Independent Hearings Panel

Christchurch Replacement District Plan

Te paepae motuhake o te mahere whakahou a rohe o Ōtautahi

IN THE MATTER OF	section 71 of the Canterbury Earthquake
	Recovery Act 2011 and the Canterbury
	Earthquake (Christchurch Replacement
	District Plan) Order 2014
AND	
IN THE MATTER OF	proposals notified for incorporation into a
	Christchurch Replacement District Plan

Date of hearing:	2 and 4 December 2015
Date of decision:	5 September 2016
Hearing Panel:	Environment Judge John Hassan (Chair) For Rule 11.9 matters only — Sir John Hansen (Chair) Ms Sarah Dawson, Ms Jane Huria, Mr John Illingsworth

DECISION 40

CHAPTER 11: UTILITIES, ENERGY AND INFRASTRUCTURE including Stage 3 Rule 11.3.4.1 P1 and relevant definitions

Outcomes:

Proposal changed as per Schedule 1

COUNSEL APPEARANCES

J Winchester and M Leslie	Christchurch City Council
J Silcock and C Olds	Crown
S Grey	Ouruhia Residents Group

TABLE OF CONTENTS

Introduction	4
Effect of decision and rights of appeal	5
No parts of Existing Plan replaced	5
Deferred decisions	6
Conflicts of interest	6
Reasons	7
Statutory framework	7
Submissions and relevant issues	8
Council's s 32 report	10
Section 32AA evaluation	10
New Introduction provision	10
<i>Objective 11.2.1 and Policies 11.2.1.1–11.2.1.3 and 11.2.1.6</i>	11
Proposed Policy 11.2.1.4 as to 'Radio and telecommunications'	11
Policy 11.2.1.5 — Electricity transmission and distribution	12
Objective 11.2.2	13
Policies 11.2.2.1–11.2.2.3	13
11.3 How to interpret and apply the rules	14
Rule 11.4.1 Utilities and energy — Permitted activities — General	14
Rules 11.4.2–11.4.4 — restricted discretionary, discretionary and non-comply — General	•

<i>Rules 11.5.1–11.5.2 — permitted and restricted discretionary activities — Electricity transmission and distribution</i>	.16
Rule 11.6.1 — permitted activities — Energy	
Rule 11.6.2 restricted discretionary activities — Energy	.16
Rules 11.6.3 and 11.6.4 — discretionary and non-complying activities — Energy	.18
Rule 11.7.1 Permitted activities — Communication facilities	.18
Rule 11.9 — activity standards for exposure to radiofrequency ('RF') fields and power frequency (extremely low frequency ('ELF')) fields	. 19
<i>Rule 11.9 — activity standards concerning proximity to National Grid and distribution lines</i>	.28
Non-contentious provisions	.29
Other definitions and Strategic Directions matter deferred	.29
Conclusion and directions	.32
Schedule 1	.34
Schedule 2	.63

INTRODUCTION

[1] This decision ('decision') continues the series by the Independent Hearings Panel ('Hearings Panel'/'Panel') concerning the formulation of a replacement district plan for Christchurch City (including Banks Peninsula) ('CRDP').¹

[2] It concerns part of the Council's notified Stage 2 proposal for Chapter 11: Utilities, Energy and Infrastructure ('Notified Version').

[3] That Notified Version was updated by Christchurch City Council ('Council') at various stages, including in response to expert conferencing, mediation and evidence, a Panel minute dated 1 December 2015,² and related discussions on drafting clarity issues during the hearing.³ After the hearing, on 18 December 2015, the Council issued a further update of its proposed provisions for the purposes of closing submissions ('18 December Version'). The Council then submitted closing submissions which endorsed the 18 December Version.

[4] There were relatively confined points of difference between the parties as to the 18 December Version. However, the Panel subsequently sought further assistance from the parties on a number of issues of drafting clarity and consistency with that version. This was by minutes issued on 26 June 2016 and 15 July 2016. The 15 July Minute included an annexure offering a Secretariat draft of possible drafting solutions shown as tracked changes against the 18 December Version ('Secretariat Draft').⁴

[5] As directed by the minutes, the Council and parties conferred and, on 29 July 2016, filed a further memorandum ('29 July memorandum') accepting much of the Secretariat Draft as appropriate but proposing some modifications to it ('Revised Version').⁵ We take the Revised

¹ This decision follows our hearing and consideration of submissions and evidence. Further background on the review process, pursuant to the Canterbury Earthquake (Christchurch Replacement District Plan) Order 2014 ('the OIC') is set out in the introduction to Decision 1, concerning Strategic Directions and Strategic Outcomes (and relevant definitions) ('Strategic Directions decision'/ 'Decision 1'). The Panel members are on the coversheet of this decision.

² Minute as to various drafting issues related to those submitters to be heard on Wednesday 2 December 2015, 1 December 2015.

³ Transcript, page 30, line 30.

⁴ Minute, Chapter 11 (Stage 2) Utilities, Energy and Infrastructure (and related definitions) — various drafting concerns, 15 July 2016.

⁵ Memorandum of counsel on behalf of the Council regarding the drafting of Chapter 11 (Stage 2), 29 July 2016.

Version as effectively superseding the Notified Version and its later revisions in representing the Council's position on the most appropriate Stage 2 provisions for Chapter 11.

[6] Our 15 July Minute directed that any submitter whose position differed from the Council's Revised Version could file supplementary closing submissions. The only response was a memorandum of counsel on behalf of a group of submitters, namely Spark New Zealand Trading Limited (2158), Chorus New Zealand Limited (2379), Vodafone New Zealand Limited (2095), Two Degrees Mobile Limited (2120) and Enable Networks Limited (2189) ('Utilities Group'). The Utilities Group identified confined points of difference with the Council on the matter of rules for communication kiosks, to which we return later in this decision.

[7] Schedule 1 sets out those Stage 2 Chapter 11 provisions that we have determined are to be included in the CRDP ('Decision Version'), including some confined changes we have decided to make to the Revised Version (for drafting clarity and consistency reasons). The Decision Version will become operative upon release of this decision and the expiry of the appeal period.

Effect of decision and rights of appeal

[8] Under the OIC,⁶ any person who made a submission (and/or further submission) on the Notified Version, the Council and the Ministers⁷ may appeal our decision to the High Court (within the 20 working day time limit specified in the Order), but only on questions of law (and, for a submitter, only in relation to matters raised in the submission).

No parts of Existing Plan replaced

[9] As the OIC requires,⁸ the Council made a recommendation to us on the parts of the Christchurch City District Plan and Banks Peninsula District Plan (together 'Existing Plan') that could be replaced, were we to confirm the Notified Version. Matters have progressed from there as a result of the release of several Panel decisions, particularly those determining the Residential, Commercial, Industrial, Rural and Open Space Chapters.⁹ More significantly, as

⁶ Canterbury Earthquake (Christchurch Replacement District Plan) Order 2014, cl 19.

The Minister for Canterbury Earthquake Recovery and the Minister for the Environment, acting jointly.
 OIC, cls 6(1)(b) and 13(3).

⁹ Decision 17: Residential — Stage 2; Decision 23: Commercial and Industrial — Stage 2; Decision 34: Rural; Decision 35: Open Space.

discussed at [10], this decision defers a policy for determination with Chapter 9, and we have not yet issued our decision on the Central City proposal including related provisions. Therefore, this decision does not replace any provisions of the Existing Plan.

Deferred decisions

[10] Determinations concerning proposed Policies 11.1.1.4: Radio and telecommunications and 11.1.2.1: Adverse effects of utilities are deferred, given their substance pertains to the Chapter 9: Natural and Cultural Heritage (Stage 3) proposal to be determined. We anticipate our decision on those deferred provisions would be issued in conjunction with the release of the Panel's decision on Issue 9.5 of Chapter 9.

Rule 11.3.4.1 P1 not deferred, but included in Decision Version

[11] We have decided against deferral of one matter in respect of which a deferral request was made. It concerns a non-contentious permitted activity Rule 11.3.4.1 P1. To deal with a deficiency in the Notified Version, the Council notified this as a fresh rule during what is termed Stage 3. No submissions were received opposing it, and a joint memorandum on behalf of the Council, the Crown and the Utilities Group, dated 9 June 2016, confirmed those parties supported the inclusion of the provision in the CRDP. While the joint memorandum suggested that the Panel could deal with the provision as part of its Stage 3 Utilities, Energy and Infrastructure decision (which is confirmed to an unrelated matter concerning Chapter 9), that is unwarranted in the circumstances. As the matter is not contentious and we are satisfied, in terms of relevant statutory tests, that Rule 11.3.4.1 P1 is the most appropriate, we have included it in the Decision Version.

Conflicts of interest

[12] We have posted notice of any potential conflicts of interest on the Independent Hearings Panel website.¹⁰ For the reasons given in the Minute on 25 November 2015,¹¹ Judge Hassan recused himself from those aspects of the hearing relating to the submissions on Chapter 11 by the submitters comprising the Ouruhia Residents Group. For those aspects, he was replaced

¹⁰ The website address is www.chchplan.ihp.govt.nz.

¹¹ Minute in relation to the hearing of submissions by the Ouruhia Residents, 25 November 2015.

by Sir John Hansen as Chair, with the rest of the Panel remaining the same. No submitter raised any issue in relation to these matters.

REASONS

STATUTORY FRAMEWORK

[13] The OIC directs that we hold a hearing on submissions on a proposal and make a decision on that proposal.¹²

[14] It sets out what we must and may consider in making that decision.¹³ It qualifies how the Resource Management Act 1991 ('RMA') is to apply and modifies some of the RMA's provisions, as to both our decision-making criteria and processes.¹⁴ It directs us to comply with s 23 of the Canterbury Earthquake Recovery Act 2011 ('CER Act').¹⁵ The OIC also specifies additional matters for our consideration.

[15] Our Strategic Directions decision, which was not appealed, summarised the statutory framework for that decision. As it is materially the same for this decision, we apply the analysis we gave of that framework in that decision.¹⁶ As with all our decisions, we apply our Strategic Directions decision throughout.

¹² OIC, cl 12(1).

¹³ OIC, cl 14(1).

¹⁴ OIC, cl 5.

¹⁵ Our decision does not set out the text of various statutory provisions it refers to, as this would significantly lengthen it. However, the electronic version of our decision includes hyperlinks to the New Zealand Legislation website. By clicking the hyperlink, you will be taken to the section referred to on that website. The repeal of the CER Act by the Greater Christchurch Regeneration Act 2016 ('GCRA') does not materially alter that position. That is because s 147 of the GCRA provides that the OIC continues in force. Further, Schedule 1 of the GCRA (setting out transitional, savings and related provisions) specifies, in cl 10, that nothing in that Part affects or limits the application of the Interpretation Act 1999 which, in turn, provides that the OIC continues in force under the now-repealed CER Act (s 20) and preserves our related duties (s 17).

¹⁶ At [25]–[28] and [40]–[62].

[16] On the matter of the relevant statutory documents ('Higher Order Documents') and our obligations in regard to them, we endorse and adopt [39]–[45] of the Strategic Directions decision.¹⁷

[17] As we have noted, the Higher Order Documents relevant to this matter include two national environmental standards ('NES') which are a form of regulation made under s 43 of the RMA. The RMA prescribes how NES influence what is allowed to be or must be provided for in the formulation of related plan rules (s 43A of the RMA). It also specifies various obligations on local authorities to deal with matters of conflict and/or duplication between a NES and plan rules, and requires local authorities to observe, and enforce observance of, NES: s 44A of the RMA. No parties challenged whether the Revised Version satisfies these statutory requirements and we are satisfied that it and the Decision Version duly accord with these requirements.

[18] More broadly, the appropriateness of the Revised Version in terms of the Higher Order Documents was not disputed in any expert evidence, and we are satisfied on the evidence that the Revised Version and Decision Version are appropriate in those terms.

Submissions and relevant issues

[19] There were relatively few submissions and further submissions on the Notified Version, and we have considered all of them in reaching our decision. Schedule 2 lists witnesses who gave evidence for various parties, and submitter representatives.¹⁸

[20] Differences as between the Council and several utility operator submitters were significantly narrowed by the commencement of the hearing,¹⁹ and effectively fully resolved by the time of closing submissions. In regard to the Council's 18 December Version, the closing submissions for Transpower New Zealand Limited (2218, further submitter 2780) ('Transpower'), Orion New Zealand Limited (2340, FS2797) ('Orion') and the Crown (2387,

¹⁷ Relevant to this decision, the Higher Order Documents include the CER Act Land Use Recovery Plan ('LURP'), the National Policy Statement on Electricity Transmission ('NPSET'), the National Policy Statement for Renewable Electricity Generation 2011 ('NPSREG'), the Canterbury Regional Policy Statement 2013 ('CRPS'), the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2008 ('NESTF') and the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009 ('NESET')

¹⁸ Counsel appearances are recorded on page 2.

¹⁹ Opening submissions for the Council at 1.3.

FS2810) identified only confined differences, primarily as to the wording of certain policies (and related definitions). None of those submitters made closing submissions in response to the 15 July Minute (inviting indications of any difference with the final position of the Council, as expressed in the Revised Version). The Utilities Group filed a memorandum indicating a single point of difference, concerning how communication kiosks are best treated under the rules (an issue to which we return shortly).

[21] By contrast, a group of residents at Ouruhia remained concerned there were serious ill health and adverse environmental effects associated with past and ongoing FM and AM radiowave and microwave transmissions from the radio transmission facility at Ouruhia.²⁰ The Ouruhia Residents Group sought a more stringent limit on radiofrequency field exposure than was contained in the Notified Version. The Revised Version did not materially change the Notified Version on these matters and, hence, this remained as an issue in contention between relevant parties.

[22] We are satisfied that, on the matters raised in the Panel's 15 July Minute, the Revised Version significantly overcomes the drafting infelicities that the Panel identified in the 18 December Version. On all non-contentious provisions of the Revised Version, we accept the Council's evidence (and related s 32 Report) as supporting the appropriateness of those provisions for achieving related CRDP objectives, responding to relevant Higher Order Documents and generally meeting the requirements of the RMA. Where we have made drafting changes to those provisions of the Revised Version, it is to provide greater clarity and consistency in response to the OIC Statement of Expectations. Our reasons for significant changes are given in our s 32AA evaluation, which also deals with all remaining issues raised by submitters.

[23] In reaching our decision, we have had regard to the Council's recommended acceptance or rejection of those submissions, as filed.²¹ Except to the extent that those recommendations have been modified by this decision, we accept the Council's 'Accept/Accept in Part/Reject Table'.

²⁰ Closing submissions for Ouruhia Residents on matters heard Friday 4 December 2015, 14 December 2015.

²¹ Rebuttal and supplementary evidence of Sarah Jenkin on behalf of the Council, Attachment A, Revised Accept/Accept in Part/Reject Table.

Council's s 32 report

[24] The Council's s 32 report ('s 32 Report'/'Report') was filed with the evidence of its planner, Ms Sarah Jenkin. As required, we have had regard to it. We are satisfied that the Report generally presents a clear analysis of alternatives, and the basis for the choices made in the Notified Version. The Revised Version significantly updates that version, however. Our s 32AA evaluation below evaluates that Revised Version and the Decision Version.

SECTION 32AA EVALUATION

[25] As to our obligations under s 32AA of the RMA, we adopt and endorse [48]–[54] of our Natural Hazards decision.²² At [16] of this decision we note relevant NES and the statutory influence these have for the formulation of related plan rules and, therefore, for our s 32AA evaluation.²³ We have undertaken our s 32AA evaluation in terms of those statutory requirements.

New Introduction provision

[26] To ensure better clarity and consistency, we have modified the Revised Version by adding an introductory sentence as follows:

This introduction is to assist the lay reader to understand how this chapter works and what it applies to. It is not an aid to interpretation in a legal sense.

[27] In its 29 July memorandum, the Council questioned whether such a sentence was necessary. We consider that it is, as the introductions we are including in various CRDP chapters have an intended looseness of expression, so that a lay reader is helped to navigate what is a complex, lengthy document. However, it is important that a reader also understands that it is the Plan's objectives, policies and rules (and related definitions and other provisions) that are the proper basis for the making of legal interpretations, where this is required.

Natural Hazards (Part) (and relevant definitions and associated planning maps), 17 July 2015, pages 20–21.

²³ The full titles of the Higher Order Documents are above, at n 17.

Objective 11.2.1 and Policies 11.2.1.1-11.2.1.3 and 11.2.1.6

[28] The Decision Version confirms all these provisions as expressed in the Revised Version. We do so because we are satisfied, on the Council's evidence, that all provisions properly respond to the Higher Order Documents, the objective is the most appropriate for achieving the purpose of the RMA, and the policies are the most appropriate for achieving Objective 11.2.1.

Proposed Policy 11.2.1.4 as to 'Radio and telecommunications'

[29] The Revised Version was consistent with the Secretariat Draft in leaving the determination of this proposed policy deferred. Broadly, this is a policy that the Council proposes and which includes the above phrase in its heading. The Council's 29 July memorandum explained that the Council's preferred approach was to defer determination of this policy. Despite agreement on the substance of the policy having been reached with other parties, there was still some uncertainty about the final form and drafting of the proposed deferred provisions given its relationship to provisions on which Panel decisions were awaited.²⁴

[30] While we agree with the Council's request for deferral of this provision, we make the following preliminary observations concerning drafting matters so that the Council, and other relevant parties, can consider them and respond to us with any further views relevant to our later determination of this proposed policy.

[31] As a general observation, as drafted, subparagraphs (i) and (ii) of the proposed policy offer little, if any, guidance on outcomes. The reference to "the adverse effects on significant natural and physical resources and cultural values are avoided, remedied, or mitigated" appears to offer little beyond what s 5(2)(c) RMA already says, and it is not clear to us what, if any, difference is meant between that phrase and the one used in (ii), i.e. "other adverse effects on the environment are appropriately managed".

[32] Another, more technical, issue concerns the Revised Version's use of the terms "radio and telecommunications". 'Telecommunications' is a term used throughout the relevant rules,

²⁴ The Council's 29 July memorandum at 5.

but it is not defined. More precisely, the term defined in the Telecommunications Act 2001 is the singular, i.e. 'telecommunication'. The definition of 'radiocommunications' is the same as in the Radiocommunications Act 1989, but it appears that term is hardly used, by contrast to the undefined 'telecommunications'. We invite the parties to consider tidying this up, including by inserting a definition of 'telecommunications' (or perhaps, 'telecommunication'). Our preliminary view is that the Telecommunications Act definition of that term would appear suitable, perhaps with deletion of the qualifiers concerning Part 4 of that Act in regard to broadcasting.

[33] We make a direction for the Council to file a memorandum on these matters, once it has conferred with relevant parties.

Policy 11.2.1.5 — Electricity transmission and distribution

[34] For the reasons we now explain, we find the wording of this policy in the Revised Version the most appropriate and have included it in the Decision Version (now numbered 11.2.1.5).

[35] Initially, Federated Farmers (2288) opposed aspects of this proposed policy, and in particular the wording in paragraph (a) concerning recognition of the National Grid in view of concerns about the implications for farming landowners. However, Federated Farmers' representative, Ms Fiona Mackenzie, subsequently informed us that following further discussions with Horticulture New Zealand (2165), Federated Farmers was no longer seeking any change to the wording of the policy.²⁵

[36] In view of that change of position, and the planning evidence of Ms Jenkin for the Council (which we accept on this matter), we find the wording in the Revised Version the most appropriate for achieving related objectives, particularly Objective 11.2.1. While the wording is no longer contentious, we note Ms Jenkin's explanation that the drafting of the policy was to give effect to Policy 4 of the NPSET (in relation to transmission infrastructure).²⁶ We agree that the wording is appropriate in those terms. We also observe that the wording does not preclude consideration of the effects that Ms Mackenzie noted as being of importance to Federated Farmers.

²⁵ Transcript, page 37, line 1.

²⁶ Rebuttal evidence of Sarah Jenkin on behalf of the Council at 7.1.

Objective 11.2.2

[37] The wording of this objective in the Revised Version was relatively uncontentious. The point of contention, and also of our focus, is the highlighted part of paragraph (a):

The adverse effects of new or upgraded utilities on other activities and the environment are **avoided**, **remedied** or **mitigated**, whilst having regard to the technical and operational requirements of utilities.

[38] In the Secretariat Draft, the word 'minimised' was used instead. The Council's 29 July memorandum records that several submitters (including Transpower, Orion and the Utilities Group) seek that the words be replaced with 'managed'. The Council explains that its preference for 'avoided, remedied or mitigated' is supported by Ms Jenkin's evidence, and the words reflect a "core principle" of the RMA and are in line with the NPSET, NPSREG and CRPS.²⁷

[39] We agree with the Council and other parties that 'minimised' is an inappropriate word for this objective, in that it is more restrictive than 'avoided, remedied or mitigated' (in s 5(2)(c)of the RMA) and not supported by the Higher Order Documents. As between 'avoided, remedied or mitigated' and 'managed', we prefer the latter term. Objectives that simply repeat the s 5(2)(c) expression do not give adequate direction on outcomes. While the word 'managed' is also a relatively neutral directive, it is more consistent with Strategic Directions Objective 3.3.12 and we consider it sits better with related policies and rules. Therefore, on this matter, we do not accept Ms Jenkin's recommendation.

Policies 11.2.2.1-11.2.2.3

[40] As sought by the Revised Version, we have deferred determination of proposed Policy 11.2.2.1 (as to adverse effects of utilities) pending our determination of the related Chapter 9 provisions.

[41] The Decision Version confirms the Revised Version's proposed Policies 11.2.2.2 and 11.2.2.3. We do so because we are satisfied, on the Council's evidence, that all provisions properly respond to the Higher Order Documents, and the policies are the most appropriate for achieving Objective 11.2.2 (as amended).

²⁷ Ibid, Appendix A, comment [A3].

11.3 How to interpret and apply the rules

[42] We have changed the heading to this provision from 'How to use the rules'. That is because these provisions operate to change how rules are to be interpreted and applied (by contrast to 11.1 Introduction, which does not have legal effect). We intend to make consequential changes to equivalent provisions of other chapters of the CRDP.

Rule 11.4.1 Utilities and energy — Permitted activities — General

[43] Except for some confined matters, on the Council's evidence we find the Revised Version the most appropriate for achieving the related objectives, and have carried it into the Decision Version.

[44] For Rule 11.4.1 P9–P15, the Revised Version proposed the insertion into the permitted activity table of the prefacing words, 'Minor upgrades to utilities as follows'. The Council's 29 July memorandum explains as the rationale:²⁸

Sub-heading added to clarify the intention that the activities ... are to enable small additions/alterations to utilities as permitted activities. Also provides linkages/continuity between other Chapters which make reference to minor upgrades e.g. Chapter 9.

[45] We have not included the requested prefacing phrase for a number of reasons. For permitted activities, it is important to ensure the reader of the plan can understand, from the plan, whether or not an activity can proceed. The requested phrase adds unhelpful subjectivity in that regard that could pose a risk that the rule could be treated as void for uncertainty. The descriptions of activities in P9–P15 can, and most appropriately should, speak for themselves in terms of what they permit (subject to their related standards). For the same reasons, nor do we agree with the Council that the phrase would serve any legitimate purpose of linkage to Chapter 9.

[46] The Revised Version sought a change from the Secretariat Draft wording of Rule 11.4.1P9, so that the permitted activity under this rule was:

Independent Hearings Panel

Christchurch Replacement District Plan

Re-alignment of utilities involving a change of location.

²⁸ Ibid, Appendix A, comment [A8].

[47] The Council's 29 July memorandum explains as the rationale:²⁹

Subtle clarification that this rule is intended to cover re-alignment, not relocation.

[48] We understand from that explanation that the matter is simply one of drafting clarity. However, the Council's explanation does not align with the wording of the associated activity-specific standard in the Revised Version. That standard uses the word 're-location' and makes no reference to 're-alignment'. 'Realignment' is a word that is suitable for contexts such as the moving of a set of poles for an electricity line. However, it does not fit comfortably with movement of a single stand-alone utility. On the other hand, 're-location', is a word that encompasses re-alignment and other single utility movements, as is demonstrated by its use in the proposed activity standard. Therefore, to ensure the rule maintains internal consistency and is clear, we prefer the wording of the Secretariat Draft to that of the Revised Version.

[49] In P13, the Revised Version proposed the following wording for what was then P13(f) (now (g)) (with differences from the Decision Version's wording shown highlighted):

An increase in the carrying or operating capacity, efficiency or security of electricity transmission or distribution lines, or telecommunication lines, by the following activities ...

f. the associated replacement of the utility associated with an increase in the carrying or operating capacity, efficiency or security of electricity transmission distribution lines, or telecommunication lines.

[50] The Decision Version deletes the highlighted additional words as we find those repetitive of the phrase that precedes what is now paragraph (g) and other paragraphs. As such, the additional words are unnecessary and create confusion as to why the same phrase is not repeated in what is now (a)–(f).

[51] In P17, we have not precisely followed the drafting proposed by the Revised Version as we found we could simplify the drafting while still reflecting the drafting intention expressed in the Council's 29 July memorandum, namely that "the colour requirement is only intended to apply where the pipe or cable is not attached to the underside or incorporated within the structure of the bridge".³⁰

Independent Hearings Panel

Christchurch Replacement District Plan

²⁹ Ibid, Appendix A, comment [A3].

³⁰ Ibid, Appendix A, comment [A19].

Rules 11.4.2–11.4.4 — restricted discretionary, discretionary and non-complying activities — General

[52] On the Council's evidence, we find these related restricted discretionary, discretionary and non-complying activity rules of the Revised Version the most appropriate for achieving the related objectives and have included them in the Decision Version.

Rules 11.5.1–11.5.2 — permitted and restricted discretionary activities — Electricity transmission and distribution

[53] On the Council's evidence, we find these permitted and restricted discretionary activity rules of the Revised Version the most appropriate for achieving the related objectives and have included them in the Decision Version.

[54] We note that the Council's earlier drafting included provisions opposed by certain parties. However, these aspects pertain to what is now restructured to form part of the rules that specify activity standards. We address them below.

Rule 11.6.1 — permitted activities — Energy

[55] On the Council's evidence, we find this permitted activity rule of the Revised Version the most appropriate for achieving the related objectives, and have included it in the Decision Version, subject to a minor drafting clarification (namely, including the word 'supply' after the words 'primary electricity' in Rule 11.6.1 P4).

Rule 11.6.2 restricted discretionary activities — Energy

[56] The differences between the Revised Version and the Decision Version mainly pertain to restricted discretionary activity RD4 (formerly RD8) in the table to this rule.

[57] The Revised Version proposed that the table for this rule be prefaced by the following qualifying words (with strike-through showing where the Decision Version differs):

The activities listed below are restricted discretionary activities, provided they comply with the activity standard in Rule 11.9. The utility activities listed in RD8 are restricted discretionary activities provided they comply with the activity standards in Rule 11.9 and the activity and built form standards as set out in the following table.

Decision to grant or decline consent and impose conditions is restricted to the matters of discretion set out in Rule 11.10 as set out in the following table.

[58] Regarding the words not shown as struck through, we agree with the Council's 29 July memorandum that the drafting helps to clarify that the activity standards in 11.9 apply to all activities, not just permitted activities.

[59] As for the struck through words, the Council's 29 July memorandum explains that the words are sought in relation to the Council's related recommendation for how RD4 should be expressed in the table. We have not included those words because we have taken a different approach to the drafting of RD4.

[60] RD4 concerns an activity which has a relatively complex description. The complexity arises because of several standards that must be satisfied before an activity would qualify under RD4. The Secretariat Draft attempted to simplify the drafting in the 18 December Version. However, the nett result remained complex, requiring the reader to work through several dimensions of an activity description before determining whether or not RD4 applied. In an endeavour to provide better clarity, the Revised Version proposed including a third column in the table, headed 'activity and built form standards' and fulfilling the purpose of specifying those. The Council's 29 July memorandum explained that the addition of this third column to the table for RD4 made its drafting "more consistent with the drafting style used elsewhere in the [CRDP]", referring, for example to Chapter 8.³¹

[61] Whether or not that is the case, adding this third column to the table just for RD4 creates an inconsistency of drafting approach within the table itself. To a large extent, the complexity in RD4 is inherent and arises from the intention to tightly define and constrain this activity with a long list of standards. Ultimately, this is a matter of drafting judgment and we have decided to maintain a two-column table approach. We have further refined the Secretariat Draft as follows:

(a) We have added to the introductory phrase to provide clearer linkage to the following pre-requisites, as follows:

³¹ Ibid, Appendix A, comment [A34].

Installation and operation of a wind turbine for the generation and use of electricity on a site or sites other than in Rural or Industrial Zones that meet the standards specified in paragraphs a. to f. of this Rule RD4:

- (b) We have re-ordered each following paragraph so that what the Secretariat Draft put first as 'a' becomes last (i.e. the new 'f'), given that this standard has alternative limbs, linked by 'or', and hence is more clearly last in order;
- (c) We have added the word 'and' between each standard, to make it clearer that all the standards must be met (i.e. on the basis that standard 'f' can be met by satisfying one or other of its limbs).

[62] Subject to those changes, on the Council's evidence we find Rule 11.6.2 of the Revised Version the most appropriate for achieving the related objectives, and have therefore included it in the Decision Version, subject to the modification to RD4 that we have discussed.

Rules 11.6.3 and 11.6.4 — discretionary and non-complying activities — Energy

[63] On the Council's evidence, we find these related discretionary and non-complying activity rules of the Revised Version the most appropriate for achieving the related objectives, and have included them in the Decision Version.

Rule 11.7.1 Permitted activities — Communication facilities

[64] The Council's 29 July memorandum indicated there is a minor issue of drafting preference between the Council and the Utilities Group concerning the description of permitted activity P4 and related activity specific standards.

[65] The Council preferred that this activity be expressed as 'public phone boxes and public wifi access points' as a "plain and ordinary description".

[66] The Utilities Group sought that it be called 'communication kiosks' and offered the following definition:

A publicly accessible structure, whether free-standing or attached to a building, for the provision of telecommunication and radiocommunication services to the public. It includes phone boxes and public wifi access points.

[67] It sought the inclusion of related maximum height and volume specifications.

[68] We find the Utilities Group's preference the most appropriate, in that it incorporates sensible flexibility to allow for technological advances.

Rule 11.9 — activity standards for exposure to radiofrequency ('RF') fields and power frequency (extremely low frequency ('ELF')) fields

[69] As noted at [12], Judge Hassan recused himself from the hearing and decision-making on this matter. Accordingly, the Panel was reconvened with Sir John Hansen as Chair, with the rest of the Panel remaining the same.

[70] The Revised Version carries forward the substance of the standards that the Notified Version proposed for this topic but, for drafting clarity reasons, includes them in a single activity standards rule. It proposes two sets of standards.

[71] One set of standards is for "Any utilities that emit radiofrequency fields, which are not regulated by an amateur radio licence" ('RF utility standard'). In summary, they are:

- (a) The utility operator must plan and operate the utility in accordance with NZS 2772:
 Part 1: 1999 Radiofrequency Fields Part 1 Maximum Exposure Levels 3kHz to 300 GHz ('NZS 2772:1');
- (b) The utility operator must ensure the Council receives, before the utility becomes operational, notice of the utility's intended location and a report on predicted radiofrequency field level exposures, prepared in accordance with AS/NZS 2772.2:2011; Radiofrequency Fields Part 2: Principles and methods of measurement and computation 2 kHz to 300 GHz ('NZS 2772:2'). This report must predict whether the radiofrequency field ('RF') levels at places in the vicinity reasonably accessible to the general public will comply with NZS 2772:1;
- (c) The utility operator must, if the prediction referred to in [71](b) is that RF levels would exceed 25 per cent of the maximum levels in NZS 2772:1, prepare a further report within three months of the utility becoming operational, prepared in

accordance with NZS 2772:2 and providing evidence that actual RF exposures for the general public comply with NZS 2772:1.

[72] The other standard applies to "The operation of any utility that emits power frequency electric and magnetic fields". In summary, it requires that exposures to power frequency electric and magnetic fields in areas normally accessible to the public do not exceed 5 kilovolts per metre and 200 microtesla as measured and assessed in accordance with the International Commission on Non-Ionising Radiation Protection Guidelines for Limiting Exposure to Time Varying Electric and Magnetic Fields (1Hz – 100kHz). This standard also includes, as an advice note, reference to a related Ministry of Health guideline.

[73] The hearing was concerned with the appropriate standards for exposure to radiofrequency ('RF') fields and power frequency (extremely low frequency ('ELF')) fields. In relation to RF fields, the hearing had a particular focus on the radio mast located off Lower Styx Road in Marshlands. A number of submissions were filed, and submitters attended to give evidence on their own behalf. They also gave evidence on behalf of their group, known as the Ouruhia Residents Group. The Group included submitters Ms Penny Hargreaves (2526) and joint submitters Ms Linda Dawber, Mr Herbert Wilkinson and Ms Ngarita Ditfort (2528). It also included residents Ms Jan Zervos, Mr Barry Robertson and Ms Marina Wylaars. The submitters appeared in their personal and representative capacity. Dr Vassilios Kerdemelidis gave expert evidence on their behalf. The submitters (and residents) were represented by Ms Grey. Mr Mike Mora also appeared, on behalf of the Riccarton Wigram Community Board (2363).

[74] Other submitters in relation to RF fields were the Utilities Group, Radio New Zealand (2248) and the Crown. This latter group did not take issue with Mr Martin Gledhill's evidence relating to RF fields.

[75] We heard evidence from Mr Gledhill on behalf of the Council. Mr Gledhill is a director of Monitoring and Advisory Services NZ Limited. He has an MA in Natural Sciences (Physics), and an MSc in Medical Physics. He is a member of the Australasian Radiation Protection Society and the Bioelectromagnetics Society. From 1990 until 2011 he worked for the New Zealand Ministry of Health in its National Radiation Laboratory. His position was head of non-ionising radiation. He provided advice to central and local Government, the public and industry on the health effects of electromagnetic fields ('EMFs') and was involved in measurement and assessment services in this area. This included providing policy advice to the Ministry of Health and the Ministry for the Environment, preparation of public information material, providing expert evidence at local body and Environment Court hearings, and assessing exposures to EMFs both by measurements and calculations.

[76] In 2011, the Ministry of Health divested itself of the National Radiation Laboratory, and since then Mr Gledhill has run his own company to carry out similar services for clients, including the Ministry of Health. In his evidence he said he maintained an overview of the research literature, and regularly attended scientific meetings on the health effects of EMF.³² He participates in the Ministry of Health's Interagency Committee on the Health Effects of Non-Ionising Fields, which provides the Director General of Health with independent scientific and technical advice on any potential health effects arising from exposures to EMFs.

[77] Mr Gledhill's evidence covered RF fields and ELF fields. He pointed out that collectively the two are often referred to as EMFs.

[78] Mr Gledhill mentioned the continuous research, and refinement of it, and that research led to RF exposure standards that were first prepared in the 1960s. While these have been developed and refined, his evidence was the fundamental basis of the standard remains unchanged.

[79] In New Zealand, a committee appointed by Standards New Zealand prepared a standard for use in New Zealand in 1999, published as NZS 2772.1:1999 'Radiofrequency fields Part 1: Maximum exposure levels — 3 kHz to 300 GHz'. Those numerical numbers were taken directly from guidelines published in 1998 by the International Commission on Non-Ionising Radiation Protection ('ICNIRP').³³ That body is an international one, recognised by the World Health Organisation ('WHO'). The limits it recommended were derived by undertaking a review of the relevant health research to determine the exposure levels at which health effects might occur. The limits were then set with a margin of safety below those levels. For the public, the level is set 50 times lower than the level at which there might be health effects.

³² Evidence in chief of Martin Gledhill on behalf of the Council at 1.3.

³³ Evidence in chief of Martin Gledhill at 4.4. The guidelines can be found at http://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf.

[80] Under the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2008 ('NESTF') there is a numerical exposure limit (compliance with NZS 2772.1:1999), as well as a clause that requires appropriate minimising of RF exposure which is "unnecessary or incidental to achievement of service objectives or process requirements, provided that this can be readily achieved at modest expense".

[81] The ICNIRP maintains a watch on new research, and in 2009 published a formal review of research published since the 1998 guidelines on which the New Zealand standards were prepared, and they reaffirmed the validity of the limits.

[82] In relation to RF fields, Mr Gledhill dealt with the submissions, with associated documents, relating to the radio mast off Lower Styx Road. In particular, he pointed out that a number of the international papers relied on by the submitters were in fact non-peer-reviewed, and not published in recognised journals.³⁴

[83] In his evidence in chief he noted that research into the health effects of exposure to RF fields has been going on for many years. He referred to a number of studies, but at paragraphs 4.6 and 4.7 of his evidence in chief pointed to the reviews that are normally carried out:

- 4.6 Many other national and international health and scientific bodies independently review the health effects research from time to time. In recent years, for example, this has included the European Commission's Scientific Committee on Emerging and Newly Identified Health Risks, the Australian Radiation Protection and Nuclear Safety Agency, the Swedish Radiation Safety Authority Scientific Council on Electromagnetic Fields, and the Health Council of the Netherlands. Links to these, and several other recent reviews, are available on the Ministry of Health website.³⁵
- 4.7 These reviews are normally carried out using the following process:
 - (a) An expert panel, comprising individuals with the expertise necessary to assess the quality, findings and implications of the different types of research involved, is appointed.
 - (b) The panel undertakes a literature search to find relevant research papers.

³⁴ Rebuttal evidence of Martin Gledhill at 4.4.

³⁵ Mr Gledhill's evidence in chief footnoted the following URL: http://www.health.govt.nz/ourwork/radiation-safety/non-ionising-radiation/research-non-ionising-radiation.

- (c) The research papers are assessed to check whether they have been carried out according to recognised good practice in the field. Poor quality research is normally not considered.
- (d) Studies are assessed on the basis of their strengths and weaknesses (especially where there are findings which appear contradictory), and overall conclusions are drawn.

[84] Mr Gledhill continued that, while these reviews note some questions do not yet have a complete answer, none of them found that recent research requires fundamental changes to the basis of exposure limits of the type used in New Zealand. The committee he sits on in New Zealand meets six-monthly, and if there was reasonable suspicion of health hazards, or other issues of significance, these would be brought to the attention of the joint members.

[85] A report published by that committee earlier in 2015 stated:³⁶

Much new research has been published since 2004, when the Committee last prepared a report for Ministers, but none of this causes the Committee to consider that current policies and recommendations should be reviewed.

[86] Accordingly, Mr Gledhill concluded that, based on the findings of the reviews of research prepared since NZS 2772.1:1999 was published, the standards in that still provide an appropriate basis to manage the effects of exposures to RF fields.

[87] He also referred to AS/NZS 2772.2:2011, which supersedes NZS 6609.2:1990, and details how exposures to RF fields should be evaluated (by calculation or measurement).³⁷ He said the main difference between the two standards is that the more recent one is more explicit in its requirements, and it is more comprehensive in its guidance for the assessment of exposures to RF fields. It also introduces a requirement to evaluate the uncertainty in the exposure assessment.

[88] He pointed out that this new standard was part of the review of the interagency committee referred to above. He was able to update us in his summary of evidence at the hearing, saying that public comments received on the draft either corrected typographical or other mistakes, or sought to make some parts of the standard easier to follow, particularly an appendix concerned

³⁶ Evidence in chief of Martin Gledhill, Attachment A, Ministry of Health 2015 Interagency Committee on the Health Effects of Non-ionising Fields: Report to Ministers 2015 (Wellington, Ministry of Health) at vi

³⁷ Evidence in chief of Martin Gledhill at 4.1(b).

with the calculation of exposures close to dish antennae.³⁸ It was his view that, while NZS 2772.2:2011 is appropriate to cite in rules, once the revised version of the standard is published in early 2016, it should be cited in any such relevant rules.

[89] He made a number of other suggestions, including that the wording of the RF rules be more closely-aligned to the NESTF.

[90] Mr Gledhill also noted in his written evidence and the evidence before us that some countries have adopted lower limits than those used in New Zealand. Some countries adopt this in a blanket fashion, and others target sensitive areas such as homes, schools and playgrounds. He said these are generally described as 'precautionary', and are often based on what can be achieved, and on what exposures already exist, rather than coming from an analysis of health literature. In his evidence in chief he noted that the lower limits do not appear to affect exposure levels, when compared with the exposure levels in countries that have limits based on the international recommendations.³⁹

[91] He confined his rebuttal evidence to discussion of the exposure measurements which have been made at the site, and some of the materials cited or attached by the submitters. He stated that some residents suggested he deliberately tried to minimise measured exposures by making measurements behind trees. He told the Panel that he said at the time, and stands by it, that this was not the case.⁴⁰

[92] As we have already noted, he has set out at some length in his written evidence the review process undertaken internationally of research. He also pointed out that many of the papers relied on by submitters had not been through this rigorous process. He found that submitters highlighted isolated studies which, understandably, they considered to support their case. He said there had been a wide range of studies undertaken, and interpretation of findings based on the strength and weaknesses of methods used may not be a simple matter, which is why he considers that the review process he set out in his written evidence is required.

[93] Ms Grey, who appeared for the residents, appeared to be unaware of the requirement in the OIC that leave was needed to cross-examine witnesses. She also seemed to be unaware of

ent Hearings Panel

Christchurch Replacement District Plan

³⁸ Transcript, page 57, lines 15–19.

³⁹ Evidence in chief of Martin Gledhill at 4.23.

⁴⁰ Transcript, page 58, lines 1–4.

the directions given in our pre-hearing meeting, notwithstanding the record of that meeting is posted online. However, in order to afford full fairness to the residents, we granted leave to cross-examine and we did not impose any time limit. Ms Grey cross-examined Mr Gledhill at some length, but he was unshaken in his evidence.

[94] Mr Gledhill was the only expert giving evidence (subject to the matter of Professor Kerdemelidis's evidence). We accept the evidence he has given in full, including his rebuttal evidence. We respect the view of the residents and their certainty that the exposure to RF fields has caused illness to humans and animals, and damage to plants and trees. However, we do not consider there is any acceptable evidential basis for the views they advance.

[95] The submitters we heard from have a sincere belief that the waves from the radio mast have affected the health of the residents in the area, the health of livestock, and of vegetation.

[96] In support of their position, they called an expert witness, retired professor, Dr Vassilios Kerdemelidis, whose evidence was to the effect that the mast could easily be relocated to Sugarloaf.⁴¹

[97] All of the residents gave evidence relating to their own personal experience. In particular, Ms Hargreaves, who has campaigned against the radio mast, gave evidence of a serious cancer she suffered as a result of the radio waves, and of the issues confronted by livestock and vegetation. Others also spoke of the effects on them personally, and of serious illness and death of other residents in the area which the combined submitters attribute to the radio waves.

[98] We received from the submitters a great deal of unsorted documentary material. To assist them, the Secretariat spent many hours tabulating and paginating this material.

[99] The submitters saw this material as supporting their position. However, it is not evidence. The authors did not give evidence, and could not be tested in cross-examination. Furthermore, as Mr Gledhill pointed out in his evidence, a number of the reports and documents relied on by the submitters were not peer reviewed or published in reputable and established scientific journals.

⁴¹ Evidence in chief of Dr Vassilios Kerdemelidis on behalf of Ouruhia Residents at 5.

[100] Reliance was also made on a decision of Chisholm J in the High Court, which Ms Hargreaves initially stated supported her view that it was accepted the radio waves had damaged her health. However, it appears from questioning that in fact that was in the context of a strike out application, and all the Judge determined was that such a position was in fact arguable.

[101] All of this means that we have received no expert evidence from the submitters to support their allegations. The sincerity and depth of their beliefs does not make it fact. It appears that their position, especially Ms Hargreaves', is that no other reason can be advanced for her or others' illness, and therefore the radio waves must be to blame. In that regard, Ms Hargreaves relies on a brief note from a GP saying some of her health issues are related to the radio waves. The GP was not called, and there is no evidence before us to show that he was a specialist in this area and qualified to make such a diagnosis.

[102] There was no veterinary evidence to support the allegations made in relation to the effect on livestock. Again, there was reliance on an overseas publication.

[103] The same applies to the damage to vegetation. Ms Hargreaves said that the waves were concentrated and "beamed" to give better reception in areas such as Ashburton, Timaru and Oxford, and it was these beams that damaged trees. She said, the damaged trees existed as far away as Eyrewell in North Canterbury.

[104] The issue with that is again there is only reliance on an overseas publication. And it would appear that the photographs presented by Ms Dawber at the hearing showed damage in the main to walnut trees and pine trees. We received no explanation as to why the damage from radio waves was so selective. It was alleged that a tree that appeared to be bent in a certain direction, as can be caused by the prevailing wind, was also caused by radio waves.

[105] As we have noted, no expert evidence has been called to support the views of the submitters. We cannot treat the reports as evidence, because their authors are not before us, and cannot be questioned by other parties or the Panel.

[106] The written submission lodged by these submitters sought a more stringent limit on RF field exposure than contained in the Notified Version. In her submissions, Ms Grey said that

what they sought was an independent inquiry into the effects of radio waves in the area, and its impact upon the health of humans, livestock and vegetation. Such a request is well beyond the jurisdiction of this Panel.

[107] For the reasons given above, we accept the evidence of Mr Gledhill to retain NZS 2772.1:1999 as the appropriate standard for utilities that emit RF fields, and reject the submitters' submission.

[108] We also accept Mr Gledhill's recommended changes,⁴² and have included those in our Decision Version. We are satisfied that we can make these changes under cl 13(2), OIC, as on the basis of our evidential findings, we are satisfied they are not materially outside the scope of the Notified Version.

[109] In relation to ELF fields, Mr Gledhill addressed matters raised in submissions seeking an increase in the limit for utilities generating power frequency (ELF) fields, and the separation of the rule into one addressing RF and one for ELF.⁴³ He also addressed the relationship of the rules with the provisions of the National Policy Statement for Electricity Transmission (NPSET).

[110] Mr Gledhill supported the clear separation of the rules relating to ELF fields from those for RF fields. In addition, he made two recommendations. The first was that the limit for magnetic fields in public areas produced by electricity infrastructure should be 200 microtesla (μ T), as currently recommended by ICNIRP. Secondly, he recommended there should be some provision to give effect to the recommendation from WHO, and in the NPSET, to take very low-cost measures to reduce exposures. We received no evidence opposing these recommendations. We accept Mr Gledhill's evidence, and have included those in our Decision Version.

[111] Finally, we refer to the NESTF. Its clause 4 applies to what the NESTF defines as a 'telecommunication facility', i.e. an 'antenna' or 'a cabinet and, if there is one, the concrete foundation plinth for the cabinet'. It operates to specify such facilities as permitted activities insofar as their RF emissions are concerned, subject to its specified conditions. In material

⁴² 18 December Version.

⁴³ Evidence in chief of Sarah Jenkin at 10.17–10.19, and 10.24, relating to submissions from Transpower, Orion and the Crown.

terms, those conditions are the same as the RF utility standard to which we have earlier referred, and which, as noted, applies to any utilities that emit radiofrequency fields which are not regulated by an amateur radio licence.

[112] On the basis of our evidential findings, we find that the two standards of Rule 11.9 that we have discussed are the most appropriate for achieving the related objectives, including 11.2.1 and 11.2.2.

Rule 11.9 — activity standards concerning proximity to National Grid and distribution lines

[113] The remaining activity standards of Rule 11.9 concern utilities within specified distances of the centre lines of 220kV, 110kV or 66kV National Grid transmission lines, 66 kV or 33kV electricity distribution lines or the 11kV Heathcote to Lyttelton distribution line. A standard that applies for all utilities within the specified distances is that they must comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP34:2001).

[114] In the case of the National Grid, there is also a standard that the utility shall not be for the reticulation or storage of water for irrigation purposes. That second standard was originally also considered as possibly applicable to distribution lines. However, agreement was reached between Orion and the Council that reference to NZECP34:2001 would be sufficient for those lines. Federated Farmers continued to oppose this second standard in relation to National Grid lines.

[115] In her evidence, Ms Mackenzie explained that Federated Farmers could see no reason why this second standard should apply to other utilities in the vicinity of the National Grid. She pointed out that farming is a permitted activity in the Rural zone and that irrigation is a crucial part of farming. She referred to her evidence for the Chapter 17: Rural (Stage 2) hearing (and also for the Chapter 8: Subdivision hearing) and argued that irrigation equipment is not a sensitive activity and requiring compliance with NZECP34:2001 was sufficient.⁴⁴

[116] Transpower's planning witness, Ms Ainsley McLeod, explained why Transpower considered it important to retain this standard. She referred to the related evidence of Mr Noble,

ent Hearings Panel

Christchurch Replacement District Plan

⁴⁴ Evidence in chief of Fiona Mackenzie at 10–12.

for Transpower, in the Chapter 17: Rural (Stage 2) hearing.⁴⁵ She noted his explanation that irrigation infrastructure can significantly compromise the operation and maintenance of the National Grid primarily by preventing access. She referred to Policy 10 of the NPSET, and expressed the view that it goes beyond just protecting the National Grid from sensitive activities and seeks to manage activities to avoid reverse sensitivity effects in a broader sense. She reasoned that it was appropriate to require resource consent for irrigation structures in order to give effect to Policy 10 of the NPSET, and we should take a consistent approach (noting that the definition of 'utility' includes reticulated water for irrigation activities).⁴⁶

[117] We accept Ms McLeod's evidence on these matters. We have also considered NPSET and the Panel's findings in Decision 34: Rural (at [29]–[32]). For the reasons given by Ms McLeod, we find that the approach of the Revised Version, whereby the second standard is retained for utilities in relation to the National Grid, best gives effect to NPSET, and is most appropriate for achieving related objectives, including 11.2.1 and 11.2.2, relevant Chapter 17 objectives, and Strategic Objective 3.3.12. Therefore, we do not accept Ms Mackenzie's views on these matters, and include the standards in the Decision Version.

Non-contentious provisions

[118] In all respects, where we have carried into the Decision Version the drafting proposed in the Revised Version it is because we are satisfied, on the Council's evidence, that the provisions are the most appropriate in terms of responding to relevant statutory principles and the Higher Order Documents and achieving related CRDP objectives. In those cases where we have made changes to non-contentious provisions which we do not specifically discuss in the following paragraphs, it is to achieve better drafting clarity and consistency, including to better respond to the OIC Statement of Expectations.

Other definitions and Strategic Directions matter deferred

[119] We have explained that we have decided to include certain definitions. As part of ensuring greater drafting clarity in certain rules, we have deleted the definitions of 'small or community scale renewable electricity generation' and 'large scale electricity generation'.

⁴⁵ Rebuttal evidence of Ainsley McLeod on behalf of Transpower at 18.

⁴⁶ Rebuttal evidence of Ainsley McLeod at 18. Transcript, page 28, line 34.

[120] For the following reasons, we have decided to defer the following somewhat inter-related topics until the Panel issues its next Chapter 2: Definitions decision.

[121] During our questioning of Ms Jenkin, we asked her whether it would be appropriate, in terms of the overall coherence of the CRDP, if the Strategic Directions objectives addressed that part of the distribution network that is considered to be of strategic importance.⁴⁷ Ms Jenkin provided a considered response, and questioned whether adding reference to the electricity transmission network in Objective 3.3.12 would then require the remaining infrastructure that is defined in the CRPS as being regionally significant to also be listed.⁴⁸

[122] Overall, Ms Jenkin did not consider it would be unhelpful to amend Strategic Directions Objective 3.3.12. However, she was uncertain where best to draw the line with respect to different forms of infrastructure. She emphasised that what was most important was for Objective 3.3.12 to provide a strategic framework for all significant infrastructure. To fulfil that, it did not need to specifically mention electricity distribution infrastructure.⁴⁹

[123] Orion's closing submissions also addressed this issue. It noted that the issue of whether Orion's distribution network is strategic infrastructure has been disputed through a number of hearings on the CRDP, particularly by Federated Farmers.⁵⁰ In light of this, and the Panel's Decision 10 on Chapter 14 (Residential), Ms Appleyard submitted that this positive confirmation of the status of Orion's strategic distribution lines should be brought through into the text of the CRDP so as to avoid any future confusion or uncertainty that may arise. Orion submitted that its identified distribution lines are no less strategic than this other specifically-referenced infrastructure ⁵¹

[124] Orion further submitted that including reference to its network in Objective 3.3.12 would not give rise to the concerns raised by Ms Jenkin as to whether other infrastructure would then need to be specified. That was in the sense that Objective 3.3.12 already explicitly names other

Independent Hearings Panel

Christchurch Replacement District Plan

⁴⁷ Transcript, page 16, line 3.

⁴⁸ Transcript, page 16, lines 16–20.

⁴⁹ Transcript, page 16, lines 36–39.

⁵⁰ Closing legal submissions for Orion at 6.

⁵¹ Closing legal submissions for Orion at 8.

strategic infrastructure such as Christchurch International Airport and Lyttelton Port. As such, it would not be a case of adding Orion's infrastructure to an otherwise non-specific objective.⁵²

[125] Finally on this topic, Ms Appleyard noted that Orion considers that a definition of 'strategic electricity distribution lines' would be necessary if direct reference to Orion's strategic distribution lines was included in the definition of 'strategic infrastructure' and Objective 3.3.12 of the Strategic Direction. She considered that this definition would differentiate strategic distribution lines from all other electricity distribution lines, and will make it clear which lines are covered by the provisions of the CRDP.

[126] In its closing submissions, Orion addressed various other definition issues. One concerned whether there should be a definition of 'electricity distribution line corridor'. As a change from the position earlier expressed by Orion's planning witness, Ms Buttimore,⁵³ Orion submitted that such a definition would be needed given the term is proposed to be used in Chapter 6: General Rules and Procedures.⁵⁴ The Panel has not yet issued its General Rules decision.

[127] In addition, Ms Appleyard submitted that a definition of 'strategic electricity distribution line corridor' would also be useful in light of the changes Orion proposes to the strategic infrastructure definition and Objective 3.3.12.⁵⁵

[128] Finally, Orion also requested a drafting amendment to what was then permitted activity Rule P15, so as to refer to utilities within the strategic electricity distribution line corridor (in line with Orion's submission on the related definitions).

[129] There are connections between these various topics, including in relation to the yet-tobe-determined Chapter 6: General Rules and Procedures proposal. All things considered, we find the most appropriate course is to defer our determinations on all these matters for the time being, at least pending determination of Chapter 6 or otherwise until our later Chapter 2: Definitions (Stages 2 and 3) decision.

⁵² Closing legal submissions for Orion at 10.

⁵³ Rebuttal evidence of Laura Buttimore on behalf of Orion at 20.

⁵⁴ Closing legal submissions for Orion at 46.

⁵⁵ We have been asked to consider amendments to the term 'electricity distribution' as part of the Stage 2 and 3 Definitions hearing.

CONCLUSION AND DIRECTIONS

[130] For the foregoing reasons, the Decision Version is confirmed. It is directed:

- (a) In regard to proposed Policy 11.2.1.4, the Council is to confer with relevant parties and, by **4pm**, **Wednesday 14 September 2016**, file a memorandum to inform the Panel of its position, and that of relevant parties, as to the most appropriate approach for addressing the matters identified in [29]–[33], including providing associated drafting recommendations for all relevant provisions in a form suitable for inclusion in the Panel's Chapter 9 decision;
- (b) Any party seeking that the Panel make minor correction(s) to this decision must file a memorandum for those purposes by **4pm**, **Wednesday 14 September 2016**.

For the Hearings Panel:

Environment Judge John Hassan

J. W. Hannen

Hon Sir John Hansen Chair of Rule 11.9 matters only

Ms Sarah Dawson Panel Member

Chair

dent Hearings Pane

Christchurch Replaces

Ms Jane Huria Panel Member

Mr John Illingsworth Panel Member

SCHEDULE 1

The notified proposal is amended by our decision as follows.



Chapter 11 Utilities and Energy

11.1 Introduction

This introduction is to assist the lay reader to understand how this chapter works and what it applies to. It is not an aid to interpretation in a legal sense.

This chapter relates to a range of utilities that may occur throughout the District. The objectives, policies, rules, standards and assessment criteria seek to provide for the operation, maintenance, upgrading and development of utilities, while also managing the potential adverse effects of utilities on the environment.

The provisions of this chapter also seek to avoid the potential adverse effects of other land uses and developments, including reverse sensitivity effects, on the operation, maintenance, upgrade and development of utilities.

The provisions in this chapter give effect to the Chapter 3 Strategic Directions Objectives.

11.2 Objectives and policies

11.2.1 Objective — Provision of utilities

- a. Effective and efficient provision of utilities in a manner that is integrated with land use and development in the District.
- b. The continued operation, maintenance, upgrade and development of utilities throughout the District.
- c. An increase in renewable electricity generation activities.

11.2.1.1 Policy — Sustainable water supply

a. Achieve sustainability and resilience of the District's water supply by encouraging water conservation and the re-use and recycling of water.

11.2.1.2 Policy — Benefits of utilities

a. Recognise the national, regional and local benefits of the secure and efficient operation of utilities by providing for the operation, maintenance, upgrade and development of utilities.

11.2.1.3 Policy — Renewable electricity generation

- a. Provide for the operation, maintenance, upgrade and development of utilities that derive or generate electricity through renewable sources by:
 - i. recognising the benefits to people and communities of renewable electricity generation;
 - ii. acknowledging the implications and constraints associated with renewable generation activities, including locational, operational and technical matters;
 - iii. promoting small and community scale renewable electricity generation activities, such as from solar and wind energy; and
 - iv. reducing the use of finite resources for the generation of electricity.

11.2.1.4 Policy — Radiocommunications and telecommunications

[Deferral to Chapter 9 Natural and Cultural Heritage]

11.2.1.5 Policy — Electricity transmission and distribution

- a. Recognise the national significance of the National Grid by:
 - i. providing for the benefits derived from a secure and efficient electricity transmission network;

- ii. providing for the operation, maintenance, upgrade and development of the National Grid;
- iii. acknowledging that the management of adverse effects of the National Grid is constrained by technical and operational requirements; and
- iv. having regard to the route, site and method selection when considering the effects of new infrastructure or major upgrades.
- b. Provide for ongoing operation, maintenance, upgrade and development of the electricity distribution network, while;
 - i. having particular regard to the post-earthquake repair and resilience requirements of the electricity distribution network.

11.2.1.6 Policy — Fuel facilities, storage and supply systems

Recognise the importance of operating, maintaining and developing a reliable and resilient fuel storage and supply system.

11.2.2 Objective — Adverse effects

- a. The adverse effects of new or upgraded utilities on other activities and the environment are managed, whilst having regard to the technical and operational requirements of utilities.
- b. The protection of utilities from the adverse effects of other activities.

11.2.2.1 Policy — Adverse effects of utilities

[Deferral to Chapter 9 Natural and Cultural Heritage]

11.2.2.2 Policy — Adverse effects on utilities

- a. Avoid adverse effects on utilities, including reverse sensitivity effects, that may compromise their operation, maintenance, upgrade and development.
- b. Avoid adverse effects, including reverse sensitivity effects, on the National Grid and the identified strategic electricity distribution lines, through the management of activities within an identified buffer corridor.

11.2.2.3 Policy — Radiofrequency, electric and magnetic fields

- a. Manage the potential adverse effects of radiofrequency, electric and magnetic fields associated with utilities.
- b. Avoid locating sensitive activities where there could be adverse effects from utilities that generate radio frequency, electric and magnetic fields.

11.3 How to interpret and apply the rules

- a. The rules that apply to all utilities in the District are contained in the activity status tables (including activity specific standards) in:
 - i. Rule 11.4;
 - ii. Rule 11.5;
 - iii. Rule 11.6;
 - iv. Rule 11.7; and
 - v. Rule 11.8.

Note: The activity standards in Rule 11.9 also apply to all activities listed in Rules 11.4–11.8.

- b. The rules in the zone chapters (13 21) do not apply to utilities, unless specified or referenced in this chapter.
- c. The activity status tables and standards in the following chapters also apply to all utilities in the District:
 - 5 Natural Hazards;
 - 6 General Rules and Procedures;
 - 7 Transport;
 - 8 Subdivision, Development and Earthworks;
 - 9 Natural and Cultural Heritage
 9.1 Indigenous Biodiversity and Ecosystems;
 9.3 Historic Heritage;
 9.4 Significant Trees;
 9.5 Ngāi Tahu Values and the Natural Environment; and
 9.6 Coastal Environment
 - 12 Hazardous Substances and Contaminated Land.

Chapter 5 (Natural Hazards) includes specific rules in relation to utilities in areas subject to hazards.

[Stage 3 — Chapter 9 Natural and Cultural Heritage]

- d. All telecommunications facilities operated by a network utility operator are controlled by the Resource Management (National Environmental Standards for Telecommunications Facilities) Regulations 2008 (NESTF) in respect of the generation of radiofrequency fields. In the road reserve equipment cabinets, noise from these cabinets, and masts / antennas on existing structures are also controlled by the NESTF. Other telecommunications facilities or activities will be managed by the District Plan.
- e. The Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009 (NESETA) contain a separate code of rules for the operation, maintenance, upgrading, relocation or removal of an existing transmission line, which is part of

the National Grid, as defined in the regulations. Except as provided for by the regulation, no rules in this District Plan apply to such activities. Where an activity does not relate to an existing transmission line that is part of the National Grid, or where new transmission lines and associated structures are proposed, the District Plan provisions apply.

- f. Any application for resource consent for a controlled or restricted discretionary activity arising from the rules in this chapter shall not be publicly or limited notified. For any other application for resource consent, the Council may publicly or limited notify the application.
- g. Unless otherwise stated, a permitted activity includes operation of that activity.

11.4 Rules — Utilities and energy — General

11.4.1 Permitted activities — General

The activities listed below are permitted activities if they meet the activity specific standards set out in this table and the activity standards in Rule 11.9.

Activities may also be restricted discretionary, discretionary or non-complying as specified in Rules 11.4.2 - 11.4.4 and 11.5 - 11.8.

	Activity	Activity specific standards
P1	Construction or extension of any access tracks to utilities.	Nil [Stage 3 — Chapter 9 Natural and Cultural Heritage]
P2	Weather stations and navigation aids.	 a. Weather stations and navigation aids greater than 1 metre in height or 6 m² in area shall not be located within: i. a Character Area Overlay ii. [Stage 3 — Chapter 9 Natural and Cultural Heritage]
Р3	Maintenance of a utility and the establishment of associated temporary structures, including vegetation trimming or removal.	Nil
P4	Utility cabinets as part of any utility, excluding any utility cabinet for electricity transmission or distribution provided for under Rule 11.5.1 P2.	 a. The utility cabinet is located underground; or b. For above ground telecommunications cabinets, or those regulated by the NESTF, the maximum floor area shall be 2 m² and the maximum height shall be 2 metres (measured from ground level or the top of a concrete plinth if there is one); and c. For above ground utility cabinets other than in
		standard (b) above, the maximum floor area shall be 10 m ² and the maximum height shall be 2.5 metres (measured from ground level or the top of a concrete plinth if there is one).
Р5	Utility buildings, excluding any utility buildings for electricity transmission or distribution provided for under Rule 11.5.1 P2.	a. Built form standards for the relevant zone.
P6	Installation of network utilities and ancillary equipment underground.	Nil
P7	New lines and associated utility structures to provide electricity supplies to electric tramway trolley bus or rail systems.	Nil
P8	Utility structures for street lighting.	Nil

	Activity	Activity specific standards
P9	Re-location of utilities.	a. The re-location must not be more than 2 metres measured horizontally, except that it may be more than 2 metres but not exceed 5 metres horizontally where it is associated with road widening or it is for safety reasons.
P10	Replacement of an existing utility structure or mast.	 a. The diameter or width of the replacement utility structure or mast at its widest point must not exceed twice that of the replaced utility structure or mast at its widest point. b. The height of the replacement utility structure or mast must not exceed whichever of the
		following is the greater height:i. the height of the replaced utility structure or mast; or
		ii. the applicable maximum height for a building in the relevant zone.
		c. The replaced utility structure or mast must be removed once the replacement structure or mast is in place.
P11	Addition to an existing utility structure or mast.	a. The combined diameter or width of the existing utility structure or mast plus the addition (at its widest point) must not exceed twice that of the pre-existing utility structure (at its widest point).
		b. The combined height of the existing utility structure or mast plus the addition must not exceed whichever of the following is the greater:
		i. the pre-existing height of the existing utility structure or mast; or
		ii. the applicable maximum height for a building in the relevant zone.
P12	Replacement of an existing transmission or distribution tower.	a. The replacement tower must not exceed the height of the replaced tower by more than 15%.
		b. Each side of the replacement tower's footprint must not be longer than the length of any side of the replaced tower's footprint plus 25% of the width of the replaced tower's footprint.
		c. The replaced tower must be removed once the replacement tower is in place.
P13	An increase in the carrying or operating capacity, efficiency or security of electricity transmission or distribution lines, or telecommunication lines, by the following activities:	a. If the utility is replaced, the replacement utility must be of a similar scale and character to the structure that is replaced.

	Activity	Activity specific standards
	a. the addition of wires, cables, circuits and/or conductors;	
	 b. the re-conductoring of the line with higher capacity conductors; 	
	c. the re-sagging of conductors;	
	d. the addition of longer or more efficient insulators;	
	e. the addition of earth wires (which may contain telecommunication lines, earthpeaks and lightning rods);	
	f. the replacement of above-ground ducts, cables and pipes up to a 50% increase in diameter; and	
	g. the replacement of the utility.	
P14	An increase in the carrying or operating capacity, efficiency or security of fuel and gas transmission or distribution lines, including the installation of isolation values or other ancillary equipment, and the associated replacement of the utility.	a. If the utility is replaced, the replacement utility must be of a similar scale and character to the structure that is replaced.
P15	The installation of new mid-span electricity poles to address clearances required by New Zealand Electrical Code of Practice 34:2001.	Nil.
P16	Customer connections from and to buildings, facilities, structures and sites used for or serviced by utilities.	Nil.
P17	The attachment to existing bridges (except any bridge that is a structure identified in Appendix 9.3.6.1) of a pipe or cable for the conveyance of water, wastewater,	a. Where the bridge is on publicly owned land and standard (b) does not apply, the pipe or cable:
	stormwater, electricity, gas or fuel, or for telecommunications.	i. must be attached to the underside of the bridge or incorporated within the bridge structure or within an existing attached cable/pipe structure; or
		ii. must not exceed 100 mm in diameter.
		b. Where the bridge is on publicly owned land located in a Character Area Overlay, the pipe or cable:
		i. must be attached to the underside of the bridge or incorporated within the bridge structure or within an existing attached cable/pipe structure; or
		ii. must not exceed 63 mm in diameter, be in a cluster of no more than two pipes, and be either the same colour as the bridge at the point of attachment or be of a matt finish colour with less than 20% reflectivity.

	Activity	Activity specific standards
P18	Utility equipment within existing buildings.	Nil.
P19	Temporary utilities operating for less than 12 months, excluding emergency or back-up electricity generation permitted in Rule 11.6.1 P4.	a. Built form standards for the relevant zone.b. The noise standards in Rule 6.1.4 for the relevant zone.

11.4.2 Restricted discretionary activities — General

The activities listed below are restricted discretionary activities, provided they meet the activity standards in Rule 11.9

Decision to grant or decline consent and impose conditions is restricted to the matters of discretion set out in Rule 11.10, as set out in the following table.

	Activity	The Council's discretion shall be limited to the following matters:
RD1	Any activity listed in Rule 11.4.1 P2 that does not meet one or more of the activity specific standards.	a. Heritage and natural environment – Rule 11.10.1b. Amenity, location and design – Rule 11.10.2
RD2	Any activity listed in Rule 11.4.1 P4 that does not meet one or more of the activity specific standards.	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – Rule 11.10.3
RD3	Any activity listed in Rule 11.4.1 P5 that does not meet one or more of the activity specific standards.	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – Rule 11.10.3 d. Health and safety – Rule 11.10.4(a)
RD4	Any activity listed in Rule 11.4.1 P17 that does not meet one or more of the activity specific standards.	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2(d) and (e) c. Operational considerations - 11.10.3 d. Electricity generation – 11.10.5(c), (f) and (g) e. Water, wastewater and stormwater – 11.10.6

11.4.3 Discretionary activities — General

The activities listed below are discretionary activities, provided they meet the activity standards in Rule 11.9.

Activity	Activity	
D1	Any activity not provided for as a permitted, restricted discretionary, discretionary or non- complying activity in Rules 11.4.1, 11.4.2 or 11.4.3 or in Rules 11.5 to 11.8.	

11.4.4 Non-complying activities — General

The activities listed below are non-complying activities.

Activity	
NC1	Any activity that does not meet one or more of the activity standards for utilities in Rule 11.9.

11.5 Rules — Electricity transmission and distribution

11.5.1 Permitted activities — Electricity transmission and distribution

The activities listed below are permitted activities if they meet the activity specific standards set out in this table and the activity standards in Rule 11.9.

Activities may also be restricted discretionary, discretionary or non-complying as specified in Rules 11.4, 11.5.2, and 11.6 - 11.8.

	Activity	Activity specific standards
P1	New electricity transmission and electricity distribution lines and associated structures or equipment.	 a. New above ground utilities shall not be located within: a Character Area Overlay <i>[Stage 3 - Chapter 9 Natural and Cultural Heritage]</i> b. New utility structures or towers shall not exceed: 25 metres in height in the Rural, Specific Purpose (Lyttelton Port), Commercial and Industrial Zones, and any Transport Zone adjoining these zones; or 15 metres in height in all other zones (including adjacent Transport Zones) <i>[Stage 3 - Chapter 9 Natural and Cultural Heritage]</i>
P2	Transformers, substations, switching stations, kiosks, cabinets, and ancillary buildings.	 a. The following built form standard for the relevant zone: i. daylight recession planes. b. The total floor area shall not exceed 10m². c. The maximum height shall not exceed 5.5 metres.

11.5.2 Restricted discretionary activities — Electricity transmission and distribution

The activities listed below are restricted discretionary activities, provided they meet the activity standards in Rule 11.9.

Decision to grant or decline consent and impose conditions is restricted to the matters of discretion set out in Rule 11.10, as set out in the following table.

	Activity	The Council's discretion shall be limited to the following matters:
RD1	Any activity listed in Rule 11.5.1 P1 that does not meet one or more of the activity specific standards.	 a. Amenity, location and design – Rule 11.10.2 b. Operational considerations – Rule 11.10.3 c. Health and safety – Rule 11.10.4

	Activity	The Council's discretion shall be limited to the following matters:
		d. [Stage 3 — Chapter 9 Natural and Cultural Heritage]
RD2	Any activity listed in Rule 11.5.1 P2 that does not meet one or more of the activity specific standards.	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – Rule 11.10.3

11.6 Rules — Energy

11.6.1 Permitted activities — Energy

The activities listed below are permitted activities if they meet the activity specific standards set out in this table and the activity standards in Rule 11.9.

Activities may also be restricted discretionary, discretionary or non-complying as specified in Rules 11.4, 11.5, 11.6.2 - 11.6.4, 11.7 and 11.8.

	Activity	Activity specific standards
P1	Installation and operation of equipment for assessing a site for suitability for renewable electricity generation.	 a. Equipment shall not be on a site for more than 12 months in any 36 month period. b. The noise standards in Rule 6.1.4 for the relevant zone. c. Equipment shall not be located within: a Character Area Overlay [Stage 3 — Chapter 9 Natural and Cultural Heritage]
P2	Installation and operation of a solar cell or array of cells for the generation and use of electricity.	 a. The electricity generated must be either: i. solely for use on the site as ancillary to the principal use of the site; or ii. for use on the site as ancillary to the principal use of the site and also for supply to not more than 20 residential units and/or industrial/commercial tenancies – subject to which, any excess may be contributed to the National Grid. b. The cell or array must be either incorporated into or mounted on the roof of a building. c. If the building breaches the daylight recession plane specified by the built standards for the relevant zone, the cell or array may also breach it provided that no cell protrudes more than 20 mm from the roof. d. If the building does not breach the daylight recession plane, the cell or array must not breach it either. e. There must not be a solar concentrator.
Р3	Substations, transformers, or buildings ancillary to electricity generation equipment.	a. The daylight recession planes for the relevant zone.b. The total floor area shall not exceed 10 m². and

	Activity	Activity specific standards
		c. The maximum height shall not exceed 5.5 metres.
P4	Emergency or back-up electricity generation that is not the primary electricity supply to the site.	d. The noise standards in Rule 6.1.4.2.2 for noise from emergency activities.
P5	Installation and operation of a wind turbine for the generation and use of electricity on a site or sites in Rural or Industrial Zones.	 a. The electricity generated must be either: i. solely for use on the site as ancillary to the principal use of the site; or ii. for use on the site as ancillary to the principal use of the site and also for supply to not more than 20 residential units (of a Rural or Residential Zone) and/or industrial/commercial tenancies
		 (of an Industrial Zone) – subject to which, any excess may be contributed to the National Grid. b. If standard (a)(i) applies, no more than one wind turbine is to be erected on each site. If standard (a)(ii) applies, the wind turbines may be clustered on one or more of the sites.
		c. No above ground part of any wind turbine (including the full extent of blades) shall exceed a total height of 20 metres above the ground.
		d. The road boundary building setbacks and minimum building setbacks from internal boundaries of the relevant Rural or Industrial Zone apply. Compliance with this standard shall be to any above ground part of each wind turbine and the full extent of blades of each wind turbine.
		 e. The noise standards in Rule 6.1.4 for the relevant Rural or Industrial Zone apply. f. [Stage 3 — Chapter 9 Natural and Cultural
		Heritage]
P6	Installation and operation of gas and fuel (including LPG) distribution or transmission pipelines, including necessary incidental equipment.	Nil.
P7	Tanks for the storage of gas, including LPG.	a. Built form standards for the relevant zone.

11.6.2 Restricted discretionary activities — Energy

The activities listed below are restricted discretionary activities, provided they meet the activity standards in Rule 11.9.

Decision to grant or decline consent and impose conditions is restricted to the matters of discretion set out in Rule 11.10, as set out in the following table.

	Activity	The Council's discretion shall be limited to the following matters:
RD1	Any activity listed in Rule 11.6.1 P1 that does not meet one or more of the activity specific standards.	 a. Amenity, location and design – Rule 11.10.2(a) b. Operational considerations – Rule 11.10.3(a)
RD2	Any activity listed in Rule 11.6.1 P3 that does not meet one or more of the activity specific standards.	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – Rule 11.10.3 d. Health and safety – Rule 11.10.4(a) e. Electricity generation – Rule 11.10.5
RD3	Any activity listed in Rule 11.6.1 P4 that does not meet one or more of the activity specific standards.	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – Rule 11.10.3 d. Health and safety – Rule 11.10.4(a) e. Electricity generation – Rule 11.10.5
RD4	 Installation and operation of a wind turbine for the generation and use of electricity on a site or sites other than in Rural or Industrial Zones that meet the standards specified in paragraphs a. to f. of this Rule RD4: a. If the electricity generated is solely for use on the site(s), not more than one wind turbine is to be erected on each site; and 	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2(a) c. Operational considerations – Rule 11.10.3(a) d. Health and safety – Rule 11.10.4(a) e. Electricity generation – Rule 11.10.5(a) and (j)
	 b. No above ground part of the wind turbine (including the full extent of blades) exceeds a total height of 20 metres above ground; and 	
	c. Each wind turbine meets the road boundary building setback and minimum building setback from internal boundaries of the relevant zone; and	
	d. The noise standards for the relevant zone are met; and	
	e. No wind turbine is located within a Character Area Overlay; and	
	 f. The electricity generated is either: i. solely for use on the site(s) as ancillary to the principal use of the site(s); or 	
	ii. for use on the site or sites as ancillary to the principal use of the site(s) and also for supply	

	Activity	The Council's discretion shall be limited to the following matters:
	to not more than 20 residential units and/or industrial/commercial tenancies – subject to which any excess may be contributed to the National Grid.	
RD5	Any activity listed in Rule 11.6.1 P2 that does not meet one or more of the activity specific standards (b)–(e).	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – Rule 11.10.3 d. Health and safety – Rule 11.10.4(a) e. Electricity generation – Rule 11.10.5
RD6	Any activity listed in Rule 11.6.1 P5 that does not meet one or more of the activity specific standards (b) $-$ (e).	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – Rule 11.10.3 d. Health and safety – Rule 11.10.4(a) e. Electricity generation – Rule 11.10.5
RD7	Installation and operation of a utility and associated pipes and structures for the generation of energy using waste products.	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – Rule 11.10.3 d. Health and safety – Rule 11.10.4(a) e. Electricity generation – Rule 11.10.5 f. Water, wastewater and stormwater – Rule 11.10.6
RD8	Any activity listed in Rule 11.6.1 P7 that does not meet one or more of the activity specific standards.	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – Rule 11.10.3 d. Health and safety – Rule 11.10.4(a)

11.6.3 Discretionary activities — Energy

The activities listed below are discretionary activities, provided they meet the activity standards in Rule 11.9.

Activ	Activity	
D1	 Any activity listed in Rule 11.6.1 P2 that does not meet activity specific standard (a) where: a. The activity occurs in the Rural, Commercial or Industrial Zones and does not occur within the area covered by the Christchurch International Airport Protection Surfaces; and b. Any solar concentrator does not reflect light into a Residential Zone for more than 15 hours per annum. c. [Stage 3 - Chapter 9 Natural and Cultural Heritage] 	
D2	Any activity listed in Rule 11.6.1 P5 that does not meet activity specific standard (a) where:	

Activ	ity	
	 a. The activity occurs in the Rural Port Hills, Rural Templeton, Rural Urban Fringe, Rural Waimakariri, Rural Quarry or Rural Banks Peninsula Zones; and 	
	b. Noise levels comply with the limits prescribed in NZS6808:2010 (Acoustics – Wind Farm Noise Noise levels shall be measured and assessed in accordance with NZS6808:2010.	
	c. [Stage 3 — Chapter 9 Natural and Cultural Heritage]	
D3	Non-renewable electricity generation:	
	a. In Industrial Zones; and	
	b. Where the utility complies with the rules in Chapter 16 (Industrial) and noise rules in Chapter 6 (General Rules).	

11.6.4 Non-complying activities — Energy

The activities listed below are non-complying activities.

Activity	Activity	
NC1	NC1 Any activity listed in Rule 11.6.1 P2 that does not meet activity specific standard (a) and is not provided for in Rule 11.6.3 D1.	
NC2	NC2 Any activity listed in Rule 11.6.1 P5 that does not meet activity specific standard (a) and is not provided for in Rule 11.6.3 D2.	
NC3	NC3 Non-renewable electricity generation activities not provided for in Rule 11.6.3 D3.	

11.7 Rules — Communications facilities

11.7.1 Permitted activities — Communications facilities

The activities listed below are permitted activities if they meet the activity specific standards set out in this table and the activity standards in Rule 11.9.

Activities may also be restricted discretionary, discretionary or non-complying as specified in Rules 11.4 - 11.6, 11.7.2 and 11.8.

	Activity	Activity specific standards
P1	communications utilities.	a. Freestanding communications utilities shall not be located in:
		i. a Character Area Overlay
		ii. [Stage 3 — Chapter 9 Natural and Cultural Heritage]
		b. Any utility structure shall not exceed:
		 25 metres in height (excluding lightning rods) and any head frame shall be no greater than 6 metres in diameter at its widest point in the Transport, Specific Purpose (Port), Industrial, Commercial or Rural Urban Fringe Zones; or
		ii. 35 metres in height (excluding lightning rods) and any head frame shall be no greater than 6 metres in diameter at its widest point in the Rural Waimakariri Zone; or
		 30 metres in height (excluding lightning rods) and any head frame shall be no greater than 6 metres in diameter at its widest point in the Transport, Industrial, Commercial, or Rural Urban Fringe Zones, where two or more network utility operators utilise the same utility structure; or
		 40 metres in height (excluding lightning rods) and any head frame shall be no greater than 6 metres in diameter at its widest point in the Rural Waimakariri Zone where two or more network utility operators utilise the same utility structure; or
		v. 20 metres in height (excluding lightning rods) and 1 metre in diameter above a height of 6 metres, except for any head frame which shall be no greater than 6 metres in diameter at its widest point in any other zone.
		c. Any dish antenna shall be less than 1.8 metres in diameter in Industrial, Commercial or Rural Zones, and less than 0.8 metres in any other zone.
		d. Any other antenna shall not exceed a surface area of 1.5 m^2 .
P2	Communications utilities attached to a building, including ancillary equipment.	a. Any dish antenna shall be less than 1.8 metres in diameter in the Industrial, Commercial or Rural Zones, and less than 0.8 metres in diameter in any other zone.
	cquipinent.	b. Any other antenna shall not exceed a surface area of 1.5 m^2 .

	Activity	Activity specific standards
		c. Any antenna shall not exceed a height of 3 metres from the point of attachment or the height limit for the relevant zone, whichever is the greater.
P3	Amateur radio configurations.	a. The top of any utility structure is less than 20 metres above ground level.
		b. Any antenna other than a simple wire dipole shall meet the following criteria:
		 Any of the elements making up the antenna shall not exceed 0.08m in diameter and 14.9m in length;
		For horizontal HF yagi or loop antenna the boom length shall not exceed 13m;
		iii. No part of the antenna, utility structure or guy wires shall overhang the property boundary; and
		iv. Simple wire dipoles shall not overhang property boundaries.
		c. Any dish antenna shall:
		i. Be less than 5 metres in diameter/width;
		ii. Be pivoted less than 4 metres above the ground; and
		iii. If located in any Residential Zone, meet the minimum setback and daylight recession plane standards in Chapter 14.
P4	Communication kiosks.	 a. The maximum height of a communication kiosk shall be 2.5 metres (excluding any small cell or antenna permitted in clause (b) below), and the maximum volume shall be 2.4 m³.
		b. Any attached small cell or antennas shall be less than 1 metre in height and shall not have a horizontal dimension greater than the horizontal dimensions of the communication kiosk.
P5	Installation of above a. ground lines and utility	a. New utilities shall not be located within a Character Area Overlay.
	structures for communication utilities.	b. The utility structures shall not exceed a height of:
		 25 metres in the Rural, Specific Purpose (Lyttelton Port), Commercial, Industrial and any Transport Zones adjoining these zones; or
		ii. 15 metres in all other zones (including adjacent Transport Zones).

11.7.2 Restricted discretionary activities — Communications facilities

The activities listed below are restricted discretionary activities, provided they meet the activity standards in Rule 11.9.

Decision to grant or decline consent and impose conditions is restricted to the matters of discretion set out in Rule 11.10, as set out in the following table.

	Activity	The Council's discretion shall be limited to the following matters:
RD1	Any activity listed in Rule 11.7.1 P1 that does not meet one or more of the activity specific standards.	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – Rule 11.10.3
RD2	Any activity listed in Rule 11.7.1 P2 that does not meet one or more of the activity specific standards.	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – Rule 11.10.3
RD3	Any activity listed in Rule 11.7.1 P3 that does not meet one or more of the activity specific standards.	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – Rule 11.10.3
RD4	Any activity listed in Rule 11.7.1 P4 that does not meet the activity specific standard.	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – Rule 11.10.3
RD5	Any activity listed in Rule 11.7.1 P5 that does not meet one or more the activity specific standards.	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – Rule 11.10.3

11.8 Rules — Water, wastewater and stormwater

11.8.1 Permitted activities — Water, wastewater and stormwater

The activities listed below are permitted activities if they meet the activity specific standards set out in this table and the activity standards in Rule 11.9.

Activities may also be restricted discretionary, discretionary or non-complying as specified in Rules 11.4 - 11.7, and 11.8.2.

	Activity	Activity specific standards
P1	Water, wastewater and stormwater connections to public networks.	 Nil. Advice Notes: 1. Refer to the Infrastructure Design Standard and/or Construction Specification Standard as published by the Council. 2. Connections to the Council's reticulated water supply are applied for through the "WS1 Water Connection Application
		 Connections to the Council's reticulated stormwater and wastewater systems are through the building consent process. Connections are to be installed by a Council Authorised Drain Layer.
P2	Construction or operation of structures for the conveyance, treatment, storage or retention / detention of water, wastewater and stormwater by the Council or a network utility operator.	 a. Built form standards for the relevant zone. Advice Notes: 1. Refer to the Infrastructure Design Standard and/or Construction Specification Standard as published by the Council. 2. Refer also to relevant Stormwater Management Plans and Integrated Catchment Management Plans.
P3	Structures and equipment ancillary to the maintenance and operation of water, wastewater and stormwater facilities.	 Nil. Advice Notes: 1. Refer to the Infrastructure Design Standard and/or Construction Specification Standard as published by the Council. 2. Refer also to the Canterbury Regional Council's Erosion and Sediment Control Guide.
P4	Rainwater collection systems.	 a. Water tanks shall meet zone provisions for height and road boundary building setbacks and minimum building setbacks from internal boundaries. Advice note: 1. The installation of rainwater tanks may require building consent.
Р5	Solar hot water systems.	Nil. Advice note:

Activity	Activity specific standards	
	1. The installation of solar hot water systems may require building consent.	

11.8.2 Restricted discretionary activities — water, wastewater and stormwater

The activities listed below are restricted discretionary activities, provide they meet the activity standards in Rule 11.9.

Decision to grant or decline consent and impose conditions is restricted to the matters of discretion set out in Rule 11.10, as set out in the following table.

	Activity	The Council's discretion shall be limited to the following matters:
RD1	Any activity listed in Rule 11.8.1 P2 that does not meet the activity specific standard.	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – 11.10.3 d. Health and safety – 11.10.4(a) e. Water, wastewater and stormwater – Rule 11.10.6
RD2	Any activity listed in Rule 11.8.1 P4 that does not meet the activity specific Standard.	 a. Heritage and natural environment – Rule 11.10.1 b. Amenity, location and design – Rule 11.10.2 c. Operational considerations – Rule 11.10.3 d. Health and safety – Rule 11.10.4(a) e. Water, wastewater and stormwater – Rule 11.10.6(a)
RD3	Use of greywater collection systems (excluding those permitted by Rule 11.8.2 P2).	 a. Water, wastewater and stormwater – Rule 11.10.6(a), (b) and (k) Advice Notes: 1. The installation of greywater systems may require building consent. 2. The use of greywater may require resource consent from the Canterbury Regional Council.

11.9 Rules — Activity standards — All activities

The following activity standards shall be met by all activities in Rules 11.4 - 11.8.

Applicable to	Activity Standard
Any utilities that emit radiofrequency fields, which are not regulated by an amateur	 a. The utility operator must plan and operate the utility in accordance with NZS2772: Part 1:1999 Radiofrequency Fields Part 1 – Maximum Exposure Levels – 3 kHz to 300 GHz.
radio licence.	b. The utility operator must ensure that the Council receives, before the utility becomes operational, the following:
	i. written or electronic notice of where the utility is or where it is proposed to be; and
	ii. a report that—
	 is prepared in accordance with AS/NZS 2772.2:2011: Radiofrequency Fields Part 2: Principles and methods of measurement and computation – 3 kHz to 300 GHz and
	2. takes account of exposures arising from other utilities in the vicinity of the utility; and
	 predicts whether the radiofrequency field levels at places in the vicinity of the utility that are reasonably accessible to the general public will comply with NZS 2772: Part 1:1999 Radiofrequency Fields Part 1 – Maximum Exposure Levels – 3 kHz to 300 GHz.
	c. If the prediction referred to in standard (b) is that the radiofrequency field levels will reach or exceed 25% of the maximum level authorised by NZS 2772: Part 1:1999 Radiofrequency Fields Part 1 – Maximum Exposure Levels – 3 kHz to 300 GHz for exposure of the general public, the utility operator must ensure that the Council receives, within 3 months of the utility becoming operational, a report that—
	 is prepared in accordance with AS/NZS 2772.2:2011: Radiofrequency Fields Part 2: Principles and methods of measurement and computation – 3 kHz to 300 GHz; and
	 ii. provides evidence that the actual radiofrequency field levels at places in the vicinity of the utility that are reasonably accessible to the general public comply with NZS 2772: Part 1:1999 Radiofrequency Fields Part 1 – Maximum Exposure Levels – 3 kHz to 300 GHz.
	Advice Note:
	1. The exposure assessment in standard (b) is not required to include an evaluation of the uncertainty in that assessment.
The operation of any utility that emits power frequency electric and magnetic fields.	 Exposures to power frequency electric and magnetic fields in areas normally accessible to the public shall not exceed 5 kilovolts per metre and 200 microtesla as measured and assessed in accordance with the International Commission on Non-Ionising Radiation Protection Guidelines for Limiting Exposures to Time Varying Electric and Magnetic Fields (1Hz – 100kHz).
	Advice Note:

Applicable to	Activity Standard			
	 The Ministry of Health 2013 guidelines "Electric and Magnetic Fields and Your Health: Information on electric and magnetic fields association with transmission lines, distribution lines and electrical equipment – 2013 edition", in addition to compliance with the exposure limits in standard (a), recommend: the implementation of very low cost measures to reduce exposures when constructing new electrical infrastructure, and; when constructing new electrical infrastructure, and; 			
	 when contemplating changes to existing sources, consideration of field reduction alongside safety, reliability and economic aspects. 			
Any utilities within 12 metres of the centre line of a 110kV or a 220 kV National Grid transmission line, or within 10 metres of the centre line of a 66 kV National Grid transmission line.	a. The utility shall comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZCEP 34:2001).b. The utility shall not be for the reticulation or storage of water for irrigation purposes.			
Any utilities within 10 metres of the centre line of a 66kV electricity distribution line or within 5 metres of the centre line of a 33kV or the 11kV Heathcote to Lyttelton distribution line.	a. The utility shall comply with the New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001).			

11.10 Rules — Matters of discretion

When considering applications for restricted discretionary activities, the Council's discretion to grant or decline consent, or impose conditions, is restricted to the matters over which discretion is restricted in the relevant rule and as described below.

11.10.1 Heritage and natural environment

- a. Any cumulative visual effects arising from the utility, particularly in relation to telecommunication facilities and energy generation facilities; and
- b. If any activity is proposed within a Character Area Overlay, any relevant assessment matters in Chapter 14; and
- c. [Stage 3 Chapter 9 Natural and Cultural Heritage]

11.10.2 Amenity, location and design

- a. The practicality and effectiveness of screening the utility;
- b. In respect of utilities attached to buildings, whether the utility is placed within the visual envelope of an existing building, and the extent to which the colour and design of the facility corresponds to the existing building;
- c. Consideration of the number and size of any other existing utility on the building;
- d. The extent to which any adverse effects of the utility have been avoided, remedied or mitigated by the route, site and method selection; and
- e. Whether the location and size of the utility impacts on the ability of people to access any facility, building, shop, recreation facility or other activity on a site.

11.10.3 Operational considerations

- a. The extent to which the scale and height of buildings or other structures proposed are necessary to meet the technical, operational or functional requirements of the utility;
- b. Consideration of soil stability, erosion, and geotechnical matters on the selection of the route or site of a utility and the extent to which these matters can be mitigated;
- c. Whether placing lines or other utilities underground is unreasonable in terms of additional costs or environmental effects; and
- d. Any risk to, and effects on, the operation, maintenance, upgrading and development of transmission lines, including the National Grid.

11.10.4 Health and safety

a. Whether the utility will be located in close proximity to any sensitive activity and the extent of any effect on human health.

11.10.5 Electricity generation

- a. The distance between the utility and residences, public places, or places from which the utility would be visible, and whether the utility would impose adverse visual effects on or dominate the surrounding landscape... [Deferral to Chapter 9 Natural and Cultural Heritage];
- b. Whether views to the utility are expansive or constrained;
- c. The extent to which the siting and size of the utility responds to its landscape context;
- d. The relative elevation of the utility in relation to residences, public places or place from which the utility will be visible, including whether the utility is located on a ridgeline or series of ridgelines, or would form part of a skyline;
- e. Number, design and extent of wind turbines and associated structures, and predominant orientation in relation to the landform;
- f. The effects on natural topography, landforms and geological forms;
- g. The ecological effects including any loss of indigenous flora, fauna, habitat and riparian margins, including through birdstrike;
- h. The extent of and effect on adjoining land uses of noise levels, noise modulation, glint/glare, and shadow flicker;
- i. The need to locate wind turbines and associated structures where the wind resource is available and the quality of the wind resource;
- j. The extent and visibility of roads, earthworks and vegetation clearance associated with the construction, operation or maintenance of the utility;
- k. For solar cells, in addition to the above:
 - i. the time of day, year, and time per day when adjoining or adjacent properties would be affected by reflected solar glare and the degree of luminance;
 - ii. the number of properties affected and their relative proximity; and
 - iii. whether there is any glare hazard.
- 1. The necessity for non-renewable electricity generation elements in the District's electricity supply network, including for building resilience.

11.10.6 Water, wastewater and stormwater

a. The requirements of the Infrastructure Design Standard and/or Construction Standard Specifications as published by the Council;

- b. Whether the proposed servicing will serve its intended purpose;
- c. Whether the utility utilises the existing or proposed topography and proposed networks to convey surface water by way of gravity systems;
- d. Whether provision is made for safe access for maintenance of surface water infrastructure;
- e. Whether the utility incorporate existing or new appropriate indigenous vegetation, recognising the ability of particular species to absorb water, and to which planting reflects Ngāi Tahu history and identity associated with specific place;
- f. The suitability of the proposed water supply for fire-fighting purposes (the Council may obtain a report from the Chief Fire Officer), including the extent of compliance with the SNZ PAS:4509:2008 in respect of the health and safety of the community, including neighbouring properties;
- g. The extent to which the proposed surface water management systems are consistent with the relevant Council Stormwater Management Plan or Integrated Catchment Management Plan;
- h. Any adverse effects on the functioning or values of the existing network of drains, springs, waterways and ponding areas;
- i. The provision for, and protection of, the flood storage and conveyance capacity of waterways.
- j. Whether the proposed ponding area will be attractive to birdlife that might pose a bird strike risk to the operation of Christchurch International Airport Limited; and
- k. The requirements of AS/NZS 1547:2000.

Chapter 2 Definitions

Add the following definition to Chapter 2 of the Plan:

Communication kiosk

A publicly accessible structure, whether free-standing or attached to a building, for the provision of telecommunication and radiocommunication services to the public. It includes phone boxes and public wifi access points.

Delete the following definitions from Chapter 2 of the Plan:

Small or community-scale renewable electricity generation

Large-scale renewable electricity generation

SCHEDULE 2

Table of submitters heard

This list has been prepared from the index of appearances recorded in the transcript, and from the evidence and submitter statements shown on the Independent Hearing Panel's website.

Submitter Name	No.	Person	Expertise or role if witness	Filed/Appeare d
Christchurch City Council	2123	S Jenkin	Planning	Filed/Appeared
		M Gledhill	Electromagnetic Fields and Non-Ionising Radiation	Filed/Appeared
Crown	2387	J Jenkins		Filed
		N Yozin	Planning	Filed/Appeared
Federated Farmers of New Zealand	2288	F Mackenzie	Planning	Filed/Appeared
Penny Hargreaves Linda Dawber, Herbert Wilkinson and Ngarita Ditfort — also known as the Ouruhia Residents	2526 2528	P Hargreaves		Filed/Appeared
		L Dawber		Filed/Appeared
		Dr V Kerdemelidis	Electrical Engineering	Filed/Appeared
		B Robertson		Filed/Appeared
		J Zervos		Filed/Appeared
		M Wylaars		Filed/Appeared
Orion New Zealand Limited	2340	P Lemon	Planning	Filed
		L Buttimore	Planning	Filed
		S Watson		Filed
Riccarton/Wigram Community Board	2363	M Mora		Appeared
Spark New Zealand Trading Limited	2158	M McCallum-Clark Planning	Planning	Filed
Chorus New Zealand Limited	2379			
Vodafone New Zealand Limited	2095			
Two Degrees Mobile Limited	2120			
Enable Networks Limited	2189			
— together 'the Utilities Group'				
Transpower New Zealand Limited	2218	A McLeod	Planning	Filed/Appeared