Queenstown Lakes District Proposed District Plan – Stage 1

Section 42A Hearing Report
For Hearing commencing: 12th September 2016

Report dated: 19th August 2016

Report on submissions and further submissions

Chapter 30 Energy and Utilities

File Reference: Chp. 30 S42A

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Appendix 5. Proposed amendments to the National Environmental Standards for Telecommunication Facilities 2008: Recommendations for proposed amendments
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Appendix 8. QLDC Document A guide to suitable building colours and materials in Rural Zones

I also have referred to, and relied on the following evidence filed alongside this section 42A report:

Dr Stephen Chiles, Acoustic Specialist – statement (Hearing Stream 05) dated 17 August 2016;
Dr Marion Read, Landscape Architect – statement (Strategic Directions Hearing 1B) dated 19 February 2016; and
Dr Marion Read Landscape Architect – statement (Rural Hearing Stream 2) dated 6 April 2016.

1. EXECUTIVE SUMMARY

1.1 The analysis of submissions on the utilities component of the Chapter has led to a number of recommended changes to address matters raised by submitters with an interest in telecommunications and electricity transmission. I consider the recommended changes will provide these submitters and other users of the Energy and Utilities Chapter with greater certainty and a better focus to assess the merits of activities.

1.2 By way of summary the recommendations are:

a. Identification of the various types of electricity network and recommended buffers to provide for their management:
   (i) transmission network (equal to or greater than 110kV) – 32m for subdivision[1] and sensitive land-uses;
   (ii) sub-transmission network (22kV, 33kV, 66kV) – 20m subdivision, 10m land-uses; and
   (iii) distribution network (11kV and below) – no buffer.

b. improving the clarity of rules relating to the heights of telecommunications or radio communication, navigation or meteorological communication facilities by specifying these heights within the Chapter;

c. permitting telecommunications or radio communication, navigation or meteorological communication facilities with a maximum height equal to the zone height;

d. increasing the controlled activity heights for telecommunications or radio communication, navigation or meteorological communication facilities to 3 meters above the maximum height for the zone;

e. permitting new buildings and structures ancillary to utilities, if meeting the underlying zone standards and less than $10m^2$ or less than 3m in height;

f. permitting the undergrounding of lines for electricity or telecommunications purposes;

g. including a light reflectance value limitation for energy buildings and Small and Community-Scale Distributed Electricity Generation;

h. amendments to and the introduction of a number of new definitions; and

[1] Based on Council Officer's position at the subdivision hearing at 19 August 2016.

i. recommending a more effective policy to respond to reverse sensitivity effects associated with utilities.

1.3 I have identified some issues with the Energy and Utilities Chapter that would benefit from improvement. However, there are no submissions on a number of the relevant provisions to and there may not be scope to recommend changes to such provisions. These provisions are for the most part the objectives and policies associated with renewable and non-renewable energy. I consider these objectives and policies to lack the necessary qualifiers to manage adverse effects, especially in terms of sections 6 and 7 of the RMA, and do not align well with the higher order chapters of the Proposed District Plan (PDP), such as the Strategic Direction Chapter and the Landscape Chapter that provide for the management of the landscape and natural resources.

1.4 Notwithstanding these matters, I do not consider the Energy and Utilities Chapter to be deficient to the extent it is unacceptable, and I consider that adverse effects on the landscapes and natural resources of the District can be adequately protected through the Landscape and Strategic Direction Chapters.

2. INTRODUCTION

2.1 My name is Craig Alan Barr. I am employed by the Council as Acting Manager Planning Policy and I am a full member of the New Zealand Planning Institute. I hold the qualifications of Bachelor of Science and Master of Planning from the University of Otago. I have been employed in planning and development roles in local authorities and private practice since 2006. I have been employed by the Queenstown Lakes District Council (including former regulatory provider Lakes Environmental Limited) since 2012, in both district plan administration and policy roles.

2.2 I note that I was not the author of the notified Energy and Utilities Chapter in the PDP.

3. CODE OF CONDUCT

3.1 Although this is a Council hearing, I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note and that I agree to comply with it. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise, except where I state that I am relying on the evidence of another person.

3.2 I am authorised to give this evidence on the Council's behalf.

4. SCOPE

4.1 My evidence addresses the submissions and further submissions received on the notified chapter. The key issues raised in submissions can be grouped under the following broad topics:

a. the importance of transmission lines as compared to distribution lines;
b. definitions in relation to energy and utilities;
c. provision for the access to, operation, maintenance, upgrades and development of utilities;
d. locating utilities in the Outstanding Natural Landscapes (**ONLs**) or Features (**ONFs**); and
e. telecommunications and the updates to the National Environmental Standard on Telecommunication Facilities (**NESTF**).

4.2 The Table in **Appendix 2** outlines whether individual submissions are accepted, accepted in part, rejected, considered to be out of scope or transferred to another hearing stream.

4.3 Although this evidence is intended to be a stand-alone document and also meet the requirements of s 42A of the RMA, a more in-depth understanding can be obtained from reading the Energy and Utilities s 32 report which is attached at **Appendix 3**. The s 32 report also contains links to further Appendices and these, along with Monitoring reports, can be found on the Council's website at www.qldc.govt.nz.

4.4 Submissions associated with other areas of the PDP that are not related to this chapter are transferred to be addressed at the appropriate chapter and hearing. **Appendix 2** indicates whether a submission or further submission has been transferred to a future hearing stream.

4.5 I have read, referred to and relied on the evidence of Dr Stephen Chiles dated 17 August 2016 and, the evidence of Dr Marion Read dated 19 February 2016 as filed in the Strategic Directions Hearing Stream 1B and that dated 6 April 2016 as filed in the Rural Hearing Stream 2.

5. BACKGROUND – STATUTORY AND NON-STATUTORY DOCUMENTS

5.1 The s 32 report at pages 2 to 4 provides an overview of the higher order planning documents applicable to the Energy and Utilities Chapter. I summarise the documents that have been considered in the preparation of the chapter, below.

5.2 **The RMA** – in particular the purpose and principles in Part 2, which emphasise the requirement to sustainably manage the use, development and protection of the natural and physical resources for current and future generations, taking into account the 'four well beings' (social, economic, cultural and environmental).

5.3 **The Local Government Act 2002** - in particular section 14, Principles relating to local authorities. Sub-sections 14(c), (g) and (h) emphasise a strong intergenerational approach, considering not only current environments, communities and residents but also those of the future. They demand a future focussed policy approach, balanced with considering current needs and interests. Like the RMA, the provisions also emphasise the need to take into account social, economic and cultural matters in addition to environmental ones.

5.4 **National Policy Statement – Renewable Electricity Generation 2011 (NPS-REG)** – confirms that renewable electricity generation, regardless of scale, makes a crucial contribution to the well-being of New Zealand, its people and the environment, and any reductions in existing renewable energy generation will compromise the achievement of the Government's renewable electricity

target of 90% of electricity from renewable sources by 2025. It also highlights that the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities throughout New Zealand are important, and the associated benefits of renewable electricity generation, are matters of national significance.

5.5 The key message that emerges from the NPS-REG is that local authorities are required to adopt a positive and proactive policy response to renewable electricity generation activities in policy statements and plans that apply at national, regional and local levels.

5.6 **National Policy Statement – Electricity Transmission 2008 (NPSET)** – the NPSET sets out objectives and policies to enable the management of the effects of the National Grid, under the RMA. It facilitates the operation, maintenance, upgrading and development of the electricity transmission network. The NPSET seeks to ensure that, in providing for the transmission of electricity within a district and in managing the effects of the transmission network on the environment, the operational and long-term development requirements of the National Grid are appropriately considered and its status as a linear cross-boundary network is fully recognised. Specifically, Policies 10 and 11, require local authorities to manage adverse reverse sensitivity effects caused by development near high-voltage transmission lines that form part of the Transpower's National Grid.

5.7 The Energy and Utilities Chapter seeks to give effect to these national policy statements (as required by section 55(2B) of the RMA) in conjunction with providing for local, regional and nationally critical infrastructure.

5.8 **Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2008 (NESTF)** – the NESTF regulates the establishment, operation, maintenance and upgrading of certain telecommunication activities within or alongside roads throughout the country. For the purposes of the PDP, if a national environmental standard requires a resource consent to be obtained for an activity, the standard is in effect a rule in the plan that has become operative (sections 43B(9) of the RMA). A rule in the district plan may only be more stringent than a national environmental standard if the standard expressly says that the rule may be, and cannot duplicate or conflict an NES (sections 43B(9) and 44A of the RMA).

5.9 **Proposed Amendments to the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations** The NESTF is currently under review, with the decision due to be released in 2016. It is understood that amendments are proposed with the intention of bringing the NESTF up to date with the rapid progression in technology, and to widen the scope of the NESTF to include:

a. newly developed telecommunications facilities, both within and outside the road reserve, and provision for minor telecommunication equipment including provisions for:
   (i) aerial and underground cables as permitted,
   (ii) antennas on multi-storey buildings and rural areas as permitted,
   (iii) replacement and additional antennas as permitted,
   (iv) colocation of antennas as permitted,
   (v) new masts in road reserves as permitted,
   (vi) replacement of structures within 3m radius as permitted,
   (vii) new small-cell units on existing structures as permitted in road reserve and on private land,

b. updating and clarifying some of the provisions already covered, such as the 'site' in relation to cabinets, time for replacement of cabinets, and conditions relating to additional cabinets.

5.10 The amendments will also limit who the NESTF applies to (Crown, Crown agents and network operators as defined in the Act).

5.11 At the time of preparing this evidence, the decision on the NESTF was yet to be issued. The proposed amendments to the NESTF have no statutory weight.

5.12 **Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations (NESETA) 2009** – the NESETA applies to activities concerning existing transmission lines, setting out a framework of permitted activities and resource consent requirements for the operation, maintenance and upgrading of the National Grid. The same statutory test as for the NESTF, applies to the NESETA (see paragraph 5.8 above).

5.13 **Iwi Management Plans** - when preparing or changing a district plan, section 74(2A) of the RMA states that Councils must "*take into account*" any relevant planning document recognised by an iwi authority and lodged with the territorial authority, to the extent that its content has a bearing on the resource management issues of the district. Two iwi management plans are relevant:

a. *The Cry of the People, Te Tangi a Tauira*: Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008 (**MNRMP 2008**); and

b. *Käi Tahu ki Otago* Natural Resource Management Plan 2005 (**KTKO NRMP 2005**).

5.14 Chapter 5 of the KTKO NRMP 2005 identifies issues, objectives and policies for the Otago Region as a whole, and includes the following objectives:

a. The rakätirataka and kaitiakitaka of Käi Tahu ki Otago is recognised and supported.

b. Ki Uta Ki Tai management of natural resources is adopted within the Otago region.

c. The mana of Käi Tahu ki Otago is upheld through the management of natural, physical and historic resources in the Otago Region.

d. Käi Tahu ki Otago have effective participation in all resource management activities within the Otago Region.

e. The respective roles and responsibilities of Manawhenua within the Otago Region are recognised and provided for through the other objectives and policies of the Plan.

5.15 Chapter 10 of the KTKO NRMP 2005 sets out objectives and policies as they are relevant to the Clutha/Mata-au Catchment, within the Queenstown Lakes District (**District**). There are provisions within the KTKO NRMP which relate specifically to hydro-electricity schemes and the identification of *Cultural Landscapes* which have the potential to be adversely affected by energy

developments and infrastructure. The Council must have take into account these two plans when preparing the PDP. Relevantly, the proposed objectives and policies of the Energy and Utilities Chapter seek to ensure that the potential for adverse effects on recreation and cultural values (including relationships with takata whenua) are avoided, remedied or mitigated.

5.16 **Operative Otago Regional Policy Statement 1998** (**Operative RPS**) - Section 75(3) of the RMA requires that a district plan prepared by a territorial authority must "*give effect to*" any regional policy statement. In particular:

a. The Operative RPS contains chapters 6, 7, 12 and 13 (Water, Air, Energy and Waste) which are relevant to the Energy and Utilities Chapter. The relevant objectives and policies include objectives 6.4.1, 6.4.3, 6.4.4, 6.4.7 and 6.4.8 and policy 6.5.1; objectives 7.4.1 and policy 7.5.5; objectives 12.4.1 - 12.4.3 and policies 12.5.1 - 12.5.2 and 12.5.4 and objective 13.4.1 and policy 13.5.1 and 13.5.2.

b. Objectives 5.4.2 and 5.4.3 of the Operative RPS Chapter 5 Land relate to avoiding degradation of Otago's natural and physical resources from land-use activities and the protection of the outstanding natural features and landscapes of the region. This justifies the provisions protecting the landscapes from the potentially adverse effects of energy and utility facilities locating in those areas.

5.17 These objectives and policies set a basis to manage the adverse effects of energy and utility facilities in the Energy and Utilities Chapter.

5.18 **Proposed Otago Regional Policy Statement 2015** (**PRPS**) – Section 74(2) of the RMA requires that a district plan prepared by a territorial authority shall "*have regard to*" any proposed regional policy statement. The PRPS was notified for public submissions on 23 May 2015, and contains the following objectives and policies relevant to the management of energy and utilities:

a. Matter: Otago’s communities are prepared for and able to adapt to the effects of climate change (Objective: 3.3; Policy: 3.3.2(c));
b. Matter: Good quality infrastructure and services meet community needs(Objective: 3.4; Policies: 3.4.1 to 3.4.4);

c. Matter: Infrastructure of national and regional significance is managed in a sustainable way (Objectives: 3.5; Policies: 3.5.1 to 3.5.3);

d. Matter: Energy supplies to Otago's communities are secure and sustainable (Objectives: 3.6; Policies: 3.6.1 to 3.6.6);

e. Matter: Urban areas are well designed, sustainable and reflect local character (Objectives: 3.7; Policies: 3.7.3); and

f. Matter: Otago's significant and highly-valued natural resources are identified, and protected or enhanced (Objectives: 2.2; Policies: 2.2.4 and 2.2.6).

5.19 The PRPS encourages renewable energy generation, small scale domestic energy generation, and the reduction of long term demand for fossil fuels. The provisions of the Energy and Utilities Chapter reflect this approach, in particular through enabling Small and Community-Scale Distributed Electricity Generation and Solar Water Heating as permitted activities; and discouraging non-renewable energy generation through the framework of objectives and policies; as well as a non-complying activity status.

5.20 In terms of utilities, the PRPS seeks to ensure the continuation of infrastructure as important to the region and to manage the adverse effects of utilities on communities and landscapes. The provisions of the Energy and Utilities Chapter reflect this approach, in particular, through greater use of permitted status for small scale or minor utilities, providing for upgrades and maintenance of existing infrastructure, and recognising reverse sensitivity effects on both the provider and the community, and the discretionary activity status for activities in the Outstanding Natural Landscapes (**ONLs**) and Outstanding Natural Features (**ONFs**) and sensitive environments.

5.21 These objectives and policies set a basis for the management of energy and utilities facilities that are essential to the District. The hearing of submissions for the PRPS was held in November 2015 and, at the time of preparing this evidence, the Hearing Panel was deliberating the submissions. A decision on the submissions has not yet been issued by the Otago Regional Council.

5.22 **Council's Monitoring Report: Utilities, October 2011** – this report monitored the efficiency and effectiveness of the ODP utilities provisions. It was based on a desk-top analysis of consent applications lodged in accordance with the

provisions of the ODP for utility activities, including for new utilities and maintenance of existing utilities. The report analysed the efficiency and effectiveness of the ODP utility provisions, summarised the issues caused by the provisions and made recommendations for the PDP.

5.23 The monitoring report identified the following actions points for the Council in order to address the issues with the ODP utilities provisions:

a. review the provisions, especially as they relate to designations;
b. simplify the rule framework and consider a new structure to represent these;
c. clarify the consent status applicable to different utilities in different parts of the District;
d. ensure consistency across zones;
e. clearly provide recommendations on appropriate size limits and landscaping;
f. provide for consideration of public health and safety; and
g. provide for consideration of the cumulative effects of utilities.

5.24 **PDP Strategic Directions Chapter 3** – this chapter sets out the over-arching strategic direction for the management of growth, land use and development in the District and gives direction to the rest of the plan, including the Energy and Utilities Chapter. The relevant objectives are (referring to the Council's Right of Reply version):

a. Goal 3.2.2 - The strategic and integrated management of urban growth (Objectives 3.2.2.1 and 3.2.4.8);
b. Goal 3.2.5 - Our distinctive landscapes are protected from inappropriate development (Objectives 3.2.5.1 and 3.2.5.2); and
c. Goal 3.2.8 – Provide for the ongoing operation and provision of infrastructure (Objective 3.2.8.1 and Policy 3.2.8.1.1).

5.25 **PDP Urban Development Chapter 4** – this chapter sets out the objectives and policies for managing the spatial location and layout of urban development within the District. Those provisions relevant to the Energy and Utilities Chapter are (referring to the Council's right of reply version):

a. Objective 4.2.1:

Urban development is integrated with infrastructure and services and is undertaken in a manner that protects the environment, rural amenity and outstanding natural landscapes and features.

b. Objective 4.2.4:

Manage the scale and location of urban growth in the Queenstown Urban Growth Boundary.

c. Policy 4.2.4.2 in particular in regards to the efficiency of infrastructure networks and preserving the qualities of significant landscape features.

5.26 **PDP Landscape Chapter 6** – this chapter recognises the landscape as a significant resource to the District and region and protects landscapes from inappropriate activities that could degrade landscape qualities, character and values. The PDP has identified three categories of landscapes which are identified on the planning maps and are applicable to the Rural Zone:

a. Outstanding Natural Features and Outstanding Natural Landscapes: where the protection from inappropriate subdivision, use and development (section 6(b)), and in the case of lakes, rivers and wetlands, the preservation of natural character (section 6(a)) is a matter of national importance;

b. Rural Landscapes: where regard shall be had to the maintenance and enhancement of amenity values (section 7(c)) and the maintenance and enhancement of the quality of the environment (section 7(f)).

5.27 The Landscape Chapter's objectives and policies are potentially applicable to all Discretionary or Non-Complying activity status energy and utility activities, depending on the location and circumstances of such activities. The following Objectives and Policies are considered particularly relevant to energy and utility activities (referring to the Council's Right of Reply version)[2]:

[2] http://www.qldc.govt.nz/planning/district-plan/proposed-district-plan/proposed-district-plan-hearings/strategic-direction-urban-development-and-landscape-chapters-3-4-and-6/councils-right-of-reply-streams-01a-and-01b/

a. Objective 6.3.1 is *"Landscapes are managed and protected from the adverse effects of subdivision, use and development."* The objective addresses activities in all three landscape categories and includes the following policies:

(i) *Policy 6.3.1.7: Ensure that the location and direction of lights avoids degradation of the night sky, landscape character and sense of remoteness where it is an important part of that character.*

(ii) *Policy 6.3.1.11: Recognise and provide for the protection of Outstanding Natural Features and Landscapes with particular regard to values relating to cultural and historic elements, geological features and matters of cultural and spiritual value to Tangata Whenua, including Töpuni.*

(iii) *Policy 6.3.1.12: Regionally significant infrastructure shall be located to avoid, remedy or mitigate degradation of the landscape, while acknowledging location constraints, technical or operational requirements.*

b. Objective 6.3.3 is "The Protection, maintenance or enhancement of the District's Outstanding Natural Features and Landscapes (ONF/ONL) from the adverse effects of inappropriate development." This objective is specific to landscapes in terms of section 6 of the RMA. Objective 6.3.3 recognises that in some contexts subdivision, use and development is appropriate within the ONF/ONL where there is a functional need to locate within the ONF/ONL. Policy 6.3.3.6 below is relevant to new renewable energy or non-renewable energy activities involving large scale mineral extraction:

(i) *Policy 6.3.3.6: The landscape character and amenity values of the Outstanding Natural Landscape are a significant intrinsic, economic and recreational resource, such that new large scale renewable electricity generation or new large scale mineral extraction development proposals including windfarm or hydro energy generation are not likely to be compatible with the Outstanding Natural Landscapes of the District.*

c. Objective 6.3.4 is ‘Subdivision, use and development is undertaken in a manner that does not degrade landscape character or diminish visual amenity values of the Rural Landscapes (RLC)’. The Objective is specific to landscapes in terms of section 7 of the RMA and includes the following policy:

> *Policy 6.3.4.5: Encourage development to utilise shared accesses and infrastructure, and to locate within the parts of the site where it will minimise disruption to the landform and rural character.*

d. Objective 6.3.5 is "The protection, maintenance or enhancement of the landscape quality, character and visual amenity provided by of the lakes and rivers and their margins from the adverse effects of structures and activities." The Objective is specific to rivers, lakes and their margins of both section 6 (ONF/ONL) and section 7 (RLC) landscapes and includes the following policy:

> *Policy 6.3.5.1: Control the location, intensity and scale of buildings, jetties, moorings and infrastructure on the surface and margins of water bodies and ensure these structures maintain or enhance the landscape quality, character and amenity values.*

6. SCOPE ISSUES

6.1 I consider that there are components of the Energy and Utilities Chapter as notified that would benefit from changes to provide a better connection with the higher order components of the PDP, namely the Strategic Direction (Chapter 3) and Landscape (Chapter 6) chapters. I consider that the objectives and policies in particular relating to renewable and non-renewable energy are too enabling. They do not accord with the components of the Strategic Direction and Landscape Chapters that seek a course of action to manage the adverse effects on activities on landscape and amenity values generally.

6.2 There are also several objectives and policies that I consider to be ineffective as they tend to mimic higher order planning instruments such as the National Policy Statement on Renewable Energy 2011, rather than, giving effect to this document. In my opinion these objectives and policies will not provide effective assistance for plan users and decision makers.

6.3 This matter is raised here and not within the analysis of submissions (Section 7 of this report) because there do not appear to be submissions on these issues and there may not be scope to recommend changes to address them. There are also submissions that support the objectives and policies as notified without modification (the submission of Contact Energy Limited (**Contact Energy** (#580) on Policy 30.2.2.1 being an example).

6.4 In particular, I consider that the following objectives and provisions are would benefit from improvement.

6.5 Objective 30.2.1:

> *The benefits of the District's renewable and non-renewable energy resources and the electricity generation facilities that utilise such resources are recognised as locally, regionally and nationally important in the sustainable management of the District's resources.*

6.6 Policies:

> *30.2.1.1 Recognise the national, regional and local benefits of the District's renewable and non-renewable electricity generation activities.*
>
> *30.2.1.2 Enable the operation, maintenance, repowering, upgrade of existing non-renewable electricity generation activities and development of new ones where adverse effects can be avoided, remedied or mitigated.*

6.7 I consider the objective is problematic because it seems to place renewable and non-renewable energy on the same footing, despite renewable energy being favoured over non-renewable in the purpose statement (30.1) and renewable energy being a Discretionary Activity and non-renewable energy being a Non-Complying Activity. In addition, Policy 30.2.1.2 is problematic because I am not aware of the District containing any non-renewable electricity generation facilities, nor do I consider the policy appropriately reflects the non-complying activity status provided in Rule 30.4.7. The National Policy Statement for Renewable Electricity Generation 2011 also relates to renewable energy. There is no equivalent national policy direction in relation to non-renewable energy.

6.8 Objective 30.2.2:

- *Recognise that the use and development of renewable energy resources have the following benefits:*
  - *Maintain or enhance electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions*
  - *Maintain or enhance the security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation*
  - *Assist in meeting international climate change obligations*
  - *Reduce reliance on imported fuels for the purpose of generating electricity*
  - *Help with community resilience through development of local energy resources and networks.*

6.9 Policies:

30.2.2.1 Enable the development, operation, maintenance, repowering and upgrading of new and existing renewable electricity generation activities, (including small and community scale), in a manner that:

- *Recognises the need to locate renewable electricity generation activities where the renewable electricity resources are available*
- *Recognises logistical and technical practicalities associated with renewable electricity generation activities*
- *Provides for research and exploratory-scale investigations into existing and emerging renewable electricity generation technologies and methods.*

30.2.2.2 Enable new technologies using renewable energy resources to be investigated and established in the district.

6.10 I consider that policy 30.2.2.1 is problematic because it does not distinguish between small and community scale renewable energy and larger regional or national energy generation activities. The policy is enabling without any qualifiers or prerequisites to manage adverse effects of these activities on the environment. The policy does not have any submissions opposing it and is supported without any request for modification by Contact Energy (#580). Notwithstanding this, the objectives and policies of the Landscape Chapter, including the policies identified above in Section 5.26 are considered to

provide a basis to manage the actual and potential effects of larger scale renewable energy activities, not located within the Hydro Generation Zone.

6.11 Objective 30.2.3 is '*Energy resources are developed and electricity is generated, in a manner that minimises adverse effects on the environment.'* I consider that the objective is presumptive that development would be acceptable, on the basis the effects are minimised. I consider this to be weak at providing a basis to manage effects on the environment of these activities. In addition, the policy is discordant with the Non-Complying activity status for non-renewable energy, in particular when recognising and providing for matters of national importance (section 6) under the RMA.

6.12 Objective 30.2.4 is 'Site layout and building design takes into consideration energy efficiency and conservation'. Policy 30.2.4.5 is 'Transport networks should be designed so that the number, length and need for vehicle trips is minimised, and reliance on private motor vehicles is reduced, to assist in reducing energy consumption.' This policy is not related to site layout or building design. This policy seeks a course of action for broader scale transport network activities and motor vehicle reliance and is not a good fit with the objective associated with site layout and building design.

6.13 The Energy and Utilities Chapter manages new and existing small scale and community scale distributed generation, new and existing renewable generation, and new and existing utilities. While site layout and building design do affect energy efficiency and energy conservation, I consider these aspects are covered already in the following PDP chapters: Medium Density Residential Chapter 8, High Density Residential Chapter 9, and Subdivision and Development Chapter 27.

6.14 Despite there being submissions made on this objective and suite of policies as summarised in **Appendix 2**, the submissions do not seek that they are removed or substantially modified. Therefore, I cannot offer any recommendations to remove these provisions.

6.15 In terms of the submissions on Objective 30.2.4, NZTA (#719) seeks that changes be made to both notified Objective 30.2.4 and notified Policy 30.2.4.5 to add land-use development and transport planning. This submission is supported by FS1186 (Contact Energy) and FS1097 (QPL), with the original

submission by QPL requesting similar changes regarding transport connections. The basis of the submission is that the location of land-use developments and the transport networks can greatly reduce the need for vehicles and thus provide for greater energy efficiency.

6.16 I consider that Chapter 27 Subdivision adequately addresses the concepts of accessibility, connectivity, reduced reliance on vehicles and increased public transport in the following Polices: 27.2.2.4, 27.2.2.5, 27.2.2.6 and 27.2.5.5 (referring to the most recent version at the time of writing this report, being the s42A version[3]). While these submission points have merit, I recommend the matter at issue is better manged in other parts of the PDP, as identified in the preceding sentence and I reject the submission points on this basis.

6.17 Submitter Christine Byrch (#290) seeks that the policies under notified Objective 30.2.4 are changed from *encourage* to *require*. The basis of this relief is that the submitter considers that for real change we will require stronger policies, notwithstanding that the submitter has not offered any specific modifications. The relief sought by Ms Byrch is similar to that of Florence Micoud (#119), who requests that each new building and renovation be required to achieve a 6-star Homestar™ rating, and incentives offered for designs achieving 7-star rating. In this District the Council is using the Homestar™ scheme as an incentive to building, not as a requirement. This is because Council's position is only to encourage sustainable choices, the cost on the community of requiring has not been quantified. I recommend the rejection of the relief sought.

7. ANALYSIS OF SUBMISSIONS

7.1 72 submissions or further submissions with 378 points of submission were received on the notified chapter. 22 submissions or further submission and 96 points of submission were made on definitions that are considered relevant to the Energy and Utilities Chapter.

7.2 The RMA, as amended in December 2013, no longer requires a report prepared under s 42A or the Council decision to address each submission point but, instead, requires a summary of the issues raised in the submissions.

[3] http://www.qldc.govt.nz/planning/district-plan/proposed-district-plan/proposed-district-plan-hearings/04-subdivision-chapter-27/ch/

7.3 Some submissions contain more than one issue, and will be addressed where they are most relevant within this evidence.

7.4 I have set out my analysis of the provisions by issue and then by the respective components of the notified Chapter, using the following headings:

a. Issue 1 – Transmission and distribution line corridors;
b. Issue 2 – Definitions;
c. Issue 3 – Utilities Objectives and Policies;
d. Issue 4 – Locating within Outstanding Natural Landscapes or Features;
e. Issue 5 – Telecommunications Companies and the proposed amendments to the NESTF;
f. Issue 6 – Notified Objectives 30.2.5 and 30.2.6; and
g. Issue 7 – Miscellaneous Submissions.

8. ISSUE 1 – TRANSMISSION AND DISTRIBUTION LINE CORRIDORS

8.1 There are both electricity transmission and distribution lines in the District. Transmission of electricity is conducted at 110kV and above; sub-transmission of electricity is conducted at 22kV, 33kV and 66kV; distribution of electricity can be either high or low voltage – high being 6.6kV or 11kV, and low being 450V or below.

8.2 As set out in their respective submissions, Transpower (#805) operates 40.8km of above ground transmission lines at 110kV between Cromwell and Frankton. Aurora Energy (#635) operate sub-transmission lines at 33kV and 66kV both above and underground; and above ground distribution lines at 11kV in the District. PowerNet (#251) operate underground sub-transmission and distribution lines at 33kV, 22kV and 400V; and above ground distribution at 11kV and 400V in the District.

8.3 Notified policy 30.2.6.4 of the PDP provides for the use and development of the electricity transmission network, including reverse sensitivity effects and states:

Provide for the sustainable, secure and efficient use and development of the electricity transmission network, including within the transmission line corridor, and to protect activities from the adverse effects of the electricity transmission network, including by:

- Controlling the proximity of buildings, structures and vegetation to existing transmission corridors
- Discouraging sensitive activities from locating within or near to the electricity transmission National Grid Yard to minimise potential reverse sensitivity effects on the transmission network
- Managing subdivision within or near to electricity transmission corridors to achieve the outcomes of this policy to facilitate good amenity and urban design outcomes
- Not compromising the operation or maintenance options or, to the extent practicable, the carrying out of routine and planned upgrade works.

8.4 Federated Farmers of New Zealand (**Federated Farmers**) (#600)[4] submit that notified Policy 30.2.6.4, potentially applies to lines networks other than the National Grid. They seek that the policy should relate only and specifically to the National Grid (**transmission lines**), giving effect to the NPSET. PowerNet Limited (**PowerNet**) (#251), submit that the relief sought by Federated Farmers should be rejected because the reasons for providing for the National Grid, in particular the protection from reverse sensitivity effects, are important to other electricity networks that are not part of the National Grid. In my opinion Policy 30.2.6.4 applies only to the national grid as it refers to the electricity transmission network, which is defined in the NPSET as the national grid.

8.5 Aurora Energy Limited (**Aurora**) (#635) also seek amendments to notified Policy 30.2.6.4 to include reference to distribution networks. Aurora also seek new definitions and provisions (rules) to manage 'critical electricity lines'[5] This relief is sought on the basis that the sub-transmission (**sub-transmission**) and high voltage (**local distribution**) distribution networks that Aurora maintain are critical to the District despite not being part of the National Grid. This submission is opposed by FS1132 (Federated Farmers), submitting that allowing the relief sought would allow for protection of networks not provided for under the NESETA; FS1301 (Transpower New Zealand (**Transpower**)

[4] Opposed by FS1034 (Upper Clutha Environmental Society). Supported by FS1209 (Richard Burdon).
[5] Refer to page 31 of the Aurora (635) Submission.

(#805)) have further submitted neutrally on this point, although with opposition to the terminology proposed by Aurora because in Transpower's' view the relief sought would confuse provisions and terminology used under the NESETA.

8.6 I consider that sub-transmission networks are significant to the District, but local distribution networks are not. This is discussed in more detail below at paragraphs 9.2 - 9.8 where I discuss the definition of *Regionally Significant Infrastructure*. I acknowledge that local distribution networks are important to the continuance of supply of electricity to the District, however, failure events will have localised effects, but not district wide effects, thereby preventing them from being considered *regionally* significant. In the event of a failure, the sub-transmission networks owned by Aurora have the potential to cut power, for example, from Wanaka through to Cardrona/Makaroa. I therefore consider the sub-transmission electricity networks to be significant to the District. I accept in part the submission by Aurora, allowing for sub-transmission networks as regionally significant without extending such recognition to distribution networks.

8.7 I agree with Transpower that the submission by Aurora uses terminology too similar to the terms used to describe the National Grid. The transmission lines that form part of the National Grid in the District are 110kV, while the sub-transmission and local distribution lines operated by Aurora are 66kV and below. The National Grid transmission lines are by their nature larger in scale and impact. Thus consideration to the reverse sensitivity effects on these transmission lines requires strong provisions, and warrants a specific focus within the policies, separate to those of the sub-transmission and local distribution networks.

8.8 On this basis I accept in part Aurora's submission on this matter and recommend a new policy at 30.2.6.6 and rule at 30.5.10 to give relief to the submission by Aurora. Providing this distinction between transmission lines (National Grid) and sub-transmission networks at recommended policy 30.2.6.6 is considered to give partial effect to Federated Farmers submission. These recommended changes are attached at **Appendix 1**. I note that these changes will require updating the PDP maps, Appendix 2 of Aurora's submission illustrates the location of its critical electricity lines and substations.

9. ISSUE 2 – DEFINITIONS

9.1 A number of submitters have sought changes to relevant definitions as notified in Chapter 2, as well as new definitions, which relate specifically to this chapter.

New Definitions

New Definition: Regionally Significant Infrastructure

9.2 Aurora Energy (#635) and Transpower (#805) request a new definition for *Regionally Significant Infrastructure*, with support received through several further submissions[6] and opposed by FS1132 (Federated Farmers). Federated Farmers consider that the definition is unnecessary. The further submissions in support either support the original submission in full or in part, requesting minor amendments to include their own activities.

9.3 This definition was addressed in the Strategic Direction Hearing Stream 1B by Mr Matthew Paetz. A s32AA analysis is found at Section 2.42 of Mr Paetz's s42A report dated 19 February 2016[7], a final recommended version of the definition is recommended by Mr Paetz in **Appendix 1** of the Council's Right of Reply for the Strategic Directions chapter dated 7 April 2016[8], repeated below:

> *Regionally significant infrastructure means:*
>
> *a) Renewable electricity generation facilities, where they supply the National Grid and local distribution network and are operated by an electricity operator ; and*
>
> *b) Electricity transmission infrastructure forming the National Grid; and*
>
> *c) Telecommunication and radio communication facilities; and*
>
> *d) Key centralised Council infrastructure, including water reservoirs, and wastewater treatment plants; and*
>
> *e) Roads classified as being of national or regional importance; and*
>
> *f) Queenstown and Wanaka airports*

9.4 In Section 4.4 of the Right of Reply dated 7 April, Mr Paetz states:

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6 FS1097 Queenstown Park Limited, FS1211 NZ Defence Force, FS1077 BARNZ, FS1121 Aurora Energy, FS1159 PowerNet, FS1340 Queenstown Airport Corporation, FS1106 Chorus, FS1208 Vodafone, FS1253 SPARK.

8 http://www.qldc.govt.nz/planning/district-plan/proposed-district-plan/proposed-district-plan-hearings/strategic-direction-urban-development-and-landscape-chapters-3-4-and-6/councils-right-of-reply-streams-01a-and-01b/

For example, … a water reservoir might have a scale that is relatively large, and therefore systemic influence in the event of failure. Conversely local water mains or service connections to individual properties, while collectively important, would not be regionally significant. Functional failure would inconvenience some residents, but would usually not be of such town or district wide impact that it would result in impacts of regional significance.

9.5 I agree with Mr Paetz, and note that the definition as recommended in the Right of Reply dated 7 April is in alignment with Policy 3.5.1 in the PRPS. Similar to local water mains, distribution networks could be considered in the same light. Failure events will have localised effects, but not district wide effects. Sub-transmission networks, however, have the potential, in the event of a failure, to cut power to the entire Wakatipu Basin, or, from Wanaka through to Cardrona and Makarora. I therefore consider the sub-transmission electricity networks to be significant to the district, and accept in part the submission by Aurora.

9.6 Furthermore, I consider it to be efficient in clarifying what is considered regionally significant infrastructure and what is not, thus determining what types of activities are covered by the objectives and policies that utilise this term. I consider that the further submission by Federated Farmers does not take into account the potential effects of a failure of these infrastructures on the region.

9.7 The NZ Defence Force (FS1211) submits that their defence facilities should be added to the definition. As the defence force facilities and activities are limited within the District I do not consider them to be regionally significant at present. Likewise I disagree with the further submission by Queenstown Park Limited (**QPL**) (#1097) on this definition, as the provision of a gondola would not be of a scale as to be deemed *regionally significant*. I recommend the rejection of these further submission points.

9.8 I recommend modifying the definition of Regionally Significant Infrastructure recommended in the Council's Right of Reply for the Strategic Directions chapter dated 7 April 2016 for the reasons outlined above. This change is shown in the Revised Chapter attached at **Appendix 1**.

Other definitions

9.9 Submitter 635 (Aurora) are concerned with reverse sensitivity issues in relation to their electricity distribution line assets. They consider that the PDP has not adequately addressed these issues. They seek the relief that a series of new definitions be added to the Definitions Chapter to address the perceived deficiencies. These definitions are:

a. Critical Electricity Line;
b. Electricity Distribution; and
c. Electricity Distribution Line Corridor.

Proposed Definition: Critical Electricity Line

9.10 Critical Electricity Lines would cover electrical lines that do not fall within the NPSET (i.e. within the National Grid as defined in the NPSET). The new definition as proposed would effectively cover Aurora's assets, which it considers to be *regionally significant*. This submission is opposed by FS1132 (Federated Farmers), with FS1301 (Transpower) opposing the terminology.

9.11 I note that Aurora also seek to include this new definition of *Critical Electricity Lines* in notified Rule 30.4.10 relating to buildings in the national grid corridor, essentially including their corridor in this rule. I return to this below.

9.12 Transpower assert that including this definition within the PDP is confusing, as it excludes Transpower's transmission lines, which are critical to not only the region (ie regionally) but also nationally. In this respect I agree. The definition proposed by Aurora is too similar in language to that of the transmission network and confusing.

9.13 I consider that the sub-transmission networks qualify as regionally significant. Inappropriate subdivision or building location can restrict access to and affect the ability of the network operator to maintain its assets, potentially affecting the supply to the District. However, I also consider that the definition as proposed by Aurora needs clarifying and is currently phrased as more of an explanation of why these assets should be considered critical rather than a definition for district plan users. Thus I propose amending the requested

definition to specify that it applies to the sub-transmission networks in the District only, and a further definition of a *sub-transmission corridor,* outlining the safe distances from these lines.

9.14 The corridor proposed by Aurora would restrict buildings within 10m of the sub-transmission lines, which is consistent with the NZECP 34:2001 which stipulates a setback of 9m from lines conveying electricity from 33kV to 66kV. I consider that a setback of 20m (thus double this minimum distance for buildings and overhead lines) for subdivision around the sub-transmission lines is appropriate because this is consistent with NZECP 34:2001's minimum safe distances for from sub-transmission lines in normal conditions. Aurora's response to the Panel's question for the Subdivision and Development Hearing (dated 16 August 2016) stated that 32m was appropriate as the minimum safe distance is 21m. However, having the same distances for sub-transmission as the transmission lines seems to be undermining the importance and the issues associated with transmission lines. Therefore I do not support a buffer of 32 metres.

9.15 I accept in part the relief sought by Aurora, allowing for a new definition to cover their sub-transmission network, and a consequential definition of the sub-transmission corridor (a buffer for safe distances from the lines). An amended version of this definition is attached at **Appendix 1**. I have made corresponding changes throughout the chapter to give effect to this definition and the updated definition of *regionally significant infrastructure* in the form of a new policy at 30.2.6.6, updated rule 30.4.10 and new rule standard 30.5.10 of the recommended revised chapter.

New Definition: Electricity Distribution

9.16 Aurora propose a new definition for *Electricity Distribution* be added to the PDP for electrical lines that do not fall within the NPSET. The proposed definition would effectively cover the majority of Aurora's lines. The proposed definition is:

> *Electricity Distribution: <u>Means the conveyance of electricity via electricity distribution lines, cables, support structures, substations, transformers, switching stations, kiosks, cabinets and ancillary buildings and structures, including communication equipment, by a network utility operator.</u>*

9.17 This relief sought is based on seeking clarity around the term *electricity distribution* that is used in the definitions of Support Structure, *Regionally Significant Infrastructure* and *Utility* in the Definitions Chapter 2. This proposal is opposed in part by FS1132 (Federated Farmers), with FS1301 (Transpower) supporting Aurora's submission.

9.18 Federated Farmers support the notion of clarification of electrical lines that are not part of the National Grid transmission lines and the rules pertaining to the National Grid. However, they oppose distribution infrastructure being provided for in the same manner as the National Grid. Transpower similarly support the notion of clarification of what is and isn't included in the National Grid, and support the inclusion of the new definition of *Electricity Distribution* on the basis that it is consistent with other district plans in the country.

9.19 I agree with Aurora and Transpower (and Federated Farmers) that this definition would provide clarity to PDP users as to what is and is not included in the National Grid; and that it distinguishes between the activities of transmission and distribution This new recommended definition is attached in the recommended revised chapter at **Appendix 1**.

New Definition: Electricity Distribution Line Corridor

9.20 Aurora propose a new definition: *Electricity Distribution Line Corridor,* to cover a buffer area associated with electricity distribution lines. This is opposed in part by FS1132 (Federated Farmers), and FS1301 (Transpower) oppose the terminology.

9.21 As abovementioned, Aurora also seek to include their new definition of *Critical Electricity Lines* in notified Rule 30.4.10 relating to buildings in the National Grid corridor, and this has been discussed at Section 9.10-9.15. As I have recommended accepting the new definition of critical electricity sub-transmission lines and an associated new definition of a corridor specifying setback distances, I see no merit in creating a new definition to provide a corridor for distribution lines.

New Definition: Electricity Transmission Network

9.22 Federated Farmers (#600/FS1132) seek that a new definition be added to the PDP: *Electricity Transmission Network*. I note that they requested this new definition without providing any recommendations of what this should be. Their submission is to clarify that not all transmission lines are those that make up the National Grid.

9.23 As discussed in Sections 8.4 – 8.8 above, I consider that Federated Farmers requested relief is given effect to by recommending a distinction between transmission lines (national grid) and sub transmission lines (local distribution).

New Definition: Energy Activities

9.24 Queenstown Lakes District Council (**QLDC**) (383) in its corporate submission sought a new definition for *Energy Activities*. This is to provide clarity and support implementation of the rules in the Energy and Utilities Chapter. In particular this is relevant in relation to notified Rule 30.4.1 to specify that energy activities not listed in the rule table are non-compliant activities. The proposed definition provides clarity on which activities are intended to be covered by this rule, and limits the possibility for unintended activities to be applicable when using this rule.

9.25 As such, I recommend accepting this submission of QLDC, and a new definition of Energy Activities is attached at **Appendix 1**.

New Definition: Support Structure

9.26 Aurora with support from FS1301 (Transpower) and opposition from FS1132 (Federated Farmers) seeks a new definition called *Support Structure*. The definition of minor upgrading includes reference to structures and support structures, I consider this inclusion of the definition to be beneficial because this term is used throughout the definitions chapter, in particular in the definitions of *Utility*, *National Grid Yard*, *Telecommunications Facility*; in the recommended new definitions of *Electricity Sub-Transmission Lines*, *Electricity Distribution* and *Electricity Transmission Network*; as well as being in the Energy and Utilities chapter at notified rules 30.4.11, 30.4.12, 30.5.10 (redrafted 30.5.9) and 30.5.11.

9.27 I note that the definition as proposed by Aurora is limited to electricity networks, while the definition of minor upgrading includes telecommunications. I consider this is appropriate because the NESTF amendments cover any necessary "ancillary equipment" to a Telecommunication mast. There is also a definition of "Telecommunication Facility" in the PDP which includes *associated equipment and support structures*, thus negating the need for these to be added to the definition of "Support Structure". I recommend the acceptance of this submission point and recommend a new definition for Support Structure. This new definition is shown in the Revised Chapter attached at **Appendix 1**.

New Definitions: Crop Support Structure, Artificial Crop Protection Structure and Protective Canopy

9.28 Transpower have requested these definitions 'to provide clarity to plan users in relation to the rules on buildings, structures and sensitive activities located within the National Grid Yard'. It is unclear in my view how including these definitions would provide clarity to persons carrying out sensitive activities in relation to the National Grid as neither the definition of National Grid Sensitive Activities nor the Transmission Corridor Sensitive Activities makes reference to Crop Protection Structures, artificial or otherwise, or Protective Canopy.

9.29 Furthermore the Energy and Utilities Chapter makes no reference to these activities. The submitter may have meant to see that these definitions as a type of corresponding definition to the notified definition of 'national grid yard sensitive activities', but that is not requested in the relief sought. Without any further clarification I consider these new definitions are unnecessary and I recommend rejecting these submissions.

New Definition: Earthworks within the National Grid Yard

9.30 Transpower seek that a new definition for be added to the PDP in relation to the National Grid Yard and earthworks. Transpower's reason is that the ODP definition of the National Grid Yard excludes *the cultivation of land and the digging of holes for offal pits and the erection of posts or poles or the planting of trees*. Transpower considers that these matters should be included for consideration, in relation to earthworks in the National Grid Yard. I consider

that the notified rules 30.5.11 and 30.5.10 (redrafted 30.5.9) are appropriate to address earthworks and buildings and structures in the National Grid Yard without the need to add this definition.

9.31 The notified rule 30.5.11 covers such activities as the depth and type of earthworks that is permitted within the National Grid Yard. I note that the digging of holes for offal pits and the erection of posts or poles would be covered by notified Rule 30.5.10.4 (redrafted 30.5.9.4) which prevents any structures for agricultural activities higher than 2.5m or closer than 12m from a National Grid support structure, and Rules 30.5.11.3 and 30.5.11.4 which control earthworks within 6m and from 6m to 12m of a National Grid support structure.

9.32 At Rule 30.5.11.8, earthworks undertaken as part of agricultural activities or domestic gardening is excluded, which is contrary to Transpower's submission for a new definition Earthworks in the National Grid Yard to control the cultivation of land. Furthermore I note that Federated Farmers (600) support Rules 30.5.11.8 and 30.5.11.9, and submit to retain the entire 30.5.11 as notified. For these reasons I recommend the rejection of Transpower's submission and accept the submission of Federated Farmers.

New Definition: National Grid

9.33 Transpower and Arcadian Triangle Limited (836) seek that a new definition for *National Grid* be added to the PDP. This is to clarify what the rules that apply specifically to National Grid transmission lines actually cover.

9.34 The PDP makes reference to both the National Grid and Electricity Transmission separately but are not defined in the notified Definitions Chapter 2. I believe the introduction of this new definition would be beneficial because it would add clarity. Further, the recommended new definition adopts the definition of National Grid as contained in the NESETA. This new definition is shown in the Revised Chapter attached at **Appendix 1**.

New Definition: Reverse Sensitivity

9.35 Transpower with support from FS1211 (Board of Airline Representatives of NZ) and opposition from FS1077 (NZ Defence Force) submit that there is a need for a definition of *Reverse Sensitivity* in the PDP. Transpower is

concerned about sensitive activities being located in close proximity to their assets. The requested definition is:

> *Reverse Sensitivity: is the legal vulnerability of an established activity to complaint from a new land use. It arises when an established use is causing adverse environmental impact to nearby land, and a new, benign activity is proposed for the land. The 'sensitivity' is this: if the new use is permitted, the established use may be required to restrict its operations or mitigate its effects so as not to adversely affect the new activity.*

9.36 Transpower proposes this definition to assist with the interpretation of the objectives and policies in the PDP, in particular those that relate to their assets. The definition proposed by Transpower is from case law (*Gateway Funeral Services v Whakatane* DC EnvC Wellington W005/08, 5 February 2008).

9.37 I understand that reverse sensitivity applies to a wide range of effects. For example, it could be in relation to noise, smell, lighting, and visual effects to name a few. The concept and phrase 'reverse sensitivity' is broadly understood and accepted. However I am reluctant to recommend a definition in the District Plan because the meaning of reverse sensitivity has been defined by case law, and there is the potential it could be further redefined, therefore making any definition locked in the District Plan redundant and create confusion for plan users. For this reason, I recommend that Transpower's submission is rejected.

Requested Amendments to notified definitions

Building

9.38 Transpower (#805) and Arcadian Triangle (836) support the definition of building as notified. Submitters #179, #191, #421 and #781 (Vodafone, SPARK, Two Degrees and Chorus respectively (**Telecommunications Companies**)) seek that the definition of building be amended so that it refers only to the meaning of building in the Building Act 2004. These submissions are supported by FS1097 (QPL) and opposed by FS1255 (Arcadian Triangle Limited).

9.39 Arcadian Triangle's further submission states:

> *The existing definition of "Building", with its list of exemptions, has been used in the Queenstown Lakes District Plan for at least the past 20 years, if not longer. It is preferable to have exemptions listed in the definition rather than have them scattered through (and repeated in) numerous different rules.*

9.40 I agree with this submission. I therefore recommend accepting the relief sought by Transpower (#805) and Arcadian Triangle (#836), and rejecting the relief sought by the Telecommunications Companies and QPL (#FS1097). I note that the definition of building will also be re-considered, as relevant, within future hearing streams.

Minor Upgrading

9.41 Several submissions request amendments to the definition of *minor upgrading.*[9] The justification for the proposed amendments across the submissions is that the notified version does not allow for the ongoing operational requirements of the utility operators, and will result in a need for additional rules in the Energy and Utilities Chapter to allow for these ongoing operation requirements, or result in an increase in resource consent applications for minor activities.

9.42 Transpower and Aurora Energy supplied near identical relief in their submissions, which the secondary submission from the Telecommunications Companies[10] supported with minor amendments. The majority of the relief sought is consistent with definitions used in other district plans[11] of *Minor Upgrading* throughout the country. I recommend accepting in part the relief sought. The components accepted include:

a. the addition of lines;
b. removing the diameter requirements in the notified (as these are considered too difficult to monitor, and there is a requirement that the minor upgrades be of similar scale and intensity);
c. introduction of re-sagging and bonding of conductors;
d. the replacement of insulators with more efficient ones; and

[9] 251 (PowerNet), 179 (Vodafone), 191 (SPARK), 421 (Two Degrees), 781 (Chorus), 635 (Aurora Energy), 805 (Transpower). FS1097 (QPL), FS1342 (Te Anau Developments), FS1121 (Aurora Energy), FS1132 (Federated Farmers) and FS1301 (Transpower).
[10] See Appendix 6.
[11] Wellington City Council and Tauranga City Council for example.

e. the removal of three additional support structures as a minor upgrade.

9.43 These changes to the definition are shown in the Revised Chapter in **Appendix 1**.

All National Grid Definitions

9.44 Arcadian Triangle (#836) submits that the definitions relating to the National Grid are inconsistent with other definitions in the PDP, and seek the review of all of them to ensure consistency. For example, the definition of *National Grid Sensitive Activities* listed activities similar to those used in the PDP, but not consistent with the terms used in the definitions chapter, there was no notified definition of *National Grid*, and the diagram in *National Grid Yard* was difficult to read. I agree and have accepted this relief. The definitions relating to the national grid have consequently been reviewed, and any changes made resulting from this submission point are discussed below and shown in **Appendix 1.**

National Grid corridor

9.45 Transpower (805) seeks to add the word "subdivision" to the definition of National Grid Corridor (i.e. *National Grid (subdivision) corridor*), and to reference exemptions to the *National Grid Yard* in this definition. In their planning evidence presented at the Subdivision and Development Hearing (dated 15 July 2016) Transpower stated that this change is recommended in order to clearly indicate that the corridor applies to subdivision activities only, whereas the *National Grid Yard* applies to all activities. I agree that clarity for the plan user is key and recommend the acceptance of this submission point.

9.46 I reviewed this definition as per the submission by Arcadian Triangle (#836) requesting all the National Grid definitions be reviewed, and have found that it is consistent with the rest of the definitions. Arcadian Triangle highlighted that the diagram in the definition is difficult to understand. Amendments have been made to improve clarity of this diagram as shown in **Appendix 1**.

National Grid Yard

9.47 Transpower (#805) seeks to reference exemptions to the National Grid Corridor in this definition. The submitter has not provided adequate justification to convince me of the necessity of this change. I consider it would be appropriate for the submitter to respond to the need for the amendments to the definition at the hearing.

Sensitive Activities – Transmission Corridor; National Grid Sensitive Activities

9.48 Currently there are two definitions for sensitive activities in relation to transmission lines in the District – *Sensitive Activities – Transmission Corridor* and *National Grid Sensitive Activities*. QLDC (#383) in its corporate submission seek the confirmation that both are necessary. Transpower (805) seek the deletion of the former, while Arcadian Triangle (836) seek amendments to the National Grid definitions to ensure clarity and consistency with the PDP.

9.49 Throughout the chapter there is reference to *National Grid Sensitive Activities*, but no reference to *Sensitive Activities - Transmission Corridor*. The definition *National Grid Sensitive Activities*, however, lists activities that are similar to but not defined in the PDP chapter 2. This makes it inconsistent with the rest of the plan. The *Sensitive Activities – Transmission Corridor* definition contains the same activities, but using the PDP definitions.

9.50 I recommend accepting in part the relief sought by Transpower and retain the definition of *National Grid Sensitive Activities* while deleting the definition *Sensitive Activities – Transmission Corridor*. I recommend accepting in part the submission of QLDC and Arcadian Triangle, by deleting one of these definitions and by amending the definition of *National Grid Sensitive Activities* to be consistent with the PDP. These changes are shown in the **Appendix 1**.

Telecommunications Facility

9.51 The Telecommunications Companies with support from FS1342 (Te Anau Developments) seek minor amendments to the definition of *Telecommunications Facility*. These include adding in wifi and microcells and updating the wording in regards to lines and cables and telecommunications

kiosks instead of telephone boxes. I consider these amendments to be justified as they keep the definition up the date with the progressing technology. I recommend accepting the relief sought.

9.52 The relevant change is shown in the Revised Chapter attached at **Appendix 1**.

Utility

9.53 QLDC (383) submitted to include flood protection works in the definition of Utility to ensure consistency with the Energy and Utilities Chapter. The relief sought provides a better link with the definition of Utility and the notified rules 30.4.17 (redrafted 30.4.23) and 30.4.18 (redrafted 30.4.24) in the Energy and Utilities Chapter.

9.54 New Zealand Transport Agency ((**NZTA**) (#719)) submitted, with support from FS1097 (QPL) to include structures for transport on land in the definition of utility, such as cycle ways, rails, roads and walkways. Cycleways, rails, and walkways are not utilities and not likely to be installed and maintained by utility operators as would be expected for, example, an electricity line or a telecommunication mast. I recommend this submission is rejected.

9.55 The Telecommunications Companies seek that antenna and lines are included in the definition of Utility, failing this, that the definition be struck out and instead the RMA definition of *infrastructure* is used. This is opposed by FS1132 (Federated Farmers) and supported by FS1121 (Aurora Energy) and FS1097 (QPL). As this definition references the definition of Telecommunications Facility and in that definition antennas and lines are included, I see no valid reason to make this amendment, nor to delete the entire definition and replace it with the RMA definition of infrastructure. The definition of utility as used in the notified PDP is purposefully broader than that of infrastructure used in the RMA. For example the PDP definition identifies waste management. Furthermore including the RMA definition of infrastructure would include structures for cycle ways, rail, roads that I do not consider to be utilities as discussed above at [9.18]. I recommend the rejection of this submission point.

9.56 Aurora Energy (#635) submits, with support from Transpower [FS1301], to include substations and temporary emergency generators in the definition of *Utility*. Substations are key elements in the utility network, and including them is consistent with other district plans in the country. Temporary emergency generators are provided for under the energy activities definition as a non-renewable electricity generation activity, and are better suited there than under the *Utility* definition. I therefore recommend accepting in part this submission to include substations in the definition.

9.57 In summary, the definition of Utility has been amended to include flood protection works, and also substations. The relevant changes to the definition of Utility are shown in the Revised Chapter attached at **Appendix 1**.

10. ISSUE 3 – UTILITIES OBJECTIVES AND POLICIES

10.1 Many submitters[12] have requested the rewriting of objectives and policies as they relate to Utilities to better provide for the access, operation, maintenance, upgrades and development of utilities. In particular Chorus (#781) seek that the Chapter is amended to provide for a framework that supports utilities and manages the adverse effects of utilities.

10.2 Overall, I consider that the majority of the relief sought by these submitters is achieved by various policies in the Notified Chapter in that the chapter provides for the establishment, operation, maintenance, and upgrades of utilities in the District. However, I consider that the chapter could be improved in terms of clarity and consistency. I note that the organisation of the policies relating to utilities (Objective 30.2.5 – 30.2.7) could be improved. Based on these submissions I consider there is scope to recommend modification to the structure of the provisions as they relate to utilities (Objectives 30.2.5 – 30.2.7). I have therefore recommended changes to the objectives and policies to clarify which objectives and policies relate to the establishment of new utilities, and which relate to the operational and maintenance requirements of existing utilities.

10.3 Chorus (781) have suggested several modifications to Objectives 30.2.5 – 30.2.7 and I agree with some of them in so far that they provide better certainty of the outcomes and course of action to the achieve the objectives. I

[12] Transpower (805), Vodafone NZ (179), Spark Trading NZ Ltd (191), Chorus New Zealand Ltd (781) , Two Degrees Mobile Litd (421), PowerNet Limited (251, 1159), Aurora (FS1121), Contact Energy Ltd (FS1186).

do not accept the submission of Chorus where they seek modifications to policies associated with landscape (30.2.7.1) to '*where the extent practicable...appropriately protects the outstanding natural landscapes*…'. I do not support the use of the phrase 'to the extent practicable' because it would weaken protection of landscapes and would be discordant with the Strategic Directions and Landscape Chapters and sections 6 and 7 of the RMA.

10.4 The recommended changes are shown in the Revised Chapter attached at **Appendix 1** and the s32AA analysis of these changes is attached in **Appendix 4.**

11. ISSUE 4 – LOCATING WITHIN OUTSTANDING NATURAL LANDSCAPES OR FEATURES

11.1 Notified Objective 30.2.7 deals with utility activities and their effects on the surrounding environments, with particular regard to ONLs and ONFs and identified sensitive environments. The verbs avoid, remedy, mitigate are recommended to be located at the end of the phrase so they are more passive and the objective reads like more of an outcomes statement. I do not consider this change to be substantive.

11.2 The Telecommunications Companies seek that notified Objective 30.2.7 be amended to be more precise with respect to the areas it relates to. NZTA (#719), seeks that the phrase *where practicable* be added in, with support from FS1160 (Otago Regional Council) and FS1186 (Contact Energy). As I have already stated in relation to the submission of Chorus (#781) I do not support the use of the phrase 'where practicable' because I consider that the introduction of this phrase into the policy framework would be discordant higher order PDP chapters and would not be the most appropriate way to meet the purpose of the RMA.

11.3 While I acknowledge that it is not always possible for certain utilities to provide the necessary services to the District without locating in certain areas, the phrase *where practicable* weakens the objective through introducing greater subjectivity. Furthermore, Landscape Architect Dr Marion Read's evidence at the Rural Hearing (dated 6 April 2016) considers that increased protection of

ONL/ONFs is a necessary step to ensure appropriate management of these areas.[13] I recommend the rejection of this submission point.

11.4 The Telecommunications Companies also seek the addition of a new policy under notified Objective 30.2.7. This policy relates to the functional and technical requirements which often require their assets to be located in areas of ONLs and ONFs, and a desire for Council to give greater recognition to this. This submission is supported by FS1097 (QPL), FS1121 (Aurora Energy).

11.5 I acknowledge that in some cases utilities will need to locate in ONLs and ONFs. However, I believe this relief sought by the Telecommunication Companies is achieved through PDP in the Landscape Chapter 6 policy 6.3.1.12 (the Right of Reply version):

> Regionally significant infrastructure shall be located to avoid, remedy or mitigate degradation of the landscape, while acknowledging location constraints, technical or operational requirements.[14]

11.6 While this recommended policy considers Regionally Significant Infrastructure and does not provide for utilities that do not qualify as Regionally Significant Infrastructure, I also note that Objective 6.3.3 (ONF/ONL) of the Landscape Chapter contemplates activities in the context of inappropriate development. I consider that this addresses the location needs of utilities and enables consideration of whether it is appropriate development in the context of its locational necessity. I further consider that notified Policy 30.2.7.4, where it identifies taking account of operational needs, achieves the relief sought. I recommend these submissions are rejected.

11.7 PowerNet (251) with support from FS1186 and FS1097 (Contact Energy and QPL) seek that notified Policy 30.2.7.1 be amended to reflect that it may be difficult for utility providers to reduce the visual effects of their assets. While I acknowledge that this may be true in certain cases, I do not consider adding the words *where necessary* to be appropriate, for the same reasons I do not support phrases such as 'to the extent practicable'.

11.8 I recommend modifications to Policy 30.2.7.1 to provide a greater distinction between ONLs/ONFs and Rural Landscapes and the management

[13] Refer to evidence of Dr Marion Read dated 6 April 2016 [6.6]
[14] PDP Landscape revised Chapter 6 dated 6 April 2016

expectations relevant to both sets of landscapes. I consider that this separation goes some way to alleviating the submitters concerns.

11.9 Further to this issue of visual amenity, submitter Aurora Energy (#635) seeks that reference to appearance, scale and visual effects should be removed from the matters of control in Rule 30.4.11. Aurora Energy considers mitigation measures to be technically unfeasible and any requirements to paint structures will lead to the integrity of the structure being compromised. I refer again to **Figure 1** which demonstrates the successful minimising of the visual effects. I also refer to and rely on the Evidence of Dr Marion Read[15] in which she discusses the value of the Districts landscapes and their contribution to economic value, noting that "*with a landscape of high value and a high level of population growth I consider it necessary to manage that growth so that it could occur without detracting from the value and quality of the landscape*". In light of this I consider managing and reducing the appearance, scale and visual effects of utilities to be important. I recommend the rejection of this submission point.

Figure 1: Example of a telecommunications mast in the Queenstown Lakes District (on the road from Wanaka to Glendu Bay, RM150012) with reduced visual effects due to appropriate colouring

[15] Refer to evidence of Dr Marion Read presented at the Strategic Directions Hearing Stream, dated 19 February 2016. At Paragraph 4.4.

11.10 Aurora Energy (#635) and Transpower (#805) seek similar amendments to notified 30.2.7.1. They seek that the policy provide for the technical and economic constraints of utilities. I believe this relief is achieved in notified Policy 30.2.7.4, which states: *Take account of economic and operational needs in assessing the location and external appearance of* utilities. This policy will inform the assessment where circumstances indicate that mitigating effects is impractical or unfeasible. As such I recommend the rejection of this submission point.

12. ISSUE 5 – TELECOMMUNICATIONS COMPANIES AND THE PROPOSED AMENDMENTS TO THE NESTF

12.1 Many of the minor amendments to the Energy and Utilities Chapter sought by the Telecommunications Companies, such as antenna dimensions and specifically providing for ancillary equipment in the rules, are in relation to anticipated amendments to the NESTF, due to be finalised in late 2016. Specifically, the Telecommunications Companies seek that the PDP reflect the content of the proposed amendments, preparing the PDP for the adoption of such amendments nationally. At the outset I note there is no guarantee as to the final content of a new NESTF, nor of the timing of such a new document.

12.2 The proposed content of the amendments to the NESTF is summarised in the document "Proposed amendments to the National Environmental Standards for Telecommunication Facilities 2008: Recommendations for proposed amendments" (included in **Appendix 5**). These changes have been outlined above in Section 5.9 above. The proposed NESTF is broader in scope than the existing NESTF as it provides for the installation of new masts, antenna and ancillary equipment in locations other than road reserves.

12.3 The Telecommunications Companies offered advice based on their perspective of anticipated amendments to the NESTF. The advice was received on a without prejudice basis and sought a significantly more enabling approach to the rule framework, particularly as it relates to mast heights. This advice is attached at **Appendix 6**.

12.4 While appreciative of the advice received I have not accepted it or even contemplated if it is within the scope of the their submissions because the

proposed amendments to the NES do not yet have effect and the District Plan cannot be more lenient than a current NES.

12.5 I do however recommend accepting a number of changes requested by the Telecommunication companies through their submission (as lodged on the PDP and summarised in **Appendix 2** of this report). These are demonstrated in the recommend revised chapter at **Appendix 1**, and the s 32AA evaluation attached at **Appendix 4** to this report.

13. ISSUE 6 – NOTIFIED OBJECTIVES 30.2.5 AND 30.2.6

13.1 Notified Objective 30.2.5 reads Co-ordinate the provision of utilities as necessary to support the growth and development of the District. Notified Objective 30.2.6 reads The establishment, efficient use and maintenance of utilities necessary for the well-being of the community.

13.2 These two objectives are very similar, and I consider they essentially mean the same thing. Not only is this an unnecessary duplication, it is also not efficient for utilities and their management in the District. The majority of the policies under these two objectives are also repetitive. I would prefer to merge these two objectives and reduce any duplication with the policies, however submissions have been made on these two objectives in partial support. I consider that this restricts the ability to merge these objectives for the sake of drafting for the reasons expressed below.

13.3 Chorus (#781) has submitted requesting that the objectives are made more distinct. It has requested that Objective 30.2.5 is modified so that it is targeted toward the development of utilities and Objective 30.2.6 targeted towards the maintenance and continued operation of utilities. While arguably these matters could be addressed quite easily in a single objective, and each objective still contemplates new utilities, I consider that it would be unfair to submitters because specific changes are requested to the policies under each objective that are quite distinct and would disrupt the overall thrust of the relief sought. For example, Chorus request a new policy under Objective 30.2.5 that clearly sets out the aspects of utilities that provide for social and cultural wellbeing through the establishment of new utilities.

13.4 Overall therefore, I consider the relief sought by submitters (Namely Chorus and Transpower) improve Objectives 30.2.5 and 30.2.6 and the relevant policies, and I recommend the submissions on these matters are accepted in part.

13.5 These changes are shown in the revised chapter in **Appendix 1**, and a s32AA analysis is shown in **Appendix 4.**

14. ISSUE 7 – MISCELLANEOUS SUBMISSIONS

14.1 There are a number of submissions that are best addressed separately. These are discussed below. Reference is made to **Appendix 2** that provides a summary of the submission, and whether it is recommended the submission is rejected, accepted or accepted in part.

Noise from back-up generators

14.2 Aurora Energy [#635] submitted that Rule 30.4.6 was overly onerous towards emergency/backup generation, requiring that it comply with the provisions in the PDP Noise chapter. I refer to and rely on the evidence of Dr Stephen Chiles dated 19 August 2016 filed along with the District-Wide hearing S 42A reports. Dr Chiles, at 6.2 of his evidence, states that temporary noise from an emergency generator is an appropriate exemption from normal noise limitations, as *temporary sound from an emergency generator is likely to be tolerated by most people at higher levels than other permanent sound sources*. Ms Evans has recommended in her S 42A report on the Noise Chapter an exemption for such activities at redrafted 36.4.7. I therefore consider the relief sought by Aurora Energy to already be provided for, with no need for amendments to 30.4.6.

Minimum reflectance value

14.3 Submitter 383 (QLDC corporate submission) sought that the standards table included a maximum reflectance value. This was opposed by FS1106, FS1208 and FS1253 (Chorus NZ, Vodafone NZ and SPARK NZ respectively) who state that the submission is ambiguous in that it does not specify whether it applies only to wind turbines or standards. I have interpreted this submission to apply to all standards that control visual appearance. As set out by Dr Read

in her landscape evidence and Mr Osborne's economic evidence in the Rural Hearing, which I refer to and rely on, the landscape values of the District are of considerable importance to social, economic and cultural wellbeing, I consider that rules are appropriate and I recommend a standard requiring the maximum reflectance values as stated in the Council guidance document Note *Suitable Building Colours and Materials In Rural Zones* of less than 36%. A copy of the guidance is attached as **Appendix 8** to this report.

14.4 I recommend including this standard in Rules 30.5.1.2, 30.5.2.3, 30.5.3.5 and 30.5.5.3, where the standard as notified specified compliance with recessive colours. I consider that these amendments reflect the relief sought by the QLDC (#383). The amendments are shown in the revised chapter at **Appendix 1.**

Environmental compensation and biodiversity offsetting

14.5 Submitter 373 (QLDC corporate submission) and (Department of Conservation (**DoC**) (#373)), with support by way of a further submission from Forest and Bird (FS 1040) seek amendments to notified Policy 30.2.3.6. The relief sought would remove environmental compensation from the policy and replace this with biodiversity offsets. In the right of reply for Chapter 33 Indigenous Vegetation and Biodiversity dated 7 April,[16] I recommended definitions for both *environmental compensation* and *biodiversity offsets*, in support of the changes as requested by DoC.

14.6 I note that Contact Energy (#580) submitted in support of Policy 33.2.1.8 of the Indigenous Vegetation and Biodiversity Chapter because in their view it provides the option of compensation or biodiversity offsets where adverse effects of an activity cannot be avoided, remedied or mitigated. In the Rural Hearing addressing submissions on Chapter 33, I recommended rejecting this submission through removing the reference to compensation. I note that Contact Energy did not submit on Policy 30.2.3.6, despite this matter being similar.

14.7 Based on the definitions of Biodiversity Offsetting and Environmental Compensation as supported in the Rural Hearing (Chapter 33), I consider that

[16] Refer to Part 7 of the Indigenous Vegetation and Biodiversity Chapter 33 Reply http://www.qldc.govt.nz/planning/district-plan/proposed-district-plan/proposed-district-plan-hearings/rural/councils-right-of-reply-stream-02/

biodiversity offsets should be contemplated where the adverse effects of an activity on biodiversity, typically indigenous biodiversity, cannot be avoided, remedied or mitigated. Whereas environmental compensation is more appropriate in a broader sense for consideration of other measures to recompense adverse environmental effects than is considered applicable within the confines of the definition of Biodiversity offsetting.

14.8 By way of example, a distinction between these two concepts is already evident in the Operative District plan, being the Financial Contributions provisions applicable to the Hydro Generation Zone (located in Part 14, Subdivision, Development and Financial Contributions). I consider that in this context the policy is relevant to both circumstances and therefore should refer to *environmental compensation* and *biodiversity offsets.* I do not consider there to be a double up with the recommended redrafted policy 33.2.1.10 in the Indigenous Vegetation and Biodiversity Chapter because this policy is confined to the management of indigenous biodiversity. The reference to biodiversity offsetting used in the context of the Energy and Utilities Chapter could relate more broadly to the concept of ecosystem services and not the intrinsic values of indigenous biodiversity.

14.9 I also support the use of the term 'Environmental Compensation' in the context of this Chapter more so than within the Indigenous Vegetation and Biodiversity Chapter. The concept and its applicability is broader than in the context of indigenous biodiversity and any tension between compensating and the Council's obligation to maintain indigenous biodiversity in terms of section 31 of the RMA.

14.10 I note, however, that the Energy and Utilities Chapter does not establish the framework in which compensation will be sought or is appropriate. For applications for electricity generation on larger scale, the default non-complying activity status at notified Rule 30.4.1 would be triggered, allowing for the consideration of this policy in such instances.

Flood Protection Works

14.11 Submitters Te Anau Development Limited (#607 (**TADL**)), Cardrona Alpine Resort Limited (#615 (**CARL**)) and Queenstown Park Limited (#806) with support from Kay Curtis (FS1137), Cardrona Valley Residents and Ratepayers

Association (FS1105) and Shotover Country Limited (FS1294) seek that the rules relating to flood protection works are removed from the Energy and Utilities Chapter.

14.12 While I acknowledge that the Energy and Utilities chapter could perhaps be considered an anomalous location for the management of these activities, I do not consider other chapters more appropriate (in particular neither zone chapters, or the Natural Hazards chapter). Location of these rules alongside utilities maintains the status quo of the ODP. I recommend the retention of these rules in this chapter and the rejection of these submission points.

30.4.8 Utility activities not listed

14.13 Rule 30.4.8 requires a Discretionary Activity resource consent for 'Utilities, buildings, structures and Earthworks which are not otherwise listed'. Submitter #251 (PowerNet) with support from FS1121 (Aurora Energy), along with the Telecommunications Companies, has sought that the Discretionary activity status for Notified Rule 30.4.8 be changed to Permitted. In their view, this is because the development of their technology is increasing each year, and the submitters consider that the rule framework should permit these advances rather than reserving discretion over them.

14.14 While I acknowledge that the technology regarding utilities can and does progress, I do not consider a permitted status appropriate for this rule. In response to concerns raised over undergrounding of lines not being provided for in the rule framework as notified (Powernet, Telecommunications Companies and Transpower), I have recommended adding a rule to cover these (see new Rule 30.4.22).

14.15 I note that Rule 30.4.8 is already more permissive than other chapters in the PDP, and indeed more permissive than the same rule as it applies to energy activities in the Energy and Utilities Chapter, which provides that activities not listed in the rule tables are Non-Complying

14.16 I recommend this submission point is rejected.

NPS Freshwater management

14.17 Te Ao Marama Inc (**TAMI**) (#817) have sought that Council give effect to the NPS Freshwater Management Objective D1 *Tāngata whenua roles and interests* in the Energy and Utilities Chapter. I consider that much of the Iwi involvement required by the NPS and other legislation has been provided for in PDP Chapter 5 Tangata Whenua. In the Energy and Utilities Chapter, notified Policy 30.2.3.4 states that when assessing the effects of renewable electricity generation proposals, Council officers shall have regard to:

a. landscape values and areas with significant indigenous flora or fauna; and
b. recreation and cultural values, including relationships with tangata whenua.

14.18 I consider that this policy provides the relief sought by TAMI, by giving direction to consider tangata whenua values and input in the decision making process. Therefore, I consider that no further action is required on this submission point.

Solar panels

14.19 There have been submissions on the provisions for solar panels. These include both supportive responses to the notified chapter[17] and opposing by Angela Martin (#263), Wayne Blair (#510) and Patricia Swale (#792).

14.20 Those in support of the provisions highlight the productivity levels of solar panels and state that the chapter should offer further encouragement and incentives for solar panel installation. Contrarily, those in opposition maintain that the installation of solar panels would have negative impacts on neighbouring properties, particularly intruding on views.

14.21 For solar panels to be effective, they need to be set an optimum angle to collect energy from the sun's rays.[18] I acknowledge that allowing solar panels to intrude into the maximum height by 0.5m on sloping sites and 1.0m on flat sites could potentially negatively affect neighbours' views to a small extent.

[17] 230 (Loris King), 115 (Florence Micoud), 72 (Kelvin Peninsular Community Association), FS1352 (Kawarau Village Holdings).

[18] EECA suggest in their guidance document (*Domestic-scale distributed generation: Guidance for local government*. EECA (May, 2010) pg.17) that this is usually around 25° for panels connected to the grid, and 45° for off-grid systems.

However, the solar panels are not permitted to intrude into recession planes under Rule 30.5.1.4. Moreover, I do not consider solar panels intruding into the height restrictions are materially different in this respect to chimneys, which are permitted to intrude into height restrictions in both the ODP and PDP by 1.5m.

14.22 I therefore recommend that the rule is retained as notified and that the submissions of Angela Martin, Wayne Blair and Patricia Swale on this issue be rejected.

Small-Scale and Community-Scale Distributed Electricity Generation, Solar Water Heating and Wind Turbines

14.23 Submitter Hunter Leece (#126) seeks that the kW limit for Small-Scale and Community-Scale Distributed Electricity Generation and Solar Water Heating be increased. I can confirm that the notified 3.5kW limit is for combined total of generation.

14.24 While I acknowledge the benefits of encouraging the uptake of Small-Scale and Community-Scale Distributed Electricity Generation in the District, this submission has not convinced me of the appropriateness of permitting systems with capacity of 10kW. In particular, the size of these structures could be of a scale that requires a higher level of control that what would be afforded through a permitted activity status. The Energy Efficiency and Conservation Authority's (**EECA**) Guidance note to local government on domestic-scale distributed generation[19] attached as **Appendix 7** recommends that around 6-7m^2 is required per kW of solar panels (i.e a 2kW system would be around 12-14m^2).[20]

14.25 The EECA guidance note advises that micro small-scale electricity generation is a system with a capacity anywhere between 0 and 5kW.[21] Based on this information, I consider up to 5kW could be appropriate for Small-Scale and Community-Scale Distributed Electricity Generation in the District. An estimate of the size of these is typically between 6-7m^2 per kW of solar panels, depending on the type installed,[22] and for micro wind turbines on poles/towers,

19 *Domestic-scale distributed generation: Guidance for local government*. EECA (May, 2010).
20 Ibid. pg.17
21 Ibid. pg. 5
22 Ibid. pg. 16

normally around 4-9m^2 of land is required.[23] I consider the design standards at rules 30.5.1 and 30.5.3 adequate to control the adverse effects of this scale of generation. I recommend accepting in part Hunter Leece's submission in regards to increasing the kW capacity.

14.26 Submitter #368 (Anna-Marie Chin and Phil Vautier) is also similar to Hunter Leece (#126) in that both consider that the rule framework for Small-Scale and Community-Scale Distributed Electricity Generation is too restrictive. Hunter Leece submits that in the Rural Zone, renewable energy systems larger than 3.5kW could be detached from buildings and still have minimal impact visually. This point is similar to that of submitters Chin and Vautier (#368) who seek that Small-Scale and Community-Scale Distributed Electricity Generation be a permitted activity in the Rural Zone if within a building platform. While I am not persuaded that increasing the capacity for permitted electricity generation systems to larger than 5kW is justified, I believe that, the adverse effects of detached electricity generation systems of up to 5kW would be acceptable, subject to the appropriate design controls (so long as site coverage requirements are not exceeded). I recommend accepting in part submission #126 and #368 in regard to permitting detached Small-Scale and Community-Scale Distributed Electricity Generation in an approved building platform.

14.27 Anna-Marie Chin Architects and Phil Vautier (#368) seek that the rules restricting the size of the Small-Scale and Community-Scale Distributed Electricity Generation be deleted on the basis that Council should be encouraging the use of sustainable energy. Submitter Aaron Cowie (#20) seeks however that there are more rules to restrict the height and potentially the location of wind turbines in the District even further, requesting that mobile objects have a maximum height of 1.2m.

14.28 EECA's guidance note states that, to be efficient, wind turbines must be tall enough to sufficiently access undisturbed airflow.[24] This is typically between 10 and 20m. In my view, the provisions in the Energy and Utilities chapter sufficiently encourage the use of sustainable energy. The restrictions on those renewable energy utilities that have greater risk of adverse effects, such as making wind turbines a discretionary activity, are acceptable. Further restriction, as sought by submitter Aaron Cowie (#20), would be likely to render activities such as small scale wind turbines ineffective.

[23] Ibid. pg. 23
[24] *Domestic-scale distributed generation: Guidance for local government*. EECA (May, 2010). pg. 21.

14.29 On the other hand, providing less restriction, as submitted by Anna-Marie Chin Architects and Phil Vautier (#368) in terms of allowing a subdivision to include a large bank of solar panels, or more than 2 wind turbines to support a subdivision's energy demands, could allow for inappropriate visual effects. The merits of activities of this nature and scale should be assessed through the resource consent process.

14.30 Having considered these two submissions, I consider that the notified standards are appropriate, in that they provide for permitting efficient sustainable energy activities, at a scale and intensity without overly disadvantaging others.

Requiring undergrounding of lines

14.31 Submitter John Walker (#292) seeks that the progressive undergrounding of lines be required in Wanaka. This submission is opposed by further submissions by Chorus (FS1106), Vodafone New Zealand (FS1208) and SPARK (FS1253) on the basis that it is unlawful for a district plan to require undergrounding of existing lines, and they note that it is not always technically feasible to do so, as well as involving a substantial economic cost.

14.32 While I agree that overhead lines are more visually prominent than those underground, I consider overhead lines in urban areas a normal and expected sight. To require the undergrounding of these lines, where they are still working efficiently, would be unnecessary. I note that Policy 30.2.7.3 encourages the undergrounding of lines for replacement or upgrading, while 30.2.7.2 requires undergrounding in new areas of development. Thus, I consider that both the notified and recommended revised versions of the chapter encourage and enable undergrounding of lines. However I recommend accepting in part the relief sought by Mr Walker (#292) by creating a new Rule (redrafted) 30.4.22, permitting the undergrounding of lines. On this basis, I also recommend adding a note to the rule, clarifying that rules relating to Earthworks (operative chapter) still apply.

Purpose Statement

14.33 Maggie Lawton (#117) seeks that the purpose statement be amended to include energy security and affordability. In my view, this is covered already in

the purpose through the words *Energy efficiency and conservation*. I consider that an efficient supply of energy is a secure supply, and the conservation of energy makes it more affordable. I recommend the rejection of this submission point.

Benefits of utilities to District

14.34 The Telecommunications Companies with support from FS1097 (QPL) and FS1121 (Aurora Energy) have sought to include a new policy to the chapter under Objective 30.2.5 reflecting the benefits to the District provided by utilities and their assets. This is similar to the relief sought by PowerNet (#251) with support from FS1097 (QPL) and opposition from FS1186 (Contact Energy) and FS1132 (Federated Farmers), who request the benefits of utilities be included in the purpose statement. Contact Energy and Federated Farmers oppose the submission of PowerNet on the basis that the amendments offer no benefit to the purpose of the Energy and Utilities Chapter and that the amendments remove the recognition of the adverse effects on the surrounding land-uses.

14.35 As discussed above under Issue 6 relating to Objectives 30.2.5 and 30.2.6 I have recommended accepting the following policy requested by Chorus:

> *Recognise the positive social, economic, cultural and environmental benefits that utilities provide, including:*
>
> *a. enabling enhancement of the quality of life and standard of living for people and communities*
> *b. providing for public health and safety*
> *c. enabling the functioning of businesses*
> *d. enabling economic growth*
> *e. enabling growth and development*
> *f. protecting and enhancing the environment*
> *g. enabling the transportation of freight, goods, people*
> *h. enabling interaction and communication*

14.36 I consider that this recommendation meets the intent of the submitters who seek that the benefits of utilities are recognised as part of the policy framework.

Notification provisions/RMA processes

14.37 Aaron Cowie (#20) seeks that resource consent applications for objects such as wind turbines greater than a height of 1.2 metres should be notified to at least the neighbours, mirroring a process that Mr Cowie identifies is used in the United Kingdom. This submission is opposed by FS1097 (QPL) on the basis that utilities applications should not always be notified.

14.38 Part 30.6 of the Energy and Utilities Chapter states that applications for Stand Alone Power Systems (30.6.1.1) and Small and Community Scale Distribution Electricity Generation (30.6.1.2) shall be processed without public or limited notification. By way of context, the performance standards for Small and Community Scale Distribution Electricity Generation at Rule 30.5.1 control the potential effects through restricting whether they would overhang from the building (30.5.1.1), recessive colour (30.5.1.2), setback from road and internal boundaries (30.5.1.3), recession planes (30.5.1.3), limited intrusions through building heights (30.5.1.6), height and area (30.5.1.7, 30.5.1.8).

14.39 I consider that non-compliance with these standards could result in an adverse effect on a neighbour. In particular, non-compliance with these provisions could have adverse effects on amenity, outlook, and visual dominance considerations. I do not see any justification as to why neighbours or the wider public should be excluded from the consideration of adverse effects. I accept in part Mr Cowie's submission and recommend that the non-notification provisions relating to Stand Alone Power Systems (30.6.1.1) and Small and Community Scale Distribution Electricity Generation (30.6.1.2) are removed.

14.40 I also accept the further submission from QPL (FS1097) in so far that not all applications need to be notified. I consider that the respective components of section 95 of the RMA provide the basis to assess the adverse effects on the environment in terms of on what basis a resource consent is processed.

Reverse sensitivity / 150m setback from National Grid Substation.

14.41 Transpower (805) seeks a new restricted discretionary rule for any building or intensive development within 150m of a National Grid substation. Essentially what they seek is another reverse sensitivity rule.

14.42 The non-complying activity status of any building or structure within the National Grid Yard at notified Rule 30.5.10 (redrafted 30.5.9) is in my view adequate to counter any reverse sensitivity issues potentially arising from the effects of Transpower's activities inside of these setbacks on activities locating within the National Grid Yard. I consider that reverse sensitivity effects are appropriately accounted for by notified Rule 30.5.10 (redrafted 30.5.9), and recommend the rejection of this submission point.

Heat exchange / ground and water source energy

14.43 Submitter #383 (QLDC Corporate Submission) seeks that reference be made to the encouragement of heat exchange between land and water in the Purpose statement, and that ground-water energy generation be included in the standards table. This kind of energy generation *is renewable*, and as such is covered by notified Objective 30.2.2 and notified Policy 30.2.2.2. For this reason I do not see any value in adding to the chapter to provide for this activity specifically. I recommend the rejection of this submission point.

Electricity (Hazards from Trees) Regulations 2003

14.44 Submitter #805 (Transpower) with support from FS1121 (Aurora Energy) seeks that reference be made to the Electricity (Hazards from Trees) Regulations (2003) in the Energy and Utilities Chapter. To ensure that vegetation planted within the National Grid corridor is selected and/or managed to ensure it does not result in vegetation breaching these regulations. As the chapter makes reference to NESTA, NESTF and NZECP 34 to ensure that activities proposed do not breach these regulations, I see no reason to reject the submission.

Rule 30.4.4

14.45 Rule 30.4.4 requires a restricted discretionary activity resource consent for Renewable Electricity Generation Activities limited to masts, drilling and water monitoring for the purpose of research and exploratory scale investigations that are of a temporary nature.

14.46 Contact Energy (#580) opposes this rule on the basis that it should not apply within the Hydro Generation Zone. Contact Energy submit that the Hydro

Generation Zone already provides for drilling for inspection as a controlled activity, and monitoring as a permitted activity.

14.47 The Operative Hydro Generation Zone[25] sets out that drilling for inspection, including installing and operating any instruments or other equipment to test or monitor, is a permitted activity by virtue of being listed as exempt from the controlled activities (Rule 12.13.4.2) and not otherwise listed as a discretionary activity (Rule 12.13.4.1).

14.48 As the Operative Hydro Generation Zone currently stands, I consider that the activities identified above are suitable to be contemplated within the Hydro Generation Zone as a permitted activity. Therefore, I recommend Contact Energy's submission is accepted. The recommended modifications are attached as **Appendix 1** and a section 32AA assessment is attached as **Appendix 4**.

15. CONCLUSION

15.1 On the basis of my analysis within this evidence, I recommend that the changes within the Revised Chapter in **Appendix 1** be accepted.

15.2 The changes will improve the clarity and administration of the PDP, contribute towards achieving the objectives of the PDP and Strategic Direction goals in an effective and efficient manner and give effect to the purpose and principles of the RMA.

Craig Barr
Acting Manager Planning Policy
19 August 2016

[25] http://www.qldc.govt.nz/planning/district-plan/volume-1-district-plan/section-12-special-zones-hydro-generation/

Appendix 1. Recommended Revised Chapter

Key:

Recommend changes to notified chapter are shown in underlined text for additions and ~~strike through text~~ for deletions. Dated 19 August 2016.

30 Energy and Utilities

30.1 Purpose

Energy and Utilities are of strategic importance and require a coordinated approach in relation to the development of energy resources, the generation of electricity and the provision of essential infrastructure throughout the District.

30.1.1 Energy

Energy resources play a key role in the socio-economic wellbeing and growth of the District. Local energy needs may change over time and are dependent on the scale of demand, as well as measures to reduce demand through energy efficiency, conservation and small scale renewable generation.

In the future, there may be a need for new generation sources to meet demand. Electricity generation by renewable energy sources is desired over non-renewable sources and this is reinforced in the National Policy Statement on Renewable Electricity Generation 2011. The generation of electricity from non-renewable sources is generally discouraged. However, standby generation may be necessary for essential public, civic, community and health functions, or in areas not connected to the electricity distribution network.

Energy efficiency and conservation go hand in hand with renewable energy. Conserving the use of energy together with the generation of renewable energy will be vital in responding to the challenges of providing enough energy to meet future energy needs and reducing greenhouse gas emissions. Small and community scale generation is encouraged and advantages of solar energy within the District are recognised. The benefits of solar energy may be realised through site design methods which promote solar efficient design, in addition to the inclusion of solar photovoltaic panels and solar hot water heating systems within buildings. Sustainable building forms which reduce energy demand and minimise heating costs are encouraged, including use of the Homestar™ rating system for residential buildings and Green Star tool for commercial buildings.

30.1.2 Utilities

Utilities are essential to the servicing and functioning of the District. Utilities have the purpose to provide a service to the public and are typically provided by a network utility operator.

Due to the importance of utilities in providing essential services to the community, their often high capital cost to establish, and their long life expectancy; the need for the establishment and on-going functioning, maintenance and upgrading of utilities is recognised. In addition, some utilities have specific locational needs that need to be accommodated for their operation. The co-location of utilities may achieve efficiencies in design and operation, reduce capital investment costs and also minimise amenity and environmental effects. The ability to co-locate compatible uses should be considered for all utility proposals.

It is recognised while utilities can have national, regional and local benefits, they can also have adverse effects on surrounding land uses, some of which have been established long before the network utility. The sustainable management of natural and physical resources requires a balance between the effects of different land uses. However, it is also necessary that essential utilities are protected, where possible, from further encroachment by incompatible activities which may be subject to reverse sensitivity effects. This chapter therefore also addresses requirements for sensitive uses and habitable buildings located near to utilities.

30.2 Objectives and Policies

Energy

30.2.1 Objective - The benefits of the District's renewable and non-renewable energy resources and the electricity generation facilities that utilise such resources are recognised as locally, regionally and nationally important in the sustainable management of the District's resources.

Policies

30.2.1.1 Recognise the national, regional and local benefits of the District's renewable and non-renewable electricity generation activities.

30.2.1.2 Enable the operation, maintenance, repowering, upgrade of existing non-renewable electricity generation activities and development of new ones where adverse effects can be avoided, remedied or mitigated.

30.2.2 Objective - Recognise that the use and development of renewable energy resources have the following benefits:

- **Maintain or enhance electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions**
- **Maintain or enhance the security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation**
- **Assist in meeting international climate change obligations**
- **Reduce reliance on imported fuels for the purpose of generating electricity**
- **Help with community resilience through development of local energy resources and networks.**

Policies

30.2.2.1 Enable the development, operation, maintenance, repowering and upgrading of new and existing renewable electricity generation activities, (including small and community scale), in a manner that:

- Recognises the need to locate renewable electricity generation activities where the renewable electricity resources are available
- Recognises logistical and technical practicalities associated with renewable electricity generation activities
- Provides for research and exploratory-scale investigations into existing and emerging renewable electricity generation technologies and methods.

30.2.2.2 Enable new technologies using renewable energy resources to be investigated and established in the district.

30.2.3 Objective - Energy resources are developed and electricity is generated, in a manner that minimises adverse effects on the environment.

Policies

30.2.3.1 Promote the incorporation of Small and Community-Scale Distributed Electricity Generation structures and associated buildings (whether temporary or permanent) as a means to improve efficiency and reduce energy demands.

30.2.3.2 Ensure the visual effects of Wind Electricity Generation do not exceed the capacity of an area to absorb change or significantly detract from landscape and visual amenity values.

30.2.3.3 Promote Biomass Electricity Generation in proximity to available fuel sources that minimise external effects on the surrounding road network and the amenity values of neighbours.

30.2.3.4 Assess the effects of Renewable Electricity Generation proposals, other than Small and Community Scale, ~~on a case-by-case basis~~, with regards to:

- landscape values and areas ~~with~~ of significant indigenous flora or significant habitat for indigenous fauna
- recreation and cultural values, including relationships with tangata whenua
- amenity values
- The extent of public benefit and outcomes of location specific cost-benefit analysis.

30.2.3.5 Existing energy facilities, associated infrastructure and undeveloped energy resources are protected from incompatible subdivision, land use and development.

30.2.3.6 To compensate for adverse effects, consideration shall be given to any offset measures (including biodiversity offsets) and/or environmental compensation including those which benefit the local environment and community affected.

30.2.3.7 Consider non-renewable energy resources including standby power generation and Stand Alone Power systems where adverse effects can be mitigated.

30.2.4 Objective - Site layout and building design takes into consideration energy efficiency and conservation.

Policies

30.2.4.1 Encourage energy efficiency and conservation practices, including use of energy efficient materials and renewable energy in development.

30.2.4.2 Encourage subdivision and development to be designed so that buildings can utilise energy efficiency and conservation measures, including by orientation to the sun and through other natural elements, to assist in reducing energy consumption.

30.2.4.3 Encourage Small and Community-Scale Distributed Electricity Generation and Solar Water Heating structures within new or altered buildings.

30.2.4.4 Encourage building design which achieves a Homestar™ certification rating of 6 or more for residential buildings, or a Green Star rating of at least 4 stars for commercial buildings.

30.2.4.5 Transport networks should be designed so that the number, length and need for vehicle trips is minimised, and reliance on private motor vehicles is reduced, to assist in reducing energy consumption.

30.2.4.6 Control the location of buildings and outdoor living areas to reduce impediments to access to sunlight.

Utilities

30.2.5 Objective - ~~Co-ordinate the provision of utilities as necessary to support~~ ~~t~~ The growth and development of the District is supported by utilities that are able to operate effectively and efficiently.

Comment [CB1]: Submitter 373

Comment [CB2]: Submitter 373

Comment [CB3]: Submitter 781

ENERGY AND UTILITIES 30

Policies

30.2.5.1 ~~Essential u~~Utilities are provided to service new development prior to buildings being occupied~~, and activities commencing~~.

30.2.5.2 Ensure the efficient management of solid waste by:

- encouraging methods of waste minimisation and reduction such as re-use and recycling
- providing landfill sites with the capacity to cater for the present and future disposal of solid waste
- assessing trends in solid waste
- identifying solid waste sites for future needs
- consideration of technologies or methods to improve operational efficiency and sustainability (including the potential use of landfill gas as an energy source)
- providing for the appropriate re-use of decommissioned landfill sites.

30.2.5.3 Recognise the future needs of utilities and ensure their provision in conjunction with the provider.

30.2.5.4 ~~Assess the priorities for servicing established urban areas, which are developed but are not reticulated.~~

Recognise the positive social, economic, cultural and environmental benefits that utilities provide, including:

a. enabling enhancement of the quality of life and standard of living for people and communities

b. providing for public health and safety

c. enabling the functioning of businesses

d. enabling economic growth

e. enabling growth and development

f. protecting and enhancing the environment

g. enabling the transportation of freight, goods, people

h. enabling interaction and communication

30.2.5.5 Ensure reticulation of those areas identified for urban expansion or redevelopment is achievable, and that a reticulation system be implemented prior to subdivision.

30.2.5.6 Encourage low impact design techniques which may reduce demands on local utilities.

30.2.6 Objective - The wellbeing of the community is supported by the establishment, ~~efficient use~~, continued operation and maintenance of utilities ~~necessary for the well-being of the community~~.

Policies

30.2.6.1 Recognise the need for maintenance or upgrading of ~~a~~ utilities ~~y~~ including regionally significant infrastructure to ensure its on-going viability and efficiency.

Comment [CB4]: Submitter 781

Comment [CB5]: Submitters 179.15, 191.13, 421.12, 781.14

Comment [CB6]: Submitter 781

Comment [CB7]: 781, 805

Comment [CB8]: Submitter 805

30.2.6.2 ~~Consider long term options and economic costs and strategic needs when considering alternative locations, sites or methods for the establishment or alteration of a utility.~~

When considering the effects of proposed utility developments with adverse environmental effects, consideration shall be given to the consideration of alternatives, but also to how adverse effects have been managed through the route, site and method selection process while taking into account the locational, technical and operational requirements of the utility and the benefits associated with the utility.

Comment [CB9]: Submitter 805.

30.2.6.3 Encourage the co-location of facilities where operationally and technically feasible.

30.2.6.4 Provide for the sustainable, secure and efficient use and development of the electricity transmission network, including within the transmission line corridor, and to protect activities from the adverse effects of the electricity transmission network, including by:

- Controlling the proximity of buildings, structures and vegetation to existing transmission corridors, including buffer distances for managing subdivision and land use development near the National grid.

Comment [CB10]: Submitter 805.

- Discouraging sensitive activities from locating within or near to the electricity transmission National Grid Yard to minimise potential reverse sensitivity effects on the transmission network
- Managing subdivision within or near to electricity transmission corridors to achieve the outcomes of this policy to facilitate good amenity and urban design outcomes
- Not compromising the operation or maintenance options or, to the extent practicable, the carrying out of routine and planned upgrade works.

30.2.6.5 Recognise the presence and function of established network utilities, and their locational and operational requirements, by managing land use, development and/or subdivision in locations which could compromise their safe and efficient operation.

30.2.6.6 Manage adverse effects, including reverse sensitivity effects that could compromise the development, operation, upgrading and maintenance of the identified electricity sub-transmission lines, through the management of activities within an identified buffer corridor.

Comment [CB11]: Submitter 635

30.2.7 Objective - ~~Avoid, remedy or mitigate t~~ The adverse effects of utilities on surrounding environments, particularly those in or on land of high landscape value, and within special character areas are avoided, remedied or mitigated.

Comment [CB12]: Grammatical change to conform to the Panel's 4th procedural minute.

Policies

30.2.7.1 Reduce adverse effects associated with utilities by:

- Avoiding, remedying or mitigating their location on ~~sensitive sites including heritage and~~ identified sensitive environments ~~special character areas~~, and protecting Outstanding Natural Landscapes and Outstanding Natural Features, and skylines and ridgelines from inappropriate development.

Comment [CB13]: Submitter 519, 251, FS1186, 179.15, 191.13, 421.12, 781.14

- Managing adverse effects on the amenity values of urban areas and the Rural Landscapes.

Comment [CB14]: Submitters 179.15, 191.13, 421.12, 781.14

- Encouraging co-location or multiple use of network utilities where this is efficient and practicable in order to avoid, remedy or mitigate adverse effects on the environment
- Ensuring that redundant utilities are removed
- Using landscaping and or colours and finishes to reduce visual effects
- Integrating utilities with the surrounding environment; whether that is a rural environment or existing built form.

30.2.7.2 Require the undergrounding of services in new areas of development where technically feasible.

30.2.7.3 Encourage the replacement of existing overhead services with underground reticulation or the upgrading of existing overhead services where technically feasible.

30.2.7.4 Take account of economic and operational needs in assessing the location and external appearance of utilities.

30.3 Other Provisions and Rules

30.3.1 District Wide

Attention is drawn to the following District Wide Rules. If the District Wide Rules are not met, then consent will be required in respect of that matter.

All provisions referred to are within Stage 1 of the Proposed District Plan, unless marked as ~~O~~operative ~~District Plan (ODP)~~.

Comment [CB15]: Non substantive grammatical change for clarity.

1 Introduction	2 Definitions	3 Strategic Direction
4 Urban Development	5 Tangata Whenua	6 Landscapes
~~24 Signs~~ (18 Operative ~~DP)~~	~~25 Earthworks~~ (22 Operative ~~DP~~)	26 Historic Heritage
27 Subdivision	28 Natural Hazards	29 Transport (14 Operative ~~DP~~)
~~30 Utilities and Renewable Energy~~	31 Hazardous Substances (16 Operative ~~DP~~)	32 Protected Trees
33 Indigenous Vegetation	34 Wilding Exotic Trees	35 Temporary Activities and Relocated Buildings
36 Noise	37 Designations	Planning Maps

Comment [CB16]: Non substantive change for clarity.

30.3.2 National

30.3.2.1 Resource Management (National Environmental Standard for Electricity Transmission Activities) Regulations 2009:

Notwithstanding any other rules in the District Plan, the National Grid existing as at 14 January 2010 is covered by the Resource Management (National Environmental Standard for Electricity Transmission Activities) Regulations 2009 (NESETA) and must comply with the NESETA.

The provisions of the NESETA prevail over the provisions of this District Plan ~~Chapter~~, to the extent of any inconsistency. No other rules in the District Plan that duplicate or conflict with the Standard shall apply.

Comment [CB17]: Submitter 805

30.3.2.2 Resource Management (National Environmental Standards for Telecommunications Facilities "NESTF") Regulations 2008:

The Resource Management (National Environmental Standards for Telecommunications Facilities "NESTF") Regulations 2008 provide for:

- The planning and operation of a telecommunication facility such as a mobile phone transmitter, that generates radio frequency fields as a permitted activity, provided it complies with the New Zealand Standard on Radiofrequency Fields Part 1: Maximum Exposure Levels 3kHz to 300 GHz (NZS 2772.1:1999).

- The installation of telecommunications equipment cabinets in the road reserve as a permitted activity, subject to specified limitations on their size and location.
- Noise from telecommunications equipment cabinets located in the road reserve as a permitted activity, subject to the specified noise limits.
- The installation or replacement of masts and antennae on existing structures in the road reserve as a permitted activity, subject to specified limitations on height and size.

The provisions of the NESTF prevail over the provisions of this District Plan ~~Chapter~~, to the extent of any inconsistency. No other rules in the District Plan that duplicate or conflict with the Standard shall apply.

Comment [CB18]: Submitter 805

30.3.2.3 New Zealand Electrical Code of Practice for Electrical Safe Distances

Compliance with the New Zealand Electrical Code of Practice for Electrical Safe Distances ("NZECP 34:2001") is mandatory under the Electricity Act 1992. All activities regulated by the NZECP 34, including any activities that are otherwise permitted by the District Plan must comply with this legislation.

Advice Note:

Compliance with this District Plan does not ensure compliance with NZECP 34.

Comment [CB19]: Submitter 805

30.3.2.3 Advice Note: Electricity (Hazards from Trees) Regulations 2003

Comment [CB20]: Submitters 805, FS1121

Vegetation to be planted around electricity networks should be selected and/or managed to ensure that it will not result in that vegetation breaching the Electricity (Hazards from Trees) Regulations 2003.

30.3.3 Clarification

30.3.3.1 A permitted activity must comply with all the rules listed in the activity and standards tables, and any relevant district wide rules.

30.3.3.2 Where an activity does not comply with a Standard listed in the Standards table, the activity status identified by the Non-Compliance Status column shall apply. Where an activity breaches more than one Standard, the most restrictive status shall apply to the Activity.

30.3.3.3 The rules contained in this Chapter take precedence over any other rules that may apply to energy and utilities in the District Plan, unless specifically stated to the contrary and with the exception of:

a. 26 Historic Heritage

b. Hazardous Substances (~~16 ODP~~ Operative)

Comment [CB21]: Clarification, non-substantive change.

c. Earthworks (22 Operative)

Comment [CB22]: Submitter 251, 179, 191, 421, 781

30.3.3.4 If District Wide Rules are not met, then consent will be required in respect of that matter.

30.3.3.5 Utilities can also be provided as designations if the utility operator is a requiring authority. Refer to Chapter 37 – Designations of the Plan for conditions and descriptions of designated sites.

Comment [CB23]: Clarification, non-substantive change.

30.3.3.6 The following abbreviations are used in the tables.

P	Permitted	C	Controlled
RD	Restricted Discretionary	D	Discretionary

NC	Non Complying	PR	Prohibited

30.4 Rules - Activities

	Activities for Energy and Utilities	Activity Status
Rules for Energy Activities		
30.4.1	**Energy Activities which are not listed in this table**	NC
30.4.2	**Small and Community-Scale Distributed Electricity Generation and Solar Water Heating** with a rated capacity of less than ~~3.5~~ 5 kW (including any structures and associated buildings but excluding Wind Electricity Generation), and not located in any of the sensitive environments identified by Rule 30.4.3.	P
30.4.3	**Small and Community-Scale Distributed Electricity Generation and Solar Water Heating** (including any structures, associated buildings) • ~~With~~ has a rated capacity of more than ~~3.~~5kW /OR is located in any of the following sensitive environments: • Arrowtown Residential Historic Management Zone • Town Centre Special Character Area • Open Space Zones • Any open space and landscape buffer areas identified on any of the Special Zones • Significant Natural Areas • Outstanding Natural Landscapes • Outstanding Natural Features • Heritage, Features and Landscapes • Rural Zone~~s~~, Rural Residential Zone, Rural Lifestyle Zone, Gibbston Character Zone (if ~~detached from or separate to~~ outside a building platform).	D
30.4.4	**Renewable Electricity Generation Activities**, limited to masts, drilling and water monitoring for the purpose of research and exploratory-scale investigations that are ~~of a~~ temporary ~~nature~~. Excludes the Hydro Generation Zone. Discretion is restricted to all of the following: • The duration of works and the research purpose • The location of investigation activities and facilities, including proximity to, and effects on, sensitive uses and environments • The height and scale of facilities and potential visual effects • Environmental effects	RD

Comment [CB24]: Submitter 126

Comment [CB25]: Clarification

Comment [CB26]: Submitter 580

Comment [CB27]: Clarification

Comment [CB28]: Submitter 580

	Activities for Energy and Utilities	Activity Status
	• Where a site is subject to any natural hazard ~~and the proposal results in an increase in gross floor area:~~ an assessment by a suitably qualified person is provided that addresses the nature and degree of risk the hazard(s) pose to the resilience and operation of the facility and associated buildings~~people and property,~~ whether the proposal will alter the risk to any site, and the extent to which such risk can be avoided or sufficiently mitigated[1].	
30.4.5	**Renewable Electricity Generation Activities**, other than Small and Community-Scale Distributed Electricity Generation, and including any new or additional building housing plant and electrical equipment.	D
30.4.6	**Non-renewable Electricity Generation** where the generation only supplies activities on the site on which it is located and involves either: • Standby generators associated with community, health care, and utility activities; or • Generators that are part of a Stand-Alone Power System on remote sites that do not have connection to the local distributed electricity network. Note – Diesel Generators must comply with the provisions of Chapter 36 (Noise) and Hazardous Substances (Chapter 16 Operative ~~ODP~~)	P
30.4.7	**Non-renewable Electricity Generation not otherwise identified.**	NC
Rules for Utilities; ~~and~~ Buildings, Structures and Earthworks ~~within or near to the National Grid Corridor~~ ~~Note - The rules differentiate between four types of activities: lines and support structures; masts and antennae; utility buildings; and flood protection works & waste management facilities.~~		
30.4.8	**Utilities, Buildings, Structures and Earthworks which are not otherwise listed in this table**	D
30.4.9	**Minor Upgrading**	P
30.4.10	**Buildings and structures (that are not for National Grid Sensitive Activities)~~, Structures~~ and Earthworks within National Grid Corridors and Electricity Sub-Transmission lines** (subject to compliance with Rules 30.5.9, 30.5.10 and 30.5.11)	P
30.4.11	**Lines and Supporting Structures** ~~A conductor line , or support structures for overhead lines,~~ New lines and associated above ground support structures, including masts, poles or ancillary equipment, but excluding lattice towers, to convey electricity (at a voltage of equal to or less than 110kV at a capacity of equal to or less than 100MVA); or overhead lines for any other purpose including telecommunications. Control is reserved to all of the following:	C

Comment [CB29]: Submitter 383

Comment [CB30]: Clarification

Comment [CB31]: Submitters 179, 191, 421, 781

Comment [CB32]: Submitters 383, 836

Comment [CB33]: Submitter 635

Comment [CB34]: Submitters 383, 836 and 635

Comment [CB35]: Submitters 179.15, 191.13, 421.12, 781.14

[1] Policies that guide the assessment of proposals on land affected by natural hazards are located in Chapter 28.

	Activities for Energy and Utilities	Activity Status
	• Location • Route • Height • Appearance, scale and visual effects • Where a site is subject to any natural hazard ~~and the proposal results in an increase in gross floor area:~~ an assessment by a suitably qualified person is provided that addresses the nature and degree of risk the hazard(s) pose to the resilience and operation of the facility and associated buildings~~people and property,~~ whether the proposal will alter the risk to any site, and the extent to which such risk can be avoided or sufficiently mitigated[1].	
30.4.12	**Lines and Supporting Structures** Any line or support structure where it involves: ~~30.4.12.1 Erecting any lattice towers for overhead lines to convey electricity in all zones.~~ 30.4.12.2 Erecting any lines, lattice towers or support structures for new overhead lines to convey electricity (at a voltage of more than 110kV with a capacity over 100MVA) in all zones. 30.4.12.3 Erecting any support structures for overhead lines to convey electricity (at a voltage of equal to or less than 110kV at a capacity of equal to or less than 100MVA); or overhead lines for any other purposes including telecommunications in any Outstanding Natural Feature or Outstanding Natural Landscape or Significant Natural Areas. ~~30.4.12.4 Utilising any existing support structures for the erection of cable television aerials and connections.~~ 30.4.12.5 Erecting any support structures for overhead lines for any purpose in the area in Frankton known as the "Shotover Business Park", except where any new poles are solely for the purpose of providing street lighting.	D
30.4.13	**Telecommunications or radio communication, navigation or meteorological communication facilities**: With a maximum height no greater than: 12m in the Queenstown Business Mixed Use zone; 15m in the High Density Residential Queenstown – Flat, Queenstown Town Centre, Wanaka Town Centre (Wanaka Height Precinct) or Airport Mixed Use zones; 10m in the Local Shopping Centre, Wanaka Business Mixed Use or Jacks Point zones; and 8m in any other zone.	P
30.4.14	**Telecommunications or radio communication, navigation or meteorological communication facilities**: With a maximum height no greater than: 15m in the Queenstown Business Mixed Use zone and Rural Zone; 18m in the High Density Residential Queenstown – Flat,	C

Comment [CB36]: Submission 383

Comment [CB37]: Submitters 179.15, 191.13, 421.12, 781.14

Comment [CB38]: Submitters 179.15, 191.13, 421.12, 781.14

Comment [CB39]: Submitters 179.15, 191.13, 421.12, 781.14

Comment [CB40]: Submitters 179.15, 191.13, 421.12, 781.14

	Activities for Energy and Utilities	Activity Status
	Queenstown Town Centre, Wanaka Town Centre (Wanaka Height Precinct) or Airport Mixed Use zones; 13m in the Local Shopping Centre, Wanaka Business Mixed Use or Jacks Point zones; and 11m in any other zone. Control is reserved to all of the following: • Location • Route • Height • Appearance, scale and visual effects	
30.4.15	**Telecommunications or radio communication, navigation or meteorological communication facilities:** located in • any identified Outstanding Natural Landscape or Feature, • the Arrowtown Residential Historic Management Zone, • Arrowtown Town Centre, • Queenstown Special Character Area, • Significant Natural Areas and • Heritage, Features and Landscapes.	D
30.4.16	**New Buildings and structures ancillary to or associated with Utilities provided:** The building or cabinet or structure is less than 10m^2 in total footprint or less than 3m in height.	P
30.4.~~15~~17	**Buildings (associated with a Utility)** The addition, alteration or construction of buildings greater than 10m^2 in area and 3m in height (other than masts for any telecommunication and radio communication facility, navigation or meteorological communication facility or supporting structures for lines). ~~However, this rule shall not apply where the provisions of the underlying zone or a District Wide rule specify a more restrictive activity~~ status~~.~~ Control is reserved to all of the following: • Location • External appearance and visual effects • Associated earthworks • Parking and access • Landscaping • Where a site is subject to any natural hazard ~~and the proposal results in an increase in gross floor area:~~ an assessment by a suitably qualified person is provided that addresses the nature and degree of risk the hazard(s) pose to the resilience and operation of the facility and associated buildings~~people and property,~~ whether the proposal will alter the risk to any site, and the extent to which such	C

Comment [CB41]: Submitters 179.15, 191.13, 421.12, 781.14

Comment [CB42]: Submitters 179.15, 191.13, 421.12, 781.14 and 251

Comment [CB43]: Multiple submitters including 191, 251, 635, 805

	Activities for Energy and Utilities	Activity Status
	risk can be avoided or sufficiently mitigated[1].	
30.4.18	**Buildings (associated with a Utility)** Any addition, alteration or construction of buildings and structures, (other than masts for any telecommunication and radio communication facility, navigation or meteorological communication facility or supporting structures for lines) in: • Any Significant Natural Areas • The Arrowtown Residential Historic Management Zone. • The Remarkables Park Zone	D
30.4.19	**Antennas** If circular shaped, an antenna less than 1.2m in diameter. If another shape, an antenna less than 1.2m in length or breadth. For whip antennas, less than 4m in length.	P
30.4.20	**Antennas** If circular shaped, an antenna greater than 1.2m in diameter but less than 2.4m in diameter. If another shape, an antenna greater than 1.2m in length or breadth but less than 2.4m in length and breadth. For whip antennas, more than 4m in length. Control is reserved to all of the following: • Location • Route • Height • Appearance, scale and visual effects	C
30.4.21	**Antennas more than 2.4m in diameter, length or breadth and/or 4m in length for whip antennas in rural zone, OR, any antennas located in the following:** • any identified Outstanding Natural Landscape or Feature, • the Arrowtown Residential Historic Management Zone, • Arrowtown Town Centre, • Queenstown Special Character Area, • Significant Natural Areas and • Heritage, Features and Landscapes.	D
30.4.22	**The construction, alteration, or addition to underground lines for electricity or telecommunication purposes when:** the ground surface is reinstated to the state it was prior to works commencing. Note – Refer to the Operative Earthworks chapter.	P
~~30.4.13~~	~~**Telecommunication Facility and Radio communication Facilities Navigation, Meteorological Facilities**~~ ~~Any telecommunication and radio communication facility, navigation or~~	~~C~~

Comment [CB44]: Submission 383

Comment [CB45]: Submitters 179.15, 191.13, 421.12, 781.14 notified 30.4.16

Comment [CB46]: Submitters 179.15, 191.13, 421.12, 781.14

Comment [CB47]: Submitters 179.15, 191.13, 421.12, 781.14

Comment [CB48]: Submitters 179.15, 191.13, 421.12, 781.14

Comment [CB49]: Submitters 179.15, 191.13, 421.12, 781.14 and 251

Comment [CB50]: Submitters 179, 191, 421, 781 Notified 30.4.13, redrafted in 30.4.14 and 30.4.19 and 30.4.20

	Activities for Energy and Utilities	Activity Status
	~~meteorological communication facility where it involves erecting:~~ ~~30.4.13.1 Within the Rural Zone any mast greater than 8m but less than or equal to 15m in height.~~ ~~30.4.13.2 Within the Town Centre Zones any mast greater than 8m but less than or equal to 10m in height.~~ ~~30.4.13.3 in zones with a maximum building height of less than 8m (except for the Business and Industrial Zones), a mast greater than the maximum height permitted for buildings of the zone or activity area in which it is located.~~ ~~30.4.13.4 If circular shaped an antenna greater than 1.2m in diameter but less than 2.4m in diameter. If another shape, an antenna greater than 1.2m in length or breadth but less than 2.4m in length and breadth.~~ ~~Control is reserved to all of the following:~~ • ~~Site location~~ • ~~External appearance~~ • ~~Access and parking~~ • ~~Visual amenity impacts~~ • ~~Where a site is subject to any natural hazard and the proposal results in an increase in gross floor area: an assessment by a suitably qualified person is provided that addresses the nature and degree of risk the hazard(s) pose to people and property, whether the proposal will alter the risk to any site, and the extent to which such risk can be avoided or sufficiently mitigated[1].~~	
~~**30.4.14**~~	~~**Telecommunication and Radio communication Facilities, Navigation, Meteorological Facilities where it involves:**~~ ~~30.4.14.1 Erecting any mast, or erecting any antenna greater than 1.2m in diameter (if circular in shape) or 1.2m in length or breadth (if another shape) in:~~ • ~~Any Outstanding Natural Landscape or Outstanding Natural Feature~~ • ~~Significant Natural Area~~ • ~~The Arrowtown Residential Historic Management Zone.~~ • ~~Any open space and landscape buffer areas identified on any of the Special Zone structure plans~~ • ~~Town Centre Special Character Areas~~ • ~~Heritage Features and Landscapes.~~ ~~30.4.14.2 Erecting antenna greater than 2.4m in diameter or 3m in length or breadth, except omni directional (or "whip) antenna which shall not exceed 4m length, in the following zones: Residential (other than the Arrowtown Residential Historic Management Zone), Rural Lifestyle, Rural Residential,~~	~~D~~

Comment [CB51]: Submitters 179.15, 191.13, 421.12, 781.14 notified 30.4.14; redrafted 30.4.15

	Activities for Energy and Utilities	Activity Status
	~~Township, Resort, Airport Mixed Use, Visitor, Town Centre, Corner Shopping Centre, Bendemeer, Penrith Park and Business Zones.~~ ~~30.4.14.3 Erecting any antenna greater than 2.4m in diameter length or breadth and/or 4m in length if a whip antenna, in the Rural Zone.~~ ~~30.4.14.4 Erecting a mast which is over 15m in height in the Rural Zone.~~ ~~30.4.14.5 In all other zones including the Town Centre Zones with a maximum building height of less than 8m (except the Business and Industrial Zones) and erecting a mast which is over 10m in height.~~ ~~30.4.14.6 In the Business and Industrial Zones and in all other zones with a maximum building height of 8m or greater, erecting a mast which exceeds the maximum height of buildings in the zone it is located by more than 5m.~~	
~~**30.4.16**~~	~~**Buildings (associated with a Utility)**~~ ~~Any addition, alteration or construction of buildings and structures, (other than masts for any telecommunication and radio communication facility, navigation or meteorological communication facility or supporting structures for lines) in:~~ ~~• Any Significant Natural Areas~~ ~~• The Arrowtown Residential Historic Management Zone.~~ ~~• The Remarkables Park Zone~~ ~~However, this rule shall not apply where the provisions of the underlying zone or a District Wide matter specify a more restrictive activity status.~~	~~D~~
30.4.~~17~~23	**Flood Protection Works** for the maintenance, reinstatement, repair or replacement of existing flood protection works for the purpose of: • maintaining the flood carrying capacity of water courses and/or maintaining the integrity of existing river protection works • fill works undertaken within Activity Area 1f of the Shotover Country Special Zone.	P
30.4.~~18~~24	**Flood Protection Works** not otherwise identified.	D
30.4.~~19~~25	**Waste Management Facilities**	D
30.4.~~20~~26	**Water and Wastewater Treatment Facilities**	D
30.4.2~~1~~7	**In the Remarkables Park Zone**, all lattice towers or overhead lines or support structures for overhead lines for any purpose (except any poles solely for the purpose of street lighting); or any mast for any purpose; or any antenna greater than 1.2m in diameter, length or breadth (except omni-directional or 'whip' antenna less than 4 metres in length).	NC

Comment [CB52]: Submitters 179.15, 191.13, 421.12, 781.14 notified 30.4.16 redrafted 30.4.18

30.5 Rules – Standards

	Standards for activities	Non-compliance status
Standards for Energy Activities		
30.5.1	**Small and Community-Scale Distributed Electricity Generation and Solar Water Heating shall**: 30.5.1.1 not overhang the edge of any building. 30.5.1.2 Solar Electricity Generation cells, modules and panels and Solar Water Heating collector panels shall be recessive colours: black, dark blue, grey or brown. Frames, mounting, fixing hardware shall be finished in similar recessive colours with a light reflectance value of less than 36%. Recessive colours shall be selected to be the closest colour to the building to which they form part of, are attached to, or service. 30.5.1.3 be set back in accordance with the internal and road boundary setbacks for buildings in the zone in which they are located. Exemptions for accessory buildings shall not apply. 30.5.1.4 not intrude through any recession planes applicable in the zone in which they are located. 30.5.1.5 For solar panels on a sloping roof, may protrude a maximum of 0.5 m above the maximum height limit specified for the zone. 30.5.1.6 For solar panels on a flat roof, may protrude a maximum of 1.0 m above the maximum height limit specified for the zone, for a maximum area of 5m^2. 30.5.1.7 not exceed 2.0 metres in height if for free standing Solar Electricity Generation and Solar Water Heating. 30.5.1.8 not exceed 150 m^2 in area if for free standing Solar Electricity Generation and Solar Water Heating. 30.5.1.9 be located within an approved building platform and not exceed the site coverage requirements of the underlying zone.	D
30.5.2	**Mini and Micro Hydro Electricity Generation shall:** 30.5.2.1 comply with Road and Internal Boundary Building Setbacks in the zone in which they are located. 30.5.2.2 not exceed 2.5 metres in height. 30.5.2.3 be finished in recessive colours with a light reflectance value of less than 36%, consistent with the building it is servicing on site. Note**:** Reference should also be made to the Otago Regional Council Water Plan Rules.	D

Comment [CB53]: Submitter 383

Comment [CB54]: Submitters 126 and 368

Comment [CB55]: Submitter 383

	Standards for activities	Non-compliance status
30.5.3	**Wind Electricity Generation shall:** 30.5.3.1 comprise no more than two Wind Electricity Generation turbines or masts on any site. 30.5.3.2 involve no lattice towers. 30.5.3.3 be set back in accordance with the internal and road boundary setbacks for buildings in the zone in which they are located. Exemptions for accessory buildings shall not apply. 30.5.3.4 not exceed the maximum height or intrude through any recession planes applicable in the zone in which they are located. In the Rural and Gibbston Character Zones the maximum height shall be that specified for non-residential building ancillary to viticulture or farming activities (10m). The maximum height for a wind turbine shall be measured to the tip of blade when in vertical position. 30.5.3.5 be painted in non-reflective paint with a light reflectance value of less than 36%.	D
30.5.4	**Biomass Electricity Generation** 30.5.4.1 Biomass Electricity Generation fuel material shall be sourced on the same site as the generation plant, except where the generation plant is located in Industrial Zones (and Industrial Activities Areas within Structure Plans). 30.5.4.2 Any outdoor storage of Biomass Electricity Generation fuel material shall be screened from adjoining sites and public places. 30.5.4.3 Biomass Electricity Generation plant and equipment shall be located inside a Building. Note: Reference should also be made to the Otago Regional Council Air Plan Rules.	D
30.5.5	**Associated buildings** Any building housing plant and electrical equipment associated with Renewable Electricity Generation activities, unless permitted in the zone in which it located or approved by resource consent, shall: 30.5.5.1 not exceed 10m^2 in area and ~~2.5~~ 3m in height. 30.5.5.2 be set back in accordance with the internal and road boundary setbacks for accessory buildings in the zone in which it is located. 30.5.5.3 be finished in recessive colours with a light reflectance value of less than 36%, consistent with the building it is	D

Comment [CB56]: Submitter 383

Comment [CB57]: Submitters 179.15, 191.13, 421.12, 781.14

Comment [CB58]: Submitter 383

	Standards for activities	Non-compliance status
	servicing on site.	
Standards for Utilities		
30.5.6	**Setback from internal boundaries and road boundaries** Where the utility is a building, it shall be set back in accordance with the internal and road boundary setbacks for accessory buildings in the zone in which it is located.	D
30.5.7	**Buildings in Outstanding Natural Landscapes (ONL) and Outstanding Natural Features (ONF)** Any building within an ONL or ONF shall be less than 10m^2 in area and less than 3m in height.	D
30.5.8	**Height** All buildings or structures, (excluding masts and antennae for any telecommunication and radio-communication facility, navigation or meteorological communication facility) shall comply with the relevant maximum height provisions for buildings of the zone they are located in.	D
~~**30.5.9**~~	~~**New Zealand Standards**~~ ~~All development of utilities including associated earthworks shall comply with NZS4404:2011.~~	~~**D**~~
30.5.~~10~~9	**Buildings and Structures permitted within the National Grid Yard include ~~being~~:** 30.5.~~9~~10.1 A non-conductive fence located 5m or more from any National Grid Support Structure and no more than 2.5m in height. 30.5.~~9~~10.2 Any utility within a transport corridor or any part of electricity infrastructure that connects to the National Grid. 30.5.~~9~~10.3 Any new non-habitable building less than 2.5m high and 10m^2 in floor area. 30.5.~~9~~10.4 Any non-habitable building or structure used for agricultural activities provided that they are: a. less than 2.5m high b. Located at least 12m from a National Grid Support Structure c. Not a milking shed/dairy shed (excluding the stockyards and ancillary platforms), or a commercial glasshouse. 30.5.~~9~~10.5 Alterations to existing buildings that do not alter the building envelope. Note – Refer to the Definitions for illustration of the National Grid Yard.	NC
30.5.10	**Buildings and Structures and Earthworks permitted within the**	NC

Comment [CB59]: Submitters 383, 179, 191, 421, 781, FS1121

Comment [CB60]: Submitter 635

Comment [CB61]: Submitter 635

	Standards for activities	Non-compliance status
	Electricity Sub-Transmission Corridor include: Within 10m of a centre line in the corridor: 30.5.10.1 Any building or structure that does not require building consent; or, Alteration of any building that does not exceed outside the envelope or footprint of the existing building. 30.5.10.2 Earthworks that: a. Are not directly above an underground cable(s); and b. Do not result in a reduction of existing ground clearance distances from overhead lines below the minimums prescribed in the New Zealand Code of Practice 34:2001 (NZECP 34:2001); and c. Are in accordance with NZECP 34:2001.	
30.5.11	**Earthworks permitted within the National Grid Yard ~~being~~ include:** 30.5.11.1 Earthworks within 2.2 metres of a National Grid pole support structure or stay wire shall be no deeper than 300mm. 30.5.11.2 Earthworks between 2.2 metres to 5 metres of a National Grid pole support structure or stay wire shall be no deeper than 750mm. 30.5.11.3 Earthworks within 6 metres of the outer visible edge of a National Grid Transmission Tower Support Structure shall be no deeper than 300mm. 30.5.11.4 Earthworks between 6 metres to 12 metres from the outer visible edge of a National Grid Transmission Tower Support structure shall be no deeper than 3 metres. 30.5.11.5 Earthworks shall not create an unstable batter that will affect a transmission support structure. 30.5.11.6 Earthworks shall not result in a reduction in the existing conductor clearance distance below what is required by the New Zealand Electrical Code of Practice 34:2001. The following earthworks are exempt from the rules above: 30.5.11.7 Earthworks undertaken in the course of constructing or maintaining utilities 30.5.11.8 Earthworks undertaken as part of agricultural activities or domestic gardening 30.5.11.9 Repair sealing, resealing of an existing road, footpath, farm track or driveway Note – Refer to the Definitions for illustration of the National Grid Yard.	D

Comment [CB62]: Submitter 635

30.6 Rules - Non-Notification of Applications

30.6.1 Any application for resource consent for the following matters shall not require the written consent of other persons and shall not be notified or limited-notified:

~~30.6.1.1 Stand-Alone Power Systems (SAP's).~~

Comment [CB63]: Submitter 20

~~30.6.1.2 Small and Community Scale Distributed Electricity Generation.~~

Comment [CB64]: Submitter 20

30.6.1.~~3~~1 Controlled activities.

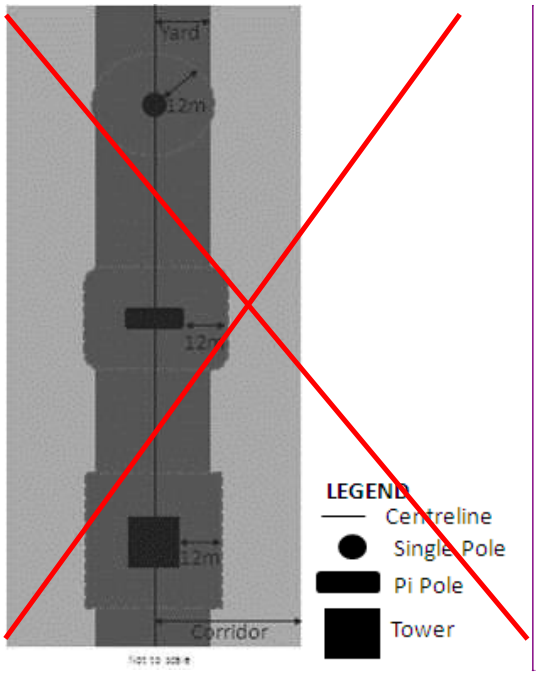
30.6.1.~~4~~2 Discretionary activities for Flood Protection Works.

RECOMMENDED CHANGES TO DEFINITIONS

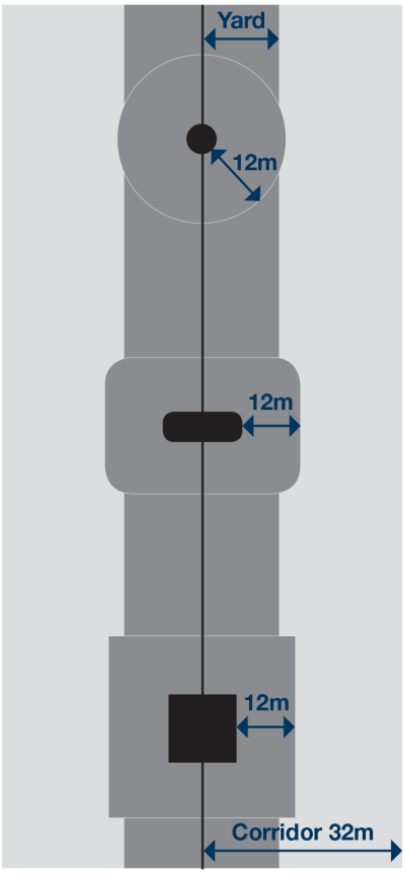
Minor Upgrading	Means an increase in the carrying capacity, efficiency or security of electricity transmission and distribution or telecommunication lines utilising the existing support structures or structures of a similar scale, intensity and character, ~~maintenance, replacement and upgrading of existing conductors or lines and support structures provided they are of a similar character, intensity and scale to the existing conductors or line and support structures~~ and shall include the following: a) Addition of lines, circuits and conductors; b) Reconducting of the line with higher capacity conductors; c) Re-sagging of conductors; d) Bonding of conductors; e) Addition or replacement of longer or more efficient insulators; f) Addition of electrical fittings or ancillary telecommunications equipment; g) Addition of earth-wires which may contain lightning rods, and earth-peaks; h) Support structure replacement within the same location as the support structure that is to be replaced; i) Addition or replacement of existing cross-arms with cross-arms of an alternative design; and ~~• Replacement of existing support structure poles provided they are less or similar in height, diameter and are located within 1 metre of the base of the support pole being replaced;~~ • Addition of a single ~~service~~ support structure for the purpose of providing a service connection to a site, except in the Rural zone; ~~• The addition of up to three new support structures extending the length of an existing line provided the line has not been lengthened in the preceding five year period, except in the Rural Zone;~~ ~~• Replacement of conductors or lines provided they do not exceed 30mm in diameter or the bundling together of any wire, cable or similar conductor provided that the bundle does not exceed 30mm in diameter;~~ ~~• Re-sagging of existing lines;~~ ~~• Replacement of insulators provided they are less or similar in length; and~~ ~~• Addition of lightning rods, earth peaks and earth wires~~
National Grid Subdivision Corridor	Means the area measured either side of the centreline of above ground National Grid line as follows: • 16m for the 110kV lines on pi poles • 32m for 110kV lines on towers

Comment [CB65]: Submitters 251, 635, 805

Comment [CB66]: Submitter 805

	• 37m for the 220kV transmission lines. Note: The National Grid Subdivision Corridor does not apply to underground cables or any transmission lines (or sections of line) that are designated.
National Grid Yard	Means: • the area located 12 metres in any direction from the outer edge of a National Grid support structure; and • the area located 12 metres either side of the centreline of any overhead National Grid line; (as shown in dark grey in diagram below) 

Comment [CB67]: Submitter 836

	 Note: The National Grid Yard does not apply to underground cables or any transmission lines (or sections of line) that are designated.
National Grid Sensitive Activities	Means those activities within the National Grid Corridor that are particularly sensitive to the risks associated with electricity transmission lines because of either the potential for prolonged exposure to the risk or the vulnerability of the equipment or population that is exposed to the risk. Such activities include buildings or parts of buildings used for, or able to be used for the following purposes: ~~• Child Day Care activity;~~ • Day Care facility ~~activity~~; • Educational facility ~~activity, except training related to the National Grid~~; ~~• Home Stay;~~ • Healthcare facility ~~Hospital activity~~; • Papakainga; • Any ~~R~~residential activity; ~~• Residential Care activity; or~~ • Visitor accommodation.
~~Sensitive activities - Transmission corridor~~	~~Means those activities within an Electricity Transmission Corridor that are particularly sensitive to the risks associated with electricity transmission lines because of either the potential for prolonged exposure to the risk or the vulnerability of the equipment or population that is exposed to the risk. Such activities include any residential activity, visitor accommodation, educational facility, healthcare facility and day care facility.~~
Telecommunications	Means devices, such as aerials, dishes, antennae, wi-fi and microcells, lines

Comment [CB68]: Submitters 383, 836

Comment [CB69]: Submitters 383, 805

Facility	(including cables), ~~wires, cables~~, casings, tunnels and associated equipment and support structures, and equipment shelters, such as towers, masts and poles, and equipment buildings and telecommunication kiosks ~~telephone boxes~~, used for the transmitting, emission or receiving of communications.
Utility	Means the systems, services, structures and networks necessary for operating and supplying essential utilities and services to the community including but not limited to: • substations, transformers, lines and necessary and incidental structures and equipment for the transmissions and distribution of electricity; • pipes and necessary incidental structures and equipment for transmitting and distributing gas; • storage facilities, pipes and necessary incidental structures and equipment for the supply and drainage of water or sewage; • water and irrigation races, drains, channels, pipes and necessary incidental structures and equipment (excluding water tanks); • structures, facilities, plant and equipment for the treatment of water; • structures, facilities, plant, equipment and associated works for receiving and transmitting telecommunications and radio communications (see definition of telecommunication facilities); • structures, facilities, plant, equipment and associated works for monitoring and observation of meteorological activities and natural hazards; • structures, facilities, plant, equipment and associated works for the protection of the community from natural hazards; • structures, facilities, plant and equipment necessary for navigation by water or air; • waste management facilities; • flood protection works; and • Anything described as a network utility operation in s166 of the Resource Management act 1991 Utility does not include structures or facilities used for electricity generation, the manufacture and storage of gas, or the treatment of sewage.
Electricity Sub-Transmission Lines	Means the conveyance of electricity via sub-transmission (operating at 22kV, 33kV and 66kV) lines and cables (aerial and underground), support structures and substations operated by a Network Utility Operator. Advice note: Only transmission and electricity sub-transmission lines are identified on the planning maps, however, works in close proximity to all electric lines can be dangerous. Compliance with NZECP 34:2001 is mandatory for buildings, earthworks, and when using machinery or equipment within close proximity to any electric lines.
Electricity Sub-Transmission Corridor	Means the area located 10 metres either side of the centreline of any overhead Sub-Transmission line (as shown in blue in the diagram below). Distances from Electricity Sub-Transmission Lines are to be measured from a point directly below the centreline of the line or cluster of lines, as shown in below.

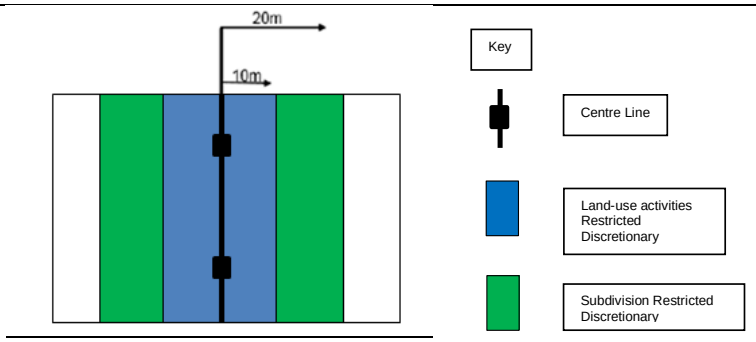
Comment [CB70]: Submitters 179, 191, 421, 781

Comment [CB71]: Submitters 635 FS1301

Comment [CB72]: Submitter 383

Comment [CB73]: Submitter 635

Comment [CB74]: Submitter 635

	
Electricity Distribution	Means the conveyance of electricity via electricity distribution lines, cables, support structures, substations, transformers, switching stations, kiosks, cabinets and ancillary buildings and structures, including communication equipment, by a network utility operator.
Energy Activities	Includes the following: • Small and Community-Scale Distributed Electricity Generation and Solar Water Heating • Renewable Electricity Generation • Non-renewable Electricity Generation • Wind Electricity Generation • Solar Electricity Generation • Stand-Alone Power Systems (SAPS) • Biomass Electricity Generation • Hydro Generation Activity • Mini and Micro Hydro Electricity Generation.
Regionally significant infrastructure[2]	Regionally significant infrastructure means: a) Renewable electricity generation facilities, where they supply the National Grid and local distribution network and are operated by an electricity operator; and b) Electricity transmission infrastructure forming the National Grid and Electricity Sub-Transmission Lines; and c) Telecommunication and radio communication facilities; and d) Key centralised Council infrastructure, including water reservoirs, and wastewater treatment plants; and e) Roads classified as being of national or regional importance; and f) Queenstown and Wanaka airports
Support Structure	Means a utility pole or tower that forms part of the electricity distribution or transmission network that supports conductors as part of a line. This includes any ancillary equipment, such as communication equipment or transformers.
National Grid	Means the same as in the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.

Comment [CB75]: Submitter 635 FS1301

Comment [CB76]: Submitter 383

Comment [CB77]: Submitter 635

Comment [CB78]: This definition was recommended in the Council's reply on the Strategic Direction Chapter. The further change recommended is the addition at b) 'and Electricity Sub-Transmission Lines.

Comment [CB79]: Submitter 635 FS1301

Comment [CB80]: Submitter 805

[2] Derived from the version in Mr Matthew Paetz's Right of Reply chapter 3 Strategic Directions dated 7 April 2016.

Appendix 2. List of Submitters and Recommended Decisions

Appendix 2 to the Section 42A report for Chapter 30 - Energy and Utilities

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
19.15		Kain Fround		Support	Supports the chapter generally.	Accept in Part		
115.6		Florence Micoud		Other	On each new building and for each renovation, imposing a 6-star level and providing incentives for a 7-star level.	Reject		
165.1		Maggie Lawton		Other	That Council consider an organic waste collection system for Wanaka and carry out a full economic benefit cost analysis that includes costs to the existing landfill in terms of space and methane emissions.	Reject		
179.15		Vodafone NZ		Oppose	Amend the Energy and Utilities to provide for a framework that supports utilities and manages the adverse effects of utilities.	Accept in Part		
191.13		Spark Trading NZ Limited		Oppose	Amend the Energy and Utilities Chapter to provide for a framework that supports utilities and manages the adverse effects of utilities.	Accept in Part		
230.6		Loris King		Other	Submitter believes that with the hours of sunlight Wanaka enjoys there should be more encouragement / incentives for solar panels for water heating or more, to be part, not only during the building process but for existing homes as well.	Accept in Part		
238.11		NZIA Southern and Architecture + Women Southern		Other	Containment of urban form centred around public transport nodes. (TOD- transport orientated design) 30-40% of global energy use is associated with people moving around – to and from work, school, shopping etc.. and this energy use needs to be recognised and included in this section. Promoting compact urban forms, within the specified Urban Growth boundaries, and discouraging development elsewhere will have a much bigger impact on the District's energy use than individual building initiatives such as Green Star and Homestar rating systems.	Reject		
238.11	FS1107.16	Man Street Properties Ltd		Oppose	The Submitter opposes this submission. Submission 238 will not promote or give effect to Part 2 of the Act. The matters raised in the submission do not meet section 32 of the Act, and are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Accept in Part		
238.11	FS1226.16	Ngai Tahu Property Limited & Ngai Tahu Justice Holdings Limited		Oppose	The submitter opposes this submission . Alerts that the submission and matters sought in it will therefore not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Accept in Part		
238.11	FS1234.16	Shotover Memorial Properties Limited & Horne Water Holdings Limited		Oppose	States that submission 238 will not promote or give effect to Part 2 of the Act. Agrees that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives.	Accept in Part		
238.11	FS1239.16	Skyline Enterprises Limited & O'Connells Pavillion Limited		Oppose	Agrees that submission 238 will not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives.	Accept in Part		
238.11	FS1241.16	Skyline Enterprises Limited & Accommodation and Booking Agents		Oppose	Agrees that submission 238 will not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives.	Accept in Part		
238.11	FS1242.39	Antony & Ruth Stokes		Oppose	The submitter seeks submission be disallowed as it relates to the expansion of the Business Mixed Use Zone (submission point 238.93) with the High Density Residential Zone on the northern side of Henry Street being retained.	Accept in Part		
238.11	FS1248.16	Trojan Holdings Limited & Beach Street Holdings Limited		Oppose	The submitter opposes this submission . Alerts that the submission and matters sought in it will therefore not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Accept in Part		
238.11	FS1249.16	Tweed Development Limited		Oppose	The submitter opposes this submission . Alerts that the submission and matters sought in it will therefore not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Accept in Part		
292.8		John Walker		Other	require progressive undergrounding of all lines	Accept in Part		
292.8	FS1106.3	Chorus New Zealand Limited		Oppose	It is not appropriate for the District Plan to require progressive undergrounding of existing lawfully established infrastructure that may have substantial economic implications and may not always be technically or operationally feasible.	Accept in Part		
292.8	FS1208.3	Vodafone New Zealand Limited		Oppose	Believes that it is not appropriate for the District Plan to require progressive undergrounding of existing lawfully established infrastructure that may have substantial economic implications and may not always be technically or operationally feasible.	Accept in Part		
292.8	FS1253.3	Spark New Zealand Trading Limited		Oppose	Agrees that it is not appropriate for the District Plan to require progressive undergrounding of existing lawfully established infrastructure that may have substantial economic implications and may not always be technically or operationally feasible.	Accept in Part		
421.12		Two Degrees Mobile Limited		Oppose	Amend the chapter to provide for a framework that supports utilities and manages the adverse effects of utilities	Accept in Part		
424.1		David Pickard		Other	A general policy to discourage excessive light pollution should be in place throughout the district.	Reject		relief sought is addressed in Chapter 27 Subdivision and Development 27.2.5.5.v and 27.2.5.17.iii in particular and through Council's *Minimum Standards for Public Lighting Infrastructure to be vested in the Queenstown Lakes District Council* Policy, adopted 7 December 2005
424.2		David Pickard		Other	Neutral	Accept		
607.38		Te Anau Developments Limited		Not Stated	Amend provisions to exclude tourism activities within rural visitor zones. If relief is not accepted then the submitter requests that all provisions in chapter 30 be amended as required to ensure the development, operation, maintenance and upgrading of energy, utilities, and infrastructure related to tourism activities are specifically enabled or provided for.	Reject		Tourism activities are not considered to be utilities, not in the definition of Utility.
607.38	FS1097.561	Queenstown Park Limited		Support	Support in part. The request to remove tourism activity from Rural Visitor zones appears misplaced and is not supported. That part of the submission requesting that infrastructure tourism related activities are provided for within Chapter 30 is supported	Reject		Tourism activities are not considered to be utilities, not in the definition of Utility.

Appendix 2 to the Section 42A report for Chapter 30 - Energy and Utilities

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
615.36		Cardrona Alpine Resort Limited		Oppose	Amend provisions to exclude tourism activities within rural visitor zones. If relief is not accepted then the submitter requests that all provisions in chapter 30 be amended as required to ensure the development, operation, maintenance and upgrading of energy, utilities, and infrastructure related to tourism activities are specifically enabled or provided for.	Reject		Tourism activities are not considered to be utilities, not in the definition of Utility.
615.36	FS1105.36	Cardrona Valley Residents and Ratepayers Society Inc		Support	Support all aspects of the Cardrona Alpine Resort Limited submission and seek that the relief sought by Cardrona Alpine Resort Limited is allowed by the Council, to ensure: • The resort is able to continue to cater for guests of all abilities and disciplines so that it remains the most diverse ski-field in New Zealand and remains a premier resort for snow sports in Australasia. • The resort is able to develop, operate, maintain and upgrade its network of infrastructure, accommodation, food and beverage service, retail and mountain based tourism activities. • The resort is able to operate year round and continue to invest in and grow new four season visitor attractions activities, with significant growth in the provision of summer activities.	Reject		Tourism activities are not considered to be utilities, not in the definition of Utility.
615.36	FS1137.37	Kay Curtis		Support	Seeks that the relief sought by Cardrona Alpine Resort Limited is accepted by the Council. Has an interest in the proposal that is greater than the interest the general public has.	Reject		
635.47		Aurora Energy Limited		Support	Supports the retention of the Introduction Section	Accept		
635.70		Aurora Energy Limited		Not Stated	Insert New Provision – Critical Electricity Lines – Land Use Critical Electricity Lines – Land Use NOTE: The following provisions apply district wide in addition to any other provisions in this Plan applicable to the same areas or site. Critical Electricity Lines (CEL's) and substations are the key components of the electricity network in the Queenstown Lakes District. To provide a resilient electricity network the use and development of CEL's and substations must be sustainable, secure and efficient. CEL's and substations can be vulnerable to inappropriate subdivision or building location to the extent that they can restrict access and affect the ability to maintain the CEL's (lines, cables and support structures). Trees planted too close to lines or cables can disrupt supply. CEL's are, or have the potential to be, critical to the quality, reliability and security of electricity supply throughout the district or region. These lines contribute to the social and economic wellbeing and health and safety of the district or region and are lines that: • Supply essential public services such as the hospital, civil defence facilities or Lifeline sites; or, • Supply large (1MW or more) industrial or commercial electricity consumers; or • Supply 1000 or more consumers; or • Are difficult to replace with an alternative electricity supply if they are compromised. The locations of CEL's and designated substations are identified in the planning maps of the District Plan. The following activities are permitted activities: 1. Within 10m of a CEL or the designation boundary of a substation: i. Any building or structure that does not require building consent; or ii. Alteration of any building that does not exceed outside the envelope or footprint of the existing building; or iii. Earthworks that: a. Are not directly above an underground cable(s); and b. Do not result in a reduction of existing ground clearance distances from overhead lines below the minimums prescribed in the New Zealand Code of Practice 34:2001 (NZECP 34:2001); and c. Are in accordance with NZECP 34:2001. 2. Within 20m of a CEL or the designated boundary of a substation: i. Planting of trees other than shelterbelts, production forestry or commercial horticultural operations. 3. Activities that fail to meet the standards in (1) and (2) above, provided that prior to the commencement of any works: i. Written notification has been provided to the Council; and ii. The proposed activity is being carried out in accordance with the Electricity Act 1992 and associated regulations (NZECP 34:2001, the Electricity (Hazards from Trees) Regulations 2003 (SR 2003/375), and the Electricity (Safety) Regulations 2010); OR 3.1 The proposed activity is being carried out by a network utility operator or territorial authority in accordance with NZECP 34:2001. Note: Specified distances from CEL's are to be measured from a point directly below the centreline of the line or cluster of lines, as shown in the Critical Electricity Line Definition. Insert New Restricted Discretionary Rule - Land Use Rule xxx Activities that do not meet the requirements for permitted activities, require resource consent as a restricted discretionary activity. Discretion will be restricted to: i. the safe and efficient operation and maintenance of the electricity supply network, including: a. The use, design and location of buildings; and b. The mature size, growth rate, location, and fall zone of any associated tree planting, including landscape planting and shelterbelts; and c. Compliance with NZECP 34:2001; and d. Effects on public health and safety; and e. Effects on access to CEL's, designated substations and associated infrastructure for maintenance purposes. Insert Aurora's Critical Electricity Lines onto the relevant Planning Maps.	Accept in Part		Definitions
635.70	FS1132.45	Federated Farmers of New Zealand		Oppose	The NPSET specifically excludes local lines or the Electricity Distribution Network. We see no good reason why the district plan should develop provisions which seek to apply the NPSET to local lines. We also consider it is inappropriate for the district plan to police NZECP 34:2001. Where the submitter has concerns with the application of NZECP 34:2001 in respect to local lines, they are better addressing these with the individual landowners or those working in proximity to lines.	Reject		

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
635.70	FS1301.16	Transpower New Zealand Limited (Transpower)		Not Stated	Neutral, but oppose terminology - Allow, but if Council accepts Aurora?s submission, Transpower seeks Council delete the term „critical electricity line? and replace with the term „electricity distribution line corridor?	Accept in Part		
635.71		Aurora Energy Limited		Not Stated	Insert the following new provisions relating to Critical Electricity Lines in all of the following zones: •Low Density Residential Zone Rules 7.4 and 7.5 •Medium Density Residential Zone Rules 8.4 and 8.5 •High Density Residential Zone Rules 9.4 and 9.5 •Arrowtown Residential Historic Management Zone Rules 10.4 and 10.5 •Large Lot Residential Rules 11.4 and 11.5 •Queenstown Town Centre Rules 12.4 and 12.5 •Wanaka Town Centre Rules 13.4 and 13.5 •Arrowtown Town Centre Rules 14.4 and 14.5 •Local Shopping Centres Rules 15.4 and 15.5 •Business Mixed Use Zone Rules 16.4 and 16.5 •Rural Zone Rules 21.4 and 21.5 •Rural Residential and Lifestyle Rules 22.4 and 22.5 •Gibbston Character Zone Rules 23.4 and 23.5 Critical Electricity Lines - Land Use NOTE: The following provisions apply district wide in addition to any other provisions in this Plan applicable to the same areas or site. Critical Electricity Lines (CEL's) and substations are the key components of the electricity network in the Queenstown Lakes District. To provide a resilient electricity network the use and development of CEL's and substations must be sustainable, secure and efficient. CEL's and substations can be vulnerable to inappropriate subdivision or building location to the extent that they can restrict access and affect the ability to maintain the CEL's (lines, cables and support structures). Trees planted too close to lines or cables can disrupt supply. CEL's are, or have the potential to be, critical to the quality, reliability and security of electricity supply throughout the district or region. These lines contribute to the social and economic wellbeing and health and safety of the district or region and are lines that:. • Supply essential public services such as the hospital, civil defence facilities or Lifeline sites; or • Supply large (1MW or more) industrial or commercial electricity consumers; or • Supply 1000 or more consumers; or • Are difficult to replace with an alternative electricity supply if they are compromised. The locations of CEL's and designated substations are identified in the planning maps of the District Plan. The following activities are permitted activities: 2. Within 10m of a CEL or the designation boundary of a substation: iv. Any building or structure that does not require building consent; or v. Alteration of any building that does not exceed outside the envelope or footprint of the existing building; or vi. Earthworks that: d. Are not directly above an underground cable(s); and e. Do not result in a reduction of existing ground clearance distances from overhead lines below the minimums prescribed in the New Zealand Code of Practice 34:2001 (NZECP 34:2001); and f. Are in accordance with NZECP 34:2001. 4. Within 20m of a CEL or the designated boundary of a substation: ii. Planting of trees other than shelterbelts, production forestry or commercial horticultural operations. 5. Activities that fail to meet the standards in (1) and (2) above, provided that prior to the commencement of any works: iii. Written notification has been provided to the Council; and iv. The proposed activity is being carried out in accordance with the Electricity Act 1992 and associated regulations (NZECP 34:2001, the Electricity (Hazards from Trees) Regulations 2003 (SR 2003/375), and the Electricity (Safety) Regulations 2010); OR 5.1 The proposed activity is being carried out by a network utility operator or territorial authority in accordance with NZECP 34:2001. Note: Specified distances from CEL's are to be measured from a point directly below the centreline of the line or cluster of lines, as shown in the Critical Electricity Line Definition. Insert New Restricted Discretionary Rule - Land Use Rule xxx Activities that do not meet the requirements for permitted activities, require resource consent as a restricted discretionary activity. Discretion will be restricted to: i. the safe and efficient operation and maintenance of the electricity supply network, including: f. The use, design and location of buildings; and g. The mature size, growth rate, location, and fall zone of any associated tree planting, including landscape planting and shelterbelts; and h. Compliance with NZECP 34:2001; and i. Effects on public health and safety; and j. Effects on access to CEL's, designated substations and associated infrastructure for maintenance purposes. Insert Aurora's Critical Electricity Lines onto the relevant Planning Maps.	Accept in Part		See section 8 in 42a report. Also, the introduction of District Wide Chapters removes the need for repeting provisions in each zone chapter
635.71	FS1132.46	Federated Farmers of New Zealand		Oppose	The NPSET specifically excludes local lines or the Electricity Distribution Network. We see no good reason why the district plan should develop provisions which seek to apply the NPSET to local lines. We also consider it is inappropriate for the district plan to police NZECP 34:2001. Where the submitter has concerns with the application of NZECP 34:2001 in respect to local lines, they are better addressing these with the individual landowners or those working in proximity to lines.	Reject		

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
635.71	FS1301.15	Transpower New Zealand Limited (Transpower)		Not Stated	Neutral, but oppose terminology - Allow, but if Council accepts Aurora?s submission, Transpower seeks Council delete the term „critical electricity line? and replace with the term „electricity distribution line corridor?	Accept in Part		
781.14		Chorus New Zealand Limited		Oppose	Amend the Energy and Utilities Chapter to provide for a framework that supports utilities and manages the adverse effects of utilities.	Accept		
781.14	FS1342.9	Te Anau Developments Limited		Support	Allow relief sought to the extent that is does not undermine or prevent the relief originally sought by Te Anau Developments (unless otherwise agreed through the submission process)	Accept in Part		
817.6		Te Ao Marama Inc		Other	TAMI has the following amendments for the proposed District Plan: - Implement Objective D1 Tangata whenua roles and interests, and Policy D1 of the National Policy Statement – Freshwater Management, particularity in Chapter 27 Subdivision and Development, Chapter 30 Energy and Utilities, and other District Plan chapters that have a direct impact on freshwater quality and quantity. For more information about Objective D and Policy D1 of the NPS-FM, see pages 85- 87 of the Ministry for the Environment's A Guide to the National Policy Statement for Freshwater Management 2014. - Ensure that the Ngai Tahu terminology used in Chapter 5 is consistently used throughout the Plan and in the definitions and maps. - The list of taonga species in Chapter 5 to be updated to include freshwater fish species and other land based animals. - Amend the titles of the four chapters in Part Two: Strategy to have the prefix "Strategic". The way the chapters are currently titled, and promoted by Council during the submission phase, it seems that the only strategy chapter in the Plan is "Strategic Direction". TAMI has been informed by Council that Chapter 5 is a strategic chapter and this information has affected TAMI's submission and the content of the Chapters 3 and 5. - A stronger link is to be made between Chapter 5 and Chapter 33: Indigenous Vegetation and Biodiversity; particularly, the clearance criteria in 33.2.1.9, and taonga species and related habitat, and nohoanga. - Amend the alpine limit from 1070m to 800m. This change is in line with the change in biodiversity at 800m, significant increased risk of erosion and sedimentation, and Landcare Research's Land Use classifications.	Accept in Part		
238.117		NZIA Southern and Architecture + Women Southern	30.1 Purpose	Support	Supports the provision.	Accept		
238.117	FS1157.48	Trojan Helmet Ltd	30.1 Purpose	Oppose	That the submission is rejected, to the extent it is inconsistent with Trojan Helmet Limited's original submissions. The decision is opposed to the extent it seeks a new policy that restricts urban development outside UGBs.	Reject		
238.117	FS1107.122	Man Street Properties Ltd	30.1 Purpose	Oppose	The Submitter opposes this submission. Submission 238 will not promote or give effect to Part 2 of the Act. The matters raised in the submission do not meet section 32 of the Act, and are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Reject		
238.117	FS1226.122	Ngai Tahu Property Limited & Ngai Tahu Justice Holdings Limited	30.1 Purpose	Oppose	The submitter opposes this submission . Alerts that the submission and matters sought in it will therefore not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Reject		
238.117	FS1234.122	Shotover Memorial Properties Limited & Horne Water Holdings Limited	30.1 Purpose	Oppose	States that submission 238 will not promote or give effect to Part 2 of the Act. Agrees that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives.	Reject		
238.117	FS1239.122	Skyline Enterprises Limited & O'Connells Pavillion Limited	30.1 Purpose	Oppose	Agrees that submission 238 will not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives.	Reject		
238.117	FS1241.122	Skyline Enterprises Limited & Accommodation and Booking Agents	30.1 Purpose	Oppose	Agrees that submission 238 will not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives.	Reject		
238.117	FS1242.145	Antony & Ruth Stokes	30.1 Purpose	Oppose	The submitter seeks submission be disallowed as it relates to the expansion of the Business Mixed Use Zone (submission point 238.93) with the High Density Residential Zone on the northern side of Henry Street being retained.	Reject		
238.117	FS1248.122	Trojan Holdings Limited & Beach Street Holdings Limited	30.1 Purpose	Oppose	The submitter opposes this submission . Alerts that the submission and matters sought in it will therefore not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Reject		
238.117	FS1249.122	Tweed Development Limited	30.1 Purpose	Oppose	The submitter opposes this submission . Alerts that the submission and matters sought in it will therefore not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Reject		
251.11		PowerNet Limited	30.1 Purpose	Support	Support in part. PowerNet seeks that the following changes be made to the Chapter purpose: *Utilities are essential to the servicing and functioning of the District and have national, regional and local benefits . Utilities have the purpose to provide a service to the public and are typically provided by a network utility operator. Due to the importance of utilities in providing essential services to the community, their often high capital cost to establish, and their long life expectancy; the need for the future establishment and on-going functioning, maintenance and upgrading of utilities is recognised. In addition, some utilities have specific locational needs that need to be accommodated for their operation. The co-location of utilities may achieve efficiencies in design and operation, reduce capital investment costs and also minimise amenity and environmental effects. ~~The ability to co-locate compatible uses should be considered for all utility proposals.~~* *While it is recognised ~~while~~ ; that utilities can have national, regional and local benefits, they can also have adverse effects on the environment ~~surrounding land uses, some of which have been established long before the network utility.~~ The sustainable management of natural and physical resources requires a balance between the effects of different land uses. However, it is also necessary that essential utilities are protected, where possible, from further encroachment by incompatible activities which may be subject to reverse sensitivity effects. This chapter therefore also addresses requirements for sensitive uses and habitable buildings located near to utilities.*	Reject		
251.11	FS1186.1	Contact Energy Limited	30.1 Purpose	Oppose	Amendments proposed are not seen to add to or aid the Purpose	Accept		
251.11	FS1097.98	Queenstown Park Limited	30.1 Purpose	Support	Support for the reasons outlined in QPL's primary submission.	Reject		
251.11	FS1132.16	Federated Farmers of New Zealand	30.1 Purpose	Oppose	It is important that Council considers the impact of utilities on surrounding land uses. The sentence specifically acknowledges that often legitimate existing land users have had to accommodate subsequent network utilities. This generally comes at a cost or inconvenience and it is appropriate for this to be acknowledged.	Reject		

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
383.59		Queenstown Lakes District Council	30.1 Purpose	Other	Amend the purpose statement to identify and encourage heat exchange via land and water.	Reject		
805.69		Transpower New Zealand Limited	30.1 Purpose	Other	Support with amendments. Amend opening paragraph to: Energy and Utilities are of strategic importance and require a coordinated approach in relation to the development, operation, maintenance and upgrading of energy resources, the generation and transmission of electricity and the provision of essential infrastructure throughout the District.	Reject		
805.69	FS1159.5	PowerNet Ltd	30.1 Purpose	Support	PowerNet considers that it is appropriate to amend the opening paragraph of 30.1 as proposed by Transpower in order to recognise electricity transmission activities.	Reject		
805.69	FS1132.65	Federated Farmers of New Zealand	30.1 Purpose	Oppose	Upgrading of the generation and transmission of electricity may adversely impact other reasonable and beneficial land use activities. Subsequently the upgrading of the generation or transmission of infrastructure should not be unnecessarily elevated, to provide for a balanced consideration of the impacts of an upgrade.	Accept		
238.118		NZIA Southern and Architecture + Women Southern	30.1.1 Energy	Other	Support in part. Suggested amendments below. 30.1.1 Energy *"…..Energy efficiency and conservation ~~go hand in hand with renewable energy~~ . Conserving the use of energy together with the generation of renewable energy will be vital in responding to the challenges of providing enough energy to meet future energy"….The benefits of solar energy may be realised through site design methods which promote solar efficient design, in addition to the inclusion of solar photovoltaic panels and solar hot water heating systems within buildings.* *Sustainable community design is encouraged by allowing greater density of development within Urban Growth Boundaries and by providing limits to the extent of development by the establishment of Urban Growth boundaries. Sustainable building forms which reduce energy demand and minimise heating costs are encouraged, ~~including use of the Homestar™ rating system for residential buildings and Green Star tool for commercial buildings.~~"*	Reject		
238.118	FS1157.49	Trojan Helmet Ltd	30.1.1 Energy	Oppose	That the submission is rejected, to the extent it is inconsistent with Trojan Helmet Limited's original submissions. The decision is opposed to the extent it seeks a new policy that restricts urban development outside UGBs.	Accept in Part		
238.118	FS1107.123	Man Street Properties Ltd	30.1.1 Energy	Oppose	The Submitter opposes this submission. Submission 238 will not promote or give effect to Part 2 of the Act. The matters raised in the submission do not meet section 32 of the Act, and are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Accept in Part		
238.118	FS1226.123	Ngai Tahu Property Limited & Ngai Tahu Justice Holdings Limited	30.1.1 Energy	Oppose	The submitter opposes this submission . Alerts that the submission and matters sought in it will therefore not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Accept in Part		
238.118	FS1234.123	Shotover Memorial Properties Limited & Horne Water Holdings Limited	30.1.1 Energy	Oppose	States that submission 238 will not promote or give effect to Part 2 of the Act. Agrees that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives.	Accept in Part		
238.118	FS1239.123	Skyline Enterprises Limited & O'Connells Pavillion Limited	30.1.1 Energy	Oppose	Agrees that submission 238 will not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives.	Accept in Part		
238.118	FS1241.123	Skyline Enterprises Limited & Accommodation and Booking Agents	30.1.1 Energy	Oppose	Agrees that submission 238 will not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives.	Accept in Part		
238.118	FS1242.146	Antony & Ruth Stokes	30.1.1 Energy	Oppose	The submitter seeks submission be disallowed as it relates to the expansion of the Business Mixed Use Zone (submission point 238.93) with the High Density Residential Zone on the northern side of Henry Street being retained.	Accept in Part		
238.118	FS1248.123	Trojan Holdings Limited & Beach Street Holdings Limited	30.1.1 Energy	Oppose	The submitter opposes this submission . Alerts that the submission and matters sought in it will therefore not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Accept in Part		
238.118	FS1249.123	Tweed Development Limited	30.1.1 Energy	Oppose	The submitter opposes this submission . Alerts that the submission and matters sought in it will therefore not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Accept in Part		
719.147		NZ Transport Agency	30.1.2 Utilities	Support	Retain	Accept in Part		
719.147	FS1186.8	Contact Energy Limited	30.1.2 Utilities	Support	Significant investments in essential utilities infrastructure development and maintenance is important to the overall wellbeing of the community.	Accept in Part		
805.70		Transpower New Zealand Limited	30.1.2 Utilities	Other	Support with amendments. Amend opening paragraph to: Utilities have the purpose to provide a service to the public and are typically provided by a network utility operator. Due to the importance of utilities in providing essential services to the community, their often high capital cost to establish, and their long life expectancy; the need for the establishment and on-going development, operation, ~~functioning~~, maintenance and upgrading of regionally and nationally significant utilities is recognized and provided for. In addition, some utilities have specific locational, technical and operational requirements ~~needs~~ that need to be accommodated for their operation. It is recognised while utilities can have national, regional and local benefits, they can also have adverse effects on surrounding land uses, some of which have been established long before the network utility. The sustainable management of natural and physical resources requires a balance between the effects of different land uses. However, it is also necessary that regionally significant ~~essential~~ utilities are protected from development that could adversely affect (including through, ~~where possible, from further encroachment by incompatible activities which may be subject to~~ reverse sensitivity) ~~effects~~ the ability of that infrastructure to be accessed, operated, maintained, upgraded and developed. This chapter therefore also addresses requirements for sensitive uses and habitable buildings located near to utilities.	Reject		

Appendix 2 to the Section 42A report for Chapter 30 - Energy and Utilities

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
805.70	FS1186.11	Contact Energy Limited	30.1.2 Utilities	Oppose	Significant investments in essential utilities infrastructure development and maintenance is important to the overall wellbeing of the community. The proposed changes seem too specific.	Accept		
805.70	FS1211.32	New Zealand Defence Force	30.1.2 Utilities	Support	Agrees that this provision appropriately provides for and protects regionally significant infrastructure including from reverse sensitivity effects.	Reject		
117.11		Maggie Lawton	30.2 Objectives and Policies	Other	30.2.4 How will QLDC encourage other than for increasing housing intensity as previously described? Suggests providing an eco design service.With the restrictions on planting exotics how does QLDC propose to have a wood fire source in the future. 30.2.4.4 Using Homestar and GreenStar ensure that certain attributes of buildings are focused on and enhanced. How will they be encouraged here?	Reject		
238.119		NZIA Southern and Architecture + Women Southern	30.2 Objectives and Policies	Other	Support in part. Add objective. *30.2 Objectives* *Sustainable community design reduces individual energy use* *Policies - Encourage compact urban forms* *- Encourage development within Urban Growth Boundaries and restrict development elsewhere.* *- Introduce incentives for buildings which can be shown to use less than ¼ of the average energy usage for our region.*	Reject		
238.119	FS1157.50	Trojan Helmet Ltd	30.2 Objectives and Policies	Oppose	That the submission is rejected, to the extent it is inconsistent with Trojan Helmet Limited's original submissions. The decision is opposed to the extent it seeks a new policy that restricts urban development outside UGBs.	Accept in Part		
238.119	FS1107.124	Man Street Properties Ltd	30.2 Objectives and Policies	Oppose	The Submitter opposes this submission. Submission 238 will not promote or give effect to Part 2 of the Act. The matters raised in the submission do not meet section 32 of the Act, and are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Accept in Part		
238.119	FS1226.124	Ngai Tahu Property Limited & Ngai Tahu Justice Holdings Limited	30.2 Objectives and Policies	Oppose	The submitter opposes this submission . Alerts that the submission and matters sought in it will therefore not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Accept in Part		
238.119	FS1234.124	Shotover Memorial Properties Limited & Horne Water Holdings Limited	30.2 Objectives and Policies	Oppose	States that submission 238 will not promote or give effect to Part 2 of the Act. Agrees that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives.	Accept in Part		
238.119	FS1239.124	Skyline Enterprises Limited & O'Connells Pavillion Limited	30.2 Objectives and Policies	Oppose	Agrees that submission 238 will not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives.	Accept in Part		
238.119	FS1241.124	Skyline Enterprises Limited & Accommodation and Booking Agents	30.2 Objectives and Policies	Oppose	Agrees that submission 238 will not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives.	Accept in Part		
238.119	FS1242.147	Antony & Ruth Stokes	30.2 Objectives and Policies	Oppose	The submitter seeks submission be disallowed as it relates to the expansion of the Business Mixed Use Zone (submission point 238.93) with the High Density Residential Zone on the northern side of Henry Street being retained.	Accept in Part		
238.119	FS1248.124	Trojan Holdings Limited & Beach Street Holdings Limited	30.2 Objectives and Policies	Oppose	The submitter opposes this submission . Alerts that the submission and matters sought in it will therefore not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Accept in Part		
238.119	FS1249.124	Tweed Development Limited	30.2 Objectives and Policies	Oppose	The submitter opposes this submission . Alerts that the submission and matters sought in it will therefore not promote or give effect to Part 2 of the Act. States that matters raised in the submission do not meet section 32 of the Act. are not the most appropriate method for achieving the objectives of the Proposed District Plan having regard to its efficiency and effectiveness, and taking into account the costs and benefits.	Accept in Part		
805.71		Transpower New Zealand Limited	30.2 Objectives and Policies	Other	Support with amendments. Insert the additional provisions detailed in the submission.	Accept in Part		
580.7		Contact Energy Limited	30.2.3 Objective 3	Support	Supports objective 30.2.3 and policy 30.2.3.5.	Accept in Part		
373.16		Department of Conservation	30.2.3.4	Other	Amend Policy 30.2.3.4 as follows: *Assess the effects of Renewable Electricity Generation proposals, other than Small and Community Scale, on a case-by-case basis, with regards to:* · *landscape values and areas* ~~*with*~~ *of* ~~*significant indigenous flora or*~~ *significant habitat for indigenous* ~~*fauna*~~ ~~- recreation and cultural values, including relationships with tangata whenua~~ ~~- amenity values~~ ~~- The extent of public benefit and outcomes of location specific cost-benefit analysis.~~	Accept in Part		
373.16	FS1040.8	Forest and Bird	30.2.3.4	Support	Support	Accept in Part		
373.16	FS1347.33	Lakes Land Care	30.2.3.4	Oppose	Opposes oversewing as a vegetation clearance definition. Assures that it is a management practice used to improve grazing species.	Reject		This submission point has already been addressed in the Rural Hearing Stream
373.17		Department of Conservation	30.2.3.6	Other	Amend Policy 30.2.3.6 as follows: ~~*To compensate for adverse effects, consideration shall be given to any offset measures and/or environmental compensation including those which benefit the local environment and community affected.*~~ ~~To manage any residual adverse effects on indigenous biodiversity that cannot otherwise be avoided, remedied or mitigated, consideration shall be given to biodiversity offsets where it is appropriate to do so.~~	Accept in Part		

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
373.17	FS1254.2	Allenby Farms Limited	30.2.3.6	Oppose	That the submission be refused insofar as the submission seeks amendments to the provisions identified for Chapter 3 and Chapter 33 Amendments proposed to Policy 3.2.4.2.2 and Policy 30.2.3.6 on biodiversity off-setting create confusion for the methodology of the principle and inappropriately limit the concept and application of environmental compensation. The proposed amendments to chapter 33 are not supported as these proposals will not seek to achieve the most effective and efficient use of resource under the RMA purpose of sustainable management.	Reject		
373.17	FS1015.23	Straterra	30.2.3.6	Oppose	I seek that 373.17 be allowed, subject to the proposed amendments below: "To compensate for adverse effects, consideration shall be given to any offset measures and/or environmental compensation including those which benefit the local environment and community affected. To manage any residual adverse effects on indigenous biodiversity that cannot otherwise be avoided, remedied or mitigated, consideration shall be given to biodiversity offsets and other compensatory measures where it is appropriate to do so."	Reject		
373.17	FS1342.26	Te Anau Developments Limited	30.2.3.6	Oppose	Not allow relief sought (or other similar relief south by another submitter) unless otherwise agreed through the submission process	Reject		
373.17	FS1347.34	Lakes Land Care	30.2.3.6	Oppose	Opposes oversewing as a vegetation clearance definition. Assures that it is a management practice used to improve grazing species.	Reject		This submission point has already been addressed in the Rural Hearing Stream
635.48		Aurora Energy Limited	30.2.3.7	Support	Support the retention of Policy 30.2.3.7	Accept		
126.4		Hunter Leece / Anne Kobienia	30.2.4 Objective 4	Other	Requests protection of access to sunshine from shading by neighbours trees. Notes that while this section identifies the need to avoid shading from buildings it should also enable protection of sunshine access from encroachment by trees.	Reject		see chapter 8 at 8.2.4.3; chapter 9 at 9.2.2.3, 9.2.2.6, 9.2.3.1, and 9.5.2; and chapter 27 at 27.2.2.1, 27.2.5.5(vi) and 27.5.6
290.2		Christine Ryan	30.2.4 Objective 4	Support	Change wording from 'encourage' to 'require'	Reject		
719.148		NZ Transport Agency	30.2.4 Objective 4	Not Stated	Amend Amend 30.2.4 Objective to read as follows: The location of land use developments, site layout and building design takes into consideration energy efficiency and conservation.	Reject		addressed in subdivision chapter
719.148	FS1186.9	Contact Energy Limited	30.2.4 Objective 4	Support	Support in part. Amend 30.2.4 Objective to read as follows: The location of land use developments, site layout and building design takes into consideration all energy options to achieve for energy efficiency and conservation.	Reject		addressed in subdivision chapter
719.149		NZ Transport Agency	30.2.4.5	Not Stated	Amend Policy 30.2.4.5 to read as follows: Land use developments and transport planning should be integrated ~~Transport networks should be designed~~ be designed so that the number, length and need for vehicle trips is minimised, and reliance on private motor vehicles is reduced, to assist in reducing energy consumption.	Reject		
719.149	FS1097.698	Queenstown Park Limited	30.2.4.5	Support	Support the intent of the submission for the reasons provided in QPL's original submission.	Reject		
806.204		Queenstown Park Limited	30.2.4.5	Support	Support/amend. Retain policy 30.2.4.5 with amendments to recognise the importance of public transport and the potential for water based public transport and the provision of a gondola between the RPZ and the Remarkables ski field to reduce the reliance on private motor vehicles.	Reject		
179.16		Vodafone NZ	30.2.5 Objective 5	Oppose	Amend 30.2.5 Objective ~~Co-ordinate the~~ The growth and development of the District is supported by the efficient and effective provision of utilities as ~~necessary to~~: Insert new policy: *Recognise the positive social, economic, cultural and environmental benefits that utilities provide, including:* *• enabling enhancement of the quality of life and standard of living for people and communities.* *•providing for public health and safety.* *•enabling the functioning of businesses.* *•enabling economic growth.* *•enabling growth and development.* *•protecting the transportation of freight, goods, people.* *•enabling interaction and communication.*	Accept in Part		
179.16	FS1097.53	Queenstown Park Limited	30.2.5 Objective 5	Support	Support for the reasons outlined in QPL's primary submission.	Accept in Part		
179.16	FS1121.22	Aurora Energy Limited	30.2.5 Objective 5	Support	Supports the introduction of the new policy, as it is appropriate that the Proposed Plan provides enabling provisions which recognise the essential nature of utilities.	Accept in part		
191.14		Spark Trading NZ Limited	30.2.5 Objective 5	Oppose	Amend 30.2.5 Objective - ~~Co-ordinate the~~ The growth and development of the District is supported by the efficient and effective provision of utilities ~~as necessary to~~. Insert new policy: Recognise the positive social, economic, cultural and environmental benefits that utilities provide, including: a. enabling enhancement of the quality of life and standard of living for people and communities b. providing for public health and safety c. enabling the functioning of businesses d. enabling economic growth e. enabling growth and development f. protecting and enhancing the environment g. enabling the transportation of freight, goods, people h. enabling interaction and communication	Accept in Part		
191.14	FS1097.63	Queenstown Park Limited	30.2.5 Objective 5	Not Stated	Neutral - Support recognition of importance of utilities, however this needs to be balanced with potential effects on the environment.	Accept in Part		
191.14	FS1121.23	Aurora Energy Limited	30.2.5 Objective 5	Support	Supports the introduction of the new policy, as it is appropriate that the Proposed Plan provides enabling provisions which recognise the essential nature of utilities.	Accept in Part		

Appendix 2 to the Section 42A report for Chapter 30 - Energy and Utilities

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
251.12		PowerNet Limited	30.2.5 Objective 5	Support	Support in part. PowerNet seeks that the following changes be made to this objective: ~~*Co-ordinate*~~ *Enable the provision of utilities as necessary to support the growth and development of the District.*	Accept in Part		
251.12	FS1186.2	Contact Energy Limited	30.2.5 Objective 5	Support	Amend 30.2.5 Objective to better align with Policies so it reads as follows: ~~Co-ordinate~~ Enable the provision of utilities as necessary to support the growth and development of the Distric	Accept in Part		
251.12	FS1097.99	Queenstown Park Limited	30.2.5 Objective 5	Support	Support for the reasons outlined in QPL's primary submission.	Accept in Part		
421.13		Two Degrees Mobile Limited	30.2.5 Objective 5	Oppose	Requests objective 30.2.5 be amended to provide a clear target - Proposed wording outlined in submission 421 Add new policy. - Proposed wording outlined in submission 421 Amend Policies 30.2.5.1, 30.2.5.1, 30.2.5.3 - Proposed wording outlined in submission 421 Suggested amendments/inclusions outlined in submission 421.	Accept in Part		
781.15		Chorus New Zealand Limited	30.2.5 Objective 5	Oppose	Amend 30.2.5 Objective - ~~Co-ordinate the~~ The growth and development of the District is supported by the efficient and effective provision of utilities ~~as necessary to~~. Insert new policy: Recognise the positive social, economic, cultural and environmental benefits that utilities provide, including: a. enabling enhancement of the quality of life and standard of living for people and communities b. providing for public health and safety c. enabling the functioning of businesses d. enabling economic growth e. enabling growth and development f. protecting and enhancing the environment g. enabling the transportation of freight, goods, people h. enabling interaction and communication	Accept		
805.72		Transpower New Zealand Limited	30.2.5 Objective 5	Support	Retain Objective: Enable, protect and co-ordinate the provision of utilities as necessary to support the growth and development of the District.	Accept		
805.72	FS1186.12	Contact Energy Limited	30.2.5 Objective 5	Support	Support in part. Amend 30.2.5 Objective to better align with Policies so it reads as follows: Co-ordinate Enable the provision of utilities as necessary to support the growth and development of the District	Accept		
179.17		Vodafone NZ	30.2.5.1	Support	Support in part. Amend *30.2.5.1 ~~Essential~~ U~~u~~tilities are provided to service new development prior to buildings being occupied, and activities commencing.*	Accept		
179.17	FS1097.54	Queenstown Park Limited	30.2.5.1	Oppose	Oppose for the reasons outlined in QPL's primary submission.	Reject		
191.15		Spark Trading NZ Limited	30.2.5.1	Support	Support in part. Amend policy as follows: ~~Essential~~ U~~utilities are provided to service new development prior to buildings being occupied, and activities commencing.~~	Accept		
191.15	FS1097.64	Queenstown Park Limited	30.2.5.1	Oppose	Policies should be amended to reflect that with improving technologies connection to reticulated networks is not always necessary.	Reject		
781.16		Chorus New Zealand Limited	30.2.5.1	Other	Support in part. Amend 30.2.5.1 ~~Essential~~ Utilities are provided to service new development prior to buildings being occupied, and activities commencing.	Accept		
179.18		Vodafone NZ	30.2.5.3	Support	Support in part. 30.2.5.3 - Retain	Accept in Part		
191.16		Spark Trading NZ Limited	30.2.5.3	Support	Support in part. Retain as notified.	Accept in Part		
635.49		Aurora Energy Limited	30.2.5.3	Other	Support in part. Amend Policy 30.2.5.3 as follows: Recognise and provide for the growth and ~~the~~ future development needs of utilities within the District ~~and work ensure their provision in conjunction with the provider.~~	Reject		
781.17		Chorus New Zealand Limited	30.2.5.3	Other	Support in part. Retain 30.2.5.3	Accept		
805.73		Transpower New Zealand Limited	30.2.5.3	Other	Support with amendments. Amend policy: Recognise and protect existing and ~~the~~ future ~~needs of~~ utilities ~~and~~ by ensureing that development within utility corridors does not generate adverse effects on the utility, including the ability of the utility to be accessed, operated, maintained upgraded and/or developed. ~~their provision in conjunction with the provider.~~	Reject		
805.73	FS1159.6	PowerNet Ltd	30.2.5.3	Oppose	Oppose in Part - The amendments sought to this policy may have the effect of narrowing the applicability of this policy to those "utilities which have defined corridors". PowerNet therefore oppose the use of the term "utility corridor" in this policy. PowerNet seeks the following amendments to this policy: Recognise and protect existing and ~~the~~ future needs of utilities ~~and~~ by ensureing that development avoids, remedies or mitigates ~~within utility corridors does not generate~~ adverse effects on the utility, including the ability of the utility to be accessed, operated, maintained upgraded and/or developed. ~~their provision in conjunction with the provider.~~	Reject		
805.73	FS1186.13	Contact Energy Limited	30.2.5.3	Support	Support in part. Amend Policy 30.2.5.3 so it reads as follows: Recognise the future needs of utilities and ensure that appropriate provision is made for them in developments, in conjunction with the provider.	Reject		
179.19		Vodafone NZ	30.2.6 Objective 6	Support	Support in part. Amend 30.2.6 Objective The well-being of the community is enabled by the establishment, efficient use and continued operation and maintenance of utilities necessary for...	Accept in Part		
191.17		Spark Trading NZ Limited	30.2.6 Objective 6	Support	Support in part. The well-being of the community is enabled by the establishment, efficient use and continued operation and maintenance of utilities ~~necessary for~~	Accept in Part		
383.60		Queenstown Lakes District Council	30.2.6 Objective 6	Other	Delete the word "options" and replace with "operational"	Accept in Part		

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
421.14		Two Degrees Mobile Limited	30.2.6 Objective 6	Other	Supports the objective in part - requested amendments to provide for the operation and maintenance of existing utilities. suggested amendments outlined in submission 421	Accept in Part		
421.15		Two Degrees Mobile Limited	30.2.6 Objective 6	Oppose	Opposes the proposed policy 30.2.6.1. Requests this be deleted and replaced with a new wording as outlined in submission 421.	Reject		
600.108		Federated Farmers of New Zealand	30.2.6 Objective 6	Other	Adopt the Objective as proposed, but address the potential adverse effects of generation or transmission infrastructure upgrades through the supporting policies.	Reject		
600.108	FS1034.108	Upper Clutha Environmental Society (Inc.)	30.2.6 Objective 6	Oppose	The Society OPPOSES the entire submission and seeks that the entire submission is DISALLOWED.	Reject		
600.108	FS1209.108	Richard Burdon	30.2.6 Objective 6	Support	Support entire submission	Reject		
781.18		Chorus New Zealand Limited	30.2.6 Objective 6	Other	Support in part. Amend 30.2.6 Objective - The well-being of the community is enabled by the establishment, efficient use and continued operation and maintenance of utilities ~~necessary for~~	Accept in Part		
805.74		Transpower New Zealand Limited	30.2.6 Objective 6	Other	Support with amendments. Amend to: The development, operation, ~~establishment, efficient use and~~ maintenance and upgrading of network utilities supports the economic and social wellbeing of the district and beyond. ~~necessary for the well-being of the community.~~	Accept in Part		
805.74	FS1186.14	Contact Energy Limited	30.2.6 Objective 6	Support	Support in part. Amend Policy 30.2.5.3 so it reads as follows: The establishment, efficient use and maintenance of utilities necessary for the economic and social well-being of the district. ~~well-being of the community~~.	Accept in Part		
805.79		Transpower New Zealand Limited	30.2.6 Objective 6	Oppose	Add new Objective: To recognise and provide for the ongoing operation, maintenance, development and upgrading of the National Grid.	Reject		
805.79	FS1132.68	Federated Farmers of New Zealand	30.2.6 Objective 6	Oppose	It is unreasonable to provide for the development and upgrading of the National Grid; this goes beyond what is required under the NPSET and may impact other reasonable and beneficial land use.	Reject		
179.20		Vodafone NZ	30.2.6.1	Oppose	Delete and replace with: *Enable the continued use, operation , maintenance and upgrading of utilities provided that, to the extent practicable, it appropriately protects the outstanding natural landscapes, outstanding natural features or identified special character areas.* *Where new or major upgrades to utilities are proposed, adverse effects on the outstanding natural landscapes, outstanding natural features or identifies special character areas must be minimised.*	Reject		
179.20	FS1132.6	Federated Farmers of New Zealand	30.2.6.1	Oppose	We consider there is an important distinction between operation and maintenance on one hand, and upgrading on the other; by including upgrading of utilities the objective goes beyond what is required or necessary.	Accept in Part		
179.20	FS1097.55	Queenstown Park Limited	30.2.6.1	Oppose	Oppose for the reasons outlined in QPL's primary submission.	Accept in Part		
179.20	FS1121.24	Aurora Energy Limited	30.2.6.1	Support	Supports the amendment to Objective 6, as proposed, as it is appropriate to recognise that infrastructure can have specific locational requirements to be located in areas subject to environmental constraints. The development of such infrastructure is the subject of considerable financial investment and in many cases is unlikely to be readily replaced or duplicated. It is therefore appropriate to provide for the continued use, operation, maintenance and upgrading of such infrastructure.	Reject		
191.18		Spark Trading NZ Limited	30.2.6.1	Oppose	Delete the policy and replace as follows: Enable the continued use, operation, maintenance and upgrading of utilities provided that, to the extent practicable, it appropriately protects the outstanding natural landscapes, outstanding natural features or identified special character areas. Where new or major upgrades to utilities are proposed, adverse effects on the outstanding natural landscapes, outstanding natural features or identified special character areas must be minimised.	Reject		
191.18	FS1121.25	Aurora Energy Limited	30.2.6.1	Support	Supports the amendment to Objective 6, as proposed, as it is appropriate to recognise that infrastructure can have specific locational requirements to be located in areas subject to environmental constraints. The development of such infrastructure is the subject of considerable financial investment and in many cases is unlikely to be readily replaced or duplicated. It is therefore appropriate to provide for the continued use, operation, maintenance and upgrading of such infrastructure.	Reject		
251.13		PowerNet Limited	30.2.6.1	Support	Retain policies as notified.	Accept in Part		
251.13	FS1186.3	Contact Energy Limited	30.2.6.1	Support	Recognises the significant investments in essential utilities infrastructure development and maintenance	Accept in Part		
635.50		Aurora Energy Limited	30.2.6.1	Support	Supports retention of Policy 30.2.6.1	Accept in Part		
781.19		Chorus New Zealand Limited	30.2.6.1	Oppose	Delete and replace with: Enable the continued use, operation, maintenance and upgrading of utilities provided that, to the extent practicable, it appropriately protects the outstanding natural landscapes, outstanding natural features or identified special character areas. Where new or major upgrades to utilities are proposed, adverse effects on the outstanding natural landscapes, outstanding natural features or identified special character areas must be minimised.	Reject		
805.75		Transpower New Zealand Limited	30.2.6.1	Other	Support with amendments. Amend to: Recognise and provide ~~the need~~ for the ongoing operation, maintenance, ~~or~~ upgrading and development of ~~a~~ regionally and nationally significant network utilities ~~y to ensure its on-going viability and efficiency.~~	Accept in Part		
805.75	FS1186.15	Contact Energy Limited	30.2.6.1	Oppose	Policies adequately recognise the significant investments in essential utilities infrastructure development and maintenance	Reject		

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
600.109		Federated Farmers of New Zealand	30.2.6.2	Other	Policy 30.2.6.2 is amended as follows (or words to similar effect) Consider long term options~~, and economic costs and strategic needs,~~ and economic costs including those imposed on adversely impacted activities ~~when~~ when considering alternative locations, sites or methods for the establishment or alteration of a utility.	Reject		
600.109	FS1121.26	Aurora Energy Limited	30.2.6.2	Oppose	Opposes the amendment to Objective 6. Network utility infrastructure has specific technical and locational requirements and is the subject of considerable financial investment which in many cases is unlikely to be readily replaced or duplicated. Provision for rural related activities associated with farming is provided for under Chapter 21 Rural and as such need not be repeated in this chapter of the Proposed Plan.	Accept in Part		
600.109	FS1034.109	Upper Clutha Environmental Society (Inc.)	30.2.6.2	Oppose	The Society OPPOSES the entire submission and seeks that the entire submission is DISALLOWED.	Reject		
600.109	FS1209.109	Richard Burdon	30.2.6.2	Support	Support entire submission	Reject		
805.76		Transpower New Zealand Limited	30.2.6.2	Other	Support with amendments. Replace Policy 30.2.6.2: ~~Consider long term options and economic costs and strategic needs when considering alternative locations, sites or methods for the establishment or alteration of a utility.~~ When considering the effects of proposed utility developments with adverse environmental effects, consideration shall be given to the consideration of alternatives, but also to how adverse effects have been managed through the route, site and method selection process while taking into account the locational, technical and operational requirements of the utility and the benefits associated with the utility.	Accept		
805.76	FS1186.16	Contact Energy Limited	30.2.6.2	Oppose	Policies adequately recognise the significant investments in essential utilities infrastructure development and maintenance	Reject		
179.21		Vodafone NZ	30.2.6.3	Support	Support. Retain Policy 30.2.6.3	Accept		
191.19		Spark Trading NZ Limited	30.2.6.3	Support	Retain as notified.	Accept		
421.16		Two Degrees Mobile Limited	30.2.6.3	Support	supports the policy and requests it be retained	Accept		
781.20		Chorus New Zealand Limited	30.2.6.3	Support	Retain 30.2.6.3	Accept		
251.14		PowerNet Limited	30.2.6.4	Support	Retain policy as notified.	Accept in Part		
251.15		PowerNet Limited	30.2.6.4	Other	PowerNet seeks that a new policy be included after Policy 30.2.6.4: *Provide for the sustainable development, use, upgrading and maintenance of electricity distribution networks, including lines, transformers, substations and switching stations and ancillary buildings.*	Reject		covered in the policies already
251.15	FS1132.17	Federated Farmers of New Zealand	30.2.6.4	Oppose	We do not consider there is a need for the additional policy. In particular we oppose the reference to upgrading; there is an important distinction between operation and maintenance on one hand, and upgrading on the other; by including upgrading of utilities the objective goes beyond what is required or necessary. This goes beyond the requirements of the National Policy Statement for Electricity Transmission and there is no similar requirement to provide protection for lines distribution networks. The NZECP34:2001 provides sufficient provision to address safety and maintenance considerations for lines distribution assets.	Accept		
600.110		Federated Farmers of New Zealand	30.2.6.4	Other	Policy 30.2.6.4 is amended as follows (or words to similar effect): 30.2.6.4 Provide for the sustainable, secure and efficient use and development of the ~~electricity transmission network~~ ~~National Grid~~, ~~including within the National Grid corridor, and to protect activities from the adverse effects of the National Grid, including by:~~ ~~• Controlling the proximity of buildings, structures and vegetation to existing National Grid corridors~~ ~~• Discouraging sensitive activities from locating within or near to the electricity transmission National Grid Yard to minimise potential reverse sensitivity effects on the transmission network~~ ~~• Managing subdivision within or near to electricity transmission corridors, the National Grid Corridor to achieve the outcomes of this policy to facilitate good amenity and urban design outcomes~~ ~~• Not compromising the operation or maintenance options or, to the extent practicable, the carrying out of routine and planned upgrade associated with the National Grid.~~	Reject		
600.110	FS1159.7	PowerNet Ltd	30.2.6.4	Oppose	PowerNet submits that protection of electricity transmission networks from reverse sensitivity effects should not be exclusively restricted to the National Grid corridors. The social and economic wellbeing of the community relies on electricity supply provided by transmission networks that do not form part of the National Grid and is not solely reliant on the National Grid. PowerNet therefore opposes Federated Farmers proposed amendments and seeks that the provision be retained as notified.	Accept		
600.110	FS1034.110	Upper Clutha Environmental Society (Inc.)	30.2.6.4	Oppose	The Society OPPOSES the entire submission and seeks that the entire submission is DISALLOWED.	Reject		
600.110	FS1209.110	Richard Burdon	30.2.6.4	Support	Support entire submission	Reject		
635.51		Aurora Energy Limited	30.2.6.4	Oppose	Amend Policy 30.2.6.4 as follows: Provide for the sustainable, secure and efficient use and development of the electricity transmission and distribution networks, including within the transmission line corridor, the Critical Electricity Line corridor, and to protect activities from the adverse effects of the electricity transmission and distribution networks, including by: • Controlling the proximity of buildings, structures and vegetation to existing transmission and Critical Electricity Line corridors • Discouraging sensitive activities from locating within or near to the electricity transmission National Grid Yard to minimise potential reverse sensitivity effects on the transmission network • Managing subdivision within or near to electricity transmission and Critical Electricity Line corridors to achieve the outcomes of this policy to facilitate good amenity and urban design outcomes • Not compromising the operation or maintenance options or, to the extent practicable, the carrying out of routine and planned upgrade works.	Accept in Part		new policy 30.2.6.6

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
635.51	FS1132.43	Federated Farmers of New Zealand	30.2.6.4	Oppose	The NPSET specifically excludes local lines or the Electricity Distribution Network. The District Plan should also ensure that the protections intended for the National Grid are not extended to local lines or the Electricity Distribution Network, as doing so would unnecessarily require Council to address concerns between local lines companies and private landowners when these concerns are better addressed by these separate parties directly.	Reject		
635.51	FS1301.13	Transpower New Zealand Limited (Transpower)	30.2.6.4	Not Stated	Neutral, but oppose terminology - Disallow, and if Council accepts Aurora?s submission, insert a new policy for the electricity distribution line corridor	Accept		
805.77		Transpower New Zealand Limited	30.2.6.4	Other	Support with amendments. Replace Policy 30.2.6.4 with the following objective and policy: New objective: To avoid the establishment of new land use activities that could adversely affect (including through reverse sensitivity) the safe, efficient or effective operation, maintenance, upgrading and development of the National Grid. New policy: To manage the effects of subdivision, development and land use on the safe, effective and efficient operation, maintenance, upgrading and development of the National Grid by ensuring that: a. Areas are identified in the Plan to establish safe buffer distances for managing subdivision and land use development near the National Grid; b. Sensitive activities and large-scale structures are excluded from establishing within National Grid Yards and are appropriately managed around substations; c. Subdivision is managed around the National Grid to avoid subsequent land use from restricting the operation, maintenance, upgrading and development of the National Grid; and d. Changes to existing activities within a National Grid Yard and around National Grid substations do not further restrict the operation, maintenance, upgrading and development of the National Grid. ~~Provide for the sustainable, secure and efficient use and development of the electricity transmission network, including within the transmission line corridor, and to protect activities from the adverse effects of the electricity transmission network, including by:~~ ~~• Controlling the proximity of buildings, structures andvegetation to existing transmission corridors~~ ~~• Discouraging sensitive activities from locating within or near to the electricity transmission National Grid Yard to minimise potential reverse sensitivity effects on the transmission network~~ ~~• Managing subdivision within or near to electricity transmission corridors to achieve the outcomes of this policy to facilitate good amenity and urban design outcomes~~ ~~• Not compromising the operation or maintenance options or, to the extent practicable, the carrying out of routine and planned upgrade works.~~		Transferred to Hearing Stream Subdivision and Development	
805.77	FS1132.66	Federated Farmers of New Zealand	30.2.6.4	Oppose	We consider the proposed new objective and policy would unnecessarily and unreasonably elevate the status of electricity transmission, in comparison to other reasonable and beneficial land uses. This is particularly the case in respect to upgrading of transmission infrastructure. We consider the submitter's concerns are already largely addressed through provisions relating to transmission infrastructure (particularly the National Grid) proposed in the PDP.		Transferred to Hearing Stream Subdivision and Development	
179.22		Vodafone NZ	30.2.6.5	Support	Support in part. Amend Policy 30.2.6.5 - ~~*Recognise*~~ *Enable the* ~~*presence and*~~ *functioning and enhancement of established network utilities, and their* ~~*locational and*~~ *operational, maintenance and upgrade requirements.,* ~~*by managing land use, development and /or subdivision in locations which could compromise their safe and efficient operation.*~~ and Insert: *30.2.6.6 Manage land use, development and / or subdivision and their effects in locations which could compromise their safe and efficient operation of utilities.*	Reject		
179.22	FS1132.7	Federated Farmers of New Zealand	30.2.6.5	Oppose	We consider there is an important distinction between operation and maintenance on one hand, and upgrading on the other; by including upgrading of utilities the objective goes beyond what is required or necessary.	Reject		
191.20		Spark Trading NZ Limited	30.2.6.5	Support	Support in part. Amend Policy 30.2.6.5 Recognise Enable the presence and functioning and enhancement of established network utilities, and their locational and operational, maintenance and upgrade requirements. , by managing land use, development and/or subdivision in locations which could compromise their safe and efficient operation. and Insert: 30.2.6.6 Manage land use, development and/or subdivision and their effects in locations which could compromise their safe and efficient operation of utilities.	Reject		
191.20	FS1132.12	Federated Farmers of New Zealand	30.2.6.5	Oppose	We consider there is an important distinction between operation and maintenance on one hand, and upgrading on the other; by including upgrading of utilities the objective goes beyond what is required or necessary.	Reject		
251.16		PowerNet Limited	30.2.6.5	Support	PowerNet supports this policy as notified.	Accept		
251.16	FS1186.4	Contact Energy Limited	30.2.6.5	Support	Recognises the significant investments in essential utilities infrastructure development and maintenance	Accept		
421.17		Two Degrees Mobile Limited	30.2.6.5	Other	supports the policy in part. Requested amendments to provide certainty and clarification. requests new policy 30.2.6.6 be included. Suggested amendments identified in submission 421.	Reject		
635.52		Aurora Energy Limited	30.2.6.5	Support	Retain policy 30.2.6.5	Accept		
719.150		NZ Transport Agency	30.2.6.5	Support	Retain	Accept		
719.150	FS1186.10	Contact Energy Limited	30.2.6.5	Support	Support in part. Amend 30.2.6.5 to read as follows: Recognise the presence and function of established network utilities, and their locational and operational requirements, by managing the effects of land use, development and/or subdivision in locations which could compromise the network utilities ~~their~~ safe and efficient operation.	Reject		

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
781.21		Chorus New Zealand Limited	30.2.6.5	Other	Support in part. Amend Policy 30.2.6.5 ~~Recognise~~ Enable the ~~presence and~~ functioning and enhancement of established network utilities, and their ~~locational and~~ operational, maintenance and upgrade requirements. , ~~by managing land use, development and/or subdivision in locations which could compromise their safe and efficient operation.~~ and Insert: 30.2.6.6 Manage land use, development and/or subdivision and their effects in locations which could compromise their safe and efficient operation of utilities.	Reject		
805.78		Transpower New Zealand Limited	30.2.6.5	Other	Support with amendments. Amend to: Recognise and provide for existing and future ~~the presence and function of established~~ network utilities, and their locational, technical and operational requirements, by managing the locations and effects of land use, development and/or subdivision ~~in locations which could compromise their~~ on the safe, effective and efficient operation, maintenance, upgrading and development of network utilities, including reverse sensitivity effects.	Reject		
805.78	FS1132.67	Federated Farmers of New Zealand	30.2.6.5	Oppose	It is unreasonable to require the District's planning concerns to address future potential development, particularly if this restricts other reasonable and beneficial land use.	Reject		
805.78	FS1186.17	Contact Energy Limited	30.2.6.5	Support	Support in part. Amend 30.2.6.5 to read as follows: Recognise the presence and function of established network utilities, and their locational and operational requirements, by managing the effects of land use, development and/or subdivision in locations which could compromise the network utilities ~~their~~ safe and efficient operation	Reject		
179.23		Vodafone NZ	30.2.7 Objective 7	Support	Support in part. Amend to read: 30.2.7 Objective - *Avoid where practicable, and remedy or mitigate the adverse effects of utilities on surrounding environments, particularly those in or on identified ~~land of high~~ outstanding natural landscapes ~~value~~ , and within identified special character areas.*	Reject		
179.23	FS1097.56	Queenstown Park Limited	30.2.7 Objective 7	Support	Suggested amendments better achieve the purpose of the Act and are more focused.	Reject		
191.21		Spark Trading NZ Limited	30.2.7 Objective 7	Support	Support in part. Amend as follows: Avoid where practicable, and remedy or mitigate the adverse effects of utilities on surrounding environments, particularly those in or on identified ~~land of high outstanding natural landscapes value, and within identified special character areas.~~	Reject		
191.21	FS1097.65	Queenstown Park Limited	30.2.7 Objective 7	Support	Amendments better reflect the purpose of the RMA.	Reject		
292.7		John Walker	30.2.7 Objective 7	Other	Require progressive undergrounding of all lines in Wanaka.	Reject		
292.7	FS1106.2	Chorus New Zealand Limited	30.2.7 Objective 7	Oppose	It is not appropriate for the District Plan to require progressive undergrounding of existing lawfully established infrastructure that may have substantial economic implications and may not always be technically or operationally feasible.	Accept in Part		
292.7	FS1208.2	Vodafone New Zealand Limited	30.2.7 Objective 7	Oppose	Believes that it is not appropriate for the District Plan to require progressive undergrounding of existing lawfully established infrastructure that may have substantial economic implications and may not always be technically or operationally feasible.	Accept in Part		
292.7	FS1253.2	Spark New Zealand Trading Limited	30.2.7 Objective 7	Oppose	Believes that it is not appropriate for the District Plan to require progressive undergrounding of existing lawfully established infrastructure that may have substantial economic implications and may not always be technically or operationally feasible.	Accept in Part		
421.18		Two Degrees Mobile Limited	30.2.7 Objective 7	Other	seeks amendment to objective 30.2.7 - suggested wording as outlined in submission 421 Supports policy 30.2.7.1, 30.2.7.2 and 30.2.7.4 and requests these be retained, with amendments suggested and an additional policy added as outlined in submission 421	Reject		
635.53		Aurora Energy Limited	30.2.7 Objective 7	Other	Support in part. Retain Objective 30.2.7	Accept		
719.170		NZ Transport Agency	30.2.7 Objective 7	Oppose	Amend 30.2.7 to read "Where practical, avoid, remedy or mitigate the adverse effects of utilities on surrounding environments, particularly those in or on land of high landscape value, and within special character areas". This is to recognise that some infrastructure has locational requirements and it is not always possible to locate infrastructure outside these areas	Reject		
719.170	FS1160.24	Otago Regional Council	30.2.7 Objective 7	Support	Support in part. Objective 3.4 of the proposed Regional Policy Statement contains policies which recognises that there may be instances where infrastructure of regional or national importance cannot avoid locations in areas of high landscape value. In those cases, it is appropriate to avoid, significant adverse effects on the values of those areas, and avoid, remedy or mitigate other adverse effects.	Reject		
781.22		Chorus New Zealand Limited	30.2.7 Objective 7	Support	Retain and insert additional policy: Recognise that in some cases it might not be possible for utilities to avoid outstanding natural landscapes, outstanding natural features or identified special character areas and in those situations greater flexibility as to the way that adverse effects are managed may be appropriate.	Reject		
805.80		Transpower New Zealand Limited	30.2.7 Objective 7	Other	Support with amendments. Amend to: Avoid, remedy or mitigate the adverse effects arising from the development, construction, operation, maintenance and upgrading of network utilities on surrounding environments, particularly those in or on land of high landscape value, and within special character areas.	Reject		
805.80	FS1186.18	Contact Energy Limited	30.2.7 Objective 7	Oppose	Amend 30.2.7 to read as follows: Where practicable, avoid, remedy or mitigate the adverse effects of utilities on surrounding environments, particularly those in or on land of high landscape value, and within special character areas.	Reject		

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
806.226		Queenstown Park Limited	30.2.7 Objective 7	Support	Retain objective 30.2.7 and associated policies.	Accept in Part		
179.24		Vodafone NZ	30.2.7.1	Support	Retain and insert additional Policy: *Recognise that in some cases it might not be possible for utilities to avoid outstanding natural landscapes, outstanding natural features or identified special character areas and in those situations greater flexibility as to the way that adverse effects are managed may be appropriate.*	Reject		
179.24	FS1097.57	Queenstown Park Limited	30.2.7.1	Support	Support recognition that in some cases it is not possible for utilities (and other structures) to avoid ONL. Agree that in some cases utilities need to locate in ONL and Special Character areas, and support provision for flexibility in management of effects.	Reject		
179.24	FS1121.27	Aurora Energy Limited	30.2.7.1	Support	Supports this submission as it is aligned with the relief sought by Aurora in its original submissions.	Reject		
191.22		Spark Trading NZ Limited	30.2.7.1	Support	Retain and insert additional policy: Recognise that in some cases it might not be possible for utilities to avoid outstanding natural landscapes, outstanding natural features or identified special character areas and in those situations greater flexibility as to the way that adverse effects are managed may be appropriate.	Reject		
191.22	FS1097.66	Queenstown Park Limited	30.2.7.1	Support	Agree that in some cases utilities need to locate in ONL and Special Character areas, and support provision for flexibility in management of effects.	Reject		
191.22	FS1121.28	Aurora Energy Limited	30.2.7.1	Support	Supports this submission as it is aligned with the relief sought by Aurora in its original submissions.	Reject		
251.17		PowerNet Limited	30.2.7.1	Oppose	Oppose in part. Amend the policy as follows: *~~Reduce~~ Manage adverse effects associated with utilities by:* *Avoiding, remedying or mitigating their location on sensitive sites, including heritage and special character areas, Outstanding Natural Landscapes and Outstanding Natural Features, and skylines and ridgelines* *Encouraging co-location or multiple use of network utilities where this is efficient and practicable in order to avoid, remedy or mitigate adverse effects on the environment* *Ensuring that redundant utilities are removed* *In Outstanding Natural Landscapes and Outstanding Natural Features using landscaping and or colours and finishes to ~~reduce~~ remedy or mitigate visual effects where necessary.* *~~Integrating utilities with the surrounding environment; whether that is a rural environment or existing built form.~~*	Accept in Part		
251.17	FS1186.5	Contact Energy Limited	30.2.7.1	Support	Support in part. Amend 30.2.7.1 Objective to read as follows: ~~Reduce~~ Manage adverse effects associated with utilities by: • Avoiding, remedying or mitigating their location on sensitive sites, including heritage and special character areas, Outstanding Natural Landscapes and Outstanding Natural Features, and skylines and ridgelines • Encouraging co-location or multiple use of network utilities where this is efficient and practicable in order to avoid, remedy or mitigate adverse effects on the environment • Ensuring that redundant utilities are removed, where practicable. • In sensitive sites, using landscaping and or colours and finishes to ~~reduce~~ remedy or mitigate visual effects where necessary. ~~• Integrating utilities with the surrounding environment; whether that is a rural environment or existing built form.~~	Accept in Part		
251.17	FS1097.100	Queenstown Park Limited	30.2.7.1	Support	Support for the reasons outlined in QPL's primary submission.	Reject		
519.61		New Zealand Tungsten Mining Limited	30.2.7.1	Not Stated	Amend 30.2.7.1 to state: 'Reduce adverse effects associated with utilities by:•Avoiding, remedying or mitigating any adverse effects from.....	Accept in Part		
519.61	FS1015.97	Straterra	30.2.7.1	Support	I support this submission in its entirety as providing appropriately for minerals and mining activities in the District, in a way that is consistent with the letter and intent of the RMA.	Accept in Part		
519.61	FS1356.61	Cabo Limited	30.2.7.1	Oppose	All the relief sought be declined	Reject		
635.54		Aurora Energy Limited	30.2.7.1	Not Stated	Amend Policy 30.2.7.1 as follows: Reduce adverse effects associated with utilities by: • Avoiding or mitigating their location on sensitive sites, including heritage and special character areas, Outstanding Natural Landscapes and Outstanding Natural Features, and skylines and ridgelines • Encouraging co-location or multiple use of network utilities where this is efficient and practicable in order to avoid, remedy or mitigate adverse effects on the environment • Ensuring that redundant utilities are removed • Using landscaping and or colours and finishes to reduce visual effects where economically viable and technically feasible ~~• Integrating utilities with the surrounding environment; whether that is a rural environment or existing built form.~~	Reject		
805.81		Transpower New Zealand Limited	30.2.7.1	Other	Support with amendments. Amend policy to: Reduce adverse effects associated with utilities by: -Avoiding or mitigating, where practicable, their location on sensitive sites, including heritage and special character areas, Outstanding Natural Landscapes and Outstanding Natural Features, and skylines and ridgelines, whilst having regard to their technical, operational and locational constraints and their benefits; -Encouraging co-location or multiple use of network utilities where this is efficient and practicable in order to avoid, remedy or mitigate adverse effects on the environment; -Ensuring that redundant utilities are removed -Using landscaping and or colours and finishes to reduce visual effects -Integrating utilities with the surrounding environment; whether that is a rural environment or existing built form.	Reject		

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Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
805.81	FS1186.19	Contact Energy Limited	30.2.7.1	Support	Support in part. Amend 30.2.7.1 Objective to read as follows: ~~Reduce~~ Manage adverse effects associated with utilities by: • Avoiding, remedying or mitigating their location on sensitive sites, including heritage and special character areas, Outstanding Natural Landscapes and Outstanding Natural Features, and skylines and ridgelines • Encouraging co-location or multiple use of network utilities where this is efficient and practicable in order to avoid, remedy or mitigate adverse effects on the environment • Ensuring that redundant utilities are removed, where practicable. • In sensitive sites, using landscaping and or colours and finishes to ~~reduce~~ remedy or mitigate visual effects where necessary. • ~~Integrating utilities with the surrounding environment; whether that is a rural environment or existing built form.~~	Reject		
179.25		Vodafone NZ	30.2.7.2	Support	Retain with amendment: Require the undergrounding of services in new areas of development where it is effective, efficient, and technically and operationally feasible.	Reject		consider policy is clear without amendment
191.23		Spark Trading NZ Limited	30.2.7.2	Support	Retain with amendment: Require the undergrounding of services in new areas of development where it is effective, efficient, and technically and operationally feasible.	Reject		consider policy is clear without amendment
251.18		PowerNet Limited	30.2.7.2	Support	Support in part. Amend the policy as follows: *Require the undergrounding of services in new areas of development where technically and economically feasible.*	Reject		see Policy 30.2.7.4
251.18	FS1186.6	Contact Energy Limited	30.2.7.2	Oppose	The qualifier is 'where technically feasible' whereas economic viability is a subjective criteria. See also Policy 30.2.7.4	Accept		
635.55		Aurora Energy Limited	30.2.7.2	Other	Oppose in part Amend Policy 30.2.7.2 as follows: Require the undergrounding of services in new areas of development where economically viable and technically feasible.	Reject		see policy 30.2.7.4
781.23		Chorus New Zealand Limited	30.2.7.2	Support	Retain with amendment: Require the undergrounding of services in new areas of development where it is effective, efficient, and technically and operationally feasible.	Reject		consider policy is clear without amendment
251.19		PowerNet Limited	30.2.7.3	Support	Support. Retain policy as notified.	Accept		
635.56		Aurora Energy Limited	30.2.7.3	Oppose	Amend Policy 30.2.7.3 as follows: Encourage the replacement of existing overhead services with underground reticulation within residential zones ~~or the upgrading of existing overhead services where technically feasible.~~	Reject		
805.82		Transpower New Zealand Limited	30.2.7.3	Other	Support with amendments. Amend to: Encourage the replacement of existing reticulated overhead services with underground reticulation or the upgrading of existing reticulated overhead services where technically feasible.	Reject		
179.26		Vodafone NZ	30.2.7.4	Support	Retain 30.2.7.4	Accept		
191.24		Spark Trading NZ Limited	30.2.7.4	Support	Retain as notified.	Accept		
251.20		PowerNet Limited	30.2.7.4	Support	Retain policy as notified.	Accept		
635.57		Aurora Energy Limited	30.2.7.4	Support	Retain policy 30.2.7.4	Accept		
781.24		Chorus New Zealand Limited	30.2.7.4	Support	Retain 30.2.7.4	Accept		
805.83		Transpower New Zealand Limited	30.2.7.4	Other	Support with amendments. Amend to: Take account of economic, locational, technical and operational requirements ~~needs~~ in assessing the location and external appearance of network utilities.	Reject		
191.25		Spark Trading NZ Limited	30.3.2 National	Support	Support in part. Amend to refer to the relationship between District Plans and National Environmental Standards and update as required to ensure consistency with the NESTF 2016.	Accept in Part		
805.86		Transpower New Zealand Limited	30.3.2 National	Oppose	Electricity (Hazards from Trees) Regulations 2003 Vegetation to be planted within the National Grid corridor should be selected and/or managed to ensure that it will not result in that vegetation breaching the Electricity (Hazards from Trees) Regulations 2003.	Accept		
805.86	FS1121.37	Aurora Energy Limited	30.3.2 National	Support	Supports but considers it should be extended to include the Critical Electricity Lines owned by Aurora as Electricity (Hazards from Trees) Regulations 2003, vegetation to be planted within the National Grid or Critical Electricity Line corridor should be selected and/or managed to ensure that it will not result in that vegetation breaching the Electricity (Hazards from Trees) Regulations 2003.	Accept in Part		
805.84		Transpower New Zealand Limited	30.3.2.1	Other	Support with amendments. Amend to: Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009: Notwithstanding any other rules in the District Plan, the National Grid existing as at 14 January 2010 is covered by the Resource Management (National Environmental Standard for Electricity Transmission Activities) Regulations 2009 (NESETA) and must comply with the NESETA. The provisions of the NESETA prevail over the provisions of this ~~Chapter~~ District Plan, to the extent of any inconsistency. No other rules in the District Plan that duplicate or conflict with the Standard shall apply.	Accept		
179.27		Vodafone NZ	30.3.2.2	Support	Support in part. Amend to refer to the relationship between District Plans and National Environmental Standards and update as required to ensure consistency with the NESTF 2016.	Reject		
421.19		Two Degrees Mobile Limited	30.3.2.2	Other	support in part. Amend to refer to the relationship between District Plans and National Environmental Standards and update as required to ensure consistency with the NESTF 2016.	Reject		

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Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
781.25		Chorus New Zealand Limited	30.3.2.2	Other	Support in part. Amend to refer to the relationship between District Plans and National Environmental Standards and update as required to ensure consistency with the NESTF 2016.	Reject		
600.111		Federated Farmers of New Zealand	30.3.2.3	Support	'30.3.2.3 New Zealand Electrical Code of Practice for Electrical Safe Distances' is retained as proposed.	Accept		
600.111	FS1034.111	Upper Clutha Environmental Society (Inc.)	30.3.2.3	Oppose	The Society OPPOSES the entire submission and seeks that the entire submission is DISALLOWED.	Reject		
600.111	FS1209.111	Richard Burdon	30.3.2.3	Support	Support entire submission	Accept		
635.58		Aurora Energy Limited	30.3.2.3	Support	Retain Policy 30.3.2.3	Accept		
805.85		Transpower New Zealand Limited	30.3.2.3	Other	Support with amendments. Amend to: New Zealand Electrical Code of Practice for Electrical Safe Distances Compliance with the New Zealand Electrical Code of Practice for Electrical Safe Distances ("NZECP34:2001") is mandatory under the Electricity Act 1992. The NZECP34:2001 contains restrictions on the location of structures and activities in relation to National Grid transmission lines. All activities regulated by the NZECP 34, including any activities that are otherwise permitted by the District Plan must comply with this legislation. Compliance with this District Plan does not ensure compliance with NZECP34:2001.	Accept in Part		
805.88		Transpower New Zealand Limited	30.3.3 Clarification	Oppose	Add advice note: Vegetation to be planted around the National Grid should be selected and / or managed to ensure that it will not result in that vegetation breaching the Electricity (Hazards from Trees) Regulations 2003.	Reject		
805.87		Transpower New Zealand Limited	30.3.3.3	Support	Retain the statement in 30.3.3.3 that states that the utility rules take precedence over other rules unless specified.	Accept in Part		
179.28		Vodafone NZ	30.4 Rules - Activities	Oppose	Rules for Utilities: and Buildings, Structures and Earthworks within National Grid Corridors (excluding Flood Protection Rules 30.4.18 - 30.4.21 and national Grid Rules 30.4.10) - Delete all rules and replace with those provided in the submission, which provide a complete code for utilities and would prevail over all other chapters.	Accept in Part		
179.28	FS1301.17	Transpower New Zealand Limited (Transpower)	30.4 Rules - Activities	Not Stated	Neutral, but oppose terminology - Allow, subject to the relief sought in Transpower?s original submission	Accept in Part		
191.26		Spark Trading NZ Limited	30.4 Rules - Activities	Oppose	Rules for Utilities; and Buildings, Structures and Earthworks within National Grid Corridors (excluding Flood Protection Rules 30.4.18 – 30.4.21 and National Grid Rules 30.4.10))Spark seeks to amend the Utilities rule framework to better align with the objectives and policies. Spark seeks a new rule framework (as outlined in the submission) that appropriately manages the adverse effects of utilities but is more enabling.The rules of the proposed plan do not reasonably provide for standard sizes and forms of equipment commonly in use throughout the country. In addition, the parameters such as antenna dimensions and the failure to provide for key parts of telecommunicationnetworks means that a number of un-necessary resource consents would be required. Spark seeks to insert matters of control and discretion that provide clear guidance to decision makers.	Accept in Part		
191.26	FS1301.18	Transpower New Zealand Limited (Transpower)	30.4 Rules - Activities	Not Stated	Neutral, but oppose terminology - Allow, subject to the relief sought in Transpower?s original submission	Accept in Part		
383.61		Queenstown Lakes District Council	30.4 Rules - Activities	Other	Amend matters of Discretion relating to natural hazards for Renewable Electricity Generation Activities.	Accept		
383.62		Queenstown Lakes District Council	30.4 Rules - Activities	Other	30.4.13 - Amend - Amend matters of Control relating to natural hazards to remove reference to "increase in gross floor area" and otherwise refer to the effects of natural hazards on the resilience and operation of the facility	Accept		
383.63		Queenstown Lakes District Council	30.4 Rules - Activities	Other	Amend matters of Control relating to natural hazards to remove reference to "increase in gross floor area" and otherwise refer to the effects of natural hazards on the resilience and operation of the facility and associated buildings	Accept		
421.20		Two Degrees Mobile Limited	30.4 Rules - Activities	Other	Requests the inclusion of a new rule framework (comprising a number of new rules) for utilities that appropriately manages the adverse effects of utilities but is more enabling. Suggested amendments and inclusions are outlined in Submission 421.	Accept in Part		
781.26		Chorus New Zealand Limited	30.4 Rules - Activities	Oppose	Rules for Utilities; and Buildings, Structures and Earthworks within National Grid Corridors (excluding Flood Protection Rules 30.4.18 – 30.4.21 and National Grid Rules 30.4.10)) submitter seeks to delete and replace this section with new rules as included in the submission.	Accept in Part		
781.26	FS1301.19	Transpower New Zealand Limited (Transpower)	30.4 Rules - Activities	Not Stated	Neutral, but oppose terminology - Allow, subject to the relief sought in Transpower?s original submission	Accept in Part		
72.6		Kelvin Peninsula Community Association	30.4.2	Support	supports making it easier to put solar panels on residences through the resource consent process.	Accept		
72.6	FS1352.19	Kawarau Village Holdings Limited	30.4.2	Support	Allow relief sought	Accept		
126.5		Hunter Leece / Anne Kobienia	30.4.2	Other	Requests reflection of potential use for electric vehicle charging and/or grid tied applications. Clarification that the capacity limit is not the combined total of solar water and photovoltaic panels. Notes most useful sized systems would be larger than the 3.5kW limit. Requests the limitation be dropped and a better outcome would be achieved if there were design requirements that ensured panels fitted against the roof line.	Accept in Part		
20.1		Aaron Cowie	30.4.3	Other	Requests that any objects above 1.2m in height require the following process: - all neighbours notified prior to erection/agreement of the object - all neighbours have the right to lodge any objections (giving reasons) - the applicant can amend their submissions in response to neighbours objections - all objections are taken into account before a decision is made.	Accept in Part		
20.1	FS1097.9	Queenstown Park Limited	30.4.3	Oppose	Applications for utilities should not generally be notified.	Accept		
20.1	FS1121.29	Aurora Energy Limited	30.4.3	Oppose	Opposes the submission on the basis that the majority of Aurora's assets extend beyond 1.2m in height and are located throughout the District. The process outlined by the submitter would result in costly inefficiencies for regionally significant infrastructure providers such as Aurora, and have implications for maintaining a secure electricity supply. As such, Aurora opposes the inclusion of such restrictions being placed on regionally significant infrastructure.	Accept		

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Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
126.9		Hunter Leece / Anne Kobienia	30.4.3	Other	Relating to installations in the rural zone, suggests some design restrictions be put in place based on height that would encourage larger systems to be installed as a permitted activity.	Accept in Part		
126.9	FS1024.1	Hunter Leece and Anne Kobienia	30.4.3	Support	I reiterate the limitations in 30.4.2 and 30.4.3 on system size are excessively restrictive and should be increased to enable effective home charging of vehicles in addition to household use. Appropriate design standards should be included to allow installation of systems as a permitted activity.	Accept in Part		
368.7		Anna-Marie Chin Architects and Phil Vautier	30.4.3	Other	support in part 30.4.3. Requests the rule needs to include if outside a building platform. Requests the rules enable structures to be included inside a building platform.	Accept		
580.8		Contact Energy Limited	30.4.4	Oppose	The rule, or the restricted discretionary activity status should not apply to the Hydro Generation Zone.	Accept		
580.8	FS1040.30	Forest and Bird	30.4.4	Oppose	Oppose	Reject		
580.9		Contact Energy Limited	30.4.5	Support	Supports the discretionary activity status.	Accept in Part		
635.59		Aurora Energy Limited	30.4.6	Other	Oppose in part Amend Rule 30.4.6 as follows: Non-renewable Electricity Generation where the generation only supplies activities on the site on which it is located and involves either: • Standby generators associated with community, health care, and utility activities; or • Generators that are part of a Stand-Alone Power System on remote sites that do not have connection to the local distributed electricity network. Note – Diesel Generators (excluding temporary operation of back-up and emergency generators) must comply with the provisions of Chapter 36 (Noise) and Hazardous Substances (Chapter 16 ODP)	Reject		
251.21		PowerNet Limited	30.4.8	Oppose	Oppose. PowerNet seeks the following amendment to this rule: *Utilities, Building, Structures, Underground Lines and Earthworks which are not otherwise listed in this table – ~~D~~ P (Permitted Activities)*	Accept in Part		see new rule 30.4.22
251.21	FS1121.30	Aurora Energy Limited	30.4.8	Support	Supports the submission on the basis that underground lines and buildings less than 10m2 should be provided for as permitted activities. Such assets are key to Aurora's asset development and requiring resource consent for the installation of such assets will result in costly inefficiencies and have implications for maintaining a secure electricity supply for the District.	Accept in Part		
251.22		PowerNet Limited	30.4.9	Support	Retain rule as notified.	Accept		
635.60		Aurora Energy Limited	30.4.9	Support	Retain Rule 30.4.9 but ensure definition of Minor Upgrading is amended as per submitters earlier submission	Accept in Part		
805.89		Transpower New Zealand Limited	30.4.9	Support	Retain Rule 30.4.9	Accept		
635.61		Aurora Energy Limited	30.4.10	Other	Support in part Amend Rule 30.4.10 as follows: Buildings (that are not for National Grid Sensitive Activities), Structures and Earthworks within National Grid and Critical Electricity Lines Corridors (subject to compliance with Rules 30.5.10, and 30.5.11 and Rule xxxx relating specifically to Critical Electricity Lines.)	Accept in Part		
635.61	FS1132.44	Federated Farmers of New Zealand	30.4.10	Oppose	The NPSET specifically excludes local lines or the Electricity Distribution Network. The District Plan should also ensure that the protections intended for the National Grid are not extended to local lines or the Electricity Distribution Network, as doing so would unnecessarily require Council to address concerns between local lines companies and private landowners when these concerns are better addressed by these separate parties directly.	Reject		
635.61	FS1301.14	Transpower New Zealand Limited (Transpower)	30.4.10	Oppose	Oppose in part - Disallow, and if Council accept Aurora?s submission, Transpower seeks that Council insert a new rule for the electricity distribution line corridor	Reject		

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Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
805.90		Transpower New Zealand Limited	30.4.10	Other	Support with amendments. Replace Rule 30.4.10 with the following permitted activity Rule and associated standards: Rule 30.4.10 Buildings, Structures and Sensitive Activities in National Grid Yards: (a) Under the National Grid Conductors (wires), on all sites within any part of the National Grid Yard any buildings and structures must: (i) If they are for a sensitive activity, not involve an increase in the building height or footprint where alterations and additions to existing buildings occur; or (ii) Be a fence less than 2.5m high; or (iii) Be network utilities within a transport corridor or any part of electricity infrastructure that connects to the National Grid; or (iv) Be an uninhabitable farm building or structure for farming activities (excluding milking/dairy sheds (but not associated ancillary structures and yards), protective canopies, or factory farming buildings); or (v) Be artificial crop protection structures and crop support structures excluding a commercial greenhouse and protective canopies. (b) All buildings or structures permitted by a) must comply with at least one of the following conditions: (i) A minimum vertical clearance of 10m below the lowest point of the conductor associated with National Grid lines; or (ii) Demonstrate that safe electrical clearance distances required by NZECP34:2001 are maintained under all National Grid line operating conditions. (c) Buildings and structures shall be at least 12m from a National Grid support structure unless it is a: (i) Network Utility within a transport corridor or any part of electricity infrastructure that connects to the National Grid. (ii) Fence less than 2.5m in height and more than 5m from the nearest support structure. (iii) Artificial crop protection structure or crop support structure between 8 metres and 12 metres from a pole support structure that: a. Meet the requirements of NZECP34:2001; b. are no more than 2.5m in height; c. are removable or temporary to allow a clear working space 12 metres from the pole where necessary for maintenance and emergency repair purposes, and d. allow all weather access to the pole and a sufficient area for maintenance equipment, including a crane; and (iv) Artificial crop protection structure or crop support structure located within 12 metres of a tower support structure if they meet the requirements of clause 2.4.1 of NZECP34:2001. ~~Buildings (that are not for National Grid Sensitive Activities), Structures and Earthworks within National Grid Corridors (subject to compliance with Rules 30.5.10 and 30.5.11)~~	Reject		changes sought to 30.4.10 are largely already covered by the standards in 30.5.10 and 30.5.11
805.90	FS1121.38	Aurora Energy Limited	30.4.10	Support	Submits that it is appropriate that provision is made for network utility activities, operating with the National Grid yard, to be provided for as permitted activities under the Proposed Plan.	Reject		
251.23		PowerNet Limited	30.4.11	Support	Support in part. PowerNet seeks the following amendment to this rule: *Overhead lines and supporting structures…An overhead conduction line, or support structure for new overhead lines to convey electricity (at a voltage of equal to or less than 110kV at a capacity of equal to or less than 100MVA); or overhead lines for any other purpose including telecommunications…..*	Accept in Part		
635.62		Aurora Energy Limited	30.4.11	Other	Oppose in part Amend Rule 30.4.11 as follows: A conductor line, or support structure for new overhead lines (excluding minor upgrading), to convey electricity (at a nominal voltage of equal to or less than 110kV at a capacity of equal to or less than 100MVA); or overhead lines for any other purpose including telecommunications. Control is reserved to all of the following: • Location • Route • Height ~~• Appearance, scale and visual effects.~~ ~~• Where a site is subject to any natural hazard and the proposal results in an increase in gross floor area: an assessment by a suitably qualified person is provided that addresses the nature and degree of risk the hazard(s) pose to people and property, whether the proposal will alter the risk to any site, and the extent to which such risk can be avoided or sufficiently mitigated.~~	Reject		

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
805.92		Transpower New Zealand Limited	30.4.11	Other	Support with amendments. Replace Rules 30.4.11 and 30.4.12 with the following Rules: Rule 30.4.11 The construction and maintenance of the following network utilities are a permitted activity provided they meet the following standards: a) Any new electricity lines and associated transformers shall be limited to a voltage up to and including 110kV. b) Maintenance of any existing line. c) Any trimming or removal of any vegetation that is required to maintain safe separation distances or the ongoing efficient operation of the line. d) In the case of poles and towers, these shall comply with a maximum height of: i. 20 metres in Rural or Industrial Zones. ii. 12 metres in any Residential Zone. Rule 30.4.12 Any activity that does not comply with the standards specified in Rule 30.4.11 is a controlled activity. ~~A conductor line, or support structure for overhead lines, to convey electricity (at a voltage of equal to or less than 110kV at a capacity of equal to or less than 100MVA); or overhead lines for any other purpose including telecommunications.~~ Control is reserved to all of the following: • Location • Route • Height • Appearance, scale and visual effects •Where a site is subject to any natural hazard and the proposal results in an increase in gross floor area: an assessment by a suitably qualified person is provided that addresses the nature and degree of risk the hazard(s) pose to people and property, whether the proposal will alter the risk to any site, and the extent to which such risk can be avoided or sufficiently mitigated.	Reject		relief sought achieved through revised chapter
805.92	FS1121.39	Aurora Energy Limited	30.4.11	Support	Supports on the basis that the construction and maintenance of the identified network utilities should be provided for as permitted activities. Submits that it is appropriate that the Proposed Plan provides a more enabling framework for network utilities given the regional significance of such infrastructure.	Reject		relief sought achieved through revised chapter
251.24		PowerNet Limited	30.4.12	Support	Retain rules as notified.	Reject		changed ordering of rules in revised chapter.
251.24	FS1085.16	Contact Energy Limited	30.4.12	Support	Support rules 30.4. 12 - retain as notified.	Reject		changed ordering of rules in revised chapter.
580.10		Contact Energy Limited	30.4.12	Support	Retain rule as proposed.	Reject		changed ordering of rules in revised chapter.
635.63		Aurora Energy Limited	30.4.12.3	Not Stated	Amend Rule 30.4.12.3 as follows: Erecting any support structures for overhead lines (excluding minor upgrading) to convey electricity (at a voltage of equal to or less than 110kV at a capacity of equal to or less than 100MVA); or overhead lines for any other purposes including telecommunications in any Outstanding Natural Feature or Outstanding Natural Landscape or Significant Natural Areas. OR If the relief sought by Aurora is not accepted, then a Controlled Activity consent category should apply to Minor Upgrading in these identified areas. And any other consequential changes required.	Reject		see 30.4.9
607.40		Te Anau Developments Limited	30.4.13.4	Not Stated	Amend rule to increase the permitted diameter of circular dishes (telecommunications) to a minimum of 2m.	Reject		30.4.19 circular shaped allows 1.2m to 2.4m as permitted
607.41		Te Anau Developments Limited	30.4.13.4	Not Stated	Amend rule to exclude earthworks and trenching associated with the installation of any telecommunication and radio communication facility, navigation or meteorological communication facility.	Reject		30.4.13.4 as notified never included or excluded earthworks. Earthworks for undergrounding of lines included now at 30.4.22
615.38		Cardrona Alpine Resort Limited	30.4.13.4	Oppose	Amend rule to increase the permitted diameter of circular dishes (telecommunications) to a minimum of 2m.	Reject		30.4.19 circular shaped allows 1.2m to 2.4m as permitted
615.38	FS1105.38	Cardrona Valley Residents and Ratepayers Society Inc	30.4.13.4	Support	Support all aspects of the Cardrona Alpine Resort Limited submission and seek that the relief sought by Cardrona Alpine Resort Limited is allowed by the Council, to ensure: • The resort is able to continue to cater for guests of all abilities and disciplines so that it remains the most diverse ski-field in New Zealand and remains a premier resort for snow sports in Australasia. • The resort is able to develop, operate, maintain and upgrade its network of infrastructure, accommodation, food and beverage service, retail and mountain based tourism activities. • The resort is able to operate year round and continue to invest in and grow new four season visitor attractions activities, with significant growth in the provision of summer activities.	Reject		30.4.19 circular shaped allows 1.2m to 2.4m as permitted
615.38	FS1137.39	Kay Curtis	30.4.13.4	Support	Seeks that the relief sought by Cardrona Alpine Resort Limited is accepted by the Council. Has an interest in the proposal that is greater than the interest the general public has.	Reject		30.4.19 circular shaped allows 1.2m to 2.4m as permitted
615.39		Cardrona Alpine Resort Limited	30.4.13.4	Oppose	Amend rule to exclude earthworks and trenching associated with the installation of any telecommunication and radio communication facility, navigation or meteorological communication facility.	Reject		30.4.13.4 as notified never included or excluded earthworks. Earthworks for undergrounding of lines included now at 30.4.22
615.39	FS1105.39	Cardrona Valley Residents and Ratepayers Society Inc	30.4.13.4	Support	Support all aspects of the Cardrona Alpine Resort Limited submission and seek that the relief sought by Cardrona Alpine Resort Limited is allowed by the Council, to ensure: • The resort is able to continue to cater for guests of all abilities and disciplines so that it remains the most diverse ski-field in New Zealand and remains a premier resort for snow sports in Australasia. • The resort is able to develop, operate, maintain and upgrade its network of infrastructure, accommodation, food and beverage service, retail and mountain based tourism activities. • The resort is able to operate year round and continue to invest in and grow new four season visitor attractions activities, with significant growth in the provision of summer activities.	Reject		30.4.13.4 as notified never included or excluded earthworks. Earthworks for undergrounding of lines included now at 30.4.22
615.39	FS1137.40	Kay Curtis	30.4.13.4	Support	Seeks that the relief sought by Cardrona Alpine Resort Limited is accepted by the Council. Has an interest in the proposal that is greater than the interest the general public has.	Reject		30.4.13.4 as notified never included or excluded earthworks. Earthworks for undergrounding of lines included now at 30.4.22

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Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
251.25		PowerNet Limited	30.4.15	Not Stated	PowerNet seeks the following amendment to this rule: *30.4.15 Rule – Buildings and Structures (associated with a Utility) The addition, alteration or construction of buildings or structures greater than 10m2 in area and 3m in height (other than masts for any telecommunication and radio communication facility, navigation or meteorological communication facility or supporting structures for lines). ~~However, this rule shall not apply where the provisions of the underlying zone or a District Wide rule specify a more restrictive activity status.~~ For the avoidance of doubt, building less that 10m2 in area and 3m in height comprise permitted activities.*	Reject		
368.8		Anna-Marie Chin Architects and Phil Vautier	30.4.15	Other	That this rule allows for these utility buildings to be permitted when assessed the same as a building within there zones.	Accept in Part		see revised chapter 30.4.16
635.64		Aurora Energy Limited	30.4.15	Oppose	Amend Rule 30.4.15 as follows: Buildings (associated with a Utility) The addition, alteration or construction of buildings greater than 10m2 in area and 3m in height (other than masts for any telecommunication and radio communication facility, navigation or meteorological communication facility or supporting structures for lines). ~~However, this rule shall not apply where the provisions of the underlying zone or a District Wide rule specify a more restrictive activity status.~~ Control is reserved to all of the following: • Location • External appearance and visual effects • Associated earthworks • Parking and access • Landscaping • Where a site is subject to any natural hazard and the proposal results in an increase in gross floor area: an assessment by a suitably qualified person is provided that addresses the nature and degree of risk the hazard(s) pose to people and property, whether the proposal will alter the risk to any site, and the extent to which such risk can be avoided or sufficiently mitigated.	Reject		
251.26		PowerNet Limited	30.4.16	Oppose	Oppose in part. PowerNet seeks the following amendment to this rule: *Rule 30.4.16 Buildings (associated with a Utility)* *Any addition, alteration or construction of buildings and structures, (other than masts for any telecommunication and radio communication facility, navigation or meteorological communication facility or supporting structures for lines) in:* *• Any Significant Natural Areas* *• The Arrowtown Residential Historic Management Zone.* *• The Remarkables Park Zone* *~~However, this rule shall not apply where the provisions of the underlying zone or a District Wide matter specify a more restrictive activity status.~~* *Discretionary Activity*	Reject		
251.26	FS1117.20	Remarkables Park Limited	30.4.16	Support	Discretionary activity status is adequate to adequately address potential adverse effects from buildings associated with utilities. Note that the Remarkables Park Zone is exempt from the District Plan review, and therefore should be deleted from this rule.	Accept in Part		
251.26	FS1121.31	Aurora Energy Limited	30.4.16	Support	Supports this submission on the basis that this clause is contradictory to the purpose of the enabling Energy and Utilities chapter. Agrees that it is unclear how this clause will affect the provision of utility buildings and structures. Supports the submission that this clause be deleted.	Reject		
251.26	FS1097.101	Queenstown Park Limited	30.4.16	Support	Discretionary activity status is adequate to adequately address potential adverse effects from buildings associated with utilities. Note that the Remarkables Park Zone is exempt from the District Plan review, and therefore should be deleted from this rule.	Reject		
635.65		Aurora Energy Limited	30.4.16	Oppose	Amend Rule 30.4.16 as follows: Any addition, alteration or construction of buildings and structures, (other than masts for any telecommunication and radio communication facility, navigation or meteorological communication facility, electricity cabinets, kiosks or supporting structures for lines) in: • Any Significant Natural Areas • The Arrowtown Residential Historic Management Zone. • The Remarkables Park Zone However, this rule shall not apply where the provisions of the underlying zone or a District Wide matter specify a more restrictive activity status.	Reject		
607.39		Te Anau Developments Limited	30.4.17	Not Stated	Amend permitted activity rule as follows: Flood Protection Works for the maintenance, reinstatement, repair or replacement of existing flood protection works. ~~for the purpose of:~~ ~~• maintaining the flood carrying capacity of water courses and/or maintaining the integrity of existing river protection works.~~ ~~• fill works undertaken within Activity Area 1f of the Shotover Country Special Zone~~	Reject		
615.37		Cardrona Alpine Resort Limited	30.4.17	Oppose	Amend permitted activity rule as follows: Flood Protection Works for the maintenance, reinstatement, repair or replacement of existing flood protection works. ~~for the purpose of:~~ ~~• maintaining the flood carrying capacity of water courses and/or maintaining the integrity of existing river protection works.~~ ~~• fill works undertaken within Activity Area 1f of the Shotover Country Special Zone~~	Reject		
615.37	FS1294.1	Shotover Country Limited	30.4.17	Oppose	Oppose in part - That the submission be refused insofar as it relates to Rule 30.4.14	Reject		

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Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
615.37	FS1105.37	Cardrona Valley Residents and Ratepayers Society Inc	30.4.17	Support	Support all aspects of the Cardrona Alpine Resort Limited submission and seek that the relief sought by Cardrona Alpine Resort Limited is allowed by the Council, to ensure: • The resort is able to continue to cater for guests of all abilities and disciplines so that it remains the most diverse ski-field in New Zealand and remains a premier resort for snow sports in Australasia. • The resort is able to develop, operate, maintain and upgrade its network of infrastructure, accommodation, food and beverage service, retail and mountain based tourism activities. • The resort is able to operate year round and continue to invest in and grow new four season visitor attractions activities, with significant growth in the provision of summer activities.	Reject		
615.37	FS1137.38	Kay Curtis	30.4.17	Support	Seeks that the relief sought by Cardrona Alpine Resort Limited is accepted by the Council. Has an interest in the proposal that is greater than the interest the general public has.	Reject		
806.205		Queenstown Park Limited	30.4.18	Other	Amend. Consider the location of provisions for flood protection works and whether they should sit within the utilities section, given that they do not 'fit' within the definition of utility. Provide clarification as to the relationship between these provisions and the Rural section, and recognise that flood protection (and other hazard mitigation) can be undertaken by private landowners.	Accept in Part		
806.205	FS1341.22	Real Journeys Limited	30.4.18	Support	Allow relief sought to the extent that is does not undermine or prevent the relief originally sought by Real Journeys (unless otherwise agreed through the submission process)	Accept in Part		
806.205	FS1342.13	Te Anau Developments Limited	30.4.18	Support	Allow relief sought to the extent that is does not undermine or prevent the relief originally sought by Te Anau Developments (unless otherwise agreed through the submission process)	Accept in Part		
251.27		PowerNet Limited	30.4.21	Oppose	PowerNet seeks the deletion of this rule.	Reject		This submission does not address the design requirements for the zone.
263.1		Angela Martin	30.5 Rules – Standards	Oppose	That solar panels not be allowed to protrude the max height limit specified for a zone, as proposed in 30.5.1.5. and 30.5.1.6.	Reject		
383.64		Queenstown Lakes District Council	30.5 Rules – Standards	Other	Amend to specify a maximum reflectance value	Accept		
383.64	FS1106.4	Chorus New Zealand Limited	30.5 Rules – Standards	Oppose	It is unclear if this submission is intended to apply just to Rule 30.5.3.5 in which case it would only apply to wind generation, or to network utilities in general. If the latter, telecommunications equipment/components are often unpainted. For example, some poles are installed in an unpainted galvanised finish which weathers to a dull grey (in the same manner as typical street light poles), while some antenna equipment and mounts are not routinely painted. In areas of higher natural value (e.g. ONL and ONF), it is likely larger equipment will require resource consent where colour and reflectance treatment can be addressed where appropriate as part of that application process. However, a blanket standard on reflectance values for network utility equipment is not favoured.	Reject		
383.64	FS1208.4	Vodafone New Zealand Limited	30.5 Rules – Standards	Oppose	States that it is unclear if this submission is intended to apply just to Rule 30.5.3.5 only to wind generation, or to network utilities in general. States that telecommunications equipment/components are often unpainted. Agrees that in areas of higher natural value treatment can be addressed where appropriate as part of that application process. However, believes that a blanket standard on reflectance values for network utility equipment is not favoured.	Reject		
383.64	FS1253.4	Spark New Zealand Trading Limited	30.5 Rules – Standards	Oppose	Believes that it is unclear if this submission is intended to apply just to Rule 30.5.3.5 in which case it would only apply to wind generation, or to network utilities in general. If the latter, states that telecommunications equipment/components are often unpainted. Agrees that in areas of higher natural value (e.g. ONL and ONF), colour and reflectance treatment can be addressed as part of that application process. However, believes that a blanket standard on reflectance values for network utility equipment is not favoured.	Reject		
383.65		Queenstown Lakes District Council	30.5 Rules – Standards	Oppose	Delete rule 30.5.9	Accept		
383.66		Queenstown Lakes District Council	30.5 Rules – Standards	Other	Amend rule 30.5.1 to promote ground and water source energy at a domestic scale.	Reject		
383.67		Queenstown Lakes District Council	30.5 Rules – Standards	Other	Add rule specifying minimum setbacks of habitable buildings from a National Grid Corridor.	Reject		see 27.2.2.10 and 27.5.7(d)
615.51		Cardrona Alpine Resort Limited	30.5 Rules – Standards	Oppose	A m end rule as follows: Temporary Storage Any temporary storage or stacking of goods or materials, other than for farming purposes, that does not remain on the site for longer than 3 months and does not exceed 50m² in gross floor area.Note: Any temporary storage which fails to meet this permitted activity rule is subject to the rules of the relevant Zone. This rule does not apply to the Rural Visitor Zone Walter Peak or Cardrona Ski Activity Area.		Deferred to Hearing Stream District Wide	transferred to chapter 35 temporary activities
615.51	FS1105.51	Cardrona Valley Residents and Ratepayers Society Inc	30.5 Rules – Standards	Support	Support all aspects of the Cardrona Alpine Resort Limited submission and seek that the relief sought by Cardrona Alpine Resort Limited is allowed by the Council, to ensure: • The resort is able to continue to cater for guests of all abilities and disciplines so that it remains the most diverse ski-field in New Zealand and remains a premier resort for snow sports in Australasia. • The resort is able to develop, operate, maintain and upgrade its network of infrastructure, accommodation, food and beverage service, retail and mountain based tourism activities. • The resort is able to operate year round and continue to invest in and grow new four season visitor attractions activities, with significant growth in the provision of summer activities.		Deferred to Hearing Stream District Wide	transferred to chapter 35 temporary activities
615.51	FS1137.52	Kay Curtis	30.5 Rules – Standards	Support	Seeks that the relief sought by Cardrona Alpine Resort Limited is accepted by the Council. Has an interest in the proposal that is greater than the interest the general public has.		Deferred to Hearing Stream District Wide	transferred to chapter 35 temporary activities
781.27		Chorus New Zealand Limited	30.5 Rules – Standards	Oppose	Delete 30.5.7 Any building within an ONL or ONF shall be less than 10m2 in area and less than 3m in height.	Reject		

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
781.27	FS1121.34	Aurora Energy Limited	30.5 Rules – Standards	Support	Supports in part. Agrees that it is appropriate that the Plan provide a more enabling framework for network utilities given the regional significance of such infrastructure.	Reject		
781.27	FS1342.11	Te Anau Developments Limited	30.5 Rules – Standards	Support	Allow relief sought to the extent that is does not undermine or prevent the relief originally sought by Te Anau Developments (unless otherwise agreed through the submission process)	Reject		
805.94		Transpower New Zealand Limited	30.5 Rules – Standards	Oppose	Add a new Restricted Discretionary Rule: Rule 30.5.14 Any building, sensitive activity, hazardous facility or intensive development within 150m of the designated boundary (or secured yard) of a National Grid substation, with matters of discretion restricted to a) The extent to which the development may adversely affect the efficient operation, maintenance, upgrading and development of the substation. b) The extent to which the proposed development design and layout enables appropriate separation distances between activities sensitive to National Grid lines and the substation. c) The results of any detailed investigations to determine appropriate separation distances between activities sensitive to National Grid lines and the substation. d) Any other measures proposed to avoid or mitigate potential adverse effects, including reverse sensitivity effects, on the substation. e) The risk of electrical hazards affecting public or individual safety, and the risk of property damage.	Reject		
805.95		Transpower New Zealand Limited	30.5 Rules – Standards	Not Stated	Add new Rules: Rule 30.5.15 Subdivision of land in any zone within the National Grid Subdivision Corridor is a restricted discretionary activity if it complies with the following standard: a) All allotments shall identify a building platform for the principal building and any dwelling, to be located outside the National Grid Yard. Matters of Discretion: a) Impacts on the operation, maintenance, upgrade and development of the National Grid. b) The ability of future development to comply with NZECP34:2001. c) Technical details of the characteristics and risks on and from the National Grid infrastructure. d) The ability of the applicant to provide a complying building platform. e) Location, design and use of the proposed building platform or structure as it relates to the National Grid transmission line. f) The risk of electrical hazards affecting public or individual safety, and the risk of property damage. g) The nature and location of any vegetation to be planted in the vicinity of the National Grid transmission lines. Add new Rule: Rule 30.5.16 Any subdivision of land in any zone within the National Grid Subdivision Corridor which does not comply with the restricted discretionary activity standard (a) under Rule 1 is a non-complying activity."		Deferred to Hearing Stream Subdivision and Development	addressed in the subdivision chapter
805.95	FS1132.71	Federated Farmers of New Zealand	30.5 Rules – Standards	Oppose	Subdivision may be undertaken for a number of reasons, beyond the intention to build upon the subdivided property. Requiring rules solely based on subdivision is an unreasonable expectation. Further, the proposed controls on the nature and location of any vegetation planted are onerous given the existing and clearly delineated responsibilities for control under the Electricity (Hazards from Trees) Regulations.		Transferred	Addressed in the subdivision chapter
510.8		Wayne L Blair	30.5.1	Not Stated	The total building height in the medium density zone should remain at 7m which INCLUDES solar panels. There currently are too many retrospective building consents issued by Council who appear not to have monitored the building process.	Reject		
511.8		Helen Blair	30.5.1	Not Stated	The total building height in the medium density zone should remain at 7m which INCLUDES solar panels. There currently are too many retrospective building consents issued by Council who appear not to have monitored the building process.	Reject		
792.24		Patricia Swale	30.5.1.5	Oppose	Opposes solar panels above the height limit of 7m in Wanaka.	Reject		
792.26		Patricia Swale	30.5.1.5	Oppose	Conflicts with height mentioned in 30.5.1.6	Reject		
792.25		Patricia Swale	30.5.1.6	Oppose	Oppose solar panels protruding 1.0m above the maximum height for the zone.	Reject		
792.27		Patricia Swale	30.5.1.6	Oppose	Conflicts with height mentioned in 30.5.1.5	Reject		
368.9		Anna-Marie Chin Architects and Phil Vautier	30.5.1.8	Other	rule 30.5.1.8 be deleted. There should be no restriction on the area of solar panels	Reject		
368.10		Anna-Marie Chin Architects and Phil Vautier	30.5.3.1	Oppose	rule 30.5.3.1 be deleted. there should be no limitation on the number of turbines.	Reject		
368.11		Anna-Marie Chin Architects and Phil Vautier	30.5.5	Oppose	rule 30.5.5 be a controlled activity.	Reject		permitted unless breaches these standards
251.28		PowerNet Limited	30.5.6	Support	Support in part. Amend the activity status where an activity does not achieve this standard from Discretionary to Restricted Discretionary, with discretionary limited to effects associated with the boundary setback, and the positive effects of the utility.	Reject		
368.17		Anna-Marie Chin Architects and Phil Vautier	30.5.6	Oppose	Allow for building platforms	Reject		relates to utilities not energy activities
635.66		Aurora Energy Limited	30.5.6	Other	Neutral - No change to this provision	Accept		
179.29		Vodafone NZ	30.5.7	Oppose	Delete 30.5.7	Reject		
191.27		Spark Trading NZ Limited	30.5.7	Oppose	Delete the rule.	Reject		
251.29		PowerNet Limited	30.5.7	Support	Retain rule as notified.	Accept		

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
251.29	FS1121.32	Aurora Energy Limited	30.5.7	Support	Agrees that where a utility structure cannot achieve the relevant setback distance for boundaries, the appropriate activity status should be Restricted Discretionary, with discretion limited to those effects resulting from the boundary setback breach.	Reject		
421.21		Two Degrees Mobile Limited	30.5.7	Oppose	Requests deletion of this standard.	Reject		
421.21	FS1121.33	Aurora Energy Limited	30.5.7	Support	Supports in part. Agrees that it is appropriate that the Plan provide a more enabling framework for network utilities given the regional significance of such infrastructure.	Reject		
179.30		Vodafone NZ	30.5.8	Oppose	Delete 30.5.8	Reject		
191.28		Spark Trading NZ Limited	30.5.8	Oppose	Delete the rule.	Reject		
251.30		PowerNet Limited	30.5.8	Oppose	Oppose in part. PowerNet seeks the following amendment to this rule: *All buildings or structures, (excluding masts and antennae for any telecommunication and radio-communication facility, navigation or meteorological communication facility, and support structures for lines) shall comply with the relevant maximum height provisions for buildings of the zone they are located in.*	Reject		
368.12		Anna-Marie Chin Architects and Phil Vautier	30.5.8	Oppose	The 30.5.8 rule be deleted as it contracdicts those rules as outlined under each activity.	Reject		
421.22		Two Degrees Mobile Limited	30.5.8	Oppose	Requests deletion of this standard.	Reject		
421.22	FS1121.35	Aurora Energy Limited	30.5.8	Support	Supports in part. Agrees that it is appropriate that the Plan provide a more enabling framework for network utilities given the regional significance of such infrastructure.	Reject		
635.67		Aurora Energy Limited	30.5.8	Oppose	Amend Rule 30.5.8 – Height as follows: Height - All buildings or structures, (excluding masts and antennae for any telecommunication and radiocommunication facility, navigation or meteorological communication facility or support structures for overhead lines) shall comply with the relevant maximum height provisions for buildings of the zone they are located in.	Reject		
781.28		Chorus New Zealand Limited	30.5.8	Oppose	Delete 30.5.8 Height	Reject		
781.28	FS1342.10	Te Anau Developments Limited	30.5.8	Support	Allow relief sought to the extent that is does not undermine or prevent the relief originally sought by Te Anau Developments (unless otherwise agreed through the submission process)	Reject		
179.31		Vodafone NZ	30.5.9	Oppose	Delete 30.5.9	Accept		
191.29		Spark Trading NZ Limited	30.5.9	Oppose	Delete the rule.	Accept		
251.31		PowerNet Limited	30.5.9	Support	Support in part. Amend the activity status where an activity does not achieve this standard from Discretionary to Restricted Discretionary with Council's discretion limited to the part of NZS4404:2011 not achieved.	Reject		
421.23		Two Degrees Mobile Limited	30.5.9	Oppose	Requests deletion of this standard.	Accept		
421.23	FS1121.36	Aurora Energy Limited	30.5.9	Support	Supports in part. Agrees that it is appropriate that the Plan provide a more enabling framework for network utilities given the regional significance of such infrastructure.	Accept		
781.29		Chorus New Zealand Limited	30.5.9	Oppose	Delete 30.5.9 New Zealand Standards	Accept		
600.112		Federated Farmers of New Zealand	30.5.10	Support	30.5.10 Buildings and Structures within the National Grid Yard is adopted as proposed.	Accept in Part		
600.112	FS1034.112	Upper Clutha Environmental Society (Inc.)	30.5.10	Oppose	The Society OPPOSES the entire submission and seeks that the entire submission is DISALLOWED.	Reject		
600.112	FS1209.112	Richard Burdon	30.5.10	Support	Support entire submission	Accept in Part		
635.68		Aurora Energy Limited	30.5.10	Other	Oppose in part. Amend Rule 30.5.10 Buildings and Structures permitted within the National Grid Yard include: ~~being:~~	Accept		

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
805.91		Transpower New Zealand Limited	30.5.10	Oppose	Replace Rule 30.5.10 with the following non-complying Rule: Rule 30.5.10 Buildings, Structures and Sensitive Activities within the National Grid Yard are non-complying: a) Any building or addition to a building for a sensitive activity. b) Any change of use to a sensitive activity or the establishment of a new sensitive activity. c) Dairy/milking sheds or buildings (excluding associated ancillary structures and yards) factory farm buildings, protective canopies, and commercial greenhouses. d) Hazardous facility. e) Any building or structure not permitted by Rule 30.4.10. Add a notification statement to the new non-complying activity status: Where an activity requires resource consent solely because it is within a National Grid Corridor, National Grid Yard or around a National Grid substation then the application need not be publicly notified and need not be served on any affected party other than Transpower New Zealand Limited. ~~Buildings and Structures within the National Grid Yard being:~~ ~~30.5.10.1 A non-conductive fence located 5m or more from any National Grid Support Structure and no more than 2.5m in height.~~ ~~30.5.10.2 Any utility within a transport corridor or any part of electricity infrastructure that connects to the National Grid.~~ ~~30.5.10.3 Any new non-habitable building less than 2.5m high and 10m2 in floor area.~~ ~~30.5.10.4 Any non-habitable building or structure used for agricultural activities provided that they are:~~ ~~a. less than 2.5m high~~ ~~b. Located at least 12m from a National Grid Support Structure~~ ~~c. Not a milking shed/dairy shed (excluding the stockyards and ancillary platforms), or a commercial glasshouse.~~ ~~30.5.10.5 Alterations to existing buildings that do not alter the building envelope.~~ ~~Note – Refer to the Definitions for illustration of the National Grid Yard.~~	Reject		believe covered in revised rule 30.5.9.
805.91	FS1132.69	Federated Farmers of New Zealand	30.5.10	Oppose	The submitter's concerns are addressed through proposed Rule 30.5.10.	Accept		
600.113		Federated Farmers of New Zealand	30.5.11	Support	30.5.11 Earthworks within the National Grid Yard is adopted as proposed.	Accept in Part		
600.113	FS1034.113	Upper Clutha Environmental Society (Inc.)	30.5.11	Oppose	The Society OPPOSES the entire submission and seeks that the entire submission is DISALLOWED.	Reject		
600.113	FS1209.113	Richard Burdon	30.5.11	Support	Support entire submission	Accept in Part		
805.93		Transpower New Zealand Limited	30.5.11	Other	Support with amendments. Replace Rule 30.5.11 with the following rules Rule 30.5.11 Earthworks within the National Grid Yard are permitted activities, subject to compliance with the following standards: a) Shall be no deeper than 300mm within 12m of any National Grid support structure foundation b) Shall not compromise the stability of a National Grid support structure; and c) Shall not result in a reduction in the ground to conductor clearance distances below what is required by Table 4 of NZECP34. Provided that, the following are exempt from point (a) above: • Earthworks for a Network Utility within a transport corridor, as part of a transmission activity, or for electricity infrastructure; or • Earthworks undertaken as part of agricultural or domestic cultivation, or repair, sealing or resealing of a road, footpath, driveway or farm track. • Vertical holes not exceeding 500mm in diameter are exempt provided they are: i. more than 1.5m from the outer edge of pole support structure or stay wire; or ii. a post hole for a farm fence or horticulture structure and more than 5m from the visible outer edge of a tower support structure foundation. Add a new Restricted Discretionary Rule: Rule 30.5.12 Within the National Grid Yard: a) Any earthworks not permitted by Rule 30.5.11 (a) above is a restricted discretionary activity. Matters of Discretion: a) Impacts on the operation, maintenance, upgrade and development of the National Grid. b) Compliance with NZECP34:2001. c) Technical details of the characteristics and risks on and from the National Grid infrastructure. d) The risk to the structural integrity of the National Grid. e) Any impact on the ability of the National Grid owner (Transpower) to access the National Grid. f) The risk of electrical hazards affecting public or individual safety, and the risk of property damage. Add a new Non-Complying Rule: Rule 30.5.13 Within the National Grid Yard: g) Any earthworks not permitted by Rules 30.5.11(b) and (c) above is a non-complying activity.	Reject		believe covered in revised rule 30.5.11.
805.93	FS1106.11	Chorus New Zealand Limited	30.5.11	Oppose	The rule as notified is preferred as it uses depth and distance thresholds that are consistent with NZECP34:2001. The rule as notified also provides an exception for earthworks associated with the construction and maintenance of utilities. Network utility operators will still need to comply with NZECP34:2001 when undertaking excavation work in close proximity to National Grid support structures and under transmission lines, which in some circumstances may still require the approval of Transpower under that code.	Accept		
805.93	FS1121.40	Aurora Energy Limited	30.5.11	Support	Submits that it is appropriate that provision is made for network utility activities (including earthworks), operating with the National Grid yard, to be provided for as permitted activities under the Proposed Plan.	Accept		

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Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
805.93	FS1132.70	Federated Farmers of New Zealand	30.5.11	Oppose	The submitter's concerns are addressed through proposed Rule 30.5.11. The proposed amendments to the rule place tighter restrictions on reasonable activities in proximity to the National Grid.	Accept		
805.93	FS1208.11	Vodafone New Zealand Limited	30.5.11	Oppose	Agrees that the rule as notified is preferred as it uses depth and distance thresholds that are consistent with NZECP34:2001. States that the rule provides an exception for earthworks associated with the construction and maintenance of utilities. Alerts that network utility operators will still need to comply with NZECP34:2001 when undertaking excavation work in close proximity to National Grid support structures and under transmission lines, which in some circumstances may still require the approval of Transpower under that code.	Accept		
805.93	FS1253.11	Spark New Zealand Trading Limited	30.5.11	Oppose	Believes that the rule as notified is preferred as it uses depth and distance thresholds that are consistent with NZECP34:2001. Agrees that the rule provides an exception for earthworks associated with the construction and maintenance of utilities. States that network utility operators will still need to comply with NZECP34:2001 when undertaking excavation work in close proximity to National Grid support structures and under transmission lines, which in some circumstances may still require the approval of Transpower under that code.	Accept		
635.69		Aurora Energy Limited	30.5.11.7	Other	Support in part. Retain Rule 30.5.11.7	Accept		
383.68		Queenstown Lakes District Council	30.6 Rules - Non Notification of Applications	Other	Amend rule 30.6.1.2 as follows: "30.6.1.2 Small and Community Scale Distributed Electricity Generation with a rated capacity of less than 3.5kW"	Reject		
752.11		Michael Farrier	10.4 Rules -Activities	Not Stated	The installation of photo-voltaic panels and roofing profiles suitable for photo-voltaic laminates shall be a permitted activity under the plan in the Arrowtown Residential Historic Management Zone.		Deferred to Hearing Stream District Wide	The location of these installations needs to be assessed in terms of effect on character and heritage and are excluded as permitted activities in 30.4.3
251.32		PowerNet Limited	Minor Upgrading	Oppose	Oppose in part the definition of Minor Upgrading. PowerNet seeks that this definition is amended to include the replacement of equipment, including but not limited to structures, transformers, and switch rooms.	Accept in Part		
383.2		Queenstown Lakes District Council	New Def: Energy Activities	Other	Add new definition of Energy Activities: 'Energy Activities • Small and Community-Scale Distributed Electricity Generation and Solar Water Heating • Renewable Electricity Generation • Non-renewable Electricity Generation • Wind Electricity Generation • Solar Electricity Generation • Solar Water Heating • Stand-Alone Power Systems (SAPS) • Biomass Electricity Generation • Hydro Generation Activity • Mini and Micro Hydro Electricity Generation	Accept		
383.4		Queenstown Lakes District Council	Utility	Other	Add the following to the definition of "Utility": flood protection works.	Accept		
383.6		Queenstown Lakes District Council	Sensitive Activities - Transmission Corridor; National Grid Sensitive Activities	Other	Regarding the definitions of "Sensitive Activities-Transmission Corridor" and "National Grid Sensitive Activities" - clarify whether separate definitions are necessary and combine into a single definition if possible.	Accept		
719.3		NZ Transport Agency	Utility	Not Stated	Amend the definition of 'Utility' by adding the bullet point • "structures for transport on land by cycleways, rail, roads, walkways, or any other means."	Reject		
719.3	FS1097.693	Queenstown Park Limited		Support	Support in part. Support suggested definition of utilities if it incorporates gondola as a transport link, to recognise the benefits associated with providing gondola linkage between Remarkables Park Zone and the Remarkables Ski field	Reject		
781.3		Chorus New Zealand Limited	Building	Oppose	Definition of Building Amend the definition to refer to the Building Act 2004 definition.	Reject		
781.4		Chorus New Zealand Limited	Height	Support	Retain the Definition of Height.	Accept		
781.5		Chorus New Zealand Limited	Minor Upgrading	Other	Support in part. Amend the definition of Minor Upgrading to read: - Addition of a single service support structure for the purpose of providing a service connection to a site, except in the Rural zone; -The addition of up to three new support structures extending the length of an existing line provided the line has not been lengthened in the preceding five year period, except in the Rural Zone; - An increase by no more than 30% in any dimension for utility poles, structures, or cabinets or antenna. -Addition of lines and ancillary equipment to existing poles	Accept in Part		
781.5	FS1121.3	Aurora Energy Limited		Support	Agrees that providers of Regional Significant Infrastructure require the ability to maintain, replace and upgrade assets to ensure that a safe and reliable electricity supply can be maintained. The amendments sought by the submitters are therefore supported. This submission is aligned with the relief sought by Aurora in its original submissions.	Accept in Part		
781.5	FS1342.7	Te Anau Developments Limited		Support	Allow relief sought to the extent that is does not undermine or prevent the relief originally sought by Te Anau Developments (unless otherwise agreed through the submission process)	Accept in Part		
781.6		Chorus New Zealand Limited	Telecommunications Facility	Other	Support in part. Definition of Telecommunication Facility Retain and amend to include: Means devices, such as aerials, dishes, antennae, wi-fi and microcells, lines (including cables), wires, cables, casings, tunnels and associated equipment and support structures, and equipment shelters, such as towers, masts and poles, and equipment buildings and telecommunication kiosks telephone boxes, used for the transmitting, emission or receiving of communications.	Accept		
781.6	FS1342.6	Te Anau Developments Limited		Support	Allow relief sought to the extent that is does not undermine or prevent the relief originally sought by Te Anau Developments (unless otherwise agreed through the submission process)	Accept		
781.7		Chorus New Zealand Limited	Utility	Other	Support in part. Definition of Utility Retain and amend sixth bullet point: "structures, facilities, plant, antennas, lines (including cables), equipment and associated works for receiving and transmitting telecommunications and radio communications (see definition of telecommunication facilities);" OR Delete definition and use RMA definition of 'infrastructure' instead.	Reject		

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Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
781.7	FS1342.8	Te Anau Developments Limited		Support	Allow relief sought to the extent that is does not undermine or prevent the relief originally sought by Te Anau Developments (unless otherwise agreed through the submission process)	Reject		
179.3		Vodafone NZ	Building	Oppose	Definition of Building. Amend the definition of Building to refer to the Building Act 2004 definition.	Reject		
179.3	FS1097.51	Queenstown Park Limited		Support	Partial support - support the application of the Building Act 2004 definition subject to the amendments outlined in QPL's orimarv submission.	Reject		
179.3	FS1255.17	Arcadian Triangle Limited		Oppose	Disallow the submission and retain exemptions listed in the definition of "Building".	Accept		
179.4		Vodafone NZ	Height	Support	Definition of height - retain.	Accept		
179.5		Vodafone NZ	Minor Upgrading	Support	Support in part. Definition of Minor Upgrading - Amend the definition to read: Addition of a single service support structure for the purpose of providing a service connection to a site, except in the Rural Zone. The addition of up to three new support structures extending the length of an existing line provided the line has not been lengthened in the preceding five year period, except in the Rural Zone. An increase by no more than 30% in any dimension for utility poles, structures, or cabinets or antenna. Addition of lines and ancillary equipment to existing poles.	Accept in Part		
179.5	FS1121.1	Aurora Energy Limited		Support	Agrees that providers of Regional Significant Infrastructure require the ability to maintain, replace and upgrade assets to ensure that a safe and reliable electricity supply can be maintained. The amendments sought by the submitters are therefore supported. This submission is aligned with the relief sought by Aurora in its original submissions.	Accept in Part		
179.5	FS1132.2	Federated Farmers of New Zealand		Oppose	The submitter's concerns are already sufficiently addressed by the Walking Access Commission, including maps. Replicating these maps in the District Plan would be unnecessary, and may require updates to the plan as the maps are subject to change.	Reject		
179.5	FS1301.5	Transpower New Zealand Limited (Transpower)		Support	Support in part - Allow, but provide the relief sought via a new definition for telecommunications activities, and amend „minor upgrading? as per the relief sought in Transpower?s original submission	Reject		
179.6		Vodafone NZ	Telecommunitcations Facility	Support	Support in part. Definition of Telecommunication Facility - Retain and amend to include: Means devices such as aerials, dishes, antennae, wi-fi and microcells, lines (including cables) wires, cables, casings, tunnels and associated equipment and support structures, and equipment shelters, such as towers, masts and poles, and equipment buildings telecommunication kiosks telephone boxes, used for the transmitting, emission or receiving of communications.	Accept		
179.7		Vodafone NZ	Utility	Support	Support in part. Definition of Utility - Retain and amend sixth bullet point: "structures, facilities, plant, antennas, lines (including cables), equipment and associated works for receiving and transmitting telecommunications and radio communications (see definition of telecommunication facilities)"' OR Delete definition and use RMA definition of 'infrastructure" instead.	Reject		
179.7	FS1132.3	Federated Farmers of New Zealand		Oppose	We consider there is an important distinction between the location specific nature of utilities, and the lines and cables extending from those utilities. This can include impositions upon other legitimate land use, and we consider antennas and lines should be treated in a different manner in relation to resource management.	Accept		
191.2		Spark Trading NZ Limited	Building	Other	Building: Amend the definition to refer to the Building Act 2004 definition.	Reject		
191.2	FS1097.58	Queenstown Park Limited		Support	Partial support - support the application of the Building Act 2004 definition subject to the amendments outlined in QPL's primarv submission.	Reject		
191.2	FS1255.18	Arcadian Triangle Limited		Oppose	Disallow the submission and retain exemptions listed in the definition of "Building".	Accept		
191.3		Spark Trading NZ Limited	Height	Support	Height: retain as notified.	Accept		
191.4		Spark Trading NZ Limited	Minor Upgrading	Support	Support in part. Minor Upgrading: Amend the definition to read: Addition of a single service support structure for the purpose of providing a service connection to a site, except in the Rural zone; The addition of up to three new support structures extending the length of an existing line provided the line has not been lengthened in the preceding five year period, except in the Rural Zone; An increase by no more than 30% in any dimension for utility poles, structures, or cabinets or antenna. Addition of lines and ancillary equipment to existing poles	Accept in Part		
191.4	FS1121.2	Aurora Energy Limited		Support	Agrees that providers of Regional Significant Infrastructure require the ability to maintain, replace and upgrade assets to ensure that a safe and reliable electricity supply can be maintained. The amendments sought by the submitters are therefore supported. This submission is aligned with the relief sought by Aurora in its original submissions.	Accept in Part		
191.4	FS1132.8	Federated Farmers of New Zealand		Oppose	Where the upgrading of infrastructure requires a greater footprint, there is potential for it to encroach upon other legitimate land uses, including primary production. In these instances we consider that Council should consider the upgrade to be more than minor.	Reject		
191.4	FS1301.6	Transpower New Zealand Limited (Transpower)		Support	Support in part - Allow, but provide the relief sought via a new definition for telecommunications activities, and amend „minor upgrading? as per the relief sought in Transpower?s original submission	Reject		
191.4	FS1097.59	Queenstown Park Limited		Oppose	Oppose relief sought - a 30% increase in size of utilities can cause adverse effects and is more than a minor upgrade.	Accept		
191.5		Spark Trading NZ Limited	Telecommunitcations Facility	Support	Support in part. Telecommunication Facility: Amend to read as follows: Means devices, such as aerials, dishes, antennae, wi-fi and microcells, lines (including cables), wires, cables, casings, tunnels and associated equipment and support structures, and equipment shelters, such as towers, masts and poles, and equipment buildings and telecommunication kiosks telephone boxes, used for the transmitting, emission or receiving of communications.	Accept		

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Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
191.6		Spark Trading NZ Limited	Utility	Support	Support in part. Utility: Amend to read as follows: sixth bullet point: "structures, facilities, plant, antennas, lines (including cables), equipment and associated works for receiving and transmitting telecommunications and radio communications (see definition of telecommunication facilities);" OR Delete definition and use RMA definition of 'infrastructure' instead.	Reject		
191.6	FS1121.5	Aurora Energy Limited		Support	Agrees that providers of Regional Significant Infrastructure require the ability to maintain, replace and upgrade assets to ensure that a safe and reliable electricity supply can be maintained. The amendments sought by the submitters are therefore supported.	Reject		
191.7	FS1121.6	Aurora Energy Limited		Support	Agrees that providers of Regional Significant Infrastructure require the ability to maintain, replace and upgrade assets to ensure that a safe and reliable electricity supply can be maintained. The amendments sought by the submitters are therefore supported.	Reject		
191.6	FS1097.60	Queenstown Park Limited		Support	Support in part - Support deletion of definition of utility and use of RMA definition of infrastructure. Support consistency with the RMA.	Reject		
421.2		Two Degrees Mobile Limited	Building	Oppose	Building - Requests the definition of Building be amended to be consistent with the Building Act 2004 definition, and remove additional exclusions.	Reject		
421.2	FS1117.55	Remarkables Park Limited		Oppose	RPL is excluded from the District Plan review, and therefore any amendments to the definitions, as suggested by the submitter, should not apply to the RPZ.	Reject		
421.2	FS1097.279	Queenstown Park Limited		Oppose	Oppose for the reasons outlined in QPL's primary submission.	Reject		
421.3		Two Degrees Mobile Limited	Height	Support	Supports the definition of Height and supports the exclusions from the definition of height as pragmatic and reasonable	Accept		
421.4		Two Degrees Mobile Limited	Minor Upgrading	Other	Supports in part the definition of Minor Upgrading - requests amendment as identified in submission 421	Accept in Part		
421.5		Two Degrees Mobile Limited	Telecommunications Facility	Other	Supports in part the definition of Telecommunications Facility - requests minor amendments to improve certainty as identified in submission 421	Accept		
421.6		Two Degrees Mobile Limited	Utility	Other	Supports in part the definition of Utility - seeks minor amendments to clarify that antennas are included as part of the equipment on a telecommunication and radio communication facility and to more closely align with the terminology of the Telecommunications Act 2001. Suggested amendments identified in submission 421.	Reject		
635.1		Aurora Energy Limited	New def: Critical Electricity Line	Not Stated	Insert Definition of Critical Electricity Line which include the sub-transmission network within the District. Critical Electricity Line Electrical lines throughout the region that are not covered by National Policy Statement on Electricity Transmission and that are or have the potential to be crucial to the region's quality, reliability and security of electrical supply. These electricity lines are crucial because they contribute to the social and conomic wellbeing and health and safety of the region and are lines that: i. Supply essential public services; or ii. Supply large industrial or commercial electricity consumers; or iii. Supply high numbers of consumers; or iv. Are difficult to replace with an alternative electricity supply if they are compromised. Specified distances from Critical Electricity Lines are to be measured from a point directly below the centreline of the line or cluster of lines, as shown in Fig 1 below. Fig 1 (See submission for a diagram of Figure 1). While only critical electricity lines are identified on the planning maps, works in close proximity to all electric lines can be dangerous. Compliance with NZECP 34:2001 as amended from time to time is mandatory for buildings, earthworks, and when using machinery or equipment within close proximity to any electric lines. Include appropriate references throughout the Proposed Plan to CELs and provide objectives, policies and rules as detailed below in this submission.	Accept in Part		
635.1	FS1301.1	Transpower New Zealand Limited (Transpower)		Not Stated	Neutral, but oppose terminology - Disallow the term 'critical electricity line' and if Council accepts Aurora's relief sought, amend Aurora's proposed definition for 'electricity line distribution corridor' and the associated definitions, rules and maps, as per the relief sought by Transpower below	Accept in Part		
635.1	FS1132.37	Federated Farmers of New Zealand		Oppose	Federated Farmers supports Council giving effect to the National Policy Statement on Electricity Transmission (NPSET). However the requirements set out under the NPSET apply only to the National Grid, or assets owned by Transpower, not distribution lines (or local lines), even those deemed to meet the criteria outlined by the submitter. We consider it is reasonable to for the district plan to note that the following is relevant to local lines, however; Compliance with NZECP 34:2001 as amended from time to time is mandatory for buildings, earthworks, and when using machinery or equipment within close proximity to any electric lines	Reject		
635.2		Aurora Energy Limited	Development	Support	Retain the definition of Development as notified.	Accept		
635.3		Aurora Energy Limited	New def: Electricity Distribution	Not Stated	Insert definition of "Electricity Distribution" Electricity Distribution Means the conveyance of electricity via electricity distribution lines, cables, support structures, substations, transformers, switching stations, kiosks, cabinets and ancillary buildings and structures, including communication equipment, by a network utility operator. For the avoidance of doubt, this includes, but is not limited to Aurora Energy Limited assets shown on the planning maps.	Accept in Part		
635.3	FS1301.2	Transpower New Zealand Limited (Transpower)		Support	Allow	Accept in Part		

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
635.3	FS1132.38	Federated Farmers of New Zealand	New def: Electricity Transmission Network	Oppose	Federated Farmers supports Council giving effect to the National Policy Statement on Electricity Transmission (NPSET). However the requirements set out under the NPSET apply only to the National Grid, or assets owned by Transpower, not distribution lines (or local lines), even those deemed to meet the criteria outlined by the submitter. We consider it is reasonable to for the district plan to note that the following is relevant to local lines, however; Compliance with NZECP 34:2001 as amended from time to time is mandatory for buildings, earthworks, and when using machinery or equipment within close proximity to any electric specifically for transmission assets that were not part of the National Grid, and this creates some confusion. However we oppose electricity distribution infrastructure being provided the same regulatory treatment as the National Grid. The National Policy Statement on Electricity Transmission (NPSET) requirements specifically apply only to the National Grid, or assets owned by Transpower, not distribution lines/infrastructure (or local lines/infrastructure). Nor do we consider it relevant to specifically list the owner (Aurora) within the definition. The submitter's concerns can be addressed simply by defining the electricity transmission network and noting it is distinct to the National Grid.	Reject		
635.4		Aurora Energy Limited	New def: Electricity Distribution Line Corridor	Not Stated	Insert a definition of "electricity distribution line corridor": Electricity Distribution Line Corridor Means a buffer area around electricity distribution lines, support structures and substations operated by a network utility operator. For the avoidance of doubt, this applies to Aurora Energy Limited's assets shown on the planning maps.	Reject		
635.4	FS1301.3	Transpower New Zealand Limited (Transpower)		Not Stated	Neutral, but oppose terminology - Allow, but amend the definition as per the relief sought by Transpower	Reject		
635.4	FS1132.39	Federated Farmers of New Zealand		Oppose	The submitter is seeking to expand the scope of the NPSET by seeking that the district plan treat local electricity transmission/distribution assets in a similar manner to the National Grid. However, the NPSET specifically refers to assets owned by Transpower, and specifically excludes local lines. This distinction is important from a primary production perspective. Both National Grid and local transmission/distribution lines traverse private land, including large swathes of farmland, and the location, maintenance and upgrading of these assets can significantly impact farming operations. We agree with the submitter's position that a separate definition should be adopted for Electricity Distribution, and that an advisory note is included in the district plan noting that compliance with NZECP 34:2001 as amended from time to time is mandatory for buildings, earthworks, and when using machinery or equipment within close proximity to the electricity distribution network. However, beyond this we see no good reason why the district plan should develop provisions which seek to apply the NPSET to local lines. Where the submitter has concerns with the application of NZECP 34:2001 in respect to local lines, they are better addressing these with the individual landowners or those working in proximity to lines.	Accept in Part		
635.5		Aurora Energy Limited	Minor Upgrading	Other	Amend the definition of Minor Upgrading as follows: Minor Upgrading means an increase in the carrying capacity, efficiency or security of transmission and distribution lines utilising the existing support structures or structures of a similar scale, intensity and character and includes: Addition of a single service support structure for the purpose of providing a service connection to a site, except in the Rural zone; - The addition of up to three four new support structures extending the length of an existing line provided the line has not been lengthened in the preceding five year period, except in the Rural Zone; - Replacement of conductors or lines provided they do not exceed 30mm in diameter or the bundling together of any wire, cable or similar conductor provided that the bundle does not exceed 30mm in diameter; - Re-sagging of existing lines; - Replacement of insulators provided they are less or similar in length; and - Addition of lightning rods, earth-peaks and earth-wires. - The addition of circuits and conductors. - The re-conducting of the line with higher capacity conductors. - The re-sagging of conductors. - The bonding of conductors. - The addition of longer or more efficient insulators. - The addition of earth wires that may contain telecommunication lines, earth peaks and lightning rods. - Support structure replacement within the same or immediately adjacent location within the existing alignment of the distribution corridor. - The replacement of existing cross-arms with cross-arms of an alternative design. - An increase in support structure height required to comply with the New Zealand Electrical Code of Practice 34:2001 by not more than 15% of the base height of the support structure and where the base height is defined as the height of the structure at date of public notification of the District Plan.	Accept in Part		
635.5	FS1301.4	Transpower New Zealand Limited (Transpower)		Support	Support in Part - Allow, subject to the relief sought in Transpower's original submission	Accept in Part		
635.5	FS1132.40	Federated Farmers of New Zealand		Oppose	Where the upgrading of infrastructure requires a greater footprint, there is potential for it to encroach upon other legitimate land uses, including primary production. In these instances we consider that Council should consider the upgrade to be more than minor.	Accept		
635.6		Aurora Energy Limited	New def: Regionally Significant Infrastructure	Not Stated	Insert new definition for Regionally Significant Infrastructure as follows: Regionally significant infrastructure Regionally significant infrastructure is: (1) Strategic land transport network and arterial roads (2) Queenstown Airport (3) Wanaka Airport (4) Telecommunication facilities (5) Electricity generation, transmission and distribution networks (6) Sewage collection, treatment and disposal networks (7) Community land drainage infrastructure (8) Community potable water systems (9) Established community-scale irrigation and stockwater infrastructure (10) Transport hubs (11) Bulk fuel supply infrastructure including terminals, wharf lines and pipelines. (12) Life line utilities as defined in the Civil Defence and Emergency Management Act.	Accept in Part		
635.6	FS1077.56	Board of Airline Representatives of New Zealand (BARNZ)		Support	Add a definition of regionally significant infrastructure, either as requested by Aurora Energy or Transpower in submission 805.16	Accept		
635.6	FS1132.41	Federated Farmers of New Zealand		Oppose	We see no need for an additional definition covering such a wide range of varying types of infrastructure; we prefer these are treated individually and distinct from one another, where necessary. We seek that this submission and the subsequent submissions related to the specific treatment of "Regionally Significant Infrastructure" are not adopted.	Reject		
635.6	FS1211.14	New Zealand Defence Force		Support	Support in part (with addition of 'defence facilities'). Otherwise oppose. Believes that this insertion is appropriate given that defence facilities are key strategic infrastructure of national and regional importance, playing a significant role in both military training and civil and/or national defence operations. While defence facilities within the region are currently limited, this does not preclude the potential for NZDF to need larger or additional facilities in the West Coast Region in the future. Seeks this provision to be allowed with amendments. Otherwise disallow.	Reject		

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
635.6	FS1097.640	Queenstown Park Limited		Support	Suppport in part. Support suggested definition of regionally significant infrastructure because it includes gondola (in that it is part of a strategic land transport network)	Reject		
635.7		Aurora Energy Limited	New def: Support Structure	Not Stated	Insert new definition for Support Structure as follows: Support Structure Means a utility pole or tower that forms part of the electricity distribution network or National Grid that supports conductors as part of an electricity distribution line or transmission line. This includes any ancillary equipment, such as communication equipment or transformers, used in the conveyance of electricity.	Accept in Part		
635.7	FS1301.8	Transpower New Zealand Limited (Transpower)		Support	Allow, subject to the following amnedments: "Means a utility pole or tower, irrespective of its physical construction, that forms part of the electricity distribution network or National Grid ...	Accept in Part		
635.7	FS1132.42	Federated Farmers of New Zealand		Oppose	The proposed definition conflates the National Grid and local lines. For clarity's sake we consider the support structures referenced should be appropriately distinguished as either forming a component of the National Grid or as forming a component of the Electricity Distribution Network.	Reject		
635.9		Aurora Energy Limited	Utility	Other	Amend the definition of Utility as follows: Utility Means the systems, services, structures and networks necessary for operating and supplying essential utilities and services to the community including but not limited to: • substations, transformers, lines and necessary and incidental structures and equipment for the transmission and distribution of electricity; • pipes and necessary incidental structures and equipment for transmitting and distributing gas; • storage facilities, pipes and necessary incidental structures and equipment for the supply and drainage of water or sewage; • water and irrigation races, drains, channels, pipes and necessary incidental structures and equipment (excluding water tanks); • structures, facilities, plant and equipment for the treatment of water; • structures, facilities, plant, equipment and associated works for receiving and transmitting telecommunications and radio communications (see definition of telecommunication facilities); • structures, facilities, plant, equipment and associated works for monitoring and observation of meteorological activities and natural hazards; • structures, facilities, plant, equipment and associated works for the protection of the community from natural hazards. • structures, facilities, plant and equipment necessary for navigation by water or air; • waste management facilities; and Anything described as a network utility operation in s166 of the Resource Management act 1991 Utility does not include structures or facilities used for electricity generation (excluding temporary emergency generators), the manufacture and storage of gas, or the treatment of sewage.	Accept in Part		
635.9	FS1301.7	Transpower New Zealand Limited (Transpower)		Support	Allow, subject to the relief sought in Transpower?s original submission	Accept in Part		
805.4		Transpower New Zealand Limited	Amenity	Support	Retain definition of 'Amenity or Amenity Values'	Accept		
805.5		Transpower New Zealand Limited	New def: Artificial Crop Protection Structure	Oppose	Add new definition - 'Artificial crop protection structure': "Artificial Crop Protection Structure: means structures of cloth used to protect crops and / or enhance growth.	Reject		
805.6		Transpower New Zealand Limited	New def: Crop Support Structure	Oppose	Add a new definition for "crop support structure"	Reject		
805.7		Transpower New Zealand Limited	New def: Earthworks within the National Grid Yard	Oppose	Add a new definition: "Earthworks within the National Grid Yard: means earthworks but includes the cultivation of land and the digging of holes for offal pits and the erection of posts or poles or the planting of trees."	Reject		
805.11		Transpower New Zealand Limited	Minor Upgrading	Other	Support with amendments definition of 'Minor Upgrading'. Amend definition as follows: Minor Upgrading (in relation to transmission and distribution electricity lines): Means an increase in the carrying capacity, efficiency or security of transmission and distribution electricity lines utilising the existing support structures or structures of a similar scale, intensity and character, and includes the: Addition of a single service support structure for the purpose of providing a service connection to a site, except in the Rural zone; The addition of up to three new support structures extending the length of an existing line provided the line has not been lengthened in the preceding five year period, except in the Rural Zone; Replacement of conductors or lines provided they do not exceed 30mm in diameter or the bundling together of any wire, cable or similar conductor provided that the bundle does not exceed 30mm in diameter; a) Addition of circuits and conductors; b) Reconducting of the line with higher capacity conductors; c) Re-sagging of conductors existing lines; d) Bonding of conductors; e) Replacement of Addition of longer or more efficient insulators provided they are less or similar in length; and f) Addition of electrical fittings; g) Addition of earthwires which may contain lightning rods, and earth-peaks and earth-wires; h) Support structure replacement within the same location as the support structure that is to be replaced; i) Replacement of existing cross-arms with cross-arms of an alternative design; and j) Increase in support structure height required to comply with NZECP34:2001 by not more than 15% of the base height of the support structure, and where the base height is defined as the height of the structure at date of public notification of the Plan.	Accept in Part		
805.12		Transpower New Zealand Limited	New def: National Grid	Oppose	Add a new definition: National Grid means the same as in the National Policy Statement on Electricity Transmission 2008.	Accept in Part		
805.13		Transpower New Zealand Limited	National Grid (subdivision) corridor	Other	Support with amendments the definition of 'National Grid Corridor'. Amend the definition to: National Grid Subdivision Corridor: means the area measured either side of the centreline of above ground National Grid line as follows: 16m for the 110kV lines on pi poles 32m for 110kV lines on towers 37m for the 220kV transmission lines Note: The National Grid Corridor and National Grid Yard does not apply to underground cables or any transmission lines (or sections of line) that are designated.	Accept		
805.14		Transpower New Zealand Limited	National Grid Sensitive Activities	Support	Retain the definition of 'National Grid Sensitive Activities'	Accept in Part		
805.15		Transpower New Zealand Limited	National Grid Yard	Oppose	Amend definition of 'National Grid Yard' as follows: Means: – the area located 12 metres in any direction from the outer edge of a National Grid support structure; and – the area located 12 metres either side of the centreline of any overhead National Grid line; (as shown in dark grey in diagram below) Note: The National Grid Corridor and National Grid Yard does not apply to underground cables or any transmission lines (or sections of line) that are designated.	Reject		

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Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
805.16		Transpower New Zealand Limited	New def: Regionally Significant Infrastructure	Oppose	Add a new definition: "Regionally significant infrastructure: includes the following: a) Renewable electricity generation facilities, where they supply the national electricity grid and localdistribution network; and b) The National Grid; and c) The Electricity distribution network; and d) Telecommunication and radio communication facilities; and e) Road classified as being of national or regional importance; and f) Marinas and Airports; and g) Structures for transport by rail."	Accept in Part		
805.16	FS1121.6	Aurora Energy Limited		Support	Agrees that a new definition of Regionally Significant Infrastructure should be inserted into the Proposed Plan to provide certainty around the nature and type of infrastructure that is significant on a regional scale. This submission is aligned with the relief sought by Aurora in its original submissions.	Accept in Part		
805.16	FS1159.1	PowerNet Ltd		Support	Support in Part - PowerNet supports the inclusion of a new definition for "Regionally Significant Infrastructure". However, PowerNet considers that this definition should be refined to better reflect the regionally significant infrastructure in this District, which would likely not include marinas and rail structures. Further, PowerNet seeks that reference to this new definition be included throughout the relevant chapters of the Proposed Plan.	Accept in Part		
805.16	FS1340.7	Queenstown Airport Corporation		Support	QAC supports the inclusion of a new definition for "Regionally Significant Infrastructure". Further, QAC seeks that reference to this new definition be included throughout the relevant chapters of the Proposed Plan.	Accept in Part		
805.16	FS1077.64	Board of Airline Representatives of New Zealand (BARNZ)		Support	Add a definition of regionally significant infrastructure, either as requested by Transpower or Aurora Energy or in submission 635.6	Accept		
805.16	FS1106.10	Chorus New Zealand Limited		Support	Support in part. If this term is adopted in the objectives and policies, it is appropriate to have a definition. For the avoidance of doubt as to what is covered by the definition, the following amendment is proposed to clause (d): (d) telecommunication and radio communication facilities and networks: and For example, mobile copper and fibre networks are critical to the prosperity of the district and surrounding regions and accordingly are regionally significant infrastructure.	Reject		
805.16	FS1208.10	Vodafone New Zealand Limited		Support	Supports in part. Agrees that if this term is adopted in the objectives and policies, it is appropriate to have a definition. Proposes. for the avoidance of doubt, the following amendment to clause (d): telecommunication and radio communication facilities and networks: and. States that mobile copper and fibre networks are critical to the prosperity of the district and surrounding regions and accordingly are regionally significant infrastructure.	Reject		
805.16	FS1211.19	New Zealand Defence Force		Support	Supports in part (with addition of 'defence facilities). Otherwise opposes. States that NZDF does not currently have facilities within the Queenstown Lakes District, therefore, it is important to provide for future facilities. Believes that defence facilities provide important security and other services to districts and regions, and therefore it is appropriate to include these facilities in the definition of Regionally Significant Infrastructure. Seeks this provision to be allowed with amendments. Otherwise disallows.	Reject		
805.16	FS1253.10	Spark New Zealand Trading Limited		Support	Supports in part. Believes that if this term is adopted in the objectives and policies, it is appropriate to have a definition. For the avoidance of doubt as to what is covered by the definition, proposes to clause (d): telecommunication and radio communication facilities and networks: and. Agrees that mobile, copper and fibre networks are critical to the prosperity of the district and surrounding regions and accordingly are regionally significant infrastructure.	Reject		
805.17		Transpower New Zealand Limited	New def: Reverse Sensitivity	Oppose	Add a new definition: "Reverse Sensitivity: is the legal vulnerability of an established activity to complaint from a new land use. It arises when an established use is causing adverse environmental impact to nearby land, and a new, benign activity is proposed for the land. The 'sensitivity' is this: if the new use is permitted, the established use may be required to restrict its operations or mitigate its effects so as not to adversely affect the new activity."	Reject		
805.17	FS1077.65	Board of Airline Representatives of New Zealand (BARNZ)		Oppose	Do not include a definition of reverse sensitivity	Accept		
805.17	FS1211.20	New Zealand Defence Force		Support	Considers it appropriate. Seeks this provision to be allowed.	Reject		
805.18		Transpower New Zealand Limited	New def: Protectitive Canopy	Oppose	Add a new definition: "Protective Canopy: means a structure partly enclosed with impermeable material to provide protection to crops, but does not include artificial crop protection structures."	Reject		
805.19		Transpower New Zealand Limited	National Grid Sensitive Activities	Other	Support with amendments. Delete definition and retain the definition "National Grid Sensitive Activities".	Accept in Part		
805.20		Transpower New Zealand Limited	Structure	Support	Retain definition of 'Structure'	Accept		
805.21		Transpower New Zealand Limited	Utility	Oppose	Amend definition of utility as follows: Means the systems, services, structures and networks necessary for operating and supplying essential utilities and services to the community including but not limited to: – transformers, lines and necessary and incidental structures and equipment for the transmissions and distribution of electricity; – pipes and necessary incidental structures and equipment for transmitting and distributing gas; – storage facilities, pipes and necessary incidental structures and equipment for the supply and drainage of water or sewage; – water and irrigation races, drains, channels, pipes and necessary incidental structures and equipment (excluding water tanks); – structures, facilities, plant and equipment for the treatment of water; – structures, facilities, plant, equipment and associated works for receiving and transmitting telecommunications and radio communications (see definition of telecommunication facilities); – structures, facilities, plant, equipment and associated works for monitoring and observation of meteorological activities and natural hazards; – structures, facilities, plant, equipment and associated works for the protection of the community from natural hazards. – structures, facilities, plant and equipment necessary for navigation by water or air; – waste management facilities; and – Anything described as a network utility operation in s166 of the Resource Management act 1991 Utility does not include structures or facilities used for electricity generation, the manufacture and storage of gas, or the treatment of sewage.	Accept in Part		

Original Point Number	Further Submission No	Submitter	Lowest Clause	Submitter Position	Submission Summary	Planner Recommendation	Deferred	Issue Reference
836.9		Arcadian Triangle Limited	All definitions relating to the National Grid	Not Stated	Definitions - National Grid Issue: (a) The definitions relating to the National Grid have probably been supplied by Transpower. No thought appears to have been put into amending them to fit into this District Plan. The following points are noted: (i) There is no definition of "National Grid". (ii) The definition of "National Grid Sensitive Activities" uses terms similar to, but different from, terms defined in this District Plan. For example it includes reference to "Child Day Care Activity" and "Day Care Activity" whereas the defined term in this District Plan is "Day Care Facility" (and there are other similar mis-references. (b) The diagram in the definition of "National Grid Yard' is meaningless because, the way it is copied, the diagram does not show the different parts detailed in the Legend. Relief Requested: (c) Review and amend all definitions relating to the National Grid so that they make sense, are understandable, and are consistent with defined terms in this District Plan.	Accept		

Appendix 3. Section 32 Report

Section 32 Evaluation Report

Energy and Utilities

Contents

Section 32 Evaluation Report: Energy and Utilities

Abbreviations

- **NPS-REG:** The National Policy Statement for Renewable Electricity Generation 2011
- **NSPET:** The National Policy Statement for Electricity Transmission 2008

1. Strategic Context

The Queenstown Lakes District Council is preparing a new district plan under section 74 of the Resource Management Act 1991 (RMA or the Act). Section 74(1) sets out matters which are to be considered by territorial authorities when preparing or changing district plans. That section states that district plans must be prepared in accordance with the functions for territorial authorities set out in section 31, the provisions of Part 2, the duties under section 32, and any regulations.

Section 74(2) of the Act requires that when preparing or changing a district plan, a territorial shall have regard to:

(a) any –
- *(i) Proposed regional policy statement; or*
- *(ii) Proposed regional plan of its region in regard to any matter of regional significance or for which the regional council has primary responsibility under Part 4; and*

(b) any-
- *(i) Management plans and strategies prepared under other Acts; and*
- *(ii) Repealed*
- *(iia) Relevant entry [on the New Zealand Heritage List/Rarangi Korero required by the Heritage New Zealand Pouhere Taonga Act 2014]; and*
- *(iii) Regulations relating to ensuring sustainability, or the conservation, management, or sustainability of fisheries resources (including regulations or bylaws relating to taiapure, mahinga mataitai, or other non-commercial Maori customary fishing),—*

to the extent that their content has a bearing on resource management issues of the district; and

(c) The extent to which the district plan needs to be consistent with the plans or proposed plans of adjacent territorial authorities.

Section 74(2A) requires that when preparing a district plan a territorial authority must take into account:

Any relevant planning document recognised by an iwi authority and lodged with the territorial authority, to the extent that its content has a bearing on the resource management issues of the district.

Section 75 of the Act details the requirements for the content of district plans. Section 75 of the Act states that:

(3) A district plan must give effect to –
- *a) any national policy statement; and*
- *b) any New Zealand coastal policy statement; and*
- *c) any regional policy statement.*

(4) A district plan must not be inconsistent with -
- *a) a water conservation order; or*
- *b) a regional plan for any matter specified in section 30(1).*

Consideration has been given to the matters detailed in sections 74 and 75 of the Act, as outlined in Sections 2 to 5 below.

2. National Planning Documents

National Policy Statements

There are currently four operative National Policy Statements which the Queenstown Lakes District Plan must give effect to. These include:

- The New Zealand Coastal Policy Statement 2010
- The National Policy Statement for Renewable Electricity Generation 2011 (NPS-REG")
- The National Policy Statement for Freshwater Management 2011
- The National Policy Statement for Electricity Transmission 2008 ("NSPET")

All of the above policy statements (with the exception of the Coastal Policy Statement) are relevant to the consideration of Energy and Utilities activities within the District. Details of how the provisions of Chapter 30 give effect to these National Policy Statements is discussed further in this report below.

National Environmental Standards

National environmental standards are regulations made under section 43 of the RMA. They can prescribe technical standards, methods or other requirements for environmental matters. In some circumstances, local authorities can impose stricter standards. There are three national environmental standards which are relevant to the proposed chapter, these include:

- The National Environmental Standards for Electricity Transmission Activities;
- The National Environmental Standards for Telecommunication Facilities Regulations 2008; and
- The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2012.

Proposed Chapter 30 does not impose a greater prohibition or restriction on an activity to which the various National Environmental Standards ("NES") already imposes. Therefore, no further evaluation of these NES standards is required for this evaluation (section 32(4)).

3. Regional Planning Documents

Regional Policy Statement

Otago's Regional Policy Statement ("**RPS**") promotes the sustainable management of natural and physical resources by giving an overview of the resource management issues facing Otago, and by setting policies and methods to manage Otago's natural and physical resources.

The Operative RPS contains chapters 6, 7, 12 and 13 (Water, Air, Energy and Waste) which are relevant to the Energy and Utilities Chapter. The relevant objectives and policies include objectives 6.4.1, 6.4.3, 6.4.4, 6.4.7 and 6.4.8 and policy 6.5.1; objectives 7.4.1 and policy 7.5.5; objectives 12.4.1 - 12.4.3 and policies 12.5.1 - 12.5.2 and 12.5.4 and objective 13.4.1 and policy 13.5.1 and 13.5.2.

Proposed Regional Policy Statement

Section 74 of the Act requires that a District Plan must "*have regard to*" any proposed regional policy statement. The Proposed RPS was released for formal public notification on the 23 May 2015, and contains the following objectives and policies relevant to the Energy and Utilities Chapter framework:

Matter	Objectives	Policies
Energy supplies to Otago's communities are secure and sustainable	3.6	3.6.1 to 3.6.6
Urban areas are well designed, sustainable and reflect local character	3.7	3.7.3
Otago's significant and highly-valued natural resources are identified, and protected or enhanced	2.2	2.2.4

Overall, the Proposed RPS seeks to encourage renewable energy generation, enable small scale domestic energy generation, and reduce long term demand for fossil fuels. The provisions of Chapter 30 have had regard to this approach, in particular through enabling Small and Community-Scale Distributed Electricity Generation and Solar Water Heating as permitted activities; and promoting energy conservation as a matter for consideration in site layout and design.

Regional Plans

There are four operative regional plans within the Otago Region relating to air, water, coast and waste. The purpose of the Otago Regional Plan: Air is to promote the sustainable management of the air resource in the

Otago region. The Otago Regional Plan: Water is for the use, development and protection of Otago's rivers, lakes, aquifers and wetlands. The Otago Regional Plan: Coast is relevant to the coastal marine area. The Otago Regional Plan: Waste applies to solid waste management, including waste minimisation, contaminated sites, hazardous substances and hazardous wastes and landfills. Chapter 30 does not seek to address any matters that are managed under the Otago Regional Plans for the Coast.

The Regional Plan - Air includes relevant objective 6.1.1 relating to energy emissions and associated policy 6.1.2 which are relevant to Chapter 30. The provisions recognise that the management of waterways associated with Mini and Micro Hydro Electricity Generation activities are also governed by the Otago Regional Council Water Plan rules.

The Regional Plan – Water includes a number of objectives and policies which relate specifically to Hydro Electricity and flood protection works which are relevant to Chapter 30 (objectives 5.3.1 – 5.3.7; 6.3.1 – 6.3.7; 6.6A.3; 8.3.1 – 8.3.11 and 10.31). The provisions recognise that the management of air discharges from Biomass Electricity Generation are also governed by the Otago Regional Council Air Plan rules.

The Regional Plan – Waste includes a number of objectives and policies which relate specifically to the management and control of waste in sections 6.3 and 7.3 which are relevant to Chapter 30.

4. Iwi Management Plans

Kai Tahu Ki Otago Resource Management Plan

The Kai Tahu Ki Otago Resource Management Plan (2005) (NRMP) is the principal planning document for Kai Tahu Ki Otago (KTKO) ((KTKO is used to describe the four Papatipu Runanga and associated whanau and ropu of the Otago Region). Chapter 5 of the NRMP identifies issues, objectives and policies for the Otago Region as a whole, and includes the following objectives:

i. The rakätirataka and kaitiakitaka of Käi Tahu ki Otago is recognised and supported.

ii. Ki Uta Ki Tai management of natural resources is adopted within the Otago region.

iii. The mana of Käi Tahu ki Otago is upheld through the management of natural, physical and historic resources in the Otago Region.

iv. Käi Tahu ki Otago have effective participation in all resource management activities within the Otago Region.

v. The respective roles and responsibilities of Manawhenua within the Otago Region are recognised and provided for through the other objectives and policies of the Plan.

Chapter 10 sets out objectives and policies as they are relevant to the Clutha/Mata-au Catchment, within the Queenstown Lakes District Council area. There are provisions within the plan which relate specifically to hydro-electricity schemes and the identification of *Cultural Landscapes* which have the potential to be adversely affected by energy developments and infrastructure. The proposed objectives and policies of the Energy and Utilities chapter include provisions which seek to ensure that the potential for adverse effects on recreation and cultural values (including relationships with takata whenua) are avoided, remedied or mitigated. Chapter 30 will not offend any of the relevant objectives and policies.

Ngai Tahu Ki Murihiku Natural Resource and Environmental Iwi Management Plan (2008)

The Ngai Tahu Ki Murihiku Natural Resources and Environmental Iwi Management Plan (Murihiku Plan) was issued in 2008 and consolidates Ngai Tahuki Murihiku values, knowledge and perspectives on natural resources and environmental management issues. The Murihiku Plan identifies kaitiakitanga, environmental and social, economic, health and wellbeing outcomes that need to be recognised when preparing a district plan. Chapter 30 will not offend any of the relevant objectives and policies.

5. Section 32 Evaluation

All Districts must be evaluated as directed by section 32 of the RMA. Section 32(1) and (2) specifies what the evaluation must examine.

(1) An evaluation report required under this Act must—

(a) *examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act; and*

(b) *examine whether the provisions in the proposal are the most appropriate way to achieve the objectives by—*

(i) *identifying other reasonably practicable options for achieving the objectives; and*

(ii) *assessing the efficiency and effectiveness of the provisions in achieving the objectives; and*

(iii) *summarising the reasons for deciding on the provisions; and*

(c) *contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal.*

(2) An assessment under subsection (1)(b)(ii) must—

(a) *identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for—*

(i) *economic growth that are anticipated to be provided or reduced; and*

(ii) *employment that are anticipated to be provided or reduced; and*

(b) *if practicable, quantify the benefits and costs referred to in paragraph (a); and*

(c) *assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.*

Section 32(3) relates to "amending proposals". As Council is preparing a new 'proposed' district plan, this section is not considered to be applicable.

This report has been developed to address the requirements of Section 32 of the RMA.

6. Resource Management Issues

Part 2 of the RMA details the purpose and principals which includes:

5 Purpose

(1) The purpose of this Act is to promote the sustainable management of natural and physical resources.

*(2) In this Act, **sustainable management** means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—*

(a) *sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*

(b) *safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*

(c) *avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

The RMA defines "Natural and physical resources" as:

> ***natural and physical resources** includes land, water, air, soil, minerals, and energy, all forms of plants and animals (whether native to New Zealand or introduced), and all structures*

In order to give effect to this purpose the Government has issued a number of National Policy Statements including the NPS-REG and the NPSET which seek to enable sustainable management.

The NPS-REG confirms that:

- renewable electricity generation, regardless of scale, makes a crucial contribution to the well-being of New Zealand, its people and the environment, and any reductions in existing renewable energy generation will compromise the achievement of the Government's renewable electricity target of 90% of electricity from renewable sources by 2025; and
- the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities throughout New Zealand, and the associated benefits of renewable electricity generation, are matters of national significance.

In light of this, the key messages emerging from the NSP_REG is that local authorities are required to adopt a positive and proactive policy response to renewable electricity generation activities in policy statements and plans that apply at national, regional and local levels.

The NPSET facilities the operation, maintenance, upgrading and development of the electricity transmission network and complements the NPS_REG. The NPSET seeks to ensure that, in providing for the transmission of electricity within a district and in managing the effects of the transmission network on the environment, the operational and long-term development requirements of the network are appropriately considered and its status as a linear cross-boundary network is fully recognised. The Energy and Utilities Chapter seeks to give effect to these national policy statements in conjunction with providing for other local, regional and nationally critical infrastructure.

7. Purpose

The overarching purpose of the Energy and Utilities Chapter is to provide for the sustainable management and growth of local, regional and nationally critical infrastructure and energy development.

Combining Energy and Utilities into a single chapter recognises the close association between the development of energy resources, the generation of electricity and the provision of essential utilities throughout the District.

Chapter 30 will provide for existing and future Energy and Utilities activities to occur over the next planning period. The following sections of this report have been provided in order to fulfil the statutory requirements of section 32 of the RMA.

8. Evaluation of proposed Objectives - Section 32 (1) (a)

Section 32(1)(a) of the RMA requires the evaluation to examine the extent that a new objective is the most appropriate way to achieve the purpose of the Act. This section of the report considers the objectives in the context of the purpose of the Act.

As indicated in Section 5 of this report the purpose of the Act demands an integrated planning approach and direction.

The remaining provisions in Part 2 of the Act, including sections 6, 7 and 8 provide a framework within which objectives are required to achieve the purpose of the Act and provisions are required to achieve the relevant objectives. Section 7 (abbreviated below) is particularly relevant to Chapter 30:

> ***Section 7 Other Matters***
>
> *In achieving the purpose of this Act, all persons exercising functions and power under it, in relation to managing the use, development, and protecting of natural and physical resources, shall have particular regard to*
>
> *—*
>
> *(b) the efficient use and development of natural and physical resources:*
> *(c) the maintenance and enhancement of amenity values:*
> *(f) maintenance and enhancement of the quality of the environment:*

The extent to which the proposed objectives meet the overarching purpose of the Act is set out below.

Proposed Objective	*Appropriateness*
Proposed Objective 30.2.1 **The benefits of the District's renewable and non-renewable energy resources and the electricity generation facilities that utilise such resources are recognised as locally, regionally and nationally important in the sustainable management of the District's resources.**	The proposed objective is considered to be the most appropriate way to achieve the purposes of the Act as it recognises the importance of energy to the development and functioning of society. The RMA definition of "natural and physical resources" includes energy and the objective seeks to sustain the potential of energy resources to meet the reasonably foreseeable needs of future generations [s5(a)]. In respect of matters under Section 7, the objective provides a framework that will ensure that the District Plan gives consideration to the effects of climate change [s7(i)] and that the benefits of the use and development of renewable energy [s7(j)] are recognised and provided for. The objective gives effect to the requirements of the NPS-REG. Gives effect to RPS objectives 5.4.1; 7.4.1; 9.4.1; 12.4.1 – 12.4.3 (inclusive). Gives effect to RPS policies: 5.5.1; 7.5.4; 7.5.5; 9.5.2; 12.5.1; 12.5.2 and 12.5.4. Has regard to Proposed RPS policies 3.6.2, 3.6.3, 3.6.5.
Proposed Objective 30.2.2 **Recognise that the use and development of renewable energy resources have the following benefits:** **• Maintains or enhances electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions;** **• Maintains or enhances the security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation;** **• Assists in meeting international climate change obligations; and** **• Reduces reliance on imported fuels for the purpose of generating electricity.**	The proposed objective is considered to be the most appropriate way to achieve the purpose of the Act as it specifically recognises the benefits associated with the use and development of renewable energy resources. Renewable electricity generation, regardless of scale, contributes to the well-being of New Zealand and by recognising its national significance it will continue meeting the reasonably foreseeable needs of future generations. As identified above, the Government has set a target for 90% of the country's electricity to be generated from renewable resources by the year 2025. To achieve this, the NPS_REG has been put in place. The District Plan must give effect to this National Policy Statement. It is recognised that to achieve the target New Zealand will require significant development of renewable electricity generation activities along with the protection of output from existing activities. This is further reinforced by Section 7(j) of the Act which requires Council to have particular regard to the benefits derived from the use and development of renewable energy. Supporting policies to this objective enable research into alternative renewable energy technologies which will result in efficiency in the end use of energy [s7(ba)]; enable a better understanding of the finite characteristics of natural and physical resources [s7(g) and renewable electricity generation on climate change [s7(i)] to be obtained and ultimately to evaluate the benefits to be

	derived from the use and development of new renewable energy technologies [s7(j)]. The objective gives effect to the requirements of the NPS-REG. Gives effect to RPS objectives 5.4.1; 7.4.1; 9.4.1; 12.4.1 – 12.4.3 (inclusive). Gives effect to RPS policies: 5.5.1; 7.5.4; 7.5.5; 9.5.2; 12.5.1; 12.5.2 and 12.5.4. Has regard to Proposed RPS objective 3.6 and Policies 3.6.1, 3.6.3, 3.6.4 and 3.6.5.
Proposed Objective 30.2.3 **Energy resources are developed and electricity is generated, in a manner that minimises adverse effects on the environment.**	This objective seeks to manage the adverse effects of the development of energy resources and electricity generation at any scale to maintain and enhance amenity values, the intrinsic value of ecosystems and quality of the environment. This objective is the most appropriate way to achieve the purpose of the Act as it encourages energy development that minimises environmental effects, while recognising the importance of energy resources. Energy use is essential to the regional and national economy and supports community, social and economic wellbeing. Using energy efficiently and developing utilities sustainably can maintain resource potential for future generations (s5(2)(a), minimise effects on life supporting capacity of resources (e.g. air and water) [s 5(2)(b)] and avoid or mitigate environmental effects associated with the resource use and development [s 5(2) (c)]. In respect of matters under Sections 6 and 7, the objective provides a framework that will ensure that energy resources are managed and used efficiently [s 7(b)] and effects on the environment from the development of renewable energy resources, including effects on natural features and landscapes [s6(a)] ecosystems [s 7(d)] and the quality of the environment [s7(f)] are minimised. Consistent with Goals 3.2.1, 3.2.4 and 3.2.5 of the Proposed Strategic Direction Chapter. Gives effect to RPS objectives 5.4.1; 5.4.2; 5.4.3; 6.4.2; 6.4.3 7.4.1; 9.4.1; 9.4.3; 12.4.1 – 12.4.3 (inclusive). Gives effect to RPS policies: 5.5.1; 5.5.3; 5.5.5; 7.5.4; 7.5.5; 9.5.2; 12.5.1 - 12.5.4. Has regard to Proposed RPS objective 3.6.

Proposed Objective 30.2.4 **Site layout and building design takes into consideration energy efficiency and conservation.**	This objective is the most appropriate way to achieve the purpose of the Act as it encourages energy efficiency measures in subdivision, development and use. Using energy efficiently and sustainably can maintain resource potential for future generations (s5(2)(a), minimise effects on life supporting capacity of resources (e.g. air and water) [s5(2)(b)] and avoid or mitigate environmental effects associated with the resource use and development [s 5(2) (c)]. The objective is the most appropriate means of achieving section 7 (b) and (ba). Introducing energy conservation enables the efficient use of the land resource and enables a greater understanding of the efficiency of the end use of energy. Consistent with Goals 3.2.1, 3.2.3, and 3.2.4 of the Proposed Strategic Direction Chapter. Gives effect to RPS objectives 7.4.1; 9.4.1; 12.4.1 – 12.4.3 (inclusive); 13.4.2 and 13.4.3. Gives effect to RPS policies: 7.5.4; 7.5.5; 9.5.2; 9.5.3; 12.5.2; 12.5.3 and 12.5.4. Has regard to Proposed RPS objective 3.6 and 3.7; and policies 3.6.6 and 3.7.3.
Proposed Objective 30.2.5 **Co-ordinate the provision of utilities as necessary to support the growth and development of the District.**	This objective is the most appropriate way to achieve the purpose of the Act as it encourages a co-ordinated approach between the development of the District and the provision of utilities and services. This is necessary to ensure areas are capable of being serviced and that the timing of services facilitates development of an area. Using and developing utilities sustainably can maintain resource potential for future generations (s5(2)(a), minimise effects on life supporting capacity of resources (e.g. air and water) [s 5(2)(b)] and avoid or mitigate environmental effects associated with the resource use and development [s 5(2) (c)]. Consistent with Goals 3.2.1, 3.2.4 and 3.2.5 of the Draft Strategic Directions Chapter. Gives effect to RPS objectives 5.4.1; 5.4.2; 5.4.3; 6.4.2; 6.4.3 7.4.1; 9.4.1; 9.4.3; 12.4.1 – 12.4.3 (inclusive). Has regard to Proposed RPS objectives 3.6 and policies 3.6.5.
Proposed Objective 30.2.6 **The establishment, efficient use and maintenance of utilities necessary for the well-being of the community.**	This objective is the most appropriate way to achieve the purpose of the Act as it recognises the important role of utilities in providing essential services to the community and the need for the establishment and on-going functioning, maintenance and upgrading of utilities. Using and developing utilities sustainably can maintain resource potential for future generations (s5(2)(a), minimise effects on life supporting capacity of resources

	(e.g. air and water) [s 5(2)(b)] and avoid or mitigate environmental effects associated with the resource use and development [s 5(2) (c)]. In respect of matters under Sections 6 and 7, the objective is the most appropriate way to meet the purpose of the Act in that it provides a framework which will promote the efficient use of natural and physical resources [s7(b)] efficiency in the end use of energy [s7(ba)] and effects on the environment from the establishment, efficient use and maintenance of utilities, including the quality of the environment [s7(f)] are minimised. Consistent with Goals 3.2.1, 3.2.4 and 3.2.5 of the Proposed Strategic Direction Chapter. Gives effect to RPS objectives 5.4.1; 5.4.2; 5.4.3; 6.4.2; 6.4.3 7.4.1; 9.4.1; 9.4.3; 12.4.1 – 12.4.3 (inclusive). Has regard to Proposed RPS objective 3.6 and policy 3.6.5.
Proposed Objective 30.2.7 **Avoid, remedy or mitigate the adverse effects of utilities on surrounding environments, particularly those in or on land of high landscape value, and within special character areas.**	In terms of addressing potential adverse effects of utilities activities, the proposed objective is considered to be the most appropriate to meet the purpose of the Act. The objective focuses on managing potential effects of utilities on the surrounding environments in general and those areas of the District in areas of high landscape value or special character. An objective that requires the management of adverse effects is consistent with s5(2)(c). In respect of matters under Sections 6 and 7, the objective is the most appropriate to meet the purpose of the Act in that it provides a framework which will ensure that utilities activities are managed and used efficiently [s 7(b)] and effects on the environment from the development of utilities, including effects on natural features and landscapes s6(a); ecosystems [s 7(d)] and the quality of the environment [s7(f)] are minimised. Consistent with Goals 3.2.1, 3.2.4 and 3.2.5 of the Proposed Strategic Direction Chapter. Gives effect to RPS objectives 5.4.1; 5.4.2; 5.4.3; 6.4.2; 6.4.3 7.4.1; 9.4.1; 9.4.3; 12.4.1 – 12.4.3 (inclusive). Has regard to Proposed RPS objective 2.2 and policy 2.2.4.

The above objectives have been considered against Part 2 of the Act, the RPS (Operative and Proposed), and the Proposed Strategic Direction chapter of the proposed plan. The proposed objectives are considered the most appropriate method of achieving the purpose of the Act, as they identify and give direction as to the how the specific issues that pertain to Energy and Utilities are to be addressed.

9. Evaluation of broad options for achieving Objectives Section 32 (1) (b)(i)

As required by section 32(1)(b)(i) RMA, the following section considers the reasonably practicable options for achieving the proposed objectives. This assessment is carried out in relation to the proposed provisions of Chapter 30, which includes the proposed policies and rules relating to Energy and Utilities.

10. Broad options considered for achieving the objectives (Section 32(1)(b)(i))

10.1 Energy

Proposed Objective 30.2.1 - The benefits of the District's renewable and non-renewable energy resources and the electricity generation facilities that utilise such resources are recognised as locally, regionally and nationally important in the sustainable management of the District's resources.

Proposed Objective 30.2.2 – Recognise that the use and development of renewable energy resources have the following benefits:

- Maintains or enhances electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions;
- Maintains or enhances the security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation;
- Assists in meeting international climate change obligations; and
- Reduces reliance on imported fuels for the purpose of generating electricity.

Proposed Objective 30.2.3 - Energy resources are developed and electricity is generated, in a manner that minimises adverse effects on the environment.

Option 1: Retain the provisions of the operative District Plan.

Option 2: Retain and improve the operative provisions within each zone.

Option 3: Comprehensive review of the objectives, policies and rules and provisions relating to renewable electricity generation.

	Option 1: **Status quo/ No change**	**Option 2:** **Retain and improve existing provisions**	**Option 3:** **Comprehensive review of provisions and structure of District Plan**
Cons	• As a 'first generation' District Plan the broad energy provisions do not sufficiently address the directions contained in the NPS-REG. The existing framework does not recognise Small and Community Scale Renewable Electricity Generation and the rules result in unnecessary resource consent assessments. • Uncertainty and delays for third parties requiring consent for renewable electricity	• Has costs associated with going through the District Plan Review process (but this is required by legislation). • Retaining provisions throughout each zone in the plan is more complex and difficult to administer. To address the requirements of the NPS-REG, this approach would result in considerable duplication. • Operative provisions do not sufficiently	• A comprehensive review will result in the addition of a new chapter to the District Plan (and associated cost). • Financial costs associated with going through the District Plan Review process (but this is required by legislation).

	generation activities.	address the broad range of energy generation and utility uses and therefore such a review would not go far enough to establish the appropriate policy content. • Operative provisions do not provide clarify over the desired outcomes for energy generation; or specific support for Small Scale Renewable Electricity Generation.	
Pros	• Retains the established approach which parties are familiar with. • Low cost for Council.	• Retains but improves the approach parties are familiar with.	• A comprehensive review provides for a targeted response to the directions contained in the NPS-REG. NPS-REG requires Councils to adopt a positive and proactive policy response to renewable electricity generation activities. • Greater clarity regarding the desired outcomes for energy generation within the District. • Greater scope to encourage Small Scale Renewable Electricity Generation; energy conservation, and energy efficient design. • Greater scope to provide policies which protect the operational requirements of energy infrastructure and utilities, recognising their strategic importance to the District.
Summary	Based on the above assessment, **Option 3** is considered the most appropriate option for achieving the Energy objectives of the proposed plan. A comprehensive review is required to address the deficiencies of the operative District Plan, and to provide greater scope to encourage Small Scale Renewable Electricity Generation; energy conservation, and energy efficient design. A comprehensive review is able to best address the requirements of NPS-REG and NSPET.		

Proposed Objective 30.2.4 - Site layout and building design takes into consideration energy efficiency and conservation.

Option 1: Retain the provisions of the Operative District Plan.

Option 2: Retain and improve the operative provisions within each zone.

Option 3: Comprehensive review of the objectives, policies and rules and provisions relating to Energy and Utilities.

	Option 1: **Status quo/ No change**	**Option 2:** **Retain and Improve Existing Provisions**	**Option 3:** **Comprehensive Review of Provisions and Structure of District Plan**
Cons	• Does not provide the opportunity to update the Energy provisions. • Energy and energy efficiency are currently considered under the District Wide Issues in section 4.5 of the District Plan which does not adequately recognise or provide for the requirements of the NPS-REG.	• Has costs associated with going through the District Plan Review process (but this is required by legislation). • Would result in a change from the status quo – Plan users would need to become familiar with new provisions.	• Has costs associated with going through the District Plan Review process (but this is required by legislation). • Would result in a change from the status quo – Plan users would need to become familiar with new provisions.
Pros	• Maintains the established approach which parties are familiar with. • Low cost for Council. • Some provisions of the District Plan are working well.	• Some provisions of the District Plan are working well, but could be improved with further minor amendments.	• Prevents duplication of issues and improves administration of the plan. • Addresses the requirements of NPS-REG in a comprehensive way and provides for a focused approach to energy efficiency and conservation. • Aligns with provisions of the other chapters of the proposed District Plan for the encouragement of energy efficient building design, including certification under the Homestar and Green Star tools.
Summary	Based on the above assessment, **Option 3** is considered the most appropriate option for achieving the energy efficiency objective of the proposed plan.		

10.2 Utilities

Proposed Objective 30.2.5 - Co-ordinate the provision of utilities as necessary to support the growth and development of the District.

Proposed Objective 30.2.6 - The establishment, efficient use and maintenance of utilities necessary for the well-being of the community.

Proposed Objective 30.2.7 - Avoid, remedy or mitigate the adverse effects of utilities on surrounding environments, particularly those in or on land of high landscape value, and within special character areas.

Option 1: Retain the provisions of the Operative District Plan.

Option 2: Retain and improve the operative provisions within each zone.

Option 3: Comprehensive review of structure of District Plan and amend and improve provisions to align with updated legislation and a need to simplify the Plan.

	Option 1: **Status quo/ No change**	**Option 2:** **Retain and Improve Existing Provisions**	**Option 3:** **Comprehensive Review of Structure of District Plan and Amend and Improve Provisions**
Cons	• Would retain the current provisions (objectives, policies and rules) as they stand. This will allow for the familiarity of users to remain but would not address the deficiencies identified through monitoring and would not address current anomalies in the District Plan.	• Has costs associated with going through the District Plan Review process (but this is required by legislation). • Would result in a change from the status quo – Plan users would need to become familiar with new provisions. • This would address minor issues within the provisions but does not significantly improve the clarity and continuity of the chapter. As such it fails to simplify and streamline.	• Has costs associated with going through the District Plan Review process (but this is required by legislation). • Would result in a change from the status quo – Plan users would need to become familiar with new provisions.

Pros	• Maintains the established approach which parties are familiar with. • Low cost for Council. • Some provisions of the operative District Plan are working well.	• As identified in the Section 17: Utilities Monitoring Report 2011 some provisions of the District Plan are working well, but could be improved with further minor amendments. • Retains established approach but introduces amendments where necessary to improve clarity and assist implementation.	• Requires the provision to be examined in light of the current needs of the District, with updated legislation and a need to simplify the District Plan as part of a wider staged Review. The resultant provisions would not be any less effective than Option 2 but readability and relevancy would be greatly improved. • This option allows clearer links between objectives, policies and rules, and alignment with the Strategic Direction chapter.
Summary	Based on the above assessment, **Option 3** is considered the most appropriate option for achieving the Utilities objectives of the proposed plan.		

11. Scale and Significance Evaluation – Section 32(1)(c)

The level of detailed analysis undertaken for the evaluation of the proposed objectives and provisions has been determined by an assessment of the scale and significance of the implementation of the proposed provisions relating to Energy and Utilities. In making this assessment, regard has been had to the following, namely whether the objectives and provisions:

- Result in a significant variance from the existing baseline (Section 32(3)).
- Have effects on matters of national importance.
- Adversely affect those with specific interests, e.g., Tangata Whenua.
- Involve effects that have been considered implicitly or explicitly by higher order documents.
- Impose increased costs or restrictions on individuals, communities or businesses.

The level of detail of analysis in this report is moderate. A number of elements of the Energy and Utilities chapter build upon existing approaches in the Operative District Plan; and seek to reflect the requirements of higher level national policy and standards. In addition, the proposed provisions seek to rectify identified issues with the operative provisions; as identified through monitoring undertaken in 2011.

To inform this analysis, the following documents have been given particular consideration:

- NPS-REG: The National Policy Statement for Renewable Electricity Generation 2011
- NSPET: The National Policy Statement for Electricity Transmission 2008
- The National Environmental Standards for Electricity Transmission Activities;
- The National Environmental Standards for Telecommunication Facilities Regulations 2008;
- District Plan Review Section 32 Analysis Section 17 – Utilities, QLDC December 2012 (**Attachment 1)**
- Monitoring Report: Section 17: Utilities, QLDC, 28 October 2011 (**Attachment 2**)

12. Evaluation of the proposed provisions Section 32 (1)(b)(ii)

Under section 32 (2)(a) an assessment under section 32(1)(b)(ii) must identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for —

(i) economic growth that are anticipated to be provided or reduced; and
(ii) employment that are anticipated to be provided or reduced (section 32(2)(a)).

In relation to Chapter 30, the implementation of the proposed provisions may result in opportunities for economic growth and employment opportunities due to the enabling nature of the provisions relating to renewable electricity generation. In addition, the costs associated with implementation of the NPSET may result in costs due to restrictions on the use of land.

The necessary assessment of the proposed policies, rules and other methods under sections 32(1)(b)(ii) and (2)(a), is provided below. The policies, rules and other methods that are specific to Energy and Utilities have been assessed for their appropriateness in achieving the proposed objectives and the overarching Strategic Directions chapter of the proposed plan.

Many of the proposed policies and rules relating to Energy outlined in this section are new to the District Plan. Many of the Utilities policies and rules do not significantly depart from those of the Operative District Plan with the exception were amendments are required to comply with National Environmental Standards and National Policy Statements.

12.1 Energy

Proposed Objective 30.2.1 - The benefits of the District's renewable and non-renewable energy resources and the electricity generation facilities that utilise such resources are recognised as locally, regionally and nationally important in the sustainable management of the District's resources.

Proposed Objective 30.2.2 - Recognise that the use and development of renewable energy resources have the following benefits:

- Maintains or enhances electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions;
- Maintains or enhances the security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation;
- Assists in meeting international climate change obligations; and
- Reduces reliance on imported fuels for the purpose of generating electricity.

Proposed Objective 30.2.3 - Energy resources are developed and electricity is generated, in a manner that minimises adverse effects on the environment.

Summary of proposed provisions that give effect to these objectives:

- Enabling provisions which promote the use of small and community scale distributed electricity generation and solar water heating (with a rated capacity of less than 3.5kW) as Permitted activities subject to compliance with performance standards
- Introduce performance standards to address potential effects associated with various forms of renewable electricity generation.
- Promotion of solar installations on buildings
- Discretionary activity status for renewable electricity generation activities in sensitive areas.
- New set of rules which take precedence over rules in each zone.
- Identifies those provisions in the District Plan which will not over-ride the Energy and Utilities Chapter.
- To provide for associated buildings to be permitted in the underlying zone up to $10m^2$ in area.
- Non-complying status for power generation from non-renewable sources – exemptions are provided for standby generators and Stand Alone Power systems.

Proposed provisions	***Environmental, Economic, Social and Cultural Costs***	***Environmental, Economic, Social and Cultural Benefits***	***Effectiveness, Efficiency & Appropriateness***
Energy Policies: Recognising the Benefits *Policy 30.2.1.1 and 30.2.1.2* *Policy 30.2.2.1* ***Energy Rules:*** *Rule 30.4.2* *Rule 30.4.3*	Costs to Council to develop plan provisions, implement plan updates and administer plan and approvals processes.	Can help to enable economic growth through energy development in appropriate locations where it can be developed without resulting in adverse effects on the environment. The policies recognise the benefits of renewable energy and the importance of developing renewable energy sources to meet the NPS-REG targets for renewable	These policies are the most appropriate to achieve the objectives as they seek a balance between the benefits of developing energy resources and electricity generation and the adverse effects and constraints associated with their development. The plan seeks to enable these activities subject to compliance with site standards to mitigate their potential adverse effects.

		electricity generation. Rule 30.4.2 will enable small generation to occur without the need for resource consent and associated costs. By reducing regulation around the installation process it is aimed to remove impediments and increase local uptake of renewable technologies. If a consent process is triggered the extent of assessment is limited – this should ensure that the process is not unduly onerous. Permitted small scale generation systems are limited to a domestic scale of 3.5kW, and exclude wind electricity generation (Wind electricity generation is captured as a Discretionary activity by Rule 30.4.3). Social, cultural and environmental benefits resulting from reducing the effects on the environment of non-renewable sources and better providing for the health and well-being of the environment and community. Reduces community reliance on non-renewable sources of energy and helps to realise the associated social and environmental benefits.	Use of site standards is considered the most efficient and effective mechanism. The policies and rules are effective in terms of providing consistency with the NPS-REG. The policies and rules are considered to be the most appropriate way to achieve the objective.
Potential Effects Policy 30.2.3.2 (Wind generation) *Policy 30.2.3.3 (biomass generation* *Policy 30.2.3.4 (Renewable Generation)* *Policy 30.2.3.5* *Policy 30.2.3.6 (offsets)*	Costs to Council to develop plan provisions, implement plan updates and administer plan and approvals processes.	Greater likelihood of avoiding or mitigating environmental effects from small scale generation activities. Greater security of supply through local and developed generation activities. Improved transmission efficiency and reduced costs by reducing the distance between generation and users.	The combination of energy policies and rules will result in an efficient and effective regulatory and management framework. This framework will provide for the development of energy resources whilst minimising adverse environmental effects and promote renewable electricity generation. The policies are efficient and effective in

		Promotes greater community energy independence and resilience to costs and interrupted supply from events such as natural disasters. This has clear benefits to community social and economic wellbeing.	that they recognise that small and community scale renewable electricity generation can be mitigated and carried out with minimal adverse effects on the environment. Larger scale generation requires assessment to ensure significant adverse effects on landscape values and areas of significant indigenous flora and fauna are avoided. This is considered appropriate. These policies are considered the most appropriate way to achieve the objectives.
Non-Renewable Sources *Policy 30.2.3.7* *Rule 30.4.6 and 30.4.7*	The environmental costs of generating electricity from non-renewable sources are very high and for this reason the plan seeks to discourage this type of generation through the adoption of non-complying activity status.	These policies provide a framework for consideration of non-renewable energy resource development within the District. The policies enable the Council to consider how non-renewable electricity generation might be provided in areas with minimal effects. Provides for standby power generators as a means of providing essential public, civic and health and community services. The policy framework provide for non-renewable stand-by generators. These provide back-up for essential services and form a necessary part of SAPs in remote locations. The benefits of standby generators outweigh the environmental costs of use of non-renewable fuel.	These provisions are considered to be neutral in terms of efficiency. These provisions are effective in terms of providing a District wide framework for non-renewable electricity generation. A non-complying activity status is an effective way of ensuring that new proposals for non-renewable electricity generation are rigorously assessed to ensure that potential adverse effects are minimised. These provisions are considered to be the most appropriate way to achieve the objectives.
Proposed Rule 30.4.3 Sensitive Environments	This rule may result in additional compliance costs arising. However, any compliance costs are considered acceptable when balanced with the potential for adverse effects from small and	These sensitive environments are identified in the plan as having special values and qualities. The benefits arising from this rule will be to ensure that small and community scale distributed electricity generation do	The proposed rule will result in the efficient management of small and community scale distributed electricity generation activities in sensitive environments.

	community scale distributed electricity generation in sensitive areas.	not result in adverse effects on the sensitive environments. The discretionary activity rule provides for a case-by-case assessment ensuring that adverse effects can be avoided.	The environments are sensitive to change and a discretionary assessment is considered the most effective way of avoiding potential adverse effects without compromising the value of the natural and physical resource at stake. The rule is considered the most appropriate way to achieve the objectives.
Rule 30.4.5 (Renewable Electricity Generation)	Resource consent costs and uncertainty of obtaining approval may be a deterrent to prospective renewable electricity generation.	A case-by-case assessment will ensure that amenity and highly valued landscape values are not adversely impacted.	This rule triggers a discretionary assessment for renewable electricity generation, other than small and community scale. “Medium to large scale" renewable electricity generation activities have the potential to generate a wide range of adverse effects. Within the diverse range of environments within the District a case-by-case assessment of these effects is considered the most efficient and effective method. The rule is considered the most appropriate way to achieve the objectives.
Proposed Rule 30.6.1 Non-notification of applications for: *Stand-Alone Power Systems (SAP’s).* *Small and Community Scale Distributed Electricity Generation* *Controlled activities* *Discretionary activities for Flood Protection Works*	Neighbours may still consider themselves affected by even small SAP’ or Utilities.	SAP’s provide an alternative to distributed power and where practicable are the preferred option to over-head line's running into remote areas with associated visual and landscape effects. By specifying non-notification for SAP’s and controlled activities it is aimed to reduce the complexity of the resource consent process to non-notified. This creates economic efficiencies through the avoidance of consent delays. All activities which cannot achieve the	This rule is considered effective as SAP’s by definition relate to remote sites that do not have connection to the local distribution network. Installations on these remote sites are unlikely to impact on neighbours. It is considered efficient to limit the resource consent process to non-notified. This provision is considered effective as it provides certainty around notification, however does not preclude the decision makers consideration of effects on other parties. The rule is efficient in that it removes

		permitted activity requirements default to a fully discretionary activity, therefore decision makers have the ability to decline consent should the effects be considered too great.	potential delays in the consenting process. The rule is considered the most appropriate way to achieve the objectives.
Energy Standards *Rule 30.5.1* *Solar Electricity Generation and Solar Water Heating*	In zones where external appearance of buildings is assessed this rule may result in different materials being used. The benefits of enabling renewable electricity generation outweigh these potential adverse visual effects. The imposition of bulk and location standards in the zone in which Solar is located may result in resource consent and associated costs.	By treating all the components of Solar equally it simplifies the provisions and makes them easier to understand. This rule enables roof top spaces to be utilised for solar installations. A minor increase to the maximum height limit is enabled (which varys for sloping and flat roofs) ensuring that no compromise on height is necessary to encourage installation of solar panels. A threshold of 150m^2 for free standing structures enables sufficient area for a typical dwelling to be serviced, while only triggering resource consent assessment where larger scale has potential for visual and landscape effects.	The rule is considered to be efficient and effective as it seeks to provide for all of the components of solar energy activities in a single standard. The rule is considered the most appropriate way to achieve the objectives.
Energy Standard *Rule 30.5.2* *Mini and Micro Hydro Electricity Generation*	If consent is required by both the District Council and Regional Council it can add considerable time and cost to installing these types of installations.	Mini and micro hydro installations have limited land-use effects and by reducing regulation around the installation process it is aimed to remove impediments and increase local uptake of renewable technologies.	The proposed standard is considered to be efficient in that it seeks to provide for mini and macro hydro electricity generation and gives effect to the Otago Regional Water Plan in relation to this issue. In addition the standard is considered to be effective in terms of the requirements of the National Policy Statement for Freshwater Management 2011 which specifically acknowledges *Additional National Values* which include economic/commercial development including hydro-electric power generation.

			The standard is considered the most appropriate way to achieve the objectives.
Energy Standard *Rule 30.5.3* *Wind Electricity Generation*	Imposing a maximum height in accordance with buildings in the zone in which the installation is located will in many cases not provide sufficient flexibility for generation purposes and is likely to trigger resource consent and associated costs. Resource consent process and associated costs for small installations and monitoring masts. Neighbours may perceive nuisance effects from any wind installation.	In residential zones the potential for nuisance effects on neighbours is minimised though the exercise of discretion over design, visual effects and installation standards.	This rule is considered to be neutral in terms of efficiency. This rule is effective in terms of providing for wind electricity generation in the various zones without adversely impacting on amenity values. The standard is considered the most appropriate way to achieve the objectives.
Energy Standard *Rule 30.5.4* *Biomass Electricity Generation*	The costs of transporting fuel can be high. If consent is required by both the District Council and Regional Council it can add considerable time and cost to installing these types of installations.	Waste products can be put to good use through these technologies, which continue to be developed and improved	The proposed rule is considered efficient and effective as it targets the potential effects of biomass electricity generation and places control over the storage of materials and traffic effects. The standard is considered the most appropriate way to achieve the objectives.
Energy Standard *Rule 30.5.5* *Associated buildings*	Where an existing building on site is not able to be utilised, $10m^2$ may not provide sufficient area for the development of an accessory building and resource consent with associated costs may be triggered.	A threshold of 10m2 / 2.5m in height provides flexibility for a small associated building and removes a potential impediment to installations in locations where buildings require resource consent.	This rule is considered to be neutral in terms of efficiency. This rule is effective in terms of providing for small scale buildings associated with renewable electricity generation without adversely impacting on amenity values. The standard is considered the most appropriate way to achieve the objectives.

Proposed New Definitions: • *Biomass Electricity Generation;* • *Mini & Micro Hydro Electricity Generation;* • *Photovoltaics;* • *Renewable Energy;* • *Renewable Electricity Generation;* • *Renewable Electricity Generation Activities;* • *Small and Community Scale Distributed Electricity Generation;* • *Solar Electricity Generation;* • *Solar Water Heating* • *Stand-Alone Power Systems (SAPs);* • *Wind electricity Generation.*	With renewable electricity generation technologies changing and evolving overtime the definitions have the potential to become out-dated, with associated administrated costs.	The new definitions are considered necessary to ensure consistent interpretation of the proposed objectives, policies and rules.	The definitions of "*Renewable Electricity Generation*", "*Renewable Electricity Generation Activities*" and "*Small and Community Scale Distributed Electricity Generation*" have been based on the NPS-REG. The new definitions are considered to be efficient and effective in terms of the administration of the District Plan. The definitions are considered to be the most appropriate way to achieve the objectives.
Proposed 30.3.3.3 - Clarification *This rule specifies that the rules take precedence over any other provisions that would capture these activities. Unless specifically stated to the contrary.*	No costs have been identified associated with this rule.	This enables specific rules for renewable electricity generation activities to be included in a stand-alone chapter, making it easier for people to access and simpler to administer. It also reduces the inefficiency of duplicating provisions for renewable electricity generation across each zone.	This rule provides the mechanism for the chapter to be stand-alone which has been demonstrated to be efficient and effective in the first generation plan. This rule is considered to be the most appropriate way to achieve the objectives.

Proposed Objective 30.2.4 - Site layout and building design takes into consideration energy efficiency and conservation.

Summary of proposed provisions that give effect to these objectives:

- Introducing a more focused objective relating to energy efficiency derived from the existing Energy objectives in the District Wide Provisions of the District Plan.
- Enabling provisions which promote energy efficiency in design in zone provisions.
- Encouragement for certification against recognised sustainable building tools, including Homestar™ and Green Star.

Proposed provisions	***Environmental, Economic, Social and Cultural Costs***	***Environmental, Economic, Social and Cultural Benefits***	***Effectiveness, Efficiency & Appropriateness***
Energy Policies: *Policy 30.2.4.1* *Policy 30.2.4.2* *Policy 30.2.4.4* *Policy 30.2.4.5* *Policy 30.2.4.6*	Cost of maintaining a regulatory regime.	Promotion of energy efficiency will result in good urban design, in particular connectivity, which is a recurrent theme within the Strategic Direction Chapter. A more efficient liveable and attractive residential environment can improve the health and wellbeing of residents and the wider community. Good urban design and site development can significantly reduce costs related to energy resources. The Council's main area of influence with respect to energy conservation relates to the location and design of land-use activities, subdivisions and buildings. The location of land-use activities relative to one another can be a significant determinant in the length and number of vehicle trips undertaken. Therefore the implementation methods for these policies will be specific provisions within the various zones throughout the District seeking to control site sizes for residential units, shading of adjoining properties and orientation of outdoor living areas.	The proposed provisions enable energy efficiency principles to be promoted resulting in a high quality sustainable urban environment to be achieved. This is considered to be an effective and efficient method of encouraging energy efficiency in a manner consistent with the outcomes sought by the relevant objectives. The provisions are considered the most appropriate way to achieve the objectives.

		Forests are important “sinks” which trap and breakdown greenhouse gases. Districts with a large rural hinterland are the most likely location for future carbon “sinks”. Woodlots for firewood are temporary “sinks” but are a renewable non-fossil source of domestic heat. Any adverse consequence in terms of air pollution is overcome by high temperature insulated fireboxes, which combust the greater part of the wood and are virtually smokeless.	

12.2 Utilities

Utilities Objectives

Proposed Objective 30.2.5 - Co-ordinate the provision of utilities as necessary to support the growth and development of the District.

Proposed Objective 30.2.6 - The establishment, efficient use and maintenance of utilities necessary for the well-being of the community.

Proposed Objective 30.2.7 - Avoid, remedy or mitigate the adverse effects of utilities on surrounding environments, particularly those in or on land of high landscape value, and within special character areas.

(Strategic Directions Chapter – Proposed Objectives): – Objective 3.2.1.3; Objective 3.2.1.5; Objective 3.2.2.1**.**

Summary of proposed provisions that give effect to these objectives:

- New policies to provide for the requirements of the NSPET.
- Development standards which provide clarity to permitted activities.
- Development standards which reflect the requirements of the NSPET.
- Lines and supporting structures to convey electricity up to 110kV (except minor upgrading) remains a controlled activity.
- Flood protection works remain a discretionary activity.
- Waste management facilities remain a discretionary activity.
- Lattice towers or overhead lines and support structures and any mast for any purpose (except street lighting) and antenna greater than 1.2m in diameter (except omin-directional or whip antenna not exceeding 4 metres in length) remain non-complying activities within the Remarkables Park Zone.
- Setbacks from internal boundaries and road boundaries to be set back in accordance with the setback requirements for accessory buildings in the zone in which it is located
- Standard relating to Height to remain.
- Non notification of controlled activity applications.
- Policies and rules which discourage sensitive uses from electricity transmission National Grid Yard to minimise potential reverse sensitivity effects

Proposed provisions	***Environmental, Economic, Social and Cultural Costs***	***Environmental, Economic, Social and Cultural Benefits***	***Effectiveness, Efficiency & Appropriateness***
Utilities Policies – Co-ordinated Development *Policy 30.2.5.1* *Policy 30.2.5.2* *Policy 30.2.5.3*	Costs associated with complying with Plan requirements.	These provisions enable the various objectives to be given effect to by providing for the co-ordinated development of local, regional and nationally significant infrastructure.	These policies are effective and efficient as they give effect to the various objectives by encouraging a co-ordinated approach between the development of the District and the provision of utilities and services. This is necessary to ensure areas are capable of being serviced and that the timing of

Policy 30.2.5.4 *Policy 30.2.5.5*			services facilitates development of an area. These provisions are considered the most appropriate way to achieve the objectives.
Establishment of Utilities *Policy 30.2.6.1* *Policy 30.2.6.2* *Policy 30.2.6.3* *Policy 30.2.7.2* *Policy 30.2.7.3* *Policy 30.2.7.4*	No significant costs identified.	The policies provide an enabling framework for the establishment, efficient use and maintenance of utilities. The District Plan establishes a framework within which utilities can be planned with greater certainty.	The utilities policies provide an efficient and effective regulatory and management framework for local, regional and nationally significant infrastructure. This framework will provide for the development of utilities whilst minimising adverse environmental effects. These policies are considered the most appropriate way to achieve the objectives.
Provisions relating to National Grid *Proposed Policy 30.2.6.4* *Utilities Standards Proposed Rule 30.4.11, 30.4.12* *Proposed Rule National Grid Corridors Rule 30.4.8, 30.4.10, 30.5.10*	Potential for reduced development potential of sites that include the Transmission Corridor. The objectives and policies outlined in the NPSET are specific and are not fully given effect to by the existing objectives and policies in the Operative District Plan, it is important to recognise that the NPS only applies to one transmission line that runs through the District. This line is managed by Transpower, who provided feedback during the Council's monitoring of the existing Utilities provisions and provided preliminary advice in terms of implementation of the NPSET.	Transpower has refined its approach to electricity transmission corridor management, by introducing a "National Grid Yard" calculated based on risks from development for the different size transmission lines, and allowing appropriate land use activities and managing inappropriate land use activities within this yard. This refined approach has been adopted in the proposed policy and proposed rule 30.4.8, 30.4.10 and 30.5.10 which permits certain non-habitable buildings and structures within the national grid yard; but restricts the establishment of sensitive uses within this area. Clear provisions relating to the construction, upgrading and maintenance of the National Grid electricity network in a safe manner in accordance with the NPSET.	The proposed policy is considered to be efficient in that it seeks to provide for the requirements of the NPSET. The policy directs the management of effects generated by the national transmission network, and the management of effects on the network generated by development in close proximity to it. The new policy is aligned with objective 30.2.6. This is considered appropriate as it recognises the importance of the transmission corridor, and the importance of avoiding the location of sensitive activities within that corridor. The proposed additions to policy will effectively align the Plan with the NPSET in particular various policy aspects of the NPSET including policies 2, 3, 7, 8, and 10. The proposed rules will ensure Electricity Transmission infrastructure can be

			developed efficiently in the District. The rule proposed will effectively avoid any conflict and will ensure the Plan is aligned with the requirements of the NPS provisions. A new rule referring to the NPSET is considered appropriate as it ensures the Plan gives effect to the NPS and users of the Plan are made aware of the NPSET requirements. This provision is considered effective as it provides certainty around development within the vicinity of Transmission Corridors. The proposed policy and rules have been assessed as the most appropriate way to achieve the objectives.
Proposed Utilities 30.2.6.5	Subdivision, use and development can result in adverse effects, including reverse sensitivity effects, on existing or proposed utilities. Potential for conflict with adjoining landowners over perceived reverse sensitivity issues. Potentially some restrictions on how private land can be used close to infrastructure	Utilities are protected from incompatible subdivision, use and development. The District Plan establishes a framework within which utilities can be planned with greater certainty. Fewer complaints from adjoining landowners affected by the development, operation and maintenance of utilities. Seen to be complying with relevant National Environmental Standards and National Policy Statements.	The proposed policy gives effect to objective 30.2.6 through clear recognition that amenity values will need to be balanced with the functional requirements of utilities. The policy will provide for the efficient development, use and maintenance of utilities. The efficiency and effectiveness of the proposed policy will assist in achieving the proposed objective. The proposed policy has been assessed as the most appropriate way to achieve the objectives.

Proposed Utilities Policy 30.2.7.1	Utility operators maybe constrained by having to avoid locating apparatus on sensitive sites. Does not recognise that the operational and technical requirements of utilities which can influence where it can be located.	Appropriate siting at the outset will prevent future upgrades being frustrated by reverse sensitivity effects. Investment in utilities will be optimised through siting decisions that provide for maximum use of the infrastructure. This policy will also have beneficial environmental and social outcomes, through the management of adverse amenity effects. This coordination of large numbers of utilities in key sites has assisted in reducing the visual impacts of utilities in the Queenstown District. However it is noted that some of the key utility sites are nearing capacity in terms of the amount of equipment that can operate from them, such as the telecommunications site at the top of Deer Park Heights. There is therefore a need for a continued co-ordinated approach to ensure good resource management outcomes continue to be achieved in the future.	This proposed policy is considered to be efficient in terms of District Plan administration through providing clear guidance of the expected environmental outcomes for Utilities. The proposed policy is considered to be effective in providing clear guidance to utility operators in terms of locational considerations and focusing on reducing adverse effects where practicable. The proposed policy has been assessed as the most appropriate way to achieve the objectives.
Proposed Utilities Rule 30.4.13 ***Controlled Activity Telecommunication and Radiocommunication Facilities, Navigation, Meteorological Facilities***	No costs have been identified for these rules.	More clarity for plan users. Antennae of all shapes covered by the rules.	This rule is considered to be neutral in terms of efficiency. The proposed rule is effective in providing for all shapes of antennae associated with telecommunication and radiocommunication facilities. The proposed rule has been assessed as the most appropriate way to achieve the objectives.

Proposed Utilities Rule 30.4.15 ***Controlled Activity Buildings***	No costs have been identified for these rules.	Increased clarity as to when resource consents are required.	It is proposed to carry over the District Plan rule which provides for buildings associated with Utilities as a controlled activity. The rule has been refocused to make it less confusing and therefore more effective in achieving the objectives and policies relating to Utilities. It is considered that efficiency will be increased as a result of greater clarity. The proposed rule has been assessed as the most appropriate way to achieve the objectives.
Proposed Utilities Rule 30.4.12 ***Proposed Utilities Rule 30.4.14*** *Telecommunication and Radiocommunication Facilitates, Navigation, Meteorological Facilities* ***Proposed Utilities Rule 30.4.16 Buildings*** ***Proposed Utilities Standard 30.5.7*** ***Buildings in Outstanding Natural Landscapes and Outstanding Natural Features***	Cost to utility operators of having to obtain resource consents. The proposed rules require a resource consent to locate any line and supporting structures (except minor upgrading), mast, antenna or buildings (except buildings less than $10m^2$ in area and less than 3m in height) within an ONL or ONF. The activity status is a discretionary activity, whereby the Council can consider a proposal in relation to the effects of the activity, both positive and adverse, at a given site on a case by case basis.	Greater protection afforded to ONL and ONF landscapes in terms of potential adverse effects from utility activities.	The discretionary activity status is an effective method to manage the adverse effects of Utilities activities on a case by case basis, while retaining the ability to consider positive effects. This proposed rule will assist in achieving proposed objective 30.2.7 and the other objectives relevant to development within Outstanding Natural Landscapes and Outstanding Natural Features which seek to protect the distinctive landscapes from inappropriate subdivision, development and use. This is considered to be an efficient method of managing and providing for utilities within the ONL and ONF landscapes. Retaining full discretion in considering utilities buildings in the distinctive landscapes on a case by case is appropriate.

			The proposed rules and utilities standard have been assessed as the most appropriate way to achieve the objectives.
Proposed Utilities Rule 30.4.14 ***Discretionary Activity Telecommunication and Radiocommunication Facilitates, Navigation, Meteorological Facilities***	Potential cost to Utility operators from having to obtain resource consents to locate apparatus in sensitive areas. More restrictive provisions within sensitive areas (historic precincts, open space zones and Town Centres). The proposed changes reflect the importance of managing adverse effects from utilities within these areas.	Greater protection of the amenity values of sensitive areas due to controls on height and appearance. The height standards are more permissive to provide for masts etc within the business and industrial zones.	The rule is considered effective and efficient in managing and providing for telecommunication and radiocommunication; navigation and meteorological facilities in defined areas of ONL and ONF and other sensitive areas. Retaining full discretion in considering utilities buildings in the distinctive landscapes on a case by case is appropriate. The proposed rule has been assessed as the most appropriate way to achieve the objectives.
Proposed Utilities Standard Rule 30.5.9 Compliance with New Zealand Standards	Cost to applicants associated with site management and potential for resource consent requirements.	Adverse effects on surrounding waterways and possibility of risk of failure of earthworks and facilities may be reduced by ensuring that appropriate New Zealand Standards are compiled with.	This rule is considered to be neutral in terms of efficiency. This rule is effective in that it requires adherence to New Zealand Standards to avoid, remedy or mitigate the adverse effect of utilities (including their construction) on the surrounding environments. New Zealand Standards 4404:2011 is the accepted best practice standard for engineering works including assessment and design to ensure structures are resilient to hazards. It is appropriate to require that utility activities comply with this standard. If the standard is not met then a discretionary activity consent would be required. The proposed rule has been assessed as

			the most appropriate way to achieve the objectives.
Proposed District Plan Map Amendments	Potential for reduced development opportunities of sites that include the Transmission Corridor.	Clear provisions relating to the construction, upgrading and maintenance of the National Grid electricity network in a safe manner in accordance with the NPSET.	It is proposed to add a "Transmission Corridor" to the District Plan Maps along the length of the current Cromwell to Frankton 110kV line where it traverses the District. This is to identify the corridor and allow rules to be developed to control what can occur in these areas in accordance with the NPSET provisions. Consultation with Transpower New Zealand and a review of their future plans as outlined in their Annual Plan 2012 has revealed that no new 110kV (or greater) line is proposed over the Plan life therefore no other corridors are required to be established. The corridor shall be identified in accordance with Figure 2 of the Transmission Corridor Activity Management of the *National Policy Statement on Electricity Transmission: Further Guidance on Risks of Development near High Voltage Transmission Lines.* This provision is considered effective as it provides certainty around development within the vicinity of Transmission Corridors. The rule is efficient in that it provides certainty in relation to the consenting process. This provision is considered the most appropriate way to achieve the objectives.

Proposed Utilities Rule 30.4.8 *Discretionary activity default for Utilities Buildings, Structures and Earthworks not otherwise addressed* ***Proposed Utilities Rule 30.4.11 Lines and Supporting*** ***Proposed Utilities Rule 30.4.12 Lines and Supporting Structures*** ***Proposed Rule 30.4.17*** ***Flood Protection Works*** ***Proposed Rule 30.4.19 Waste management facilities*** ***Proposed Rule 30.4.21***	Costs associated with complying with Plan requirements.	These provisions enable the various objectives to be given effect to by maintaining the levels of amenity expected within the various zones and putting appropriate controls around activities that could cause adverse environmental effects, or need specific assessment via resource consent. These provisions further provide for local, regional and nationally significant infrastructure. Address specific issues, associated with utilities activities and managing the effects of such activities throughout the various zones in the District.	These provisions are effective and efficient as they give effect to the various objectives by placing appropriate controls on utilities activities, whilst continuing to enable the establishment, operation/use, maintenance and upgrade of utilities activities. These provisions are considered the most appropriate way to achieve the objectives.
Definitions *Utility"*	Using the utility provisions for private utility development will not be possible under the new definition. Resource consents will be required for private infrastructure under normal provisions for the zone where they are proposed.	The utility provisions will be used for their intended purpose i.e. to provide for the efficient provision of essential utilities that provide a wider community benefit.	The proposed definition is considered to be efficient and effective in terms of the administration of the District Plan. Further, definitions are an effective and efficient way of categorising activities for the purpose of administration of rules. The definition is considered to be the most appropriate way to achieve the objectives.

13. The risk of not acting

Section 32(2)(c) of the Act requires, in the evaluation of the proposed policies and methods, the consideration of the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the policies, rules or other methods.

For the District Plan review of the Energy and Utilities provisions, it is considered that there is certain and sufficient information on the effects of Energy and Utilities activities, and how to manage potential effects to achieve the purpose of the Act. An assessment of the risk of acting or not acting is not required under section 32(2)(c).

14. Summary

Having consideration for the proposed objectives, it is considered to be the most appropriate way of achieving the purpose of the Act in terms of providing for and managing potential effects of Energy and Utilities (s32(1)(a). The proposed provisions contained in the proposed Energy and Utilities chapter are considered to be the most appropriate way to achieve the proposed objectives, and the relevant objectives of the District Plan that are part of the proposed Strategic Directions Chapter (s32(1)(b).

Attachments

- Attachment 1 - District Plan Review Section 32 Analysis Section 17 – Utilities, QLDC December 2012 - link
- Attachment 2 - Monitoring Report: Section 17: Utilities, QLDC, 28 October 2011 - link

Appendix 4. S32AA Evaluation

Appendix 4

Section 32AA Assessment

Note: The relevant provisions from the revised chapter are set out below, showing additions to the notified text in underlining and deletions in ~~strike-through~~ text (ie as per the revised chapter). The section 32AA assessment then follows in a separate table underneath each of the provisions.

Updated Policy 30.2.3.4

Recommended updated Policy 30.2.3.4
30.2.3.4 Assess the effects of Renewable Electricity Generation proposals, other than Small and Community Scale, ~~on a case-by-case basis,~~ with regards to: • landscape values and areas ~~with~~ of significant indigenous flora or significant habitat for indigenous fauna • recreation and cultural values, including relationships with tangata whenua • amenity values • The extent of public benefit and outcomes of location specific cost-benefit analysis.

Costs	**Benefits**	**Effectiveness & Efficiency**
• Provides for regulation of effects on the habitat of the indigenous fauna which could result in increased consenting costs.	• Removal of unnecessary text; all resource consents are assessed, and are all done on a case by case basis. • These amendments ensure that the decision maker has regard to not just the potential effects on the indigenous fauna but the habitat of the indigenous fauna.	• This change is effective as it provides greater clarity for the decision maker as to the environmental effects to be assessed in relation to indigenous fauna.

Updated Policy 30.2.3.6

Recommended updated Policy 30.2.3.6
To compensate for adverse effects, consideration shall be given to any offset measures (including biodiversity offsets) and/or environmental compensation including those which benefit the local environment and community affected.

Costs	**Benefits**	**Effectiveness & Efficiency**
• None identified.	• The change to the policy	• This change is effective as it

	aligns with the definitions of biodiversity offsetting definitions as recommended as part of Hearing Stream 2: Rural.	provides for greater clarity of the application of the defined term of biodiversity offsetting.

Updated Objective 30.2.5

Recommended updated Objective 30.2.5
~~Co-ordinate the provision of utilities as necessary to support~~ ~~t~~ The growth and development of the District is supported by utilities that are able to operate effectively and efficiently.

Appropriateness (s32(1)(a))
The recommended changes make the objective more directive and provides clearer outcomes based statement.

Updated Policy 30.2.5.1

Recommended updated Policy 30.2.5.1
~~Essential u~~ Utilities are provided to service new development prior to buildings being occupied~~, and activities commencing.~~

Costs	**Benefits**	**Effectiveness & Efficiency**
• Potential adverse environmental effects associated with providing for all utilities and not just essential utilities.	• The recommended changes are effective because they broaden the policy to all utilities and not only 'essential.' The reference to this being undertaken prior to activities commencing is not considered to offer any added value.	• This change is effective as it provides for greater clarity of the when utilities are to be provided to buildings.

Updated Policy 30.2.5.4

Recommended updated Policy 30.2.5.4
~~Assess the priorities for servicing established urban areas, which are developed but are not reticulated.~~ Recognise the positive social, economic, cultural and environmental benefits that utilities provide, including: a. enabling enhancement of the quality of life and standard of living for people and communities b. providing for public health and safety

c. enabling the functioning of businesses d. enabling economic growth e. enabling growth and development f. protecting and enhancing the environment g. enabling the transportation of freight, goods, people h. enabling interaction and communication

Costs	Benefits	Effectiveness & Efficiency
• None identified.	• The recommended policy reflects the benefits of utilities, whilst removing a policy that doesn't offer any added value in terms of a course of action or guidance for decision making.	• This change is effective as it acknowledges the benefits of utilities to the District.

Updated Objective 30.2.6

Recommended updated Objective 30.2.6
The wellbeing of the community is supported by the establishment, ~~efficient use~~, continued operation and maintenance of utilities ~~necessary for the well-being of the community~~.

Appropriateness (s32(1)(a))
The recommended changes creates a distinction from Objective 30.2.5 and offers added value by identifying the continued operation of utilities.

Updated Policy 30.2.6.1

Recommended updated policy 30.2.6.1
30.2.6.1 Recognise the need for maintenance or upgrading of ~~a~~ utilities ~~y~~ including regionally significant infrastructure to ensure its on-going viability and efficiency.

Costs	Benefits	Effectiveness & Efficiency
• None identified.	• Recognition of regionally significant infrastructure.	• This change is effective as it provides for the operational efficiency of the utilities networks in the District including and specifying those of regional significance.

Updated Policy 30.2.6.2

Recommended updated policy 30.2.6.2
~~Consider long term options and economic costs and strategic needs when considering alternative locations, sites or methods for the establishment or alteration of a utility.~~ When considering the effects of proposed utility developments with adverse environmental effects, consideration shall be given to the consideration of alternatives, but also to how adverse effects have been managed through the route, site and method selection process while taking into account the locational, technical and operational requirements of the utility and the benefits associated with the utility.

Costs	**Benefits**	**Effectiveness & Efficiency**
• None identified.	• Introduction of consideration of potential utilities projects and the justification of the effects such as location/route and the decision of these aspects. • Improves the course of action that could be contemplated to achieve Objective 30.2.6	• This change is effective because it provides a basis for decision makers to assess the location constraints, alternatives and the benefits of utilities.

Updated Policy – 30.2.6.4 and new policy 30.2.6.6

Recommended updated Policy – 30.2.6.4
Provide for the sustainable, secure and efficient use and development of the electricity transmission network, including within the transmission line corridor, and to protect activities from the adverse effects of the electricity transmission network, including by: • Controlling the proximity of buildings, structures and vegetation to existing transmission corridors, including buffer distances for managing subdivision and land use development near the National Grid. • Discouraging sensitive activities distance from locating within or near to the electricity transmission National Grid Yard to minimise potential reverse sensitivity effects on the transmission network. • Managing subdivision within or near to electricity transmission corridors to achieve the outcomes of this policy to facilitate good amenity and urban design outcomes • Not compromising the operation or maintenance options or, to the extent practicable, the carrying out of routine and planned upgrade works.
New Recommended Policy – 30.2.6.6
Manage adverse effects, including reverse sensitivity effects that could compromise the development, operation, upgrading and maintenance on the identified electricity sub-transmission lines, through the management of activities within an identified buffer corridor.

Costs	Benefits	Effectiveness & Efficiency
• None identified.	• The change to policy 30.2.6.4 is ensuring the operational efficiency of the transmission networks in the District. • The changes provide a distinction between varying sensitivities and importance between Transmission Lines and Sub Transmission lines.	• This change is efficient as it provides for the transmission and sub-transmission lines in the District, allowing for the operational efficiency of the networks in the District taking into account potential reverse sensitivity effects.

Updated Objective 30.2.7

Recommended updated Objective 30.2.7
~~Avoid, remedy or mitigate t~~ The adverse effects of utilities on surrounding environments, particularly those in or on land of high landscape value, and within special character areas are avoided, remedied or mitigated

Appropriateness (s32(1)(a))
The recommended changes seek to make the Objectives more of an outcome based statement by transferring the verbs to the end of the phrase.

Updated Policy – 30.2.7.1

Recommended updated Policy – 30.2.7.1
Reduce adverse effects associated with utilities by: • Avoiding, remedying or mitigating their location on ~~sensitive sites including heritage and~~ identified sensitive environments ~~special character areas~~, and protecting Outstanding Natural Landscapes and Outstanding Natural Features, and skylines and ridgelines from inappropriate development. • Managing adverse effects on the amenity values of urban areas and the Rural Landscapes. • Encouraging co-location or multiple use of network utilities where this is efficient and practicable in order to avoid, remedy or mitigate adverse effects on the environment • Ensuring that redundant utilities are removed • Using landscaping and or colours and finishes to reduce visual effects • Integrating utilities with the surrounding environment; whether that is a rural environment or existing built form.

Costs	Benefits	Effectiveness & Efficiency
• None identified.	• More specificity of the identified resources to be managed. • Distinction between section 6 and section 7 RMA matters.	• The recommended changes provide more effective policy for decision makers and plan users.

References to National Planning Documents 30.3.2
• Replacing the reference of 'this chapter' with 'district plan'

Costs	Benefits	Effectiveness & Efficiency
• None identified.	• Clarity that the NESETA applies to the entire District Plan and not just the Energy and Utilities Chapter.	• The recommended changes provide more effective because they align better with the RMA.

New Advice note – 30.3.2.3

Recommended new Advice note – 30.3.2.3
Electricity (Hazards from Trees) Regulations 2003 Vegetation to be planted around electricity networks should be selected and/or managed to ensure that it will not result in that vegetation breaching the Electricity (Hazards from Trees) Regulations 2003.

Costs	Benefits	Effectiveness & Efficiency
• None.	• These changes will ensure that plan users are aware of these national level regulations.	• These changes are effective as they provide greater clarity regarding the national level regulations, the rules in which are not duplicated in this chapter.

Updated Rule – 30.4.2

Recommended Updated Rule – 30.4.2 – Permitted Activity
Small and Community-Scale Distributed Electricity Generation and Solar Water Heating with a rated capacity of less than ~~3.~~5kW (including any structures and associated buildings but excluding Wind Electricity Generation), and not located in any of the sensitive environments identified by Rule 30.4.3.

Costs	Benefits	Effectiveness & Efficiency
• Potentially allowing larger capacity could lead to increased risk in adverse effects on amenity. Note that the standards in 30.5.1 are considered robust enough to minimise this.	• This updated rule ensures that the systems that are permitted meet what is considered to be small scale as indicated in the EECA guidance note.	• This updated rule is effective as it allows for residents to install solar systems to an appropriate level as a permitted activity. • Consistent with national level guidance.

Updated Rule – 30.4.3

Recommended Updated Rule – 30.4.3 - Discretionary
Small and Community-Scale Distributed Electricity Generation and Solar Water Heating (including any structures and associated buildings) • ~~with~~has a rated capacity of more than ~~3.~~5kW AND/OR is located in any of the following sensitive environments: • Arrowtown Residential Historic Management Zone • Town Centre Special Character Area • Open Space Zones • Any open space and landscape buffer areas identified on any of the Special Zones • Significant Natural Areas • Outstanding Natural Landscapes • Outstanding Natural Features • Heritage Precincts, Features and Landscapes • Rural Zone~~s~~, Rural Residential Zone, Rural Lifestyle Zone, Gibbston Character Zone (if ~~detached from or separate to~~ outside a building platform).

Costs	Benefits	Effectiveness & Efficiency
• None identified.	• The rule requires resource consent for these activities outside a building platform, this recommended change will ensure that the effects of residential activity do not extend beyond those effects contemplated when the resource consent was granted.	• This updated rule is effective as it allows for residents to install solar systems to an appropriate level as a permitted activity within a building platform. • The recommended change ensures that these activities do not result in unintended adverse effects associated with activities outside a building platform.

Updated Rule – 30.4.4

Recommended updated rule – 30.4.4 – Restricted Discretionary
Renewable Electricity Generation Activities, limited to masts, drilling and water monitoring for the purpose of research and exploratory-scale investigations that are ~~of a~~ temporary ~~nature~~. Excludes the Hydro Generation Zone. Discretion is restricted to all of the following: • The duration of works and the research purpose • The location of investigation activities and facilities, including proximity to, and effects on, sensitive uses and environments • The height and scale of facilities and potential visual effects • Environmental effects • Where a site is subject to any natural hazard ~~and the proposal results in an increase in gross floor area:~~ an assessment by a suitably qualified person is provided that addresses the nature and degree of risk the hazard(s) pose to the resilience and operation of the facility and associated buildings ~~people and property,~~ whether the proposal will alter the risk to any site, and the extent to which such risk can be avoided or sufficiently mitigated[1]. Policies that guide the assessment of proposals on land affected by natural hazards are located in Chapter 28.

Costs	**Benefits**	**Effectiveness & Efficiency**
• None identified.	• This change is effective in that excluding the hydro generation zone from this rule allows for consistency with the operative hydro generation zone chapter. • This change allows for utilities located on sites subject to natural hazards to take into consideration the effects of this on the utility rather than the aspects that are not typically related to utilities.	• This change is effective because it maintains overarching consistency across the plan, avoids duplication of rules with the Hydro Generation Zone and provides that effects natural hazards will be regulated only where they are relevant to renewable electricity generation activities.

Updated Rule – 30.4.10

Recommended Updated Rule – 30.4.10 - Permitted
Rules for Utilities; ~~and~~ Buildings, Structures and Earthworks ~~within or near to the National Grid Corridor~~ **~~Note - The rules differentiate between four types of activities: lines and support structures; masts and antennae; utility buildings; and flood protection works & waste management facilities.~~** **30.4.10** **Buildings and structures (that are not for National Grid Sensitive Activities)~~, Structures~~ and Earthworks within National Grid Corridors and Electricity Sub-Transmission lines** (subject to compliance with Rules 30.5.9, 30.5.10 and 30.5.11)

Costs	**Benefits**	**Effectiveness & Efficiency**
• Could result in increased adverse environmental effects on account of providing for sub-transmission.	• This change provides for the electricity sub-transmission networks as well as the transmission networks.	• This new rule is effective as it provides greater clarity for the rule, including the sub-transmission networks.

Updated Rule – 30.4.11 and updated rule 30.4.12

Recommended Updated Rule – 30.4.11 - Controlled
Lines and Supporting Structures ~~A conductor line , or support structures for overhead lines,~~ New lines and associated above ground support structures, including masts, poles or ancillary equipment, but excluding lattice towers, to convey electricity (at a voltage of equal to or less than 110kV at a capacity of equal to or less than 100MVA); or overhead lines for any other purpose including telecommunications. Control is reserved to all of the following: • Location • Route • Height • Appearance, scale and visual effects • Where a site is subject to any natural hazard ~~and the proposal results in an increase in gross floor area:~~ an assessment by a suitably qualified person is provided that addresses the nature and degree of risk the hazard(s) pose to the resilience and operation of the facility and associated building s~~people and property,~~ whether the proposal will alter the risk to any

site, and the extent to which such risk can be avoided or sufficiently mitigated[1].
Recommended Updated Rule – 30.4.12 - Discretionary
Lines and Supporting Structures Any line or support structure where it involves: ~~30.4.12.1 Erecting any lattice towers for overhead lines to convey electricity in all zones.~~ 30.4.12.2 Erecting any lines, lattice towers or support structures for new overhead lines to convey electricity (at a voltage of more than 110kV with a capacity over 100MVA) in all zones. 30.4.12.3 Erecting any support structures for overhead lines to convey electricity (at a voltage of equal to or less than 110kV at a capacity of equal to or less than 100MVA); or overhead lines for any other purposes including telecommunications in any Outstanding Natural Feature or Outstanding Natural Landscape or Significant Natural Areas. ~~30.4.12.4 Utilising any existing support structures for the erection of cable television aerials and connections.~~ 30.4.12.5 Erecting any support structures for overhead lines for any purpose in the area in Frankton known as the "Shotover Business Park", except where any new poles are solely for the purpose of providing street lighting.

Costs	Benefits	Effectiveness & Efficiency
• None identified. The deleted text is catered for in other rules in the chapter and is deleted to provide for clarity.	• This change provides greater clarity for the rule.	• These updated rules are effective as they provide for the activities relating to transmission lines in a more effective and clear manner.

New Rule – 30.4.13

Recommended new Rule – 30.4.13 - Permitted
Telecommunications or radio communication, navigation or meteorological communication facilities: With a maximum height no greater than: 12m in the Queenstown Business Mixed Use zone; 15m in the High Density Residential Queenstown – Flat, Queenstown Town Centre, Wanaka Town Centre (Wanaka Height Precinct) or Airport Mixed Use zones; 10m in the Local Shopping Centre, Wanaka Business Mixed Use or Jacks Point zones; and 8m in any other zone.

Costs	Benefits	Effectiveness & Efficiency

• The notified chapter required all masts to be controlled. Providing for a permitted Activity status has potential to result in adverse visual effects. However, these potential adverse effects are considered to be limited as the heights here are generally the maximum per zone	• This new rule allows for masts as a permitted activity, greatly reducing in resource consent applications and associated costs.	• This new rule is effective as it provides the utilities companies a way to expand their networks without requiring a consent.

New Rule – 30.4.14

Recommended new Rule – 30.4.14 - Controlled
Telecommunications or radio communication, navigation or meteorological communication facilities: With a maximum height no greater than: 15m in the Queenstown Business Mixed Use zone and Rural Zone; 18m in the High Density Residential Queenstown – Flat, Queenstown Town Centre, Wanaka Town Centre (Wanaka Height Precinct) or Airport Mixed Use zones; 13m in the Local Shopping Centre, Wanaka Business Mixed Use or Jacks Point zones; and 11m in any other zone. Control is reserved to all of the following: • Location • Route • Height • Appearance, scale and visual effects

Costs	**Benefits**	**Effectiveness & Efficiency**
• Potential amenity costs, relaxed height limits as controlled activity for High Density Residential Queenstown – Flat, Queenstown Town Centre, Wanaka Town Centre (Wanaka Height Precinct) or Airport Mixed Use zones than the notified version, potential adverse visual effects.	• This new assessment matter ensures that the utilities companies are able to continue their network without being overly restrictive.	• This new assessment matter is effective as it provides the utilities companies a way to expand their networks.

New Rule – 30.4.15 and new rule 30.4.21

Recommended new Rule – 30.4.15 - Discretionary
Telecommunications or radio communication, navigation or meteorological communication facilities: located in • any identified Outstanding Natural Landscape or Feature, • the Arrowtown Residential Historic Management Zone, • Arrowtown Town Centre, • Queenstown Special Character Area, • Significant Natural Areas and • Heritage, Features and Landscapes.
Recommended new Rule – 30.4.21 - Discretionary
Antennas more than 2.4m in diameter, length or breadth and/or 4m in length for whip antennas in rural zone, OR, any antennas located in the following: • any identified Outstanding Natural Landscape or Feature, • the Arrowtown Residential Historic Management Zone, • Arrowtown Town Centre, • Queenstown Special Character Area, • Significant Natural Areas and • Heritage, Features and Landscapes.

Costs	**Benefits**	**Effectiveness & Efficiency**
• Potential resource consenting costs.	• Provides a basis to manage the potential adverse effects of the activity.	• Effective for decision making in sensitive or vulnerable areas.

New Rule – 30.4.16

Recommended new Rule – 30.4.16 - Permitted
New Buildings and structures ancillary to or associated with Utilities provided: the building or structure meets the underlying zone standards, and the building or cabinet or structure is less than 10m^2 in total footprint or less than 3m in height.

Costs	**Benefits**	**Effectiveness & Efficiency**
• Limited potential adverse effects on amenity values with this permitted activity. Note that the rule requires compliance with underlying	• This new rule ensures that the utilities companies are able to continue their network without first requiring consent.	• This new rule is effective as it provides the utilities companies a way to expand their networks without

zone provisions thus this risk is considered low.		requiring a consent.

Updated Rule – 30.4.17

Recommended updated Rule – 30.4.17 - Controlled
Buildings (associated with a Utility) The addition, alteration or construction of buildings greater than 10m^2 in area and 3m in height (other than masts for any telecommunication and radio communication facility, navigation or meteorological communication facility or supporting structures for lines). ~~However, this rule shall not apply where the provisions of the underlying zone or a District Wide rule specify a more restrictive activity status.~~ Control is reserved to all of the following: • Location • External appearance and visual effects • Associated earthworks • Parking and access • Landscaping • Where a site is subject to any natural hazard ~~and the proposal results in an increase in gross floor area:~~ an assessment by a suitably qualified person is provided that addresses the nature and degree of risk the hazard(s) pose to <u>the resilience and operation of the facility and associated buildings</u> ~~people and property,~~ whether the proposal will alter the risk to any site, and the extent to which such risk can be avoided or sufficiently mitigated[1].

Costs	**Benefits**	**Effectiveness & Efficiency**
• None identified.	• This new rule ensures that the utilities companies are able to continue their network without requiring the underlying zone provisions to take precedence. • This change allows for utilities located on sites subject to natural hazards to take into consideration the effects of this on the utility rather than the aspects that are not typically related to utilities.	• This new rule is effective as it provides the utilities companies a way to expand their networks without requiring several consents for the same activity under different chapters.

New Rule – 30.4.19

Recommended new Rule – 30.4.19 - Permitted
Antennas If circular shaped, an antenna less than 1.2m in diameter. If another shape, an antenna less than 1.2m in length or breadth. For whip antennas, less than 4m in length.

Costs	Benefits	Effectiveness & Efficiency
• Limited potential adverse effects on amenity values with this permitted activity. Note that the presence of antennas is an accepted view in today's towns and cities.	• This new rule ensures that the utilities companies provide for their networks without need for a consent.	• This new rule is effective as it provides the utilities companies a way to expand their networks without requiring a consent.

New Rule – 30.4.20

Recommended new Rule – 30.4.20 - Controlled
Antennas If circular shaped an antenna greater than 1.2m in diameter but less than 2.4m in diameter. If another shape, an antenna greater than 1.2m in length or breadth but less than 2.4m in length and breadth. For whip antennas, more than 4m in length. Control is reserved to all of the following: • Location • Route • Height • Appearance, scale and visual effects

Costs	Benefits	Effectiveness & Efficiency
• None identified.	• This new rule ensures that the utilities companies provide for their networks with Council reserving control over location height route and appearance.	• This new rule is effective as it provides the utilities companies a way to expand their networks with assurance of approval.

New Rule – 30.4.22

Recommended new Rule – 30.4.22 - Permitted
The construction, alteration, or addition to underground lines for electricity or telecommunication purposes when: the ground surface is reinstated to the state it was prior to works commencing. Note – Refer to the Operative Earthworks chapter.

Costs	**Benefits**	**Effectiveness & Efficiency**
• Potential increased monitoring costs.	• This new rule ensures that the utilities companies provide for their networks without need for a consent. • This new rule encourages the undergrounding of lines, which reduces the adverse visual effects associated with overhead lines and masts.	• This new rule is effective as it encourages undergrounding of lines, encouraging an option other than overhead lines, and thus protecting the District's valued landscapes.

Deleted rule 30.4.13

Recommended deleted Rule – 30.4.13 - Controlled
~~Telecommunication Facility and Radio communication Facilities Navigation, Meteorological Facilities~~ ~~Any telecommunication and radio communication facility, navigation or meteorological communication facility where it involves erecting:~~ ~~30.4.13.1 Within the Rural Zone any mast greater than 8m but less than or equal to 15m in height.~~ ~~30.4.13.2 Within the Town Centre Zones any mast greater than 8m but less than or equal to 10m in height.~~ ~~30.4.13.3 in zones with a maximum building height of less than 8m (except for the Business and Industrial Zones), a mast greater than the maximum height permitted for buildings of the zone or activity area in which it is located.~~ ~~30.4.13.4 If circular shaped an antenna greater than 1.2m in diameter but less than 2.4m in diameter. If another shape, an antenna greater than 1.2m in length or breadth but less than 2.4m in length and breadth.~~ ~~Control is reserved to all of the following:~~ ~~• Site location~~ ~~• External appearance~~ ~~• Access and parking~~ ~~• Visual amenity impacts~~ ~~• Where a site is subject to any natural hazard and the proposal results in an increase in gross floor area: an assessment by a suitably qualified person is provided that addresses the nature and degree of risk the hazard(s) pose to people and property, whether the proposal will alter the risk to any site, and the extent to which such risk can be avoided or sufficiently mitigated1.~~

Costs	**Benefits**	**Effectiveness & Efficiency**
• None identified. These activities are now covered in rule 30.4.13, 30.4.14 and in the case of antennas, rule 30.4.18.	• This new rule framework provides greater clarity to the users.	• This removal of this rule is effective as clarifies what is and is not accepted under each rule.

Deleted Rule – 30.4.14

Recommended deleted Rule – 30.4.14 - Discretionary
~~**Telecommunication and Radio communication Facilities, Navigation, Meteorological Facilities where it involves:**~~ ~~30.4.14.1 Erecting any mast, or erecting any antenna greater than 1.2m in diameter (if circular in shape) or 1.2m in length or breadth (if another shape) in:~~ ~~• Any Outstanding Natural Landscape or Outstanding Natural Feature~~ ~~• Significant Natural Area~~ ~~• The Arrowtown Residential Historic Management Zone.~~ ~~• Any open space and landscape buffer areas identified on any of the Special Zone structure plans~~ ~~• Town Centre Special Character Areas~~ ~~• Heritage Features and Landscapes.~~ ~~30.4.14.2 Erecting antenna greater than 2.4m in diameter or 3m in length or breadth, except omni directional (or "whip) antenna which shall not exceed 4m length, in the following zones: Residential (other than the Arrowtown Residential Historic Management Zone), Rural Lifestyle, Rural Residential, Township, Resort, Airport Mixed Use, Visitor, Town Centre, Corner Shopping Centre, Bendemeer, Penrith Park and Business Zones.~~ ~~30.4.14.3 Erecting any antenna greater than 2.4m in diameter length or breadth and/or 4m in length if a whip antenna, in the Rural Zone.~~ ~~30.4.14.4 Erecting a mast which is over 15m in height in the Rural Zone.~~ ~~30.4.14.5 In all other zones including the Town Centre Zones with a maximum building height of less than 8m (except the Business and Industrial Zones) and erecting a mast which is over 10m in height.~~ ~~30.4.14.6 In the Business and Industrial Zones and in all other zones with a maximum building height of 8m or greater, erecting a mast which exceeds the maximum height of buildings in the zone it is located by more than 5m.~~

Costs	Benefits	Effectiveness & Efficiency
• Masts are now limited to 3m above the zone maximum through updated rule 30.4.11. (The other aspects of this rule are now covered in new rule 30.4.14)	• This new rule framework provides greater clarity to the users • The new rule framework allows higher masts as a controlled activity at 30.4.14 than listed here as discretionary	• This removal of this rule is effective as clarifies what is and is not accepted under each rule.

Deleted Rule – 30.4.16

Recommended deleted Rule – 30.4.16 - Discretionary
~~Buildings (associated with a Utility)~~ ~~Any addition, alteration or construction of buildings and structures, (other than masts for any telecommunication and radio communication facility, navigation or meteorological communication facility or supporting structures for lines) in:~~ ~~• Any Significant Natural Areas~~ ~~• The Arrowtown Residential Historic Management Zone.~~ ~~• The Remarkables Park Zone~~ ~~However, this rule shall not apply where the provisions of the underlying zone or a District Wide matter specify a more restrictive activity status.~~

Costs	**Benefits**	**Effectiveness & Efficiency**
• None identified. This rule is replaced by new rule 30.4.17	• This rule framework ensures the protection of the District's landscapes from utility activities that could potentially mar it.	• This new rule framework and the removal of this rule is effective as it provides a basis to assess the effects of utility buildings and structure in the District's valued landscapes.

Updated standard – 30.5.1

Recommended updated standard – 30.5.1 - Discretionary	
Small and Community-Scale Distributed Electricity Generation and Solar Water Heating shall:	
30.5.1.1	not overhang the edge of any building.
30.5.1.2	Solar Electricity Generation cells, modules and panels and Solar Water Heating collector panels shall be recessive colours: black, dark blue, grey or brown. Frames, mounting, fixing hardware shall be finished in similar recessive colours with a light reflectance value of less than 36%. Recessive colours shall be selected to be the closest colour to the building to which they form part of, are attached to, or service.
30.5.1.3	be set back in accordance with the internal and road boundary setbacks for buildings in the zone in which they are located. Exemptions for accessory buildings shall not apply.
30.5.1.4	not intrude through any recession planes applicable in the zone in which they are located.
30.5.1.5	For solar panels on a sloping roof, may protrude a maximum of 0.5 m above the maximum height limit specified for the zone.
30.5.1.6	For solar panels on a flat roof, may protrude a maximum of 1.0 m above the maximum height limit specified for the zone, for a maximum area of $5m^2$.
30.5.1.7	not exceed 2.0 metres in height if for free standing Solar Electricity Generation and Solar Water Heating.
30.5.1.8	not exceed 150 m^2 in area if for free standing Solar Electricity Generation and Solar Water Heating.
30.5.1.9	be located within an approved building platform and not exceed the site coverage requirements of the underlying zone.

Costs	**Benefits**	**Effectiveness & Efficiency**
• Potentially allowing systems to be located in the building platform as a permitted activity could lead to increased adverse effects on amenity. Note that the standards in 30.5.1 are considered robust enough to minimise the occurrence of such adverse effects.	• This change encourages small scale solar generation systems as a permitted activity with lower locational restrictions than the notified version.	• This new assessment matter is effective as it provides for small scale solar generation systems as desired in the purpose of this chapter.

Updated standard – 30.5.2.3 and updated standard 30.5.3.5 and updated standard 30.5.5.3

Recommended updated standard – 30.5.2.3 - Discretionary	
Mini and Micro Hydro Electricity Generation shall:	
30.5.2.3	be finished in recessive colours with a light reflectance value of less than 36%, consistent with the building it is servicing on site.
Recommended updated standard – 30.5.3.5 - Discretionary	
Wind Electricity Generation shall:	
30.5.3.5	be painted in non-reflective paint with a light reflectance value of less than 36%.
Recommended updated standard – 30.5.5.3 - Discretionary	
Associated Buildings	
30.5.5.3	be finished in recessive colours with a light reflectance value of less than 36%, consistent with the building it is servicing on site.

Costs	Benefits	Effectiveness & Efficiency
• Potential cost to applicants to comply with the requirement.	• This change ensures that the design will be appropriately recessive, reducing adverse amenity effects.	• This change is effective as it is consistent with design standards in this District.

Deleted standard – 30.5.9

Recommended deleted standard – 30.5.9 - Discretionary
~~**New Zealand Standards**~~ ~~All development of utilities including associated earthworks shall comply with NZS4404:2011.~~

Costs	Benefits	Effectiveness & Efficiency
• None identified. Compliance is ensured through the earthworks chapter provisions.	• The removal of this standard provides greater clarity for chapter users.	• This change is effective as it removes any potential duplications between this standard and the earthworks chapter.

New Standard – 30.5.10

Recommended new standard – 30.5.10 – Non-Complying
Buildings and Structures and Earthworks permitted within the Electricity Sub-Transmission Corridor include: Within 10m of a centre line in the corridor: 30.5.10.1 Any building or structure that does not require building consent; or, Alteration of any building that does not exceed outside the envelope or footprint of the existing building. 30.5.10.2 Earthworks that: a. Are not directly above an underground cable(s); and b. Do not result in a reduction of existing ground clearance distances from overhead lines below the minimums prescribed in the New Zealand Code of Practice 34:2001 (NZECP 34:2001); and Are in accordance with NZECP 34:2001.

Costs	**Benefits**	**Effectiveness & Efficiency**
• Potential consenting costs associated with the proposed restrictions.	• This new rule ensures that the sub-transmission lines are provided with a buffer around their lines, thus ensuring the resilience of the regionally significant infrastructure.	• This new rule is effective as it requires land-use activities which are in close proximity to these line to have consent to carry out the activity which could potentially adversely affect the operation and maintenance of the regionally significant sub-transmission electrical lines.

Deleted rule – 30.6.1.1 and deleted rule 30.6.1.2

Recommended deleted rule – 30.6.1.1
~~Stand-Alone Power Systems (SAPS)~~
Recommended deleted rule – 30.6.1.2
~~Small and Community Scale Distributed Electricity Generation.~~

Costs	**Benefits**	**Effectiveness & Efficiency**
• An assessment would be required by applicants and a decision from the Council to meet Section 95 of the RMA.	• This change allows for notification of proposals for systems of this capacity (if required).	• This change is effective as it allows for appropriate levels of notification for activities that could potentially cause issues with nearby properties.

Recommended Updated Definition – Minor Upgrading

Minor Upgrading	Means an increase in the carrying capacity, efficiency or security of electricity transmission and distribution or telecommunication lines utilising the existing support structures or structures of a similar scale, intensity and character, ~~maintenance, replacement and upgrading of existing conductors or lines and support structures provided they are of a similar character, intensity and scale to the existing conductors or line and support structures~~ and shall include the following: a) Addition of lines, circuits and conductors; b) Reconductoring of the line with higher capacity conductors; c) Re-sagging of conductors existing lines; d) Bonding of conductors; e) Addition or replacement of longer or more efficient insulators provided they are less or similar in length; and f) Addition of electrical fittings or ancillary telecommunications equipment; g) Addition of earth-wires which may contain lightning rods, and earth-peaks; h) Support structure replacement within the same location as the support structure that is to be replaced; i) Addition or replacement of existing cross-arms with cross-arms of an alternative design; and ~~• Replacement of existing support structure poles provided they are less or similar in height, diameter and are located within 1 metre of the base of the support pole being replaced;~~ • Addition of a single service support structure for the purpose of providing a service connection to a site, except in the Rural zone; ~~• The addition of up to three new support structures extending the length of an existing line provided the line has not been lengthened in the preceding five year period, except in the Rural Zone~~; ~~• Replacement of conductors or lines provided they do not exceed 30mm in diameter or the bundling together of any wire, cable or similar conductor provided that the bundle does not exceed 30mm in diameter;~~ ~~• Re-sagging of existing lines;~~ ~~• Replacement of insulators provided they are less or similar in length; and~~ ~~• Addition of lightning rods, earth-peaks and earth-wires~~

Costs	Benefits	Effectiveness & Efficiency
• None identified	• The modification to the notified definition of "Minor Upgrading" will allow for the ongoing operational requirements of utility operators.	• The changes to the definition are efficient as they negate the need for additional rules to be included within Chapter 30 for a range of minor activities.

		• The modification also results in the definition being more consistent with other similar definitions throughout the country therefore being more efficient for users.

Recommended Updated Definition – National Grid Subdivision Corridor

National Grid Subdivision Corridor	Means the area measured either side of the centreline of above ground National Grid line as follows: • 16m for the 110kV lines on pi poles • 32m for 110kV lines on towers • 37m for the 220kV transmission lines. Note: The National Grid Subdivision Corridor does not apply to underground cables or any transmission lines (or sections of line) that are designated.

Costs	Benefits	Effectiveness & Efficiency
• None identified	• These changes ensure that the definition clear that this corridor around the National Grid is in relation to subdivision activities only.	• These changes are effective as it is providing clarity with the intent of the activities it controls.

Recommended Updated Definition – National Grid Sensitive Activities

National Grid Sensitive Activities	Means those activities within the National Grid Corridor that are particularly sensitive to the risks associated with electricity transmission lines because of either the potential for prolonged exposure to the risk or the vulnerability of the equipment or population that is exposed to the risk. Such activities include buildings or parts of buildings used for, or able to be used for the following purposes: • ~~Child Day Care activity;~~ • Day Care facility ~~activity~~; • Educational facility ~~activity, except training related to the National Grid~~; • ~~Home Stay;~~ • Healthcare facility ~~Hospital activity~~; • Papakainga; • Any ~~R~~residential activity; • ~~Residential Care activity; or~~ • Visitor accommodation.

Costs	Benefits	Effectiveness & Efficiency
• None identified	• The modification to the notified definition of "National Grid Sensitive Activities" will ensure clarity for plan users	• This definition is considered to be effective as it is clear in what it covers and succinct.

	on the types of activities considered sensitive, as well as consistency with the other definitions in the plan.	

Recommended deleted Definition – Sensitive activities – Transmission corridor

~~Sensitive activities - Transmission corridor~~	~~Means those activities within an Electricity Transmission Corridor that are particularly sensitive to the risks associated with electricity transmission lines because of either the potential for prolonged exposure to the risk or the vulnerability of the equipment or population that is exposed to the risk. Such activities include any residential activity, visitor accommodation, educational facility, healthcare facility and day care facility.~~

Costs	Benefits	Effectiveness & Efficiency
• None identified	• The deletion of the definition of 'Sensitive Activities – Transmission Corridor' will remove duplication between this definition and that of 'National Grid Sensitive Activities'.	• The removal of this definition is considered to be effective as it provides greater clarity for plan users.

Recommended Updated Definition – Telecommunication Facility

Telecommunications Facility	Means devices, such as aerials, dishes, antennae, <u>wi-fi and microcells, lines (including cables),</u> ~~wires, cables~~, casings, tunnels and associated equipment and support structures, and equipment shelters, such as towers, masts and poles, and equipment buildings and <u>telecommunication kiosks</u> ~~telephone boxes~~, used for the transmitting, emission or receiving of communications.

Costs	Benefits	Effectiveness & Efficiency
• None identified	• The modification to the notified definition of "Telecommunication Facility" will allow for the ongoing operational requirements of telecommunication utility operators.	• This definition is considered to be effective as it is clear in what it covers and succinct.

Recommended Updated Definition – Utility

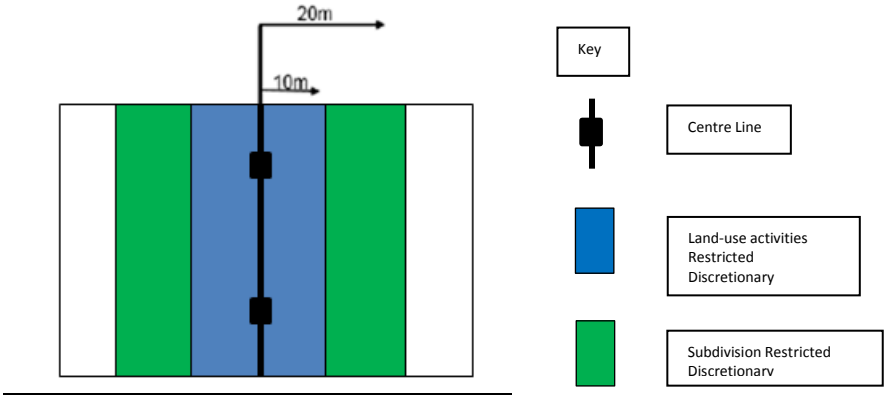
Utility	Means the systems, services, structures and networks necessary for operating and supplying essential utilities and services to the community including but not limited to: • <u>substations,</u> transformers, lines and necessary and incidental structures and equipment for the transmissions and distribution of electricity; • pipes and necessary incidental structures and equipment for

	transmitting and distributing gas; • storage facilities, pipes and necessary incidental structures and equipment for the supply and drainage of water or sewage; • water and irrigation races, drains, channels, pipes and necessary incidental structures and equipment (excluding water tanks); • structures, facilities, plant and equipment for the treatment of water; • structures, facilities, plant, equipment and associated works for receiving and transmitting telecommunications and radio communications (see definition of telecommunication facilities); • structures, facilities, plant, equipment and associated works for monitoring and observation of meteorological activities and natural hazards; • structures, facilities, plant, equipment and associated works for the protection of the community from natural hazards; • structures, facilities, plant and equipment necessary for navigation by water or air; • waste management facilities; • flood protection works; and • Anything described as a network utility operation in s166 of the Resource Management act 1991 Utility does not include structures or facilities used for electricity generation, the manufacture and storage of gas, or the treatment of sewage.

Costs	Benefits	Effectiveness & Efficiency
• None identified	• The inclusion of flood protection works ensures that this is applicable to the rule.	• The inclusion of reference to substations is consistent with other District Plans within New Zealand therefore this is efficient in practice. • The definition will be effective given it is clear in its intent and aligns with respective rules in the Energy and Utilities Chapter on flood protection.

Recommended new Definition – Electricity Sub-Transmission Lines and recommended new definition – Electricity Sub-Transmission Corridor

Electricity Sub-Transmission Lines	Means the conveyance of electricity via sub-transmission (operating at 22kV, 33kV and 66kV) lines and cables (aerial and underground), support structures and substations operated by a Network Utility Operator. Advice note: only transmission and electricity sub-transmission lines are identified on the planning maps, however, works in close proximity to all electric lines can be dangerous. Compliance with NZECP 34:2001 is mandatory for buildings, earthworks, and when using machinery or equipment within close proximity to any electric lines.

Electricity Sub-Transmission Corridor	Means the area located 10 metres either side of the centreline of any overhead Sub-Transmission line (as shown in blue in the diagram below). Distances from Electricity Sub-Transmission Lines are to be measured from a point directly below the centreline of the line or cluster of lines, as shown in below. 

Costs	Benefits	Effectiveness & Efficiency
• None identified	• These new definitions will provide clarity to the terms used in the plan, as well as setting out the appropriate distances for subdivision and land-use activities.	• These definitions are considered to be effective as they are clear in what they cover and succinct.

Recommended New Definition – Electricity Distribution

Electricity Distribution	Means the conveyance of electricity via electricity distribution lines, cables, support structures, substations, transformers, switching stations, kiosks, cabinets and ancillary buildings and structures, including communication equipment, by a network utility operator.

Costs	Benefits	Effectiveness & Efficiency
• None identified	• Provide clarity as to what is and what is not included within the National Grid and difference between transmission and distribution networks.	• The new definition is effective and efficient as it has been adopted by Council's throughout the country which provides consistency for users across different plans throughout New Zealand.

Recommended New Definition – Energy Activities and recommended modification to recommended definition – Regionally Significant Infrastructure

Energy Activities	Includes the following: • Small and Community-Scale Distributed Electricity Generation and Solar Water Heating

	• Renewable Electricity Generation • Non-renewable Electricity Generation • Wind Electricity Generation • Solar Electricity Generation • Stand-Alone Power Systems (SAPS) • Biomass Electricity Generation • Hydro Generation Activity • Mini and Micro Hydro Electricity Generation.
Regionally Significant Infrastructure	Regionally significant infrastructure means: a) Renewable electricity generation facilities, where they supply the National Grid and local distribution network and are operated by an electricity operator; and b) Electricity transmission infrastructure forming the National Grid and Electricity Sub-Transmission Lines; and c) Telecommunication and radio communication facilities; and d) Key centralised Council infrastructure, including water reservoirs, and wastewater treatment plants; and e) Roads classified as being of national or regional importance; and f) Queenstown and Wanaka airports

Costs	Benefits	Effectiveness & Efficiency
• None identified	• These new definitions provide clarity to plan users on what activities are to be considered when these terms are used in the plan.	• The new definitions are considered efficient as they are succinct and clear in its scope. • The change regionally significant infrastructure to include sub transmission lines provides an effective platform and policy direction for this utility.

Recommended New Definition – Support Structure

Support Structure	Means a utility pole or tower that forms part of the electricity distribution or transmission network that supports conductors as part of a line. This includes any ancillary equipment, such as communication equipment or transformers.

Costs	Benefits	Effectiveness & Efficiency
• None identified	The definition of "Minor Upgrading" includes reference to 'structures' and 'support structures.' "Structure" is already defined within the PDP; consequently a definition of "Support Structure" would provide	• This new definition is effective as it includes reference to both electricity distribution and transmission networks which the definition of "Minor Upgrading" refers. • The new definition is considered efficient as it is

	further clarity.	succinct and clear in its scope.

Recommended New Definition – National Grid

National Grid	Means the same as in the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.

Costs	Benefits	Effectiveness & Efficiency
• None identified	• The addition of this definition will clarify what the PDP rules in relation to the National Grid transmission lines apply to.	• This definition is effective and efficient as it is consistent with the National Environmental Standard which applies New Zealand wide.

Appendix 5. Proposed amendments to the National Environmental Standards for Telecommunication Facilities 2008: Recommendations for proposed amendments

Ministry for the Environment
Manatū Mō Te Taiao

Ministry of Business, Innovation & Employment

Proposed amendments to the National Environmental Standards for Telecommunication Facilities 2008

Recommendations for proposed amendments

newzealand.govt.nz

This report may be cited as: Ministry for the Environment. 2015. *Proposed amendments to the National Environmental Standards for Telecommunication Facilities 2008: Recommendations for proposed amendments*. Wellington: Ministry for the Environment.

Published in September 2015 by the
Ministry for the Environment
Manatū Mō Te Taiao
PO Box 10362, Wellington 6143, New Zealand

ISBN: 978-0-908339-07-5
Publication number: ME 1211

This document is available on the Ministry for the Environment's website: www.mfe.govt.nz.

Contents

1 Introduction

1.1 Background

The Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations (NESTF) came into effect in 2008. The NESTF was developed to provide a nationally consistent planning framework for a small range of telecommunications infrastructure on road reserves that have low environmental impact, as well as the radiofrequency fields of all telecommunication facilities operated by a network operator licensed under the Telecommunications Act 2001.

To ensure the NESTF continues to meet its objectives, proposals were made to widen the scope of the current NESTF to bring it up to speed with the rapid development of the telecommunications sector since 2008. The *Proposed Amendments to the National Environmental Standards for Telecommunication Facilities: Discussion Document* was released by the Ministry for the Environment and Ministry of Business, Innovation and Employment on 3 March 2015 for public consultation for a period of six weeks.

The proposed amendments, as notified for consultation, address multiple issues in relation to both widening the scope of the NESTF and making minor amendments to the NESTF mainly for clarification. The issues and subsequent proposed amendments were set out in the discussion document.

Along with the discussion document, the Ministry for the Environment and the Ministry of Business, Innovation and Employment also released the:

- *Report of the outcome evaluation of the National Environmental Standards for Telecommunication Facilities*
- *Proposed amendments to the National Environmental Standards for Telecommunication Facilities: Preliminary evaluation under section 32 of the Resource Management Act 1991*
- *Report on Environmental effects of implementing ultra-fast broadband and mobile infrastructure.*

Officials also sought technical advice from a Technical Advisory Group (TAG), consisting of local government, telecommunications network operators, and an iwi organisation representative, who provided technical advice to inform the proposals.[1] The TAG's advice was provided through a workshop with all members, as well as through informal consultation. The TAG did not always provide a group recommendation to the Ministry for the Environment and the

1 Members were Local Government New Zealand, Wellington City Council, NZ Telecommunications Forum, Tasman District Council, Porirua City Council, Chorus Ltd, Northpower Fibre Ltd, Enable Network Services Ltd, Spark New Zealand Ltd, 2Degrees Mobile Ltd, Vodafone New Zealand Ltd, Te Runanganui o Ngāti Porou, Crown Fibre Holdings, Ngā Pū Waea and Auckland Council.

Ministry of Business, Innovation and Employment as its members' perspectives were diverse. Advice from TAG members was incorporated into the final proposal decisions outlined below.

1.2 Purpose

This report presents an overview of the submissions received on the proposed amendments, and the resulting recommendations on the proposed amendments to the NESTF. The recommendations in this report are informed by submissions on the discussion document, as well as TAG advice. It also fulfils the statutory requirement as a report and recommendation to the Minister for the Environment on the comments received during consultation and provides an analysis of views contained in submissions. The appendices' set out in full the list of recommendations to the Minister for the Environment for amending the NESTF.

A Report on Submissions, which provides a more detailed summary of the views expressed in submissions but does not provide comment or analysis, is published separately.

2 Overview

There were 145 responses received from submissions to the public consultation process.

The majority of local government, iwi organisations, industry and professional associations, and government agency submissions that commented on the proposals in the discussion document stated support for the general purpose and direction of the proposed amendments. However, many of the submissions in scope also stated the importance of striking a balance between national consistency and recognising local conditions. Key areas of comment from submissions are summarised below.

Two thirds of the submissions received were not on the proposals in the discussion document, but from individuals or community groups concerned about the perceived health effects of radiofrequency exposure who requested that the maximum radiofrequency field exposure limit incorporated by reference in the NESTF be reviewed. The vast majority of these were pro-forma submissions.

The current exposure limit in the maximum radiofrequency field exposure limit is based on international guidelines that have used analysis of scientific literature, and safeguard against all identified hazards of radiofrequency field exposure levels. The standard was confirmed as still being relevant in the 2013 review of the NESTF. The discussion document stated that reviewing this standard is not within the scope of the proposed amendments to the NESTF. As such, submissions which commented only on this standard were therefore considered to be out of scope.

3 General comments and recommendations on the proposals

This section outlines some of the key changes recommended as a result of the submissions process.

3.1 Visual effects

The most frequent concern raised about each of the proposals was the potential adverse visual effects that the infrastructure would have. This was a concern raised by local government, iwi organisations, community groups, and individuals. In particular, submitters were concerned with the increases in size from existing infrastructure, and the potential for cumulative size increases at each site.

We recommend amending the proposals to avoid cumulative size increases of infrastructure in sites. In addition to this, a maximum size envelope for ancillary equipment has been introduced for aerial cabling and small cell units, which was a key concern for a number of councils.

The discussion document proposed the use of setbacks in rural areas to mitigate visual impacts of masts and antennas. The setback requirements proposed were: a setback of 50 m from areas zoned residential in the relevant district plan, and a setback of 50 m from dwellings and sensitive buildings such as childcare and educational facilities.

Most district plans manage the change in character from rural and residential zones by classifying land on the edges of these zones as ‘rural-residential’, with corresponding changes in rules and requirements to match the character of the area.

We recommend clarifying that rural-residential zones are not included in the proposal for new masts and antennas in rural areas. This will provide better protection for more visually sensitive areas than a simple setback rule from residential zones. Therefore, we recommend to retain only the 50 m setback from dwellings and sensitive buildings alongside this clarification.

3.2 Effects of earthworks

Telecommunications industry submitters wanted to ensure that earthworks for the installation of all proposed permitted infrastructure would be permitted. However, permitting earthworks in all areas caused concern for local government and iwi submitters, particularly for underground cabling and in rural areas. Half of local government submissions suggested the need for further control around earthworks.

In light of this, we recommend that earthworks be permitted provided that environmental effects are managed through conditions relating to limits on erosion, drainage, dust, and debris control. Any trees that might be disturbed in this process must also not be scheduled in the relevant district plan. For new masts and antennas in rural areas, we also recommend to require the reinstatement or replacement of vegetation to the extent possible.

3.3 Cultural effects

Protecting culturally significant sites was an issue raised by both local government and iwi organisations across many of the proposals. The NESTF allows district plans to provide more stringent rules than the NESTF to manage areas of historic heritage significance, which includes areas of cultural significance. However, iwi and councils have submitted that there are a number of sites of significance to Māori not listed in district plans. This could mean the amended regulations are perceived as not sufficiently protective of wāhi tapu, as the scope of the activities in the NESTF is expanded outside the road reserve.

We commissioned an independent report on the anticipated cultural effects of these changes, which has found that overall the proposals would not have a significant adverse cultural effect, but rather the potential for this would vary from area to area. However, the adequacy of district plans to provide protection is not an issue that can be solved by an NES.

We propose to update the Users' Guide that accompanies the NESTF in conjunction with industry, councils and iwi to provide advice and direction on this issue.

Some iwi submitters suggested the consultation process ought to involve discussions with individual iwi to take into account the regionally-specific needs of their rohe. However it was considered that the process was designed to create nationally consistent rules and to determine which situations should be managed through district plans where this is appropriate.

3.4 Protection of special areas

Under section 43A(3) of the Resource Management Act 1991 (RMA), a national environmental standard (NES) must not state that an activity is a permitted activity if the activity has significant adverse effects on the environment. Based on advice in the Report on Environmental Effects and from submissions, we consider the proposed amendments to the NESTF under some circumstances, depending on the receiving environment, the new activities proposed to be classified as 'permitted activities' may have significant adverse effects.

The existing NESTF complies with the section 43A(3) requirement by setting conditions protecting trees and vegetation, historic heritage values, visual amenity values, and coastal marine area, in regulation 6. If the area is identified in the relevant district plan as having historic heritage values or visual amenity values, the district plan rules prevail. District plan rules also prevail if the facility is located in the road reserve on the same side of the road as and next to a coastal marine area, and if the facility is to be located in the drip line of a tree and the activity would require a resource consent if not for the NESTF.

In expanding the scope of the NESTF outside the road reserve, while adding additional permitted activities, there is a risk that the proposed amendments to the NESTF would not comply with section 43A(3) as the existing protections apply to too limited a range of sensitive environments to mitigate the potential significant adverse effects of this expanded scope. We recommend expanding the protections for historic heritage areas, visual amenity value and the coastal marine area in regulation 6 of the NESTF to activities both inside and outside the road reserve. Where a tree is listed in a schedule in a district plan for its significance, we recommend that it is protected through new conditions controlling earthworks (outlined in the following section), rather than by expanding the part of regulation 6 protecting trees and vegetation to apply outside the road reserve.

The majority of submitter comments on the areas where district plan rules should prevail over the NESTF related to the proposal to add natural hazard areas into the list of areas in the NESTF which are managed by district plans. While there was support for this proposal, we have found little specific evidence of the benefit from managing natural hazard zones in this way.

We consider that the processes already in place under legislation such as the Building Act 2004 and industry practices that already require the appropriate placement of facilities in zones where there may be natural hazard risks are adequate for managing this risk.

Telecommunications operators generally avoid placing infrastructure in these areas where possible, due to the costs associated with additional strengthening and hazard avoidance. However, if placement in these areas is needed to meet customer demand, industry works with information from councils to engineer a solution.

As requested in the discussion document, some submitters also suggested other areas which may be more suited to management by the district plan than the NESTF. It was noted that some areas are listed in district plans for the purposes of protecting indigenous plant life or native bird habitats, but are not covered under the existing NESTF visual and historic heritage protections. These areas may be particularly sensitive to the installation of telecommunications infrastructure.

We therefore recommend expanding the protections to include additional types of environments with specific protections in the relevant district plan. We recommend that the additional protections be aligned with the matters of national importance in section 6 of the RMA, as district plans frequently use these in their zoning. We recommend regulation 6 be expanded so that district plan rules prevail if the relevant district plan specifically identifies an area for protection in relation to one of the following matters:

- the protection of outstanding natural features and landscapes
- the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna.

Allowing district plan rules to manage telecommunications infrastructure in these areas should not affect the appropriate placement of facilities and rollout of key infrastructure, and would ensure an appropriate balance between national consistency and community participation in areas protected for their ecological significance.

3.5 Facilitating network deployment

In their submissions, the telecommunications industry made suggestions for areas where network deployment could be further facilitated, without resulting in adverse visual effects. A suggestion we recommend adopting is the removal of the 15 m height requirement for antennas on buildings in commercial, industrial and rural areas, where there is less visual sensitivity from taller surrounding buildings, and effects are more easily absorbed.

The NESTF currently permits dish antennas up to a maximum diameter of 0.38 m. The telecommunications industry submitted that dish antennas up to a maximum diameter of 1.2 m be permitted on buildings, as well as the panel antennas currently proposed. A review of district plans has found that most district plans classify the installation of dish antennas of 1.2 m diameter as a permitted activity. Increasing the size of the dish antennas permitted through the NESTF would therefore not result in a more lenient regime in most areas than the *status quo*, but would help the NESTF achieve its objectives to assist in network and equipment design and equipment sourcing for roll outs and reduce compliance costs and timeframes for service providers.

The telecommunications industry noted that the timeframe for removing replacement cabinets suggested in the discussion document would not provide for replacements where the cabinet is being installed to transition onto a new network, such as moving from a copper-based to a fibre-based service. This is because the transfer cannot be completed until end users of the original network choose to move to the new service. In addition, many submitters considered the 12 month window proposed for cabinet replacements was too long and unnecessary.

To account for these issues we recommend:

- shortening the timeframe for straight replacements from 6 months to 3 months
- removing the suggested 12-month requirement for removal of new network cabinets.

As the majority of new cabinets installed for fibre networks are located underground, this is not expected to have a significant visual impact.

3.6 Application of the National Environmental Standards for Telecommunication Facilities

The discussion document also proposed that the provisions in the NESTF apply to the infrastructure of telecommunications network operators, the Crown, and Crown agents – an extension of the current NESTF's application to only network operators. This is to ensure government organisations that operate, or may operate in future, their own telecommunications networks, such as those for emergency services, are subject to these same provisions.

In their submission on the discussion document, the New Zealand Police noted that, by proposing to expand the NESTF beyond the road reserve, their utility buildings could be inadvertently captured by the definition of 'cabinet'. Since these buildings are larger than the

size allowance for cabinets, they would therefore be subject to resource consenting requirements where they are not currently.

For clarity, we therefore recommend excluding utility buildings able to be entered by a person from the definition of cabinets.

A number of submitters in the electricity industry raised the question of whether the NESTF should apply to operators in this sector. This is detailed in the summary of submissions. Some suggested that the NESTF should apply to more parties than telecommunications network operators, citing an increased crossover between telecommunication facilities and electricity network facilities (such as smart meters). Others stated that the current scope for NESTF application is too wide and creates a cost in the form of radiofrequency reporting requirements for electricity sector companies who have sought network operator status under the Telecommunications Act 2001, without adding any benefit to them.

The interaction of telecommunications facilities with electricity infrastructure trends will be monitored on an ongoing basis, and can be further addressed when the NESTF is next reviewed in approximately five years' time. At this point, we do not consider the crossover or convergence is sufficient to be incorporated into this round of amendments of the NESTF.

3.7 Reference to radiofrequency field standards

The New Zealand Standard referenced in the NESTF that specifies calculation and measurement methods for radiofrequency fields has been replaced with an updated Australia/New Zealand exposure assessment standard. As the new standard supersedes the old standard, we recommend updating this reference in the NESTF. This standard will not affect the maximum exposure limits.

The current exposure limit is based on international guidelines that have used careful analysis of scientific literature, and offer protection against all identified hazards of radiofrequency field exposure levels. The Ministry for the Environment received advice in the 2013 review of the NESTF that this standard remains relevant. As such, a review of the exposure standard is not within the scope of the proposed amendments.

4 Comments and recommendations by activity

This section outlines key changes as they apply specifically to proposed new permitted activities. Note that the conditions are detailed in full Appendix A.

4.1 Telecommunication cables

The current NESTF does not provide for telecommunications cables.

We recommend that deploying telecommunications cables aerially be permitted in areas where aerial cabling already exists, provided that the restrictions on diameter specified in Appendix A are met. It is also proposed that installation of associated ancillary equipment be permitted, subject to volume limits. The size limits on cabling and ancillary equipment will mitigate the visual impact while allowing for the equipment necessary for the operation of the facility.

We recommend that telecommunications cables deployed underground in the road reserve, as well as any ancillary equipment required be permitted. The visual effects of underground infrastructure are minor and most district plans are choosing to incentivise this method of cabling.

4.2 Earthworks

The current NESTF has no provision for earthworks.

We recommend that all earthworks necessary for placement of the infrastructure permitted by the NESTF be permitted, provided they manage any environmental effects (sediment control, erosion, and dust) and subject to scheduled trees in planning instruments. The conditions proposed are based on those in the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009, with alterations which take into account feedback on the effectiveness of these standards.

4.3 Antennas

The current NESTF permits placement of antennas within a size envelope of 2m by 0.5m only on existing utility structures.

We recommend increasing this permitted size envelope to 3.5 m high and 0.7 m wide to allow for recent technological trends (such as the move for mobile networks to 4G-LTE[2]). We recommend that this also apply to the replacement of existing antenna with the larger sized antenna. A second antenna on an existing structure is also proposed to be permitted within these size limits, except in residential zones and on the road reserve, to mitigate the visual effects.

We recommend that antennas may be placed on the roof or side of a building, provided that certain size limits are met, and that the building is no less than 15m tall in residential zones. All cabinets necessary for the operation of rooftop antennas would be permitted.

The current NESTF does not provide for new masts supporting antennas to be built.

We recommend permitting new masts to support antennas in the road reserve, provided that they are in proportion to existing structures in the area. In addition, existing utility structures which an antenna will be placed on may be relocated by up to 5m for better positioning.

We recommend permitting a height increase of up to 5m on existing structures to allow for co-location of antennas. This activity is proposed to be permitted only once on each site, and not in residential areas or on the road reserve to mitigate the visual effects.

We recommend that new masts and antennas up to 25m high may be placed in areas zoned rural in the district plan, provided that they are located at least 50m away from dwellings, residential and educational facilities. This provides a buffer to those areas most sensitive to the visual impact of this infrastructure. The ability for co-location is already provided for in rural masts under the Rural Broadband Initiative, so it is not recommended that the NESTF allow a further height increase for co-location on 25m high masts. To mitigate environmental effects, it is also recommended that vegetation be reinstated where possible.

4.4 Small cell units[3]

Small cell units are not currently covered by the NESTF.

We recommend that installing small cell units and associated ancillary equipment be permitted on existing structures (eg, bus stops, cabinets, light poles, buildings), provided they fit within a maximum volume envelope.

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[2] 4G Long-Term Evolution is a mobile broadband service capable of speeds up to 10 times faster than 3G technology.

[3] Small cell units (such as microcells, picoells, femtocells, and Wi-Fi) can service smaller areas and fill in gaps in the coverage of larger antennas.

4.5 Cabinets

The current NESTF permits telecommunications cabinets, with limits on size according to placement location. Location relates to both the district plan zone, and the cabinet's proximity to other cabinets.

The definition of 'site' will be clarified so it encourages clusters of cabinets within a specified footprint. Sites must be located at least 30m from another site. This mitigates the visual impact of multiple cabinets in an area, while ensuring that 'site' is not interpreted as a property title.

Cabinets servicing rooftop antennas will be excluded from requirements per 'site', as including them would create an artificially restrictive limit that is not required. A natural limit exists already due to the number of antennas which may be located on any one building. Cabinets must be located within the property boundary, and must be no higher than 2m, excluding the plinth.

We recommend increasing the size of the cabinets permitted under the current NESTF in residential areas, in order to support the placement of larger antennas. The new conditions will limit cabinets to a maximum height of 1.8m, with a maximum 2 m^2 footprint per site. The requirement for some cabinets to be smaller than others at each site has been removed. Cabinets are predominantly standard in size and form, so can be treated more consistently across the NESTF. Conditions for cabinets in non-residential areas remain the same as in the current NESTF.

When a cabinet is being replaced by another cabinet, we recommend that the cabinets may contravene the size and distance rules in the NESTF for a maximum of three months to allow for smooth transition with minimal disruption to service. However, when a cabinet is being replaced by another cabinet in order to transition to a new network, we recommend that the cabinets may contravene the size and distance rules in the NESTF until the network transfer is complete.

Appendix A: Proposed new permitted activities

Note that the following wording is illustrative of policy intention only, and will change as a result of the drafting process.

	Area	Final draft proposal – permitted activity
1.	Aerial telecommunications cables alongside existing cabling	Aerial placement of telecommunications cables by a telecommunications operator is permitted, including any necessary ancillary equipment, subject to the following conditions: • no additional poles are installed • the total diameter of the new cabling does not exceed 30 mm • ancillary equipment does not exceed a total volumetric dimension of 0.4m^3, excluding auxiliary cables, if there are any. Relocation and/or replacement poles where necessary for structural or safety reasons may be up to 3 m from the original location.
2.	Aerial telecommunications cables for customer connections	Aerial placement of telecommunications cables by a telecommunications operator, including any necessary ancillary equipment, is permitted for customer connections (lead-ins) from existing poles to a building.
3.	Underground telecommunications cables	Underground placement of telecommunications cables and any necessary underground ancillary equipment by a telecommunications operator is permitted.
4.	Earthworks required for installing telecommunication facilities in the NESTF	Earthworks are a permitted activity, subject to the following conditions: • erosion sediment control must be applied and maintained, during and after the earthworks, to avoid the adverse effects of sediment on water bodies and the coastal marine area • all areas of soil exposed by the earthworks must be stabilised against erosion as soon as practicable after the earthworks end to avoid the adverse effects of sediment on water bodies and the coastal marine area • the earthworks must not create or contribute to— a. instability or subsidence of a slope or another land surface; or b. erosion of the bed or bank of a water body or the coastal marine area; or c. drainage problems or flooding of overland flow paths • soil or debris from the earthworks must not be placed where it can enter a water body or the coastal marine area • the earthworks avoid creating a dust nuisance on adjoining properties • earthworks must not be carried out if it disturbs a tree or trees described in a Schedule to a district plan, including disturbing the roots

	Area	Final draft proposal – permitted activity
		• wherever possible, the ground must be reinstated following installation.
5.	New masts to carry antennas in the road reserve	The installation of a new mast in the road reserve is permitted, provided that the total height and width of the mast and antenna is no larger than it would have been if installed in accordance with Regulation 7 (of the existing NESTF) on an original utility structure within 100 m of the installation site. If there are multiple poles in the 100 m radius, operators must take the average of the poles.
6.	Relocation of replacement utility structures	A replacement utility structure may be moved to within a 5 m radius of the location of the original utility structure, provided the structure is still located on the road reserve.
7.	New antennas in the road reserve	A new antenna placed on an existing utility structure in the road reserve, including any necessary ancillary equipment, is a permitted activity, subject to the following conditions: • the total height of the structure including the antenna must be no more than 3.5 m higher than the height of the existing utility structure • antennas must fit within the dimensions of a cylindrical shape that, when measured along the centre line of the utility structure, is not more than 0.7 m in diameter, including the shroud • replacement utility structures must not have a diameter that is more than 100 per cent wider than the original utility structure's diameter at its widest point.
8.	Replacement of existing antennas	Replacing an antenna with another antenna, including any necessary ancillary equipment is permitted, subject to the following conditions: • the total height of the mast and antenna is increased by no more than 3.5 m over the height of the existing mast • the diameter of any panel antenna is no more than 0.7 m • the diameter of any replacement mast is no more than 30 per cent greater than the diameter of the existing mast • the existing replacement utility structure was lawfully established (ie, authorised by a regulation, plan or consent under the RMA). Lightning rods may extend beyond the height of the antenna.
9.	Additional antennas at existing sites	Installation of additional antennas on an existing mast or replacement utility structure, including any necessary ancillary equipment, is permitted, subject to the following conditions: • the total height of the mast and antenna is increased by no more than 3.5 m over the height of the existing structure • the total diameter of the head frame, if there is one, or of the structure(mast, antenna and headframe), at its widest point is no more than the diameter of the existing structure plus 100 per cent • the diameter of a replacement mast at its widest point is no more than 30 per cent greater than the diameter of the existing mast • the area is not zoned residential in the relevant district plan or located on the road reserve

	Area	Final draft proposal – permitted activity
		• the existing replacement utility structure was lawfully established (ie, authorised by a regulation, plan or consent under the RMA). Lightning rods may extend beyond the height of the antenna.
10.	New masts and antennas up to 25 m high and 6 m diameter in rural areas	The placement of a mast and antenna in an area zoned rural in the relevant district plan is permitted, including any necessary ancillary equipment, subject to the following conditions: • the total height (of the mast and antenna) does not exceed 25 m • the diameter of the mast and antenna at its widest point (excluding the concrete plinth) does not exceed 6 m • the antenna is not located closer than 50 m from the closest external wall of a dwelling, residential home or educational facility • if any vegetation disturbance (including trimming or removal) is required to prepare the site: - the tree(s) must not be scheduled - any vegetation disturbed must be reinstated where possible. Lightning rods may extend beyond the height of the antenna.
11.	Co-location of multiple operators' antennas at existing sites	Increasing the total height of a mast and antenna by up to 5 m over the height of the existing structure for the purposes of co-location, including any necessary ancillary equipment, is permitted up to a maximum of 25 m, subject to the following conditions: • the area is not zoned residential in the relevant district plan or in the road reserve • the diameter of a replacement mast at its widest point is no more than 30 per cent greater than the diameter of the existing mast • the existing replacement utility structure was lawfully established (ie, authorised by a regulation, plan or consent under the RMA). Lightning rods may extend beyond the height of the antenna.
12.	Antennas on buildings	The placement and replacement of antennas and necessary ancillary equipment on the roof or side of a building in is permitted, subject to the following conditions: • in a residential area, the part of the building to which the antenna is attached is no less than 15 m high • antennas do not extend 5 m above the part of the building to which they are attached • the maximum face area of a panel antenna is 1.5m^2 • the maximum diameter of a dish antenna is 1.2 m • associated cabinets are permitted. Lightning rods may extend beyond the height of the antennas.

	Area	Final draft proposal – permitted activity
13	Cabinets servicing antennas on buildings	The placement of telecommunications cabinets servicing antennas on buildings is permitted, subject to the following conditions: • each associated cabinet must not have a footprint of more than 2 m^2 • the cabinets must be no higher than the height of the concrete foundation plinths, if there are any, plus 2 m • in a residential area, associated cabinets must be located within the property boundary.
14	Small-cell units on existing structures	The installation of a small-cell unit on a structure including any necessary ancillary equipment is permitted, provided that each small-cell unit and the ancillary equipment do not exceed a total volumetric dimension of 0.11 m^3, excluding auxiliary cables.
15	New telecommunication cabinets	The placement of telecommunications cabinets is permitted, subject to the following conditions: • in a residential area, each cabinet's footprint must be no more than 1.4 m^2 and the total footprint per site no more than 2 m^2 • in a residential areas, cabinets must be no higher than the height of the concrete foundation plinths, if there are any, plus 1.8 m • in areas not zoned residential under the relevant district plan rules, the dimensions in the current NESTF apply.
16	Replacement telecommunication cabinets	The placement of cabinets which exceed the maximum footprint per site is permitted, subject to the following conditions: • where a cabinet is being installed to replace a cabinet, one cabinet is removed no later than 3 months following installation of the other cabinet • where a cabinet is being installed for a different type of service to replace a current service, one cabinet is removed as soon as practicable.

Appendix B: Proposed amendments to terminology

Terminology	Interpretation
Telecommunications cables	As defined by "line" in Section 5 or the Telecommunication Act 2001: (a) means a wire or a conductor of any other kind (including a fibre optic cable) used or intended to be used for the transmission or reception of signs, signals, impulses, writing, images, sounds, instruction, information, or intelligence of any nature by means of any electromagnetic system; and (b) includes— (i) any pole, insulator, casing, fixture, tunnel, or other equipment or material used or intended to be used for supporting, enclosing, surrounding, or protecting any of those wires or conductors; and (ii) any part of a line
Telecommunications operator	As defined by "network operator" in Section 5 of the Telecommunications Act 2001, and the Crown or Crown agents network operator means any person declared under— (a) section 105 of the Telecommunications Act 2001 to be a network operator for the purposes of this Act or any provision of this Act; or (b) section 2A of the 1987 Telecommunications Act (as it read immediately before the commencement of this Act) to be a network operator for the purposes of that Act or any provision of that Act
Telecommunication facility	Telecommunication facility means— (a) an antenna (b) a cabinet and, if there is one, the concrete foundation plinth for the cabinet (c) a small cell unit (d) aerial or underground cables.
Ancillary equipment	Equipment required to support the technology and frequencies deployed. Ancillary equipment may include for example, but is not limited to: power distribution unit, microwave unit, DC and surge arrestor/units, cables, remote radio unit, fibre access terminals, fibre coils, protection guards, ducting, aerial to underground connections, and feeder breakout points.
Auxiliary cables	(a) means any cabling leading to the antenna, small cell unit or ancillary equipment which is necessary to ensure the operation of the facility; and (b) does not include telecommunications cables or coils.
Rural	A zone/s which provides predominantly for rural type activity/businesses.

Terminology	Interpretation
Rural residential	A zone/s in a rural area for the purpose of a very low density residence with opportunity for a small rural productive activity.
Residential	A zone/s which provides for predominantly forms/types of residential housing/accommodation and does not include land zoned for rural residential or countryside living purposes.
Commercial	A zone/s which provides for predominantly retail, commercial and business type activities.
Industrial	A zone/s which provides predominantly for businesses and industry both light and heavy
Antenna	As defined in the current NESTF (including the mount) but excluding small cell units (a) means a device that – (i) received or transmits radiocommunication or telecommunication signals; and (ii) is operated by a network operator; and (b) includes the mount, if there is one, for the device; and (c) includes the shroud, if there is one, for the device; and (d) is not a small cell unit
Mast	As in the discussion document: any pole, tower or similar structure designed to support antennas to facilitate telecommunications, radio communications and/or broadcasting - and does not include an antenna.
Small cell unit	A low-powered radio access node that provides improved cellular coverage or capacity and is operated by a telecommunications operator.
Natural area	An area that is protected by a district plan rule because it has outstanding natural features or landscapes, significant indigenous vegetation, or significant habitats of indigenous fauna
'Existing'	The state existing at the date the amended regulations came into force.
Site	'Site' is an area where there is a complying cabinet or sets of cabinets and where there is no more than 500mm between any two adjacent cabinets (at the closest point). Sites must be at least 30 m apart (measured from the 2 closest points of the cabinets nearest to each other). For the avoidance of doubt, a rooftop is not a site.

Appendix 6. Telecommunications Companies advice presented to Council officers

179, 191 and 781 secondary submission received 15/07/16

30 Energy and Utilities

30.1 Purpose

Energy and Utilities are of strategic importance and require a coordinated approach in relation to the development of energy resources, the generation of electricity and the provision of essential infrastructure throughout the District.

30.1.1 Energy

Energy resources play a key role in the socio-economic wellbeing and growth of the District. Local energy needs may change over time and are dependent on the scale of demand, as well as measures to reduce demand through energy efficiency, conservation and small scale renewable generation.

In the future, there may be a need for new generation sources to meet demand. Electricity generation by renewable energy sources is desired over non-renewable sources and this is reinforced in the National Policy Statement on Renewable Electricity Generation 2011. The generation of electricity from non-renewable sources is generally discouraged. However, standby generation may be necessary for essential public, civic, community and health functions, or in areas not connected to the electricity distribution network.

Energy efficiency and conservation go hand in hand with renewable energy. Conserving the use of energy together with the generation of renewable energy will be vital in responding to the challenges of providing enough energy to meet future energy needs and reducing greenhouse gas emissions. Small and community scale generation is encouraged and advantages of solar energy within the District are recognised. The benefits of solar energy may be realised through site design methods which promote solar efficient design, in addition to the inclusion of solar photovoltaic panels and solar hot water heating systems within buildings. Sustainable building forms which reduce energy demand and minimise heating costs are encouraged, including use of the Homestar™ rating system for residential buildings and Green Star tool for commercial buildings.

30.1.2 Utilities

Utilities are essential to the servicing and functioning of the District. Utilities have the purpose to provide a service to the public and are typically provided by a network utility operator.

Due to the importance of utilities in providing essential services to the community, their often high capital cost to establish, and their long life expectancy; the need for the establishment and on-going functioning, maintenance and upgrading of utilities is recognised. In addition, some utilities have specific locational needs that need to be accommodated for their operation. The co-location of utilities may achieve efficiencies in design and operation, reduce capital investment costs and also minimise amenity and environmental effects. The ability to co-locate compatible uses should be considered for all utility proposals.

It is recognised while utilities can have national, regional and local benefits, they can also have adverse effects on surrounding land uses, some of which have been established long before the network utility. The sustainable management of natural and physical resources requires a balance between the effects of different land uses. However, it is also necessary that essential utilities are protected, where possible, from further encroachment by incompatible activities which may be subject to reverse sensitivity effects. This chapter therefore also addresses requirements for sensitive uses and habitable buildings located near to utilities.

30.2 Objectives and Policies

Energy

30.2.1 Objective - The benefits of the District's renewable and non-renewable energy resources and the electricity generation facilities that utilise such resources are

recognised as locally, regionally and nationally important in the sustainable management of the District's resources.

Policies

30.2.1.1 Recognise the national, regional and local benefits of the District's renewable and non-renewable electricity generation activities.

30.2.1.2 Enable the operation, maintenance, repowering, upgrade of existing non-renewable electricity generation activities and development of new ones where adverse effects can be avoided, remedied or mitigated.

30.2.2 Objective - Recognise that the use and development of renewable energy resources have the following benefits:

- **Maintain or enhance electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions**
- **Maintain or enhance the security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation**
- **Assist in meeting international climate change obligations**
- **Reduce reliance on imported fuels for the purpose of generating electricity**
- **Help with community resilience through development of local energy resources and networks.**

Policies

30.2.2.1 Enable the development, operation, maintenance, repowering and upgrading of new and existing renewable electricity generation activities, (including small and community scale), in a manner that:

- Recognises the need to locate renewable electricity generation activities where the renewable electricity resources are available
- Recognises logistical and technical practicalities associated with renewable electricity generation activities
- Provides for research and exploratory-scale investigations into existing and emerging renewable electricity generation technologies and methods.

30.2.2.2 Enable new technologies using renewable energy resources to be investigated and established in the district.

30.2.3 Objective - Energy resources are developed and electricity is generated, in a manner that minimises adverse effects on the environment.

Policies

30.2.3.1 Promote the incorporation of Small and Community-Scale Distributed Electricity Generation structures and associated buildings (whether temporary or permanent) as a means to improve efficiency and reduce energy demands.

30.2.3.2 Ensure the visual effects of Wind Electricity Generation do not exceed the capacity of an area to absorb change or significantly detract from landscape and visual amenity values.

30.2.3.3 Promote Biomass Electricity Generation in proximity to available fuel sources that minimise external effects on the surrounding road network and the amenity values of neighbours.

30.2.3.4 Assess the effects of Renewable Electricity Generation proposals, other than Small and Community Scale, on a case-by-case basis, with regards to:

- landscape values and areas with significant indigenous flora or fauna
- recreation and cultural values, including relationships with tangata whenua
- amenity values
- The extent of public benefit and outcomes of location specific cost-benefit analysis.

30.2.3.5 Existing energy facilities, associated infrastructure and undeveloped energy resources are protected from incompatible subdivision, land use and development.

30.2.3.6 To compensate for adverse effects, consideration shall be given to any offset measures and/or environmental compensation including those which benefit the local environment and community affected.

30.2.3.7 Consider non-renewable energy resources including standby power generation and Stand Alone Power systems where adverse effects can be mitigated.

30.2.4 Objective - Site layout and building design takes into consideration energy efficiency and conservation.

Policies

30.2.4.1 Encourage energy efficiency and conservation practices, including use of energy efficient materials and renewable energy in development.

30.2.4.2 Encourage subdivision and development to be designed so that buildings can utilise energy efficiency and conservation measures, including by orientation to the sun and through other natural elements, to assist in reducing energy consumption.

30.2.4.3 Encourage Small and Community-Scale Distributed Electricity Generation and Solar Water Heating structures within new or altered buildings.

30.2.4.4 Encourage building design which achieves a Homestar™ certification rating of 6 or more for residential buildings, or a Green Star rating of at least 4 stars for commercial buildings.

30.2.4.5 Transport networks should be designed so that the number, length and need for vehicle trips is minimised, and reliance on private motor vehicles is reduced, to assist in reducing energy consumption.

30.2.4.6 Control the location of buildings and outdoor living areas to reduce impediments to access to sunlight.

Utilities

30.2.5 Objective - ~~Co-ordinate the~~ The ~~provision of utilities as necessary to support the~~ growth and development of the District is supported by the efficient and effective provision of utilities.

Policies

30.2.5.1 ~~Essential u~~Utilities are provided to service new development prior to buildings being occupied, and activities commencing.

30.2.5.2 Ensure the efficient management of solid waste by:

- encouraging methods of waste minimisation and reduction such as re-use and recycling

- providing landfill sites with the capacity to cater for the present and future disposal of solid waste
- assessing trends in solid waste
- identifying solid waste sites for future needs
- consideration of technologies or methods to improve operational efficiency and sustainability (including the potential use of landfill gas as an energy source)
- providing for the appropriate re-use of decommissioned landfill sites.

30.2.5.3 Recognise the future needs of utilities and ensure their provision in conjunction with the provider.

30.2.5.4 Assess the priorities for servicing established urban areas, which are developed but are not reticulated.

30.2.5.5 Ensure reticulation of those areas identified for urban expansion or redevelopment is achievable, and that a reticulation system be implemented prior to subdivision.

30.2.5.6 Encourage low impact design techniques which may reduce demands on local utilities.

30.2.5.7 Recognise the positive social, economic, cultural and environmental benefits that utilities provide, including:

a. enabling enhancement of the quality of life and standard of living for people and communities

b. providing for public health and safety

c. enabling the functioning of businesses

d. enabling economic growth

e. enabling growth and development

f. protecting and enhancing the environment

g. enabling the transportation of freight, goods, people

h. enabling interaction and communication.

30.2.6 Objective - The well-being of the community is enabled by t~~T~~he establishment, efficient use and continued operation and maintenance of utilities ~~necessary for the well-being of the community~~.

Policies

30.2.6.1 ~~Recognise the need for maintenance or upgrading of a utility to ensure its on-going viability and efficiency.~~ Enable the continued use, operation, maintenance and upgrading of utilities provided that, to the extent practicable, it appropriately protects the outstanding natural landscapes, outstanding natural features or identified special character areas. Where new or major upgrades to utilities are proposed, adverse effects on the outstanding natural landscapes, outstanding natural features or identified special character areas must be minimised.

30.2.6.2 Consider long term options and economic costs and strategic needs when considering alternative locations, sites or methods for the establishment or alteration of a utility.

30.2.6.3 Encourage the co-location of facilities where operationally and technically feasible.

30.2.6.4 Provide for the sustainable, secure and efficient use and development of the electricity transmission network, including within the transmission line corridor, and to protect activities from the adverse effects of the electricity transmission network, including by:

- Controlling the proximity of buildings, structures and vegetation to existing transmission corridors
- Discouraging sensitive activities from locating within or near to the electricity transmission National Grid Yard to minimise potential reverse sensitivity effects on the transmission network
- Managing subdivision within or near to electricity transmission corridors to achieve the outcomes of this policy to facilitate good amenity and urban design outcomes
- Not compromising the operation or maintenance options or, to the extent practicable, the carrying out of routine and planned upgrade works.

30.2.6.5 ~~Recognise~~ Enable the ~~presence and~~ functioning and enhancement of established network utilities, and their ~~locational and~~ operational, maintenance and upgrade requirements.~~, by managing land use, development and/or subdivision in locations which could compromise their safe and efficient operation.~~

30.2.6.6 Manage land use, development and/or subdivision and their effects in locations which could compromise their safe and efficient operation of utilities.

30.2.7 Objective - Avoid, remedy or mitigate the adverse effects of utilities on surrounding environments, particularly those in or on identified ~~land of high~~ outstanding natural landscapes ~~value,~~ and within identified special character areas.

Policies

30.2.7.1 Reduce adverse effects associated with utilities by:

- Avoiding or mitigating their location on sensitive sites, including heritage and special character areas, Outstanding Natural Landscapes and Outstanding Natural Features, and skylines and ridgelines
- Encouraging co-location or multiple use of network utilities where this is efficient and practicable in order to avoid, remedy or mitigate adverse effects on the environment
- Ensuring that redundant utilities are removed
- Using landscaping and or colours and finishes to reduce visual effects
- Integrating utilities with the surrounding environment; whether that is a rural environment or existing built form.

30.2.7.2 Require the undergrounding of services in new areas of development where technically and operationally feasible.

30.2.7.3 Encourage the replacement of existing overhead services with underground reticulation or the upgrading of existing overhead services where technically feasible.

30.2.7.4 Take account of economic and operational needs in assessing the location and external appearance of utilities.

30.2.7.5 Recognise that in some cases it might not be possible for utilities to avoid outstanding natural landscapes, outstanding natural features or identified special character areas and in those situations greater flexibility as to the way that adverse effects are managed may be appropriate.

30.3 Other Provisions and Rules

30.3.1 District Wide

Attention is drawn to the following District Wide Rules. If the District Wide Rules are not met, then consent will be required in respect of that matter.

All provisions referred to are within Stage 1 of the Proposed District Plan, unless marked as Operative District Plan (ODP).

~~1 Introduction~~	~~2 Definitions~~	~~3 Strategic Direction~~
~~4 Urban Development~~	~~5 Tangata Whenua~~	~~6 Landscapes~~
~~24 Signs (18 ODP)~~	~~25 Earthworks (22 ODP)~~	26 Historic Heritage
~~27 Subdivision~~	~~28 Natural Hazards~~	~~29 Transport (14 ODP)~~
~~30 Utilities and Renewable Energy~~	31 Hazardous Substances (16 ODP)	~~32 Protected Trees~~
~~33 Indigenous Vegetation~~	~~34 Wilding Exotic Trees~~	~~35 Temporary Activities and Relocated Buildings~~
~~36 Noise~~	~~37 Designations~~	Planning Maps

Comment [BM1]: Deleted to align with Rule 30.3.3.3

30.3.2 National

30.3.2.1 Resource Management (National Environmental Standard for Electricity Transmission Activities) Regulations 2009:

Notwithstanding any other rules in the District Plan, the National Grid existing as at 14 January 2010 is covered by the Resource Management (National Environmental Standard for Electricity Transmission Activities) Regulations 2009 (NESETA) and must comply with the NESETA.

The provisions of the NESETA prevail over the provisions of this Chapter, to the extent of any inconsistency. No other rules in the District Plan that duplicate or conflict with the Standard shall apply.

30.3.2.2 Resource Management (National Environmental Standards for Telecommunications Facilities "NESTF") Regulations ~~2008~~:

~~The Resource Management (National Environmental Standards for Telecommunications Facilities "NESTF") Regulations 2008 provide for:~~

- ~~The planning and operation of a telecommunication facility such as a mobile phone transmitter, that generates radio frequency fields as a permitted activity, provided it complies with the New Zealand Standard on Radiofrequency Fields Part 1: Maximum Exposure Levels 3kHz to 300 GHz (NZS 2772.1:1999).~~
- ~~The installation of telecommunications equipment cabinets in the road reserve as a permitted activity, subject to specified limitations on their size and location.~~
- ~~Noise from telecommunications equipment cabinets located in the road reserve as a permitted activity, subject to the specified noise limits.~~
- ~~The installation or replacement of masts and antennae on existing structures in the road reserve as a permitted activity, subject to specified limitations on height and size.~~

The provisions of the NESTF prevail over the provisions of this Chapter, to the extent of any inconsistency. No other rules in the District Plan that duplicate or conflict with the Standard shall apply.

30.3.2.3 New Zealand Electrical Code of Practice for Electrical Safe Distances

Compliance with the New Zealand Electrical Code of Practice for Electrical Safe Distances ("NZECP 34:2001") is mandatory under the Electricity Act 1992. All activities regulated by the NZECP 34, including any activities that are otherwise permitted by the District Plan must comply with this legislation.

30.3.3 Clarification

30.3.3.1 A permitted activity must comply with all the rules listed in the activity and standards tables, and any relevant district wide rules, as set out in Rule 30.3.3.3.

30.3.3.2 Where an activity does not comply with a Standard listed in the Standards table, the activity status identified by the Non-Compliance Status column shall apply. Where an activity breaches more than one Standard, the most restrictive status shall apply to the Activity.

30.3.3.3 The rules contained in this Chapter take precedence over any other rules that may apply to energy and utilities in the District Plan, unless specifically stated to the contrary and with the exception of:

a. 26 Historic Heritage

b. Hazardous Substances (16 ODP)

30.3.3.4 ~~If District Wide Rules are not met, then consent will be required in respect of that matter.~~

Comment [MM2]: Repeats or conflicts with 30.3.3.1 and 30.3.3.3

30.3.3.5 Utilities can also be provided as designations. Refer to Chapter 37 – Designations of the Plan for conditions and descriptions of designated sites.

30.3.3.6 The following abbreviations are used in the tables.

P	Permitted	C	Controlled
RD	Restricted Discretionary	D	Discretionary
NC	Non Complying	PR	Prohibited

30.4 Rules - Activities

	Activities for Energy and Utilities	Activity Status
Rules for Energy Activities		
30.4.1	**Energy Activities which are not listed in this table**	NC
30.4.2	**Small and Community-Scale Distributed Electricity Generation and Solar Water Heating** with a rated capacity of less than 3.5kW (including any structures and associated buildings but excluding Wind Electricity Generation), and not located in any of the sensitive environments identified by Rule 30.4.3.	P

	Activities for Energy and Utilities	Activity Status
30.4.3	**Small and Community-Scale Distributed Electricity Generation and Solar Water Heating** (including any structures and associated buildings) with a rated capacity of more than 3.5kW OR located in any of the following sensitive environments: • Arrowtown Residential Historic Management Zone • Town Centre Special Character Areas • Open Space Zones • Any open space and landscape buffer areas identified on any of the Special Zones • Significant Natural Areas • Outstanding Natural Landscapes • Outstanding Natural Features • Heritage Features and Landscapes • Rural Zones (if detached from or separate to a building).	D
30.4.4	**Renewable Electricity Generation Activities**, limited to masts, drilling and water monitoring for the purpose of research and exploratory-scale investigations of a temporary nature. Discretion is restricted to all of the following: • The duration of works and the research purpose • The location of investigation activities and facilities, including proximity to, and effects on, sensitive uses and environments • The height and scale of facilities and potential visual effects • Environmental effects • Where a site is subject to any natural hazard and the proposal results in an increase in gross floor area: an assessment by a suitably qualified person is provided that addresses the nature and degree of risk the hazard(s) pose to people and property, whether the proposal will alter the risk to any site, and the extent to which such risk can be avoided or sufficiently mitigated[1].	RD
30.4.5	**Renewable Electricity Generation Activities**, other than Small and Community-Scale Distributed Electricity Generation, and including any new or additional building housing plant and electrical equipment.	D
30.4.6	**Non-renewable Electricity Generation** where the generation only supplies activities on the site on which it is located and involves either:	P

[1] Policies that guide the assessment of proposals on land affected by natural hazards are located in Chapter 28.

	Activities for Energy and Utilities	Activity Status
	• Standby generators associated with community, health care, and utility activities; or • Generators that are part of a Stand-Alone Power System on remote sites that do not have connection to the local distributed electricity network. Note – Diesel Generators must comply with the provisions of Chapter 36 (Noise) and Hazardous Substances (Chapter 16 ODP)	
30.4.7	Non-renewable Electricity Generation not otherwise identified.	NC
Rules for Utilities; and Buildings, Structures and Earthworks ~~within or near to the National Grid Corridor~~ ~~Note - The rules differentiate between four types of activities: lines and support structures; masts and antennae; utility buildings; and flood protection works & waste management facilities.~~		
30.4.8	**Utilities, Buildings, Structures and Earthworks which are not otherwise listed in this table**	D
30.4.9	**Minor Upgrading**	P
30.4.10	**Buildings (that are not for National Grid Sensitive Activities), Structures and Earthworks within National Grid Corridors** (subject to compliance with Rules 30.5.10 and 30.5.11)	P
30.4.11	Telecommunication masts, poles, antennas and ancillary equipment: a) Not located in an identified Outstanding Natural Landscape or Feature, the Arrowtown Residential Historic Management Zone, Town Centre Special Character Areas; and b) With a maximum height no greater than: 25m in the Queenstown Business Mixed Use zone; 20m in the High Density Residential Queenstown – Flat, Queenstown Town Centre (Precinct 1 and 1A), Wanaka Town Centre (Wanaka Height Precinct) or Airport Mixed Use zones; 15m in the Local Shopping Centre, Wanaka Business Mixed Use or Jacks Point zones; and 12m in any other zone.	P
30.4.13	Buildings, equipment cabinets and structures ancillary to or associated with Utilities provided: a) If the building or equipment cabinet is located in an identified Outstanding Natural Landscape or Feature, the building or cabinet is less 3.6m^2 in total footprint and 3m in height; and b) Meets the underlying zone standards, if the building or cabinet is not located in an identified Outstanding Natural Landscape or Feature, and the building or cabinet is more than 3.6m^2 in total footprint or more than 3m in height.	P
30.4.14	Utility connections from, and to buildings, facilities, structures and sites used for or serviced by utilities, including lines on or under the ground, attached to buildings or structures and overhead, where existing network utilities are located overhead.	P

Comment [MM3]: If this is to stay, there will need to be additional rules for things like underground utilities and associated earthworks, phone boxes, wifi access points etc, as none are clearly in the rules and would default to discretionary.

Also, such a rule does not cope well with changing technology over the life of the Plan. For example, fibre networks and small/micro cell sites have been developed over the life of the last plan, but were not anticipated when it was drafted.

Comment [MM4]: This is a significant simplification of what height limits could apply – generally to 4-5m above the permitted building height.

Comment [MM5]: This may be able to be deleted if the 'minor upgrading' definition addresses this.

	Activities for Energy and Utilities	Activity Status
30.4.15	Antennas, provided the maximum diameter is 1.5m for circular antennas or area of any face is not greater than 2.2m^2 for antennas of any other shape, when: a) attached to an existing structure and no higher than that existing building or structure; or b) attached to an existing building, and when including any mount, mast or pole, does not exceed 5m above the height of the existing building.	P
30.4.16	The installation of a small-cell unit on a structure including any necessary ancillary equipment is permitted, provided that each small-cell unit and the ancillary equipment do not exceed a total volumetric dimension of 0.11m³, excluding auxiliary cables.	P
30.4.17	The installation of a small-cell unit on a structure including any necessary ancillary equipment is permitted, provided that each small-cell unit and the ancillary equipment has a total volumetric dimension of between 0.11m³, and 0.2m³, excluding auxiliary cables.	C
30.4.11	**Lines and Supporting Structures** ~~A~~ New ~~conductor~~ lines and associated ~~, or~~ above-ground support structures ~~for overhead lines~~, to convey electricity (at a voltage of equal to or less than 110kV at a capacity of equal to or less than 100MVA); or ~~overhead lines~~ for any other purpose including telecommunications. Control is reserved to all of the following: • Location • Route • Height • Appearance, scale and visual effects • Where a site is subject to any natural hazard and the proposal results in an increase in gross floor area: an assessment by a suitably qualified person is provided that addresses the nature and degree of risk the hazard(s) pose to people and property, whether the proposal will alter the risk to any site, and the extent to which such risk can be avoided or sufficiently mitigated[1].	C
30.4.12	~~**Lines and Supporting Structures**~~ ~~Any line or support structure where it involves:~~ 30.4.12.1 ~~Erecting any lattice towers for overhead lines to convey electricity in all zones.~~ 30.4.12.2 ~~Erecting any support structures for new overhead lines to convey electricity (at a voltage of more than 110kV with a capacity over 100MVA) in all zone.~~ 30.4.12.3 ~~Erecting any support structures for overhead lines to convey electricity (at a voltage of equal to or less than 110kV at a capacity of equal to or less than 100MVA); or overhead lines for any other purposes including telecommunications in any Outstanding Natural Feature or Outstanding Natural Landscape~~	~~D~~

	Activities for Energy and Utilities	Activity Status
	~~or Significant Natural Areas.~~ 30.4.12.4 ~~Utilising any existing support structures for the erection of cable television aerials and connections.~~ 30.4.12.5 ~~Erecting any support structures for overhead lines for any purpose in the area in Frankton known as the "Shotover Business Park", except where any new poles are solely for the purpose of providing street lighting.~~	
30.4.13	~~**Telecommunication Facility and Radio communication Facilities Navigation, Meteorological Facilities**~~ ~~Any telecommunication and radio communication facility, navigation or meteorological communication facility where it involves erecting:~~ 30.4.13.1 ~~Within the Rural Zone any mast greater than 8m but less than or equal to 15m in height.~~ 30.4.13.2 ~~Within the Town Centre Zones any mast greater than 8m but less than or equal to 10m in height.~~ 30.4.13.3 ~~in zones with a maximum building height of less than 8m (except for the Business and Industrial Zones), a mast greater than the maximum height permitted for buildings of the zone or activity area in which it is located.~~ 30.4.13.4 ~~If circular shaped an antenna greater than 1.2m in diameter but less than 2.4m in diameter. If another shape, an antenna greater than 1.2m in length or breadth but less than 2.4m in length and breadth.~~ ~~Control is reserved to all of the following:~~ • ~~Site location~~ • ~~External appearance~~ • ~~Access and parking~~ • ~~Visual amenity impacts~~ • ~~Where a site is subject to any natural hazard and the proposal results in an increase in gross floor area: an assessment by a suitably qualified person is provided that addresses the nature and degree of risk the hazard(s) pose to people and property, whether the proposal will alter the risk to any site, and the extent to which such risk can be avoided or sufficiently mitigated[1].~~	~~C~~
30.4.14	~~**Telecommunication and Radio communication Facilities, Navigation, Meteorological Facilities where it involves:**~~ 30.4.14.1 ~~Erecting any mast, or erecting any antenna greater than 1.2m in diameter (if circular in shape) or 1.2m in length or breadth (if another shape) in:~~ • ~~Any Outstanding Natural Landscape or Outstanding Natural Feature~~	~~D~~

	Activities for Energy and Utilities	Activity Status
	~~• Significant Natural Area~~ ~~• The Arrowtown Residential Historic Management Zone.~~ ~~• Any open space and landscape buffer areas identified on any of the Special Zone structure plans~~ ~~• Town Centre Special Character Areas~~ ~~• Heritage Features and Landscapes.~~ 30.4.14.2 ~~Erecting antenna greater than 2.4m in diameter or 3m in length or breadth, except omni directional (or "whip) antenna which shall not exceed 4m length, in the following zones: Residential (other than the Arrowtown Residential Historic Management Zone), Rural Lifestyle, Rural Residential, Township, Resort, Airport Mixed Use, Visitor, Town Centre, Corner Shopping Centre, Bendemeer, Penrith Park and Business Zones.~~ 30.4.14.3 ~~Erecting any antenna greater than 2.4m in diameter length or breadth and/or 4m in length if a whip antenna, in the Rural Zone.~~ 30.4.14.4 ~~Erecting a mast which is over 15m in height in the Rural Zone.~~ 30.4.14.5 ~~In all other zones including the Town Centre Zones with a maximum building height of less than 8m (except the Business and Industrial Zones) and erecting a mast which is over 10m in height.~~ 30.4.14.6 ~~In the Business and Industrial Zones, and in all other zones with a maximum building height of 8m or greater, erecting a mast which exceeds the maximum height of buildings in the zone it is located by more than 5m.~~	
30.4.15	~~**Buildings (associated with a Utility)**~~ ~~The addition, alteration or construction of buildings greater than 10m^2 in area and 3m in height (other than masts for any telecommunication and radio communication facility, navigation or meteorological communication facility or supporting structures for lines). However, this rule shall not apply where the provisions of the underlying zone or a District Wide rule specify a more restrictive activity status.~~ ~~Control is reserved to all of the following:~~ ~~• Location~~ ~~• External appearance and visual effects~~ ~~• Associated earthworks~~ ~~• Parking and access~~ ~~• Landscaping~~ ~~• Where a site is subject to any natural hazard and the proposal results in an increase in gross floor area: an assessment by a suitably qualified person is provided that addresses the nature and degree of risk the hazard(s) pose to people and property, whether the proposal will alter the risk to any site, and the extent to which such risk can be~~	~~C~~

	Activities for Energy and Utilities	Activity Status
	~~avoided or sufficiently mitigated.~~	
30.4.16	~~**Buildings (associated with a Utility)**~~ ~~Any addition, alteration or construction of buildings and structures, (other than masts for any telecommunication and radio communication facility, navigation or meteorological communication facility or supporting structures for lines) in:~~ ~~• Any Significant Natural Areas~~ ~~• The Arrowtown Residential Historic Management Zone.~~ ~~• The Remarkables Park Zone~~ ~~However, this rule shall not apply where the provisions of the underlying zone or a District Wide matter specify a more restrictive activity status.~~	~~D~~
30.4.17	~~**Flood Protection Works** for the maintenance, reinstatement, repair or replacement of existing flood protection works for the purpose of:~~ ~~• maintaining the flood carrying capacity of water courses and/or maintaining the integrity of existing river protection works~~ ~~• fill works undertaken within Activity Area 1f of the Shotover Country Special Zone.~~	~~P~~
30.4.18	**Flood Protection Works** not otherwise identified.	D
30.4.19	**Waste Management Facilities**	D
30.4.20	**Water and Wastewater Treatment Facilities**	D
30.4.21	**In the Remarkables Park Zone**, all lattice towers or overhead lines or support structures for overhead lines for any purpose (except any poles solely for the purpose of street lighting); ~~or any mast for any purpose~~; or any antenna greater than 1.2m in diameter, length or breadth (except omni-directional or 'whip' antenna less than 4 metres in length).	NC
30.4.22	(i) A new telecommunication cabinet in road reserve which is located within 30m of an existing telecommunication cabinet which is located adjacent to a different site. (ii) Replacement telecommunication cabinets - The placement of cabinets which exceed the maximum footprint per site where a cabinet is being installed to replace a cabinet, one cabinet is removed no later than 36 months following installation of the other cabinet. (iii) Earthworks associated with telecommunications infrastructure installation which exceed the permitted standards. (iv) The replacement of an existing pole between 3m and 10m from its original location. (v) The installation of up to three additional poles within road reserve for the minor extension of the telecommunications line network. (vi) The replacement of existing antenna in all zones and road reserve (excluding the Residential Zone) with new antenna at a height up to 5m higher than the highest point of the existing antenna, with a	**C**

	Activities for Energy and Utilities	Activity Status
	diameter of 1.5m or a total face area of 2.2m2. (vii) Removal of vegetation which exceeds the permitted standards, associated with the installation of telecommunications infrastructure.	
30.4.23	Erecting any new poles for overhead lines to convey electricity or telecommunications in any identified Outstanding Natural Landscape or Feature.	RD
30.4.24	Erecting any telecommunication masts, poles, antennas and ancillary equipment that does not comply with Rule 30.4.11.	RD
30.4.25	Erecting any antenna greater than 1.5m in diameter for circular antennas or for any other shape, the area of any face is not greater than $2.2m^2$.	RD
	For any Restricted Discretionary activity, the Council's discretion shall be limited to the following matters: **Heritage and natural environment** The extent to which the utility and associated structures affect the values of areas identified in the District Plan as an Outstanding Natural Landscape or Feature. Whether the development will integrate into the landscape and the appropriateness of the scale, form, design and finish (materials and colours) proposed and mitigation measures such as planting. This shall include consideration of any adverse effects of reflectivity, glare and light spill. The extent to which the proposed development will not be visible or will be reasonably difficult to see when viewed from public roads and other public places. The extent to which the proposal will result in adverse cumulative effects. **Amenity, location and design** The practicality and effectiveness of screening the utility. The extent to which any adverse effects of the utility have been avoided, remedied or mitigated by the route, site and method selection. **Operational considerations** 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. 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. Whether placing lines or other utilities underground is unreasonable in terms of additional costs or environmental effects. Any risk to and effects on the operation, maintenance, upgrading and development of transmission lines, including the National Grid.	RD

30.5 Rules – Standards

	Standards for activities	Non-compliance status
Standards for Energy Activities		
30.5.1	**Small and Community-Scale Distributed Electricity Generation and Solar Water Heating shall**: 30.5.1.1 not overhang the edge of any building. 30.5.1.2 Solar Electricity Generation cells, modules and panels and Solar Water Heating collector panels shall be recessive colours: black, dark blue, grey or brown. Frames, mounting, fixing hardware shall be finished in similar recessive colours. Recessive colours shall be selected to be the closest colour to the building to which they form part of, are attached to, or service. 30.5.1.3 be set back in accordance with the internal and road boundary setbacks for buildings in the zone in which they are located. Exemptions for accessory buildings shall not apply. 30.5.1.4 not intrude through any recession planes applicable in the zone in which they are located. 30.5.1.5 For solar panels on a sloping roof, may protrude a maximum of 0.5 m above the maximum height limit specified for the zone. 30.5.1.6 For solar panels on a flat roof, may protrude a maximum of 1.0 m above the maximum height limit specified for the zone, for a maximum area of $5m^2$. 30.5.1.7 not exceed 2.0 metres in height if for free standing Solar Electricity Generation and Solar Water Heating. 30.5.1.8 not exceed 150 m^2 in area if for free standing Solar Electricity Generation and Solar Water Heating.	D
30.5.2	**Mini and Micro Hydro Electricity Generation shall:** 30.5.2.1 comply with Road and Internal Boundary Building Setbacks in the zone in which they are located. 30.5.2.2 not exceed 2.5 metres in height. 30.5.2.3 be finished in recessive colours consistent with the building it is servicing on site. Note**:** Reference should also be made to the Otago Regional Council Water Plan Rules.	D
30.5.3	**Wind Electricity Generation shall:** 30.5.3.1 comprise no more than two Wind Electricity Generation turbines or masts on any site.	D

	Standards for activities	Non-compliance status
	30.5.3.2 involve no lattice towers. 30.5.3.3 be set back in accordance with the internal and road boundary setbacks for buildings in the zone in which they are located. Exemptions for accessory buildings shall not apply. 30.5.3.4 not exceed the maximum height or intrude through any recession planes applicable in the zone in which they are located. In the Rural and Gibbston Character Zones the maximum height shall be that specified for non-residential building ancillary to viticulture or farming activities (10m). The maximum height for a wind turbine shall be measured to the tip of blade when in vertical position. 30.5.3.5 be painted in non-reflective paint.	
30.5.4	**Biomass Electricity Generation** 30.5.4.1 Biomass Electricity Generation fuel material shall be sourced on the same site as the generation plant, except where the generation plant is located in Industrial Zones (and Industrial Activities Areas within Structure Plans). 30.5.4.2 Any outdoor storage of Biomass Electricity Generation fuel material shall be screened from adjoining sites and public places. 30.5.4.3 Biomass Electricity Generation plant and equipment shall be located inside a Building. Note: Reference should also be made to the Otago Regional Council Air Plan Rules.	D
30.5.5	**Associated buildings** Any building housing plant and electrical equipment associated with Renewable Electricity Generation activities, unless permitted in the zone in which it located or approved by resource consent, shall: 30.5.5.1 not exceed $10m^2$ in area and 2.5m in height. 30.5.5.2 be set back in accordance with the internal and road boundary setbacks for accessory buildings in the zone in which it is located. 30.5.5.3 be finished in recessive colours, consistent with the building it is servicing on site.	D
Standards for Utilities		
30.5.6	**Setback from internal boundaries and road boundaries** Where the utility is a building, it shall be set back in accordance with the internal and road boundary setbacks for accessory buildings in the zone in	D

	Standards for activities	Non-compliance status
	which it is located.	
30.5.7	~~**Buildings in Outstanding Natural Landscapes (ONL) and Outstanding Natural Features (ONF)**~~ ~~Any building within an ONL or ONF shall be less than 10m^2 in area and less than 3m in height.~~	~~D~~
30.5.8	~~**Height**~~ ~~All buildings or structures, (excluding masts and antennae for any telecommunication and radio communication facility, navigation or meteorological communication facility) shall comply with the relevant maximum height provisions for buildings of the zone they are located in.~~	~~D~~
30.5.9	~~**New Zealand Standards**~~ ~~All development of utilities including associated earthworks shall comply with NZS4404:2011.~~	~~D~~
30.5.10	**Buildings and Structures within the National Grid Yard being:** 30.5.10.1 A non-conductive fence located 5m or more from any National Grid Support Structure and no more than 2.5m in height. 30.5.10.2 Any utility within a transport corridor or any part of electricity infrastructure that connects to the National Grid. 30.5.10.3 Any new non-habitable building less than 2.5m high and 10m^2 in floor area. 30.5.10.4 Any non-habitable building or structure used for agricultural activities provided that they are: a. less than 2.5m high b. Located at least 12m from a National Grid Support Structure c. Not a milking shed/dairy shed (excluding the stockyards and ancillary platforms), or a commercial glasshouse. 30.5.10.5 Alterations to existing buildings that do not alter the building envelope. Note – Refer to the Definitions for illustration of the National Grid Yard.	NC
30.5.11	**Earthworks within the National Grid Yard being:** 30.5.11.1 Earthworks within 2.2 metres of a National Grid pole support structure or stay wire shall be no deeper than 300mm. 30.5.11.2 Earthworks between 2.2 metres to 5 metres of a National Grid pole support structure or stay wire shall be no deeper than 750mm. 30.5.11.3 Earthworks within 6 metres of the outer visible edge of a National Grid Transmission Tower Support Structure shall be no deeper than 300mm.	D

Comment [MM6]: All relevant parts included above

	Standards for activities	Non-compliance status
	30.5.11.4 Earthworks between 6 metres to 12 metres from the outer visible edge of a National Grid Transmission Tower Support structure shall be no deeper than 3 metres. 30.5.11.5 Earthworks shall not create an unstable batter that will affect a transmission support structure. 30.5.11.6 Earthworks shall not result in a reduction in the existing conductor clearance distance below what is required by the New Zealand Electrical Code of Practice 34:2001. The following earthworks are exempt from the rules above: 30.5.11.7 Earthworks undertaken in the course of constructing or maintaining utilities 30.5.11.8 Earthworks undertaken as part of agricultural activities or domestic gardening 30.5.11.9 Repair sealing, resealing of an existing road, footpath, farm track or driveway Note – Refer to the Definitions for illustration of the National Grid Yard.	

30.6 Rules - Non-Notification of Applications

30.6.1 Any application for resource consent for the following matters shall not require the written consent of other persons and shall not be notified or limited-notified:

30.6.1.1 Stand-Alone Power Systems (SAP's).

30.6.1.2 Small and Community Scale Distributed Electricity Generation.

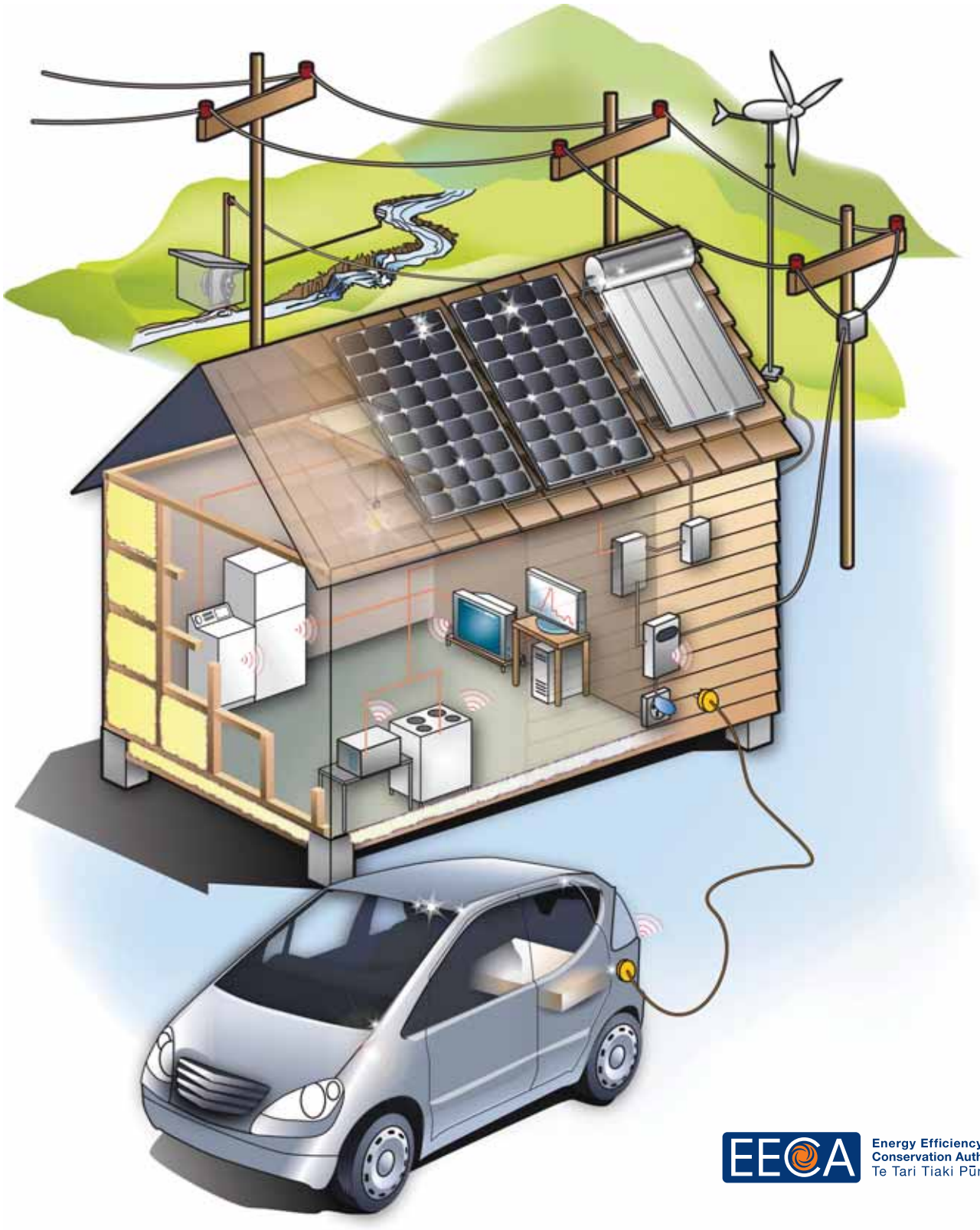
30.6.1.3 Controlled activities.

30.6.1.4 Discretionary activities for Flood Protection Works.

Appendix 7. EECA guidance note: Domestic-scale distributed generation: Guidance for local government. EECA May, 2010

Domestic-scale distributed generation

Guidance for local government



EECA Energy Efficiency and Conservation Authority
Te Tari Tiaki Pūngao

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Acknowledgements

The Sustainable Electricity Association of New Zealand (SEANZ) **www.seanz.org.nz**

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Nick Tomes – Genkit Nelson Ltd. **www.genkit.biz**

Michael Lawley – EcoInnovation Ltd. **www.ecoinnovation.co.nz**

Mike Bassett-Smith – PowerSmart Solar Ltd. **www.powersmart.co.nz**

Tony Pearson – Proven Energy **www.tecnico.co.nz**

Stuart Walker – Alternative Power NZ Ltd.

1. Introduction

1.1 Purpose of this document

This document provides guidance and information to assist with the approval processes and requirements for small-scale distributed renewable energy generation technologies (hereafter collectively referred to as 'microgeneration'), particularly in relation to the requirements of the Resource Management Act 1991 (RMA) and the New Zealand Building Code (NZBC). The guidelines are primarily intended for local authority consenting staff, and project proponents.

This guidance document has been prepared by the Energy Efficiency and Conservation Authority (EECA) in its role to encourage, promote and support energy efficiency, energy conservation and the use of renewable energy sources. The guidance is aimed at assisting the uptake of microgeneration in New Zealand.

The information in this document is provided in good faith, and is not intended to be treated as mandatory, definitive or prescriptive. This guide is not a substitute for professional advice, and should not be solely relied on for establishing compliance with the Building Code or to assist resource consent applications. It may be updated from time to time. The latest version is available from the EECA website (www.eeca.govt.nz).

1.2 Contents of the guidance document

This guidance document covers the following microgeneration technologies:

- Photovoltaics ('PV');
- Micro and mini-scale wind turbines;
- Micro and mini-scale hydro-electric turbines.

Solar water heating systems are also briefly covered in this document. Solar water heating is often used in conjunction with microgeneration, especially in stand alone applications where reducing electricity demand load is paramount. Extensive guidance on the installation of solar water heating is also available in other documents, and Acceptable Solution 2 for Clause G12 of the New Zealand Building Code (G12/AS2) has been developed specifically for solar water heating. See Section 5 for more information.

1.3 The importance of microgeneration

Distributed generation can contribute towards a more secure and environmentally-friendly energy future by potentially:

- using renewable sources of energy
- making our electricity supply more diverse and geographically dispersed
- increasing security of supply by making local networks more reliable and resilient
- improving the efficiency of the electricity system by reducing transmission and distribution energy losses.

Local government plays an important role through the introduction of policies, plans and actions to support the uptake of renewable energy including small-scale, distributed generation technologies.

1.4 Definition of microgeneration

This guidance document is limited to microgeneration technologies. Microgeneration is a subset of distributed generation, and refers to domestic-scale generation. Off-grid generation, or Stand Alone Power Systems (hereafter abbreviated to SAPS), is also included in this document because these systems often use the same technologies. Table 1-1 describes the approximate sizes of different types of generation. Note that there are no industry-defined standards, and this table is intended as a guide only.

Table 1-1 Summary of types of generation

Concepts	Scale	Category	Approx. power rating	Examples and notes
Distributed electricity generation (DG) Electricity generation projects which are connected to the local electricity network instead of the national grid.	Small-scale	Micro	0–5kW	A house could have a 2kWp photovoltaic array or a 1.5kW micro wind turbine. These could typically offset a portion of a house's power bill.
		Mini	5-20kW	Generation in this range could offset a portion of a large household's or small farm's power bill, with some export back into the network.
	Large-scale	Small commercial	20-1000kW	Generation plant of this size is usually used to sell electricity to retailer, other purchaser, or into the market. Some electricity may be used on site. An example is the Southbridge wind turbine (100kW) in Canterbury.
		Large commercial	>1000kW	Large commercial DG, for example the proposed Weld Cone windfarm (1.2MW) in Marlborough, or Mangipihi hydro (1MW), connect to the local network and sell electricity commercially.
Off-grid generation (also known as stand-alone power system - SAPs). Generation not connected to the electricity network.	All sizes	Off-grid generation	0 - unlimited	The size of off-grid generation can range from a domestic-scale SAPS, to much larger systems which provide electricity for whole communities which are not connected to the electricity network. In some situations, such as on Stewart or Chatham Islands, generation sources are connected into 'mini-grids' on the islands which distribute electricity to households and businesses on the 'network'.
Grid-connected generation Large-scale centralised generation is directly connected into the national grid.	Large-scale	Large-scale generation	Usually >10MW	Most of New Zealand's electricity comes from large, centralised, generation plants. Electricity is transmitted around the country via the transmission grid, and distributed to households and businesses via distribution networks. Examples include the Wairaki geothermal plant (162MW), Te Apiti Wind Farm (91MW), or Manapouri hydro (728MW).

There are two primary ways that microgeneration can be used. It can be installed in a SAPS, which is not connected to the local electricity network and therefore batteries and backup generation are often required, or it can be 'grid-connected'. In grid-connected systems, microgeneration can connect to the local electricity network through an inverter, with the agreement with the local electricity network.

1.5 Current barriers

The uptake of microgeneration is currently constrained by a range of barriers. These include relatively high upfront costs, and a lack of guidance and information to help local authorities understand the approval process for microgeneration in relation to the RMA and the NZBC.

The barriers experienced by local authorities and project proponents can include:

- limited understanding of the various technologies
- minimal experience in preparing and processing resource consent applications for microgeneration
- a wide range of processes and fee structures being used by local authorities for resource and building consent applications for microgeneration
- uncertainty about processes and requirements for considering such applications.

This guidance document seeks to provide information to assist in removing some of these barriers.

2. Encouraging the uptake of microgeneration

There are a number of ways that councils can encourage the uptake of microgeneration. This includes specific planning rules, or the use of consistent criteria and checklists to assess microgeneration applications for consent.

2.1 Simplifying the approval process

The tables of effects in the following sections illustrate that, provided microgeneration installations fall within certain standard design parameters, the extent of the potential effects is generally likely to be minor.

The use of consistent assessment criteria, checklists, and application forms by local government may also assist the uptake of microgeneration.

2.2 Specific planning rules

District plans need to provide for flexibility and innovation in the area of microgeneration technologies. As these technologies increase in popularity, new products will be introduced, which may not have been anticipated when the particular plan was written.

The rules provided in the district plan should reflect the nature and scale of the effects associated with activities. Lists of the common and perceived effects of the technologies, and the likely extent of the effects, are included in this document. In many cases it is appropriate for microgeneration to be provided as a permitted activity within a district plan, subject to compliance with certain standards and criteria.

2.2.1 Permitted activities

During the review of district plans, when councils are looking to encourage microgeneration through their planning processes, one suggested option is that microgeneration could be provided as a permitted activity, provided the system design falls within certain design parameters.

The lists of design parameters, standards and criteria in this document may also be helpful to assess a microgeneration application.

It is important to note that the standard design parameters for microgeneration noted in this document will be applicable to most, but not all, applications. This is in part because of the wide range of technologies and products available, and because in some cases they are still emerging technologies. In most cases, minor deviation from the standard design parameters outlined in this document will not give rise to significant effects, and flexibility is advised in this regard.

2.2.2 Controlled activities

While many microgeneration applications will fall into the standard design parameters outlined in this document, in some cases applications may not comply with these parameters. In most cases, this will only result in minor non-compliance, and it may therefore be appropriate for councils to provide for these microgeneration activities as ‘controlled’. Councils could exercise control over those matters which may result in non-compliance with the standards (e.g. height, location, noise and so forth). In this way, councils are able to deal with mitigation on a site-by-site basis via conditions on resource consent, while still allowing the activity.

2.2.3 Restricted or discretionary activities

Where effects that are more than minor do arise with microgeneration facilities, it is usually because the location within which the facility is located is significant or valued in some way (e.g. a landscape, heritage or recreation area). Most activities (including microgeneration) within these areas will give rise to effects, but some may still be appropriate. In these

cases, council may want to retain control over where and how these activities occur. This may include the following areas:

- areas of identified cultural or archaeological significance (such as sites and features listed in the district plan)
- areas within identified significant landscapes, ecological or recreation areas (such as wetlands or reserves)
- areas of the built environment that are subject to specific restrictions such as historical precincts and special character areas.

In these cases, it may be appropriate to provide for activities in these areas as 'restricted discretionary' or 'discretionary activities', and the onus would remain on the project proponent to identify potential sites and establish that any adverse environmental effects can be avoided, remedied or mitigated. Councils should specify assessment criteria to address the potential effects on these areas (if not already provided within the plan policies).

2.3 What are the effects of microgeneration?

The construction and operation of microgeneration technologies can give rise to effects. These effects can include:

- positive or adverse effects
- temporary effects
- past, present, and future effects
- cumulative effects which arise over time or in combination with other effects.

The effects associated with microgeneration will differ depending on the particular technology and the specific area where the technology is located.

Therefore the site-specific effects and the effects on the surrounding area of an identical installation in, say, a rural or an urban context will be different. For instance, noise generated by a particular installation may go relatively unnoticed in a rural setting due to low population density and the presence of other noise-generating activities, whereas in an urban context, it may be more of a concern due to the proximity to residential dwellings.

At the same time, these technologies have positive effects and benefits. These potentially include national and local positive effects for the environment and the community through:

- security of supply and greater reliability (by diversifying sources of energy)
- reducing greenhouse gas emissions by encouraging the use of renewable energy
- reducing dependence on fossil fuels, particularly in remote locations
- reducing the reliance on the national electricity grid
- making electricity networks more reliable and resilient
- reducing transmission and distribution losses.

When considering potential effects of microgeneration, particular regard must be had to the benefits to be derived from the use and development of renewable energy.

2.4 Building Code compliance

All microgeneration installations should be safe, strong, and durable. Regardless of whether or not a building consent is required, all systems will need to comply with the Building Code.

The Building Code requirements for individual microgeneration systems will vary depending on specific technologies and various factors associated with the installation. Common considerations will be whether electrical installations are safe (G9 – Electricity), that systems and supports are structurally sound (B1 – Structure), and that components meet durability requirements (B2 – Durability). Where photovoltaic panels are installed on a roof, it is important to ensure that weathertightness is maintained E2 (External moisture). Other clauses may occasionally be relevant depending on the installation being considered.

3. Stand alone power systems (SAPS)

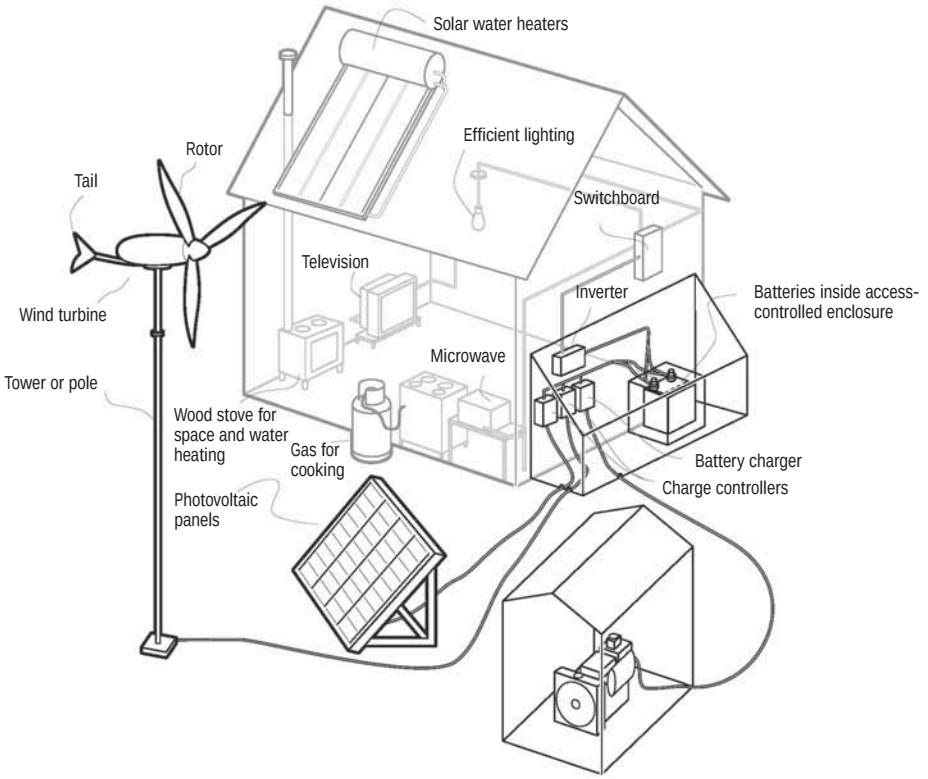
Microgeneration, including solar energy technologies (solar water heating and photovoltaics), micro and mini-scale wind, and micro and mini-scale hydro systems are often used in a SAPS, in situations where there is no connection to the electricity network.

Because SAPS are not connected to the electricity network, batteries are usually required to store the output from microgeneration for later use. Banks of 12V to 48V lead-acid batteries are commonly used. The batteries typically need replacing in 4 to 10 years, depending on quality, sizing and how they are used. Well designed systems using high quality components are likely to last longer. SAPS are often backed up by a diesel or petrol generator.

Table 3-1 Summary of SAPS

SAPS parameters	Comment
Photovoltaics	See Section 6 for more information.
Micro and mini-scale wind turbines	See Section 7 for more information.
Micro and mini-scale hydro	See Section 8 for more information.
Indicative battery size	Banks of 12V to 48V lead-acid batteries are commonly used. Battery size needs to match both the amount of generation and the electricity demand of the house.
Physical and electrical capacity of batteries	A typical battery bank is about 800 amp hours at 24 volts. Individual batteries are usually only between 2 and 12 volts and are arranged in a grid to give the required voltage and current.
Types of enclosure/ room for batteries	Batteries need to be stored in a suitable enclosure or room to avoid unauthorised access, with suitable ventilation.
Generator/backup	A small diesel or petrol generator may be required. The size of the generator can vary considerably. A small SAPS for a bach might have a 1kVa generator, while a large off-grid system may require a 100kVa generator. A typical domestic-scale system may be between 4 and 10KVa, depending on the configuration.
Inverters	An inverter converts electricity from direct current (DC) electricity to alternating current (AC), which most household appliances use. A typical household would require an inverter with a capacity of around 2kW to 5kW.
Charger	A charger allows batteries to be charged from an AC source, such as a generator.
Inverter/charger	Some units allow energy to flow in two directions. They can convert DC into AC (i.e. drawing energy from the battery), or they can charge a battery from an AC source (i.e. a generator).

Figure 3-1 Main components of a SAPS



SAPS are typically used in situations where it is more expensive to connect to the local electricity network than it is to build an electricity generation system. Connecting properties to the electricity network can cost more than $20,000 per kilometre. In these situations, a SAPS can be an economic option.

However, having a SAPS means that more attention needs to be paid to how and when energy is used. It is important to reduce peak electricity demand as much as possible so the size and cost of the generation system required can be minimised.

In a SAPS it is common to use alternative energy sources, such as gas, a woodburner or solar water heating to provide heat for space heating, or water heating respectively. It is also common to use a diesel generator to provide backup power when the other generation plant such as the PV or wind turbine are not operating; for example if it is cloudy or if there is no wind. The use of a diesel generator can result in high levels of greenhouse gas and particulate emissions. To reduce this, greater investment in renewable energy technologies and battery storage is required, so that the diesel generator does not have to be used so often.

Figure 3-2 Photos of components of SAPS

This photo shows a solar water heating system, solar photovoltaics, and micro wind turbine in a SAPS.
Photo: EECA

The batteries for this SAPS are well protected and secured in this box, preventing unauthorised access.
Photo: SEANZ

An inverter installation.
Photo: SolarQuip Ltd.

Examples of controllers for a PV array.
Photo: EcoInnovation

A typical generator used to provide back up power.
Photo: Genkit Nelson Ltd.

Battery bank on a SAPS.
Photo: Genkit Nelson Ltd.

A ground mounted PV array in a SAPS.
Photo: EECA

Another example of a battery bank on a SAPS.
Photo: Genkit Nelson Ltd.

An inverter.
Photo: www.powersmartsolar.com

A ground mounted photovoltaic array.
Photo: www.powersmartsolar.com

3.1 SAPS : Approval considerations

The effects and Building Code considerations for a SAPS depend on the microgeneration technologies being used. Further important information will be found below in the sections relevant to those technologies.

In addition to photovoltaics, micro wind turbines, and micro hydro, SAPS also often utilise battery storage. It should be noted that this information is indicative only and it is recommended that local authorities develop their own flexible approach and interpretation.

4. Grid-connected systems

It is also possible to install microgeneration if the property is already connected to the grid. These types of systems are called ‘grid-connected’, ‘grid-tied’ or ‘grid-interactive’ systems.

The most common form of grid-connected microgeneration is PV, although wind and hydro can also be used. Grid-connected systems usually connect to the local electricity network through an inverter. A special metering installation will also be required to separately measure electricity imported and electricity exported, and an inverter which converts DC into grid-compatible AC.

Table 4-1 Summary of grid-connected systems

Grid-connected systems parameters	Comment
Photovoltaics	See Section 6 for more information.
Micro and mini-scale wind turbines	See Section 7 for more information.
Micro and mini-scale hydro	See Section 8 for more information.
Inverter	Grid-connected inverters must comply with the New Zealand wiring rules and the technical and safety requirements of the electricity lines company.
Meter	The metering arrangement will have to measure both electricity imported into the property, and exported back into the grid.

Owners of grid-connected systems might also be able to sell surplus electricity generated to an electricity retailer. This means that when the system is generating more electricity than what is needed on site – for example, during the day when no one is home – the owner could be paid for the surplus electricity produced. Each electricity retailer will have its own terms and conditions for buying excess electricity. Likewise, the price that they will offer the consumer will also vary. The price they pay per kilowatt hour (kWh) is called the ‘buy-back’ price.

In order to install a grid-connected system, the homeowner will be required to make an application with the local lines company (sometimes called the ‘network’ or ‘distribution’ company). This is the company that manages and maintains the lines that deliver electricity to the house or property. They need to check whether the information provided is consistent with their connection and operation standards.

Figure 4-1 Main components of a grid-connected system (highlighted)

The electric vehicle, advanced meter, and smart appliances may become common in the future but are not widely used at present.

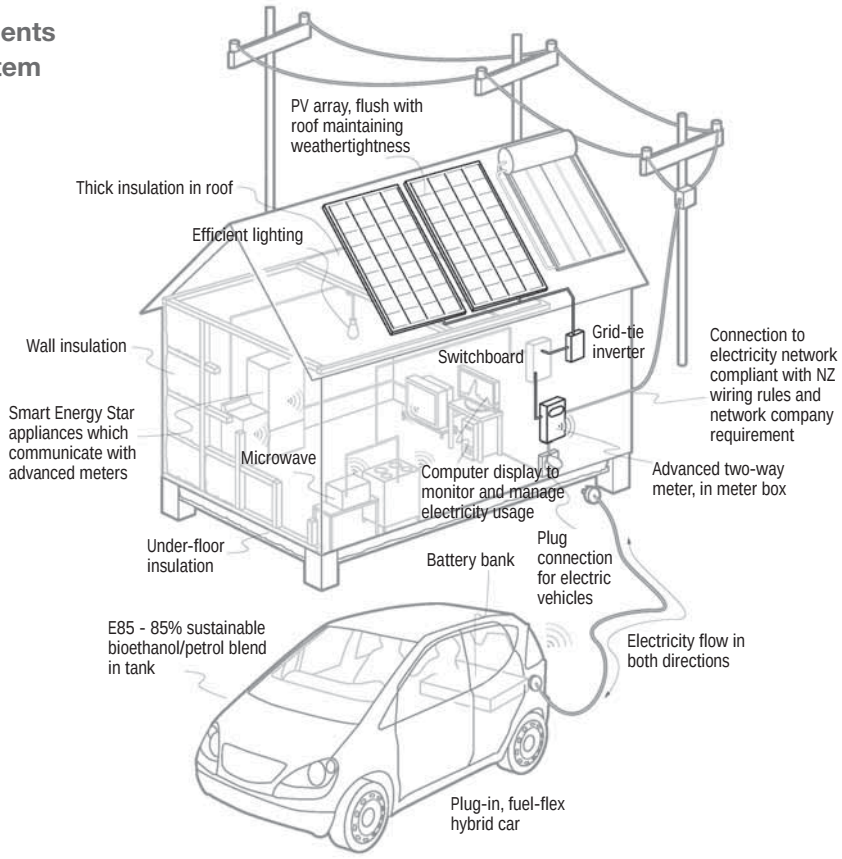
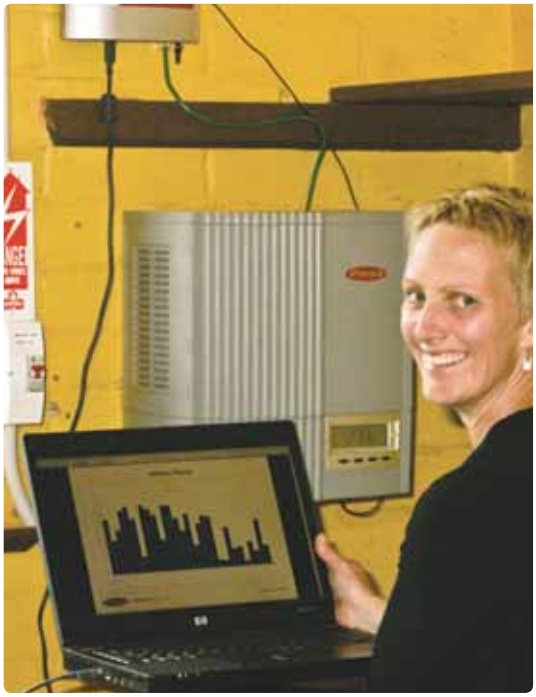


Figure 4-2 Examples of components of grid-connected systems



A grid-connect inverter and data display to show how much electricity has been generated.
Photo: EECA

Photovoltaics are becoming increasingly common in grid-connected systems in urban environments.
Photo: www.solarcentury.com

Frame mounted grid-connected PV system.
Photo: www.solarcentury.com

Grid connected photovoltaic array.
Photo: www.powersmartsolar.com

Example of a display unit on a grid-connected photovoltaic system.
Photo: www.powersmartsolar.com

Grid-connected photovoltaic array in Wellington.
Photo: www.powersmartsolar.com

5. Solar water heating systems

A solar water heating system works by absorbing energy from the sun in collector panels located on the roof. This energy is then transferred to water stored in a hot water tank. At times when there is not enough solar energy to heat the water, 'booster' heating is used to keep the water in the tank at the right temperature. The booster heating can be provided by electricity, gas or a wetback.

Solar water heating systems are often used in conjunction with other microgeneration technologies, and are especially important in stand alone power systems. In these situations it is common to use alternative energy sources for water and space heating to reduce electricity consumption as much as possible – meaning that a smaller and cheaper electricity generation system can be installed.

5.1 Key components of solar water heating systems

There are many different types and variations of solar water heating systems available on the market today, and suppliers typically offer packaged solar water heating systems. Differing types of systems include closed-loop thermosiphon systems, open-looped pumped systems, evacuated tube collectors, and flat plate panels. A packaged solar water heating system is made up of the same basic components and systems:

- a collector - to collect the sun's energy and transfer it to the water or heat transfer fluid
- a hot water storage tank - to store potable water, ready for delivery to the user
- a circulation system – to transfer heat from the collector to the storage tank
- controller or timer and protection devices – these control the circulation system to ensure maximum solar gain, control the use of supplementary heating, and protect the system from overheating, freezing and excessive temperatures and pressures
- supplementary heat source - provides heating when the solar energy collected is not enough to supply the hot water load requirements of the user.

The overall efficiency of a system depends on the perfomance of each component and how well they are matched together as a system.

5.2 Further information

Guidance on the installation of solar water heating systems is provided by the Solar Industries Association (www.solarindustries.org.nz), and the Acceptable Solution to Clause G12 of the Building Code (G12/AS2) deals specifically with the installation of solar water heating.

Further information is also available in 'A Guide to Applying for a Building Consent for a Solar Water Heating System Installation', which is available from the Solar Industries Association.

Figure 5-1 Examples of different solar water heating systems

Frame-mounted solar water heating collector panels installed on a dairy shed.

A commercial-scale solar water heating array installed on the Sky City building in Auckland.

A typical controller for a solar water heating system.

A residential thermosiphon solar water heating system.

A solar water heating system installed with a stand alone power system. The house does not have a connection to the electricity network.

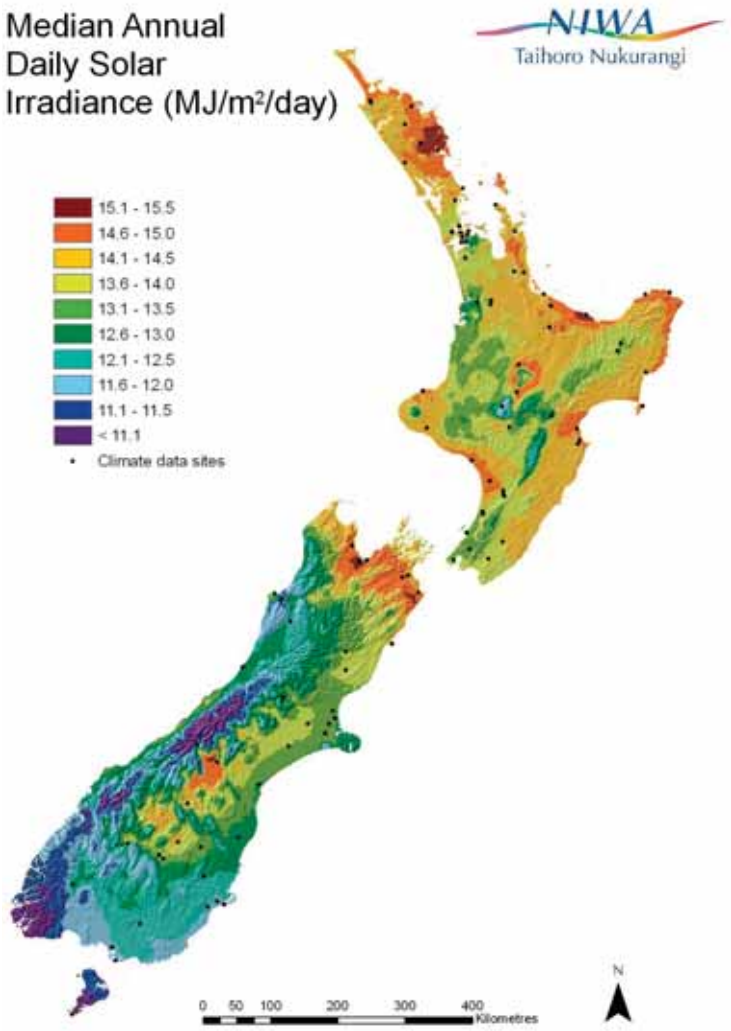
Frame-mounted flat plate collector panels.

6. Photovoltaic systems

Photovoltaics (or 'PV') utilise an abundant renewable energy source, operate without emitting noise and produce no greenhouse gas emissions in operation.

New Zealand has a good solar resource with solar radiation levels equivalent to southern France in many locations. Radiation levels in Invercargill are roughly as high as in Germany, where photovoltaics are used extensively.

Figure 6-1 Solar radiation in New Zealand (NIWA)



PV systems convert energy in light directly into electricity. As such, they are very different from solar thermal systems because they generate electricity, rather than simply absorbing heat to heat water. In New Zealand, PV modules are used extensively to power a range of equipment such as communication systems, water pumps, lights on navigation buoys and electric fences. Larger systems are used on homes, often in remote areas where connection to the electricity network is difficult or expensive, farms, public buildings, petrol stations and lighthouses. They are also becoming increasingly popular in urban environments, in grid-connected applications. The size of the PV system is dependent on the power and energy needs of the specific building or activity or the budget for the project.

Table 6-1 Features of typical PV modules

Solar PV parameters	Comments
Size of typical residential application	Residential PV systems are often between 1 and 5kW in capacity. A good rule of thumb is between 6 and 14m^2 is required per kW installed, depending on the type of PV modules used.
Size of typical commercial application	Commercial PV systems tend to range in size from 5kWp up, although many commercial applications are in the 10s or 100s of kW. The largest PV array in New Zealand is 52kWp, and it covers 416m^2.
Size of typical industrial application	Industrial-scale PV arrays can be very large. Some international PV arrays on industrial roofs are greater than 1MW in size.
Power	Each solar module has a rating specifying its peak electrical output under standard test conditions. Modules are available in sizes from 5Wp to 200Wp. A 1kW PV array could have 6 x 175Wp modules connected together.
Weight	A PV array usually weighs less than 20kg per m^2 of panel.
Reflectivity	While PV panels may cause some reflectivity, this is generally minor. PV manufacturers generally put an anti-reflective coating on the glass to increase the absorption of sunlight and thus the performance of the solar modules. This, in turn, reduces the reflectivity of the panels.
Construction	PV cells are made of several different materials, mainly silicon. PV modules are made up of cells and sandwiched between glass laminate and tedlar, or polyvinyl fluoride. Some newer type of PV cell are created by depositing semiconductor layers as 'thin films' directly onto glass, metals, roofing sheets, or even plastics of various types, including flexible sheets.
Colours	Black, dark blue, grey or brown.
Array types/ configurations	There are many different types of PV arrays and configurations. See the photos and diagrams opposite.
Fixing	There are many different methods of fixing PV to roofs, depending on the roof type. (Note that the Building Code acceptable solution G12/AS2 covers some of these.)

6.1 Key components of photovoltaic systems

PV systems typically comprise these key elements:

- PV modules, frames, cables and mounting or fixing hardware
- an inverter and charge controller
- in off-grid situations, batteries are also required, and PV is often used in conjunction with other generation technologies such as micro and mini-scale wind turbines and/or small backup diesel generators.

6.2 How do they work?

PV cells convert sunlight into electricity by a simple energy conversion process. In most PV cells, photons in the sunlight hit the cells, where electrons are excited in the atoms of a semi-conducting material. Silicon is the most commonly used semi-conductor. The energised electrons result in the generation of an electrical voltage, where electrons flow to produce a direct (DC) electric current.

PV systems can be part of a SAPS that is not connected to the electrical distribution network. In these systems the electricity generated is stored in batteries so that it can be used when the PV cells are not producing electricity. For more information on SAPS, see Section 3.

However, PV panels are becoming increasingly popular in urban environments, where they can be connected directly to the electricity distribution network. These types of systems are known as 'grid-connected', 'grid-interactive' or 'grid-tie' systems. For more information on grid-connected systems, see Section 4.

For more information on photovoltaics, visit www.eeca.govt.nz and the website of the Sustainable Electricity Association of New Zealand www.seanz.org.nz

Figure 6-2 Main components of PV arrays

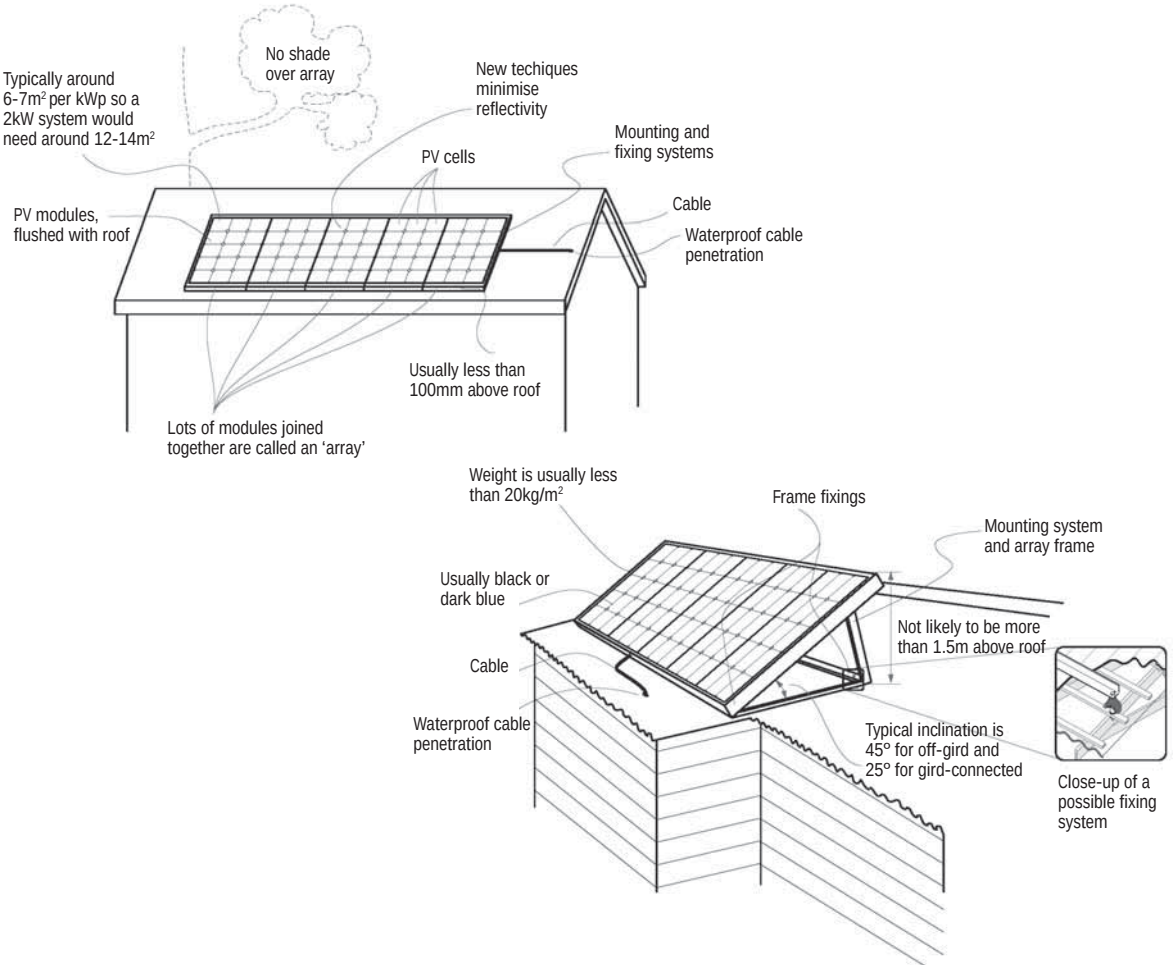


Figure 6-3 Examples of different types of PV arrays

A PV array installed directly onto the roof.
Photo: www.powersmartsolar.com

This photovoltaic array uses an inclined frame mounted on the ground. Photo: Genkit Nelson Ltd.

PV installed at Tapeka Marae.
Photo: EcoInnovation

Photovoltaic 'solar louvres'.
Photo: www.solarcentury.com

An example of photovoltaics with a flexible substrate. The sheets are rolled directly onto the roof.
Photo: Alice Leney

An example of a frame-mounted PV array on the ground.
Photo: Ecogise

PV modules can replace conventional roof cladding.
Photo: www.solarcentury.com

PV roof tiles.
Photo: www.solarcentury.com

The façade of this building has integrated PV panels built into it.
Photo: www.solarcentury.com

Photovoltaic 'glazing' can provide shade and electricity.
Photo: www.solarcentury.com

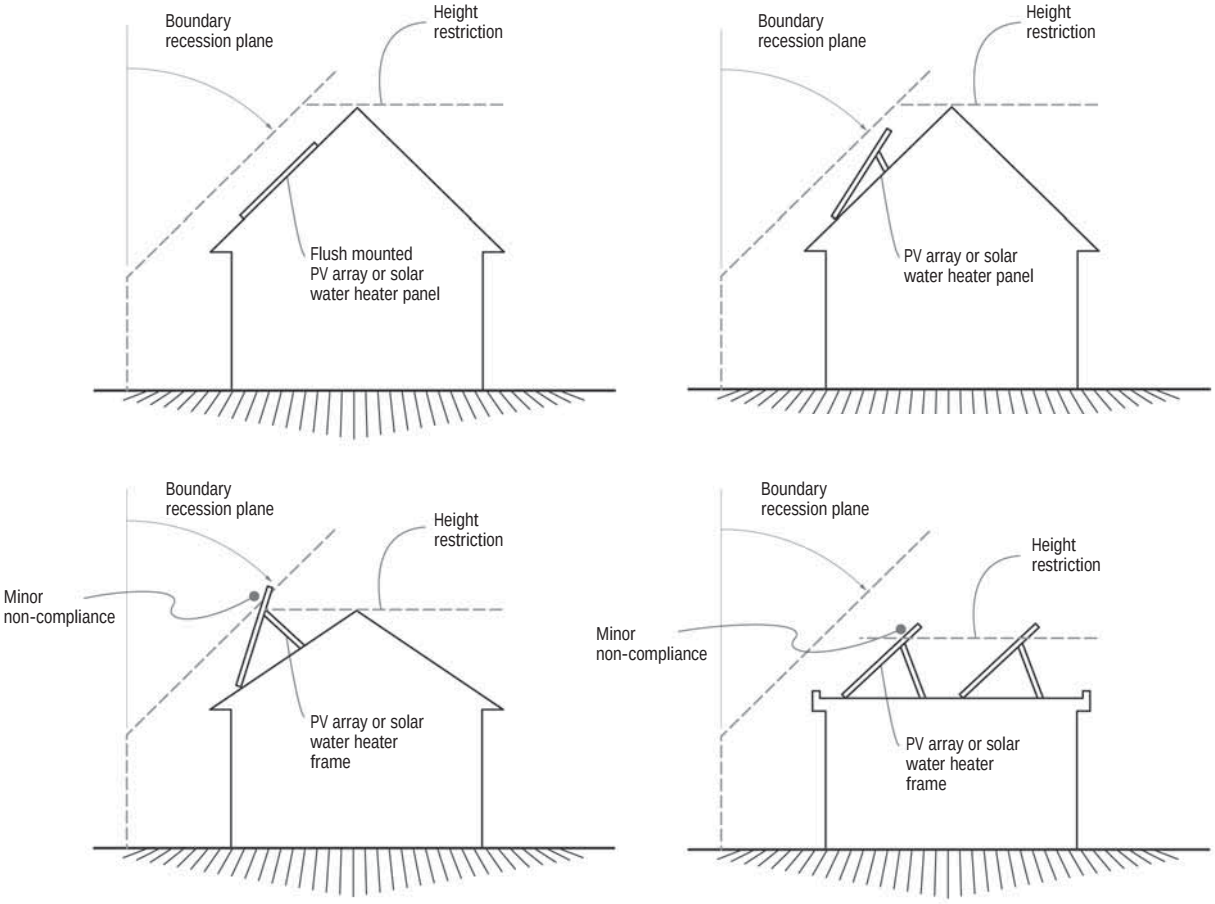
6.3 Photovoltaics – summary of potential effects

The table below provides an assessment of potential effects associated with the installation of PV arrays. Note: From an effects perspective, both solar water heating and photovoltaics are relatively similar. However, a notable difference is that PV panels are much lighter than solar water heating panels and impose lower gravity loads on the roof of buildings or structures.

6.3.1 Effect - Increasing the height of an existing building or structure, and the impact of PV on building height in relation to boundary recession plane

Flush mounted panels not elevated by a frame are extremely unlikely to give rise to any effect, as shown in the diagrams below. It is also unlikely to be an issue for frame mounted panels unless the placement of the panel results in the maximum heights for structures in that area/zone being exceeded, or unless the existing structure is close to the limits. The height of the frame is unlikely to be more than 1.5m above the roof, as shown opposite.

Figure 6-4 Possible effects of PV and solar water heating panels in relation to building height restrictions and boundary recession planes



6.3.2 Effect - Reflectivity or glare

This has occasionally been raised as an issue in the past with reflective surfaces for solar panels (water heating and PV). However, solar panels are designed to absorb light, and in many cases cause less reflection than typical window glass. In the majority of cases this is unlikely to be a significant issue.

6.3.3 Conclusion

Generally, photovoltaics give rise to very few effects and resource consent is usually not required. Councils may consider providing for flat mounted panels as a permitted activity within their district plan, or if the array does not exceed the height limit by more than 0.5m.

Consideration during siting and design can eliminate any potential impact on height. Where a height infringement does occur, the effect is dependent on the size of the panels, the scale and bulk of the surrounding area and the resultant effects on shading and views for neighbouring properties. Given the size and nature of the panels and framing, the effect in most locations is likely to be minor. In some very rare instances it may be appropriate to control effects on daylight and sunlight of neighbouring sites.

The height of frame mounted panels is not likely to be more than 1.5m above the roof on which they are mounted. In the majority of cases this is unlikely to be a significant issue.

Where located near activities sensitive to reflectivity, information from manufacturers with regard to reflectivity of the panels may be helpful.

6.4 Photovoltaics : Approval considerations

The tables below provide indicative guidance on potential effects and considerations for a PV installation. It should be noted that this information is indicative only and it is recommended that local authorities develop their own flexible approach and interpretation.

6.4.1 Effects of PV installations

Effect	Possible considerations	Possible means of demonstration
Height	The array does not exceed height limits by more than 0.5m.	Illustrations showing elevation of PV array, and relevant height limits.

6.4.2 Building Code considerations with PV systems

The structural and weathertightness considerations of installing PV panels are similar to those for installing solar water heating panels. However, PV panels are generally lighter (weighing on average up to 10 kg per panel, or less than 20 kg/m2) and consequently have less impact on the structural performance of the building they are attached to.

7. Micro and mini-scale wind turbines

Wind power is a clean, renewable source of energy which produces no emissions while operating. New Zealand has one of the best wind resources in the world and wind farms are increasingly being developed to generate electricity. Micro and mini-scale wind turbines are also available and can be an effective means of generating clean electricity, especially in rural situations.

Table 7-1 Features of typical micro wind turbines

Some common micro and mini-scale wind turbine parameters	Comments
Size	Micro and mini-scale wind turbines range in size from those which have rotors of less than 1m in diameter to much larger devices which have rotors between 8-10m in diameter. Most household-scale wind turbines have rotor diameters of less than, approximately, 5m.
Rotor blades	Wind turbines need only one blade to convert wind energy, however most wind turbines these days use two or three blades. The blades are usually made from composites of fibreglass, carbon fibre, or wood.
Rated power output	The rated power output of micro turbines range from a few hundred watts to up to around 15kW. Typical micro-scale turbines have a rated power output of 1-3kW.
Mounting locations	Micro wind turbines are most commonly mounted on top of towers or poles in rural areas with good wind resources. Some new designs can be mounted directly onto buildings or other structures.
Tower type and height	Towers are usually either free-standing tubular or lattice towers, or tubular masts supported by guy wires. The height is usually between 10 and 20m above ground level. Performance improves with height so most towers are at least 10m high, and towers around 20m in height are preferable. Some towers can be 'tilted' up and down to make it easier to install and service the turbines.
Survival wind speed	Most turbines have a mechanism which prevents mechanical damage in extremely high wind speeds. This is sometimes called 'overspeed control'. Some turbines are designed to continue operating in high winds, or have a feature that allows the blades to twist (or 'feather') out of the wind for protection. Other mechanisms are electrical breaking and pitch control.
Start-up speed	Most micro wind turbines require at least 3m/s of wind before they generate electricity; however, at least 4.5m/s is usually required to start working effectively.
Rotor configuration	The most common rotor configuration is a three-bladed, horizontal-axis turbine. However, numerous other designs exist. For example, single and two-bladed configurations are available, as are many vertical-axis configurations.
Noise	All small wind turbines generate some noise, although generally this will be acceptable if sited carefully. The level of noise depends on the turbine, and the extent to which it can be heard depends on background ambient noise, such as wind whistling in trees, traffic, farm machinery etc.

Households usually use micro wind turbines that are smaller than 5kW, and farms, businesses, small communities or groups of houses might use up to 20kW in size. Even larger turbines may be used for 'island' grids or larger groups of users.

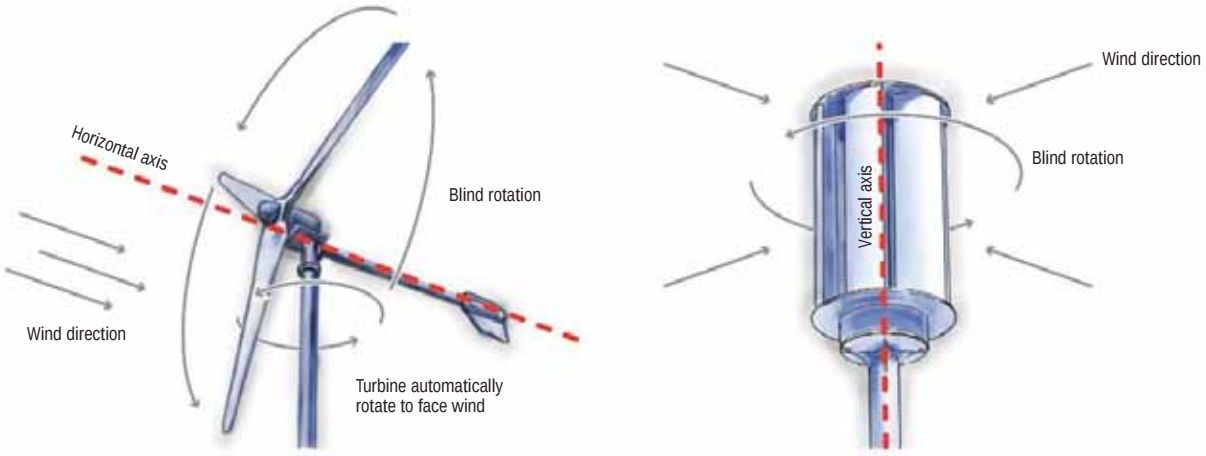
For more information on micro and mini-scale wind energy, please see www.eeca.govt.nz, and the website of the Sustainable Electricity Association of New Zealand www.seanz.org.nz

7.1 How do they work?

The energy in the wind can be harnessed to generate electricity via a wind turbine. The turbine will generate electricity as long as there is a reasonable wind speed; most small wind turbines need an average speed of at least 4.5m/s (16km/h) to operate effectively. In very windy places more wind may be captured but it may also mean more maintenance is required for the turbine, or that it will have a shorter operational life.

The blades of the micro and mini-scale wind turbine must be positioned appropriately so to be exposed to clean airflows: they are usually mounted on towers so they are exposed to more consistent wind with a higher average speed. The wind turns the rotor blades of the turbine, which then spins a shaft connected to a generator. The generator uses magnetic fields to convert the rotational energy into electricity. Most turbines are horizontal-axis, mounted upwind of the tower, and have tail fins or an active yaw system to ensure the blades are constantly facing the wind, however other designs have the blades downwind of the tower.

Figure 7-1 Examples of horizontal axis (HAWT) and vertical axis (VAWT)



Another type of wind turbine is a vertical-axis wind turbine. These are less common than horizontal-axis wind turbines, but they have the benefit of not needing to turn to face the wind in situations where direction varies quickly. Some vertical-axis wind turbines are small enough to be mounted directly on a building, while others are pole mounted on the ground.

7.2 Key components of micro and mini-scale wind turbines

Wind turbines typically comprise these key elements:

- a rotor that converts the kinetic energy in the wind to rotational motion
- a generator to generate electricity from the rotational motion of the rotor (usually contained inside the turbine)
- electronic control to control the electrical output from the rotor and the safe operation of the turbine
- an inverter, usually external to the turbine, to safely convert the power to a compatible format to the electricity network or for household appliances. Some turbines have the inverter built into the turbine nacelle
- a pole, guyed mast, or tower upon which the turbine sits, and the foundations supporting this structure
- some wind turbines have a maximum wind speed above which they will not operate. When winds over this maximum occur, they have an internal brake and lock or furling mechanism to prevent them from going faster than this speed.

7.3 Pole or tower mounted turbines

It is common for micro wind turbines to be mounted on top of a pole or tower. These designs usually require a small area of land for between 4 and 9m2, depending on the particular model and on the foundations and/or guy wires etc. The electricity generated by the turbines is usually fed through wires down the pole or tower, through the foundations and back to the building where it is connected to a distribution board, or into the battery bank.

Poles and towers are often made of steel, and may be guyed or can be self-supporting, either lattice or tubular in construction. Self-supporting poles are more compact and may be visually less intrusive, but tend to be more expensive.

Three-blade turbines provide the most common configuration for pole mounted mini-scale turbines, although one and two-blade options are also available.

Because there are many different designs of micro wind turbines available, manufacturers' guidelines and information should also be consulted for information on siting and installation.

Figure 7-2 Main components of tower and pole mounted wind turbines.

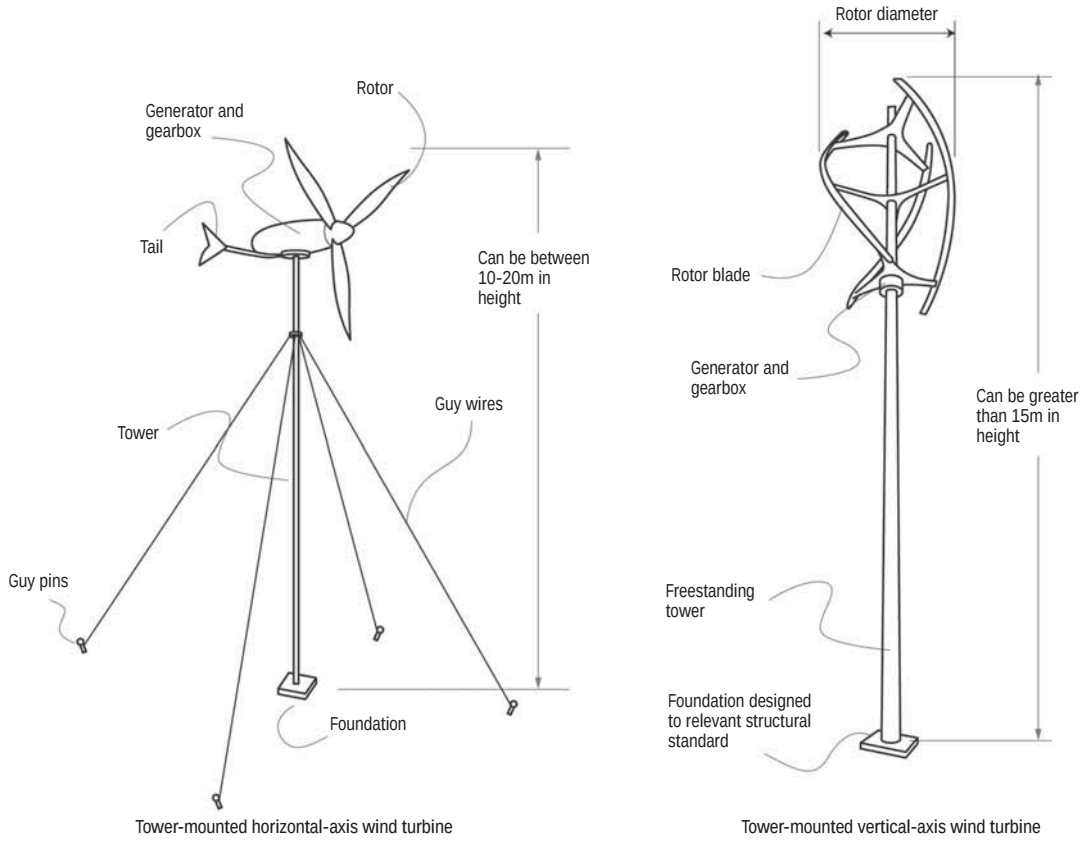


Figure 7-3 Examples of different micro and mini-scale wind turbines

Pole mounted, with guy wires, three-bladed horizontal-axis micro wind turbine with a tilting mechanism.
Photo: Gusto Energy Ltd.

A three-bladed downwind turbine on a 15m high tubular pole.
Photo: Proven Energy New Zealand

Two wind turbines on monopoles, in a grid-connected system near Christchurch.
Photo: EECA

Micro wind turbine on a self-supporting tower next to a house.
Photo: EECA

Self-supporting tubular tower mounted three-bladed horizontal-axis micro wind turbine.
Photo: Elemental Energy

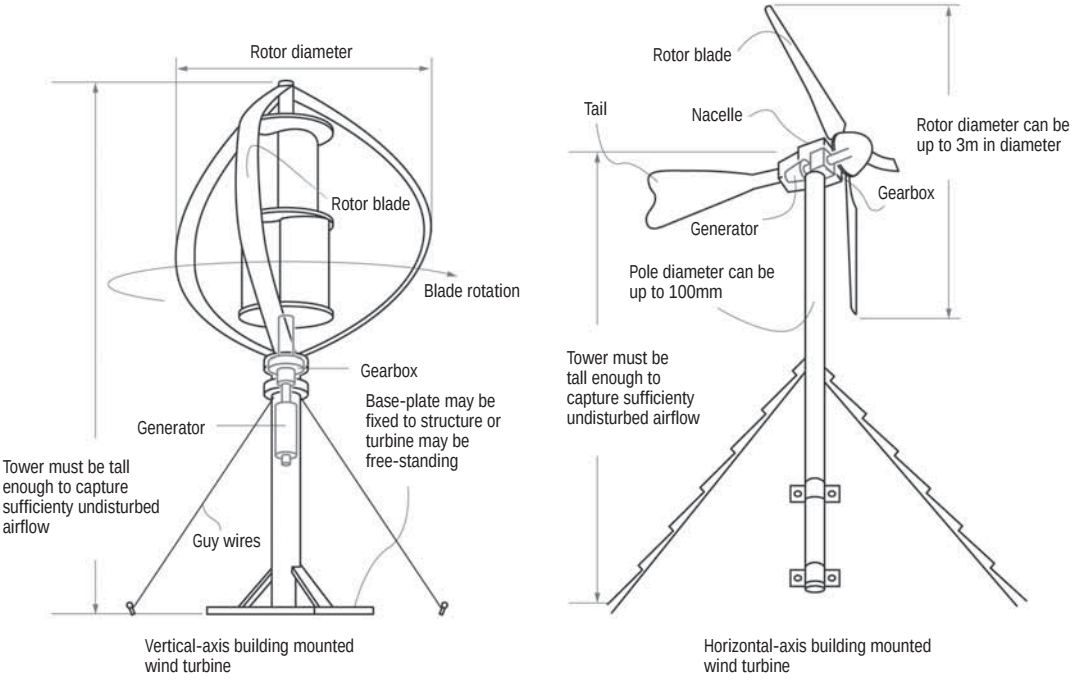
Pole-mounted, with guy wires, three-bladed horizontal-axis micro wind turbine.
Photo: EcoInnovation

7.4 Rooftop or building integrated turbines

Rooftop mounted or wall mounted micro wind turbines are a new and emerging type of wind turbine, and there are many varying designs and types available, and many more are likely to become available in the future. It is recommended that all rules and plans are flexible and do not preclude potential developments and improvements. Manufacturers will often provide information and guidance material about their particular models.

Generally, rooftop or wall mounted wind turbines require a solid section of building at the roof line to directly attach the turbine, providing a sufficient clearance above the apex of the building to take advantage of the wind resource around the building.

Figure 7-4 Main components of rooftop mounted micro wind turbines

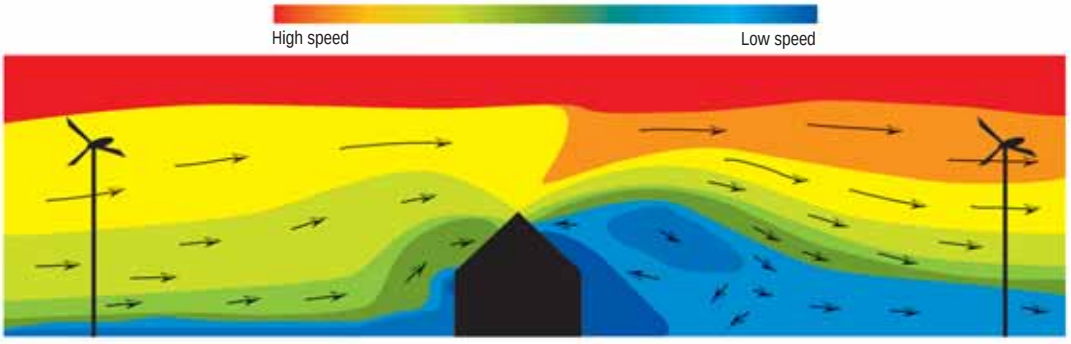


7.5 Wind resources

Micro and mini-scale wind turbines can be used in both urban and rural environments, although they are more common in rural environments. However in urban areas, especially on rooftops, turbines are typically less successful because winds tend to be turbulent, weak and erratic due to buildings, trees and other obstructions, although with careful siting these effects can be mitigated for some locations.

To be most effective, wind turbines need to be exposed to as much wind as possible. Turbines should not be sheltered behind trees, buildings, or other obstructions. Disturbed wind flow can reduce the performance of wind turbines in some situations, as seen below

Figure 7-5 Indicative wind flows in a rural area



Pole-mounted turbines should be located away from obstructions such as building or trees. Taller poles or towers are required to position turbines in stronger and more consistent winds.

Figure 7-6 Indicative wind flows in an urban area

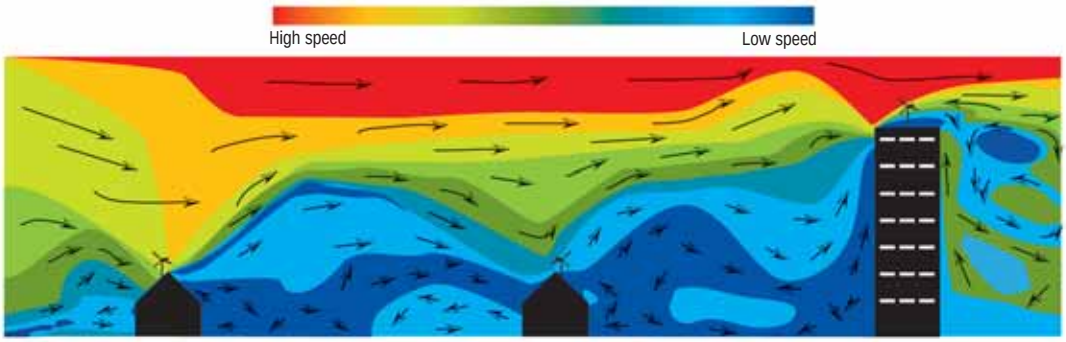


Illustration of wind-flow speeds in an urban environment. It can be more difficult to site a turbine in consistent and strong winds.

7.6 Micro and mini-scale wind – summary of actual and potential effects

This table provides an assessment of actual and potential effects associated with the installation of micro and mini-scale wind turbines.

7.6.1 Effect - Landscape and visual amenity

This effect is largely related to the location, height and design of turbines.

Generally speaking, the higher the turbine is the more power can be generated. Most micro turbines are installed on towers less than 20m in height.

Consideration during siting and design can reduce impacts on landscape and visual amenity. Micro and mini-scale wind turbines should be sited to ensure they provide sufficient power, but also keep environmental impacts to a minimum.

Councils and developers need to be flexible in considering locations to ensure a balance between maximising the power that can be generated and minimising landscape and visual impacts. In rural areas it may be possible for wind turbines up to 20m to be installed with relatively few adverse effects in some locations, while in urban areas an appropriate height will be much lower.

Overall, given the relatively minor effects, councils may consider providing for micro and mini-scale wind turbines as a permitted activity in certain areas, subject to certain standards.

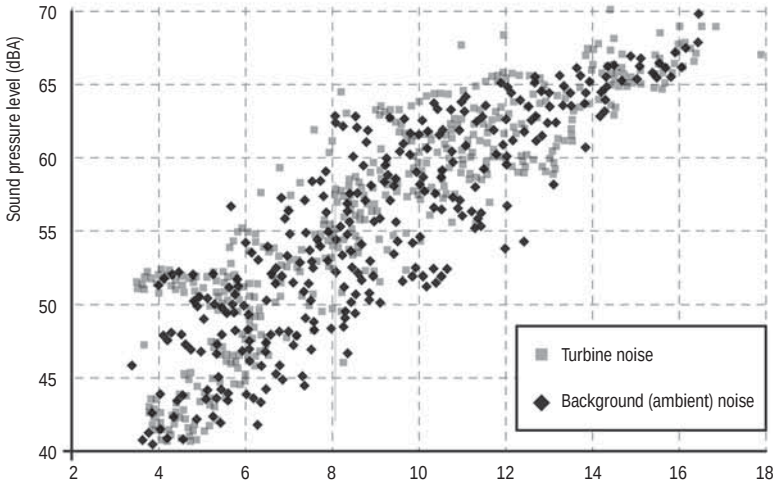
7.6.2 Effect - Noise generated by turbines

Turbines give rise to aerodynamic and mechanical noise, although modern designs have largely eliminated the mechanical noise of earlier turbine models. Many mini-scale wind turbines do not have gear boxes, which also reduces mechanical noise.

The noise from a micro wind turbine is likely to be acceptable, especially in a rural environment where installation is some way from habitation. However, it could be an issue where an installation is located near to noise-sensitive activities or the installation exceeds the noise limits specified in the district plan. To protect neighbours, if nearby, a condition controlling the level of noise may be attached to the consent.

NZS 6808 – The Assessment and Measurement of Sound from Wind Turbine Generators provides methods for the prediction, measurement, and assessment of sound from wind turbines. The methods in the Standard are commonly used on large-scale wind farms, and are not usually required or suitable for micro wind turbines installations.

Figure 7-7 Example plot of wind turbine noise and ambient noise



Example plot of turbine noise and ambient noise

Wind turbine noise increases as wind speed increases. However, it should be noted that background (ambient) noise also increases as wind speed increases, which can help mitigating this effect. This means that the noise from the wind turbine is often masked by the background ambient wind noise.

In most case a detailed assessment of noise from a micro wind turbine should not be required. However, information from manufacturers can be used to demonstrate compliance with district plan noise limits for a zone/area. Most designs and installations are unlikely to exceed district plan noise limits.

7.6.3 Effect - The risk of bird and bat strike resulting in injury and fatality

This is often raised as a concern with larger turbines, however only a few bird fatalities have ever been recorded in New Zealand. Smaller turbines may be less likely to result in risks to birds or bats due to their location close to human activity such as dwellings, buildings and other man-made structures. This is unlikely to be a significant issue.

7.6.4 Effect - Shadow flicker from the turbine

Shadow flicker is unlikely to be an issue with micro wind turbines due to their small diameter, and the likely location where they are installed.

In the majority of cases this is unlikely to be a significant issue. Additional information on shadow flicker can generally be sought from the turbine manufacturer if required.

7.6.5 Conclusion

Generally, micro and mini-scale wind turbines are only likely to give rise to effects in relation to height and noise.

Given that wind turbines should be positioned as high as possible to be effective, councils may consider providing micro or mini-scale wind turbines as a permitted activity in certain areas within their district plan.

In terms of noise, manufacturers should be able to provide acoustic information about their turbine. Noise measurement should be relative to the boundary of the property, and to the levels of background (ambient) noise that occur naturally in windy conditions.

7.7 Micro and mini-scale wind turbines : Approval considerations

The tables below provide indicative guidance on potential effects and considerations for a micro or mini-scale wind turbine installation. It should be noted that this information is indicative only and it is recommended that local authorities develop their own flexible approach and interpretation.

7.7.1 Effects of micro and mini-scale wind turbines

Effect	Possible considerations	Possible means of demonstration
Height	(In rural areas) the turbine does not exceed 20m in height.	Illustrations showing height of the wind turbine, and relevant height limits.
Noise	The installation complies with relevant noise limits at the property boundary.	Manufacturers may be able to provide acoustic information, to be compared with relevant noise limit. Note that as wind speed increases, background ambient noise also increases.

8. Micro and mini-scale hydro-electric generators

Most of New Zealand's electricity is generated from hydro power stations. This principle of converting the energy of falling water into electricity is the same for the generation of electricity for thousands of houses or a 1kW system suitable for one house. Micro and mini-scale hydro has numerous benefits especially as it utilises a renewable energy source and does not produce any greenhouse gases while operating. Micro and mini-scale hydro can be a viable option for many farms, lodges or other rural properties and businesses.

Micro and mini-scale hydro schemes vary considerably, and are always designed according to the location and user.

Table 8-1 Summary of micro and mini-scale hydro generators

Micro and mini-scale hydro parameters	Comments
Turbine types	The two main types of micro-hydro turbines are 'impulse turbines', (such as the Turgo or Pelton wheel) or 'reaction turbines'. In an impulse turbine, a high-speed water jet strikes and rotates the turbine buckets (runner), while a reaction turbine has the runner fully immersed in the water flow.
Power	Micro-hydro turbines tend to be sized from a few hundred watts to a few kilowatts. The amount of electrical energy able to be generated depends on the flow of the river, and the available head. Turbines less than 5kW in rated capacity are less likely to require water storage, meaning that they are run-of-river schemes.
Maximum flow diverted	Generally, the maximum flow diverted from the stream should be no more than 50% of the minimum flow of the particular water source.
Required head and flow	Both head and flow can vary considerably. Generally, the higher the head (or the vertical drop between the intake and the turbine), the more effective the hydro scheme will be. However, even a small head of less than 5m could be adequate, as long as there is sufficient flow in the stream.

Small-scale hydro-electric facilities are generally classified into three sizes:

- micro-hydro is up to 5kW
- mini-hydro is between 5 and 20kW
- small-hydro is between 20kW and up to around 10MW

Most micro-hydro systems for houses and buildings are less than 5kW, and in many cases less than 1kW.

Micro and mini-scale hydro systems, especially those less than 5kW in rated capacity, are usually run-of-river, which means that they do not require water storage in the form of a dam or weir. Instead of storing water, a portion of the stream or river is usually temporarily diverted to and through the micro-hydro generator, and then returned to the same stream. If the micro or mini-scale hydro scheme does require a dam or other form of water storage, additional civil works and engineering requirements will need to be met. This document does not cover systems which include a dam and is limited to run-of-river schemes.

Guidance for hydro-electric facilities of greater than 100kW capacity is provided in EECA's 'Small Hydro Planning Guidelines' www.eeca.govt.nz

For more information on micro and small-scale hydro, see EECA's factsheet 'Small-hydro' and the website of the Sustainable Electricity Association of New Zealand www.seanz.org.nz

8.1 How do they work?

Micro and mini-scale hydro systems use the force of moving water to turn turbine blades, which spin a shaft connected to a generator. The generator uses magnetic fields to convert this rotational energy into electricity. Micro and mini-scale hydro systems are best suited to rural sites close to a source of flowing water. They can be set up wherever water falls from a higher level to a lower level, such as a waterfall, hillside, stream or where a reservoir discharges into a river.

8.2 Key components of run-of-river micro and mini-scale hydro-electric

The type of turbine used will depend on the head and flow of the site. Impulse turbines are usually used in high-head schemes, while reaction turbines are normally used on low-head schemes.

Most run-of-river schemes comprise these key elements:

- an intake and diversion structure
- headrace and/or penstock (channel or pipe)
- generator.

Figure 8-1 Main components of a run-of-river micro hydro scheme

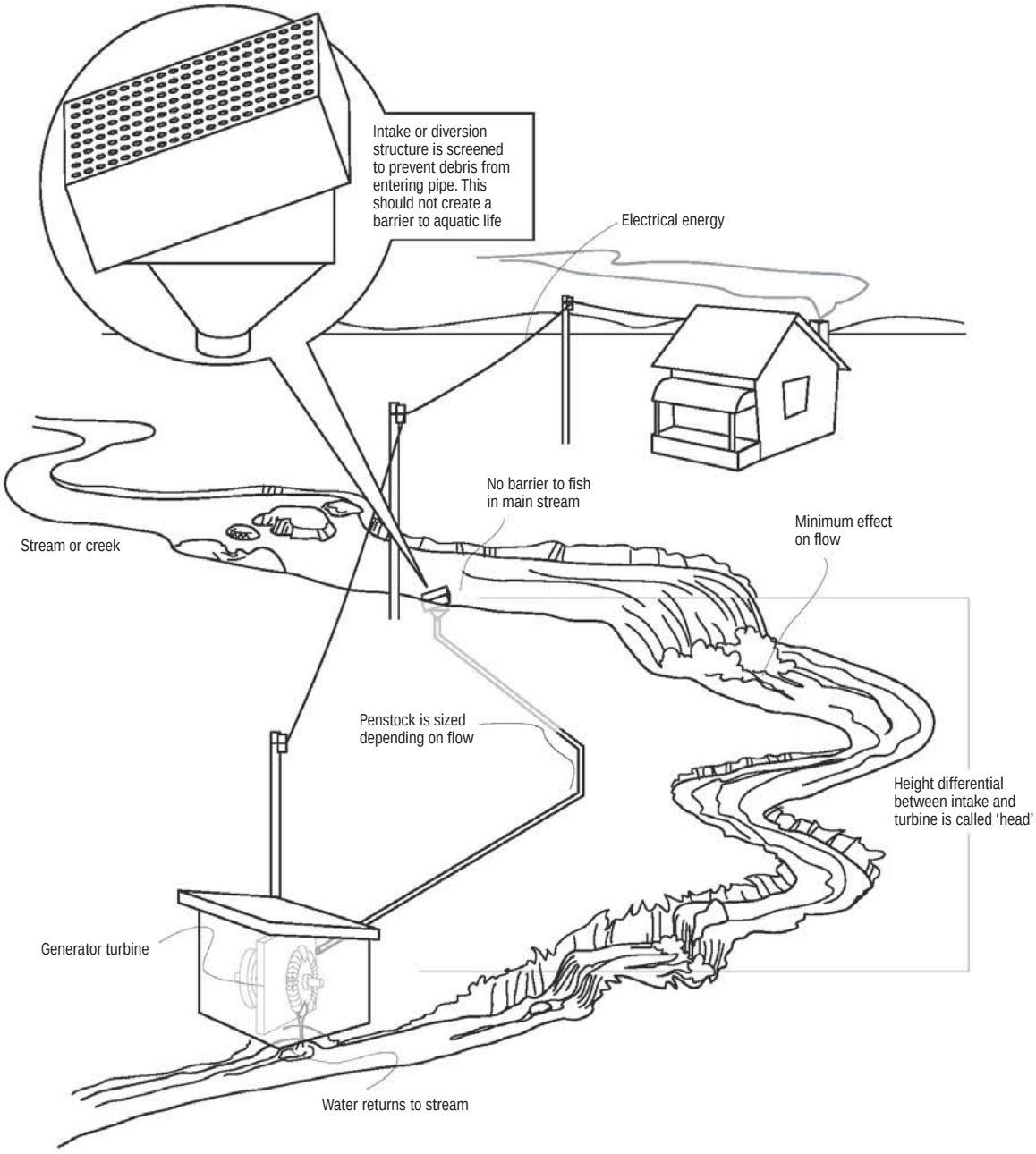
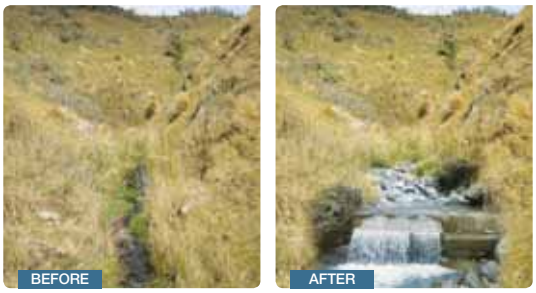


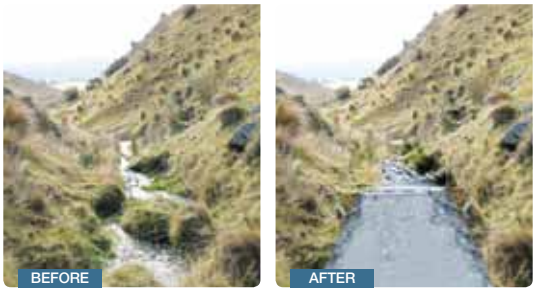
Figure 8-2 Photos of components of different micro and mini-scale hydro schemes

Close-up of a Pelton wheel impulse turbine. The water returns to the same catchment that it was diverted from.
Photo: EcoInnovation

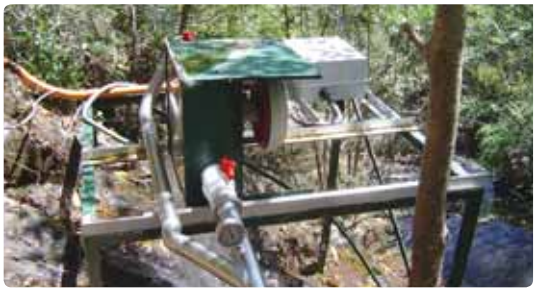


Simulation of the impact a micro (2-5kW) hydro scheme could have, looking upstream. A small weir is constructed to divert a portion of the stream into a penstock.
Photos: Genkit Nelson Ltd.

A Turgo impulse micro hydro turbine.
Photo: Alternative Power NZ Ltd.



Simulation of the impact a the impact a micro (2-5kW) hydro scheme could have, looking downstream.
Photos: Genkit Nelson Ltd.



Another example of a run-of-river micro hydro scheme.
Photo: EcoInnovation

Another example of an intake structure. The stream flows over the metal screen, which prevents leaves or debris from entering the white plastic penstock.
Photo: EcoInnovation

8.3 Run-of-river micro and mini-scale hydro - summary of actual and potential effects

8.3.1 Effect - Impact on the flows and volume of water within watercourses

Run-of-river (where there is no storage like a dam or reservoir) micro-hydro schemes can have significantly less impact on flows and the volume of water within watercourses than larger schemes that require storage. They are also unlikely to give rise to effects given the small volume of water diverted via a run-of-river scheme, except where watercourses have low flows.

A case-by-case assessment is required. A permit may be required for diverting water depending on the volume of water and the nature of the watercourse involved.

8.3.2 Effect - Impact on fish and aquatic invertebrates

Not an issue for run-of-river schemes which do not create barriers to fish, and where the intake is suitably designed to prevent fish and aquatic invertebrates from entering the penstock.

8.3.3 Effect - Impact on other users (recreation, water available to others)

Potentially an issue for large systems on waterways with public and recreational access/ values. Any structures need to be compatible with other users. Unlikely to be an issue for micro-hydro.

Only gives rise to potential effects when locating in areas with recreational access/values.

8.3.4 Conclusion

Generally, run-of-river micro-hydro systems are only likely to give rise to effects related to the impact on the flow of water and the impact on fish and other aquatic invertebrates. These effects can usually be mitigated through careful siting and design, including the design of appropriate intake protection structures, and ensuring that water is returned to the same catchment as it was diverted from.

Run-of-river micro hydro schemes that are less than 5kW in rated capacity are likely to be smaller, and divert less flow, than larger schemes. They are also less likely to require civil works such as storage facilities. Hydro schemes less than 5kW are also less likely to require permanent structures to be built in or near the stream, which also reduces the chance of the scheme causing flooding.

In situations where consents exist for a particular use, such as irrigation, it may be appropriate to add microgeneration as an additional use of the resource, without altering the impact on the resource use.

8.4 Micro and mini-scale hydro : Approval considerations

The tables below provide indicative guidance on potential effects and considerations for a run-of-river micro or mini-scale hydro installation. This guidance does not cover hydro schemes with water storage such as dams or weirs.

It should be noted that this information is indicative only and it is recommended that local authorities develop their own flexible approach and interpretation.

Table 8-2 Effects of run-of-river micro and mini-scale hydro systems

Effect	Possible considerations	Possible means of demonstration
Impact on the flows and volume of water within watercourses	The scheme does not significantly affect the flow of the watercourse. The scheme is run-of-river scheme. The scheme diverts less than 50% of the flow of the stream when it is at its driest. The water is returned to the same natural catchment that the water was diverted from. The rated capacity of the turbine is less than 5kW.	Manufacturer's specifications. System diagram. Comparison of required flow to be diverted with flow of watercourse at driest time of year.
Impact on other users (recreation, water available to others)	The proposed installation does not disadvantage other users.	Manufacturer's specifications. System diagram.
Impact on fish and aquatic invertebrates	The scheme does not prevent fish or invertebrates from moving along watercourse, or draw them into water intake.	Intake is suitably designed. Fish pass provided if fish present in stream.
Effects on flooding	There are no permanent structures built in the stream that could cause flooding.	Manufacturer's specifications. System design.

Appendix 1: Example case studies of microgeneration

Visit www.eeca.govt.nz for copies of these case studies and other information about microgeneration in New Zealand.

CASE STUDY

High country home generates its own power

When Maree Handy built on a remote property near Fairlie in South Canterbury, she had the choice of connecting to the nearby electricity lines or building her own stand alone power system. Being independent from the grid and never receiving another power bill was appealing – so she opted for her own 'little power station'.

Luxury lodge goes off-grid

CASE STUDY

Key features

- 3.2 kW micro hydro turbine generates lodge's electricity in a stand alone power system
- 27 kW back-up diesel generator

Key benefits

- Less expensive option than connecting to electricity network
- Minimises greenhouse gas emissions
- Environmental benefits align with company's environmental values and brand

Connecting to the electricity network was not a viable option for a luxury lodge in the Waihopai Valley, in Marlborough. Instead, the owners of this exclusive tourist destination saw the opportunity to install a hydro generator to power their first-class guest experience with clean renewable electricity.

CASE STUDY

Holiday home generates own clean, green electricity

Like many rural or remote properties, connecting to the electricity grid was not an option for this remote island holiday home the Bay of Islands. Instead, a stand alone power system generates the electricity needed for a relaxing getaway with all the comforts of home.

Lodge turns energy into revenue

CASE STUDY

Key features

- Highly energy efficient building design and heating/ hot water systems to reduce electricity needs.
- Good wind energy resource harnessed by two 2.4 kW wind turbines to generate electricity for lodge.
- Wind turbines grid-connected, to enable export of excess electricity back into network.

Key benefits

- Reduced electricity demand means lower running costs for business.
- Owners paid for excess electricity generated and exported into network – lower electricity demand means a greater proportion can be exported.
- Owners have control of both electricity supply and demand in their home and business.

By reducing their electricity needs and installing two small wind turbines, owners of this lodge have eliminated their power bill – and they're getting paid for the excess electricity they generate.

Appendix 2: Useful resources relating to distributed generation

Reports

Developing Small-Scale Renewable Energy Projects in New Zealand
www.eeca.govt.nz/node/1535

This report provides high level guidance to independent renewable energy project developers who wish to investigate and progress distributed generation projects. The report focuses on geothermal, hydro and wind projects in the range of 10kW to 20MW.

Costs and Benefits of Connecting Distributed Generation to Local Networks
www.eeca.govt.nz/node/1532

This paper provides a summary of the report 'Costs and benefits of connecting distributed generation to local networks'. EECA commissioned this work to help quantify the economic impacts of distributed generation (DG) on local distribution networks.

Costs of small scale distributed generation
www.eeca.govt.nz/node/1478

This paper briefly reviews unit costs for a range of small scale electricity generation technologies up to 15MW in capacity. Unit cost for a generation project can be defined as the price of electricity required to recover all costs over the life of the project while providing an acceptable financial rate of return. Unit costs are often used to compare the relative economics of different generation technologies.

Distributed generation: study of alternative energy supply options for remote communities
www.eeca.govt.nz/node/1480

The report examines the potential for small scale generation and energy management in five remote sites in South Canterbury. Technical information and economic costs and benefits for a variety of options in each location are presented. The report illustrates that - with the right set of conditions - small scale generation can be a viable alternative option for lines companies in certain applications.

Get smart, think small: Local energy systems for New Zealand (Parliamentary Commissioner for the Environment).
www.pce.parliament.nz/reports_by_subject/all_reports/energy__and__climate/get_smart_think_small

This study considers the potential, and benefits, of local energy systems in New Zealand.

Websites

Consumer information on microgeneration
www.energywise.govt.nz/how-to-be-energy-efficient/generating-renewable-energy-at-home

This website has useful information on photovoltaics, micro wind turbines, micro hydro turbines, off-grid and grid-connected systems.

Technical information on distributed generation
www.eeca.govt.nz/efficient-and-renewable-energy/distributed-electricity-generation

The Sustainable Electricity Association of New Zealand (SEANZ)
www.seanz.org.nz

The Electricity Commission
www.electricitycommission.govt.nz

The Ministry of Economic Development
www.med.govt.nz

This website has information on the Electricity Governance (Connection of Distributed Generation) Regulations 2007.

For more information contact The Energy Efficiency and Conservation Authority:

EECA HEAD OFFICE:
PO Box 388, Wellington, (04) 470 2200

EECA AUCKLAND:
PO Box 37444, Parnell, Auckland, (09) 377 5328

EECA CHRISTCHURCH:
PO Box 13983, Christchurch, (03) 353 9280

APRIL 2010/EEC1487

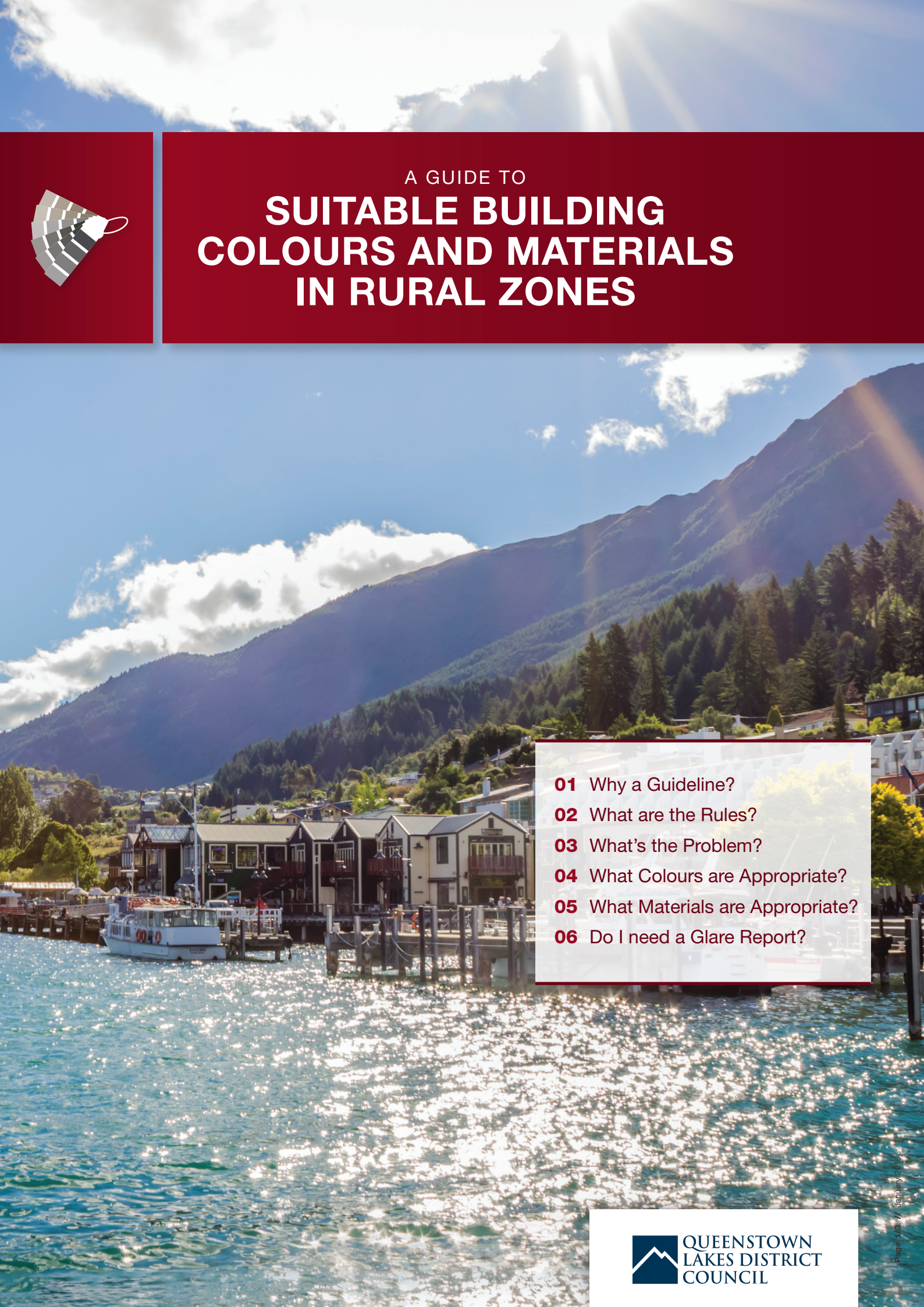
New Zealand Government

Energy Efficiency and Conservation Authority
Te Tari Tiaki Pūngao

Appendix 8. QLDC Document A guide to suitable building colours and materials in Rural Zones

A GUIDE TO

SUITABLE BUILDING COLOURS AND MATERIALS IN RURAL ZONES



QUEENSTOWN LAKES DISTRICT COUNCIL

Page 1 of 7 / January 2018

01

WHY A GUIDELINE?

Queenstown Lakes District Council (QLDC) aims to preserve its unique and sensitive landscape for future generations to enjoy and appreciate. It is important then that any development is carefully considered in terms of the colours and materials that are used. As such QLDC seeks to:

1. Encourage the use of colours with low reflectance to make buildings appear unobtrusive within the landscape (so they don't stand out).
2. Encourage the use of building materials, in particular for roofs, that complement the environment in terms of colour and texture and do not cause glare.

02

WHAT ARE THE RULES?

RURAL ZONES

- The external appearance of any building in the Rural Zone (Rural Residential, Rural Lifestyle, Rural General and Gibbston Character) is assessed under the resource consent process.
- The assessment matters emphasise that buildings should not be prominent.
- Recessive colours and materials help to protect the rural landscape.

HIGH AND LOW DENSITY RESIDENTIAL ZONES

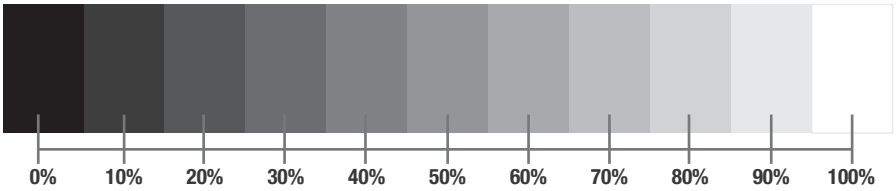
- Metal cladding, roofing or fencing is required to be painted or otherwise coated with a non-reflective finish (Rule 7.5.5.2(ix)).
- Best practice is to consider neighbours and any potential adverse effects on them

03

WHAT IS THE PROBLEM?

REFLECTANCE

The term 'reflectance' as it is used in this Guide refers to the amount of white or black within a colour. White pigment reflects all the light that strikes it. Black pigment absorbs all the light that strikes it. All colours are somewhere between these two extremes. This effect is measured by the Light Reflectance Value (LRV) of a colour.



GLARE

The term 'glare' as it is used in this Guide refers to the effect which occurs when a bundle of light is reflected from a smooth surface regardless of the colour of that surface.

COLOURS

Light colours, ones that have a high LRV are visually prominent. Darker colours, ones that have a low LRV, are recessive. That is, the same object coloured with a light colour will appear closer to a viewer and more obvious, regardless of its background, than if it were a dark colour.

Some colours with a low LRV still do not appear recessive within, or sympathetic to, the landscape in the Queenstown Lakes District. The colour ranges that do are the natural browns, greens and greys with an LRV of less than 36%.

MATERIALS

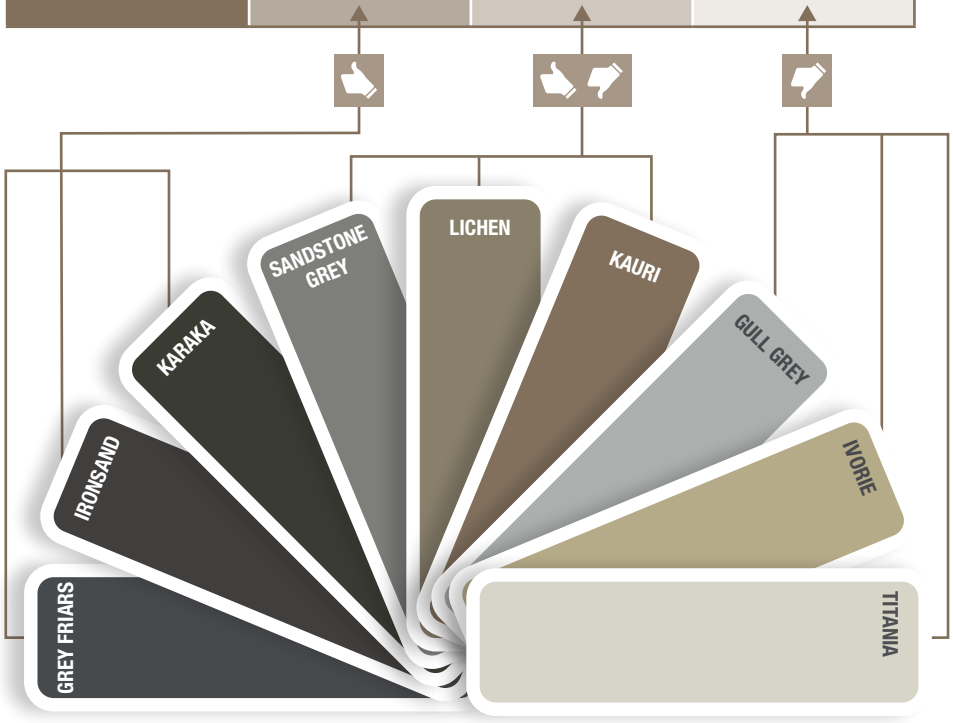
Smooth surfaces reflect light directly, whereas textured surfaces scatter the light causing it to be less bright in any one spot. This means that smooth surfaces are more likely to cause glare than textured surfaces, regardless of the colour.

04

WHAT COLOURS ARE APPROPRIATE?

Preference should be given to colours in the natural range of browns, greens and greys to complement materials and tones found in the natural surroundings. In particular, pale colours should be avoided as they can stand out within the landscape. The LRV should be in the range of 5% to 35% depending on its use and its context, darker colours usually being appropriate in sensitive parts of the landscape. Colours with an LRV of less than 5% can create stark contrasts and often are not appropriate.

LRV	5–20%	21–35%	36–100%
Appropriateness	Natural colours usually appropriate	Natural colours often appropriate	Inappropriate
Examples in the *Colorsteel* range	Grey Friars Ironsand Karaka	Sandstone Grey Lichen Kauri	Gull Grey Ivorie Titania



05

WHAT MATERIALS ARE APPROPRIATE?

For roofs and walls, materials with a non-shiny, textured or matt/powder finish are preferable to glossy or shiny finishes. The following materials should be avoided as external cladding:

- Untreated Zincalume
- Any shiny materials, even for small surfaces
- Large smooth surfaces, including some types of timber

Large expanses of glass, in particular, can cause problems with glare. This can be managed by considering the area of the glass, the angle of the windows (particularly in regard to the sun when it is low in the sky), and the provision of eaves which can cast shadows and help prevent glare.

Even dark coloured metal roofs can cause glare. One way of avoiding this is by managing the angle of the roof in relation to the sun.

06

DO I NEED A GLARE REPORT?

In some cases it is desirable to use a material described above as inappropriate, for example, glass for a conservatory. If it is thought that glare from the structure may be a problem for the public or neighbours, a report may be required to clarify the extent of any effect, and possible means to mitigate that effect. The report should consider the angle and orientation of the surface to the sun at various times of the year, the surroundings of the building (context) and the extent of any resulting glare effect.