms.
FS1258.27	Meridian Energy	Not Stated 585.11
559.163	Heritage NZPT	Amend Rule 14.6.2 Restricted Discretionary Activities RD1, RD2 and RD3 to become Discretionary Activities for works in an identified area that do not comply with the permitted standards.
FS1258.28	Meridian Energy	Opposes 559.163

### 7.1 Analysis

51. The submission from **Department of Conservation** [585.11] seeks to include additional matters of discretion to Rule 14.6.2 Restricted Discretionary activities to address any adverse effects to the environment associated with the construction, operation and decommissioning of small-scale and community-scale electricity generation projects, particularly wind farms. The submitter considers wind farms have the potential to have significant ecological impacts, particularly on avifauna and bats. The submitter seeks additional matters of discretion to address these impacts for small-scale and community-scale electricity generation.

52. FS1258.27 Meridian Energy does not state support or opposition, but notes the submission point does not detail the wording amendments requested. The list of discretionary matters is, as publicly notified,

*reasonably comprehensive and includes effects on the values, qualities and characteristics of any Identified Area. It is not clear exactly what additional potential adverse effects need to be listed.*

53. As identified in the *FSI 258.27 Meridian Energy* further submission, the list of matters of discretion is reasonably comprehensive and includes effects on the values, qualities and characteristics of any Identified Area. I note that “Identified Areas” encompasses a range of Section 6 matters such as Outstanding Natural Landscapes and Features, Significant Natural Area, Historic Heritage and Maaori Areas and Sites of Significance. It is not possible to identify the values of each of these as matters of discretion. In any case, the reference to “effects on the values” as a matter of discretion will ensure the special values are considered. The submitter may wish to identify the matters which have been omitted. I recommend rejecting Department of Conservation [585.11]; accepting *FSI 258.27 Meridian Energy* for information, although “support” or “oppose” is not stated.
54. **Heritage NZPT** [559.163] seeks to make the activity status more stringent from restricted discretionary activities to discretionary activities for works in an identified area that do not comply with the permitted standards. The submitter does not support the restricted discretionary activity status as this level of resource consent activity would not provide the appropriate level of protection and assessment to provide protection for works in an “identified area” as required under section 6 of the Resource Management Act 1991.
55. *FSI 258.28 Meridian Energy* opposes the submission: *The proposed restricted discretionary activity rule framework for small-scale electricity generation, community-scale electricity generation and for research and exploratory investigations for renewable electricity generation is appropriate and the listed discretionary matters are sufficient to address the relevant actual and potential adverse effects. The requested discretionary activity consent status is excessive for small-scale generation of this type.*
56. I agree with the reasons provided by the further submitter Meridian Energy, that the effects of small-scale and community-scale facilities can be controlled, or declined consent, as restricted discretionary activities. Their effects on Identified Areas are a specific matter of discretion. I therefore recommend rejecting Heritage NZPT [559.163] and accepting *FSI 258.28 Meridian Energy*.

## 7.2 Recommendations

57. For the reasons above I recommend that the Hearings Panel:
- Reject Department of Conservation [585.11]; accept *FSI 258.27 Meridian Energy*
  - Reject Heritage NZPT [559.163]; accept *FSI 258.28 Meridian Energy*.
58. There are no recommended amendments to this provision.

## 8 14.6.3 Discretionary Activities General

Submission point	Submitter	Decision requested
585.12	Department of Conservation	Retain Rule 14.6.3 Discretionary activities as notified.
580.6	Meridian Energy	Retain the discretionary activity status for large scale wind farms within the Rural Zone in Rule 14.6.3(D1) Discretionary Activities.

697.27	Waikato District Council	Amend Rule 14.6.3 D1 Discretionary Activities as follows: Large-scale wind farms located within the Rural Zone, <u>not within an identified area.</u>
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## 8.1 Analysis

59. **Department of Conservation** [585.12] supports the discretionary activity status for large-scale wind farms located within the Rural Zone, as does **Meridian Energy** [580.6].
60. For the reasons these provisions are in the PWDP, to identify an efficient and effective activity status for large-scale wind farms, and with the support of the submitters, I recommend accepting Department of Conservation 585.12; Meridian Energy 580.6, with the resetting of large-scale wind farms within Identified Areas as a non-complying activity.
61. **Waikato District Council** [697.27] seeks to clarify the rule by making it clear that in order to be a discretionary activity, the wind farm must not be located in an Identified Area. Large-scale wind farms within an identified area are captured by Rule 14.6.4 NCI. I agree that this amendment is needed to protect Identified Area values. However, it is not a clarification, but a resetting of the status of large-scale wind farms within Identified Areas within the Rural Zone from discretionary to non-complying. I accept that is necessary to efficiently and effectively meet the Identified Area protection objectives, of the RMA s.6, the RPS and the PWDP.

## 8.2 Recommendations

62. For the reasons above, I recommend that the Hearings Panel:
- Accept Department of Conservation [585.12]; Meridian Energy [580.6].
  - Accept Waikato District Council [697.27].

## 8.3 Recommended amendments

63. The following amendments are recommended to discretionary activities 14.6.3:

DI	<b>Large-scale wind farms</b> located within the Rural Zone, <b>not within an Identified Area.</b> [697.27 Waikato District Council]
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## 8.4 Section 32AA evaluation

64. The amendment is a resetting of the status of large-scale wind farms within Identified Areas within the Rural Zone from discretionary to non-complying and necessary to efficiently and effectively meet the Identified Area protection objectives, of the RMA s.6, the RPS and the PWDP.

## 9 14.6.4 Non-Complying Activities general

Submission point	Submitter	Decision requested
559.164	Heritage NZPT	Retain Rule 14.6.4 NCI Non-Complying Activities.
585.13	Department of Conservation	Retain Rule 14.6.4 Non-Complying activities as notified.

697.28	Waikato District Council	Amend Rule 14.6.4 NCI Non-Complying Activities as follows: NCI Large-scale wind farms <del>not located within in a zone other than the Rural Zone, including within an Identified Area</del> AND Add new 14.6.4 NC2 as follows: <u>NC2 Large-scale wind farm located within the Rural Zone and within an Identified Area</u>
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## 9.1 Analysis

65. **Heritage NZPT** [559.164] and **Department of Conservation** [585.13] supports Non-Complying Rule NCI, as it considers 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.
66. I recommend, for the reasons the provisions are in the notified PWDP to efficiently and effectively achieve part of the objectives of Identified Areas, and for the reasons provided by the submitters, accepting Heritage NZPT [559.164]; Department of Conservation [585.13].
67. **Waikato District Council** [697.28] seeks to amend Rule 14.6.4 NCI Non-Complying to provide clarity to the rule. The intention is that large-scale windfarms are a non-complying activity in the following circumstances:
- a. In all other zones other than the Rural Zone
  - b. Within an Identified Area in the Rural Zone.
68. These requested amendments provide clarity and a complete cascade of activities in relation to large scale wind farms in zones other than the Rural Zone. However, it is not a clarification in relation to rural Identified Areas, but a resetting of the status of large-scale wind farms within Identified Areas within the Rural Zone from discretionary to non-complying. I accept that is necessary to efficiently and effectively meet the Identified Area protection objectives, of the RMA s.6, the RPS and the PWDP. I recommend, for the reasons above, accepting Waikato District Council [697.28].

## 9.2 Recommendations

69. For the reasons above I recommend that the Hearings Panel:
- a. Accept Heritage NZPT [559.164]; Department of Conservation [585.13]
  - b. Accept Waikato District Council [697.28]

## 9.3 Recommended amendments

70. The following amendments are recommended to non-complying activities 14.6.4:

NCI	<u>Large-scale wind farms</u> <del>not located within in a zone other than the Rural Zone, including within an Identified Area</del> [697.28 Waikato District Council]
NC2	<u>Large-scale wind farms located within the Rural Zone and within an Identified Area</u> [697.28 Waikato District Council]

#### **9.4 Section 32AA evaluation**

71. The amendments provide clarification and complete the rules cascade which covers all activities. The amendments are also a resetting of the status of large-scale wind farms within Identified Areas within the Rural Zone from discretionary to non-complying and are necessary to efficiently and effectively meet the Identified Area protection objectives of the RMA s.6, the RPS and the PWDP.