Section 32 Evaluation Report

Part 2: Renewable Electricity Generation

Contents

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1.0 Overview and Purpose

1.1 Introduction to the resource management issue/s

This section 32 evaluation report is focussed on renewable electricity generation. The purpose of this topic is to recognise and provide for renewable energy resources in the City and the benefits that can be derived from the use and development of these resources by renewable electricity generation activities. The appropriate management of adverse effects of renewable electricity generation activities on the environment is also addressed.

Renewable energy means energy produced from renewable sources including solar, wind, hydro, geothermal, biomass, tidal wave and ocean current sources. Wellington City has renewable energy resources, with the most feasible form of commercial renewable electricity generation currently being large scale wind power in rural locations. Smaller scale renewable electricity generation activities, such as community-scale wind and solar generation, are potentially feasible in more urbanised areas.

Wellington City Council declared an ecological and climate change emergency in June 2019 as part of adopting Te Atakura First to Zero, which outlines a plan for the City to be carbon zero by 2050. The use and development of renewable energy for electricity generation forms an important part of achieving national, regional and city goals and targets for increasing sustainability, responding to climate change and reducing carbon emissions. For example, increasing the amount of electricity produced from renewable energy sources will be key to achieving the climate change policies outlined in the Climate Change Response (Zero Carbon) Amendment Act 2019. It is also an important contributor to meeting the Council's Planning for Growth goals articulated in the Spatial Plan, particularly those seeking a more resilient and greener city.

Energy is essential to the efficient functioning of New Zealand and the city, and the demand for energy is growing. The provision and use of energy are a significant contributor to greenhouse gas emissions globally. New Zealand has committed to achieving net zero emissions by 2050, with the Government aspiring to achieve 100 percent renewable electricity by 2030. Over the coming decades it is likely that heating and transportation in New Zealand will need to be electrified, causing a significant increase in demand for electricity. This will need to be met by large quantities of new renewable electricity generation. The use and development of renewable electricity generation is therefore an important strategy for reducing greenhouse gas emissions from electricity generation. Renewable electricity generation within Wellington City also contributes to increased energy resilience through more localised, distributed electricity generation.

The investigation and development of renewable electricity generation activities can cause adverse effects, particularly in relation to amenity, noise, landscape and visual, ecology, cultural values, and traffic. These adverse effects need to be appropriately managed and weighed against the benefits provided by renewable electricity generation activities. A particular issue is that the effects of renewable electricity generation activities are generally experienced locally, while the benefits are generally realised at wider regional (or national) scale. Additionally, the adverse effects of operational renewable electricity generation activities mean that subdivision, use and development in close proximity to these facilities requires careful management as reverse sensitivity can result in effects on the operation, maintenance and upgrading of these facilities.

Renewable electricity generation also has practical constraints that need to be considered. These activities can only occur where renewable energy resources are found, limiting the geographic areas where renewable electricity generation activities can occur. Logistical or

technical practicalities, and the need to integrate with existing supporting infrastructure may also place constraints on these activities.

The proposed provisions respond to the National Policy Statement for Renewable Electricity Generation 2011 (NPS-REG). The operative District Plan provisions for renewable energy were notified in 2004 (Plan Change 32) and made operative in July 2009, well prior to the NPS-REG being gazetted. As such, the operative plan does not fully give effect to the NPS-REG. The operative plan provisions were also developed prior to the Regional Policy Statement (2013) being made operative and the National Planning Standards (first set introduced in 2019) so they do not give full effect to or implement these documents.

In addition, the scope of the operative plan's renewable energy provisions is focused on providing for large-scale commercial wind energy facilities/wind farms (as a result of Wellington's quality of wind resource) and there is no specific consideration of the different scales and types/forms of renewable electricity generation activities.

2.0 Reference to other evaluation reports

This report should also be read in conjunction with the following evaluation reports:

Report	Relationship to this topic
Strategic Direction	This chapter sets out high-level objectives for managing growth, land use and development in Wellington City. The Strategic City Assets and Infrastructure objectives recognise and reinforce the critical importance of infrastructure to the ability of Wellington City to thrive and grow. They support the establishment, operation, maintenance and upgrading of infrastructure so that the social, economic, cultural and environmental benefits infrastructure can deliver can be realised. They also seek to ensure that the adverse effects of infrastructure are managed while having regard to benefits and technical and operational needs. The Sustainability, Resilience and Climate Change objectives recognise that reliance on fossil fuels and other non-renewable sources of energy is harmful to the environment and will have a negative impact on the City's ability to be 'zero carbon' by 2050. The use of renewable energy technologies at both the small and large scale is supported. These provisions are discussed in the associated s32 evaluation report (contained within the Part 1 Section 32 report).
Infrastructure	This chapter contains provisions relating to the maintenance and repair, removal, upgrading and development of new infrastructure, including for the electricity distribution network and the National Grid necessary for the operation of renewable electricity generation facilities. These provisions are discussed in the associated s32 evaluation report.
Historic Heritage, Notable Trees, Sites and Areas of Significance to Māori, and Viewshafts	These chapters contain provisions relating to sites and areas of particular significance or which have identified values which are sought to be protected from inappropriate development. These sites and areas are identified spatially on the District Plan maps, separate from the zones. The relevant section 32 reports provide the background and rationale for their identification and protection. As renewable electricity generation activities provisions are to be applied district wide, they must recognise

Ecosystems and Indigenous Biodiversity, Natural Character, and Natural Features and Landscapes	these sites and areas and integrate with these provisions to ensure that renewable electricity generation activities do not compromise the significance or values of the identified sites and areas. These provisions are discussed in the associated s32 evaluation reports.
Coastal Environment	
Natural Hazards	
Subdivision	This chapter sets out provisions for the subdivision of land. The objectives, policies and rules include those addressing subdivision for infrastructure which includes renewable electricity generation facilities. These provisions are discussed in the associated s32 evaluation report.
Earthworks	Some specific renewable electricity generation activities must comply with the earthworks standards for the underlying zone where referenced in the REG chapter rules. These provisions are discussed in the associated s32 evaluation report.
Noise	Some specific renewable electricity generation activities must comply with the noise standards for the underlying zone where referenced in the REG chapter rules. These provisions are discussed in the associated s32 evaluation report.

3.0 Strategic Direction

The following objectives in the Strategic Direction chapter of the Proposed District Plan that are relevant to this issue/topic are:

Anga whakamua – Moving into the future	
AW-O3	*Mana whenua can exercise their customary responsibilities as mana whenua and kaitiaki with their own mātauranga Māori.*
AW-O4	*The development and design of the City reflects mana whenua and the contribution of their culture, traditions, ancestral lands, waterbodies, sites, areas and landscapes, and other taonga of significance to the district's identity and sense of belonging.*
Capital City	
CC-O2	*Wellington City is a well-functioning Capital City where:* *1. A wide range of activities that have local, regional and national significance are able to establish and thrive.* *2. The social, cultural, economic and environmental wellbeing of current and future residents is supported.* *3. Mana whenua values and aspirations are visible, celebrated and an integral part of the City's identity.* *4. Urban intensification is delivered in appropriate locations and in a manner that supports future generations to meet their needs.* *5. Innovation and technology advances that support the social, cultural, economic and environmental wellbeing of existing and future residents are promoted.*

	6. *Values and characteristics that are an important part of the City's identity and sense of place are identified and protected.*
CC-O3	*Development is consistent with and supports the achievement of the following strategic City goals:* 1. *Compact: Wellington builds on its existing urban form with quality development in the right locations.* 2. *Resilient: Wellington's natural and built environments are healthy and robust, and we build physical and social resilience through good design.* 3. *Vibrant and Prosperous: Wellington builds on its reputation as an economic hub and creative centre of excellence by welcoming and supporting innovation and investing strategically to maintain our thriving economy.* 4. *Inclusive and Connected: Wellington recognises and fosters its identity by supporting social cohesion and cultural diversity, and has world-class movement systems with attractive and accessible public spaces and streets.* 5. *Greener: Wellington is sustainable and its natural environment is protected, enhanced and integrated into the urban environment.* 6. *Partnership with mana whenua: Wellington recognises the unique role of mana whenua within the city and advances a relationship based on active partnership.*
Strategic City Assets and Infrastructure	
SCA-O1	*Infrastructure is established, operated, maintained, and upgraded in Wellington City so that:* 1. *The social, economic, cultural, and environmental benefits of this infrastructure are recognised;* 2. *The City is able to function efficiently and effectively;* 3. *The infrastructure network is resilient in the long term; and* 4. *Future growth and development is enabled and can be sufficiently serviced.*
SCA-O4	*Regionally significant infrastructure is provided for in appropriate locations and the social, cultural economic, and environmental benefits of this infrastructure are recognised and provided for.*
SCA-O5	*The adverse effects of infrastructure are managed having regard to the economic, social, environmental and cultural benefits, and the technical and operational needs of infrastructure.*
SCA-O6	*Infrastructure operates efficiently and safely and is protected from incompatible development and activities that may create reverse sensitivity effects.*
Sustainability, Resilience and Climate Change	
SRCC-O1	*The City's built environment supports:* 1. *A net reduction in the City's carbon emissions by 2050;* 2. *More energy efficient buildings;* 3. *An increase in the use of renewable energy sources; and* 4. *Healthy functioning of native ecosystems and natural processes.*
SRCC-O2	*Natural hazard risks are identified, planned for, mitigated, and, where necessary, avoided.*
SRCC-O3	*Development and land use activities:* 1. *Manage the risks associated with climate change and sea level rise effectively;* 2. *Support the City's ability to adapt over time to the impacts of climate change and sea level rise; and* 3. *Support the natural functioning of ecosystems and processes to help build resilience into the natural and built environment.*

SRCC-O4	*Land use, subdivision and development design integrates natural processes that provide opportunities for carbon storage, natural hazard risk reduction and support climate change adaptation.*
Historic Heritage and Sites and Areas of Significance to Māori	
HHSASM-O1	*Significant buildings, structures, areas, and sites that exemplify Wellington's historical and cultural values are identified, recognised and protected.*
HHSASM-O3	*The cultural, spiritual and/or historical values associated with sites and areas of significance to Māori are protected.*
HHSASM-O4	*Sites of significance to Māori are identified and mana whenua's relationships, interests and associations with their culture, traditions, ancestral lands, waterbodies, sites, areas and landscapes, and other taonga of significance are recognised and provided for.*
HHSASM-O5	*Recognise that only mana whenua can identify impacts on their relationship with their culture, traditions, ancestral lands, waterbodies, sites, areas and landscapes and other taonga/sites of significance to Māori.*
Natural Environment	
NE-O1	*The natural character, landscapes and features, and ecosystems that contribute to the City's identity and have significance for mana whenua as kaitiaki are identified, recognised, protected, and, where possible, enhanced.*
NE-O4	*Mana whenua are able to exercise their customary responsibilities as mana whenua and kaitiaki with their own mātauranga Māori in the protection and management of the natural environment.*
Urban Form and Development	
UFD-O7	*Development supports the creation of a liveable, well-functioning urban environment that enables all people and communities to provide for their social, economic, environmental, and cultural wellbeing, and:* *1. Is accessible and well-designed;* *2. Supports sustainable travel choices, including active and micromobility modes;* *3. Is serviced by the necessary infrastructure appropriate to the intensity, scale and function of the development and urban environment;* *4. Is socially inclusive;* *5. Is ecologically sensitive;* *6. Is respectful of the City's historic heritage;* *7. Provides for community well-being; and* 8. *Is adaptable over time and responsive to its evolving, more intensive surrounding context.*
UFD-O8	*Areas of identified special character are recognised and new development within those areas is responsive to the context and, where possible, enhances that character.*

An evaluation of these objectives is contained in the companion Part 1 Section 32 Evaluation Overview Report.

4.0 Regulatory and policy direction

In carrying out a s32 analysis, an evaluation is required of how the proposal achieves the purpose and principles contained in Part 2 of the RMA.

Section 5 sets out the purpose of the RMA, which is to promote the sustainable management of natural and physical resources.

Sustainable management '*means managing the use, development, and protection of natural and physical resources to enable people and communities to provide for their social, economic and cultural wellbeing 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'.

In achieving this purpose, all persons exercising functions and powers under the RMA also need to:

- Recognise and provide for the matters of national importance identified in s6
- Have particular regard to the range of other matters referred to in s7
- Take into account the principles of the Treaty of Waitangi/Te Tiriti o Waitangi in s8.

4.1 Section 6

The section 6 matters relevant to this topic are:

Section	Relevant Matter
Section 6(a)	*the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development.* Renewable electricity generation activities may have an operational or functional need to be located or partially located within the coastal environment or the margins of waterbodies, particularly as a result of the geographical location of renewable energy resources. This matter sets a direction that these areas must be protected from inappropriate use and development, including in relation to renewable electricity generation activities.
Section 6(b)	*the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development* Renewable electricity generation activities may have an operational or functional need to be located or partially located within outstanding natural features and landscapes, particularly as a result of the geographical location of renewable energy resources. This matter sets a direction that these areas must be protected from inappropriate use and development, including in relation to renewable electricity generation activities.
Section 6(c)	*the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna* The development, maintenance and repair, upgrade or removal of renewable electricity generation activities may at times require works to be undertaken within areas of significant indigenous vegetation or significant habitats of indigenous fauna, or may have an operational or functional need to be located or partially located within such areas. This matter sets a direction that these areas must be protected.
Section 6(d)	*the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers*

	Renewable electricity generation activities located or partially located within the coastal environment or the margins of waterbodies may impact public access within those areas. This matter sets a direction that development, operation, maintenance, upgrading or removal of renewable electricity generation activities needs to maintain or enhance access within these areas.
Section 6(e)	*the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga* Renewable electricity generation activities may have an operational or functional need to be located or partially located within sites or areas of significance to Māori. The relationship of Māori and their culture and traditions to these sites must be recognised and provided for in these instances.
Section 6(f)	*the protection of historic heritage from inappropriate subdivision, use, and development* The development, operation, maintenance, upgrade or removal of renewable electricity generation activities may at times require works to be undertaken which may affect areas or sites with historic heritage values. This matter sets a direction that these sites or areas must be protected.
Section 6(h)	*the management of the significant risks from natural hazards* Renewable electricity generation activities have the potential to be adversely affected by natural hazard events. The development, operation, maintenance, upgrading or removal of renewable electricity generation activities also has the potential to affect the potential risk from natural hazards, both positively and negatively.

Generally, the policy approach to these section 6 matters is addressed in the respective section 32 reports for the PDP chapters specific to these matters. However, there are specific policy and rule provisions for these section 6 matters within the Renewable Electricity Generation chapter where proposed renewable electricity generation activities directly impact on and affect these matters and these are discussed in this section 32 report.

4.2 Section 7

The section 7 matters that are relevant to this topic are:

Section	Relevant Matter
Section 7(aa)	*The ethic of stewardship* This matter is relevant as renewable electricity generation activities may have effects on the environment, both positive and adverse, which may continue to be experienced by future generations.
Section 7(b)	*The efficient use and development of natural and physical resources* This matter includes the efficient use and development of land and physical resources such as the National Grid and for renewable electricity generation development, operation, maintenance, upgrading or removal purposes. As such these activities should not be unduly restricted where they are appropriate and consistent with the purpose and principles of the Act.
Section 7(ba)	*The efficiency of the end use of energy*

	The development, operation, maintenance, upgrading or removal of renewable electricity generation activities has the potential to influence the efficiency of the end use of energy, through providing growth in electricity generation supply to meet demand side growth due to the electrification of end uses of energy.
Section 7(c)	*The maintenance and enhancement of amenity values* By its nature, renewable electricity generation activities can include large structures required to make use of renewable energy resources. These structures therefore have the potential to have adverse effects on the amenity values of the areas in which they are located. This matter provides direction that the amenity values should be maintained or enhanced, and therefore not degraded by the development, operation, maintenance, upgrading or removal of renewable electricity generation activities.
Section 7(f)	*The maintenance and enhancement of the quality of the environment* Given the definition of 'environment' in section 2 of the RMA, the development, operation, maintenance, upgrading or removal of renewable electricity generation activities has the potential to affect the quality of the environment through effects on amenity values as noted above, as well as wider effects on other natural and physical resources; and social, economic, aesthetic, and cultural conditions which may include sites and areas of significance or values, including those relating to matters of national importance under s6 (a), (b), (c), (e) and (f).
Section 7(g)	*Any finite characteristics of natural and physical resources* While by definition renewable electricity generation activities rely on renewable electricity generation resources, viable locations for these activities can be considered a finite resource due to a range of environmental, functional and operation constraints.
Section 7(i)	*The effects of climate change* Renewable electricity generation directly assists in addressing the adverse effects of climate change by reducing the amount of greenhouse gas emissions generated from energy generation activities. Renewable electricity generation activities include a range of energy generation methods which enable diversification of energy generation, potentially assisting in mitigating the effects of climate change, which may have adverse effects on the efficiency and effectiveness of current energy generation activities such as the reliability of generation of electricity from hydroelectricity sources.
Section 7(j)	*The benefits to be derived from the use and development of renewable energy* Renewable electricity generation provides benefits locally, regionally and nationally. Benefits include those relating to increasing electricity generation capacity and security, and reducing the use of finite resources, carbon emissions, irreversible effects on the environment and reliance on imported fuels.

4.3 Section 8

Section 8 requires Council to work in partnership with Taranaki Whānui ki te Upoko o te Ika (Taranaki Whānui) and Ngāti Toa Rangatira to actively protect their interests. This is relevant for renewable electricity generation activities which, when poorly managed, have the potential to adversely affect cultural values and sites and areas of significance. As such, the Council and Taranaki Whānui and Ngāti Toa Rangatira have worked in partnership to develop appropriate provisions, including environmental and cultural overlays, to recognise and provide opportunities for tangata whenua to exercise kaitiakitanga and to recognise and actively protect sites and areas of significance.

4.4 National Direction

4.4.1 National Policy Statements

There are five National Policy Statements (NPS) currently in force:

- NPS for Electricity Transmission 2008
- New Zealand Coastal Policy Statement 2010
- NPS for Renewable Electricity Generation 2011
- NPS for Freshwater Management 2020
- NPS on Urban Development 2020

The instrument/s and associated provisions relevant to this topic are:

NPS	Relevant Objectives / Policies
NPS for Renewable Electricity Generation 2011	The NPS-REG sets out a consistent approach for providing for renewable electricity generation activities within the planning framework, as part of the New Zealand Government's wider response to addressing climate change. The NPS-REG requires recognition of the national significance of renewable electricity generation activities through provision for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities and by recognising the benefits of renewable electricity generation. It directs councils to provide for various types of renewable electricity generation activities and at a range of scales, recognise their practical constraints, and directs decision makers to consider off-setting and compensation for addressing residual adverse effects. The key NPS-REG provisions are outlined below and a more detailed analysis is included in Appendix 1 to this report. ***Objective*** *To recognise the national significance of renewable electricity generation activities by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generated from renewable energy sources increases to a level that meets or exceeds the New Zealand Government's national target for renewable electricity generation.* ***Policy A*** *– Recognising the benefits of renewable electricity generation activities*

	***Policy B** – Acknowledging the practical implications of achieving New Zealand's target for electricity generation from renewable resources* ***Policy C1** – Acknowledging the practical constraints associated with the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities* ***Policy C2** - Decision-makers shall consider off-setting and compensation when considering residual adverse effects* ***Policy D** – Managing reverse sensitivity effects on renewable electricity generation activities* ***Policy E1-4** - Incorporating provisions for different forms of renewable electricity generation activities into district plans* ***Policy F** - Incorporating provisions for small and community-scale renewable electricity generation activities into district plans* ***Policy G** - Enabling identification of renewable electricity generation possibilities*
National Policy Statement for Electricity Transmission 2008	***Policy 1** - In achieving the purpose of the Act, decision-makers must recognise and provide for the national, regional and local benefits of sustainable, secure and efficient electricity transmission. The benefits relevant to any particular project or development of the electricity transmission network may include:* *[…]* *iii) the facilitation of the use and development of new electricity generation, including renewable generation which assists in the management of the effects of climate change; or* *[…]*
New Zealand Coastal Policy Statement 2010	The purpose of the New Zealand Coastal Policy Statement (NZCPS) is to state objectives and policies in order to achieve the purpose of the RMA in relation to the coastal environment of New Zealand. The NZCPS has relevance to renewable electricity generation activities within the coastal environment by recognising the provision of infrastructure and energy generation within the coastal environment (wind, tidal, wave and ocean current energy) is important to the social, economic and cultural well-being of people and communities, and addressing issues such as the risk to existing infrastructure from coastal erosion and coastal hazards. The identification of the extent of the inland coastal environment (as required by Policy 1 of the NZCPS) is critical for application of the NZCPS. Objective 1(2)(i) recognises that the coastal environment contains physical resources and built facilities, including infrastructure, that have modified the coastal environment. While all of the NZCPS policies referring to activities or use and development are relevant to infrastructure, the following are specific to renewable electricity generation activities:

	Objective 6: *To enable people and communities to provide for their social, economic, and cultural wellbeing and their health and safety, through subdivision, use, and development, recognising that:* *[…]* *• the coastal environment contains renewable energy resources of significant value* ***Policy 6:*** *Activities in the coastal environment* *(1) In relation to the coastal environment:* *(a) recognise that the provision of infrastructure, the supply and transport of energy including the generation and transmission of electricity, and the extraction of minerals are activities important to the social, economic and cultural well-being of people and communities;* *(g) take into account the potential of renewable resources in the coastal environment, such as energy from wind, waves, currents and tides, to meet the reasonably foreseeable needs of future generations;* *[…]*
NPS on Urban Development 2020	The NPS-UD was gazetted in August 2020 and replaces the NPS-UDC. It aims to support well-functioning urban environments to provide for current and future community well-being. It requires RMA plans to provide opportunities for land development to meet housing and business needs, supported by adequate development capacity. Although the NPS-UD largely applies to urban environments, there are some policies that apply to the entire City. The Part 1 Section 32 Evaluation Overview Report provides an overview of the NPS-UD and sets out Council's approach to implementing the NPS-UD in the PDP.
NPS for Freshwater Management 2020	The NPS-FW provides local authorities with updated direction on how they should manage freshwater under the RMA. It sets out objectives and policies for the management of freshwater resources and mandates the concept of Te mana of te Wai. Te Mana o te Wai refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community. The NPS-FW would be relevant to any proposed hydro-electric generation activity.

4.4.2 Proposed National Policy Statements

In addition to the five NPSs currently in force there are also two proposed NPSs under development, noting that these are yet to be issued and have no legal effect:

- Proposed NPS for Highly Productive Land
- Proposed NPS for Indigenous Biodiversity

4.4.3 National Environmental Standards

In addition to the NPSs there are nine National Environmental Standards (NES) currently in force:

- NES for Air Quality 2004
- NES for Sources of Human Drinking Water 2007
- NES for Electricity Transmission Activities 2009
- NES for Assessing and Managing Contaminants in Soil to Protect Human Health 2011
- NES for Telecommunication Facilities 2016
- NES for Plantation Forestry 2017
- NES for Freshwater 2020
- NES for Marine Aquaculture 2020
- NES for Storing Tyres Outdoors 2021

While there are no NESs of direct relevance to this topic, the NES for Air Quality 2004 would have some relevance for example to the development of wood energy facilities.

4.4.4 National Planning Standards

The National Planning Standards require that any district plan provisions relating to energy, infrastructure and transport that are not specific to special purpose zones must be located in Part 2 – District Wide Matters, under the 'Energy, infrastructure and transport' heading, in its own chapter or as part of another addressing energy, infrastructure or transport. Renewable electricity generation activities are energy and infrastructure related, therefore the REG – Renewable Electricity Generation chapter is included under the 'Energy, infrastructure and transport' heading of the Proposed District Plan.

The planning standards also require district plans to use the noise measurement methods and symbols set out in the New Zealand Standard 6808:2010 Acoustics – Wind farm noise.

4.5 National Guidance Documents

The following national guidance documents are considered relevant to this topic:

Document	Relevant provisions
National Policy Statement for Renewable Electricity Generation 2011 Implementation Guide	This guidance document includes: • Analysis of the National Policy Statement for Renewable Electricity Generation • Examples of district plan objectives, policies and methods • Monitoring and review requirements
National Policy Statement for Renewable Electricity Generation Technical Guide	This technical guide includes: • Description of the electricity system and market • Information on the Government's 90% renewable electricity target • Description of renewable electricity technologies • Information about practical limitations and constraints • Locational and technical factors associated with developing, upgrading, operating and maintaining REG activities • Glossary of relevant technical terminology.

4.6 Regional Policy and Plans

4.6.1 Regional Policy Statement for the Wellington Region 2013 (RPS)

The table below identifies the relevant RPS provisions for the Renewable Electricity Generation chapter.

Section	Relevant matters
Chapter 3.3 Energy, infrastructure and waste	
Issues	*1. Energy* *The Wellington region is dependent on externally generated electricity and overseas-sourced fossil fuels and is therefore vulnerable to supply disruptions and energy shortages. In addition, demand for energy is increasing. However, significant renewable energy resources exist within the region.*
Objective 9	*The region's energy needs are met in ways that:* *(a) improve energy efficiency and conservation;* *(b) diversify the type and scale of renewable energy development;* *(c) maximise the use of renewable energy resources;* *(d) reduce dependency on fossil fuels; and* *(e) reduce greenhouse gas emissions from transportation.*
Chapter 4 Policies and methods	
Policy 7 (M)	*District and regional plans shall include policies and/or methods that recognise:* *[…]* *(b) the social, economic, cultural and environmental benefits of energy generated from renewable energy resources including:* *i. security of supply and diversification of our energy sources;* *ii. reducing dependency on imported energy resources; and* *iii. reducing greenhouse gas emissions.*
Policy 11 (M)	*District plans shall include policies and/or rules and other methods that:* *(a) promote energy efficient design and the use of domestic scale (up to 20 kW) and small scale distributed renewable electricity generation (up to 100 kW); and* *[…]*
Policy 39 (R)	*When considering an application for a resource consent, notice of requirement or a change, variation or review of a district or regional plan, particular regard shall be given to:* *(a) the social, economic, cultural and environmental benefits of energy generated from renewable energy resources and/or regionally significant infrastructure; and* *[…]* *(c) the need for renewable electricity generation facilities to locate where the renewable energy resources exist; and* *(d) significant wind and marine renewable energy resources within the region.*
Appendix 3: Definitions	

Definition – Regionally significant infrastructure	*Regionally significant infrastructure includes:* *[…]* • *facilities for the generation and transmission of electricity where it is supplied to the network, as defined by the Electricity Governance Rules 2003*
Definition – Renewable energy	*As defined in the Resource Management Act:* *Energy produced from solar, wind, hydro, geothermal, biomass, tidal wave and ocean current sources.*

M = policies which must be implemented in accordance with stated methods in the RPS
R = policies to which particular regard must be had when varying a district plan

The RPS notes the reliance in the Wellington Region of externally generated electricity, the increasing demand for electricity, and that renewable energy generation not only addresses these issues but also generates energy with lower greenhouse gas emissions than non-renewable sources. The RPS aims to ensure that more of the region's electricity needs are met from within the region, while maximising the potential renewable energy sources. Its objectives and policies on the matter recognise the benefits of renewable electricity generation, aim for increased use and development of these activities as sources of energy, require district plans to include policies and/or rules to promote small scale renewable electricity generation, and recognises that renewable electricity generation activities have functional and operational constraints based on where the energy resource is located.

Changes to the RPS are intended to be notified by Greater Wellington Regional Council in August 2022. This will include changes to give effect to the NPS-FW and NPS-UD and the Whaitua Implementation Programmes (WIP), as well as the addition of a new Climate Change chapter and minor changes to the wording of some objectives and policies in the Energy, infrastructure and waste chapter.

4.6.2 Regional Plans

There are currently five operative regional plans and one proposed regional plan for the Wellington region:

- Regional Freshwater Plan for the Wellington Region, 1999
- Regional Coastal Plan for the Wellington Region, 2000
- Regional Air Quality Management Plan for the Wellington Region, 2000
- Regional Soil Plan for the Wellington Region, 2000
- Regional Plan for discharges to the land, 1999
- Proposed Natural Resources Plan, appeals version 2021

The proposed Natural Resources Plan (PNRP) replaces the five operative regional plans, with provisions in this plan now largely operative with the exception of those that are subject to appeal.

As the majority of provisions in the PNRP are beyond challenge because provisions either weren't appealed or the appeals have been settled, the following paragraphs focus on the PNRP. The remaining appeals are close to resolution and they are in relation to agriculture.

The table below identifies the relevant PNRP provisions for Renewable Electricity Generation.

Proposed Natural Resources Plan (appeals version)	
Section	***Relevant matters***

Objective 12	*The social, economic, cultural and environmental benefits of regionally significant infrastructure, renewable energy generation activities and the utilisation of mineral resources are recognised.*
Objective 13	*Significant mineral resources and the ongoing operation, maintenance and upgrade of regionally significant infrastructure and renewable energy generation activities in the coastal marine area and beds of rivers and lakes are protected from incompatible use and development occurring under, over, or adjacent to the infrastructure or activity.*
Policy 12	*The benefits of regionally significant infrastructure and renewable energy generation activities are recognised by having regard to:* *(a) the strategic integration of infrastructure and land use, and* *(b) the location of existing infrastructure and structures, and* *(c) the need for renewable energy generation activities to locate where the renewable energy resources exist, and* *(d) operational requirements associated with developing, operating, maintaining and upgrading regionally significant infrastructure and renewable energy generation activities*
Policy 13	*The use, development, operation, maintenance, and upgrade of regionally significant infrastructure and renewable energy generation activities are provided for.*
Policy 14	*Regionally significant infrastructure, renewable energy generation activities and significant mineral resources shall be protected from incompatible use and development occurring under, over or adjacent to it, by locating and designing any new use and development to avoid, remedy or mitigate any reverse sensitivity effects.*
Definition – Regionally significant infrastructure	*Regionally significant infrastructure includes:* *[…]* • *facilities for the generation and/or transmission of electricity where it is supplied to the National grid and/or the local distribution network., This excludes supply within the local distribution network.* *[…]*

The PNRP emulates the RPS in that it recognises the benefits of renewable energy generation activities, seeks to protect existing facilities from reverse sensitivity, and emphasises that renewable energy generation have particular operational and functional needs.

4.7 Iwi Management Plan(s)

There are no Iwi Management Plans relevant to this topic. However, as a result of the GWRC Whaitua processes, both Taranaki Whānui and Ngāti Toa have produced Whaitua Implementation Plans (WIP). The WIPs are relevant in that they reference the desire of Taranaki Whānui and Ngāti Toa to exercise kaitiakitanga and therefore play an important role in the ongoing protection and restoration of mana of the respective harbours and waterways.

While the Regional Plan is the primary RMA instrument to protect and restore freshwater and coastal water bodies, the District Plan can contribute to achieving this within the parameters of the Council's section 31 RMA functions, i.e. in relation to managing the effects of development.

Taranaki Whānui and Ngāti Toa also exercise kaitiakitanga through their relationships with the community and with Greater Wellington Regional Council, Porirua City Council, Wellington City Council and Wellington Water.

4.8 Relevant plans or strategies

The following plans / strategies are relevant to this topic:

Plan / Strategy	Organisation	Relevant Provisions
National plans or strategies		
Rautaki Hanganga o Aotearoa: New Zealand Infrastructure Strategy 2022-2052	Te Waihanga - New Zealand Infrastructure Commission	The Strategy sets out the actions New Zealand needs to take over the next 30 years to make sure our infrastructure system meets the challenges and opportunities that lie ahead. It sets out five objectives with supporting recommendations for action. The objectives are: • **Enabling a net-zero carbon emissions Aotearoa** through rapid development of clean energy and reducing the carbon emissions from infrastructure • **Supporting towns and regions to flourish** through better physical and digital connectivity and freight and supply chains • **Building attractive and inclusive cities** that respond to population growth, unaffordable housing and traffic congestion through better long-term planning, pricing and good public transport. • **Strengthening resilience to shocks and stresses** by taking a coordinated and planned approach to risks based on good-quality information • **Moving to a circular economy** by setting a national direction for waste It recognises that clean electricity will be key to reducing carbon emissions from transport, process heat and agricultural activities, and to do this, New Zealand will need to build significantly more low-emissions electricity generation over the next 30 years. Most of this low-emissions electricity is expected to come from new solar and wind generation.
New Zealand Energy Strategy 2011–2021	Ministry of Economic Development	Government has expressed a clear preference for increasing the nation's generation from renewable sources and a target quotient and timeframe has been set. This Strategy sets the strategic direction for the energy sector and the role energy will play in the economy. The Government's goal under this

		Strategy is for New Zealand to make the most of its abundant energy potential, for the benefit of all New Zealanders. This will be achieved through the environmentally responsible development and efficient use of the country's diverse energy resources, so that: • The economy grows, powered by secure, competitively priced energy and increasing energy exports • The environment is recognised for its importance to our New Zealand way of life. Its four areas of focus are: • Develop renewable energy resources • Embrace new energy technologies • Best practice in environmental management for energy projects • Reduce energy-related greenhouse gas emissions
New Zealand Energy Efficiency and Conservation Strategy 2017-2022 (NZEECS)	Energy Efficiency and Conservation Authority (EECA)	This Strategy sets the overarching policy direction for government support and intervention for promoting energy efficiency, energy conservation and the use of renewable sources of energy. It focuses on the promotion of energy efficiency, energy conservation and renewable energy. It is a companion to the New Zealand Energy Strategy. A five-year national energy efficiency and conservation strategy is required by law. The goal is for New Zealand to have an energy-productive and low-emissions economy. The strategy: • outlines government policies, objectives and targets for 2017-2022 • guides the work programme of the Energy Efficiency and Conservation Authority • encourages businesses, individuals, households, community institutions and public sector agencies to take actions to help unlock our renewable energy and energy efficiency potential, to the benefit of all New Zealanders. The strategy sets a target of 90 percent of electricity will be generated from renewable sources by 2025. Its priority areas for focus are: • renewable and efficient use of process heat • efficient and low-emissions transport • innovative and efficient use of electricity
Towards a productive, sustainable and inclusive economy: Aotearoa New Zealand's First	Ministry for the Environment	The Emissions Reduction Plan is the first statutory plan prepared under the Climate Change Responses Act and provides a roadmap to reduce emissions in Aotearoa for the next 15 years. Its purpose is to contribute to global efforts to limit temperature rise to 1.5˚C above pre-industrial levels. The vision is that by 2050 Aotearoa has a

Emissions Reduction Plan (May 2022)		highly renewable, sustainable and efficient energy system that is accessible and affordable, secure and reliable, and supports New Zealanders' wellbeing. It contains strategies, policies and actions for achieving our first emissions budget, as required by the Climate Change Response Act 2002. Its targets are: • all greenhouse gases, other than biogenic methane, to reach net zero by 2050 • a minimum 10 per cent reduction in biogenic methane emissions by 2030, and a 24 to 47 per cent reduction by 2050 (compared with 2017 levels). The Plan identifies that increasing the development and use of renewable energy technologies is a key part of our transition to a low emissions electricity grid. To meet emission goals, Aotearoa will need to generate more electricity from existing low-emissions technologies such as wind and solar. The Plan recognises the role of the planning system in enabling the development of renewable energy and infrastructure required to decarbonise the energy system and promote low-emissions development that reduce energy demand. The transition to a more renewable energy system will also strengthen our energy independence and ensure energy supply is affordable and secure in the face of global shocks. The Government has an aspirational target of 100 per cent renewable electricity by 2030. The Plan includes a series of actions to accelerate development of new renewable electricity generation across the economy. Actions include developing an energy strategy for Aotearoa, reviewing national direction tools for new renewable generation and electricity infrastructure, regional energy transition plans, and supporting renewable and affordable energy in communities.
Regional strategies		
Wellington Regional Growth Framework 2021	Joint collaboration between the Wellington region's councils, Horowhenua District Council, central government and māna whenua	The Framework is a spatial plan that describes a long-term vision for how the region will grow, change and respond to key urban development challenges and opportunities in a way that gets the best outcomes and maximises the benefits across the region. The objectives of the Framework include increasing housing supply, affordability and choice; enabling growth that protects and enhances the quality of the natural environment and accounts for a transition to a low/no carbon future; encouraging sustainable, resilient and affordable settlement patterns/urban forms that make efficient use of existing infrastructure and resources; build climate

		change resilience and avoid increasing the impacts and risks from natural hazards. As part of its growth approach, it seeks to ensure developments include potential for renewable energy generation and increased use of electrification (e.g. for transport and process heat). It identifies Wāhi Toitū (areas to be protected) and Wāhi Toiora (areas to be carefully managed) across the region, including renewable energy generation infrastructure. It also includes within its projects list in Appendix 1 a project increase resilience in the local electricity network. This includes investigating and managing transmission, distribution and generation assets at risk from climate change and natural hazards, and examining opportunities for renewable energy generation.
WCC plans or strategies		
Our City Tomorrow – He Mahere Mokowā mō Pōneke - A Spatial Plan for Wellington City 2021	Wellington City Council	The Spatial Plan is a non-RMA strategy that provides a vision for the growth and development of Wellington city over the next 30 years. It represents a response to the growth and development challenges facing the city, particularly a projected population increase of between 50,000–80,000 over the next 30 years and the need to adapt our places and behaviours in response to the climate emergency. It recognises that our ability to successfully provide for the future growth of the city while maintaining a high quality of life will largely depend on how well we harness and respond to a range of influential factors including: • Housing choice and affordability • Business and employment • Transport, connectivity, and accessibility • Infrastructure to support growth • Partnership with Mana Whenua • Resilience and adapting to climate change • Natural and built environment qualities Population growth and environmental change will place considerable pressure on existing infrastructure networks, prompting the need for new and upgraded infrastructure – this includes renewable electricity generation infrastructure.
Te Atakura - First to Zero, June 2019	Wellington City Council	Te Atakura is the city's blueprint for a Zero Carbon Capital and aims to ensure that Wellington is a net zero emission city by 2050 with a commitment to making the most significant cuts in the first 10 years. It is a key response to the State of Climate

		and Ecological Emergency declared by the Council in June 2019. The strategy recognises the role of renewables in reducing carbon emissions and meeting our climate change commitments. The strategy advocates for investment in renewables, and the transitioning of the transport fleet to run on renewable electricity as a priority. The District Plan's provision for the use and development of the city's renewable energy resources is an important part of meeting these goals for Wellington's future.
Wellington Resilience Strategy 2017	Wellington City Council	This strategy sets out a blueprint to enable Wellingtonians to better prepare for, respond to, and recover from disruptions. It is centred on 3 key goals and identifies a series of programmes to increase the city's resilience, including working with infrastructure owners to ensure flexibility and robustness of transport and energy services in Wellington. The strategy identifies that 82 percent (MBIE, 2016) of Wellington's electricity comes from renewable sources. Wellington's strong use of renewables is a great asset for our ability to cope with oil price shocks and breakdown in supply chains, but our electricity distribution network is vulnerable to high winds, earthquake, fires and other natural and manmade hazards. The strategy identifies the potential of distributed infrastructure such us mini hydro, solar and wind generators. Distributed generation infrastructure builds our ability to cope with fuel and power supply disruptions following major shocks, and in the future may be able to help relieve the pressures on households from rising energy costs.

4.9 Other relevant legislation or regulations

The following additional legislative / regulatory requirements are also relevant to this topic:

Legislation / Regulation	Relevant Provisions
Energy Efficiency and Conservation Act 2000	• Section 5 Purpose, is: *The purpose of this Act is to promote, in New Zealand, energy efficiency, energy conservation, and the use of renewable sources of energy* • Section 8 directs the preparation of the national energy efficiency and conservation strategy.
Climate Change Response Act 2002 and the Climate Change Response	This Act is New Zealand's principal legislation for mitigating climate change. The Act provides a legal framework for New Zealand to meet its international climate change commitments; it also established the New Zealand Emissions Trading Scheme (NZETS). The amendment Act sets

(Zero Carbon) Amendment Act in 2019	a domestic greenhouse gas emissions reduction target to reduce net emissions of all greenhouse gases (except biogenic methane) to zero by 2050. In summary, this legislation: • commits New Zealand to zero carbon by 2050 • establishes a system of emissions budgets • requires the Government to develop and implement policies for climate change adaptation and mitigation • establishes an independent Climate Change Commission.
NZS6808:2010 – Acoustics – wind farm noise	Provides suitable methods for the prediction, measurement, and assessment of sound from wind turbines. These methods may be applied during the processes of planning and developing a wind farm, then for confirming compliance with resource consent conditions covering sound levels, and also for the investigation and assessment of noise complaints about operating wind farms.

5.0 Resource Management Issues Analysis

5.1 Background

Renewable electricity generation is an important resource management issue as the use and development of renewable energy resources can have significant local, regional and national benefits, including increasing sustainability, responding to climate change issues and reducing carbon emissions. It is also an important contributor to meeting the Council's Planning for Growth goals, particularly those seeking a more resilient and greener city. The use and development of renewable energy resources also has the potential to have adverse effects on the environment.

Renewable energy means energy produced from solar, wind, hydro, geothermal, biomass, tidal wave and ocean current sources. Renewable electricity generation is the generation of electricity from these sources[1]. Activities include the investigation, construction, operation and maintenance, and upgrading of structures associated with renewable electricity generation. Renewable electricity generation activities making use of renewable energy sources can occur at different scales, including small and community-scale distributed activities as well as larger commercial scale activities. It also includes the connection of the generation facilities to the distribution network and the national grid for electricity conveyance.

The RPS states that possible renewable energy generation sources for the Wellington region include wind, biofuels and solar, with potential for small-scale distributed renewable energy generation including small-scale hydro. Wellington City has renewable energy resources, with the most feasible form of commercial renewable energy generation within the city currently being large scale wind power in rural locations. There has been significant development of large scale wind energy activities in the city over the last 10-15 years with the establishment of the West Wind and Mill Creek wind farms. Smaller scale renewable electricity generation activities are potentially feasible in more urbanised areas, including wind and solar generation. In terms of further renewable energy development potential in Wellington city, while geothermal is not relevant, other renewable energy sources such as solar, biomass, tidal, wave and ocean currents could have the potential to be relevant.

[1] See definitions used in RMA and NPS-REG (2011)

Energy is essential to the efficient functioning of the city and the demand for energy is growing. Population growth and the electrification of energy uses, such as transport, will increase the demand for electricity in the future.

Climate change is an important issue for New Zealand, the region and the city, with the Wellington City Council declaring a climate change and ecological emergency in June 2019 as part of adopting the city's Te Atakura – First to Zero Strategy. Renewable energy development is closely intertwined with the response to climate change and efforts to transition to a low emissions economy and city by 2050 or sooner.

The provision and use of energy is a significant contributor to greenhouse gas (GHG) emissions globally. Because of New Zealand's reliance on renewable sources, primarily hydro and geothermal, electricity generation's contribution to New Zealand's GHG emissions is comparatively much lower at around 6.1 percent in 2019.[2] However as identified by the Productivity Commission[3] and others, there is substantial scope to further increase the supply of electricity from renewable sources, such as wind and solar (the cost of both have been falling).

The use and development of renewable electricity generation for our energy needs is an important strategy for reducing greenhouse gas emissions from electricity generation. The New Zealand Energy Efficiency and Conservation Strategy (2017-2022) sets a goal of 90 percent of electricity being generated from renewable source by 2025. The New Zealand Government also has an aspirational goal of 100 percent renewable electricity by 2035.[4] The country is doing relatively well in tracking to meet this goal, with the percentage of electricity generated from renewable sources in New Zealand increasing from 67 percent in 2007 to a high of 84 percent in 2018, to 81.1% in 2020 (mainly due to a decline in hydro generation), and accounts for approximately 40 percent of the primary energy supply (as at 2020).[5]

Renewable electricity generation within the city may also contribute to a range of other benefits, including energy resilience through a more localised, distributed electricity generation, increasing energy security and diversification.

The National Policy Statement for Renewable Electricity Generation 2011 (NPS-REG) provides national direction on recognising and providing for renewable electricity generation at different scales. The operative district plan was prepared prior to the NPS-REG being gazetted. The renewable energy provisions were first drafted to respond to the 2004 amendments to Section 7 of the RMA to have particular regard to energy efficiency and the use and development of renewable energy (section 7(j)). They were brought in via Plan Change 32 which was notified in 2004 and made operative in July 2009. As such the operative plan's provisions for renewable energy do not give specific effect to the direction of the NPS-REG.

The RPS (2013) also includes objectives and policies for renewable energy generation, with directive policies requiring within district plans recognition of the social, economic, cultural and

[2] Statistics NZ, Greenhouse gas emissions (industry and household): Year ended 2019, see https://www.stats.govt.nz/information-releases/greenhouse-gas-emissions-industry-and-household-year-ended-2019

[3] New Zealand Productivity Commission (2018). Low-emissions economy: Final report. Available from www.productivity.govt.nz/low-emissions

[4] Ministry for the Environment, 2019, Accelerating renewables uptake and encouraging changes in industrial energy use

[5] Ministry of Business, Innovation & Employment, 2021, Energy in New Zealand 2021, https://www.mbie.govt.nz/dmsdocument/16820-energy-in-new-zealand-2021

environmental benefits of energy generated from renewable energy resources and the promotion of the use of domestic scale and small scale distributed renewable energy generation. The Proposed Natural Resources Plan gives effect to the NPS-REG and RPS in recognising the benefits of renewable energy generation activities, seeks to protect existing facilities from reverse sensitivity, and emphasises that renewable energy generation have particular operational and functional needs. The operative plan's renewable energy provisions were prepared prior to these regional documents. Therefore, there is significant national and regional direction for renewable electricity generation activities that the PDP must give effect to or be consistent with, as relevant to the particular document.

The investigation, development and operation of renewable electricity generation activities can have a range of adverse effects on the environment. These effects are particularly in relation to amenity (including noise), landscape, ecology, cultural values, and traffic. Large scale renewable electricity generation can involve large structures required to capture the energy and convert it to electricity which can have adverse effects on visual amenity as well as on the values associated with the particular location, including any landscape, cultural, historic or ecological values. For example, wind turbines generally capture more energy and therefore produce more electricity more efficiently the larger the turbine is.

Wind turbines in New Zealand wind farms can have total heights (including the tower and blade) of over 110 metres, while the country's current largest constructed wind farm (Waipipi in South Taranaki) has turbines of 160 metres high and 130m diameter rotors. In addition, wind turbines are generally located on elevated and visibly prominent sites as these provide the most reliable and strongest winds. Similarly, solar cells require direct sunlight, with more cells requiring more exposed area to produce more electricity. Another important effect of wind turbines on amenity of the surrounding area is the noise generated, the level of which can be affected by a number of factors which can vary site-to-site as well as over time.

These adverse effects need to be appropriately managed and weighed up against the benefits provided by renewable electricity generation activities. A particular issue is that the effects of renewable electricity generation activities are generally experienced locally, while the benefits are generally realised at wider regional or national scales.

Additionally, the adverse effects of operational renewable electricity generation activities mean that there is a risk of reverse sensitivity effects generated from subdivision, use and development in close proximity to these facilities. This requires careful management as any sensitive activities located where they may experience effects can result in complaints, and potentially leading to subsequent constraints on the operation, maintenance and upgrading of these facilities.

Renewable electricity generation also has practical constraints that need to be considered. These activities can only occur where the renewable energy resources are found, such as turbines in areas of strong and reliable wind resources, limiting the geographic areas where renewable electricity generation activities can occur. Logistical or technical practicalities, such as sufficient space for operation and construction activities, and the need to integrate with existing supporting infrastructure such as electricity distribution networks may also place constraints on these activities.

5.2 Evidence Base - Research, Consultation, Information and Analysis undertaken

The Council has reviewed the Operative District Plan, sought advice and assistance from various internal and external experts and utilised this, along with internal workshops and community feedback to assist with setting the plan framework. This work has been used to

inform the identification and assessment of the environmental, economic, social and cultural effects that are anticipated from the implementation of the provisions.

The Council has also commissioned a range of reports informing the identification of Overlay sites and areas, including those regarding natural hazards, outstanding natural features and landscapes, coastal natural character, ridgelines and hilltops, and assessment of sites of ecological significance (SNAs). Refer to the relevant section 32 reports for a listing of the relevant reports.

In addition, the Council has also gathered the following information that is relevant to this topic:

Title	Author	Brief synopsis
Court decisions		
Meridian Energy Limited v Wellington City Council W031/2007 [2007] NZEnvC 128	Judge S E Kenderdine, Judge C J Thompson, W R Howie, H A McConarchy	This judgement relates to an Environment Court decision regarding a proposal for a wind farm at Makara within Wellington City. The decision recognised the importance of rural amenity landscapes, as well as wind power as a natural resource, to social, economic, and cultural wellbeing. The appeals against the granting of consent were declined, but the removal or repositioning of some turbines was required.
Mighty River Power Ltd v Porirua City Council [2012] NZEnvC 213	Judge C J Thompson	This judgement related to an appeal by Mighty River Power and the NZ Wind Energy Association (supported by Genesis and Meridian Energy as s274 parties) to Plan Change 7 to the Porirua City District Plan. The appellants challenged the classification of wind turbines within 700m to zone or property boundaries or within a Landscape Protection Area as non-complying activities. The Court rejected any changes to the activity status of windfarms based on the legislative environment at the time PC7 was notified.
Meridian Energy Ltd and Ors v Wellington City Council and Ors [2011] NZEnvC 232	Judge B P Dwyer, D J Bunting, K A Edmonds	This judgement relates to an Environment Court decision regarding a proposal for a wind farm at Mill Creek within Wellington City. Ancillary works, primarily roading, were also required within Porirua City. Issues in dispute included energy, traffic, noise, public health, natural character of the coastal environment, landscape, visual amenity and planning. The application was granted, with modification through the removal of five of the proposed 31 turbines on amenity grounds, due to the benefits outweighing the adverse effects.
Blueskin Energy Ltd v Dunedin City Council [2017] NZEnvC 150	Judge J E Borthwick	Blueskin Bay (Dunedin) residents' application (non-complying activity status) to City Council for three (and later revised to one single, but larger) wind turbines on Porteous Hill, an identified valued landscape. The application was declined,

		which was appealed with a modified proposal. The appeal was declined. The decision identifies that the NPS-REG directs district plans to recognise and provide for the benefits of renewable energy generation. It does not direct district plans to provide for (grant consent for) renewable energy generation in all situations. The decision maker is to weigh the different matters appropriately where relevant.
Reports		
Accelerating renewable energy and energy efficiency (December 2019)	Ministry of Business, Innovation and Employment	This discussion paper released in December 2019 emphasises that the reduction of energy-related carbon emissions will be critical to achieving Aotearoa's climate goals. It examines a range of barriers and issues, and presents options to accelerate the use and supply of renewable energy and energy efficiency technologies, including: • encouraging energy efficiency and the uptake of renewable sources in industry, and • accelerating renewable electricity generation and infrastructure. It includes consideration of policy options to enable renewable energy development under the RMA. Options signalled include amendment of the NPS-REG to provide stronger national direction and the development of supporting National Environmental Standards (NES) or National Planning Standards specific to renewable energy facilities and activities with the aim of standardising consenting frameworks and processes for REG. The analysis suggested prioritising the NPS amendment, with development of NES or planning standards following this.
Accelerated Electrification (2019)	Interim Climate Change Committee	This report produced by the independent Interim Climate Change Committee recommends a series of actions the Government can take to reduce greenhouse gas emissions, including using electricity to reduce transport and process heat emissions. These recommendations include providing for the large-scale development of wind generation and its associated transmission and distribution infrastructure.
Te Mauri Hiko - Energy Futures 2018	Transpower	The *Te Mauri Hiko – Energy Futures* report examines a range of electricity supply, demand and future technology scenarios – and begins exploring what will be required for New Zealand to maximise the potential of the energy opportunity we are facing. The report builds upon Transpower's Transmission Tomorrow research. Its key conclusions include:

		• Electrification will significantly decarbonise the New Zealand economy • Electricity demand in New Zealand will double by 2050 • The transport future is electric • Demand will be met by renewable generation and new technologies • A renewable future is the most affordable • Winter and peak demand is still the biggest challenge to solve • Distribution is critical • Risk is real and reliability of the electricity system is critical
Low Emissions Economy (2018)	Productivity Commission	This report presents the findings and recommendations of the Productivity Commission's inquiry into transitioning to a low emissions economy. This includes a section on electricity, and commentary on the NPS-REG and consenting renewable electricity generation activities. The report includes two recommendations regarding reviewing the NPS-REG to make it more directive and developing a new NES for Renewable Electricity Generation to address identified issues.

In addition to the material listed in the table above, the Council has also gathered the following information to help inform the development of the renewable electricity generation chapter:

- **Resource consent application analysis** - a high-level analysis of the implementation of the current operative District Plan's renewable energy provisions has been undertaken. A summary of large scale wind energy resource consents processed over 2003-2016 is provided in Appendix 5 to this report. The analysis is based on resource consent information held by the Council and focuses on applications made under the Chapter 25 and 26 provisions for the three large wind farm developments: Long Gully[6], West Wind and Mill Creek.

- **GIS data/mapping analysis** – to support the development of the proposed renewable electricity generation provisions, GIS mapping of the existing consented large-scale renewable electricity generation activities (wind farms/turbines) alongside zoning and overlay information as contained in both the operative District Plan and the Draft District Plan was undertaken. These maps are included in Appendix 9 to this report.

- **Other district plan approaches** - a comparative analysis of the renewable energy provisions of six other district plans across the country against the operative WCC District Plan provisions was undertaken. The renewable energy/renewable electricity generation provisions within the following plans were reviewed:
    - Auckland Council Unitary Plan
    - Hamilton City Council District Plan

[6] The Long Gully wind farm application was granted consent in 2009 by the Environment Court but it was never built and the consent has since lapsed.

- Christchurch City District Plan
- Dunedin City Council Proposed District Plan
- Queenstown Lakes Proposed District Plan
- New Plymouth Council Proposed District Plan

The analysis is discussed further below (see section 5.2.2) and attached as Appendix 6 to this report.

5.2.1 Analysis of Operative District Plan provisions relevant to this topic

The Operative Plan's policy framework for renewable energy development is primarily contained within Chapters 25 (Renewable Energy - objectives and policies) and 26 (Renewable Energy Rules). In addition, Chapter 1 identifies renewable energy as a key resource management issue for the city; Chapter 3 (Definitions) provides relevant defined terms (i.e. 'Wind energy facility'); and Chapters 4 (Residential Area), 6 (Suburban Centres), 8 (Institutional Precincts), 10 (Airport and Golf Course Recreation Precinct), 12 (Central Area) and 14 (Rural Area) all contain a specific policy in respect of encouraging energy efficiency and the development and use of renewable energy where appropriate.

The objectives and policies contained within Chapter 25 apply district-wide for all applications relating to or involving renewable energy irrespective of whether the application is being dealt with under the area/zone-based rules or Chapter 26 rules. When a resource consent is sought under Chapter 26, the renewable energy objectives and policies are to be considered in conjunction with the objective and policy provisions of the Plan for the underlying zone. If the rules in Chapter 26 apply to a proposal, they will override rules within the zone chapters. Therefore, for renewable energy activities, the provisions in Chapters 25 and 26 take precedence over the objectives, policies and rules of the underlying zone. In summary:

- The objective (Chapter 25) encourages efficiency in energy use and the development and use of energy from renewable sources
- The policies (Chapter 25) follow from this and seek to:
  - encourage the efficient use of energy and greater renewable energy use, and
  - provide for renewable energy development while managing adverse effects and recognising the potential renewable energy resources in the Rural Area
- The two rules (Chapter 26) provide for:
  - anemometers and associated support structures for the purpose of measuring wind in the Rural and Open Space B areas as a Discretionary Activity (Restricted), and
  - wind energy facilities in the Rural Areas as Discretionary Activities (Unrestricted).

For the purposes of this report the key provisions in the Operative District Plan of relevance to this topic are summarised in the table below.

Topic	Summary of relevant provisions
Chapter 1, Section 1.6 - Significant Resource Management Issues for Wellington	Section 1.6 identifies renewable energy as a key resource management issue for the city: Energy Efficiency and Renewable Energy: Energy issues such as efficiency, conservation and use of renewable energy from a range of renewable resources have direct links to health and social wellbeing and to wider level issues including climate change. These concepts are discussed in the Council's Sustainable Development Strategy.
Chapter 3 - Definitions	'Wind Energy Facility' is defined as: "(colloquially, a 'wind farm') means the land, buildings, substations, turbines, structures, underground cabling earthworks, access tracks and roads associated with the generation of electricity by wind force and the operation of the wind energy facility. It does not include: • Small scale turbines of less than 5kW • Any cabling required to link the wind energy facility to the point of entry into the electricity network, whether transmission or distribution in nature.
Chapters 4 (Residential Area), 6 (Suburban Centres), 8 (Institutional Precincts), 10 (Airport and Golf Course Recreation Precinct), 12 (Central Area) and 14 (Rural Area)	These chapters contain a specific policy in respect of encouraging energy efficiency and the development and use of renewable energy where appropriate. Chapter 14 (Rural) example - Policy 14.2.1.3 Encourage energy efficiency and the development and use of renewable energy within the Rural Area. While there are no specific rule provisions for REG activities in these chapters, the intention is that majority of small-scale renewable energy use is permitted subject to meeting the Area specific rules and standards for buildings and structures. This includes solar panels, solar water heating and passive solar gain (the orientation of dwellings to the sun). These matters are referred to in the Subdivision Design Guide and Residential Design Guide.
Chapter 25 - Renewable Energy objectives and policies	**Objective 25.2.1** To encourage efficiency in energy use, and the development and use of energy from renewable sources. **Policy 25.2.1.1** Encourage the efficient use of energy and the greater use of renewable energy. **Method:** • Advocacy **Policy 25.2.1.2** Provide for renewable energy development, while: • Avoiding, remedying or mitigating adverse effects on the environment; and • Recognising the potential renewable energy resources that exist in the Rural Area including in identified ridgeline and hilltop areas. **Method:** • Advocacy • Rules
Chapter 26 - Renewable Energy rules	**26.2 Discretionary Activities (Restricted)**

Topic	Summary of relevant provisions
	26.2.1 Anemometers (including associated support structures) established for the purpose of measuring wind [in the Rural and Open Space B areas] are a Discretionary Activity (Restricted) in respect of: 26.2.1.1 Siting and Design 26.2.1.2 Duration 26.2.1.3 Height. *Non-notification* The written approval of affected persons will not be necessary in respect of items 26.2.1.1 to 26.2.1.3. Notice of applications need not be served on affected persons and applications need not be notified. *Assessment Criteria* In determining whether to grant consent and the conditions to be imposed, if any, Council will have regard to the following criteria: 26.2.1.4 The visual and amenity effects of the anemometer and the extent to which any effects of the anemometer can be mitigated by: • alternative siting • alternative design of the supporting structure • alternative colour or finish selection • attachment to an existing structure • the number to be erected 26.2.1.5 The duration of the activity, and any plans for removal. 26.2.1.6 The height of the mast. 26.2.1.7 Operational or technical considerations. **26.3 Discretionary Activities (Unrestricted)** **26.3.1 Wind energy facilities in the Rural Areas are Discretionary Activities (Unrestricted)** *Assessment Criteria* In determining whether to grant consent and what conditions, if any, to impose, Council will have regard to (but will not be restricted to) the following criteria: 26.3.1.1 The actual or potential noise effects of the proposal 26.3.1.2 The extent to which the proposal will affect the amenity values (other than noise) of the surrounding environment with particular regard to the effects on residential locations including potential nuisance effects on communities including: • electromagnetic – interference to broadcast or other signals • blade glint – resulting from the reflection of the sun from the turbine blades • shadow flickering – occurring when the blades of an operating wind turbine pass between the sun and an observer, generating flickering light.

Topic	Summary of relevant provisions
	26.3.1.3 The visual effects of the proposal, including: • The extent to which the proposal will impact on rural character; • The extent to which the proposal will be visible from residences, key public places including roads, and recreation areas; • The relationship of the proposal to the Ridgelines and Hilltop overlay; • The visibility of the proposed development; • The extent to which the proposal will impact on the natural character of the coastal environment, including on cliffs and coastal escarpments; • The extent to which any aspects of the proposal can be sited underground. • The scale of any proposed development, including the number of turbines, their height and the cumulative visual effects of the development as a whole. 26.3.1.4 The ecological impact of the proposal – including: • the extent to which vegetation will be removed or disturbed during construction and operation of the wind energy facility; • the sensitivity of the site to disturbance; • the potential effects on birds or other fauna, either migratory specie or resident populations on site. • The extent of any proposed earthworks and the degree to which runoff and the effects on local catchments can be managed. 26.3.1.5 The effects of traffic and vehicle movements and the extent that traffic or site management plans can be implemented to mitigate effects. 26.3.1.6 The resulting effects of any alteration to natural landforms required, including earthworks, including access tracks and roads, turbine platforms and the rehabilitation proposed. Major alterations to natural landforms should be avoided. 26.3.1.7 The extent to which the proposal will impact on: • identified sites of significance to tangata whenua; • heritage items; • Geological or archaeological values; • Landscape features; and • the surrounding land use. 26.3.1.8 Where a development is located within a Hazard Area the extent that measures are taken to mitigate the effects of the hazard event. 26.3.1.9 The cumulative effects of the proposal. 26.3.1.10 The extent to which the proposal is consistent with any relevant aspects if the Rural Area Design Guide. 26.3.1.11 Operational or technical considerations. 26.3.1.12 The effects of any proposal on aircraft safety, radar stations and navigation sites and facilities.

Topic	Summary of relevant provisions
	26.3.1.13 The benefits to be derived from the proposal, including its contribution to Central Government energy objectives and renewable energy targets.
Design Guides	The **Subdivision Design Guide and Residential Design Guide** address matters associated with small-scale renewable energy activities e.g. solar panels and passive design.

The Operative District Plan's renewable energy provisions focus on large scale wind energy as at the time of drafting the provisions this was the form of energy that was considered most likely to be developed given the region's quality of wind resource. The rules in Chapter 26 provide for anemometers (wind monitoring masts) and wind energy facilities (wind farms). Small scale turbines of less than 5kW, and any cabling required to link a wind energy facility to the point of entry into the electricity network, whether transmission or distribution in nature, are excluded from the Chapter 26 rule provisions. Instead, small scale wind energy proposals are assessed under the relevant Area (zone) rules for structures, and the infrastructure and connections required to the electricity network are assessed under the utilities provisions in Chapters 22 and 23.

For other small-scale activities such as solar panels on residential buildings and solar water heating, the relevant Area (zone) provisions for buildings and structures apply. In general, solar panels on residential buildings are a permitted activity provided they can meet the permitted activity standards for buildings (including recession planes). However, these provisions for small scale REG activities are not necessarily clear to plan users as there are no policy or rule provisions explicitly providing for these activities and the standards for buildings and structures are spread across multiple plan chapters/locations.

As already noted, the existing operative renewable energy provisions were notified as part of Plan Change 32 (Renewable Energy) in mid-2004 and were made operative in mid-2009 following the resolution of Environment Court appeals. This timing was well in advance of the NPS-REG in 2011 and the RPS which was made operative in 2013. As a result, the operative renewable energy provisions do not explicitly consider and were not drafted to refer to or reflect this higher-level policy direction. The existing provisions do however have regard to sections 7(ba) and (j) of the RMA. A key issue is therefore that the Operative Plan's provisions do not fully implement the NPS-REG or the RPS.

5.2.2 Analysis of other District Plan provisions relevant to this topic

A comparative assessment was undertaken in 2020 of specific provisions for renewable electricity generation in the following six District Plans:

- Auckland Council Unitary Plan
- Hamilton City Council District Plan
- Christchurch City District Plan
- Dunedin City Council Proposed District Plan
- Queenstown Lakes Proposed District Plan
- New Plymouth Council Proposed District Plan

This comparative assessment is provided in Appendix 6 to this report. It considers the consistency of the provisions with the NPS-REG and compares the key similarities and

differences between the six plans and the Wellington City Operative District Plan. The analysis was completed in mid-2020 before many councils had implemented the requirements of the National Planning Standards in terms of the district plan structure for energy provisions.

Overall, the comparative analysis shows that there is significant variability in terms of how renewable electricity generation activities are provided for within district plans. However, the plans chosen for the analysis have all been developed since the NPS-REG (and NPS-ET) came into force and therefore they all have (to some degree) specific provisions that recognise the importance and benefits of REG at an objective and policy level and they provide for different REG activities and scales of activity at the policy and rule level.

Current practice within recent district plans in the Wellington region has also been considered, with a review undertaken of the Porirua City and Kapiti Coast district plans, as shown in the following table. It is noted that the Porirua City Proposed District Plan has been prepared in accordance with the National Planning Standards and the Kapiti Coast District Plan (made in operative 2021) has been amended to reflect the National Planning Standards.

Plan	Local Authority	Description of approach
Porirua City Proposed District Plan (notified August 2020)	*Porirua City Council*	Renewable electricity generation (REG) is included as a sub-chapter of the 'Infrastructure, energy and transport' chapter. There are two objectives for renewable electricity which recognise the benefits of renewable electricity generation (REG-01) and provide for renewable electricity generation activities (REG-02). There are ten renewable electricity policies which: • Recognise the benefits of renewable electricity generation • Enable the ongoing maintenance and repair of existing renewable electricity generation activities • Manage reverse sensitivity effects on any established or consented renewable electricity generation activities • Provide for investigation activities, small scale, community scale and large scale renewable electricity generation activities in locations outside of overlays and within overlays subject to avoiding, remedying or mitigating adverse effects • Decommissioning of renewable electricity generation activities The rule framework includes: • Permitted activities include maintenance and repair (including within SNAs if permitted activity standards for vegetation trimming/removal are met), building or

		structure mounted solar panels, small scale roof-mounted or free standing wind turbines, and activities for the investigation, identification and assessment of potential sites and energy sources; • Restricted discretionary activities include activities that do not meet relevant permitted activity standards, and community scale wind and solar renewable electricity generation activities in the General Rural, Rural Lifestyle, General Industrial and Māori Purpose zones outside of specified Overlays; • Discretionary activities include activities that do not meet relevant restricted discretionary activity standards, commercial-scale renewable energy generation activities located in other zones and in overlays, and large scale renewable energy generation activities in the General Rural Zone outside of overlays; • Non-complying activities include renewable electricity generation activities that do not meet NZS 6808:2010 Acoustics - Wind farm noise, large scale renewable electricity generation activities located within overlays, large scale renewable energy generation activities located in the General Rural Zone and within specified overlays, and large scale renewable energy generation activities in all other zones. Permitted activity standards include: • Small-scale solar panels mounted to any building or structure: height, height in relation to boundary • Small-scale roof-mounted wind turbines: height, height in relation to boundary, rotor diameter, one turbine per site • Small-scale freestanding wind turbines: height, height in relation to boundary, setback from habitable buildings and property boundaries, rotor diameter, number of turbines on a site • Renewable electricity generation investigation activities: anemometer

		height, height in relation to boundary, removal, restoration of site following removal, and a 5-year timeframe • Trimming, pruning or removal of indigenous vegetation within an Significant Natural Areas Restricted discretionary activity standards include: • Community-scale wind turbine towers (either freestanding or supported by guyed ropes): must be outside of overlays, height in relation to boundary, setback from habitable buildings and property boundaries • Community-scale freestanding solar panels: height, height in relation to boundary, setback, maximum area of 150m^2
Kapiti Coast District Plan (Operative 2021)	*Kapiti Coast District Council*	Renewable energy generation is included within the 'ENGY- Energy' sub-section of the 'Infrastructure, energy and transport' chapter. There is a specific strategic objective relating to renewable energy – DO-018 Renewable energy, energy efficiency and conservation - which addresses: • Increasing the development and use of energy from renewable sources; and • Avoiding, remedying or mitigating adverse effects on the environment. The plan includes six policies for renewable electricity generation activities which: • recognise the national, regional or local importance and benefits derived from renewable electricity • provide for the investigation, development, operation, maintenance and upgrading of renewable electricity generation activities, including domestic and community scale activities while avoiding, remedying or mitigating adverse effects • manage the effects of renewable electricity generation activities on identified planning features (overlays)

		• manage reverse sensitivity effects on existing renewable electricity generation facilities • set out assessment criteria for the development, construction, operation, maintenance and upgrading renewable electricity generation activities • provide the opportunity for development incentives where exemplary methods are proposed that promote the efficient end use of energy and renewable electricity generation. The rule framework includes: • Permitted activities include operation and maintenance, building mounted solar panels, domestic scale wind turbines, and certain activities for identification and assessment of potential sites and energy sources; • Restricted discretionary activities include activities that do not meet relevant permitted activity standards, structures for hydro generation or ocean energy investigation and electricity generation, and community scale renewable electricity generation activities; • Discretionary activities include activities that do not meet relevant restricted discretionary activity standards, and commercial-scale renewable energy generation activities not located in overlays; • Non-complying activities include commercial scale renewable electricity generation activity located within overlays, and wind turbines over 13 metres in height within outstanding natural features and landscapes. Standards are included specific to the permitted and restricted discretionary activities. Permitted activity standards include: • Solar panels attached to buildings: restricting breaches of height and height envelope, panels on heritage buildings; • Roof mounted wind turbines and freestanding

		• domestic scale wind turbines: height, height envelope and noise, location outside of overlays; • Identification and assessment of potential sites and energy sources: compliance with New Zealand Standards, height, height envelope and yard requirements, no meteorological masts within overlays, reinstatement of the site, suppling information to Council. Restricted discretionary activity standards include: • Domestic scale renewable wind turbines and meteorological masts must be outside of overlays; • Structures for hydro generation and ocean energy: location within specified zones, setbacks from residential zones, restrictions on buildings and structure size and location outside of esplanades, unformed roads and overlays; • Community scale renewable electricity generation activities: location outside of overlays, land area coverage, setbacks from boundaries; • Identification and assessment of potential sites and energy sources within overlays.

In summary, these plans were selected for assessment because:

- They have been subject to recent plan changes or plan reviews that have addressed renewable electricity generation activities*;* and/or
- They are subject to the same regional planning framework (Kapiti and Porirua); and/or
- The associated Councils are of a similar scale to Wellington City and are experiencing similar issues relating to renewable electricity generation activities.

A summary of the key findings of the assessments undertaken includes:

- More recently prepared plans adopt the National Planning Standards district plan structure and locate the renewable electricity generation provisions within a specific sub-chapter of the 'Infrastructure, energy and transport' chapter;

- Objectives relating to renewable electricity generation generally relate to:
    - Increasing renewable electricity generation activities;
    - Recognising benefits of renewable electricity generation activities at different scales;
    - Managing adverse effects; and
    - Recognising technical, locational and operational constraints.

- The relevant policies of the analysed plans generally address:
    - Encouraging renewable electricity generation;
    - Recognising local, regional and national benefits;
    - Acknowledging locational, operational and technical constraints;
    - Reverse sensitivity issues;
    - Recognising benefits of reducing greenhouse gas emissions;
    - Providing for investigation, identification and assessment activities
    - Providing for operation, maintenance and repair, and upgrading activities;
    - Promoting/enabling the development of small and community scale activities;
    - Ensuring appropriate location and form of large scale activities;
    - Avoiding, remedying and mitigating adverse effects, including the application of a specific effects management hierarchy for activities in high/very high coastal natural character areas consistent with the NZCPS;
    - Managing adverse effects on sites and areas with identified environmental, social and cultural values;
    - Managing location, size and height of structures, setbacks from sensitive activities, and in some cases the storage of hazardous substances; and
    - Remediation of sites after decommissioning of activities.

- In terms of the rule frameworks of the plans assessed, these generally include the following (with some plans being more specific as to generation types and zones):
    - Permitted activities:
        - operation, maintenance and repair, some minor upgrading;
        - investigation and assessment of potential renewable electricity generation sites and energy sources (some more specific as to generation types and zones);
        - small scale renewable electricity generation (primarily domestic wind turbines and solar panels).
    - Restricted discretionary activities:
        - permitted activities not complying with standards;
        - community scale renewable electricity generation activities;
        - small scale renewable electricity generation within overlays,
        - specified large scale renewable electricity generation activities in less sensitive zones and outside overlays;
    - Discretionary activities:
        - restricted discretionary or permitted activities that do not meet relevant standards;
        - large scale renewable electricity generation activities within less sensitive zones (generally rural and industrial zones) and not located in overlays;
        - some specified large scale activities within certain overlays;
    - Non-complying activities:
        - some investigation and assessment activities in more sensitive zones;
        - large scale activities within more sensitive zones and within certain/specified overlays;

        - renewable electricity generation activities not complying with permitted activity standards and not provided for as restricted discretionary or discretionary activities;
        - renewable electricity generation activities not complying with NZS 6808:2010 Acoustics - Wind farm noise
    - The standards included for the different types and scales of renewable electricity generation activities allow for some variation in activity status applied.

5.2.3 Advice received from Taranaki Whānui and Ngāti Toa Rangatira

Under Clause 4A of Schedule 1 of the RMA local authorities are required to:

- Provide a copy of any draft policy statement or plan to any iwi authority previously consulted under clause 3 of Schedule 1 prior to notification;
- Allow adequate time and opportunity for those iwi authorities to consider the draft and to supply advice; and
- Have particular regard to any advice received before notifying the plan.

As an extension of this s32(4A) requires evaluation reports prepared in relation to a proposed plan to include a summary of:

- All advice received from iwi authorities concerning the proposal; and
- The response to that advice, including any proposed provisions intended to give effect to the advice.

The following is a summary of the advice received from Taranaki Whānui and Ngāti Toa Rangatira specific to the proposed provisions evaluated within this report. Column 3 of the table below describes Council's response to the advice, either by giving full or partial effect through the amendment/addition of provisions or by discounting the advice.

Topic	Advice Received	Response
Support for the chapter and advancements in renewable electricity generation.	• Mana whenua support advancements and provisions for renewable electricity generation without adversely impacting sites of significance.	• The support for the chapter and the advancement of renewable electricity generation is noted.
Sites of significance need to be protected, managed, and not further hindered.	• Ensure that any development or land use activity associated with renewable energy does not adversely affect Mana Whenua's significant sites, waterways, natural resources, and associated values and relationships.	• The objectives, policies and rules in the Renewable Electricity Generation chapter include specific requirements to ensure appropriate consideration of mana whenua values and relationships with renewable energy sources and the protection of sites and areas of significance to Māori from

		renewable electricity generation activities.
Opportunities and incentives for renewable energy and energy efficiency in new buildings	• What is the opportunity of renewable energy vs diesel and what are the incentives for new homeowners and businesses in the new builds to be more energy efficient.	• The objectives, policies and rules in the Renewable Electricity Generation chapter support and enable the installation of renewable electricity generation activities as part of new housing development, e.g. small scale solar panels and domestic scale wind turbines. • The Renewable Electricity Generation objectives and policies also support and promote energy efficiency and conservation being incorporated as part of subdivision layout, site layout and building design and development, and the policies and rules in the subdivision and residential zone chapters, and the supporting design guides, include specific considerations. • In terms of incentives, the PDP's proposed "City Outcomes Contribution" specifically recognises the contribution of sustainability, energy efficiency and reduced embodied carbon used in buildings and provides density-related development concessions for buildings with green star ratings etc. Development contribution remissions are also possible for new building developments with green star certification.
Mana whenua management of renewable energy	• Include mana whenua in the management of renewable energy if it involves the use of their natural resources.	• The PDP provides greater recognition of mana whenua values and promotes an active partnership in resource management processes.

		• Mana whenua's kaitiaki role is recognised in the Tangata Whenua chapter of the PDP which is a Part 2 City-Wide chapter.

A full copy of the advice received is attached as Appendix 2.

5.2.4 Consultation undertaken to date

The following is a summary of the primary consultation undertaken in respect of this topic:

Who	What	When	Relevant Issues Raised
General public, community	Feedback on Our City Tomorrow engagement Feedback on the Draft Spatial Plan and the Draft District Plan, through submissions and feedback	2017-2022	• Part of the feedback provided on the early engagement informing the development of the Spatial Plan was that people want a city that is greener and more resilient. This includes use of renewable energy. • Responding to our international climate commitments and the city's goal of being carbon zero by 2050, including through enabling opportunities for the development of renewable electricity generation. • Ensuring better protection of the city's natural environment and special values, including SNAs, outstanding natural features and landscapes (including rules to manage new development and earthworks within these areas), the natural character of the coastal environment, historic heritage, viewshafts etc. • Managing the effects of intensification including

			the shading of existing solar panels on roofs etc.
Mayor and Councillors	Draft District Plan workshops	Throughout 2020-22	• Concern about the impacts of population growth on electricity generation and distribution. • Responding to the city's goal of being carbon zero by 2050, including through enabling opportunities for the development of renewable electricity generation, and new design guides promoting energy-efficient buildings through optimising sunlight access and building orientation. • Ensuring better protection of the city's natural environment and special values, including SNAs, outstanding natural features and landscapes (including rules to manage new development and earthworks within these areas), the natural character of the coastal environment, historic heritage, viewshafts etc.
Renewable electricity generation developers/ providers (e.g. Meridian, Contact)	Targeted discussions/ meetings and submissions on the Draft District Plan	2020-2022	• The operative renewable energy provisions have been relatively fit for purpose for the large-scale wind farm proposals received over the last 10-15 years but are now quite dated and require updating to reflect not only national direction, contemporary planning practice and technology

			advancements, but also to: ○ more explicitly recognise and provide for a broader range and scale (including small and community scale generation) of renewable energy development ○ better provide for the associated connections and infrastructure required both within the renewable energy development site and to the electricity network ○ recognise and provide for the upgrading of existing wind farms/turbines ○ respond to and provide for renewable electricity generation technology developments • Renewable energy development is only currently recognised in rural areas – need to consider what other wider opportunities there are other potential locations across the city that the plan should recognise and provide for renewable energy generation activities • Investigate the introduction of provisions that address the storage of renewable energy generation. • Clarify the relationship of the renewable energy chapter with other district

			plan chapters, including infrastructure and natural environment and coastal overlays etc.
Landowners and residents	Feedback on the Draft Spatial Plan and the Draft District Plan, through submissions and feedback	2020-2022	• Effectively managing noise effects from wind turbines. • Effectively managing effects on landscape values and proximity/ visibility of wind turbines from private residences/ dwellings. • Renewable energy development is only currently recognised in rural areas – need to consider what other wider opportunities there are other potential locations across the city that the plan should recognise and provide for renewable energy generation activities.

A summary of the specific feedback received during consultation on the Draft District Plan is contained in Appendix 3, including how it has been responded to in the Proposed District Plan. Additional detail concerning the wider consultation undertaken in preparing the Proposed District Plan is contained in the companion Section 32 Evaluation Overview Report.

In summary, the key findings arising from the consultation and engagement undertaken on this topic are:

- There is a good level of support for having specific renewable electricity generation provisions within the District Plan, providing for a range of renewable electricity generation activity types and scales in appropriate locations
- There is general support for renewable electricity generation activities and their benefits, and agreement with the need to include provisions sufficiently providing for these activities and their potential effects
- There is some specific concern about the potential effects of larger scale renewable electricity generation activities on the amenity values of areas and on existing activities (particularly dwellings and farming activities), specifically in relation to generation using wind resources.

5.3 Summary of Relevant Resource Management Issues

Based on the research, analysis and consultation outlined above the following issues have been identified:

Issue	Comment	Response
Issue 1: Recognising the benefits of renewable electricity generation	• Renewable electricity generation activities can have local, regional and national scale benefits; • Benefits include increasing electricity generation capacity and security, and reducing the use of finite resources, irreversible effects on the environment, and reliance on imported fuels; • Policy A of the NPS-REG requires that decision makers recognise the national significance of renewable electricity generation activities, including the national, regional and local benefits; • The RPS requires district plans to include policies and/or methods that recognise the social, economic, cultural and environmental benefits of energy generated from renewable energy resources; • Strategic direction SCA-O1 seeks that the social, economic, cultural, and environmental benefits of infrastructure are recognised.	• Inclusion of targeted Renewable electricity generation (REG) activities provisions within a separate sub-chapter of the PDP (within the 'Infrastructure, energy and transport' chapter); • Inclusion of a specific objective and a supporting policy framework that recognises the benefits of renewable electricity generation activities at different scales.
Issue 2: Providing for renewable electricity generation activities	• Renewable electricity generation activities can utilise a range of renewable energy resources, and be developed at a range of scales; • Investigation, identification and assessment of	• Inclusion of targeted renewable electricity generation (REG) activities provisions within a separate sub-chapter of the PDP (within the 'Infrastructure, energy and transport' chapter); • Inclusion of a specific objective providing for renewable electricity generation activities;

Issue	Comment	Response
	renewable energy resources is often required to determine the feasibility of renewable electricity generation activities; • Policy A of the NPS-REG requires that decision makers provide for the national significance of renewable electricity generation activities, including the national, regional and local benefits; • Policies E1 to E3 of the NPS-REG require the district plans include provisions to the extent relevant to the district for solar, biomass, tidal, wave and ocean current, and hydro-electricity, and wind renewable energy; • Policy F of the NPS-REG requires that district plans include provisions for small and community-scale distributed renewable electricity generation; • Policy F of the NPS-REG requires that district plans include provisions for activities associated with the investigation, identification and assessment of potential sites and energy sources for renewable electricity generation; • The RPS requires district plans to include policies and/or methods that promote the use of domestic scale and small scale	• Inclusion of specific policy provisions enabling existing REG activities, and a permitted activity rule for the maintenance and repair of renewable electricity generation activities (with an associated standard for trimming, pruning or removal of indigenous vegetation within SNAs); • Inclusion of a policy to allow REG investigation, identification and assessment activities and an associated permitted activity rule where standards are met; • Inclusion of a policy to allow small scale REG activities within overlays, where they meet certain criteria, and an associated restricted discretionary rule for these small scale activities within overlays; • Inclusion of a policy to allow community scale REG activities within appropriate zones and outside overlays where adverse effects are avoided, remedied or mitigated, and an associated restricted discretionary activity rule; • Inclusion of a policy to allow for new large scale renewable electricity generation activities within the General Rural Zone outside of overlays and an associated discretionary activity rule; • Inclusion of a specific policy to allow the upgrading of existing large scale REG, including replacing or upgrading wind turbines and their support structures and ancillary facilities within existing wind farms, where standards can be met to ensure effects are avoided, remedied or mitigated, with an associated restricted discretionary activity rule; • Inclusion of a policy recognising the benefits of upgrading existing renewable electricity generation activities and providing for technological advances

Issue	Comment	Response
	distributed renewable energy generation.	
Issue 3: Effectively managing the potential adverse effects of renewable electricity generation activities	• Renewable electricity generation activities can have adverse effects on the environment that need to be managed. Adverse effects include short-term effects during construction, repair, and removal and longer-term effects during operation; • Effects of operational renewable electricity generation activities on amenity values, including noise from wind turbines, are a particular concern; • The adverse effects of renewable electricity generation activities may not always be able to be avoided, remedied or mitigated. Residual effects may need to be offset or compensated for; • Uncertainty in the potential adverse effects may need to be addressed through adaptive management measures; • Strategic direction SCA-O5 seeks that the adverse effects of infrastructure are managed having regard to the economic, social, environmental and cultural benefits, and the technical and operational needs of infrastructure.	• Inclusion of appropriate standards for permitted and restricted discretionary activities for REG investigation, identification and assessment activities, and small scale and community scale REG activities which limit adverse effects to acceptable levels, where relevant; • Identifying appropriate less-sensitive zones for community scale and large scale REG activities to be allowed within (subject to appropriate management of any adverse effects) and making the establishment of activities outside of these zones more restrictive in terms of activity status; • Inclusion of a specific policy to allow the upgrading of existing large scale REG, including upgrading and repowering wind turbines and their support structures and ancillary facilities within existing wind farms, where standards can be met to ensure effects are avoided, remedied or mitigated with an associated restricted discretionary activity rule; • Making new large scale REG activities located in zones other than the General Rural Zone or within specified overlays, or which cannot achieve compliance with NZS6808:2010 and the specified noise standards, a non-complying activity.
Issue 4: Recognising and	• Different types of renewable electricity generation activities have differing	• Inclusion of a specific clause within the REG objectives to recognise the

Issue	Comment	Response
providing for operational and functional needs	functional and operational needs, which need to be recognised and provided for through the PDP provisions and resource consent decision making. • These functional and operational needs may be a result of locational needs, logistical or technical practicalities, or the location of supporting infrastructure for the renewable electricity generation activities; • Policy C1 of the NPS-REG requires decision makers to have regard to a range of practical constraints; • Policy C2 of the NPS-REG requires decision makers to have regard to offsetting measures or environmental compensation; • The RPS requires particular regard to be given to the need for renewable electricity generation facilities to locate where the renewable energy resources exist; • Strategic direction SCA-O5 seeks that the adverse effects of infrastructure are managed having regard to the economic, social, environmental and cultural benefits, and the technical and operational needs of infrastructure.	operational and functional needs of REG activities; • Including consideration of the operational and functional needs of REG activities, including adaptive management and offsetting measures or environmental compensation, within the policies and matters of discretion.
Issue 5: Protecting the values	• The PDP includes a range of overlays identifying sites and areas within the city with significant values to people	• Inclusion of a clause within a REG objective for protecting the values and qualities of identified overlays;

Issue	Comment	Response
and qualities of overlays	and communities. These respond to requirements set out in Part 2 of the RMA, national direction and regional policies; • The investigation, development, operation, maintenance and repair, upgrade and removal of renewable electricity generation activities has the potential to have adverse effects on these areas and their values. While these effects may be acceptable outside of overlays, the values and significance of identified sites and areas may result in these effects not being appropriate within the respective overlays; • Strategic direction NE-O1 seeks that the natural character, landscapes and features, and ecosystems that contribute to the City's identity and have significance for mana whenua as kaitiaki are identified, recognised, protected, and, where possible, enhanced; • As a standalone chapter, the REG provisions need to recognise and protect identified sites and areas and their values from inappropriate use and development for renewable electricity generation; • Generally, the needs of existing renewable electricity generation activities that are already located within overlays should be enabled,	• Inclusion of a policy to allow investigation, identification and assessment activities within overlays, where they meet certain criteria, and an associated restricted discretionary rule; • Inclusion of a policy to allow small scale activities within overlays, where they meet certain criteria, and an associated restricted discretionary rule; • Inclusion of a policy to allow community scale activities within overlays where any significant adverse effects are avoided and any other adverse effects are avoided, remedied or mitigated, and an associated discretionary activity rule; • Inclusion of a policy to avoid large scale renewable electricity generation activities within specified overlays (other than Ridgelines and Hilltops, and low and medium hazard areas within the Hazard Overlays) and an associated non-complying activity rule for large scale activities located within specified overlays.

Issue	Comment	Response
	but only where those activities do not further impact on the identified values of the relevant overlay.	
Issue 6: The efficient and effective use, operation, repair, maintenance, and upgrade of renewable electricity generation activities can be constrained or compromised by other activities	• Inappropriate subdivision, use and development, including intensification of activities, in the vicinity of renewable electricity generation activities can have reverse sensitivity effects which may result in constraints on its operation and use. This may result in adverse effects on the effective and efficient operation and consequently the local, regional and national benefits derived from it; • Policy D of the NPS-REG requires that activities are managed to avoid reverse sensitivity effects on consented and existing renewable electricity generation activities; • The RPS requires that district plans include policies and rules that protect regionally significant infrastructure from incompatible new subdivision, use and development. The definition of regionally significant infrastructure includes facilities for the generation and transmission of electricity where it is supplied to the network; • Strategic direction SCA-O6 seeks that infrastructure operates efficiently and	• Inclusion of a specific REG policy addressing reverse sensitivity effects on existing renewable electricity generation activities.

Issue	Comment	Response
	safely and is protected from incompatible development and activities that may create reverse sensitivity effects.	

6.0 Evaluation of the Proposal

This section of the report evaluates the objectives of the proposal to determine whether they are the most appropriate means to achieve the purpose of the RMA, as well as the associated policies, rules and standards relative to these objectives. It also assesses the level of detail required for the purposes of this evaluation, including the nature and extent to which the benefits and costs of the proposal have been quantified.

6.1 Scale and Significance

Section 32(1)(c) of the RMA requires that this report contain a level of detail that corresponds with the scale and significance of the environmental, economic, social and cultural effects that are anticipated from the implementation of the proposal.

The level of detail undertaken for this evaluation has been determined by assessing the scale and significance of the environmental, economic, social and cultural effects anticipated through introducing and implementing the proposed provisions (i.e. objectives, policies and rules) relative to a series of key criteria.

Based on this the scale and significance of anticipated effects associated with this proposal are identified below:

Criteria	***Scale/Significance***			***Comment***
	Low	***Medium***	***High***	
Basis for change		X		• The Operative District Plan has gaps in its current approach. • Gives effect to higher level RMA documents including NPS-REG, NPS-ET, NZCPS, Wellington RPS, Proposed Natural Resources Plan. • Implements key Council non-statutory planning initiatives – including the Wellington City Spatial Plan (Our City Tomorrow), Te Ata Kura, Resilience Strategy. • Responds to / consistent with directions and goals in relevant national plans and strategies including the NZ Infrastructure Strategy, NZ Energy Strategy, Aotearoa NZ's Emissions Reduction Plan.

Criteria	*Scale/Significance*			*Comment*
	Low	*Medium*	*High*	
Addresses a resource management issue		X		• Renewable electricity generation has benefits at local, regional and national scales, particularly in responding to the effects of climate change and increasing energy security and diversification. • Renewable electricity generation also has the potential to have a wide range of adverse effects on the environment due to the potential size and scale of structures required to harness renewable energy resources. Visual and amenity effects are of particular concern, particularly in relation to large scale commercial renewable electricity generation activities. • This topic involves matters of national significance in relation to RMA s6(a), (b), (c), (d), (e), (f) and (h) as renewable electricity generation activities may occur or be proposed within those areas with identified significant social, ecological or cultural values. It is also related to s7 matters in particular the effects of climate change and the benefits to be derived from the use and development of renewable energy (matters (i) and (j)). Other matters of relevance include the efficient use and development of natural and physical resources, the maintenance and enhancement of amenity values, and the maintenance and enhancement of amenity value (matters (b), (c) and (f)). These matters are dealt with specifically for renewable electricity generation within the chapter. • The introduction of the proposed REG chapter and associated provisions ensures that the investigation, development, operation, use, maintenance, repair, upgrade and removal of renewable electricity generation activities are managed efficiently and effectively, with activities that are likely to have acceptable adverse effects on the environment allowed for as permitted activities subject

Criteria	*Scale/Significance*			*Comment*
	Low	*Medium*	*High*	
				to appropriate standards. Activities that may have greater effects or will not achieve compliance with permitted activity standards require resource consent and consideration of the relevant effects.
Degree of shift from the status quo		X		• The existing Operative District Plan went through a plan change process which included adoption of REG provisions limited to providing for wind farms within the Rural zone subject to significant setbacks; however, as noted above the plan change was notified prior to the NPS-REG and RPS and while not in conflict with these, it does not give full effect to these documents. Significant additional provisions are required to give full effect to the NPS-REG, including providing for small scale and community scale renewable electricity generation activities. Giving effect to the requirements of the NPS-REG will therefore require a relatively significant departure from the current framework in the operative district plan. • The PDP has introduced a slightly different zoning approach compared with the Operative District Plan (to implement the National Planning Standards, NPS-UD and MDRS), with some differing character and amenity values associated with/sought for these areas. The provisions for renewable electricity need to take into account these characters and amenity values appropriately. • The inclusion of a number of overlays within the PDP, including natural hazard areas, SNAs, ONFLS and Coastal High and Very High Natural Character Areas, also means that changes are required to address how renewable electricity generation is addressed in these more sensitive areas.
Who and how many will be affected/		X		• The geographic scale of effects of, and the number of people who may be

Criteria	*Scale/Significance*			*Comment*
	Low	*Medium*	*High*	
geographical scale of effect/s				affected by, renewable electricity generation activities is highly dependent on the type and scale of the various activities provided for through the proposed provisions. • Small scale renewable electricity generation activities would likely have effects limited to the immediate surrounding area, due to the small scale of the associated structures required to capture the renewable energy resources, such as solar panels or small wind turbines supplying a single dwelling. Community scale renewable electricity generation activities are larger in scale and may have wider effects on the environment, with larger structures visible from further afield. Large scale commercial renewable electricity activities have the potential to have significant adverse effects on a large geographic area, due to large structures (e.g. wind turbines) often located in visually prominent areas in order to access the renewable energy resource.. Additionally, the type of renewable electricity generation is important as this impacts on the location and function of the activities. There is likely to be limited additional opportunity within the city for new large scale wind generation activities. • In term of who may be affected, this includes immediate neighbours of REG activities, as well as the wider the community and visitors to the city if the activities involve visually prominent large scale activities. • Therefore, the potential number of people affected has the potential to be moderate, and the geographic scale of effects relatively wide, depending on the activity.

Criteria	*Scale/Significance*			*Comment*
	Low	*Medium*	*High*	
Degree of impact on or interest from iwi/ Māori		X		• Mana whenua are interested in and support advancements and provisions for renewable electricity generation being included within the PDP but these activities should not adversely affect Mana whenua's significant sites, waterways, natural resources, and associated values and relationships. • The city contains a large number of sites and areas of significance to Māori including numerous wāhi tapu. Many of these sites are located close to the coast. There are also a number of resources and waterways of significance to mana whenua. These issues are provided for within the PDP through overlays including sites and areas of significance to Māori, landscapes and features, and significant natural areas. • REG activities, particularly larger scale activities, have the potential to impact on mana whenua values and interests, therefore the REG chapter includes specific requirements to ensure the protection of sites and areas of significance to Māori from renewable electricity generation activities.
Timing and duration of effect/s		X		• The effects of the PDP will be ongoing from the time any of its provisions become operative. There will be intermittent proposals for development of renewable electricity generation activities, with smaller scale REG activities much more likely and more common than large scale activities. • Construction effects of the development of renewable electricity generation activities will be temporary and intermittent. • Renewable electricity activities may have quite variable life-cycle periods before their upgrade, renewal or removal depending on the type of renewable energy resource being used, the scale of the activity and changes to or development of technology. Some

Criteria	*Scale/Significance*			*Comment*
	Low	*Medium*	*High*	
				renewable electricity generation activities can have effects that are able to be readily reversed. However, the level of investment required for large scale activities means that it is likely these will be in place for significant periods of time, with investment likely to be made in upgrading and repowering of existing large scale activities as REG assets age and technology improvements are made etc.
Type of effect/s		X		• The development and operation of renewable electricity activities can have significant adverse effects on the environment, particularly effects on amenity as a result of noise and visual dominance of relatively large, prominent structures. The effects of smaller scale activities will be of much lesser significance. • Different types of effects can be generated during the development and operation of renewable electricity activities. Adverse effects during development activities can include construction noise, traffic and effects from earthworks. Ongoing effects can include visual dominance of large structures and effects generated during maintenance works. It might not always be possible to avoid, remedy or mitigate all adverse effects from renewable electricity activities. • The extent and scale of these effects is highly dependent on the type, nature and location of the renewable electricity activities. Small scale renewable electricity activities within an urban environment may be largely unnoticed by most people during operation, particularly activities such as solar cells. However, renewable electricity activities involving large, visually prominent structures such as commercial scale wind farms have the potential to have significant effects, particularly in more

Criteria	*Scale/Significance*			*Comment*
	Low	*Medium*	*High*	
				sensitive areas with identified cultural, heritage, landscape, ecological or other natural environment values.
Degree of risk and uncertainty	X			• The degree of risk and uncertainty is considered to be relatively low due to the certainty provided by well-understood potential effects, and the approach taken for their management in the proposed provisions.

Overall, the scale and significance of the proposed provisions are considered to be medium for the following reasons:

- The requirement for the PDP to implement key national directions, particularly the directions of the NPS-REG and NZCPS;
- The requirement for the PDP to not be inconsistent with the Wellington RPS and the Proposed Natural Resources Plan;
- The change in approach and the provision for a wider range and scale of REG activities being proposed from that in the existing Operative District Plan;
- The significant spatial extent and the potentially large number of properties/sites that the new REG provisions will apply to; and
- The interest from mana whenua, REG developers/providers, landowners and the wider community in the development of renewable electricity generation activities.

Consequently, a detailed evaluation of these provisions has been identified as appropriate for the purposes of this report.

6.2 Quantification of Benefits and Costs

Section 32(2)(b) requires that, where practicable, the benefits and costs of a proposal are to be quantified.

Based on the assessment of the scale and significance of the proposed REG provisions in section 6.1 above, specific quantification of the benefits and costs beyond the information and evidence outlined in section 5.2 of this report is neither practicable nor readily available. The proposed REG provisions are not a significant departure from the status quo in as far as the Operative District Plan addresses renewable electricity generation and the provisions give partial effect to the NPS-REG which provides national direction in relation to this topic. However, a qualitative assessment of identifiable costs and benefits (and where they may lie) associated with the proposed provisions is provided in the table below and, where relevant, in the assessment of policies, rules and other methods contained in section 9 of this report.

Consideration	**Assessment**			**Comment**
	Low	*Med*	*High*	

The proposal would result in a more restrictive regime than the status quo	X			• The current Operative District Plan's renewable energy chapters focus on providing for large scale wind energy facilities (wind farms) and anemometers (wind monitoring masts), with other renewable electricity generation activities considered under the general zone provisions for structures. • The proposed REG provisions provide for a wider range and different scales of renewable energy activities, including an explicit and enabling regime for small and community scale activities, while maintaining similar controls in relation to the development of new large scale wind generation activities in the General Rural zone. The proposed provisions also explicitly recognise the need and benefits of upgrading existing renewable electricity generation activities, including wind turbines within existing wind farms. • The proposed REG provisions also recognise the values and qualities of overlays identified in the PDP (including natural environment, cultural, historic, landscape, coastal, natural hazards etc) and seek to effectively manage effects and protect the identified areas and values from inappropriate use and development for renewable electricity generation.
Evidence demonstrates that the status quo is resulting in significant adverse effects	X			• The status quo is relatively restrictive. There is no evidence of significant adverse effects being generated.
The proposal would result in a significant loss of development opportunity/ potential above the status quo	X			• The status quo is relatively restrictive. The proposed REG provisions will provide increased development potential for small scale and community scale renewable electricity generation activities. The also explicitly recognise and provide for upgrading of existing REG activities.
The proposal is likely to result in loss of employment opportunities	X			• There is no evidence to suggest that there will be any adverse effects on employment. New REG development could increase employment opportunities.
The introduction of a more permissive regime that could result in significant adverse effects on s6 matters	X			• The proposed REG provisions will ensure Council meets its statutory requirements and s6 responsibilities.

Likelihood of significant indirect or flow-on effects			X	• There is a high likelihood of positive flow-on effects in relation to energy security and reduced greenhouse gas/carbon emissions from electricity generation which is recognised in the national direction.
The proportion of the city that is likely to be affected		X		• The proposed REG provisions apply district wide, with direction for community scale and large scale REG activities to less sensitive zones and outside of overlays.
The level of uncertainty around the proposal, its effects, and the availability of relevant information	X			• Low level of uncertainty, with clear national direction and case law.
The level of base economic information available within the Council	X			• Limited economic information specific to Wellington City renewable energy generation context. • Wellington Resilience Strategy 2017 identifies that 82 percent of Wellington's electricity comes from renewable sources. • Electricity prices are expected to continue to rise but the costs associated with developing wind generation are expected to be less than the costs associated with continuing to rely on thermal generation (NZ Wind Energy Association). • The New Zealand Energy Quarterly (available on MBIE's website) provides quarterly data and analysis on energy supply, demand, prices and associated greenhouse gas emissions. • The Energy in New Zealand annual publication provides information on and analysis of New Zealand's energy sector including statistics on supply, transformation, and demand. • Various renewables statistics are available on the MBIE website here
Access to a suitably qualified economic resource within the available timeframe	X			• Unlikely to have sufficient time for specific and detailed economic advice to be provided.

7.0 Overview of Proposal/s

The proposed provisions relevant to this topic are set out in detail in the PDP ePlan and should be referenced to in conjunction with this evaluation report.

The chapter has been drafted to be standalone to the extent possible, with limited external references to other PDP chapters and provisions. This is because of the district-wide nature of the provisions and the need to provide clear and integrated provisions for the development of renewable electricity generation activities. The alternative would have been for each of the Overlay chapters and district-wide chapters such as natural character and earthworks, to have their own renewable electricity generation provisions. That approach was considered to be inconsistent with the district plan structure requirements of the National Planning Standards, as well as being inefficient and potentially confusing for plan users.

In summary, the proposed provisions include:

- Definitions
    - A set of relevant definitions, including:
        - Renewable electricity generation activities
        - Renewable electricity generation investigation activities
        - Small scale renewable energy generation activities
        - Community scale renewable energy generation activities
        - Large scale renewable energy generation activities
        - Wind turbine
        - Wind farm

- Four objectives that address:
    - Benefits of renewable energy use and development
    - Adverse effects of renewable electricity generation activities
    - Adverse effects on renewable electricity generation activities
    - Energy efficiency and conservation

- Thirteen policies that:
    - Recognise the significance and benefits of the use and development of renewable energy
    - Provide for renewable electricity generation activities, including investigation activities
    - Enable small scale renewable electricity generation outside Overlays, high coastal natural character areas, and coastal and riparian margins
    - Allow small-scale renewable electricity generation activities within Overlays, high coastal natural character areas, and coastal and riparian margins where effects can be avoided, remedied or mitigated
    - Provide for community scale renewable electricity generation activities in the General Rural Zone, General Industrial and Airport Zones, outside Overlays, high coastal natural character areas, and coastal and riparian margins
    - Allow community-scale renewable electricity generation activities within other zones, locations and Overlays where effects can be avoided, remedied or mitigated
    - Provide for the upgrading existing large scale renewable electricity generation activities

- Provide for new large scale renewable electricity generation activities in the General Rural Zone outside Overlays, high coastal natural character areas, and coastal and riparian margins
- Avoid new large-scale renewable electricity generation activities in other zones, locations and Overlays
- Recognise the benefits of upgrading of existing renewable electricity generation activities, including the adoption of new and updated technologies
- Manage reverse sensitivity effects on renewable energy generation activities
- Encourage energy efficient subdivision and development

- A rule framework that manages land use and building and structure activities as follows:
  - Maintenance and repair of existing renewable electricity generation activities - Permitted, RDA
  - Renewable electricity generation investigation activities – Permitted, RDA
  - Small scale renewable electricity generation activities – Permitted, RDA
  - Community scale renewable electricity generation activities – RDA, DIS
  - Upgrading of existing large scale renewable electricity generation activities – RDA, DIS
  - New large scale renewable electricity generation activities – DIS, NC
  - Renewable electricity generation activities not otherwise provided for – DIS, NC

- A complementary set of effects standards that address:
  - Trimming, pruning or removal of indigenous vegetation and earthworks within a significant natural area associated with renewable electricity generation activities
  - Renewable electricity generation investigation activities
  - Small scale solar panels and turbines (roof mounted and freestanding)
  - Community scale wind turbines and solar panels
  - Wind turbine noise limits and Wind turbine special audible characteristics (SAC's)
  - Upgrading of existing large scale renewable electricity generation activities

8.0 Evaluation of Proposed Objectives

8.1 Introduction

Section 32(1)(a) of the RMA requires that the evaluation report examine the extent to which the objectives of the proposal are the most appropriate way to promote the sustainable management of natural and physical resources.

An examination of the proposed objectives along with reasonable alternatives is included below, with the relative extent of their appropriateness based on an assessment against the following criteria:

1. Relevance (i.e. Is the objective related to addressing resource management issues and will it achieve one or more aspects of the purpose and principles of the RMA?)

2. Usefulness (i.e. Will the objective guide decision-making? Does it meet sound principles for writing objectives (i.e. does it clearly state the anticipated outcome?)
3. Reasonableness (i.e. What is the extent of the regulatory impact imposed on individuals, businesses or the wider community? Is it consistent with identified tangata whenua and community outcomes?)
4. Achievability (i.e. Can the objective be achieved with tools and resources available, or likely to be available, to the Council?)

8.2 Evaluation of Objectives REG-01, REG-02, REG-03 and REG-04

While not specifically required under s32, it is appropriate to also consider alternative objectives to those currently included in the Proposed District Plan, so as to ensure that the proposed objective(s) are the most appropriate to achieve the purpose of the RMA.

For the purposes of this evaluation, the Council has considered the following potential objectives, as outlined in the table overpage:

1. The proposed objectives:
    - REG-01 Benefits of renewable energy use and development
    - REG-02 Adverse effects of renewable electricity generation activities
    - REG-03 Adverse effects on renewable electricity generation activities
    - REG-04 Energy efficiency and conservation

2. The Status Quo – the current operative objective:
    - 25.2.1 To encourage efficiency in energy use, and the development and use of energy from renewable sources

Proposed objectives:

REG-01 Benefits of renewable energy use and development
The use and development of renewable energy sources is enabled and renewable electricity generation is increased.

REG-02 Adverse effects of renewable electricity generation activities
The actual and potential adverse effects on the environment and communities of the investigation, development, operation, maintenance and repair, and upgrading of renewable electricity generation activities are effectively managed, while recognising the functional needs and operational needs of renewable electricity generation activities and the potential national benefits.

REG-03 Adverse effects on renewable electricity generation activities
The efficient operation, maintenance and repair, and upgrading of renewable electricity generation activities are not constrained or compromised by effects caused by other activities, including reverse sensitivity effects.

REG-04 Energy efficiency and conservation
Subdivision layout, site layout and building design and development supports increased energy efficiency and conservation and reduces energy demand.

General intent:

The general intent of these objectives is to recognise and provide for the use and development of renewable energy sources within the City and increase renewable electricity generation, including recognising the benefits of renewable electricity generation in different locations and at different scales. They also seek to ensure any potential adverse effects of renewable electricity generation activities are effectively managed while recognising the functional and operational needs of renewable electricity generation activities and the need to ensure their efficient operation, maintenance, repair and upgrading. In addition, there is a separate objective focused on supporting increased energy efficiency and conservation and reduced energy demand through subdivision and building design.

Other potential objectives

Status quo: Objective 25.2.1 To encourage efficiency in energy use, and the development and use of energy from renewable sources

	Preferred objective	**Status quo**
Relevance:		
Addresses a relevant resource management issue	**Achieves.** The proposed objectives directly address issues 1, 2, 3, 4, 5 and 6 identified in section 5.3 of this report by recognising the benefits of renewable energy use and development, enabling the development of renewable electricity generation activities, recognising operational and functional needs and ensuring any adverse effects are	**Partially achieves.** The status quo objective does not explicitly recognise the benefits of renewable electricity generation, nor does it explicitly seek to increase renewable electricity generation, recognise functional and operational needs or manage adverse effects, but it does seek to encourage the development and use of energy

	effectively managed, including adverse effects on the values and qualities of Overlays and areas of high coastal natural character.	from renewable sources. It also supports the efficient use of energy.
Assists the Council to undertake its functions under s31 RMA	**Achieves.** The proposed objectives are consistent with section 31(1)(a) the management of the effects of use, development or protection of land for the purpose of renewable electricity generation.	**Partially achieves.** The objective is partially consistent with section 31(1)(a) but it does not fully recognise or manage the effects of a broad range of renewable electricity generation activities as the underlying intent of the operative provisions is focused on providing for large scale wind farm facilities in rural areas.
Gives effect to higher level documents	**Achieves.** The objectives gives direct effect to section 7(j) of the RMA which requires particular regard be given to 'the benefits to be derived from the use and development of renewable energy'. Policies A and C1 of the RPS-REG and Policy 7 of the RPS are given effect to through the recognition of the benefits of renewable electricity generation and practical constraints. The objectives also give effect to matters listed in section 6 of the RMA and the policies of the NZCPS by seeking the protection of the values and qualities of Overlays and through ensuring effective management of effects. Policies E1 to E3 of the NPS-REG require district plans to include provisions to the extent relevant to the district for solar, biomass, tidal, wave and ocean current, and hydro-electricity, and wind renewable energy. Policy F of the NPS-REG requires that district plans include provisions for small and community-scale distributed renewable electricity generation.	**Fails to achieve.** While the objective was considered at the time it became operative to give effect to Part 2 of the RMA including s7(j), the status quo objective does not give full effect to the NPS-REG or RPS provisions which seek recognition of the benefits of renewable electricity generation which include increasing electricity generation capacity and security, and reducing the use of finite resources, irreversible effects on the environment, and reliance on imported fuels. It also does not give effect to the NZCPS policies.
Usefulness:		
Guides decision-making	**Achieves.** Provides greater clarity of what is to be achieved in relation to renewable electricity generation when considering a resource consent application under s104. The proposed objectives clearly identify that while the benefits and the operational and functional needs of renewable electricity generation should be recognised, the effects from renewable electricity generation should be minimised, which provides clear guidance for decision makers on what is sought to be achieved.	**Fails to achieve.** The objective does not give full effect to the NPS-REG or RPS which seek recognition of the benefits of renewable electricity generation which include increasing electricity generation capacity and security, and reducing the use of finite resources, irreversible effects on the environment, and reliance on imported fuels.

Meets best practice for objectives	**Achieves.** The objectives articulate a set of clear outcomes for renewable electricity generation activities that are directly implementing higher level policy direction and they are drafted in plain English and active language.	**Fails to achieve.** The objective is the only objective for the renewable energy chapter and it combines two different outcomes in one statement - encouraging efficiency in energy use and encouraging the development and use of energy from renewable sources – into one objective statement. Whilst important, energy efficiency is not solely related to the use and development of renewable energy so the outcome sought is not clearly related to the chapter's primary focus.
Reasonableness:		
Will not impose unjustifiably high costs on the community/parts of the community	**Achieves.** The objectives do not create unjustifiably high costs on the community. The objectives recognise the benefits of renewable energy use and development by enabling the use and development of renewable energy sources and seeking an increase in renewable electricity generation. Providing for the use and development of renewable electricity generation will enable a wider range and different scales of renewable electricity generation activities, reducing potential consenting requirements for appropriate activities. Potential unnecessary costs on developers of renewable electricity generation activities will be reduced through recognition of the benefits of renewable energy use and development and their functional and operational needs.	**Fails to achieve.** There is currently a lack of clarity in relation to renewable electricity generation activities in the operative district plan, particularly for small or community scale activities and activities other than large scale wind farms. This imposes costs on people and the community through additional potentially unnecessary consenting costs, time and resources.
Acceptable level of uncertainty and risk	**Achieves.** The outcomes sought in relation to recognising and providing for renewable electricity generation activities provide greater certainty to people and the community and potential renewable electricity developers in relation to what is to be achieved. The level of risk associated with the objective is considered to be low.	**Fails to achieve.** The current operative plan does not address the use and development of renewable electricity generation activities generally, with its primary focus being on the development of large scale wind farms in the rural zone. This creates a high level of uncertainty for other renewable electricity generation activities, including small and community scale activities which are subject to the objectives and associated provisions of the zone chapters as there are no specific provisions in the renewable energy chapter.
Achievability:		

Consistent with identified tangata whenua and community outcomes	**Achieves.** The proposed objectives are consistent with the PDP's strategic directions and the objectives and outcomes of the tangata whenua chapter.	**Fails to achieve.** The operative plan objective is not considered to be consistent with the strategic directions or tangata whenua objectives as the current operative provisions for renewable electricity generation are narrow and are primarily focused on large scale wind farms in the rural zone.
Realistically able to be achieved within the Council's powers, skills and resources	**Achieves.** The objectives are realistically able to be achieved based on the Council's responsibilities under the RMA and the NPS-REG. There has already been significant renewable energy development occur in the city over the last 15 years. The effects to be managed through the Proposed District Plan in relation to renewable electricity generation activities are similar to those already managed by the Council and include effects which are common to the management of other buildings and structures.	**Achieves.** The status quo is currently being implemented within Council's powers, skills and resources.
Summary		
The inclusion of the proposed objectives within the PDP addressing the recognition and provision for renewable electricity generation activities are considered to give effect to the relevant policies of the NPS-REG, NZCPS and the RPS, and are consistent with the purpose and principles of the RMA. The above analysis indicates that the preferred objectives are the most relevant, useful, reasonable and achievable of the two options and therefore they are the most appropriate way to achieve the purpose of the RMA.		

9.0 Evaluation of Reasonably Practicable Options and Associated Provisions

9.1 Introduction

Under s32(1)(b) of the RMA, reasonably practicable options to achieve the objectives associated with this proposal need to be identified and examined. This section of the report evaluates the proposed policies and rules, as they relate to the associated objective(s).

Along with the proposed provisions, the Council has also identified through the research, consultation, information gathering and analysis undertaken in relation to this topic a reasonably practicable alternative option to achieve the objectives.

The technical and consultation input used to inform this process is outlined in section 5 of this report.

9.2 Evaluation method

For each potential approach an evaluation has been undertaken relating to the costs, benefits and the certainty and sufficiency of information (as informed by section 5 of this report) in order to determine the effectiveness and efficiency of the approach, and whether it is the most appropriate way to achieve the relevant objective(s).

This evaluation is contained in the following sections.

9.3 Provisions to achieve Objectives REG-01, REG-02, REG-03 and REG-04

For the purpose of this evaluation, the Council has considered the following potential options:

1. The proposed provisions (as outlined in section 7 of this report), and
2. The status quo.

Objectives: **REG-01 Benefits of renewable energy use and development** The use and development of renewable energy sources is enabled and renewable electricity generation is increased. **REG-02 Adverse effects of renewable electricity generation activities** The actual and potential adverse effects on the environment and communities of the investigation, development, operation, maintenance and repair, and upgrading of renewable electricity generation activities are effectively managed, while recognising the functional needs and operational needs of renewable electricity generation activities and the potential national benefits. **REG-03 Adverse effects on renewable electricity generation activities** The efficient operation, maintenance and repair, and upgrading of renewable electricity generation activities are not constrained or compromised by effects caused by other activities, including reverse sensitivity effects. **REG-04 Energy efficiency and conservation** Subdivision layout, site layout and building design and development supports increased energy efficiency and conservation and reduces energy demand.			
Option 1: Proposed approach (recommended)	**Costs**	**Benefits**	**Risk of Acting / Not Acting if there is uncertain or insufficient information about the subject matter of the provisions**
<u>Policies:</u> *REG-P1 Recognising the significance and benefits of the use and development of renewable energy* *REG-P2 Providing for renewable electricity generation activities* *REG-P3 Renewable electricity generation investigation activities* *REG-P4 Small scale renewable electricity generation outside Overlays, high coastal natural character areas, and coastal and riparian margins* *REG-P5 Small-scale renewable electricity generation activities within Overlays, high coastal natural character areas, and coastal and riparian margins* *REG-P6 Community scale renewable electricity generation activities in the General Rural Zone, General Industrial and Airport Zones, outside Overlays, high coastal natural character areas, and coastal and riparian margins* *REG-P7 Community-scale renewable electricity generation activities within other zones, locations and Overlays* *REG-P8 Upgrading existing large scale renewable electricity generation activities*	***Environmental*** The environmental costs of the proposed provisions are generally experienced locally within the vicinity of REG activities. Direct effects of the provisions on the environment include those associated with the development of small scale solar and wind generation activities, and temporary effects of investigation activities, as these are provided for as permitted activities subject to meeting relevant standards. Standards common to these permitted activity rules include meeting the noise and earthworks standards for the underlying zone, or for wind generation activities compliance is required with NZS 6808:2120 Acoustics-Wind farm noise and the specific noise standards REG-S9 and S10. As such, the effects from noise and earthworks associated with these activities will be no greater than is already provided for through the zone standards which are analysed within the relevant zone section 32 reports, and therefore is not discussed further here. The environmental costs of permitted small scale wind and solar generation activities, and REG investigation activities, are generally related to amenity effects on the surrounding area. As noted above, noise from these activities will be addressed as per the zone standards, or in the case of wind generation activities compliance is required with NZS 6808:2120 Acoustics-Wind farm noise and the specific noise standards REG-S9 and S10. Other amenity effects are generally associated with the potential impact on visual amenity, light flicker (from turbines), shading, and dominance of structures. These potential effects are addressed through the relevant	***Environmental*** Direct environmental benefits of the proposed provisions are generally experienced at wider geographic scales, generally regional and national scales. The direct environmental benefits of the proposed REG provisions include those derived from reducing emissions of greenhouse gases from electricity generation activities involving fossil fuels, as a result of generating the electricity from renewable resources instead. The effects of climate change will have a range of adverse effects on the environment. Reducing greenhouse gas emissions will assist in limiting these adverse effects. Given the nature of atmospheric processes and the electricity generation network in New Zealand, these benefits will generally be realised at global and national scales. Direct environmental benefits may also be derived from the provisions which allow for small scale and community scale REG activities. These activities will primarily be smaller scale wind turbines and solar panels. Enabling these activities will assist in developing a more localised, distributed electricity generation network. These smaller scale activities will often be able to be developed attached to existing structures, or within more developed areas, where the sensitivity to such structures is relatively low. This will have the effect of reducing the need for much larger, centralised electricity generation activities which often require development within more isolated, less developed areas which may be highly sensitive to developments of such scale. In addition, distributed power generation may have lower transmission losses due to generation occurring closer to consumption. Therefore, the overall environmental effects of many distributed	It is considered that there is certain and sufficient information on which to base the proposed REG policies and rules / methods as: • There is clear national policy on the benefits and importance of renewable electricity generation for achieving national goals; • There is clear national direction through the NPS-REG which must be given effect to; • The Wellington RPS also includes clear objectives and policies for renewable energy which must be given effect to through the PDP; • The guidance documents associated with the NPS-REG (see section 4.5 of this report) provide additional specific information and guidance on appropriate district plan provisions for renewable electricity generation; and • The Overlays identified for the PDP and included into the PDP's provisions (including maps and appendices/ schedules) have been informed by recent research and up to date methodologies.

REG-P9 New large scale renewable electricity generation activities in the General Rural Zone outside Overlays, high coastal natural character areas, and coastal and riparian margins *REG-P10 New large-scale renewable electricity generation activities in other zones, locations and Overlays* *REG-P11 Upgrading existing renewable electricity generation activities and providing for technological advances* *REG-P12 Reverse sensitivity effects* *REG-P13 Energy efficient subdivision and development* These policies identify that REG activities can have a range of benefits and provide for their use and development. The policies recognise and enable the ongoing operation, maintenance and repair of existing REG activities, and provide for upgrading of existing REG activities while ensuring adverse effects are appropriately managed. Small scale REG and investigation activities outside of overlays are enabled; these activities are also provided for within overlays where specified criteria are met and adverse effects can be avoided, remedied or mitigated. Community scale REG are provided for in specified zones, with criteria specified for these activities if located in overlays or other zones. New large scale REG activities are provided for within the General Rural Zone, while large scale REG outside of the General Rural Zone or within any overlays are to be avoided. The policies also recognise that new residential/sensitive activities are to be designed to avoid conflict with existing REG activities. **<u>Rules:</u>** *REG-R1 Maintenance and repair of existing renewable electricity generation activities – Permitted/RDA* *REG-R2 Renewable electricity generation investigation activities – Permitted/RDA*	standards controlling the height, height to boundary, setbacks and structure size and number limits as relevant. The rationale for the standards is set out in Appendix 8 to this report. The standards have been designed to provide a balanced approach where they enable feasible small scale and investigative renewable electricity generation activities while ensuring the amenity of the surrounding area is not unduly compromised, consistent with the requirements of policies REG-P3, REG-P4 and REG-P5. Any small scale renewable electricity generation proposals which do not meet the standards require resource consent as restricted discretionary, including small scale activities within overlays (see Appendix 7 for the rationale for activity status settings). As such, these activities will be subject to resource consent processes which enables detailed assessments of the effects on the environment to be undertaken, supported by the directive policies identifying where activities may be allowed. Similarly, the environmental costs of community scale and large scale renewable electricity generation will be addressed through resource consenting processes as these require consent as restricted discretionary, discretionary or non-complying activities as relevant. These activities are also supported by directive policies identifying where activities may be allowed and how adverse effects are to be managed. Of note is the inclusion of reference to offsetting or environmental compensation and adaptive management measures which are to be given regard in relation to community scale and large scale activities. In terms of large scale wind farms and wind turbine setbacks from property and zone boundaries, a specific setback distance is not specified and instead compliance is required with NZS6808:2010 Acoustics - Wind farm noise. The development of new wind farms within the General Rural Zone and outside Overlays are to be assessed as a discretionary activity under the PDP, and the upgrading of existing wind farms as a restricted discretionary or discretionary activity depending on the scale/nature of the upgrading proposal. This enables full consideration of all the relevant effects of a proposal. It is noted that this potential cost is addressed in policies REG-P8 and REG-P9 relating to ensuring adequate separation distances from existing sensitive activities, as well as the requirement to comply with the specified noise standards. The policies also address other matters which a specific separation distance buffer may have provided benefits, such as amenity values. As such, a specific setback distance is not considered to be required, with any associated adverse effects able to be	renewable electricity generation activities can be lower than the effects of larger centralised activities. Additionally, localised electricity generation may also be able displace energy generation from fossil fuels particularly when combined with electricity storage technology, for example in home heating or small commercial or industrial activities. Associated with the above, an indirect environmental benefit is the reversibility of the adverse effects on the environment of some renewable electricity generation technologies, particularly small and community scale activities. The small scale and community scale REG activities as provided for through the proposed rules and standards have a small physical footprint or can be attached to existing structures. As such, the actual physical impact on the environment is marginal, with removal of the structures resulting in no or marginal ongoing effects. This is also true to a degree for larger scale renewable electricity generation activities, particularly wind turbines. Direct environmental benefits will include those derived from reduced reliance on fossil fuels for electricity generation. The extraction, distribution and use of fossil fuels such as coal and natural gas, which together accounted for approximately 17.5 percent of electricity generation in New Zealand in 2019, can have significant adverse environmental effects. The increase in the use of renewable electricity generation activities for electricity generation provided for through the provisions would reduce demand for other forms for electricity generation and therefore the need for the use of fossil fuels, with a corresponding decrease in the adverse effects associated with the extraction, distribution and use of those fuels. The reduction in discharges of contaminants to air during the combustion process such as particulate matter would positively affect air quality. The reduction in discharges of greenhouse gas contaminants such as carbon dioxide to air during the combustion process links with the benefits to mitigation of climate change identified above. It is noted that methane (natural gas) can be lost to the atmosphere during extraction and distribution and is a powerful greenhouse gas. ***Economic*** Economic benefits of the proposed provisions will include those derived from providing for a wider range of renewable electricity generation activities, in terms of type and scale, through the PDP and the associated increased certainty provided by these provisions. A direct economic effect of the proposed provisions will be a reduction in consenting costs for small scale solar and wind renewable	

REG-R3 Small scale renewable electricity generation activities – Permitted/RDA *REG-R4 Community scale renewable electricity generation activities – RDA/ DIS* *REG-R5 Upgrading of existing large scale renewable electricity generation activities – RDA/ DIS* *REG-R6 - New large scale renewable electricity generation activities – DIS/ NC* *REG-R7 - Renewable electricity generation activities not otherwise provided for – DIS/NC* These rules give effect to the policies regarding enabling, providing for, allowing or avoiding the ongoing operation and upgrading of existing REG activities, investigative activities, small-scale, community scale and large -scale REG activities within certain zones and within and outside of specified Overlays, with appropriate activity status applied to each. **<u>Standards:</u>** *REG-S1 Trimming, pruning or removal of indigenous vegetation within a significant natural area* *REG-S2 Earthworks within a significant natural area* *REG-S3 Renewable electricity generation investigation activities* *REG-S4 Small scale renewable electricity generation activities - roof-mounted solar panels* *REG-S5 Small scale renewable electricity generation activities - roof-mounted wind turbines* *REG-S6 Small scale renewable electricity generation activities - freestanding wind turbines* *REG-S7 Community scale wind turbines* *REG-S8 Community scale freestanding solar panels*	addressed through the resource consent process as a discretionary activity. The potential environmental costs of renewable electricity generation activities may be generated as a result of these activities being located on or within areas and sites of specific and significant environmental value. This is addressed through integration of the REG provisions with the Overlays included in the PDP, with more restrictive activity statuses applied compared to activities outside of overlays, and progressively more restrictive activity status depending on the scale of the proposed activities. For example, small scale activities within specified overlays are restricted discretionary, community scale activities are discretionary, and large scale are non-complying. All renewable electricity generation activities within overlays require resource consent, and therefore any actual or potential adverse effects can be assessed on a case-by-case basis. There is associated policy direction for when these activities may be allowed within the respective overlays. ***Economic*** The direct economic costs of the proposed provisions relate mainly to the resource consent costs to the applicant associated with any renewable electricity generation activity that is not provided for as a permitted activity, and the administrative costs to the Council associated with these resource consent processes. Only maintenance and repair of existing REG activities, investigation activities and small scale renewable electricity generation activities outside of overlays are provided for as permitted activities when the relevant standards are met, with all other REG activities requiring resource consent as either restricted discretionary, discretionary or non-complying activities. These consenting costs will generally be lower overall when compared to the status quo due to the inclusion of permitted and restricted discretionary activity status for small scale activities and restricted discretionary activity status for community scale activities, which provides greater certainty for applicants, and in relation to restricted discretionary activity status, greater direction for processing officers in assessing effects. It is noted however, that the proposed provisions include a non-complying activity status for large scale activities within specified overlays and zones other than the General Rural Zone, which may in some circumstances be more restrictive than the status quo in relation to wind farms, and therefore may result in higher consenting costs.	electricity generation activities and investigation activities, as these are provided for as permitted activities, subject to standards. As such, these will be able to be undertaken without the need for resource consent. It is also likely that consenting costs for community scale renewable electricity generation activities would also reduce, due to the greater certainty provided by restricted discretionary activity status. Direct economic benefits will also be realised through the policies and associated rules enabling the ongoing maintenance and repair of existing REG activities, and protection of REG activities from reverse sensitivity effects. These provisions address identified issues and will ensure existing activities are able to continue to provide environmental, social, and economic benefits in the future. Enabling small scale renewable electricity generation activities as a permitted activity (subject to meeting standards) also in turn enables people to provide services designing, engineering, producing, installing and servicing structures and components for those activities, increasing employment opportunities as a direct economic benefit. The anticipated flow on effect is that more people, communities or organisations will decide to develop renewable electricity generation activities, which would have the following economic impacts: • increasing electricity generation capacity • increased use of renewable natural resources rather than finite resources • reduced reliance on imported fuels • employment and market growth in renewable electricity generation technology. These economic effects may have flow on indirect positive effects on the growth of national, regional and local gross domestic product. For example, a reduced reliance on imported fuels would mean an associated reduction in the ongoing costs to the economy of purchasing that fuel overseas. An additional indirect economic benefit may include reputational benefits for individual companies, and the country as a whole, from reduced environmental impacts from electricity generation. The environmental consciousness of companies and nations can positively influence people's perception of those countries or companies, which in turn can result in a higher value being placed on products produced by those countries or companies, potentially increasing market growth for those products.	

REG-S9 Wind turbine noise limits *REG-S10 Wind turbine special audible characteristics (SAC's)* *REG-S11 Upgrading of existing large scale renewable electricity generation activities* The standards set out requirements for permitted and restricted discretionary activities, particularly in relation to the location and size of associated structures. These include standards for maximum height, height in relation to boundary, rotor diameter and number of turbines per site, setbacks, and area. For investigation activities these also include duration and site remediation. **Notification clauses:** • REG-R1-3 includes a clause excluding public or limited notification • REG-R2-2 includes a clause excluding public or limited notification REG-R2-3 includes a clause excluding public notification • REG-R3-2 includes a clause excluding public or limited notification • REG-R3-3 includes a clause excluding public notification • REG-R4-1 includes a clause excluding public notification **Other methods include:** • Subdivision Chapter objectives, policies and rules (subdivision design and layout makes efficient use of renewable energy sources) • District Plan Design Guides • Code of Practice for Land Development (under review)	No indirect economic costs have been identified. ***Social*** Direct social costs of the proposed provisions relate to the adverse effects of renewable electricity generation activities on the environment where these effects also impact on people and communities. The social cost is the potential for greater levels of adverse effects on the amenity of an area which is valued by people and communities. However, the risk is considered to be low, particularly as this potential cost is addressed in the policy provisions and by the requirements for wind generation activities to meet NZS 6808-2010 and the two specific wind standards related to turbine noise and special audible characteristics (REG-S9 and REG-S10). Direct social costs may be generated as a result of the notification clauses excluding public notification for certain activities, as these will limit potential for public participation in consenting processes. However, these have been included consistent with Council policy and relate to activities which are unlikely to have more than minor adverse effects on the wider environment or effects on sites or areas with identified significant values. As such these costs are considered to be low. No indirect social costs have been identified ***Cultural*** Direct cultural costs associated with the provisions relate to those generated if a renewable electricity generation activity is located within, or otherwise adversely affects, a site, resource or area with cultural values. As identified above, the provisions integrate with the overlays included within the PDP, including SCHED7 - Sites and Areas of Significance to Māori. Any renewable electricity generation activity proposed within a site listed in the PDP's SASM Schedule (Schedule 7) will require resource consent and therefore the actual and potential effects can be assessed on a case-by-case basis. No indirect cultural costs have been identified.	Associated with the increased health and wellbeing of people and communities identified below as a social benefit, is corresponding economic benefits through reduced public health costs. ***Social*** The indirect social benefits of the proposed provisions include those derived from an anticipated increase in the generation of electricity from renewable resources, and a corresponding reduction in the generation from fossil fuels leading to positive effects on air quality. These social benefits include the increased health and wellbeing of people and communities, primarily through reduced respiratory illness, and increased enjoyment of the outdoors. The burning of coal, which accounted for approximately 4.7 percent of New Zealand's electricity generation in 2019, can have significant adverse effects on air quality due to emissions to air including sulphur dioxide, nitrogen oxides, and particulates. These contaminants affect human health, particularly through aggravating respiratory illnesses. These effects result in premature deaths, hospital admissions, sick days, and restricted-activity days.[7] Indirect effects will also be derived from increased energy system resilience and security. Increasing the security of electricity supply at a local level will be provided for through enabling a diversification of the type and location of electricity generation. This has benefits for electricity supply during and after natural hazard events when electricity distribution networks may be impacted. Social benefits will also be realised indirectly through the increased potential for employment opportunities as identified above. ***Cultural*** Indirect cultural benefits may be experienced through the positive effects on air quality from increased renewable electricity generation, as identified above.	
Effectiveness and efficiency	***Effectiveness*** The proposed REG provisions are considered likely to be highly effective in achieving the objectives as they directly address the resource management issues and the outcomes sought through the objectives. The provisions give effect to the RPS, the NPS-REG, and the NZCPS, and they recognise and	***Efficiency*** The proposed provisions have significant benefits, particularly direct and indirect environmental, social and economic benefits, while having acceptable environmental,	

[7] Ministry for the Environment & Stats NZ (2018). New Zealand's Environmental Reporting Series: Our air 2018. Retrieved from www.mfe.govt.nz and www.stats.govt.nz

	provide for the environmental, social, economic and cultural benefits of renewable electricity generation activities, while ensuring their appropriate management including minimising their adverse effects.	economic, social and cultural costs. As such, they are considered to be efficient in achieving the objectives for renewable electivity generation activities.
Overall evaluation	The proposed REG provisions are considered to be the most appropriate approach to achieve the objectives. The provisions appropriately give effect to higher order documents, including the Wellington RPS, the NPS-REG and the NZCPS, and are consistent with the purpose and principles of the RMA particularly s7(j). They are considered to be efficient and effective as the identified costs are acceptable, while providing significant benefits, particularly direct and indirect environmental, social and economic benefits at local, regional and national scales. They best recognise and provide for the positive effects of renewable electricity generation activities, while minimising their potential adverse environmental effects. The provisions provide certainty for both applicants and the community. This is achieved through a regulatory regime with clear policy direction and appropriate activity status settings, including for activities within Overlays. The rules and standards implement these policies to minimise and/or effectively manage their adverse effects.	

Option 2: Status Quo	**Costs**	**Benefits**	**Risk of Acting / Not Acting if there is uncertain or insufficient information about the subject matter of the provisions**
Policies: *25.2.1.1 Encourage the efficient use of energy and the greater use of renewable energy.* *25.2.1.2 Provide for renewable energy development, while:* • *Avoiding, remedying or mitigating adverse effects on the environment; and* • *Recognising the potential renewable energy resources that exist in the Rural Area including in identified ridgeline and hilltop areas.* There are also policy provisions related to energy efficiency in zone chapters including Chapters 4, 6, 8, 10, 12, 14: Chapter 14 (Rural zone) example - *Policy 14.2.1.3 Encourage energy efficiency and the development and use of renewable energy within the Rural Area.* **Rules:** *26.2.1 Anemometers (including associated support structures) established for the purpose of measuring wind [in the Rural and Open Space B areas] are a Discretionary Activity (Restricted) in respect of:* *26.2.1.1 Siting and Design* *26.2.1.2 Duration*	***Environmental*** The direct environmental costs of the current renewable energy provisions are limited to anemometers and the development of large scale wind farms in the Rural Zone, as that is the only renewable electricity generation activity specifically provided for through the operative district plan, with any other activities subject to the relevant zone provisions for buildings and structures. Wind farms within the Rural Zone are discretionary activities. There are no specific permitted activities for REG in the operative provisions. A resource consent is always required for wind farms within the Rural Zone (and for any other renewable electricity generation activity which is not permitted by the relevant zone provisions) which enables detailed assessment of each proposal and conditions to be placed on consents to avoid, remedy or mitigate adverse effects on the environment. The existing provisions include a range of criteria for the assessment of resource consent applications. The direct environmental costs are therefore marginal. Indirect environmental costs are associated with the more restrictive regulatory regime leading to a lower take-up of renewable electricity generation activities, and the associated ongoing electricity generation from fossil fuels which result in adverse effects on the environment including the discharge of contaminants to air. These contaminants not only result in adverse effect on air quality, but also have flow on ecological effects such as sulphur dioxide from the burning of coal causing acid rain.[8] It is noted that this is a central government issue and addressed through the NES-Air Quality. ***Economic***	***Environmental*** The direct environmental benefits of the existing provisions are related to the requirement for resource consent processes for all wind farms within the Rural zone, and for any other renewable electricity generation activity which is not permitted by the relevant zone provisions for buildings and structures. This allows a detailed assessment of the effects on the environment of any proposal, consents to be declined if the effects are not acceptable, and for effects to be mitigated through the imposition of conditions on consents. ***Economic*** There are no direct or indirect economic benefits associated with the status quo option. ***Social*** The direct social benefits of the existing provisions relate to the consenting process required for all proposed wind farms within the Rural zone, and for any other renewable electricity generation activity which is not permitted by the general zone provisions. The resource consent process allows for public participation. The Council has the ability to identify any affected persons and decide on whether to notify the application (subject to the specific non-notification clauses). For applications that have more than minor adverse effects on the environment, public notification allows the wider community to understand the proposal and make submissions on the application. The resource consent process also allows for any proposal to be declined if the effects are not acceptable and any actual or potential adverse effects on social	There is considered to be sufficient and certain information regarding the existing provisions as: • They have been in place for over ten years, and therefore there has been sufficient time for the benefits and costs to be realised • There is significant national policy direction in relation to the provision for renewable electricity generation activities within the district plan, and • A number of central government reports are available detailing the benefits and costs of renewable electricity generation activities.

[8] Ministry for the Environment, 2018 Sulphur dioxide. Retrieved from: https://www.mfe.govt.nz/air/specific-air-pollutants/sulphur-dioxide

26.2.1.3 Height. *Non-notification* The written approval of affected persons will not be necessary in respect of items 26.2.1.1 to 26.2.1.3. Notice of applications need not be served on affected persons and applications need not be notified. *Assessment Criteria* In determining whether to grant consent and the conditions to be imposed, if any, Council will have regard to the following criteria: *26.2.1.4 The visual and amenity effects of the anemometer and the extent to which any effects of the anemometer can be mitigated by:* *• alternative siting* *• alternative design of the supporting structure* *• alternative colour or finish selection* *• attachment to an existing structure* *• the number to be erected* *26.2.1.5 The duration of the activity, and any plans for removal.* *26.2.1.6 The height of the mast.* *26.2.1.7 Operational or technical considerations.* *26.3.1 Wind energy facilities in the Rural Areas are Discretionary Activities (Unrestricted).* *Assessment Criteria* In determining whether to grant consent and what conditions, if any, to impose, Council will have regard to (but will not be restricted to) the following criteria: *26.3.1.1 The actual or potential noise effects of the proposal* *26.3.1.2 The extent to which the proposal will affect the amenity values (other than noise) of the surrounding environment with particular regard to the effects on residential locations including potential nuisance effects on communities including:* *• electromagnetic – interference to broadcast or other signals*	The direct economic costs of the operative district plan provisions include those derived from restrictions on the use and development of renewable electricity generation activities. These effects include consenting costs for potential renewable electricity generation developers, including for small scale or community scale REG activities, which are currently assessed against the relevant zone provisions as there are no specific relevant REG provisions for these activities, resulting in significant uncertainty and the likely requirement for private developers to commission specialised assessment reports and planning advice to support resource consent applications. Associated with the consenting process are administrative costs for the Council in processing any consents required for proposals for renewable electricity generation activities. Indirect economic costs of the current provisions include those derived from having a restrictive regulatory regime for renewable electricity generation activities, in terms of type and scale, through the district plan and the associated uncertainty created by these provisions. The flow on effect of this regime is that fewer people, communities or organisations may decide to develop renewable electricity generation activities. This in turn means that the potential economic benefits of greater use of renewable electricity generation as identified above (including increased electricity generation capacity, reduced reliance on imported fuels, and employment and market growth in renewable electricity generation technology) are not able to be realised. The flow on positive effects on the growth of national, regional and local gross domestic product will also not be realised. For example, by not specifically enabling/providing for small scale renewable electricity generation activities as a permitted activity there is less confidence for people to provide services designing, engineering, producing, installing and servicing structures and components for those activities as the potential market will be small, including as a result of the consenting costs associated with the existing provisions. These potential employment and market growth opportunities are therefore not realised. Indirect economic costs are also experienced through ongoing public health costs associated with the discharge of contaminants to air from fossil fuel combustion for electricity generation, as identified as an environmental cost above, which have adverse effects on the health and wellbeing of people and communities. ***Social***	matters to be avoided, remedied or mitigate through conditions placed on a granted resource consent. ***Cultural*** The cultural benefits of the existing provisions reflect the social benefits as set out above. The actual and potential cultural effects of proposals requiring resource consent would be taken into account when deciding to notify, impose conditions, or grant or decline consent.	

• blade glint – resulting from the reflection of the sun from the turbine blades *• shadow flickering – occurring when the blades of an operating wind turbine pass between the sun and an observer, generating flickering light.* *26.3.1.3 The visual effects of the proposal, including:* *• The extent to which the proposal will impact on rural character;* *• The extent to which the proposal will be visible from residences, key public places including roads, and recreation areas;* *• The relationship of the proposal to the Ridgelines and Hilltop overlay;* *• The visibility of the proposed development;* *• The extent to which the proposal will impact on the natural character of the coastal environment, including on cliffs and coastal escarpments;* *• The extent to which any aspects of the proposal can be sited underground.* *• The scale of any proposed development, including the number of turbines, their height and the cumulative visual effects of the development as a whole.* *26.3.1.4 The ecological impact of the proposal – including:* *• the extent to which vegetation will be removed or disturbed during construction and operation of the wind energy facility;* *• the sensitivity of the site to disturbance;* *• the potential effects on birds or other fauna, either migratory specie or resident populations on site.* *• The extent of any proposed earthworks and the degree to which runoff and the effects on local catchments can be managed.* *26.3.1.5 The effects of traffic and vehicle movements and the extent that traffic or site management plans can be implemented to mitigate effects.* *26.3.1.6 The resulting effects of any alteration to natural landforms required, including earthworks, including access tracks and roads, turbine platforms and the rehabilitation proposed. Major*	The direct social costs of the existing provisions relate to the lack of direct integration with provisions for identified sites and areas with significant social/community values. This means that there is greater potential for adverse effects on these areas and sites. However, as resource consent will be generally required for renewable electricity generation activities (and consent always required for large scale wind activities), and the existing provisions include a range of criteria for the assessment of resource consent applications which include visual, noise, and heritage effects. The direct social costs are therefore marginal. The indirect social costs of the operative district plan provisions are generally those derived from restrictions on the use and development of renewable electricity generation activities. Indirect effects include the provisions resulting in a lack of decentralisation and diversification of electricity generation activities within the City. This has implications for the health and wellbeing of people and communities, particularly during and after a natural hazard event when electricity distribution networks may be impacted. Energy is critical for the health and wellbeing of people and communities, and any impacts on the provision of energy may have a range of adverse effects, such as people not having any way to heat their home. Ongoing reliance on centralised electricity generation and distribution systems risks those systems not being resilient. Indirect effects also include those from ongoing reliance on combustion of fossil fuels for energy production. The health and wellbeing of people and communities are adversely affected by the combustion of fossil fuels for the generation of electricity or heat energy. For example, emissions to air from fossil fuels can include nitrogen oxides which adversely affect human respiratory systems.[9] Restrictions on renewable electricity generation activities mean that there is an ongoing reliance on other fuel, including fossil fuels, for electricity and heat energy generation, including large centralised systems as well as smaller localised activities for commercial or industrial activities. This results in ongoing emissions to air and the consequent human health effects. Ongoing emissions to air from fossil fuel combustion as a result of restrictions of renewable electricity generation activities will also have much wider social implications as a result of the effects of climate change, which is driven by the emission of greenhouse gases. These effects are		

[9] Ministry for the Environment, 2018 Nitrogen dioxide. Retrieved from: https://www.mfe.govt.nz/air/specific-air-pollutants/nitrogen-dioxide

alterations to natural landforms should be avoided. *26.3.1.7 The extent to which the proposal will impact on:* *• identified sites of significance to tangata whenua;* *• heritage items;* *• Geological or archaeological values;* *• Landscape features; and* *• the surrounding land use.* *26.3.1.8 Where a development is located within a Hazard Area the extent that measures are taken to mitigate the effects of the hazard event.* *26.3.1.9 The cumulative effects of the proposal.* *26.3.1.10 The extent to which the proposal is consistent with any relevant aspects if the Rural Area Design Guide.* *26.3.1.11 Operational or technical considerations.* *26.3.1.12 The effects of any proposal on aircraft safety, radar stations and navigation sites and facilities.* *26.3.1.13 The benefits to be derived from the proposal, including its contribution to Central Government energy objectives and renewable energy targets.* **Other Methods:** • Advocacy	wide ranging and will likely impact all aspects of the lives of people and communities. For example, through increased natural hazard risks such as flooding as a result of changes to weather patterns and coastal hazards as a result of sea level rise. Increasing renewable electricity generation activities are a key strategy for mitigating climate change. The current provisions place significant restriction on these activities occurring, and therefore the potential for climate change mitigation. ***Cultural*** The direct cultural effects of the operative plan provisions include the potential effects on areas and sites of significance to Māori of wind farm developments within the Rural zone. However, as discretionary activities a wind farm would be subject to a resource consent process and the assessment criteria contained in the existing provisions, which include, 'Impacts on identified sites of significance to tangata whenua. As such the potential direct cultural costs are marginal. Indirect effects may also be generated as a result of ongoing use of fossil fuels for electricity generation and the associated discharges of contaminants to air affecting the mauri of that taonga.		
Effectiveness and efficiency	***Effectiveness*** The operative district plan renewable energy provisions are not effective in achieving the objectives as the only renewable electricity generation activities that are provided for are anemometers and wind farms within the Rural zone. While policy 25.2.1.2 provides for renewable energy development, this provision is limited to the Rural zone and renewable electricity generation more generally and in other locations are not provided for through the renewable energy policies and rules. In addition, while a range of adverse effects are identified in the rules and assessment criteria, these do not provide specific guidance to decision makers on renewable electricity generation proposals within Overlays with specifically identified values and qualities, including Significant Natural Areas, Sites and Areas of Significance to Māori, Outstanding Natural Landscapes and Features, and Areas of High Coastal Natural Character, Natural Hazards, etc.	***Efficiency*** The operative district plan renewable energy provisions are not efficient in achieving the objectives as they do not provide for renewable electricity generation activities more generally (i.e. beyond wind farms in the Rural zone), and therefore do not enable the potential significant benefits of renewable electricity generation which may be achieved with provisions that recognise a wider range of REG activities and that are more enabling. This in turn has significant environmental, social and economic costs which are not outweighed by the environmental and social benefits of restrictive provisions.	

Overall evaluation	The status quo is considered to be ineffective and inefficient at giving effect to higher order direction. The operative district plan renewable energy provisions are not considered to be efficient or effective in achieving the objectives. The operative renewable energy provisions are focused on providing for wind farms within the Rural zone, not renewable electricity generation activities more widely, and therefore do not give effect to the objectives or the NPS-REG or the RPS. Additionally, the operative provisions provide limited recognition and protection of sites and areas within Overlays, including Significant Natural Areas, Sites and Areas of Significance to Māori, Outstanding Natural Landscapes and Features, and Areas of High Coastal Natural Character, Natural Hazards, etc.

9.4 Further Explanation of Proposed Approach to Provisions

The proposed approach to the provisions for renewable electricity generation is intended to create a standalone regulatory framework within the 'Infrastructure, energy and transport' chapter, in recognition of the applicability of these provisions across the City and the need for regulatory certainty. This represents a significant shift from the status quo which only specifically addresses wind farms within the Rural zone.

The proposed approach is generally to:

- Enable the ongoing operation and the maintenance and repair of existing renewable electricity generation activities
- Enable the investigation, identification and assessment of potential sites and energy sources for renewable electricity generation
- Enable small scale renewable electricity generation
- Provide for community scale renewable electricity generation
- Provide for the upgrading of existing renewable electricity generation activities, including existing wind farms
- Allow for new large scale renewable electricity generation activities in the General Rural zone
- Restrict large scale renewable electricity generation activities outside of the General Rural zone
- Allow for other renewable electricity generation activities
- Require higher thresholds for renewable electricity generation activities within specified Overlays.

As such, a certain level of adverse effects is anticipated in relation to the maintenance and repair of existing activities, investigation activities, and small scale activities, but these are considered acceptable taking into consideration the benefits of renewable electricity generation to the social, economic and cultural wellbeing of people and communities. The acceptability and management of more significant proposals will be assessed through a resource consent process, including the use of conditions to ensure adverse effects are avoided, remedied or mitigated. Activities within Overlays have the potential for more significant adverse effects and therefore have a more restrictive activity status applied.

Additional details on the rationale for the activity status of different renewable electricity generation activities is provided in Appendix 7, and the rationale for the proposed standards is provided in Appendix 8.

10.0 Conclusion

This evaluation has been undertaken in accordance with section 32 of the RMA in order to identify the need, benefits and costs and the appropriateness of the proposal having regard to its effectiveness and efficiency relative to other means in achieving the purpose of the RMA. The evaluation demonstrates that this proposal is the most appropriate option as it:

- Addresses the identified resource management issues
- Best gives effect to higher order documents, including the National Planning Standards
- Is the most effective and efficient way to achieve the purpose of the Act and the PDP's strategic objectives.

Appendix 1: National Policy Statement for Renewable Energy Generation (NPS-REG) analysis

NPS-REG provision	Comments
Objective To recognise the national significance of renewable electricity generation activities by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generated from renewable energy sources increases to a level that meets or exceeds the New Zealand Government's national target for renewable electricity generation.	This objective is given effect to by the inclusion of a separate standalone sub-chapter within the PDP's 'Infrastructure, energy and transport' chapter that specifically provides for renewable electricity generation activities. Proposed objective REG-01 (Benefits of renewable energy use and development) and policy REG-P1 (Recognising the significance and benefits of the use and development of renewable energy) give specific recognition to the national significance and benefits of renewable electricity generation activities, and REG-P2 (Providing for renewable electricity generation activities) provides for the use and development of renewable electricity generation activities.
A. Recognising the benefits of renewable electricity generation activities **POLICY A** Decision-makers shall recognise and provide for the national significance of renewable electricity generation activities, including the national, regional and local benefits relevant to renewable electricity generation activities. These benefits include, but are not limited to: a) maintaining or increasing electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions; b) maintaining or increasing security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation; c) using renewable natural resources rather than finite resources; d) the reversibility of the adverse effects on the environment of some renewable electricity generation technologies; e) avoiding reliance on imported fuels for the purposes of generating electricity.	This policy is given effect to by: • proposed objective REG-01 (Benefits of renewable energy use and development), and • proposed policies REG-P1 (Recognising the significance and benefits of the use and development of renewable energy) and REG-P2 (Providing for renewable electricity generation activities).
B. Acknowledging the practical implications of achieving New Zealand's	This policy is given effect to by:

target for electricity generation from renewable resources **POLICY B** Decision-makers shall have particular regard to the following matters: a) maintenance of the generation output of existing renewable electricity generation activities can require protection of the assets, operational capacity and continued availability of the renewable energy resource; and b) even minor reductions in the generation output of existing renewable electricity generation activities can cumulatively have significant adverse effects on national, regional and local renewable electricity generation output; and c) meeting or exceeding the New Zealand Government's national target for the generation of electricity from renewable resources will require the significant development of renewable electricity generation activities.	• proposed objective REG-01 (Benefits of renewable energy use and development), and • proposed policies REG-P1 (Recognising the significance and benefits of the use and development of renewable energy) and REG-P2 (Providing for renewable electricity generation activities).

C. Acknowledging the practical constraints associated with the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities
 	
POLICY C1
 	
Decision-makers shall have particular regard to the following matters:
 	
a) the need to locate the renewable electricity generation activity where the renewable energy resource is available;
 	
b) logistical or technical practicalities associated with developing, upgrading, operating or maintaining the renewable electricity generation activity;
 	
c) the location of existing structures and infrastructure including, but not limited to, roads, navigation and telecommunication structures and facilities, the distribution network and the national grid in relation to the renewable electricity generation activity, and the need to connect renewable electricity generation activity to the national grid;
	This policy is given effect to by:
	
	• proposed objectives REG-02 (Adverse effects of renewable electricity generation activities) and REG-03 (Adverse effects on renewable electricity generation activities), and
	• proposed policies:
	  ○ REG-P2 (Providing for renewable electricity generation activities)
	  ○ REG-P3 (Renewable electricity generation investigation activities)
	  ○ REG-P4 (Small scale renewable electricity generation outside Overlays, high coastal natural character areas, and coastal and riparian margins)
	  ○ REG-P5 (Small-scale renewable electricity generation activities within Overlays, high coastal natural character areas, and coastal and riparian margins)
	  ○ REG-P6 (Community scale renewable electricity generation activities in the General Rural Zone, General Industrial and

d) designing measures which allow operational requirements to complement and provide for mitigation opportunities; and e) adaptive management measures.	Airport Zones, outside Overlays, high coastal natural character areas, and coastal and riparian margins) ○ REG-P7 (Community-scale renewable electricity generation activities within other zones, locations and Overlays) ○ REG-P8 (Upgrading existing large scale renewable electricity generation activities) ○ REG-P9 (New large scale renewable electricity generation activities in the General Rural Zone outside Overlays, high coastal natural character areas, and coastal and riparian margins), and ○ REG-P11 (Upgrading existing renewable electricity generation activities and providing for technological advances).
POLICY C2 When considering any residual environmental effects of renewable electricity generation activities that cannot be avoided, remedied or mitigated, decision-makers shall have regard to offsetting measures or environmental compensation including measures or compensation which benefit the local environment and community affected.	This policy is given effect to by: • proposed objective REG-02 (Adverse effects of renewable electricity generation activities), and • proposed policies: ○ REG-P7 (Community-scale renewable electricity generation activities within other zones, locations and Overlays) ○ REG-P8 (Upgrading existing large scale renewable electricity generation activities) ○ REG-P9 (New large scale renewable electricity generation activities in the General Rural Zone outside Overlays, high coastal natural character areas, and coastal and riparian margins) in relation to community scale and large scale REG activities.
D. Managing reverse sensitivity effects on renewable electricity generation activities **POLICY D**	This policy is given effect to by: • proposed objectives REG-03 (Adverse effects on renewable electricity generation activities), and

Decision-makers shall, to the extent reasonably possible, manage activities to avoid reverse sensitivity effects on consented and on existing renewable electricity generation activities.	• proposed policies:
	  ○ REG-P6 (Community scale renewable electricity generation activities in the General Rural Zone, General Industrial and Airport Zones, outside Overlays, high coastal natural character areas, and coastal and riparian margins)
	  ○ REG-P7 (Community-scale renewable electricity generation activities within other zones, locations and Overlays)
	  ○ REG-P8 (Upgrading existing large scale renewable electricity generation activities)
	  ○ REG-P9 (New large scale renewable electricity generation activities in the General Rural Zone outside Overlays, high coastal natural character areas, and coastal and riparian margins) and
	  ○ REG-P12 (Reverse sensitivity effects).

E. Incorporating provisions for renewable electricity generation activities into regional policy statements and regional and district plans **E1 Solar, biomass, tidal, wave and ocean current resources** **POLICY E1** Regional policy statements and regional and district plans shall include objectives, policies and methods (including rules within plans) to provide for the development, operation, maintenance, and upgrading of new and existing renewable electricity generation activities using solar, biomass, tidal, wave and ocean current energy resources to the extent applicable to the region or district.	Small scale, community scale and large scale solar energy generation activities are anticipated and provided for through the proposed REG chapter, with specific standards for small scale and community scale solar generation activities included in REG-S4-REG-S6 (small scale) and REG-S7-REG-S8 (community scale). Other REG activities not specifically provided for (including those associated with biomass, tidal, wave and ocean current resources) within the proposed REG chapter are generally provided for through rule REG-R7 (Renewable electricity generation activities not otherwise provided for) as discretionary activities (where they are located outside of specified Overlays).
E2 Hydro-electricity resources **POLICY E2** Regional policy statements and regional and district plans shall include objectives, policies, and methods (including rules within plans) to provide for the development, operation,	Hydro-electricity REG activities are not specifically provided for within the proposed REG chapter as these activities would be primarily addressed through the Proposed Natural Resources Plan. However, for city council/district plan related aspects, these activities would be provided for through

maintenance, and upgrading of new and existing hydro-electricity generation activities to the extent applicable to the region or district.	proposed rule REG-R7 as discretionary activities (where they are located outside of specified Overlays).
E3 Wind resources **POLICY E3** Regional policy statements and regional and district plans shall include objectives, policies, and methods (including rules within plans) to provide for the development, operation, maintenance and upgrading of new and existing wind energy generation activities to the extent applicable to the region or district.	Small scale, community scale and large scale wind energy generation activities, including upgrading of existing wind farms, are anticipated and provided for through the REG chapter, including standards for small scale and community scale wind generation activities included in REG-S5 and REG-S6 (small scale), and REG-S7 (community scale).
F. Incorporating provisions for small and community-scale renewable electricity generation activities into regional policy statements and regional and district plans **POLICY F** As part of giving effect to Policies E1 to E4, regional policy statements and regional and district plans shall include objectives, policies, and methods (including rules within plans) to provide for the development, operation, maintenance and upgrading of small and community-scale distributed renewable electricity generation from any renewable energy source to the extent applicable to the region or district.	This policy is given effect to within the proposed REG chapter by: • Policies REG-P2, REG-P4, REG-P5, REG-P6, REG-P7 • Rules REG-R3 and REG-R4, and • Standards REG-S4, REG-S5, REG-S6, REG-S7 and REG-S8
G. Enabling identification of renewable electricity generation possibilities **POLICY G** Regional policy statements and regional and district plans shall include objectives, policies, and methods (including rules within plans) to provide for activities associated with the investigation, identification and assessment of potential sites and energy sources for renewable electricity generation by existing and prospective generators.	This policy is given effect to by policies REG-P2 and REG-P3, Rule REG-R2, and standard REG-S3 of the proposed REG chapter.

Appendix 2: Advice Received from Taranaki Whānui and Ngāti Toa Rangatira

[see separate attachment]

Appendix 3: Feedback on Draft District Plan 2021

Who	Feedback Received	Response
Rural landowners *(e.g. M&P Makara Family Trust)*	*The Renewable Energy Generation provisions will have most impact on the Rural Area as REG Policies 11 and 12 allow only the Rural Area and Natural Open Space zones as locations for large scale generation. The provisions will have significant potential impact on private property values and rural activities in the Rural Area. Where Renewable Energy Generation will adversely impact private property values, compensation or other mitigation measures for those already undertaking activities provided for by the Rural Area Rules (pre-District Plan Changes) that are adversely impacted by new renewable energy generation activities, must be taken into consideration.* *REG-O2 allows Renewable Energy Generators to "manage" adverse effects of renewable electricity generation activities on "communities" and weighs the consideration in favour of the Generator.* *REG-P10 is exceptionally broad and allows for new and upgraded large scale generation while "having regard to" amenity values of the surrounding area and to use "adaptive management, offsetting measures or environmental compensation which may benefit the local environment and community affected". It also allows for new roading and infrastructure to go with any new or upgraded generation scheme. This language is vague and all-encompassing, which is inappropriate in a District Plan. Carbon offsetting, a legal requirement for all large scale Generators can be considered an "offsetting measure" and is to the benefit of any local community, but is of no particular value to local amenity values. "Adaptive management" is undefined. "Environmental compensation" can mean investment in local planting*	**Some changes made for the following reason/s:** • *A range of amendments have been made to the REG provisions to increase clarity and support interpretation of the requirements for REG activities, including the effective management of any potential adverse effects. This includes effects on amenity values of adjacent/neighbouring properties and existing activities.* • *Terms such as "adaptive management", "offsetting measures" and "environmental compensation" are generally well understood planning terms and do not require specific definitions within the District Plan.* • *Draft Policy REG-P14 has been deleted and instead the intent of enabling upgrading of existing REG activities has been incorporated into REG-P2, REG-P8, and REG-P11.* • *A specific policy and rule framework has been created for upgrading of existing large scale REG activities, including existing wind farms. This includes specific criteria and standards for upgrading activities to meet in order to ensure any adverse effects are avoided, remedied or mitigated. This includes appropriate consideration of any effects of upgrading on sensitive activities (such as residential activities) existing at the time of the resource consent application.*

	projects but does not mean mitigation of the particular amenity value that may be challenged so it not a satisfying requirement. *REG-P14 allows for a "… more visually coherent pattern of development and contributes to the uniform design and appearance of wind turbines across the wider landscape." This language is vague and seems to suggest a joining-up of windfarms, or the insertion of new turbines into existing wind-farms where this might be desired. The size and scale of any new turbines, or any replacement turbines of a larger size, in any new or existing windfarm should be individually assessed in relation to that particular turbine's effect on neighbouring properties within the surrounding community.* *REG-P15 requires new sensitive activities to be designed and located to avoid conflict with, including reverse sensitivity effects on, any existing renewable electricity generation activities. This is only acceptable where 'existing' renewable generation activities means those in place at the time of the previous (current) District Plan. If these activities are allowed to be increased in height, volume and land coverage as then the reverse sensitivity consideration unfairly and unreasonably hinders residents of the Rural Area in their pursuit of activities that are otherwise acceptable in terms of the underlying area rules.*	
Renewable energy providers *(Meridian Energy)*	*Seeks minor amendments and clarifications to the chapter's Introduction text.* *Seeks clarification of the definitions of 'Renewable Electricity Generation', 'large scale renewable electricity generation activity' and 'wind farm'. They would be more complete if they also included paved areas and ancillary facilities. This would be consistent with the outcome of hearings and mediation on the Proposed Natural Resources Plan.*	**Changes made for the following reason/s:** • *A range of amendments have been made to the REG provisions to increase clarity and support interpretation of the requirements for REG activities, including the effective management of any potential adverse effects. This includes clarifying the wording of the Introduction, the inter-relationship of the REG chapter with other PDP chapters and*

	Seeks amendments to the wording of the objectives, including REG-02 and REG-03 to improve readability and understanding. *Seeks more clarity in relation to how the provisions of the REG Chapter interact with the provisions in the CE, INF, INF-CE chapters and the provisions that apply in the various overlays. It appears that all provisions apply (for example, because REG is captured within the definition of 'infrastructure' and 'regionally significant infrastructure') but that creates a degree of duplication. Some clarification of the inter-relationships of chapter provisions would be helpful.* *Seeks more recognition and enablement in the policies and rules for upgrading of existing renewable electricity generation activities.* *There seems to be quite a difference in the policy considerations between small scale and community scale renewable electricity generation and it is not clear why this is.* *REG-P10 - The opening words of the policy ('only allow') do not seem to be genuinely enabling or providing for as intended by the NPS-REG. Policy REG-P10 specifies that new and upgraded REG must be outside the coastal environment. Much of the West Wind wind farm is within the Draft Plan's mapped coastal environment. Policy REG-P10 would discourage upgrading within West Wind and it is not clear why that is appropriate or necessary. Meridian opposes this policy restriction.* *Policy REG-P11 explicitly precludes new and upgrading of renewable electricity generation activities anywhere within the (undefined) 'Terawhiti' area identified in SCHED13 as having high coastal natural character. Meridian questions the merit of this policy, given that this is an area where there are already numerous wind turbines and where the quality of the wind resource is known to be suitable for generation. It*	*Overlays, the wording of objectives, policies and rule provisions, and supporting REG definitions.* • *A specific policy and rule framework has been created to provide for upgrading of existing large scale REG activities, including existing wind farms. This includes specific criteria and standards for upgrading activities to meet in order to ensure any adverse effects are avoided, remedied or mitigated.* • *Rule REG-R1 has been amended to recognise that the operation, maintenance and repair of existing REG activities may be subject to resource consent conditions.* • *Rule REG-R2 (renewable electricity generation investigation activities.) has been amended to allow for an increased height for meteorological masts of 80m, providing consistency with the provisions for these activities in other district plans (including the Porirua PDP), and noting that approval would be required from the CAA irrespective of the PDP provisions where the proposed activity has the potential to impact on aviation safety/ navigation.* • *Requirements for large scale REG to comply with NZS 6808:2010 and the two proposed wind generation standards REG-S8 and REG-S9 are retained as noise effects are one of the most significant adverse effects of large scale wind generation activities and they need to be managed appropriately, as demonstrated by the previous wind farm development proposals in the City. The intent is that standards REG-S8 and REG-S9 support and clarify the requirements in NZS 6808:2010. It is considered appropriate for any new large scale activity that cannot meet the*

	may be entirely appropriate to enable re-powering or upgrading of wind turbines as a means of making more efficient use of an important natural resources and important existing physical resources. Meridian's view is that Policy REG-P11 conflicts with Policies REG-P1 and REG-P2 and does not give effect to the NPS-REG. *Policy REG-P15 is constructive but it is not clear how the policy is given effect in the rules of the Plan.* *Decommissioning and remediation are, typically, addressed in resource consent conditions. If this is a policy issue at all, it would only be one for large scale generation activities (which require consents). To address the risks associated with decommissioning, should the content of Policy REG-P16 be included as matters for consideration for proposed new generation activities for example, in Policy REG-P2.* *Questions necessity of Rule REG-R1 if the operation, maintenance, repair and removal of renewable electricity generation activities are already authorised by consents.* *Rule REG-R2 provides for renewable electricity generation investigation activities. Standard REG-S2 limits the height of meteorological masts to 30m which is not useful or meaningful for meteorological masts that are intended to capture meteorological data for wind generation. Meridian's experience is that these masts need to be at approximately 80m high to capture relevant data. Meridian has been successful in securing an 80m height limit in other jurisdictions. The practical reality is that these meteorological masts have a minor or less-than-minor visual effect on the landscape. It is also unclear what adverse effects the five-year limit is addressing or why that limit is necessary.* *Agree that a discretionary activity status for new large scale renewable electricity generation activities is appropriate (in all*	*proposed noise standards to be considered as a non-complying activity.*

	*situations). Does not agree that discretionary activity is necessary or appropriate for **upgrading** of existing structures and facilities. Provided the upgrading occurs within the footprint of an existing wind farm and complies with the relevant NZS6808 noise standards, why could upgrading not be provided for as a controlled activity (up to specified limits) or restricted discretionary activity (beyond those limits) with relevant REG-specific restricted discretionary matters? The current provision in not enabling.* *Meridian opposes standard REG-S9. Standard REG-S9 attempts to control 'special audible characteristics'. It does not need to. 'Special audible characteristics' are already accounted for and addressed by NZS6808:2010.* *Meridian opposes the non-complying activity default rule, triggered by non-compliance with proposed standard REG-S9.*	
General public *(e.g. J Laurenson, S Love, K Munro)*	*Support the REG rules in general but note that these are geared towards wind. Large scale solar PV have much less effects and this should be recognised through an more enabling activity status (e.g restricted discretionary).* *Objective REG-01 and REG-P2 should be amended to refer to 'renewable energy generation' not just electricity. Green hydrogen and biomass generation and transmission will be increasingly important renewable energy fuels to support electrification of our local economy.* *Objective REG-02 should be amended to include the technical need (as well as functional and operational).* *What does 'appropriate scales' mean in policy REG-P2?* *Encourage renewable energy and energy resilience and providing incentives and reducing barriers to renewable energy installations.*	**Some changes made for the following reason/s:** • *Amendments have been made to clarify the wording of the REG policies and rules to ensure appropriate provision for a range of REG activities including solar generation.* • *REG-P2.3 enables the development of a range of scales of renewable electricity generation and generation from a range of renewable energy sources.* • *REG-01 refers to enabling the use and development of renewable energy sources.* • *The reference in REG-P2 to 'appropriate scales' has been deleted and replaced with reference to a range of scales of REG from a range of renewable energy sources.* • *Incentives for home energy systems lie beyond the scope of the District Plan and are better*

	Energy resilience is encouraged by providing incentives and reducing barriers to renewable energy installations such as household solar.	*addressed by other mechanisms outside of the District Plan.*
Wellington International Airport	*A key means to address climate change is the electrification of New Zealand's economy and society. Both large scale and smaller scale community type renewable energy installations will be required to contribute to this. WIAL therefore considers that the provisions within the draft District Plan relating to renewable energy generation should be more enabling to achieve electrification goals and give effect to the National Policy Statement for Renewable Electricity Generation 2011.* *Rule REG-R4 provides for community scale renewable energy generation activities to be a restricted discretionary activity in the General Rural Zone, the General Industrial Zone, and the Natural Open Space Zone. Within all other zones (including the Airport Zone), such activities would be a fully discretionary activity. In achieving a low carbon footprint WIAL is considering options to install renewable energy generation facilities (at a local or community scale) within the Airport Zone. Such initiatives should be suitably provided for within the draft District Plan and a fully discretionary activity status coupled with unduly restrictive objectives and policies does not properly achieve this.*	**Changes made for the following reason/s:** • *Policy REG-P6 (community scale REG outside overlays and in specific zones) and rule REG-R4 (community scale REG) have been amended to include the Airport Zone to recognise and provide opportunity for community REG development within this zone to support airport operations etc.*
Heritage New Zealand	*Supports REG-P6, P9, P12* *Supports REG-R3, R4, R5* *Supports standards REG-S2 TO S7*	**No changes requested** • *The support provided for the draft REG provisions is acknowledged but it is noted that some amendments have been made to the provisions in response to other submissions / feedback and for clarification.*
COR Associates Ltd	*Supports SRCC-O1. Suggests that in order for this objective to be met (a commitment to increase the use of renewable energy sources is necessary) micro-grids and subsidies for installation of home energy systems such as PV*	**No changes made for the following reason/s:** • *The District Plan Design Guides contain some guidance in relation to energy efficiency and*

	and solar hot water should be considered.	*conservation measures. However, incentives and subsidies for home energy systems lie beyond the scope of the District Plan and are better addressed by other mechanisms outside of the District Plan.*
VicLabour	*The renewable energy guidelines for subdivisions should be strengthened.*	**No changes made for the following reason/s:** • *The Subdivision Design Guide contains an appropriate level of guidance.*

Appendix 4: WCC Operative District Plan Renewable Energy Provisions - Summary evaluation

[see separate attachment]

Appendix 5: Summary of WCC Large Scale Wind Energy Resource Consents 2003-2016

[see separate attachment]

Appendix 6: Comparative Plan Assessment of Renewable Electricity Generation related provisions

[see separate attachment]

Appendix 7: Rationale for activity status settings for renewable electricity generation activities in the Proposed District Plan

Activity	Zone(s)	Overlay(s)	Rule clause	Activity Status	Comments
REG-R1 Maintenance and repair of existing renewable electricity generation activities	All zones	All	1	PER	This rule allows for the maintenance and repair of existing renewable electricity generation activities where they comply for the standards for trimming, pruning or removal of indigenous vegetation if they are located within a Significant Natural Area (SNA). As the activities are existing, and the effects of maintenance and repair activities are likely to be negligible, a permitted activity status is appropriate. An advisory note acknowledges that the operation and removal of legally established existing renewable electricity generation activities may rely on existing use rights or any resource consent obtained for those renewable electricity generation activities.
		SCHED8 - Significant Natural Areas	2	RDIS	Trimming, pruning or removal of indigenous vegetation within a SNA has the potential to have adverse ecological effects. Standard REG-S1 provides appropriate limits (which are similar to the standards applying to general infrastructure in the INF chapter), with trimming, pruning or removal which exceed these limits having the potential to have adverse effects on the values of SNAs that are not acceptable. Therefore a restricted discretionary activity status is appropriate.

Activity	Zone(s)	Overlay(s)	Rule clause	Activity Status	Comments
REG-R2 Renewable electricity generation investigation activities	All zones	Outside of Overlays	1	PER	This rule gives effect to REG-P3. Given the nature of these activities and the requirement to comply with the standards for REG investigation activities in REG-S3, as well as the underlying zone requirements for earthworks and noise, a permitted activity status is appropriate.
			2	RDIS	This rule relates to non-compliance with the relevant permitted activity standards, which has the potential to have adverse effects that are not acceptable. The types of adverse effects are known. Policy REG-P3 provides guidance for assessing these effects. Therefore a restricted discretionary activity status is considered appropriate.
		SCHED1 - Heritage Buildings SCHED2 - Heritage Structures SCHED3 - Heritage Areas SCHED4 - Archaeological Sites SCHED5 - Schedule of Viewshafts SCHED6 - Schedule of Notable Trees SCHED7 - Sites and Areas of Significance to Māori SCHED8 - Significant Natural Areas SCHED10 - Outstanding Natural Features and Landscapes	3	RDIS	The likely size of any REG investigation activity means that they may have potential to have adverse effects on the identified values and qualities of buildings, items, areas and sites that are identified by the relevant Overlays, and adverse effects from and on natural hazard risk if they are freestanding. The types of adverse effect are known. A restricted discretionary activity status allows for appropriate consideration of these effects through a resource consent process. The policies referenced in the matters of discretion listed for this rule provide guidance for assessing effects of activities within identified Overlays and areas.

Activity	Zone(s)	Overlay(s)	Rule clause	Activity Status	Comments
		SCHED11 - Special Amenity Landscapes SCHED12 – High Coastal Natural Character Areas A coastal margin or riparian margin within the coastal environment A Hazard Overlay			
REG-R3 Small scale renewable electricity generation activities	All zones	Outside of Overlays	1	PER	This rule gives effect to policy REG-P4. Given the small scale nature of these activities and the requirement to comply with the relevant standards within the REG chapter (REG-S4, REG-S5 and REG-S6) as well as the underlying zone requirements for earthworks and noise, and for any activity involving wind generation, compliance with NZS 6808:2010 Acoustics - Wind farm noise, REG-S9 and REG-S10, a permitted activity status is appropriate.
			2	RDIS	This rule relates to non-compliance with the relevant permitted activity standards, which has the potential to have adverse effects that are not acceptable. The types of adverse effects are known. Policy REG-P4 provides guidance for assessing these effects. Therefore a restricted discretionary activity status is considered appropriate.
		SCHED1 - Heritage Buildings SCHED2 - Heritage Structures SCHED3 - Heritage Areas SCHED4 - Archaeological Sites	3	RDIS	This rule gives effect to policy REG-P5. The likely size of any small scale REG activity means that they may have potential to have adverse effects on the identified values and qualities identified by the relevant Overlays, and adverse

Activity	Zone(s)	Overlay(s)	Rule clause	Activity Status	Comments
		SCHED5 - Schedule of Viewshafts SCHED6 - Schedule of Notable Trees SCHED7 - Sites and Areas of Significance to Māori SCHED8 - Significant Natural Areas SCHED10 - Outstanding Natural Features and Landscapes SCHED11 - Special Amenity Landscapes SCHED12 – High Coastal Natural Character Areas A coastal margin or riparian margin within the coastal environment A Hazard Overlay			effects from and on natural hazard risk if they are freestanding. The types of adverse effect are known. A restricted discretionary activity status allows for appropriate consideration of these effects through a resource consent process. Policy REG-P5 provides guidance for assessing effects of activities within identified Overlays and areas.
REG-R4 Community scale renewable electricity generation activities	General Rural Zone General Industrial Zone	Outside of Overlays	1	RDIS	This rule gives effect to policy REG-P6 and provides for community scale renewable electricity generation activities within identified zones where they are less likely to adversely affect the character and amenity of the zone or any surrounding sites, and which comply with standards, including REG-S7 and REG-S8 which set appropriate limits on the size and location of wind turbines and solar panels respectively, and which comply with relevant noise/acoustic requirements. The likely types of effects of these

Activity	Zone(s)	Overlay(s)	Rule clause	Activity Status	Comments
	Airport Zone				activities are known, but the scale of the effects will be dependent on site specific factors. The matters of discretion listed for this rule provide guidance for assessing effects of activities. As such a restricted discretionary activity status is appropriate.
			2	DIS	This rule addresses non-compliance with REG-R4(1) and the specified standards which set appropriate limits on the size and location of wind turbine sand solar panels respectively, and require compliance with relevant noise/acoustic requirements.
	All other zones		3	DIS	The likely size and nature of any community scale renewable electricity generation activities means that they have the potential to have significant adverse effects on the character and amenity of all other zones. A discretionary activity status allows for appropriate consideration of these effects through a resource consent process. Policy REG-P7 provides direction on the appropriate consideration of these activities within these other zones.
	All zones	SCHED1 - Heritage Buildings SCHED2 - Heritage Structures SCHED3 - Heritage Areas SCHED4 - Archaeological Sites SCHED5 - Schedule of Viewshafts SCHED6 - Schedule of Notable Trees	4	DIS	The likely size and nature of any community scale renewable electricity generation activities means that they have the potential to have significant adverse effects on the values and qualities/characteristics identified by the relevant Overlays and areas, and adverse effects from and on natural hazard risk. A discretionary activity status allows for appropriate consideration of these effects through a resource

Activity	Zone(s)	Overlay(s)	Rule clause	Activity Status	Comments
		SCHED7 - Sites and Areas of Significance to Māori SCHED8 - Significant Natural Areas SCHED10 - Outstanding Natural Features and Landscapes SCHED11 - Special Amenity Landscapes SCHED12 – High Coastal Natural Character Areas A coastal margin or riparian margin within the coastal environment A Hazard Overlay			consent process. Policy REG-P7 provides direction on the appropriate consideration of these activities within identified Overlays and areas.
REG-R5 Upgrading of existing large scale renewable electricity generation activities	General Rural Zone Brooklyn Hill Wind Turbine in the Natural Open Space Zone	All	1	RDIS	This rule gives effect to policy REG-P8 and provides for the upgrading of existing large scale renewable electricity generation activities in specific zones /locations, subject to meeting standards to manage any adverse effects from upgrading activities, including compliance with NZS 6808:2010 Acoustics - Wind farm noise, REG-S9 and REG-S10. A restricted discretionary activity status allows for appropriate consideration of effects through a resource consent process.
			2	DIS	This rule addresses non-compliance with REG-R5(1) and the specified standards which set appropriate limits and requirements for upgrading

Activity	Zone(s)	Overlay(s)	Rule clause	Activity Status	Comments
					activities and which require compliance with relevant noise/acoustic requirements.
REG-R6 New large scale renewable electricity generation activities	General Rural Zone	Outside of Overlays	1	DIS	This rule gives effect to policy REG-P9 and provides for the development of new large scale renewable electricity generation activities within the General Rural Zone, subject compliance with NZS 6808:2010 Acoustics - Wind farm noise, and standards REG-S9 and REG-S10. The nature and size/scale of large scale renewable electricity generation activities have the potential to have significant adverse effects. A discretionary activity status allows for appropriate consideration of these effects through a resource consent process.
	General Rural Zone	SCHED1 - Heritage Buildings SCHED2 - Heritage Structures SCHED3 - Heritage Areas SCHED4 - Archaeological Sites SCHED5 - Schedule of Viewshafts SCHED6 - Schedule of Notable Trees SCHED7 - Sites and Areas of Significance to Māori SCHED8 - Significant Natural Areas SCHED10 - Outstanding Natural Features and Landscapes	2	NC	This rule addresses non-compliance with NZS6808:2010 Acoustics - Wind farm noise and standards REG-S9 and REG-S10 for any large scale REG proposal involving wind generation. The effects of any non-compliance with these standards would likely be significant, and therefore a non-complying activity status is appropriate. This rule also gives effect to policy REG-P10 and addresses the development of new large scale renewable electricity generation activities within the General Rural Zone that are within identified Overlays and areas. The likely size/scale and nature of any large scale scale renewable electricity generation activities means that they

Activity	Zone(s)	Overlay(s)	Rule clause	Activity Status	Comments
		SCHED11 - Special Amenity Landscapes SCHED12 – High Coastal Natural Character Areas A coastal margin or riparian margin within the coastal environment A Hazard Overlay			have the potential to have significant adverse effects on the values and qualities/ characteristics identified by the relevant Overlays and areas, and adverse effects from and on natural hazard risk, therefore a non-complying activity status is appropriate. If a proposal can show that any effects will be no more than minor then a resource consent may be able to be granted, acknowledging that policy REG-P10 is to avoid large scale renewable electricity generation activities within these areas and therefore such a proposal is likely to be contrary to the objectives and policies of the PDP.
	All other zones	All	3	NC	This rule gives effect to policy REG-P10. The potential effects of large scale renewable electricity generation activities within zones other than the General Rural Zone are considered likely to be significant and not appropriate. However, if a proposal can show that any effects will be no more than minor then a resource consent may be able to be granted, acknowledging that policy REG-P10 is to avoid large scale renewable electricity generation activities within these areas and therefore such a proposal is likely to be contrary to the objectives and policies of the PDP.
REG-R7 Renewable electricity generation	All zones	Outside of Overlays	1	DIS	This rule provides for any other renewable electricity generation activities that are not anticipated within the REG provisions (and are located outside of identified Overlays), and ensures the appropriate consideration of these

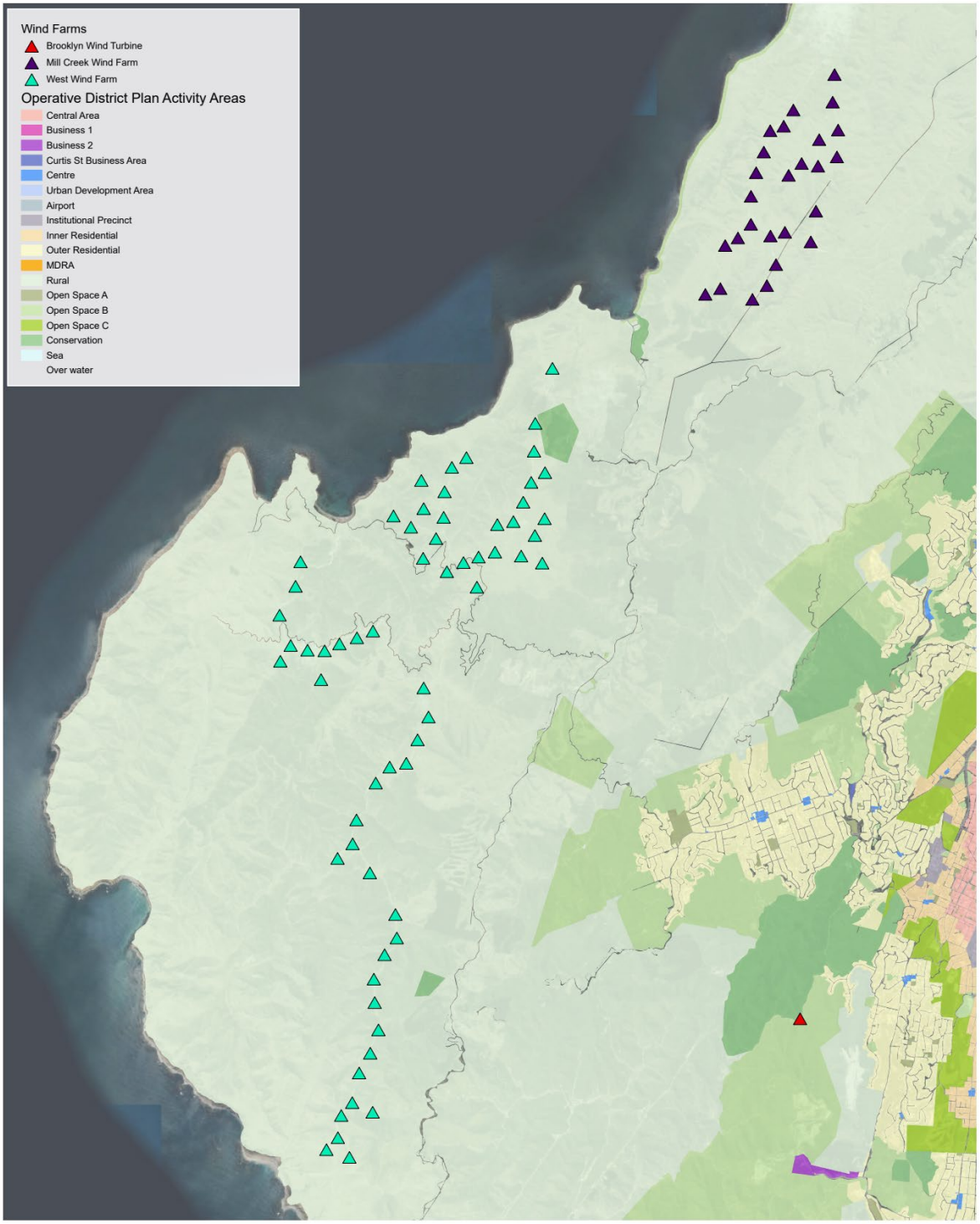
Activity	Zone(s)	Overlay(s)	Rule clause	Activity Status	Comments
activities not otherwise provided for					activities and their effects through a discretionary activity status resource consent process.
		SCHED1 - Heritage Buildings SCHED2 - Heritage Structures SCHED3 - Heritage Areas SCHED4 - Archaeological Sites SCHED5 - Schedule of Viewshafts SCHED6 - Schedule of Notable Trees SCHED7 - Sites and Areas of Significance to Māori SCHED8 - Significant Natural Areas SCHED10 - Outstanding Natural Features and Landscapes SCHED11 - Special Amenity Landscapes SCHED12 – High Coastal Natural Character Areas A coastal margin or riparian margin within the coastal environment A Hazard Overlay	2	NC	Consistent with the proposed REG policy and rule framework, the potential effects of other types of renewable electricity generation activities that are not anticipated by the proposed provisions that are located within identified Overlays are considered likely to be significant and not appropriate. Therefore a non-complying activity status is appropriate.

Appendix 8: Rationale for standards for renewable electricity generation activities in the Proposed District Plan

Standard	Comments
REG-S1 Trimming, pruning or removal of indigenous vegetation within a Significant Natural Area	These standards allow for some trimming, pruning or removal of indigenous vegetation within SNAs for renewable electricity generation activities, while ensuring that any such activities do not result in adverse cumulative effects. The exceptions ensure that the functional needs of roads are maintained and the standards are consistent with relevant regulations.
REG-S2 Earthworks within a Significant Natural Area	These standards allow for some earthworks within SNAs for renewable electricity generation activities, while ensuring that any such activities do not result in adverse cumulative effects.
REG-S3 Renewable electricity generation investigation activities	These standards recognises the functional needs of REG investigation activities, while ensuring that these activities do not have significant adverse effects, including cumulative effects. They ensure the structures for investigation activities are consistent with character and amenity values of the underlying zone and that the effects of investigation activities on the sites in which they are located are temporary. They also allow investigation activities to be undertaken for a duration that enables seasonal variations to be well understood, while ensuring that these activities do not have permanent effects.
REG-S4 Small scale renewable electricity generation activities - roof-mounted solar panels	These standards ensure that small scale solar panels are able to be located on buildings without compromising the character and amenity values of the underlying zone.
REG-S5 Small scale renewable electricity generation activities - roof-mounted wind turbines	These standards ensure that small scale roof-mounted turbines are able to be located on buildings without compromising the character and amenity values of the underlying zone. The also ensure that the wind turbines are an appropriate size for small-scale purposes, and ensure that clusters of wind turbines are not developed which may have more significant adverse effects on surrounding sites.
REG-S6 Small scale renewable electricity generation activities - freestanding wind turbines	These standards ensure the structures for small scale REG activities involving free standing wind turbines are consistent with character and amenity values of the

	underlying zone and that the wind turbine structures do not result in dominance effects in relation to the surrounding dwellings and sites. They also ensure that the wind turbines are an appropriate height and size for small-scale purposes, and that clusters of turbines are not developed within more urban areas and the number of turbines remain appropriate for small-scale purposes in more rural areas.
REG-S7 Community scale wind turbines	These standards ensure that community scale wind turbine structures are consistent with character and amenity values of the underlying zone and that the wind turbine structures do not result in dominance effects in relation to surrounding dwellings and sites.
REG-S8 Community scale freestanding solar panels	These standards ensure that community scale solar panels structures are consistent with character and amenity values of the underlying zone. They ensure that the solar panels will be relatively low in height compared to other permitted structures, and therefore will be less likely to have visual and dominance effects on the amenity and character of the zone. They also ensure that solar panels will not be dominant in relation to total area of a site covered by solar panels.
REG-S9 Wind turbine noise limits	These standards reinforce the requirements of NZS 6808: 2010 Acoustics - Wind farm noise and ensure that the noise generated by wind turbines is managed appropriately, including locations that are identified as noise sensitive/high amenity areas.
REG-S10 Wind turbine special audible characteristics (SAC's)	These standards reinforce the requirements of NZS 6808: 2010 Acoustics - Wind farm noise and ensure that special audible characteristics of wind turbines are managed appropriately.
REG-S11 Upgrading of existing large scale renewable electricity generation activities	These standards ensure that the effects of upgrading of existing large scale REG activities can be appropriately managed. The size and scale of upgrading activities are limited to ensure there are no significant new or additional adverse effects created, including effects on adjacent or adjoining properties. They ensure adverse effects on any identified Overlay or adjacent Overlay are minimised as well as any effects on other landscape, visual or amenity values of the site and surrounding area.

Appendix 9: Maps showing existing consented wind farm turbines and zoning and overlay information in the Operative District Plan and Draft District Plan



Wind Turbine Locations and Operative District Plan Activity Areas

Date: 22/02/2022
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Website: planningforgrowth.wellington.govt.nz
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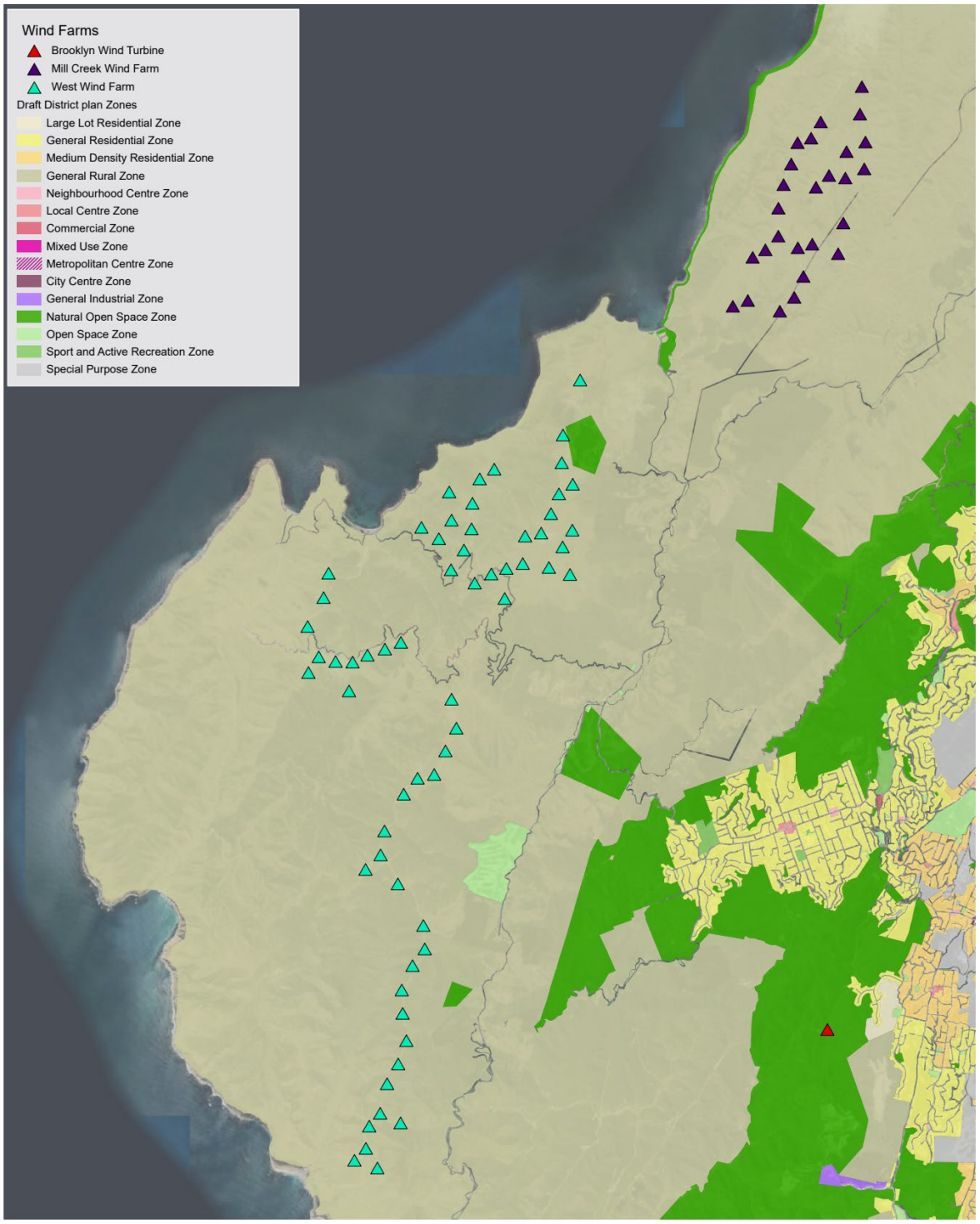

Wind Turbine Locations and Draft District Plan Zones

Date: 22/02/2022
Created by: District Planning Team
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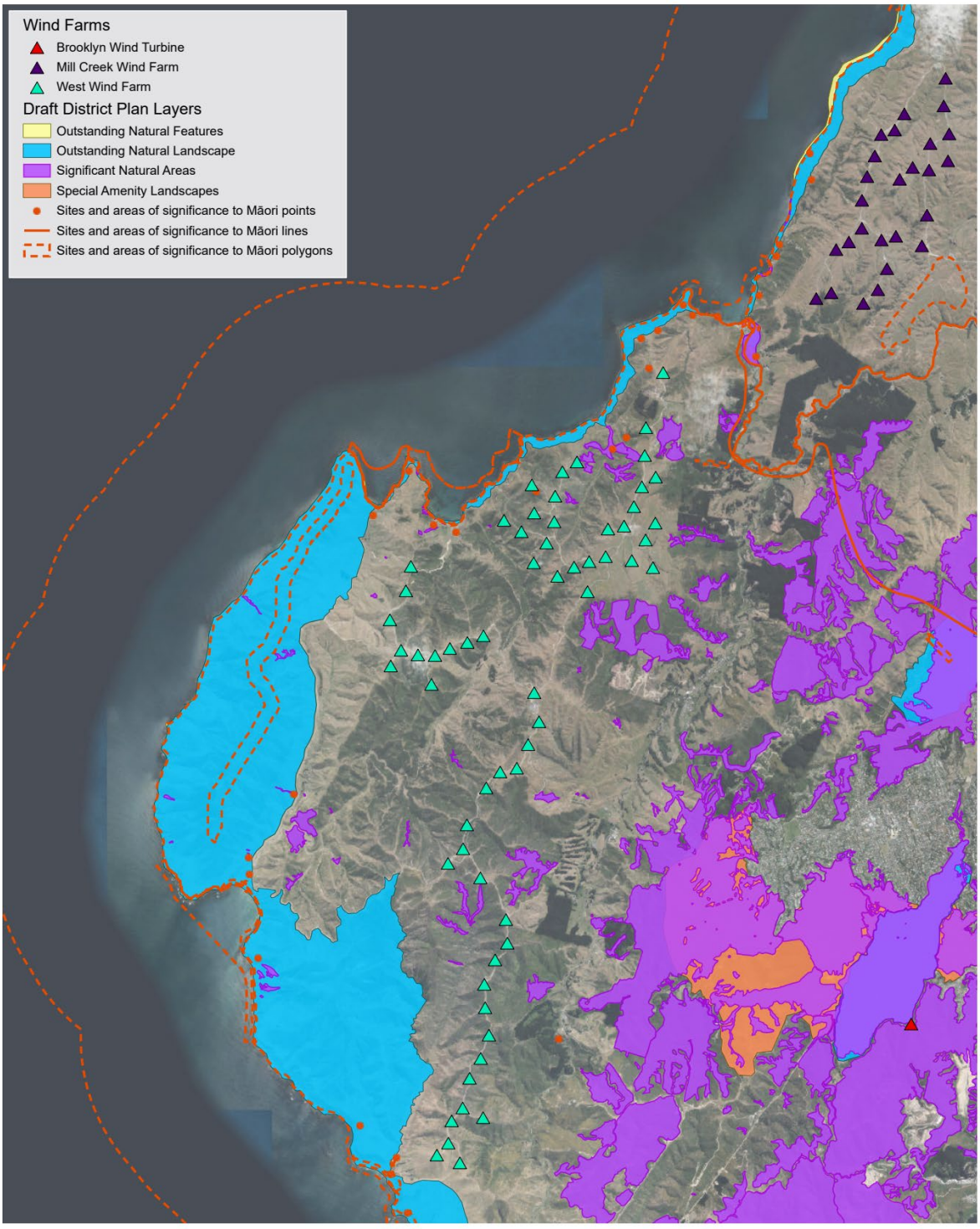

Wind Turbine Locations and Draft District Plan Overlays

Date: 22/02/2022
Created by: District Planning Team
Contact: planningforgrowth@wcc.govt.nz
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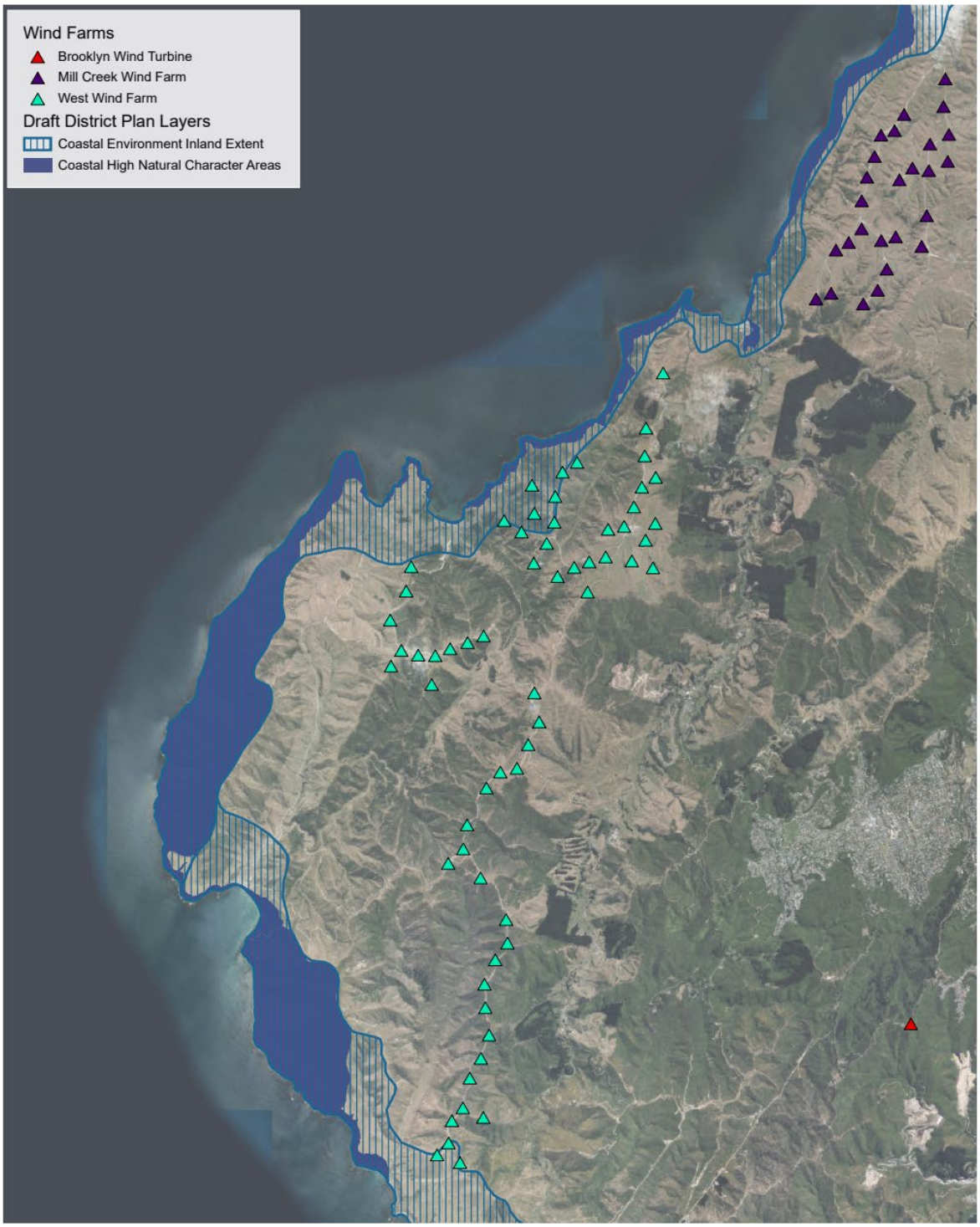

Wind Turbine Locations and Coastal Environments

Date: 22/02/2022
Created by: District Planning Team
Contact: planningforgrowth@wcc.govt.nz
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Base map credits: Eagle Technology, Land Information New Zealand, GEBCO, Community maps contributors

Memo

Date	Insert Date
From	Jade Wikaira, Consultant, Mana Whenua Chapter Lead
To	Kate Pascall, Sherilyn Hinton
cc	Onur Oktem
Project	Wellington City Council District Plan Project
Re	**[subject]**

Purpose

The purpose of this file note is to provide an update on Tangata Whenua matters arising from integration in relation to the *Part 2 District Wide: Energy, Infrastructure and Transport* chapters. The structure of this memo includes:

- An outline of current draft Tangata Whenua objectives
- General Comments
- Specific Chapter comments in relation to the INFRASTRUCTURE, RENEWABLE ELECTRICITY GENERATION, TRANSPORT AND WATER SENSITIVE DESIGN draft chapters
- Recommendations for additional objective or policy wording where appropriate.
- Specific comments made with tracked changes to each chapter and are attached to this email.

Current Draft Objectives in Tangata Whenua Chapter

Objectives		Drafting Notes
TW-01	**Te Tiriti o Waitangi** Te Tiriti o Waitangi and its principles are recognised through authentic Partnership arrangements with Tangata Whenua. **OR** SD / TW-O1 [Mana/Tangata whenua actively participate in resource management processes in a way that recognises Te Tiriti o Waitangi and its principles.]	Still to confirm final language but this responds to aspirations for partnership and current section 8 matters to take into account principles of the Treaty / Te Tiriti.

TW-02	The relationship of Tangata Whenua with their Lands and Traditions is acknowledged and maintained in a way that is consistent with their culture, traditions, social and economic aspirations.	Responds to section 6e and mana whenua kaupapa to recognise the relationship of tangata whenua with their lands and traditions
TW-03	Tangata whenua are able to protect, use and develop Māori Land and Treaty Settlement Land that is consistent with their cultural, social, commercial, and economic activities.	Responds to relationship with ancestral lands…. Section 6
TW-04	Kaitiakitanga, Mātauranga and tikanga as well as traditional and cultural uses and values are recognised and provided for in resource management processes.	Responds to kaitiakitanga aspirations; section 7
TW-05	The use, development and expansion of the Treaty settlement land and any land that is subject to Deed of Settlement provisions relating to RFR land, is enabled in a manner that recognises it's commercial redress purposes and provides for Tangata Whenua social, economic, commercial and cultural aspirations for that land.	Responds to future development opportunities (to be discussed)
TW-06	Development and design located in current and future Precincts, is undertaken in a manner which is directed by Tangata Whenua that reflects their Land and Traditions as well as provide for Tangata Whenua social, economic, commercial and cultural aspirations for that Precinct. **OR** *TW-XX Recognise the contribution that tangata whenua and their relationship with their culture, traditions, ancestral lands, waterbodies, sites, areas and landscapes, and other taonga of significance make to the City's identity and sense of belonging.*	
TW-07	*Reflect additional objective about land bought by Ngāti Toa*	*Not yet progressed*
Draft Objectives for Strategic Directions		
HC-03	The cultural, spiritual and/or historical values associated with sites and areas of significance to Māori are protected.	Recognises sites of significance and the need to protect them.

HC-04	Recognise that only mana whenua can identify impacts on their relationship with their culture, traditions, ancestral lands, waterbodies, sites, areas and landscapes and other taonga/sites of significance to Māori.	Recognises that only mana whenua can identify sites of significance and the impacts of development and activities on their culture, traditions, ancestral lands, waterbodies, sites, areas and landscapes and other taonga/sites of significance to Māori.
TW-O1	Mana/Tangata whenua **actively participate** in resource management processes in a way that recognises Te Tiriti o Waitangi and its principles.	Recognises Te Tiriti O Waitangi partnership aspirations; part 2, section 8
TW-O2	Recognise the contribution that tangata whenua and their relationship with their culture, traditions, ancestral lands, waterbodies, sites, areas and landscapes, and other taonga of significance make to the district's identity and sense of belonging.	Recognises section 6 and spatial plan partnership goal
NE-O4	Mana/Tangata whenua are able to exercise their customary responsibilities as mana whenua and kaitiaki with their own mātauranga Māori in the protection and management of the natural environment	Recognises section 7 and kaitiakitanga responsibilities in the natural environment

General Comment

Mana whenua support the provisions under energy, infrastructure and transport chapters and provide specific comment below. Water is a special topic and considered a taonga. The quality and state of the water requires careful and focused attention. The Water Sensitive Design chapter requires input from mana whenua in terms of identification of special water bodies, streams and awa and require additional protections where this is appropriate.

Specific Comment

Infrastructure Chapter

- Mana Whenua note the definition of Infrastructure in the RMA includes "structures for transport on land by cycleways, rail, roads, walkways, or any other means" including

provisions for the operation, maintenance, repair and renewal, upgrading and development of the transport network and connections to the transport network.

- Ensure cumulative effects for infrastructure provision are noted, acknowledged and understood. Comment made that Three-waters is an example where that whole project should look to stop discharging to the harbour due to the high toxic concentration in the water.

Renewable Electricity Generation Chapter

- Support for the chapter and support advancements in renewable electricity generation. Sites of significance also need to be protected, managed, and not further hindered.

- For new builds, what is the opportunity of renewable energy vs diesel and what are the incentives for new homeowners and businesses in the new builds to be more energy efficient.

Transport Chapter

- The Transport Chapter contains provisions for on-site transport facilities and the effects of high vehicle trip-generating use and development. For mana whenua, the transport opportunities relate to providing for the wellbeing of Māori and Pacifica when travelling across the City. This relates to access and affordability of transport options.

- In terms of transport, we (as mana whenua and Māori) do not travel alone. We are likely to travel in packs as a collective. It is unlikely that we will have low transport occupancy rates, we are likely to travel in vans and larger vehicles. **Key Question: How is the transport chapter able to respond to these issues, concerns and opportunities?**
- Currently, around our cultural spaces i.e., Pipitea Marae and Te Papa the parking meters are covered when there are events demonstrating the respect for culturally significant events and gatherings. As mana whenua and hosts of the city how do we accommodate visiting iwi when they come to the city i.e., at Te Raukura, Te Papa.

- How do we provide transport opportunities to places of significance? What are the opportunities to support mana whenua to support and welcome others? **Key Question: What transport provisions (objectives, policies) are there to accommodate and support cultural practices or gatherings?** Mana whenua consider a policy be drafted to provide for these practices.

Water Sensitive Design Chapter

Refer to Sites of Significance to Māori.

<u>Aspiration to capture the names of traditional streams, awa, waterbodies</u>

- Taranaki Whānui provided information of all streams including their traditional Māori names and would like this information updated and reinstated into the Plan.
- The aspiration is for these waterbodies to be identified and given protections as sites of significance.

<u>Concerns about water quality</u>

- Aspirations for improved water quality to the state of waimāori. There have been and continue to be significant concerns for pollution into the lagoon (Whairepo) and harbour.
- The waterfront area is significant in that many culturally important streams enter the harbour at this point.

Concerns about health and safety and pollution

- What about our cultural practices during pollution events? This would cover water activities and the ability for mana whenua including kuia to perform rituals at Whairepo lagoon.

Concerns about safety to carry out cultural rituals and practices

- What is being done to ensure water sensitive design is applied? The lagoon is polluted and yet it is common to have youth swim and use these bodies of waters as areas of water recreation.

Concerns about Council communication during water events

- Mana whenua provided examples at Whairepo Lagoon where there was water pollution event and they were not alerted to this fact. **Key Question: What communication methods are there at Council to alert mana whenua to**

Recommendations

Suggestions in relation to renewable energy:

1. Include mana whenua in the management of renewable energy if it involves the use of their natural resources.
2. Ensure that any development or land use activity associated with renewable energy does not adversely affect Mana Whenua's significant sites, waterways, natural resources, and associated values and relationships.

Suggestions in relation water sensitive design:

Proposed Objectives for Discussion

3. Mana Whenua values, including mauri, are acknowledged in the allocation and use of water.
4. The mauri of freshwater is maintained or progressively improved over time to enable traditional and cultural use of this natural resource by Mana Whenua.

Proposed Policies for Discussion

5. Require that the take or use of water from a waterway or body maintains Mana Whenua values.
6. Develop catchment specific limits for freshwater quantity with Mana Whenua, through community engagement, scientific research and mātauranga Māori.

7. Avoid the discharge of wastewater to the coastal marine area and to freshwater, unless Mana Whenua have been consulted in accordance with tikanga Māori and due weight has been given to section 6, section 7 and section 8 of the Resource Management Act 1991.

8. Require proposals for on-site wastewater treatment and disposal to land or water to demonstrate that adverse effects on Mana Whenua values will be avoided.

9. Only allow the discharge of treated wastewater to water where the effects on Mana Whenua values have been addressed.

10. Avoid, or where avoidance is impossible, remedy or mitigate, adverse effects of activities in, on, under or over the beds of lakes, rivers, streams and wetlands on:

    a. the mauri of the freshwater environment; and
    b. Mana Whenua values in relation to the freshwater environment.
    Encourage the incorporation of Mana Whenua mātauranga, values and tikanga in any planting in, on, or under the bed of a lake, river, stream or wetland.

Appendix 4: WCC Operative District Plan Renewable Energy Provisions: Summary evaluation

Origin	**Key chapters/ sections**	**General REG policy approach** (e.g. how is REG dealt with; what level of detail/complexity; key issues; specific activities provided for etc)	**Provisions- Objectives & Policies**	**Provisions- Rules** (activity status, standards, matters of discretion)	**Relationship with other plan provisions, overlays, defined terms, mapping, other methods (non-reg)**	**NPS-REG 2011 recognition/consistency** (eg. level of recognition of benefits, enabling REG, managing reverse sensitivity etc)	**RPS recognition/ consistency**	**Key issues / gaps**
Provisions first drafted to respond to the 2004 amendments to s7 RMA to have particular regard to energy efficiency and the use and development of renewable energy. Brought into the Plan via Plan Change 32 which was notified in mid-2004 and made operative in July 2009 (following resolution of Env Court appeals).	**Chapter 25 – Renewable Energy (Objectives & Policies); Chapter 26 – Renewable Energy Rules.** Other relevant chapters: Chapter 1 (Resource management issues); Chapter 3 (Definitions); and multiple zone chapters containing a renewable energy policy.	Chapters 25 and 26 provide guidance and direction with regard to activities involving renewable energy across the City. The provisions in these two chapters take precedence over the objectives, policies and rules of the underlying zone. Wind energy facilities (and anemometers) are the only form of REG subject to a specific rule. The wind energy facility provisions apply only to the Rural Area as large scale wind energy developments in urban areas are not foreseen. Small scale turbines (less than 5MW) are not provided for by Chapter 26 (they are specifically excluded from the definition of 'wind energy facility'. These activities are assessed under the relevant rules (for structures) of the area/zone based chapter that applies. Connections required to the electricity transmission and distribution network are also not provided for by Chapter 26. These activities are assessed under the provisions for utilities in Chapters 22 and 23. While the provisions provide for REG they also recognise that wind energy facilities can have significant environmental effects. The REG rules include specific detailed assessment criteria for anemometers and wind energy facilities that were developed to address the specific effects of these activities. Particular issues to address include landscape and amenity, noise, visual, ecology, traffic and vehicle, earthworks, cultural and heritage, and cumulative effects.	**Chapter 25** **Objective:** **25.2.1 To encourage efficiency in energy use, and the development and use of energy from renewable sources.** **Policy:** **25.2.1.1 Encourage the efficient use of energy and the greater use of renewable energy.** Method: • Advocacy **Policy:** **25.2.1.2 Provide for renewable energy development, while:** • **Avoiding, remedying or mitigating adverse effects on the environment; and** • **Recognising the potential renewable energy resources that exist in the Rural Area including in identified ridgeline and hilltop areas.** Method: • Advocacy • Rules Policy provision in zone/area chapters 4, 6, 8, 10, 12, 14: Chapter 14 (Rural) example - **Policy 14.2.1.3 Encourage energy efficiency and the development and use of renewable energy within the Rural Area.**	**Chapter 26** **26.1 Application of Chapter 26** 26.1.1 Where the rules in this chapter apply to any proposal the relevant area based rules do not apply to that proposal. **26.2 Discretionary Activities (Restricted)** **26.2.1 Anemometers (including associated support structures) established for the purpose of measuring wind [in the Rural and Open Space B areas] are a Discretionary Activity (Restricted) in respect of:** **26.2.1.1 Siting and Design** **26.2.1.2 Duration** **26.2.1.3 Height.** *Non-notification* The written approval of affected persons will not be necessary in respect of items 26.2.1.1 to 26.2.1.3. Notice of applications need not be served on affected persons and applications need not be notified. *Assessment Criteria* In determining whether to grant consent and the conditions to be imposed, if any, Council will have regard to the following criteria: 26.2.1.4 The visual and amenity effects of the anemometer and the extent to which any effects of the anemometer can be mitigated by: • alternative siting • alternative design of the supporting structure • alternative colour or finish selection • attachment to an existing structure • the number to be erected 26.2.1.5 The duration of the activity, and any plans for removal. 26.2.1.6 The height of the mast. 26.2.1.7 Operational or technical considerations. **26.3 Discretionary Activities (Unrestricted)** **26.3.1 Wind energy facilities in the Rural Areas are Discretionary Activities (Unrestricted).** *Assessment Criteria*	**Application of REG provisions:** The Ch26 rule intro states that if the rules in Ch26 apply to a proposal, the Area based rules will not apply (e.g. natural environment, earthworks etc). The purpose of this is to avoid uncertainty as to which rule applies. When considering any application for a resource consent under Chapter 26, the **relevant Area based objectives and policies** need to be considered **in conjunction with** the objectives and policies of **Chapter 25**. The anemometer and wind energy facility **rules** provide specific and comprehensive **assessment criteria** that are relevant to these activities. The criteria focus on the specific and particular effects anticipated by those activities and provide a means to assess the effects of the activities. **A specific policy provision in the Area based chapters** (except Open Space and Conservation Sites) encourages the use and development of renewable energy and energy efficiency, but there are no specific rule provisions. **Ch14 (Rural Area) policies** control the number and location and design of new building developments and activities in order to avoid, remedy or mitigate their adverse effects on the rural character and landscape.	Greater use of renewable energy is encouraged by Policy 25.2.1.1 (via advocacy). Renewable energy development is provided for and the potential of ridgeline and hilltop locations in rural areas is recognised by Policy 25.2.1.2, whilst ensuring adverse effects are avoided, remedied or mitigated. No specific policy recognition of the benefits of REG (required by Policy A). No specific recognition of the practical implications of achieving REG targets or the constraints associated with REG development, operation, maintenance and upgrading (required by Policies B and C), apart from recognition of wind energy opportunities on ridgelines and hilltops in rural areas (the plan accepts that wind farms are to be encouraged, that they will invariably be in the Rural Area, and most likely some will be located within the identified ridgeline and hilltop areas). No specific recognition of managing activities to avoid reverse sensitivity effects on consented and on existing renewable electricity generation activities (Policy D). Current focus of provisions is on wind energy – there are no specific provisions for other options like solar or biomass (noting that hydro and geotherm not really relevant for Wellington city	The current provisions go some way towards RPS Objective 9 but more provision could be made in terms of the diversification of the type and scale of renewable energy development and maximising the use of renewable energy resources. No specific recognition of the social, economic, cultural and environmental benefits of energy generated from renewable energy resources (Policy 7). The explanatory text says that the majority of small scale REG is permitted but unsure what "small scale" equates to? No specific/explicit policy (or rule/ method) provision for the promotion of energy efficient design and the use of domestic scale (up to 20 kW) and small scale distributed renewable energy generation (up to 100 kW) (Policy 11). Some recognition of the need for REG facilities to locate where the renewable energy resources exist via the policy recognition for wind farms in hilltop/ridgeline locations (Policy 39). The provisions do provide for significant	The provisions need to give effect to the NPSREG direction and RPS provisions. For example, more explicit recognition in objectives and policies of the national and regional importance of REG and its social, economic, cultural and environmental benefits (Policy A of the NPSREG). Greater recognition required of the constraints associated with REG development, operation, maintenance and upgrading. For example, given the age of existing wind farms and technology advances, the provisions need to recognise and provide for upgrading and repowering of these facilities. Specific provisions would also help ensure any effects can be managed appropriately (Policies in Section C of the NPSREG). Needs to be specific recognition of managing activities to avoid reverse sensitivity effects on consented and on existing renewable electricity generation activities (as per Policy D of the NPSREG). Because of the lack of specific provisions, there is some uncertainty for plan users as to what the status of an activity other than large scale wind would be under the current provisions. Would likely be assessed under the structures rules for the underlying Area/ zone. This presents limitations as these rules were not drafted to contemplate REG activities. Therefore greater recognition and provision for other relevant REG activities (to the extent applicable to the Wellington city area – larger scale solar,

		The majority of small-scale renewable energy use is permitted subject to meeting the area (zone) specific rules and standards for buildings and structures. This includes domestic solar panels, solar water heating and passive solar gain (the orientation of dwellings to the sun). These matters are referred to in the Subdivision Design Guide and Residential Design Guide. Chapter 3.10 provides definitions for the terms 'energy conservation', 'energy efficiency' and 'wind energy facility'.		In determining whether to grant consent and what conditions, if any, to impose, Council will have regard to (but will not be restricted to) the following criteria: 26.3.1.1 The actual or potential noise effects of the proposal 26.3.1.2 The extent to which the proposal will affect the amenity values (other than noise) of the surrounding environment with particular regard to the effects on residential locations including potential nuisance effects on communities including: • electromagnetic – interference to broadcast or other signals • blade glint – resulting from the reflection of the sun from the turbine blades • shadow flickering – occurring when the blades of an operating wind turbine pass between the sun and an observer, generating flickering light. 26.3.1.3 The visual effects of the proposal, including: • The extent to which the proposal will impact on rural character; • The extent to which the proposal will be visible from residences, key public places including roads, and recreation areas; • The relationship of the proposal to the Ridgelines and Hilltop overlay; • The visibility of the proposed development; • The extent to which the proposal will impact on the natural character of the coastal environment, including on cliffs and coastal escarpments; • The extent to which any aspects of the proposal can be sited underground. • The scale of any proposed development, including the number of turbines, their height and the cumulative visual effects of the development as a whole. 26.3.1.4 The ecological impact of the proposal – including: • the extent to which vegetation will be removed or disturbed during construction and operation of the wind energy facility; • the sensitivity of the site to disturbance; • the potential effects on birds or other fauna, either migratory specie or resident populations on site. • The extent of any proposed earthworks and the degree to which runoff and the effects on local catchments can be managed. 26.3.1.5 The effects of traffic and vehicle movements and the extent that traffic or site management plans can be implemented to mitigate effects. 26.3.1.6 The resulting effects of any alteration to	However, the provisions do not specifically relate to the design of these elements in relation to renewable energy developments. **Wind Energy Facility** is defined as: "(colloquially, a 'wind farm') means the land, buildings, substations, turbines, structures, underground cabling earthworks, access tracks and roads associated with the generation of electricity by wind force and the operation of the wind energy facility. It does not include: • Small scale turbines of less than 5kW • Any cabling required to link the wind energy facility to the point of entry into the electricity network, whether transmission or distribution in nature. Other relevant defined terms include: • **Energy conservation** a reduction in energy use. • **Energy efficiency** a change to energy use that results in an increase in net benefits per unit of energy The **Subdivision Design Guide and Residential Design Guide** address matters associated with small-scale renewable energy activities e.g. solar panels and passive design.	context) (Policy E). There is no explicit provision for the development, operation, maintenance and upgrading of small and community-scale distributed renewable electricity generation options – the focus is on large wind farms (Policy F). There are no specific provisions for activities associated with the investigation/exploration, identification and assessment of potential sites and renewable energy sources apart from the RDA rule for anemometers (Policy G).	wind generation activities.	biomass, wave/ocean current etc?) is required in order to support an increase in REG. Given the likely limited opportunities for further large scale wind, it seems timely to include provision for other options within the plan. Specific provision for small and community-scale distributed renewable electricity generation options is also required to ensure provision for varying scales of REG (Policies in Section E of the NPSREG). Uncertain what "small scale" means in the context of the current intended permitted activity status provided within the Area based chapters, apart from solar panels, solar water hearing, passive solar gain and (presumably) small scale turbines of less than 5kW (which are excluded from the definition of 'wind energy facility') if they can meet the building/structure standards. However, Policy 11 of the RPS promotes the use of domestic scale (up to 20 kW) and small scale distributed renewable energy generation (up to 100 kW). Therefore consider specific provision for domestic and small scale REG to clearly recognise and provide for such activities. More explicit provisions (including size/scale) for small scale and community scale wind turbines (Policy F of the NPSREG). Give effect to RPS Policy 11 provisions. Consider the provision for and the activity status of activities associated with the investigation/exploration, identification and assessment of potential sites and renewable energy sources. At the moment there is only specific provision for anemometers. Is an RDA activity status for these appropriate? Could there be some permitted activity provision subject to meeting standards (e.g. max height, number, location etc) (Policy G of the NPSREG).

				natural landforms required, including earthworks, including access tracks and roads, turbine platforms and the rehabilitation proposed. Major alterations to natural landforms should be avoided. 26.3.1.7 The extent to which the proposal will impact on: • identified sites of significance to tangata whenua; • heritage items; • Geological or archaeological values; • Landscape features; and • the surrounding land use. 26.3.1.8 Where a development is located within a Hazard Area the extent that measures are taken to mitigate the effects of the hazard event. 26.3.1.9 The cumulative effects of the proposal. 26.3.1.10 The extent to which the proposal is consistent with any relevant aspects if the Rural Area Design Guide. 26.3.1.11 Operational or technical considerations. 26.3.1.12 The effects of any proposal on aircraft safety, radar stations and navigation sites and facilities. 26.3.1.13 The benefits to be derived from the proposal, including its contribution to Central Government energy objectives and renewable energy targets.				Could also consider the identification of remaining sites within the city for their potential suitability for REG activities given their location and characteristics – particularly large-scale wind (or solar) activities? This would need to be considered alongside the overlays and provisions for the natural environment (e.g. ONFLs, high natural coastal character, SNAs etc) (Policy G of the NPSREG).

Appendix 5: Summary of WCC Large Scale Wind Energy Resource Consents 2003-2016

The following summary assessment is based on resource consent information held by Council and focuses on applications made under the operative District Plan Chapters 25 and 26 renewable energy provisions for three large wind farm developments: Long Gully, West Wind and Mill Creek.

In terms of the application of the currently operative renewable energy provisions brought in by Plan Change 32, the Long Gully Wind Farm is one of the few consent applications processed under these provisions as by the time of this application (2009) the plan change provisions were considered to be effectively operative. Due to the timing of the other wind farm (and anemometer) applications being lodged, they were either processed under the previous operative plan provisions (for early anemometer applications at the Long Gully site), or under both the operative provisions and proposed Plan Change 32 (as was the case for West Wind and Mill Creek).

All three wind farm applications were assessed as discretionary (unrestricted) activities under the operative and proposed plan change rules. Each application was publicly notified and submissions were heard by an appointed panel of commissioners.

The West Wind proposal generated a particularly high level of interest and received over 3,700 submissions (excluding over 600 late submissions, mainly in opposition), which were primarily in support but almost 800 were in opposition. The Mill Creek proposal received less submissions (776 in total) with 364 in support and 408 in opposition.

For the Mill Creek application, a joint hearing committee was established by Wellington City Council, Porirua City Council and Greater Wellington Regional Council in recognition of the application spanning two local authority boundaries and the need for both district and regional consents. Following hearings, all three consents were granted (each with a comprehensive list of conditions). In each of the three cases, the decision to grant the consent was appealed to the Environment Court. For Mill Creek, there was a significant delay in the scheduling of the Environment Court hearing, and as a result, the Environment Court granted the consent three years following the commissioner decision.

Key/common issues

The key (and common) issues in contention for these applications centred around the scale of the development (including the number of turbines and individual turbine size), noise effects, effects on landscape, character and visual amenity values, and effects on the amenity on nearby residential activities. In the cases of West Wind and Mill Creek, the number of turbines finally granted was reduced from that originally applied for, largely as a response to landscape, visual and amenity effects.

The decision documents for these applications considered the proposals and their effects in great detail, and a considerable amount of expert evidence was heard in relation to each proposal. There was general acknowledgement that large-scale wind farm developments cause some significant adverse effects (particularly on landscape, character and visual amenity values) that these were often difficult or unable to be avoided, remedied or mitigated. However, there was also acknowledgement that the effects are to some degree localised, due to the scale of the windfarms and the turbines, the remoteness and limited visibility of the sites and the existing access and infrastructure, which required only minor upgrading.

The “appropriateness” of each the developments and the specific characteristics of each of the three sites for wind farm activities was also considered in depth as part of the decision making in response to the direction in section 6(a) and 6(b) to protect the natural character of the coastal environment and any outstanding natural landscapes from inappropriate development.

The three sites are located within areas of rural land that are exposed to consistently high wind speeds, over a relatively high number of days per year. They are also located in close proximity to an area of high electricity demand (Wellington city/region) which benefits from the development of a renewable energy resource that does not produce greenhouse gas emissions. Significantly, there are also existing transmission facilities located within or in proximity to each of the wind farm sites which they could connect to, reducing the need for significant infrastructure upgrades/ development. The sites were therefore considered to be highly suited to wind farm development, subject to the consideration of the localised environmental effects. It was also acknowledged that there are flow-on benefits which arise from the development of renewable energy resources on sites which are highly suitable to wind farm development. Each of the sites was therefore considered to be appropriate for renewable energy development.

Noise was a key issue in contention for the West Wind development and a significant amount of expert evidence was heard in relation to the issue. However, as turbine technology had improved by the time of the Mill Creek application, noise was less of an issue for this development. Mill Creek was also required to do testing of noise emissions prior to installation, thereby helping to address any potential issues.

One of the issues raised by commissioners in relation to the existing District Plan provisions was that the Rural Area (and Renewable Energy) objectives and policies do not provide much direction in terms of controlling the design of structures for wind energy generation. For example, the type and design of wind turbine, including in relation to blades and turbine towers.

The Council’s consent information also shows that there have also been a number of subsequent applications made seeking changes to consent conditions for the West Wind and (particularly) Mill Creek wind farm developments. These have related mainly to infrastructure related matters including for example, the construction of associated connections to the electricity transmission network and associated structures and buildings (including substations) including earthworks and access.

Anemometers

The Council’s consent information also shows the importance of providing for anemometers (wind monitoring masts) as part of the initial phases of investigating large-scale wind projects. All three of the large wind farm developments applied for consent to install and operate anemometers for a specified length of time. The first of these applications was in 2003 for the Long Gully project and was processed under the operative plan provisions as a discretionary (unrestricted) activity. Subsequent anemometer applications for the West Wind and Mill Creek projects were applied for under the PC32 and operative plan provisions. PC32 made these activities a discretionary (restricted) status with the matters of discretion being siting and design, duration and height.

Each development sought consent for a number of individual masts, of varying heights, and in specific locations across the wider potential wind farm area. As the data shows, the heights of masts ranged from 10m to 80m, with a duration of between 2 and 5 years (after which the structures would be removed). Visual effects, effects on heritage sites, effects on the operations of adjoining designations (particularly those for telecommunications) and effects on aircraft safety were key considerations for these applications.

Summary table – WCC wind farm resource consent applications

Location	Applicant	Consent sought	Zone	Activity description	Activity status	Effects assessed / Assessment criteria	Date lodged	Date granted
Long Gully Farm, Brooklyn								
48B Ashton Fitchett Drive [Lot 3 DP 82764]	Buckingham Asset Management c/- Wellwind Energy Ltd SR101832	Land use – Wind monitoring masts	Rural Area Other features / Overlays: The site contains a Maori Heritage Area – Rimurapa Landscape Feature Precinct A number of designations are located to the east of the subject site (radar and comms related)	Erect and operate wind monitoring masts (with attached apparatus) in 9 locations (1 x 50m mast and 8 x 30m masts) for a period of 3 years. A maximum of two masts would be present on the site at any one time.	Discretionary (Unrestricted) Activity under Rule 23.4.1 (as not specifically provided for as a Permitted, Controlled or Discretionary (Restricted) activity) – Operative plan prior to PC32.	Visual effects Effects on the operations of adjoining designations Effects on Maori heritage Assessment criteria in Rule 23.4.1: • size and scale of proposal generally compatible with other development in the area; • degree to which the utility structure, mast or antenna is appropriately located; • extent to which the utility can be designed to reflect the form of development in the immediate locality; • extent to which any utility will be hazardous or otherwise affect people's health or safety; • noise, dust, lighting and electromagnetic radiation effects; • natural hazard effects; • operational or technical constraints)	16 May 2003	21 October 2003 *{consent conditions included removal of the masts 3 years after construction}*
48B Ashton Fitchett Drive [Lot 3 DP 82764]	Mighty River Power Ltd	Land use – Wind monitoring masts	Rural Area Other features/overlays: • Maori Heritage Area – Rimurapa Landscape Feature Precinct, and an identified site of significance to Tangata Whenua or other Maori M39. • The eastern side of the site falls within the identified Ridgeline and Hilltop overlay as introduced by Proposed District Plan Change 33. • A number of designations located to the east of the subject site (radar and comms related)	Establish, erect, operate, maintain up to 6 temporary metrological masts and associated network utility apparatus (anemometers) up to a height of 60m (varying between 10m-60m) on Long Gully and Te Kopahau Ridge. *{note: the purpose was to continue meteorological monitoring at the same site on the same terms as the previous 2003 application but extending the monitoring sites to 4, with up to 6 masts at any one time}*	Discretionary (Restricted) Activity under Rule 26.2.1 – PC32 not operative (under appeal); application was lodged under PC32 and assessed under both the operative and proposed provisions.	Visual effects Effects on the operations of adjoining designations Effects on Maori heritage Recreational Amenity Values Construction effects Assessment criteria in Rule 23.4.1 (Operative plan): • size and scale of proposal generally compatible with other development in the area; • degree to which the utility structure, mast or antenna is appropriately located; • extent to which the utility can be designed to reflect the form of development in the immediate locality; • extent to which any utility will be hazardous or otherwise affect people's health or safety; • noise, dust, lighting and electromagnetic radiation effects; • natural hazard effects; • operational or technical constraints) • heritage significance of the area or site is affected by the construction or placement of the utility structure, mast or antennas Assessment Criteria in 26.2.1.4 (PC 32)	11 January 2008	13 May 2008
Rural land adjacent to Zealandia sanctuary - 48F Ashton Fitchett Drive [Lot 1-3 DP 82764; Sections 1 and 2 SO 31242; Part Lot 1 DP 29398; Lot 3 DP 26908; Lot 1 DP 313319; other various titles	Windflow Technology Limited (NB: Windflow managed the consent application on behalf of Might River Power) SR192108	Land use – Wind energy facility (Wind farm)	Rural Area Open Space B Other features/overlays: • Ridgelines and Hilltops overlay • Hazard (Fault Line) Area • Wrights Hill Heritage Area • Conservation Area • Rimurapa Landscape Feature Precinct	The construction, operation, maintenance and decommissioning of a wind farm, as well as upgraded and new transmission lines, wind measuring devices and ancillary activities; 25 wind turbines (500kW each) with a total capacity of 12.5 megawatts (MW); turbines up to 46.6m in	PC32 rules were deemed to be effectively operative therefore the application was primarily considered under PC32 provisions. Overall – the activity was assessed as a **Discretionary (Unrestricted) Activity under Rule 26.3.1** but consent was required for multiple parts:	Assessment criteria set out in: Rule 23.4.2 (Transmission Lines) Rule 26.2.1 (Anemometer Masts) Rule 26.3.1 (Wind Energy Facilities) Earthworks – PC65 (later withdrawn)	27 February 2009 Publicly notified 21 May 2009; 74 subs (37 support, 28 Oppose, 8 neutral)	9 October 2009 (Commissioner decision) *{25 turbines; 5 year lapse period; valid for 25 years}* Two Env Court appeals lodged

Location	Applicant	Consent sought	Zone	Activity description	Activity status	Effects assessed / Assessment criteria	Date lodged	Date granted
associated with Wrights Hill Recreation Reserve]			• Multiple designations The turbines located south of the Te Kopahau trig fall within the coastal environment and an outstanding natural landscape, in accordance with the findings in the West Wind Decision. The development was subject to the provisions of Chapters: • 14 & 15 (Rural Area) • 22 & 23 (Utilities) and • 25 & 26 (Renewable Energy). Whilst not a statutory document, the site also lies within the Outer Green Belt Concept Area as identified under the Outer Green Belt Management Plan 2004. This was considered under 'Other Matters'.	height with a rotor blade diameter of 33.2m. The proposal involved using turbines manufactured by the New Zealand company Windflow Technology Limited.	**Wind Turbines and Ancillary Structures** - Wind energy facilities require resource consent under Rule 26.3.1 as a Discretionary Activity (Unrestricted). **New & Upgraded 11kV Transmission Lines** - The erection of a new overhead electricity line and upgrade of existing overhead electricity lines requires resource consent under Rule 23.4.2 of the District Plan as a Discretionary Activity (Unrestricted). **Wind Measuring Devices** - The erection of wind-measuring devices requires resource consent under Rule 26.2.1 of the District Plan as a Discretionary Activity (Restricted). **Earthworks** - The proposal also required consent under Rule 19B.2.1 of Plan Change 65 as a Discretionary Activity (Restricted). However, following the lodgement of the application, Plan Change 65 was withdrawn and replaced with Plan Change 70, which expressly excludes earthworks associated with a Wind Energy Facility (under Chapter 26) from the earthworks provisions.			and resolved in 2010. **Note: wind farm not built and consent has now lapsed.**
West Wind – Makara Beach								
Makara rural area – 900 South Road Makara	Meridian Energy Ltd SR131428	Land use – Wind energy facility (Wind farm)	Rural Area (partially in coastal environment) Other features/overlays including: • Ridgelines and Hilltops overlay (PC33) • Hazard (Fault Line) Area • Multiple designations	Applications to construct, use, and maintain a wind farm on a 55.8 square kilometre site to the west of Wellington City. 70 wind turbines; tower height of 80 metres and the top of the vertical blade tip being 125 metres above ground level; using sea and roading access from Oteranga Bay; total capacity of up to 210 megawatts (MW).	Overall – assessed as a **Discretionary (Unrestricted) Activity** but consent required for multiple parts: Operative plan: Construction and use of Wind Turbines and Ancillary Structures – not specifically provided for therefore required consent under **rural rule 15.4.1** as a **discretionary (unrestricted) activity**. PC32: Construction and use of Wind Turbines and Ancillary Structures - require resource consent under **Rule 26.3.1 as a Discretionary Activity (Unrestricted).** Consent required for the following land use activities: • the erection of 70 (1.65 to 3 MW) wind turbines of up to 125 metres in height, • land disturbance, including cut and fill volumes of up to 1.7 million cubic metres, to create turbine platforms and access tracks and roads, • the construction and exclusive occupation of a temporary berthing structure at one of three potential sites: Oteranga Bay East, Oteranga Bay West, and Ohau Bay, and a jetty and breakwater at Ohau Bay,	Key effects assessed: Visual Amenity and effects on residences and public spaces Noise emissions Character of coastal environment and landscape Terrestrial landscape and character Construction Traffic Effects Archaeology, terrestrial and coastal ecology, cultural values and utility interference Geotechnical / Stability / Erosion Health and safety and nuisance effects including Shadow Flicker and Blade Glint, electromagnetic radiation etc Social and community Positive Effects including national benefits, benefits to Wellington area	July 2005 Publicly notified 9 July 2005; 3757 submissions (2530 in support; 437 conditional support; 787 oppose; 3 neutral) + 606 late submissions (578 support; 28 oppose) Hearing held Sept-November 2005	21 Dec 2005 (Joint Hearings Commissioner decision – 70 turbines); Env Court - 14 May 2007 (first Env Court decision – 66 turbines); 20 July 2007 (final Env Court decision) NB: Meridian subsequently reduced number of turbines to 62. **Commissioned in 2009**

Location	Applicant	Consent sought	Zone	Activity description	Activity status	Effects assessed / Assessment criteria	Date lodged	Date granted
					• the erection and operation of an electricity substation and an operations/ maintenance building, • the placement of an overhead transmission line from the proposed substation to the Wilton/Central Park transmission circuit. • the construction and operation of a concrete batching plant, and • the erection of 2 anemometer towers ranging from approximately 70 to 80 metres in height. While assessed against both PC32 and 33 (under appeal) and the operative plan (Utilities and Rural Area) the operative plan provisions held more weight.			
224 South Makara Road and 140 Opau Road	Meridian Energy Ltd SR147465 and 147469	Land use – **Anemometer mast**	Rural Area	Erection, operation and maintenance of two anemometer masts at Quartz Hill, Makara and 2 masts at Terawhiti Station, up to 80m high	Anemometer masts – PC32: Restricted Discretionary (Restricted) – Rule 26.2.1 Operative plan: Restricted Discretionary (Unrestricted) – Rule 23.4.1 (Utilities rules – antennas, masts and utility structures not specifically provided for as permitted, controlled or RD) Assessed against both PC32 and 33 (under appeal) and the operative plan (Utilities and Rural Area).	PC32 Assessment criteria under: 26.2.1.4 – visual and amenity effects of the anemometer masts 26.2.1.5 – duration of activity and removal 26.2.1.6 – mast height 26.2.1.7 – operational and technical considerations Operative Plan Assessment Criteria under: 23.4.1.1 – size and scale generally compatible 23.4.1.2 – degree to which the structure is appropriately located 23.4.1.5 – degree to which the utility can be designed to reflect form of development in immediate vicinity 23.4.1.6 – degree to which the utility is hazardous or impact on peoples health and safety 23.4.1.7 – noise, dust, lighting, electromagnetic radiation 23.4.1.8 – natural hazards 23.4.1.9 – heritage items 23.4.1.10 – operational and technical constraints	2 June 2006	3 July 2006
900 South Road Makara	Meridian Energy Ltd SR174252	Change of conditions		Change of conditions 1 and 4 of SR131428 relating to the construction of transformer structures			15 January 2008	2 April 2008
Mill Creek, Ohariu Valley								
Ohariu Valley rural area (partly extending into Porirua City) - 253 Boom Rock Road, 110 and 184 Takarau Gorge Road	Meridian Energy Ltd SR161290	Land use – Anemometer mast	Rural Area	Erection, operation and maintenance of three anemometer masts at the Mill Creek investigation site (2 masts up to 60m; one up to 80m). Consent originally sought for 5 yrs (80m mast) and 3 years (60m).	Anemometer masts – PC32: Restricted Discretionary (Restricted) – Rule 26.2.1 Operative plan: Restricted Discretionary (Unrestricted) – Rule 23.4.1 (Utilities rules – antennas, masts and utility structures not specifically provided for as permitted, controlled or RD) Assessed against both PC32 and 33 (under appeal) and the operative plan (Utilities and Rural Area).	PC32 Assessment criteria under: 26.2.1.4 – visual and amenity effects of the anemometer masts 26.2.1.5 – duration of activity and removal 26.2.1.6 – mast height 26.2.1.7 – operational and technical considerations Operative Plan Assessment Criteria under: 23.4.1.1 – size and scale generally compatible 23.4.1.2 – degree to which the structure is appropriately located 23.4.1.5 – degree to which the utility can be designed to reflect form of development in immediate vicinity 23.4.1.6 – degree to which the utility is hazardous or impact on peoples health and safety	16 April 2007	16 May 2007

Location	Applicant	Consent sought	Zone	Activity description	Activity status	Effects assessed / Assessment criteria	Date lodged	Date granted
						23.4.1.7 – noise, dust, lighting, electromagnetic radiation 23.4.1.8 – natural hazards 23.4.1.9 – heritage items 23.4.1.10 – operational and technical constraints		
As above	Meridian Energy Ltd SR251863	Land use – Anemometer mast	Rural Area	Time extension sought for installation period of 60m wind monitoring mast	Anemometer masts – PC32: Restricted Discretionary (Restricted) – Rule 26.2.1			
184 Takarau Gorge Road, Makara	Meridian Energy Ltd SR176538	Land use – Wind energy facility (Wind farm)	Rural Area (small portion of access road Open Space B) Other features/overlays: • Transpower designation (F5) [not affected by any works] • Site located within Ohariu – Te Ika a Maru Precinct • Hazard (Fault line) Area • Contaminated site (SLUR) PCC designations: • Spicers landfill • Broken Hill Reservoir	Construction, operation, use, maintenance of a wind farm (Project Mill Creek) and ancillary activities; 31 turbines, 71.3MW (equiv. to meet needs of 35k households); up to 111m high with rotor diameter 82.4m. Associated activities: 31 transformer buildings adjacent to turbines – each 2.5m high, 4.5m long, 3m wide; earthworks; 2 x 70m wind monitoring masts; electricity substation & ops/maintenance building (no new transmission tower – use existing); relocation of an overhead transmission line; on-site dry concrete batching; temp construction activities; install internal transmission network; access.	Overall – assessed as a **Discretionary (Unrestricted) Activity** but consent required for multiple parts: Operative plan: Construction and use of Wind Turbines and Ancillary Structures – not specifically provided for therefore required consent under **rural rule 15.4.1** as a **discretionary (unrestricted) activity**. PC32: Construction and use of Wind Turbines and Ancillary Structures - require resource consent under **Rule 26.3.1 as a Discretionary Activity (Unrestricted).** Consent also required under the plans for: • Earthworks (PC65) • Upgrade of Ohariu Valley Road • Spicer access track • Concrete batching plant • Electricity substation • Operations building • Transmission lines • Communications masts • Hazardous substances • Temporary buildings • Quarrying for road aggregate [also involved consents from PCC (access track formation) and GWRC (land use, discharge & water permit)] Assessed against both PC32 and 33 (under appeal) and the operative plan (Utilities and Rural Area).	Effects assessed: **Visual**, including: Landscape effects (including coastal environment) Visual amenity effects Public views Private views **Noise** Health effects associated with noise **Ecological** Access track through Spicers Forest and Landfill Earthworks – visual and stability Traffic Buildings and Structures Cultural Historical/archaeological Radio interference Blade glint and shadow flicker Recreational activities Effects on horses Cumulative effects Contaminated land Property values REG benefits	12 March 2008 Publicly notified on 17 April 2008; 776 submissions received (364 in support; 408 oppose; 4 neutral) Council Hearing Aug-Oct 2008	Planners report 30 July 2008; Commissioner decision 16 Feb 2009; Environment Court granted resource consent 16 February 2012 *{with changes to many of the original conditions of consent}* **Commissioned in 2014**
721 Ohariu Valley Road	Meridian Energy Ltd SR261915	Land use – Anemometer mast	Rural Area (District Plan Map 28)	Installation of a temporary 30m wind monitoring mast at Project Mill Creek for a period of up to 5 years	Anemometer masts – Restricted Discretionary (Restricted) – Rule 26.2.1 PC32 operative	Matters of discretion: 26.2.1.1 – siting and design 26.2.1.2 – duration 26.2.1.3 – height Assessment criteria: 26.2.1.4 – visual and amenity effects of the anemometer masts 26.2.1.5 – duration of activity and removal 26.2.1.6 – mast height 26.2.1.7 – operational and technical considerations	9 August 2012	4 September 2012
184 Takarau Gorge Road, Makara	Meridian SR251287	Change of conditions	Rural and Open Space B	Change to conditions 1, 5 and 25 of the approved consent which related to the substation, maintenance building and associated structures and earthworks.				10 April 2012

Location	Applicant	Consent sought	Zone	Activity description	Activity status	Effects assessed / Assessment criteria	Date lodged	Date granted
184 Takarau Gorge Road, Makara	Meridian SR260850	Change of conditions	Rural and Open Space B	Change of conditions to conditions 1, 9 and 25 of the approved consent as they relate to the realignment of HVDC Earth Electrode Transmission Line and realignment of Proposed Access Tracks				20 August 2012
184 Takarau Gorge Road, Makara	Meridian SR266310	Change of conditions	Rural and Open Space B	Change to conditions 45 and 51 of the approved consent as they relate to gaining access to the core site to undertake the realignment of HVDC Earth Electrode Transmission Line				13 November 2012
184 Takarau Gorge Road, Makara	Meridian SR251863	Retention of existing anemometer mast	Rural Area	Retention of existing 60m high anemometer mast at the Mill Creek wind farm in the Ohariu Valley (approved as part of the original wind farm consent) for a period of up to 5 years	Discretionary (Restricted) Activity under Rule 26.2.1	See other similar applications above	12 March 2012	3 April 2012

Appendix 6: Comparative District Plan Analysis – Renewable Electricity Generation (REG) Provisions

Summary of key overall findings

A comparative assessment was undertaken in 2020 of the specific provisions for renewable electricity generation in the following six selected District Plans:

- Auckland Council Unitary Plan
- Hamilton City Council District Plan
- Christchurch City District Plan
- Dunedin City Council Proposed District Plan
- Queenstown Lakes Proposed District Plan
- New Plymouth Council Proposed District Plan

This assessment considers the recognition and consistency of each set of plan provisions with the NPS-REG and the key similarities and differences between the six plans and the Wellington City Operative District Plan. This analysis was completed in mid-2020 before many councils had implemented the requirements of the National Planning Standards in terms of the district plan structure for energy provisions.

Overall, the analysis shows that there is significant variability in terms of how renewable electricity generation activities are provided for within district plans. However, the plans chosen for the analysis have all been developed since the NPS-REG (and NPS-ET) came into force and therefore all of them have (to some degree) specific provisions that recognise the importance and benefits of REG at an objective and policy level and which provide for different REG activities and scales of activity at the policy and rule level.

Location of REG provisions within the plan structure

All of the plans looked at for the assessment include renewable energy provisions within an overarching infrastructure chapter or within a network utilities and energy focused chapter (or sub-chapter). At the time of the assessment, the New Plymouth Proposed District Plan was the only plan that had been notified since the National Planning Standards were gazetted and therefore was the only example of a plan structured and formatted as per the planning standards requirements. However, in July 2020, Porirua City Council released their proposed district plan which also reflects the National Planning Standards requirements. As outlined in the REG section 32 report (see section 5.2.2), this plan and its renewable energy provisions have been considered separately.

Scope and focus of REG provisions

The primary focus of most of the plan provisions assessed is on wind and solar renewable energy activities. Some plans also include specific provisions for other renewable energy sources such as geothermal (Hamilton), biomass (Hamilton, Queenstown) and hydro (Hamilton, Queenstown).

While all of the plans looked at include some level of provision for different scales of renewable energy activities in line with the NPSREG, there is some divergence between plans in the level of this provision and in the interpretation of small, community and large scale activities. Some plans provide for small-scale, community-scale and large-scale activities across the range of renewable energy forms; other plans only really provide for small-scale and large-scale activities. There is also some variance in the thresholds used to define what constitutes small, community and large scale activities.

Investigation and exploration activities

Some degree of REG investigation and exploration activities is also provided for by all of the plans looked at, but the provisions are varied and there are a range of different standards applied to these activities. The Auckland plan is the most generous in terms of provisions for wind monitoring masts, providing for masts of a maximum of 90m high as permitted activities, subject to meeting other standards. Other plans provide for some permitted provision but limit mast heights to much lower structures (for example, Hamilton provides for a permitted mast height of 12m).

Recognition of changing technologies

Of the plans looked at for the assessment, only Queenstown Lakes has specific provisions that recognise changing REG technologies and that explicitly recognise and provide for the repowering of existing REG activities. There is also limited specific recognition within plans for the need for connecting infrastructure for REG activities. The Christchurch and Queenstown Lakes plans do however make specific provision for this issue. The Auckland plan also makes specific rule provision for REG storage (as a permitted or restricted discretionary activity), and has specific rule provisions and standards for electric vehicle charging stations (this was the only plan to specifically mention electric vehicle charging activities).

Locations/zones where REG provided for

Most plans are enabling of REG activities within their rural zones, irrespective of the scale of development. Some plans also provide for REG activities within their industrial zones and some general business zones (e.g. Auckland, Christchurch, Dunedin, Hamilton). Large scale activities are commonly directed towards rural zones, with some making provision within industrial, business and commercial zones. Small scale and community scale REG activities are largely enabled as permitted activities by most plans across a range of zones (including residential, commercial and centres), subject to meeting specific standards (including height, coverage, setbacks, noise, number of structures etc), or provided for as restricted discretionary activities.

The provision for REG activities within protected or scheduled areas (or overlays) within plans also varies, with some plans making specific provision for REG activities (usually as full discretionary activities) within some identified / overlay areas subject to demonstrating adverse effects can be appropriately managed (minimised) on the identified values of such areas, while other plans seek to avoid REG within these locations and apply a non-complying activity status. For many plans, the activity status applied to REG activities within protected/scheduled locations also varies depending on the type of area/overlay the activity is proposed to be located within. For example, Dunedin provides for large scale solar, wind, hydro activities as discretionary activities within their identified SNL, NCC, ONL areas ; and within other protected overlay areas, i.e. ONF, HNCC and ONCC areas , these activities are non-complying. In contrast, New Plymouth seeks to avoid locating renewable energy activities within or adjacent to any ONFLs, the coastal environment and historic heritage and scheduled features.

Provisions for energy efficiency and conservation

In terms of provisions for energy efficiency and conservation, Queenstown has the most detailed set of policies with a total of five policies within its REG provisions addressing matters such as energy efficient practices and materials in building development, energy efficient subdivision

design, provision for small and community scale REG within new or altered buildings, encouragement of Homestar and Greenstar ratings for residential and commercial buildings, and ensuring access to sunlight.

Application of REG provisions

In terms of the application of the REG provisions within plans, a range of approaches is adopted. Most plans have clear statements (for example, within introductory chapter text or before rule tables) about how the REG provisions relate to other plan provisions and whether the provisions are standalone, or whether they need to be read in conjunction with other provisions in other parts of the plan (which can be spread over multiple chapters/sections making it difficult to find all the relevant provisions for a REG activity). Hamilton and Queenstown have clear statements regarding the applicability of REG rules with clear statements that they take precedence over other rules (unless otherwise stated). This is approach is similar to the existing guidance provided within the explanatory text of Chapters 25 and 26 of the WCC operative district plan provisions.

The following table (overpage) provides more detail in terms of each plan looked at and its provisions.

Summary table: high-level comparison of selected district plan REG provisions

<table>
<tr><th>Plan & Status (Operative/ Appeals/ Proposed)</th><th>Applicable chapters/ sections</th><th>General REG policy approach (how REG dealt with; key issues; level of detail/ complexity; specific activity provision etc)</th><th>Provisions-
Objectives & Policies</th><th>Provisions-
Rules (including activity status, standards, matters of discretion)</th><th>Relationship with other plan provisions, overlays, defined terms, mapping, other methods (non-reg)</th><th>NPSREG recognition/ consistency (eg. level of recognition of benefits, enabling REG, managing reverse sensitivity etc)</th><th>Similarities / Differences (between the 6 plans and WCC operative)</th></tr>
<tr>
<td>Auckland Unitary Plan

Operative in part (updated 13 March 2020)</td>
<td>E26 Infrastructure – E26.2. Network utilities and electricity generation – All zones and roads</td>
<td>REG forms part of broader set of infrastructure provisions for network utilities and electricity generation.
There is one specific objective and one specific policy for REG but other infrastructure objectives and policies also apply (re: benefits, development and use, reverse sensitivity etc).
There are specific rules for REG and its storage.
Small scale REG (defined term) is provided for as a PA (subject to standards) across all zones. Standards include height/scale, number of installations, noise, etc).
Community scale REG (not defined) is provided for as PA (in rural, coastal, industrial zones) or RDA (residential, centres, open space zones).
Large scale wind farms (defined term) provided for as RDA, D or NC activities depending on zone.
The REG provisions have a particular focus on wind and solar activities.</td>
<td>E26.2.1. Objectives [rp/dp]
(1) The benefits of infrastructure are recognised.
(2) The value of investment in infrastructure is recognised.
(3) Safe, efficient and secure infrastructure is enabled, to service the needs of existing and authorised proposed subdivision, use and development.
(4) Development, operation, maintenance, repair, replacement, renewal, upgrading and removal of infrastructure is enabled.
(5) The resilience of infrastructure is improved and continuity of service is enabled.
(6) Infrastructure is appropriately protected from incompatible subdivision, use and development, and reverse sensitivity effects.
…
(8) The use and development of renewable electricity generation is enabled.
(9) The adverse effects of infrastructure are avoided, remedied or mitigated.

E26.2.2. Policies [rp/dp]
(1) Recognise the social, economic, cultural and environmental benefits that infrastructure provides, 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; and
(h) enabling interaction and communication.

(2) Provide for the development, operation, maintenance, repair, upgrade and removal of infrastructure throughout Auckland by recognising:
(a) functional and operational needs;
(b) location, route and design needs and constraints;
(c) the complexity and interconnectedness of infrastructure services;
(d) the benefits of infrastructure to communities within Auckland and beyond;
(e) the need to quickly restore disrupted services; and
(f) its role in servicing existing, consented and planned development.

Adverse effects on infrastructure
(3) Avoid where practicable, or otherwise remedy or mitigate adverse effects on infrastructure from subdivision, use and development, including reverse sensitivity effects, which may compromise the operation and capacity of existing, consented and planned infrastructure.

Adverse effects of infrastructure
Require the development, operation, maintenance, repair, upgrading and removal of infrastructure to</td>
<td>E26.2 Network utilities and electricity generation – All zones and roads

E26.2.3. Activity table
[…]
Electricity generation and its storage (Rules A59 - A64)

<table>
<tr><th>Activity</th><th></th><th>Roads, unformed roads and the Strategic Transport Corridor Zone</th><th>Rural zones, Future Urban Zone and Special Purpose – Quarry Zone</th><th>Coastal – Marina Zone (land) and Coastal – Minor Port Zone (land)</th><th>Residential zones, Special Purpose – Māori Purpose Zone and Special Purpose – School Zone</th><th>Industrial zones and the Business – General Business Zone</th><th>Centres zones, Business – Mixed Use Zone, Special Purpose – Airports and Airfields Zone, Special Purpose – Major Recreation Facility Zone, Special Purpose – Healthcare Facility and Hospital Zone, Business – Business Park Zone and Special Purpose – Tertiary Education Zone</th><th>Open space zones and the Special Purpose – Cemetery Zone</th></tr>
<tr><td colspan="9">Electricity generation and its storage</td></tr>
<tr><td>(A59)</td><td>Small-scale electricity generation
* solar electricity generation which is ancillary to network utilities located in roads and unformed roads and Strategic Transport Corridor Zone</td><td>NA
P*</td><td>P</td><td>P</td><td>P</td><td>P</td><td>P</td><td>P</td></tr>
<tr><td>(A60)</td><td>Community-scale electricity generation
* solar electricity generation</td><td>NA</td><td>P</td><td>P</td><td>RD#
P*</td><td>P</td><td>RD#
P*</td><td>RD#
P*</td></tr>
<tr><td>(A61)</td><td>Large scale wind farms</td><td>NA</td><td>RD#</td><td>D</td><td>NC</td><td>RD#</td><td>D</td><td>NC</td></tr>
<tr><td>(A62)</td><td>Research and exploratory scale investigations for renewable electricity generation activities</td><td>D</td><td>P</td><td>NA</td><td>NA</td><td>NA</td><td>NA</td><td>P</td></tr>
<tr><td>(A63)</td><td>Other electricity generating facilities</td><td>NC</td><td>D</td><td>D</td><td>NC</td><td>D</td><td>D</td><td>NC</td></tr>
<tr><td>(A64)</td><td>Electricity storage facility that is not a minor utility structure</td><td>RD</td><td>P</td><td>P</td><td>RD#</td><td>P</td><td>RD#</td><td>RD#</td></tr>
</table>

Standards
Table E26.2.5.3.3 Height of masts and attached antennas (excludes NESTF)
[…]
Electricity generation – wind generation scale and location
(12) Meteorological masts for wind research and exploration must not exceed 90m in height.
(13) Roof-mounted wind turbines for small-scale electricity generation must:
a) not exceed the permitted height of the zone by more than 3m;
b) have a rotor diameter no more than 2.5m; and
c) be limited to one per dwelling within the residential zones.
(14) Freestanding wind turbines for small-scale electricity generation must comply with Table E26.2.5.3.4.
Table E26.2.5.3.4 Freestanding wind turbines for small-scale electricity generation
<table>
<tr><th>Zone</th><th>Maximum height</th><th>Maximum rotor diameter (m)</th></tr>
<tr><td>Residential zones and the Special Purpose – Māori Purpose Zone</td><td>12</td><td>2.5</td></tr>
<tr><td>Rural zones, Future Urban Zone, Special Purpose – Quarry Zone and industrial zones</td><td>20</td><td>5</td></tr>
<tr><td>All other zones</td><td>15</td><td>3</td></tr>
</table>
(15) In residential zones and the Special Purpose – Māori Purpose Zone, freestanding wind turbines for small scale electricity generation are limited to one per site.
(16) The noise (rating) level from small scale electricity generation must not exceed the noise control specified for activities in the zone in which the small scale electricity generation activity is located (including noise control for any zone interface), following the subtraction of 10 decibels from every applicable A-weighted noise limit in the applicable rule. A penalty for the noise containing Special Audible Characteristics in accordance with NZS6802:2008 Acoustics – Environmental Noise must not be applied.
(17) Wind turbine towers, either freestanding tubular, lattice or tubular mast supported by guy wires, for a community-scale electricity generation facility must not exceed 25m in height.
(18) Small and community scale wind turbines on sites adjoining residential zones must meet the height in relation to boundary control for the adjoining zone in which they are located.
(19) There is no height limit for wind turbine towers associated with largescale wind farms.

Electricity generation solar panels</td>
<td>There are specific activity tables/rules that apply to REG activities within identified/ scheduled areas or overlays e.g. significant ecological areas, historic heritage, special character, sites and places of significance to mana whenua, volcanic viewshafts and height sensitive areas, ONFLs and outstanding/high natural character. The objective and policy provisions for these areas/overlays are located in other chapters, with rule tables in the Infrastructure chapter (E26) provisions. This includes rules for vegetation removal, earthworks & land disturbance within overlay areas associated with electricity generation.

Defined terms include:-
Large-scale wind farm: Buildings, structures, access tracks and turbines used to generate electricity from wind and convey the electricity to an associated substation in order to supply the wholesale electricity market.

Research and exploratory scale investigations for renewable electricity generation activities: Undertaking monitoring and measuring activities of solar, wind, hydroelectricity or geothermal energy sources for potential renewable electricity generation activities.

Small scale electricity generation: Systems or equipment that:
• generate electricity from renewable sources to meet onsite energy requirements and/or connect into a distributed energy network.
Includes:
• rooftop wind turbines with a maximum blade diameter of 2.5m; and
• photovoltaic systems.
Excludes:
• hydro generation.</td>
<td>E26.2.1 objectives and policies explicitly recognise the importance and benefits of infrastructure (rather than REG specifically) and seek to enable infrastructure development operation, maintenance, repair, replacement, renewal, upgrading and removal, and its protection from reverse sensitivity effects.

Objective E26.2.1.8 seeks to specifically enable the use and development of renewable energy generation.

Policy E26.2.2.11 specifically provides for new technologies in relation to infrastructure (which would include REG).

Policy E26.2.2.12 and the rule framework provide for a range of different REG scales (small scale, community scale, large scale) and REG sources (but primary focus on wind and solar).

Rules provide for research and exploratory scale investigations as a permitted activity (subject to standards) in the rural, future urban, special purpose – quarry and open space zones.</td>
<td>REG provisions located within the ‘Infrastructure’ chapter and form part of the ‘Network utilities and electricity generation’ provisions.

There is one specific REG objective and one specific REG policy (being one of 9 broader ‘Network utilities and electricity generation’ objectives and one of 15 associated policies).

The general infrastructure policies (also applicable to REG) provide for the consideration of the adverse effects of infrastructure on the environment/ identified values alongside consideration of the benefits of and the adverse effects of not providing infrastructure etc.

The provisions have a focus on wind and solar REG activities.

The rules provide for a range of REG activities, including small-scale (defined term; Permitted across all zones subject to standards like height & rotor diameter), and Community-scale (not defined; Permitted or RDA depending on the zone & if solar or not – wind is RDA).

Research/ exploratory investigations (defined term; Permitted in rural, future urban, open space and selected special purpose zones subject to standards; Discretionary within roads/strategic transport corridor zone.

There are multiple and specific standards for wind generation scale and location including max height & rotor dimensions for freestanding turbines, noise, setbacks from residential zones, shadow flicker; as well as solar panels on roofs.

A key difference is the provision in the permitted activity standards for wind monitoring masts up to 90m in height.

There is also a specific rule provision for REG storage (Permitted or RDA), and rule provisions/standards for electric vehicle charging stations.

Detailed permitted activity standards and assessment criteria provided within the various rule provisions.

REG activities provided for within some scheduled/ protected areas; ONFs – NC activity.</td>
</tr>
</table>

Plan & Status (Operative/ Appeals/ Proposed)	Applicable chapters/ sections	General REG policy approach (how REG dealt with; key issues; level of detail/ complexity; specific activity provision etc)	Provisions- Objectives & Policies	Provisions- Rules (including activity status, standards, matters of discretion)	Relationship with other plan provisions, overlays, defined terms, mapping, other methods (non-reg)	NPSREG recognition/ consistency (eg. level of recognition of benefits, enabling REG, managing reverse sensitivity etc)	Similarities / Differences (between the 6 plans and WCC operative)
			avoid, remedy or mitigate adverse effects, including, on the: (a) health, well-being and safety of people and communities, including nuisance from noise, vibration, dust and odour emissions and light spill; (b) safe and efficient operation of other infrastructure; (c) amenity values of the streetscape and adjoining properties; (d) environment from temporary and ongoing discharges; and (e) values for which a site has been scheduled or incorporated in an overlay. (5) Consider the following matters when assessing the effects of infrastructure: (a) the degree to which the environment has already been modified; (b) the nature, duration, timing and frequency of the adverse effects; (c) the impact on the network and levels of service if the work is not undertaken; (d) the need for the infrastructure in the context of the wider network; and (e) the benefits provided by the infrastructure to the communities within Auckland and beyond. (6) Consider the following matters where new infrastructure or major upgrades to infrastructure are proposed within areas that have been scheduled in the Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character: (a) the economic, cultural and social benefits derived from infrastructure and the adverse effects of not providing the infrastructure; (b) whether the infrastructure has a functional or operational need to be located in or traverse the proposed location; (c) the need for utility connections across or through such areas to enable an effective and efficient network; (d) whether there are any practicable alternative locations, routes or designs, which would avoid, or reduce adverse effects on the values of those places, while having regard to E26.2.2(6)(a) - (c); (e) the extent of existing adverse effects and potential cumulative adverse effects; (f) how the proposed infrastructure contributes to the strategic form or function, or enables the planned growth and intensification, of Auckland; (g) the type, scale and extent of adverse effects on the identified values of the area or feature, taking into account: (i) scheduled sites and places of significance and value to Mana Whenua; (ii) significant public open space areas, including harbours; (iii) hilltops and high points that are publicly accessible scenic lookouts; (iv) high-use recreation areas; (v) natural ecosystems and habitats; and (vi) the extent to which the proposed infrastructure or upgrade can avoid adverse effects on the values	(20) For small scale and community scale electricity, solar panels on the roof of a building must not exceed 250mm in height above the existing roof. *Setbacks* (21) Wind turbine towers must be set back from the boundary of the site on which the wind turbine is located at a distance equivalent to the length of the turbine blades. The tips of the turbine blades must stay within the site at all times. *Shadow flicker* (22) No dwellings on a neighbouring property must be exposed to more than 30 hours of shadow flicker per year based on realistic shadow flicker hours calculations from largescale wind farms. *Electric vehicle charging stations* (26) Electric vehicle charging stations must be: a) maximum height of 1.8m; b) maximum area of 1.5m2; and c) either have a socket connection, or a fitted cable management accessory. […] **E26.2.7. Assessment – restricted discretionary activities** **E26.2.7.1. Matters of discretion** The Council will reserve its discretion to all of the following matters when assessing a restricted discretionary resource consent application: (1) all restricted discretionary activities: a) functional and operational needs of, and benefits derived from, the infrastructure; b) visual effects; c) where located within a road, the operation and function of road network activities and effects on the amenity values of the streetscape; d) noise and vibration effects; e) odour effects; f) shadow flicker effects; and g) implications in terms of future planned urban development. […] **E26.2.7.2. Assessment criteria** [detailed list of assessment criteria including for example, function and operational needs of and the benefits derived from infrastructure, visual effects, implications in terms of future planned urban development, measures required to avoid, remedy or mitigate adverse effects, noise and vibration, odour and shadow flicker, substations, roads] **Table E26.3.3.1 Activity table – Network utilities and electricity generation and vegetation management**			

Plan & Status (Operative/ Appeals/ Proposed)	Applicable chapters/ sections	General REG policy approach (how REG dealt with; key issues; level of detail/ complexity; specific activity provision etc)	Provisions- Objectives & Policies	Provisions- Rules (including activity status, standards, matters of discretion)	Relationship with other plan provisions, overlays, defined terms, mapping, other methods (non-reg)	NPSREG recognition/ consistency (eg. level of recognition of benefits, enabling REG, managing reverse sensitivity etc)	Similarities / Differences (between the 6 plans and WCC operative)
			of the area, and where these adverse effects cannot practicably be avoided, then the extent to which adverse effects on the values of the area can be appropriately remedied or mitigated. (h) whether adverse effects on the identified values of the area or feature must be avoided pursuant to any national policy statement, national environmental standard, or regional policy statement. (7) Enable the following activities within natural heritage, historic heritage, historic character and Mana Whenua cultural heritage overlays: (a) the use and operation of existing infrastructure; and (b) the minor upgrading, maintenance and repair of existing infrastructure, while ensuring that the adverse effects on the values of the area are avoided and where those effects cannot practicably be avoided, minimise any such effects and ensure they are appropriately remedied or mitigated. *New technologies* (11) Provide flexibility for infrastructure operators to use new technological advances that: (a) improve access to, and efficient use of services; (b) allow for the re-use of redundant services and structures where appropriate; (c) result in environmental benefits and enhancements; and (d) utilise renewable sources. *Renewable electricity generation* **(12) Provide for renewable electricity generation activities to occur at different scales and from different sources, including small and community-scale renewable electricity generation activities.**	<table><tr><th colspan="2">Activity</th><th>Auckland wide rules Vegetation management</th><th colspan="5">Overlay rules Vegetation management</th></tr><tr><th colspan="2"></th><th>Rural zones, coastal areas and riparian margins [rp]</th><th>SEA [rp]</th><th>ONF [dp]</th><th>HNC [dp]</th><th>ONL [dp]</th><th>ONC [dp]</th></tr><tr><td colspan="8">Operation, maintenance, renewal, repair, construction and removal of network utilities and electricity generation facilities and minor infrastructure upgrading</td></tr><tr><td>(A71)</td><td>Biosecurity tree works</td><td>P</td><td>P</td><td>P</td><td>P</td><td>P</td><td>P</td></tr><tr><td>(A72)</td><td>Dead wood removal</td><td>P</td><td>P</td><td>P</td><td>P</td><td>P</td><td>P</td></tr><tr><td>(A73)</td><td>Emergency tree works</td><td>P</td><td>P</td><td>P</td><td>P</td><td>P</td><td>P</td></tr><tr><td>(A74)</td><td>Pest plant removal</td><td>P</td><td>P</td><td>P</td><td>P</td><td>P</td><td>P</td></tr><tr><td>(A75)</td><td>Vegetation alteration or removal for the operation, repair and maintenance of access tracks and fences for network utilities</td><td>P</td><td>P</td><td>P</td><td>P</td><td>P</td><td>P</td></tr><tr><td>(A76)</td><td>Vegetation alteration or removal</td><td>P</td><td>P</td><td>P</td><td>P</td><td>P</td><td>P</td></tr><tr><td>(A77)</td><td>Vegetation alteration or removal that does not comply with Standards E26.3.5.1 to E26.3.5.4</td><td>RD</td><td>RD</td><td>RD</td><td>RD</td><td>RD</td><td>RD</td></tr><tr><td>(A78)</td><td>Vegetation alteration or removal not otherwise provided for</td><td>D</td><td>D</td><td>D</td><td>D</td><td>D</td><td>D</td></tr></table> […] **Table E26.8.3.1 Activity table - Network utilities and electricity generation – Historic Heritage Overlay** [Small and community scale electricity generation facilities within a Historic Heritage Overlay are RD; other REG would be D] **Table E26.9.3.1 Activity table - Network utilities and electricity generation – Special Character Areas Overlay – Residential and Business** [Small and community scale electricity generation facilities within a Special Character Areas Overlay (Residential or Business) are RD; other REG activities D] **Table E26.10.3.1 Activity table - Network utilities and electricity generation – Sites and Places of Significance to Mana Whenua Overlay**]Network utilities and electricity generation facilities that do not comply with permitted activity standards are RD; other REG activities RD or D] **Table E26.11.3.1 Activity table - Network utilities and electricity generation – Volcanic Viewshafts and Height Sensitive Areas Overlay** [Small and community scale electricity generation facilities within these areas are RD; other REG activities D or NC depending on the area/overlay they are located within] **Table E26.12.3.1 Activity table - Network utilities and electricity generation – Auckland War Memorial Museum Viewshaft, Local Public Views, Ridgelines, Stockade Hill Viewshaft Overlays** [Small and community scale electricity generation facilities within ridgeline areas are RD; REG activities that do not meet PA standards are either RD (modified ridgelines) or NC (natural ridgelines); other REG activities are either D (modified ridgelines) or NC (natural ridgelines)] **Table E26.13.3.1 Activity table - Network utilities and electricity generation – Outstanding Natural Landscapes Overlay (excluding outstanding natural features) and Outstanding Natural Character and High Natural Character Overlay** -- activities range from P (minor activities), RD (buildings/structures & REG that don't meet PA stds except REG within ONC areas), D or NC, depending on the activity and the overlay located within; REG activities that don't meet the PA standards or are not otherwise provided for are either RD, D or NC (in Outstanding Natural Character areas) in these overlay areas.			

<table>
<tr><th>Plan & Status (Operative/ Appeals/ Proposed)</th><th>Applicable chapters/ sections</th><th>General REG policy approach (how REG dealt with; key issues; level of detail/ complexity; specific activity provision etc)</th><th>Provisions- Objectives & Policies</th><th>Provisions- Rules (including activity status, standards, matters of discretion)</th><th>Relationship with other plan provisions, overlays, defined terms, mapping, other methods (non-reg)</th><th>NPSREG recognition/ consistency (eg. level of recognition of benefits, enabling REG, managing reverse sensitivity etc)</th><th>Similarities / Differences (between the 6 plans and WCC operative)</th></tr>
<tr><td></td><td></td><td></td><td></td><td>
<table>
<tr><th colspan="2">Activity</th><th colspan="3">Activity status</th></tr>
<tr><td colspan="5">Network utilties and electricity generation activities</td></tr>
<tr><td colspan="2"></td><td>High Natural Character</td><td>Outstanding Natural Landscape areas</td><td>Outstanding Natural Character</td></tr>
<tr><td>(A179)</td><td>Operation, maintenance, renewal and repair of network utilities and electricity generation facilities</td><td>P</td><td>P</td><td>P</td></tr>
<tr><td>(A180)</td><td>Underground network utilities</td><td>P</td><td>P</td><td>P</td></tr>
<tr><td>(A181)</td><td>Buildings and structures for network utilities and electricity generation facilities</td><td>P</td><td>P</td><td>P</td></tr>
<tr><td>(A182)</td><td>Buildings and structures for network utilities and electricity generation facilities that do not comply with permitted activity standards E26.13.5.2</td><td>RD</td><td>RD</td><td>NC</td></tr>
<tr><td>(A183)</td><td>Network utilities within an existing building</td><td>P</td><td>P</td><td>P</td></tr>
<tr><td>(A184)</td><td>Minor infrastructure upgrading</td><td>P</td><td>P</td><td>P</td></tr>
<tr><td>(A185)</td><td>Service connections</td><td>P</td><td>P</td><td>P</td></tr>
<tr><td>(A186)</td><td>Antennas and aerials with a cross-sectional dimension that does not exceed 300mm</td><td>P</td><td>P</td><td>P</td></tr>
<tr><td>(A187)</td><td>Minor upgrading of road network utilities</td><td>P</td><td>P</td><td>P</td></tr>
<tr><td>(A188)</td><td>Road lighting and associated support structures</td><td>P</td><td>P</td><td>RD</td></tr>
<tr><td>(A189)</td><td>Traffic operation and safety signs, direction signs, road name signs</td><td>P</td><td>P</td><td>P</td></tr>
<tr><td>(A190)</td><td>Traffic operational signals and associated cabinets, equipment and support structures, traffic monitoring equipment and support structures</td><td>P</td><td>P</td><td>RD</td></tr>
<tr><td>(A191)</td><td>Temporary buildings, structures and signs</td><td>P</td><td>P</td><td>P</td></tr>
<tr><td>(A192)</td><td>Network utilities and electricity generation facilities that do not comply with permitted activity standards in E26.13.5.1</td><td>RD</td><td>RD</td><td>NC</td></tr>
<tr><td>(A193)</td><td>Network utilities and electricity generation facilities not otherwise provided for</td><td>D</td><td>D</td><td>NC</td></tr>
</table>
Table E26.14.3.1 Activity table - Network utilities and electricity generation – Outstanding Natural Features Overlay (excluding outstanding natural landscapes)
[very complex rule table due to the number of different ONFs - provisions relating to REG range from P (minor activities/upgrading), to RD or NC].
</td><td></td><td></td><td></td></tr>
<tr><td>Christchurch District Plan

Operative 2017</td><td>Chapter 11 Utilities and Energy

Chapter 8 Subdivision, Development and Earthworks</td><td>The REG provisions are primarily contained within Chapter 11 – Utilities and Energy.
There is also a policy in the subdivision and development chapter enabling resource efficiency and use of renewable energy through subdivision design/layout.</td><td>11.2 Objectives and Policies -
11.2.1 Objective - Provision of utilities
[…]
c) An increase in renewable electricity generation activities.

11.2.1.3 Policy - Renewable electricity generation
a) Provide for the operation, maintenance, upgrade and development of utilities that derive or generate electricity through renewable sources by:</td><td>11.6 Rules - Energy
11.6.1 Permitted activities - Energy
a) The activities listed below are permitted activities if they meet the activity specific standards set out in this table and the activity standards in Rule 11.9.
b) Activities may also be controlled, restricted discretionary, discretionary, non-complying or prohibited as specified in Rules 11.6.2, 11.6.3, 11.6.4, 11.6.5, 11.6.6, 11.4, 11.5, 11.7 and 11.8.

P1 Installation and operation of equipment for assessing a site for suitability for renewable electricity generation.
Activity specific standards
a) Equipment shall not be on a site for more than 12 months in any 36 month period.
b) The noise standards in Rule 6.1.5 for the relevant zone.
c) Equipment shall not be located within:</td><td>There are also provisions in the subdivision and development chapter enabling resource efficiency and use of renewable energy through subdivision design/layout.</td><td>Objective seeks an increase in renewable electricity generation activities.

Policy explicitly:
• recognises the benefits to people and communities of REG,
• acknowledges the constraints of REG activities,</td><td>Objective recognition is within broader utilities objective. Specific REG policy.

Rule provisions provide for wind, solar, and waste products.

Range of permitted activities provided for – including investigations, solar, wind turbines (Rural and Industrial Zones only) subject to specific standards.
If can't meet the permitted activity standards, then become RDA, D or NC.</td></tr>
</table>

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			(i) recognising the benefits to people and communities of renewable electricity generation; (ii) acknowledging the implications and constraints associated with renewable electricity generation activities, including locational, operational and technical matters; (iii) promoting small and community scale renewable electricity generation activities, such as from solar and wind energy; (iv) reducing the use of finite resources for the generation of electricity; and (v) recognising the benefits of reducing greenhouse gas emissions that contribute to climate change. **8.2.2.5 Policy - Sustainable design** Enable resource efficiency, use of renewable energy, and community safety and development, by: (i) ensuring that the blocks and allotments maximise solar gain, including through orientation and dimension; […]	(i) a Character Area Overlay (ii) an Outstanding Natural Landscape identified in Appendix 9.2.9.2.2; (iii) an Outstanding Natural Feature identified in Appendix 9.2.9.2.1; (iv) a Significant Feature or Rural Amenity Landscape identified in Appendices 9.2.9.2.3 and 9.2.9.2.4; (v) an Important Ridgeline identified on the planning maps; (vi) an Area of Outstanding, or High and Very High, Natural Character in the Coastal Environment identified in Appendices 9.2.9.2.7 and 9.2.9.2.8; (vii) Sites of Ngāi Tahu cultural significance identified in Schedule 9.5.6.1; (viii) the dripline of a significant tree listed in Appendix 9.4.7.1; or (ix) 20 metres of a heritage item or heritage setting listed in Appendix 9.3.7.2. **P2 Installation and operation of a solar cell or array of cells for the generation and use of electricity.** *Activity specific standards* a) The electricity generated must be either: (i) solely for use on the site as ancillary to the principal use of the site; or (ii) for use on the site as ancillary to the principal use of the site and also for supply to not more than 20 residential units and/or industrial/commercial tenancies - subject to which, any excess may be contributed to the National Grid. b) The cell or array must be either incorporated into or mounted on the roof of a building. c) If the building breaches the daylight recession plane specified by the built standards for the relevant zone, the cell or array may also breach it provided that no cell protrudes more than 20 mm from the roof. d) If the building does not breach the daylight recession plane, the cell or array must not breach it either. e) There must not be a solar concentrator. **P3 Substations, transformers, or buildings ancillary to electricity generation equipment.** *Activity specific standards* a) The daylight recession planes for the relevant zone. b) The total floor area shall not exceed 10 m². and c) The maximum height shall not exceed 5.5 metres. **P4 Emergency or back-up electricity generation that is not the primary electricity supply to the site.** *Activity specific standards* a) The noise standards in Rule 6.1.6.2.1 for noise from emergency activities. **P5 Installation and operation of a wind turbine for the generation and use of electricity on a site or sites in Rural or Industrial Zones.** *Activity specific standards* a) The electricity generated must be either: (i) solely for use on the site as ancillary to the principal use of the site; or (ii) for use on the site as ancillary to the principal use of the site and also for supply to not more than 20 residential units (of a Rural or Residential Zone) and/or industrial/commercial tenancies (of an Industrial Zone) - subject to which, any excess may be contributed to the National Grid. b) If standard (a)(i) applies, no more than one wind turbine is to be erected on each site. If standard (a)(ii) applies, the wind turbines may be clustered on one or more of the sites. c) No above ground part of any wind turbine (including the full extent of blades) shall exceed a total height of 20 metres above the ground. d) The road boundary building setbacks and minimum building setbacks from internal boundaries of the relevant Rural or Industrial Zone apply. Compliance with this standard shall be to any above ground part of each wind turbine and the full extent of blades of each wind turbine. e) The noise standards in Rule 6.1.5 for the relevant Rural or Industrial Zone apply. f) No wind turbine shall be located within or on: (i) an Outstanding Natural Landscape identified in Appendix 9.2.9.2.2; (ii) an Outstanding Natural Feature identified in Appendix 9.2.9.2.1; (iii) a Significant Feature or Rural Amenity Landscape identified in Appendices 9.2.9.2.3 and 9.2.9.2.4; (iv) an Important Ridgeline identified on the planning maps; (v) an Area of Outstanding, or High and Very High, Natural Character in the Coastal Environment identified in Appendices 9.2.9.2.7 and 9.2.9.2.8;		• promotes small and community scale REG activities • seeks to reduce use of finite resources and the generation of greenhouse gas emissions Investigative/exploratory equipment provided for as a permitted activity subject to meeting standards.	Single wind turbines in other zones (i.e. not Rural or Industrial) are RDA (if can meet standards) or D. If within a scheduled area – activities become NC. Specific recognition of supporting/ ancillary/connecting infrastructure within rules - RD2 – provides for substations etc ancillary to electricity generation equipment. REG investigation activities provided for as a permitted activity (if meet standards) or RDA if don't meet standards. Generation of energy using waste products is an RDA. Rules provide for wind turbines in hilltop locations, but not within ONFLs etc – become NC if within scheduled areas. Solar energy activities that don't meet PA standards or D provisions are also NC.

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				(vi) the dripline of a significant tree listed in Appendix 9.4.7.1; or (vii) a heritage item or heritage setting listed in Appendix 9.3.7.2. […] **11.6.3 Restricted discretionary activities - Energy** a) The activities listed below are restricted discretionary activities, provided they meet the activity standards in Rule 11.9. b) Decision to grant or decline consent and impose conditions is restricted to the matters of discretion set out in Rule 11.10, as set out in the following table. **RD1 - Any activity listed in Rule 11.6.1 P1 that does not meet one or more of the activity specific standards.** *The Council's discretion shall be limited to the following matters:* a) Amenity, location and design – Rule 11.10.2(a) b) Operational considerations – Rule 11.10.3(a) c) Within sites of Ngāi Tahu Cultural Significance - Rule 9.5.5, as relevant to the site classification **RD2 - Any activity listed in Rule 11.6.1 P3 that does not meet one or more of the activity specific standards.** *The Council's discretion shall be limited to the following matters:* a) Heritage and natural environment – Rule 11.10.1 b) Amenity, location and design – Rule 11.10.2 c) Operational considerations – Rule 11.10.3 d) Health and safety – Rule 11.10.4(a) e) Electricity generation – Rule 11.10.5 **RD3 - Any activity listed in Rule 11.6.1 P4 that does not meet one or more of the activity specific standards.** *The Council's discretion shall be limited to the following matters:* a) Heritage and natural environment – Rule 11.10.1 b) Amenity, location and design – Rule 11.10.2 c) Operational considerations – Rule 11.10.3 d) Health and safety – Rule 11.10.4(a) e) Electricity generation – Rule 11.10.5 **RD4 - Installation and operation of a wind turbine for the generation and use of electricity on a site or sites other than in Rural or Industrial Zones that meet the standards specified in paragraphs a. to f. of this Rule RD4:** a) If the electricity generated is solely for use on the site(s), not more than one wind turbine is to be erected on each site; and b) No above ground part of the wind turbine (including the full extent of blades) exceeds a total height of 20 metres above ground; and c) Each wind turbine meets the road boundary building setback and minimum building setback from internal boundaries of the relevant zone; and d) The noise standards for the relevant zone are met; and e) No wind turbine is located within a Character Area Overlay; and f) The electricity generated is either: (i) solely for use on the site(s) as ancillary to the principal use of the site(s); or (ii) for use on the site or sites as ancillary to the principal use of the site(s) and also for supply to not more than 20 residential units and/or industrial/commercial tenancies – subject to which any excess may be contributed to the National Grid. *The Council's discretion shall be limited to the following matters:* a) Heritage and natural environment – Rule 11.10.1 b) Amenity, location and design – Rule 11.10.2(a) c) Operational considerations – Rule 11.10.3(a) d) Health and safety – Rule 11.10.4 e) Electricity generation – Rule 11.10.5(b) and (k) f) Within sites of Ngāi Tahu cultural significance - Rule 9.5.5, as relevant to the site classification **RD5 - Any activity listed in Rule 11.6.1 P2 that does not meet one or more of the activity specific standards (b)–(e).**			

Plan & Status (Operative/ Appeals/ Proposed)	Applicable chapters/ sections	General REG policy approach (how REG dealt with; key issues; level of detail/ complexity; specific activity provision etc)	Provisions- Objectives & Policies	Provisions- Rules (including activity status, standards, matters of discretion)	Relationship with other plan provisions, overlays, defined terms, mapping, other methods (non-reg)	NPSREG recognition/ consistency (eg. level of recognition of benefits, enabling REG, managing reverse sensitivity etc)	Similarities / Differences (between the 6 plans and WCC operative)
				a) Heritage and natural environment – Rule 11.10.1 b) Amenity, location and design – Rule 11.10.2 c) Operational considerations – Rule 11.10.3 d) Health and safety – Rule 11.10.4 e) Electricity generation – Rule 11.10.5 *The Council's discretion shall be limited to the following matters:* a) Heritage and natural environment – Rule 11.10.1 b) Amenity, location and design – Rule 11.10.2 c) Operational considerations – Rule 11.10.3 d) Health and safety – Rule 11.10.4 e) Electricity generation – Rule 11.10.5 **RD6 - Any activity listed in Rule 11.6.1 P5 that does not meet one or more of the activity specific standards (b) – (f).** *The Council's discretion shall be limited to the following matters:* a) Heritage and natural environment – Rule 11.10.1 b) Amenity, location and design – Rule 11.10.2 c) Operational considerations – Rule 11.10.3 d) Health and safety – Rule 11.10.4 e) Electricity generation – Rule 11.10.5 f) Within sites of Ngāi Tahu cultural significance - Rule 9.5.5, as relevant to the site classification **RD7 - Installation and operation of a utility and associated pipes and structures for the generation of energy using waste products.** a) Heritage and natural environment – Rule 11.10.1 b) Amenity, location and design – Rule 11.10.2 c) Operational considerations – Rule 11.10.3 d) Health and safety – Rule 11.10.4 e) Electricity generation – Rule 11.10.5 f) Water, wastewater and stormwater – Rule 11.10.6 **11.6.4 Discretionary activities - Energy** The activities listed below are discretionary activities, provided they meet the activity standards in Rule 11.9. D1 - Any activity listed in Rule 11.6.1 P2 that does not meet activity specific standard (a) where: a) The activity occurs in the Rural, Commercial (other than in the Central City), Industrial or Specific Purpose (Ōtākaro Avon River Corridor) Zones and does not occur within the area covered by the Christchurch International Airport Protection Surfaces; and b) Any solar concentrator does not reflect light into a Residential Zone, an Edge Housing Area Overlay or Trial Housing Area Overlay identified in Appendix 13.14.6.1, or a site listed in Appendix 13.14.6.2 which is in private ownership and has a Residential alternative Zone, for more than 15 hours per annum. c) The solar cell or concentrator is not located within: (i) an Outstanding Natural Landscape identified in Appendix 9.2.9.2.2; (ii) an Outstanding Natural Feature identified in Appendix 9.2.9.2.1; (iii) a Significant Feature or Rural Amenity Landscape identified in Appendices 9.2.9.2.3 and 9.2.9.2.4; (iv) an Important Ridgeline identified on the planning maps; (v) an Area of Outstanding, or High and Very High, Natural Character in the Coastal Environment identified in Appendices 9.2.9.2.7 and 9.2.9.2.8; (vi) the dripline of a significant tree listed in Appendix 9.4.7.1; or (vii) 20 metres of a heritage item or heritage setting listed in Appendix 9.3.7.2. **D2 - Any activity listed in Rule 11.6.1 P5 that does not meet activity specific standard (a) where:** a) The activity occurs in the Rural Port Hills, Rural Templeton, Rural Urban Fringe, Rural Waimakariri, Rural Quarry or Rural Banks Peninsula Zones; and b) Noise levels comply with the limits prescribed in NZS6808:2010 (Acoustics – Wind Farm Noise). Noise levels shall be measured and assessed in accordance with NZS6808:2010. c) The wind turbine is not located within: (i) an Outstanding Natural Landscape identified in Appendix 9.2.9.2.2; (ii) an Outstanding Natural Feature identified in Appendix 9.2.9.2.1;			

Plan & Status (Operative/ Appeals/ Proposed)	Applicable chapters/ sections	General REG policy approach (how REG dealt with; key issues; level of detail/ complexity; specific activity provision etc)	Provisions- Objectives & Policies	Provisions- Rules (including activity status, standards, matters of discretion)	Relationship with other plan provisions, overlays, defined terms, mapping, other methods (non-reg)	NPSREG recognition/ consistency (eg. level of recognition of benefits, enabling REG, managing reverse sensitivity etc)	Similarities / Differences (between the 6 plans and WCC operative)
				(iii) a Significant Feature or Rural Amenity Landscape identified in Appendices 9.2.9.2.3 and 9.2.9.2.4; (iv) an Important Ridgeline identified on the planning maps; (v) an Area of Outstanding, or High and Very High, Natural Character in the Coastal Environment identified in Appendices 9.2.9.2.7 and 9.2.9.2.8; (vi) the dripline of a significant tree listed in Appendix 9.4.7.1; or (vii) 20 metres of a heritage item or heritage setting listed in Appendix 9.3.7.2. **1.6.5 Non-complying activities - Energy** The activities listed below are non-complying activities. **NC1 - Any activity listed in Rule 11.6.1 P2 that does not meet activity specific standard (a) and is not provided for in Rule 11.6.4 D1.** **NC2 - Any activity listed in Rule 11.6.1 P5 that does not meet activity specific standard (a) and is not provided for in Rule 11.6.4 D2**. **11.9 Rules - Activity standards - All activities** The following activity standards shall be met by all activities in Rules 11.4 – 11.8.		

	Applicable to	Activity standard
a.	Any utilities that emit radiofrequency fields, which are not regulated by an amateur radio licence.	a) The utility operator must plan and operate the utility in accordance with NZS2772: Part 1:1999 Radiofrequency Fields Part 1 -Maximum Exposure Levels - 3 kHz to 300 GHz. b) The utility operator must ensure that the Council receives, before the utility becomes operational, the following: (i) written or electronic notice of where the utility is or where it is proposed to be; and (ii) a report that - A. is prepared in accordance with AS/NZS 2772.2:2011: Radiofrequency Fields Part 2: Principles and methods of measurement and computation - 3 kHz to 300 GHz and B. takes account of exposures arising from other utilities in the vicinity of the utility; and C. predicts whether the radiofrequency field levels at places in the vicinity of the utility that are reasonably accessible to the general public will comply with NZS 2772: Part 1:1999 Radiofrequency Fields Part 1 - Maximum Exposure Levels - 3 kHz to 300 GHz. c) If the prediction referred to in standard (b) is that the radiofrequency field levels will reach or exceed 25% of the maximum level authorised by NZS 2772: Part 1:1999 Radiofrequency Fields Part 1 – Maximum Exposure Levels – 3 kHz to 300 GHz for exposure of the general public, the utility operator must ensure that the Council receives, within 3 months of the utility becoming operational, a report that - (i) is prepared in accordance with AS/NZS 2772.2:2011: Radiofrequency Fields Part 2: Principles and methods of measurement and computation - 3 kHz to 300 GHz; and (ii) provides evidence that the actual radiofrequency field levels at places in the vicinity of the utility that are reasonably accessible to the general public comply with NZS 2772: Part 1:1999 Radiofrequency Fields Part 1 - Maximum Exposure Levels - 3 kHz to 300 GHz. Advice note: 1. The exposure assessment in standard (b) is not required to include an evaluation of the uncertainty in that assessment.
b.	The operation of any utility that emits power frequency electric and magnetic fields.	a) Exposures to power frequency electric and magnetic fields in areas normally accessible to the public shall not exceed 5 kilovolts per metre and 200 microtesla as measured and assessed in accordance with the International Commission on Non-Ionising Radiation Protection Guidelines for Limiting Exposures to Time Varying Electric and Magnetic Fields (1Hz – 100kHz). Advice note: 1. The Ministry of Health 2013 guidelines "Electric and Magnetic Fields and Your Health: Information on electric and magnetic fields association with transmission lines, distribution lines and electrical equipment – 2013 edition", in addition to compliance with the exposure limits in standard (a), recommend: • the implementation of very low cost measures to reduce exposures when constructing new electrical infrastructure, and; • when contemplating changes to existing sources, consideration of field reduction alongside safety, reliability and economic aspects.

<table>
<tr><th>Plan & Status (Operative/ Appeals/ Proposed)</th><th>Applicable chapters/ sections</th><th>General REG policy approach (how REG dealt with; key issues; level of detail/ complexity; specific activity provision etc)</th><th>Provisions-
Objectives & Policies</th><th>Provisions-
Rules (including activity status, standards, matters of discretion)</th><th>Relationship with other plan provisions, overlays, defined terms, mapping, other methods (non-reg)</th><th>NPSREG recognition/ consistency (eg. level of recognition of benefits, enabling REG, managing reverse sensitivity etc)</th><th>Similarities / Differences (between the 6 plans and WCC operative)</th></tr>
<tr><td></td><td></td><td></td><td></td><td>c. […]

11.10 Rules - Matters of discretion
11.10.1 Heritage and natural environment […]
11.10.2 Amenity, location and design […]
11.10.3 Operational considerations […]
11.10.4 Health and safety […]
11.10.5 Electricity generation […]</td><td></td><td></td><td></td></tr>
<tr><td>Dunedin City Proposed District Plan

Appeals Version</td><td>Chapter 2 - Strategic Directions

Chapter 5 - Network Utilities</td><td>Electricity generators, other energy generators and structures associated with the investigation of energy are dealt with as network utilities.

However “building utilities”, which are structures attached to buildings that form part of the utility systems of that building (for example, roof-top solar panels) are treated as part of the building or structure to which they are attached. Building utilities are managed by the rules for buildings and structures in the management zone sections, and are not subject to the network utilities provisions.</td><td>Strategic Directions - 2.2 Dunedin is Environmentally Sustainable and Resilient
Objective 2.2.2: Energy resilience
Dunedin reduces its reliance on non-renewable energy sources and is well equipped to manage and adapt to changing or disrupted energy supply by having:
a. increased local renewable energy generation;
b. reduced reliance on private motor cars for transportation;
c. increased capacity for local food production; and
d. housing that is energy efficient.

Policy 2.2.2.3
Enable renewable energy generation, in recognition of its benefits including those set out in the National Policy Statement for Renewable Electricity Generation 2011, through policies and rules that:
a. provide for the development of appropriate scales of generation;
b. acknowledge the practical constraints of renewable energy generation, including those arising from the need to locate where resources are available;
c. acknowledge the benefits, in terms of the efficient use of energy, of locating renewable energy generation close to end use and to electricity transmission or distribution infrastructure; and
d. acknowledge the benefits of having a distributed network for greater energy resilience.

Objective 2.2.5: Environmental performance
Development in the city is designed to reduce environmental costs and adverse effects on the environment as much as practicable, including energy consumption, water use, and the quality and quantity of stormwater discharge.

Policy 2.2.5.1
Encourage small scale renewable energy generation through policies and rules that provide for these activities where they are of an appropriate scale, design and location.

5.2 Objectives and Policies -
Objective 5.2.1
Network utility activities, including renewable energy generation activities, are able to establish, operate and upgrade efficiently and effectively, while minimising, as far as practicable, any adverse effects on the amenity and character of the zone; and, where located in an overlay zone, scheduled</td><td>5.3.2 Activity status table — Network utility activities

1. Performance standards that apply to all network utility activities
• Noise
• Setback from coast and water bodies
• Setback from National Grid
• Setback from scheduled tree

New, or additions and alterations to existing, network utility activities

2. Operation, repair, minor upgrading and maintenance of existing network utilities. Activity status:
• Permitted (subject to standards – light spill, technical standards, height) in a. Res and Rec; b. All other zones; c. ONF, HNCC, ONCC; d. SNL, NCC, ONL, ASBV, SHS, HP.
[…]

Network utility structures - small scale
<table>
<tr><th>Network utility structures - small scale</th><th>a. Res and Rec</th><th>b. All other zones</th><th>c. ONF, HNCC, ONCC</th><th>d. SNL, NCC, ONL, ASBV, SHS, HP</th><th>Performance standards</th></tr>
<tr><td>6. Network utility poles and masts - small scale</td><td>RD</td><td>P</td><td>RD</td><td>RD</td><td>i. Scale thresholds</td></tr>
<tr><td>7. Wind generators - small scale</td><td>P</td><td>P</td><td>RD</td><td>RD</td><td>i. Scale thresholds
ii. Design standards for wind generators
iii. Setbacks for wind generators</td></tr>
<tr><td>8. Hydro generators - small scale</td><td>P</td><td>P</td><td>RD</td><td>RD</td><td>i. Scale thresholds
ii. Location</td></tr>
<tr><td>9. Solar panels - small scale</td><td>P</td><td>P</td><td>RD</td><td>RD</td><td>i. Scale thresholds
ii. Site coverage</td></tr>
<tr><td>10. All other network utility structures - small scale</td><td>P</td><td>P</td><td>RD</td><td>P</td><td>i. Location
ii. Scale thresholds
iii. Maximum volume in PPF, SPF, HP and SHS
iv. Technical standards
v. Clearance from navigable</td></tr>
</table>
Network utility structures - large scale</td><td>Rules application – not standalone chapter – other provisions in other chapters apply to network utilities.
Any site development activities associated with an activity provided for in the activity status table in Rule 5.3.2 are subject to the provisions of the relevant management zone section.
Any earthworks associated with an activity provided for in the activity status table in Rule 5.3.2 are subject to the provisions in Section 8A.
Any construction associated with an activity provided for in the activity status table in Rule 5.3.2 is subject to the provisions in Section 4.

REG activities must meet noise standards in 9.3.

Definitions:-
Building Utilities:
Utility structures attached to buildings that form part of heating, cooling, electricity generation, cooking, hot or cold water, wastewater, telecommunication, or radio-communication reception systems for the building. Examples are:
• …
• solar panels mounted to the building including those that supply excess electricity to the network, etc.
Hydro Generators:
Renewable energy generators that generate energy using the energy of falling water.
Solar Panels:
Renewable energy generators that generate energy from solar resources.
Solar Panels - Small Scale:
Solar panels that meet the scale thresholds for solar</td><td>Reasonable alignment.

Benefits recognised in introductory text to chapter.

REG explicitly recognised in Strategic Directions – 2 objectives and 2 policies. 1 objective is to increase local REG; other is focused on reducing the environmental effects of energy consumption; 1 policy recognises benefits of REG; other encourages small scale REG where they are of “an appropriate scale, design and location”.

Provides for different scales of “appropriate” generation. But, only explicit provisions for small scale and large scale activities.

Acknowledgement of practical constraints of REG including need to locate where resource is available.

Acknowledges benefits of a distributed network for increasing energy resilience.

Specifically provides for solar, wind and hydro activities (small and large scale).

Reverse sensitivity policy (network utilities).

Provision for investigation activities not clear – assume would fall under the provisions for all other small scale network utility structures which have a height limit of 4m (and area of 4m2) – anything</td><td>REG specifically addressed as part of the network utility provisions in Chapter 5, but there are also REG-related strategic directions in Chapter 2.

Lengthy set of policies in Chapter 5 for network utilities – cover REG as well (as applicable).

Specific provisions for investigations included – either as Permitted if very small scale otherwise RDA).

Rules for small scale network utilities/ REG – provided for as P or RDA (including within ONFLs). Specific thresholds for small-scale set out within the rules (e.g. solar panels less than 200m^2). Free standing turbines (up to 2) provided in Rural or Rural Res as a PA if less than 20m high and 6m rotor blade diameter. Also PA provisions for rooftop wind generators. Some provision for turbines in other zones but small scale than this. Must also meet setback requirements and noise rules in 9.3.

Any activity that doesn’t meet small scale standards becomes large scale – no specific community scale recognition or provision.

Small scale network utilities and small scale solar panels defined; Large scale network utilities and small scale solar panels defined.

Separate rules for roof top solar panels – fall under “building utilities” (defined term).

Large scale solar, wind, hydro – NC within ONF, HNCC, ONCC; D within SNL, NCC and ONL.

Difference – specific rules/standards for small scale and large scale hydro activities. Also specific rule provisions for large scale solar.

Difference – rules include specific design standards for wind generators (Rule 5.5.7) – more specific than other plans [and WCC provisions don’t current go here but wind farm consent decisions</td></tr>
</table>

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			site, or mapped area, meeting the relevant objectives and policies for those areas. **Policy 5.2.1.1** Encourage the use and development of renewable energy generation. **Policy 5.2.1.2** Enable network utility activities throughout the city where effects can be adequately managed in line with policies 5.2.1.3, 5.2.1.4, 5.2.1.5, 5.2.1.6, 5.2.2.2 and the objectives and policies of any relevant overlay zones, scheduled sites or mapped areas. **Policy 5.2.1.3** Require underground or internal network utilities and network utility structures - small scale to be designed and located to enable the provision of network utilities while avoiding or, where avoidance is not practicable, adequately mitigating adverse effects on the amenity and character of the zone. **Policy 5.2.1.4** Require substations, underground or internal network utilities and network utility structures - small scale to be located, designed, and operated to ensure any risk to health and safety is avoided or minimised as far as practicable. **Policy 5.2.1.5** Only allow network utility structures - large scale (in all zones), network utility poles and masts - small scale (in residential and recreation zones), and substations (other than in industrial zones) where the activity is designed and located to avoid or, if avoidance is not practicable, adequately mitigate: a. adverse effects on visual amenity and the character of the zone in which the activity is located; and b. adverse effects on the amenity of any surrounding residential activities. **Policy 5.2.1.6** Only allow new network utilities or additions to existing network utilities in transition overlay zones where network utilities are located to support a logical and efficient future pattern of development. **Objective 5.2.2** The operational efficiency and effectiveness of network utilities is not compromised by development locating near these activities. **Policy 5.2.2.1** Require earthworks to be set back from network utilities an adequate distance to avoid: a. damage to existing network utilities; b. obstruction of access to existing underground network utilities; and c. adverse effects on the health and safety of people.	Network utility structures - large scale | a. Res and Rec | b. All other zones | c. ONF, HNCC, ONCC | d. SNL, NCC, ONL, ASBV, SHS, HP | Performance standards 11. Solar panels - large scale with an area between 200m² and 500m² in a rural or industrial zone | N/A | RD | NC | D 12. All other solar panels - large scale | D | D | NC | D+ 13. Wind generators - large scale | D | D | NC | D+ 14. Hydro generators - large scale | D | D | NC | D+ 15. Network utility structures - large scale (amateur radio configurations only) | RD | RD | RD+ | RD 16. All other network utility structures - large scale | D | D | NC | D+ **Rule 5.4 Notification** […] **Rule 5.5 Network Utility Activities Performance Standards** […] **5.5.3 Scale Thresholds** 1. […] 2. All other network utility structures must not exceed the scale thresholds set out in Rules 5.5.3.3 to 5.5.3.8 to be considered small scale. Network utility structures that exceed these thresholds are treated as large scale. ***Rule 5.5.3.3 Hydro generators - small scale thresholds*** Threshold | i. Rural and industrial zones | ii. All other zones a. Maximum surface area of stored water | 200m² | 100m² b. Maximum height of weir or dam | 2m | 1m c. Maximum installed capacity | 4MW | 500kW d. Hydro generators that exceed these thresholds are treated as hydro generators - large scale. ***Rule 5.5.3.4 Solar panels - small scale thresholds*** a. The maximum area of solar panels - small scale is 200m². b. Solar panels that exceed this scale threshold are treated as solar panels - large scale. *Note 5.5.3.4A - Other relevant District Plan provisions* *Roof-top solar panels that meet the definition of building utilities are covered by provisions for buildings in the management zone sections, and are not subject to provisions for network utility activities.* ***Rule 5.5.3.5 Wind generators - small scale thresholds*** a. The maximum number of wind generators per site is: i. Rural zones | 2 ii. All other zones | 1 b. The maximum height of wind generators (to blade tip) is: i. Rural and rural residential zones | 20m ii. Freestanding wind generators in all other zones | 2m above the maximum height for buildings and structures in the zone in which the wind generator is located	panels - small scale as set out in Rule 5.5.3. Solar panels exclude structures otherwise defined as building utilities. Solar panels - small scale are a sub-activity of 'network utility structures - small scale'. **Solar Panels - Large Scale:** Solar panels that exceed the scale thresholds for solar panels - small scale as set out in Rule 5.5.3. Solar panels exclude structures otherwise defined as building utilities. **Wind Generators:** Renewable energy generators which generate energy using wind resources. **Network utility structures - small scale** - consists of: • lines; and • network utility structures that do not exceed the scale thresholds in Rule 5.5.3. Network utility structures – small scale exclude structures otherwise defined as underground or internal network utilities. The following activities are managed as sub-activities of network utility structures – small scale: • hydro generators – small scale • network utility poles and masts – small scale • solar panels – small scale; and • wind generators – small scale. **Network utility structures – large scale** - Network utility structures and network utility poles and masts that exceed the scale thresholds in Rule 5.5.3. Network utility structures – large scale exclude structures otherwise defined as underground or internal network utilities. The following activities are managed as sub-activities of network utility structures – large scale: • hydro generators – large scale • solar panels – large scale; and	above this becomes "large scale".	have commented on the lack of controls re: design of REG structures] Ground mounted solar panels also subject to site coverage rules.

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				iii. Rooftop wind generators in all other zones: i.2m above the part of the building the generator is attached to (in residential zones, Recreation Zone, CBD and centres zones, and WP, PPH, SSYP and HE zones) ii.The greater of: 2m above the maximum height for buildings and structures in the zone in which the wind generator is located; or 2m above the part of the building the generator is attached to (in all other zones). c. The maximum rotor diameter of wind generators is: i. Rural and rural residential zones — 6m ii. Industrial zones, Trade Related Zone and CBD Edge Commercial zones — No limit on rotor diameter iii. All other zones — 1.5m d. Wind generators that exceed these thresholds are treated as wind generators - large scale. ***Rule 5.5.3.8 All other network utility structures - small scale thresholds*** a. Network utility structures – *freestanding* i. Height — 4m ii. Area of footprint — 4m² b. Network utility structures – *attached to buildings, or attached to existing poles or masts* […] **5.5.4 Maximum Volume in Pedestrian Street Frontage mapped areas, Heritage Precincts and Scheduled Heritage Sites** In primary and secondary pedestrian street frontage mapped areas, heritage precincts and scheduled heritage sites, the maximum volume of freestanding network utility structures - small scale that are visible from an adjoining public place is 0.5m³. Network utility structures - small scale that contravene this performance standard are restricted discretionary activities. **5.5.6 Noise** All network utility activities must comply with Rule 9.3.6. **5.5.7 Design Standards for Wind Generators** 1. Wind generators - small scale must not use lattice towers. 2. In the CBD Zone, centres zones, WP, PPH, SSYP and HE zones, residential zones and the Recreation Zone, wind generators - small scale must be attached to rooftops. 3. For freestanding wind generators - small scale, the maximum diameter of the mast is 600mm. 4. All exterior surfaces of wind generators - small scale must have a light reflectance value (LRV) of 30% or less. 5. Rooftop wind generators must comply with the height in relation to boundary rule that applies to buildings and structures in the zone in which the wind generator is located, except in the Rural, Rural Residential and Industrial zones. 6. Wind generators - small scale that contravene these standards are restricted discretionary activities. **5.5.8 Site Coverage** 1. Solar panels - small scale that are ground mounted must comply with any site coverage standards for the zone in which they are located. 2. Solar panels - small scale that contravene this standard are restricted discretionary activities. **5.5.9 Setbacks** **5.5.9.1 Setbacks for wind generators** a. Setbacks in industrial zones	• wind generators – large scale. Network utility structures - large scale is an activity in the network utility activities category.		

<table>
<tr><th>Plan & Status (Operative/ Appeals/ Proposed)</th><th>Applicable chapters/ sections</th><th>General REG policy approach (how REG dealt with; key issues; level of detail/ complexity; specific activity provision etc)</th><th>Provisions- Objectives & Policies</th><th>Provisions- Rules (including activity status, standards, matters of discretion)</th><th>Relationship with other plan provisions, overlays, defined terms, mapping, other methods (non-reg)</th><th>NPSREG recognition/ consistency (eg. level of recognition of benefits, enabling REG, managing reverse sensitivity etc)</th><th>Similarities / Differences (between the 6 plans and WCC operative)</th></tr>
<tr><td></td><td></td><td></td><td></td><td>
<table>
<tr><th colspan="2">Activity</th><th>1. Minimum setback from boundaries of any Residential, Recreation or CMU Zone (excluding the Trade Related Zone and the CBD Edge Commercial zones)</th><th>2. Minimum setback from road and site boundaries</th></tr>
<tr><td>i.</td><td>Wind generators - small scale with a rotor diameter less than or equal to 1.5m</td><td>N/A</td><td>A distance equal to the height of the structure</td></tr>
<tr><td>ii.</td><td>Wind generators - small scale with a rotor diameter exceeding 1.5m</td><td>100m</td><td>A distance equal to the height of the structure</td></tr>
</table>
b. Setbacks in rural and rural residential zones
i.Wind generators - small scale with a rotor diameter less than or equal to 4m, and with a height less than or equal to 15m, must be set back at least 50m from any road or property boundary; and
ii.Wind generators - small scale with a rotor diameter exceeding 4m, and/or with a height exceeding 15m, must be set back at least 100m from any road or property boundary.
c. Setbacks in commercial and mixed use and major facility zones
Freestanding wind generators - small scale in the Trade Related Zone, the CBD Edge Commercial zones and all major facility zones must have a minimum setback as follows:
<table>
<tr><th colspan="2">Location</th><th>Setback distance</th></tr>
<tr><td>i.</td><td>From site boundaries</td><td>Equal to the height of the structure above ground</td></tr>
<tr><td>ii.</td><td>From any residential building on a separate site</td><td>Equal to three times the height of the structure ab ground level</td></tr>
</table>
d. Wind generators - small scale that contravene this performance standard are restricted discretionary activities.

5.5.9.2 Setback from coast and water bodies
Network utility activities must comply with Rule 10.3.3.

5.5.9.3 Setback from scheduled tree
Network utility activities must comply with Rule 7.5.2.

Rule 5.6 Setbacks from National Grid and Network Utilities
[…]

Rule 5.7 Assessment of Restricted Discretionary Activities (Performance Standard Contraventions)
[…]
5.7.3 Assessment of performance standard contraventions (network utility activities)
Matters of discretion include for example, Benefits of network utility activities; Technical and operational constraints of network utility activities; Effects on character and amenity of the zone; Effects on biodiversity values and natural character of riparian margins and the coast, Health and safety etc
5.7.4 Assessment of performance standard contraventions (setbacks from National Grid and network utilities)
5.7.5 Assessment of restricted discretionary performance standard contraventions located in an overlay zone or mapped area, or affecting a scheduled item
Matters of discretion include for eg. Effects on pedestrian amenity, Effects on heritage streetscape character, Effects on heritage values

Rule 5.8 Assessment of Restricted Discretionary Activities
[…]
Rule 5.9 Assessment of Discretionary Activities
[…]
Rule 5.10 Assessment of Non-complying Activities
</td><td></td><td></td><td></td></tr>
</table>

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<tr><td>Hamilton City District Plan

Operative (18 October 2017)</td><td>Chapter 25.7 Network Utilities and the Electricity National Grid Corridor</td><td>The overall approach of the network utility section is to simplify the rules from the Operative District Plan, reflect the changes in infrastructure technology that have occurred since the last District Plan was drafted and to recognise the National direction that now applies for network utilities and electricity transmission.

The NU objectives and policies apply to all zones.

Policies relating to this objective recognise and provide for renewable electricity generation at a range of scales. “Small and community-scale distributed electricity generation” are promoted by the national policy statement, subject to the local context, which in Hamilton City will involve consideration of urban and suburban amenity values.

Zone chapters (eg Ch4 residential) have specific policy recognition (4.2.8) of buildings making efficient use of water and energy resources and (4.2.8a) development should encourage the efficient use of energy and water.</td><td>25.7.2 Objectives and Policies: Network Utilities and the Electricity National Grid Corridor

Objective 25.7.2.1 The importance of network utilities to support the development and functioning of Hamilton is recognised.

Policies
25.7.2.1a The positive effects and importance of network utilities, including the Electricity National Grid Corridor, for the social and economic wellbeing of Waikato region and Hamilton shall be recognised.
25.7.2.1b The operation, maintenance and upgrading of and access to existing network utilities shall not be adversely affected by subdivision, land use and development.
25.7.2.1f Reverse-sensitivity effects shall be avoided.

Objective 25.7.2.3 Increased use and development of renewable energy resources.

Policies
25.7.2.3a The positive effects of using and developing renewable energy resources, for the environment and economic and social wellbeing, shall be recognised.

25.7.2.3b The renewable energy resources of Hamilton (including geothermal, hydro, biomass, solar and wind) shall be recognised and encouraged for their potential contribution to national and local energy production.

25.7.2.3c Investigation, identification and assessment of potential sites and energy sources for renewable electricity generation shall be encouraged.

25.7.2.3d Renewable electricity generation activities shall be designed, located, installed, operated and maintained to:
i. Minimise the potential adverse effects to the environment.
ii. Avoid, reduce or displace greenhouse gas emissions.
iii. Maximise the use of the renewable energy resource.
iv. Offset any adverse residual environmental effects with measures or environmental compensation which benefit the local environment and community affected.

25.7.2.3e The development and use of small and community-scale distributed renewable electricity generation shall be encouraged, subject to:
i. Acceptable effects on amenity values, especially from noise, visual impacts on neighbourhoods, air emissions, glare and lighting, flicker effects on natural light, steam and odour.
ii. Acceptable effects on water bodies, landscapes and significant natural areas.</td><td>25.7.3 Rules – Activity Status
The rules contained in Sections 25.7.3 - 25.7.4 override all zone rules unless a particular zone rule is specifically referred to in this chapter.
<table><tr><th>Activity – All Zones</th><th>Class</th></tr><tr><td colspan="2">All Network Utilities</td></tr><tr><td>a) The operation of existing network utilities, whether underground or above ground</td><td>P</td></tr><tr><td>b) The installation and upgrading of network utilities located underground (excluding electricity transmission lines)</td><td>P</td></tr><tr><td>c) The maintenance and repair of any existing network utility</td><td>P</td></tr><tr><td>d) The removal of existing network utilities, whether underground or above ground</td><td>P</td></tr><tr><td>e) The trimming and pruning of vegetation necessary to protect electric lines (including as required to meet the Electricity (Hazards from Trees) Regulations 2003) or telecommunication lines</td><td>P</td></tr><tr><td>f) Network utility development, operation, or maintenance not otherwise mentioned in any section of this table</td><td>P</td></tr></table>[…]
<table><tr><th>Energy</th><th></th></tr><tr><td>uu) Structures associated with the investigation and assessment of potential electricity generation from biomass, hydro or geothermal resources</td><td>RD</td></tr><tr><td>vv) Wind energy facility and windpower generators for bulk power supply</td><td>D</td></tr><tr><td>ww) Small scale distributed renewable energy generation</td><td>P</td></tr><tr><td>xx) Community scale distributed renewable energy generation</td><td>D</td></tr><tr><td>yy) Solar panels and solar heating systems for the purposes of serving the site on which they are located</td><td>P</td></tr><tr><td>zz) Solar panels and solar heating systems for the purposes of serving more than one site</td><td>RD</td></tr><tr><td>aaa) Temporary diesel-fuelled generation activities in all Zones</td><td>P</td></tr></table>25.7.5 Rules – General Standards
25.7.5.1 Height
a) Maximum height of the entire structure including any attached antennas, support structures, etc (except lightning rods): All Residential, Special Character, Community Facilities, OpenSpace, and Future Urban Zones, and in the Transport Corridor Zone adjoining any of these zones - 15m
b) Maximum height of the entire structure including any attached antennas, support structures, etc (except lightning rods): All Business 1 to 7, Industrial, Ruakura Industrial Park, Te Rapa North Industrial, Major Facilities, Central City, Ruakura Logistics and Knowledge Zones and in the Transport Corridor Zone adjoining these zones - 24m
c) Maximum height of entire structure including any attached antennas, support structures, etc, where co-located on the same structure (except lightning rods): All Business 1 to 7, Industrial, Ruakura Industrial Park, Te Rapa North Industrial, Major Facilities, Central City, Ruakura Logistics and Knowledge Zones and in the Transport Corridor Zone adjoining these zones - 26m
[…]
g) Meteorological instruments, anemometer mast: All zones - 12m
25.7.5.3 Separation Distance […]
25.7.5.4 Size of Panels and Dishes
b) Maximum distance beyond a building profile that solar panel or solar heating structure can protrude (see Figure 25.7.5a): All zones - 1.5m
25.7.5.5 Cabinets, Equipment and Other Structures
25.7.5.6 Setbacks
a) Network utilities structures with a volume greater than 6.5m3 shall comply with the minimum building setback for the relevant zone. [...]</td><td>The NU objectives, policies and rules apply to all zones. Specific applicability statement included in rule section – network utilities rules override unless a particular zone rule is referred to within the chapter.
There are multiple other chapters/provisions that may also be relevant to an activity– e.g. historic heritage, natural hazards, natural environments, subdivision, financial contributions, city-wide etc. Ch21-Waikato River and gully systems (ONF) has objectives and policies that must be read in conjunction with other chapters but no rules.

Zone chapters (eg residential) have policy recognition of buildings and development making efficient use of water and energy resources.

Definitions:
Community scale energy generation (produces less than 20kW): Means renewable energy generation for the purpose of using electricity on a particular site, supplying an immediate community, or connecting into the distribution network `.

Research and innovation activities: Includes all activities involved in the research, development, manufacture and commercial application of advanced technology including, but not limited to, agritechnology, biotechnology, chemical processes, food technology, laser physics, information technology, energy technology, transportation technology, manufacturing technology, medical technology, materials technology, telecommunications and data management and processing, soil, air and water research, infrastructure systems and management, and activities required to serve the aforementioned activities.</td><td>Objectives recognise the importance of network utilities. One specific objective provides for increased use and development of REG (series of supporting policies under it).

Policies recognise multiple aspects (apply to all network utilities), including positive effects and importance of network utilities to wellbeing; provide for operation, maintenance and upgrading of and access to existing network utilities; reverse sensitivity effects from other activities.

Policies 25.7.2.3a-e specifically relate to REG and include positive effects of using and developing REG specifically identified in policy; multiple forms of REG resources in Hamilton recognised and encourage for their potential (geothermal, hydro, biomass, solar, wind),

Small and community scale activities provided for. Both have a 20kW threshold – over this become large scale.</td><td>REG provisions located within the Network Utilities and National Grid provisions.

Three objectives and a set of policies (applying to network utilities and/or specific to REG); one objective specifically focused on increasing use and development of REG (with a series of supporting REG policies); one objective on efficient use of resources including energy.

Rule tables for network utilities and energy – REG within energy rules: Small scale activities – P; community scale – D; investigation activities – RDA (12m max mast height); Large scale wind – D.

Under other plan provisions (eg Ch20 – Natural environment), activities like earthworks within SNAs are NC as are new buildings/structures, additions to an existing building or structure with a larger footprint or removal of vegetation.

Specific recognition within policies of offsetting any residual environmental effects.</td></tr>
</table>

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			iii. An assured standard of long-term maintenance of sites and equipment. **Objective 4.2.8** Residential buildings make efficient use of water and energy resources. **Policies** **4.2.8a** Development should encourage the efficient use of energy and water, by: i. Incorporating water sensitive techniques. ii. Reducing the use of reticulated electricity.	c) The zone performance standards for an accessory building shall apply to solar panels and solar water-heating devices not attached to a building. **25.7.5.7 Provisions in Other Chapters** The provisions of the following chapters apply to activities within this chapter where relevant. • Chapter 2: Strategic Framework • Chapter 19: Historic Heritage • Chapter 20: Natural Environments • Chapter 21: Waikato River Corridor and Gullies • Chapter 22: Natural Hazards • Chapter 23: Subdivision • Chapter 24: Financial Contributions • Chapter 25: City-wide **25.7.6 Specific Standards** **25.7.7 Restricted Discretionary Activities: Matters of Discretion and Assessment Criteria** […] x. Energy – structures associated with the investigation and assessment of potential electricity generation from biomass, hydro or geothermal resources *Matter of Discretion and Assessment Criteria Reference Number (Refer to Volume 2, Appendix 1.3.3):* • B – Design and Layout • E – Heritage Values and Special Character • I – Network Utilities and Transmission xi. Energy – solar panels and solar heating systems for the purposes of serving more than one site *Matter of Discretion and Assessment Criteria Reference Number (Refer to Volume 2, Appendix 1.3.3):* • B – Design and Layout • E – Heritage Values and Special Character • I – Network Utilities and Transmission	**Small-scale energy generation (produces less than 20kW):** Means renewable energy generation for the purpose of using electricity on a particular site or connecting into the distribution network (but excludes solar panels supplying electricity for the site on which they are located).		
Queenstown Lakes Proposed District Plan Decisions Version (June 2019)	Part 2 – Strategic Direction, Chapter 3 (REG falls within reference to "infrastructure") **Part 5 - District-Wide Matters, Chapter 30 Energy and Utilities**	The provisions (objectives, policies, rules) are divided into 'energy' and 'utilities'. REG is addressed under 'Energy'. 'Utility'. The provisions do not include structures or facilities used for electricity generation. None of the Energy provisions are subject to appeal so are effectively operative.	**3.2 Strategic Objectives** **3.2.1** The development of a prosperous, resilient and equitable economy in the District (addresses Issue 1) **3.2.1.9** Infrastructure in the District that is operated, maintained, developed and upgraded efficiently and effectively to meet community needs and to maintain the quality of the environment. **Objective** **30.2.1** - The sustainable management of the District's resources benefits from the District's renewable and non-renewable energy resources and the electricity generation facilities that utilise them. **Policies** **30.2.1.1** Recognise the national, regional and local benefits of the District's renewable and non-renewable electricity generation activities. […] **Objective** **30.2.2** - The use and development of renewable energy resources achieves the following: a. It maintains or enhances electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions; b. It maintains or enhances the security of electricity supply at local, regional and national levels by diversifying the type and/ or location of electricity generation;	**30.4 Energy Rules** **30.4.1 Renewable Energy Activities** 30.4.1.1 Small and Community-Scale Distributed Electricity Generation and Solar Water Heating (including any structures and associated buildings but excluding Wind Electricity Generation), other than those activities restricted by Rule 30.4.1.4. [P] 30.4.1.2 Small and Community-Scale Distributed Wind Electricity Generation within the Rural Zone, Gibbston Character Zone and Rural Lifestyle Zone that complies with Rule 30.4.2.3 Control is reserved to the following: a. noise; b. visual effects; c. colour; d. vibration. [C] 30.4.1.3 Renewable Electricity Generation Activities, limited to masts, drilling and water monitoring for the purpose of research and exploratory scale investigations that are temporary. Discretion is restricted to: a. the duration of works and the research purpose; b. the location of investigation activities and facilities, including proximity to, and effects on, sensitive uses and environments; c. the height and scale of facilities and potential visual effects; d. environmental effects. [RD] 30.4.1.4 Small and Community-Scale Distributed Electricity Generation and Solar Water Heating including any structures and associated buildings, which is either: a. Wind Electricity Generation other than that provided for in Rule 30.4.1.2. OR b. Located in any of the following sensitive environments: i. Arrowtown Residential Historic Management Zone; ii. Town Centre Special Character Areas; iii. Significant Natural Areas; iv. Outstanding Natural Landscapes; v. Outstanding Natural Features;	Specific application statement re: rules: **30.3 Other Provisions and Rules** 30.3.1 District Wide Attention is drawn to the following District Wide Chapters… A permitted activity must comply with all the rules listed in the Activity and Standards tables, and any relevant district wide rules. **The rules contained in this Chapter (Ch30) 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. 25 Earthworks;** **b. 26 Historic Heritage.** REG activities must also comply with noise standards in Chapter 36. Ch2.1- Definitions **Biomass Electricity Generation** -	Objective and policies recognise benefits from REG. Recognition of the need to locate where the resource is available. Reverse sensitivity recognition. Recognition of use, development, operation, maintenance, repowering, upgrading of new and existing REG. Different types and forms and scales of REG recognised and provided for. Different forms include: wind, solar, biomass, mini and micro hydro.	REG addressed under district-wide 'Energy and Utilities' chapter. Four energy objectives – benefits of REG (and non-ERG); use and development of REG; energy resources developed in a manner than minimises adverse effects; energy efficiency. Suite of supporting policies which include recognition of benefits; enabling development, operation, maintenance, repowering and upgrading of new and existing REG activities; small and community scale REG; reverse sensitivity, etc. Also specific policy enabling new technologies using renewable energy resources to be investigated and established in the district. Key differences: • Policy specifically recognises repowering (and upgrading) REG; • Promotion of incorporation of small and community scale distributed electricity generation structures and associated buildings; • Promoting biomass electricity generation (defined term) in proximity to available sources that minimise adverse effects; • Ensuring visual effects of wind electricity generation do not exceed

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			c. It assists in meeting international climate change obligations; d. It reduces reliance on imported fuels for the purpose of generating electricity; e. It helps 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: a. recognises the need to locate renewable electricity generation activities where the renewable electricity resources are available; b. recognises logistical and technical practicalities associated with renewable electricity generation activities; c. 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. **Objective** **30.2.3** 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 with regards to: a. landscape values and areas of significant indigenous flora or significant habitat for indigenous fauna; b. recreation and cultural values, including relationships with tangata whenua; c. amenity values; d. 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	vi. Heritage Features and Heritage Overlay Areas. [D] 30.4.1.5 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] **30.4.2 Renewable Energy Standards** **30.4.2.1 Small and Community-Scale Distributed Electricity Generation and Solar Water Heating must: [D]** 30.4.2.1.1 Not overhang the edge of any building. 30.4.2.1.2 Be finished in recessive colours: black, dark blue, grey or brown if Solar Electricity Generation cells, modules or panels. 30.4.2.1.3 Be finished in similar recessive colours to those in the above standard if frames, mounting or fixing hardware. Recessive colours must be selected to be the closest colour to the building to which they form part of, are attached to, or service. 30.4.2.1.4 Be set back in accordance with the internal and road boundary setbacks for buildings in the zone in which they are located. Any exemptions identified in the zone rules for accessory buildings do not apply. 30.4.2.1.5 Not intrude through any recession planes applicable in the zone in which they are located. 30.4.2.1.6 Not protrude more than a maximum of 0.5 m above the maximum height limit specified for the zone if solar panels on a sloping roof. 30.4.2.1.7 Not protrude a maximum of 1.0 m above the maximum height limit specified for the zone, for a maximum area of 5m^2 if solar panels on a flat roof. 30.4.2.1.8 Not exceed 150m^2 in area if free standing Solar Electricity Generation and Solar Water Heating. 30.4.2.1.9 Not exceed 2.0 metres in height if free standing Solar Electricity Generation and Solar Water Heating. 30.4.2.1.10 Be located within an approved building platform where located in the Rural, Gibbston Character or Rural Lifestyle Zone. **30.4.2.2 Mini and Micro Hydro Electricity Generation must [D]:** 30.4.2.2.1 Comply with Road and Internal Boundary Building Setbacks in the zone in which they are located. 30.4.2.2.2 Not exceed 2.5 metres in height. 30.4.2.2.3 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 Regional Plan: Water* **30.4.2.3 Wind Electricity Generation must [D]:** 30.4.2.3.1 Comprise no more than two Wind Electricity Generation turbines or masts on any site. 30.4.2.3.2 Involve no lattice towers. 30.4.2.3.3 Be set back in accordance with the internal and road boundary setbacks for buildings in the zone in which they are located. Any exemptions identified in the zone rules for accessory buildings do not apply. 30.4.2.3.4 Not exceed the maximum height or intrude through any recession planes applicable in the zone in which they are located. 30.4.2.3.5 Be finished in recessive colours with a light reflectance value of less than 16%. *Notes:* *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.* *Wind turbines must comply with Chapter 36 (Noise).* **30.4.2.4 Biomass Electricity Generation [D]** 30.4.2.4.1 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). 30.4.2.4.2 Any outdoor storage of Biomass Electricity Generation fuel material shall be screened from adjoining sites and public places. 30.4.2.4.3 Biomass Electricity Generation plant and equipment shall be located inside a Building. *Note: Reference should also be made to the Otago Regional Council Regional Plan: Air*	Means electricity generation derived from biomass systems being recently living organisms such as wood, wood waste, by products of agricultural processes and waste. **Energy Activities -** Means the following activities: a. small and community-scale distributed electricity generation and solar water heating; b. renewable electricity generation; c. non-renewable electricity generation; d. wind electricity generation; e. solar electricity generation; f. stand-alone power systems (SAPS); g. biomass electricity generation; h. hydro generation activity; i. mini and micro hydro electricity generation. **Hydro-generation activity** […] **Renewable Electricity Generation (REG)** - Means generation of electricity from solar, wind, hydro-electricity, geothermal and biomass energy sources. **Renewable Electricity Generation Activities -** Means the construction, operation and maintenance of structures associated with renewable electricity generation. This includes small and community-scale distributed renewable generation activities and the system of electricity conveyance required to convey electricity to the distribution network and/or the national grid and electricity storage technologies associated with renewable electricity. Includes research and exploratory scale investigations into technologies, methods and sites, such as masts, drilling and water monitoring. This definition includes renewable electricity generation (REG), solar water heating, wind electricity generation, and mini and micro hydro electricity generation (as separately defined).		the capacity of an area to absorb change or significantly detract from landscape and visual amenity values; • Specific policy provision for offsetting measures • Specific provision for associated buildings and electrical equipment with REG as D In terms of rules, Small and community scale REG provided for as controlled activities in Rural and Rural lifestyle zone subject to standards. Investigation activities provided for as RDA. Wind generation provided for as D (but appears to be limited to 2 turbines per site; no lattice towers & other design standards etc). Biomass activities provided for as D. Mini and Micro provided for as D. Definition of 'wind electricity generation; includes wind masts, so under rules, they are not permitted activities. Contains the most energy efficiency related policies of all plans looked at.

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			are protected from incompatible subdivision, land use and development. **30.2.3.6** To compensate for adverse effects, consideration must be given to any offset measures (including biodiversity offsets) and/or environmental compensation including those which benefit the local environment and community affected. **Objective** **30.2.4** - Subdivision layout, 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. **30.2.4.6** Control the location of buildings and outdoor living areas to reduce impediments to access to sunlight.	**30.4.2.5 Buildings for renewable energy activities [D]** 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: 30.4.2.5.1 Not exceed 10m^2 in area and 2.5m in height. 30.4.2.5.2 Be set back in accordance with the internal and road boundary setbacks for accessory buildings in the zone in which it is located. 30.4.2.5.3 Be finished in recessive colours, consistent with the building it is servicing on site.	**Renewable Energy -**Means energy that comes from a resource that is naturally replenished, including solar, hydro, wind, and biomass energy. **Small and Community-Scale Distributed Electricity Generation -** Means renewable electricity generation for the purpose of using electricity on a particular site, or supplying an immediate community, or connecting into the distribution network. **Solar Electricity Generation –** Means the conversion of the sun's energy directly into electrical energy. The most common device used to generate electricity from the sun is photovoltaics (PV). This may include free standing arrays, solar arrays attached to buildings or building integrated panels. **Solar Water Heating -** Means devices that heat water by capturing the sun's energy as heat and transferring it directly to the water or indirectly using an intermediate heat transfer fluid. Solar water heaters may include a solar thermal collector, a water storage tank or cylinder, pipes, and a transfer system to move the heat from the collector to the tank. **Stand-Alone Power Systems (SAPS) -** Means off-grid generation for activities including residential, visitor and farming activities, on remote sites that do not have connection to the local distribution network. SAP's will usually include battery storage, a backup generator, an inverter and controllers etc., as well as generation technologies such as solar, mini or micro hydro, wind electricity generation or a combination thereof. **Wind Electricity Generation** - Means the conversion of the energy from wind into electricity, through the use of the rotational motion. A wind turbine may be attached to a building or freestanding. Wind turbine components may		

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<tr><td>New Plymouth Proposed District Plan

Proposed September 2019</td><td>Part 2 – District Wide Matters - Energy, Infrastructure and Transport, ENGY - Energy</td><td>The energy chapter provisions contain both oil & gas and renewable electricity generation provisions.

The provisions provide for large scale REG only in Rural Production Zone as D. All other zones NC.

The rules provide for the following:

Permitted activities (subject to standards) -
• in all zones, operation, maintenance, or upgrade of small-scale renewable electricity generation activities, and
• in the Rural Production Zone, Exploratory wind generation activities;

Discretionary activities – in the Rural Production Zone, operation, maintenance, or upgrade of large-scale renewable electricity generation activities;

Non-complying activities - Exploratory wind generation activities (all other zones), and operation, maintenance, or upgrade of large-scale renewable electricity generation activities (all other zones).</td><td>Objectives
ENGY-O1 The significant local, regional and national benefits derived from the use and development of energy resources are recognised and energy activities are provided for.
ENGY-O2 Energy activities are designed and located to minimise adverse effects on communities and the environment while recognising their technical, locational and operational constraints.

Policies
ENGY-P12 Allow activities associated with the investigation, identification and assessment of potential sites and energy sources for renewable electricity generation.
ENGY-P13 Allow the ongoing operation, maintenance and upgrading of existing renewable electricity generation activities, provided adverse effects are appropriately avoided, remedied or mitigated.
ENGY-P14 Allow small scale renewable electricity generation activities, including the export of any surplus electricity to a local distribution network, while avoiding, remedying and mitigating their adverse effects on the environment.
ENGY-P15 Manage the location, size and height of structures, setbacks from sensitive activities, and storage of hazardous substances associated with renewable electricity generation activities.
ENGY-P16 Avoid locating renewable electricity generation activities within or adjacent to:
1. outstanding natural features and landscapes
2. the coastal environment; and
3. historic heritage and scheduled features.
ENGY-P17 Require large scale renewable electricity generation activities to demonstrate they are located appropriately having regard to the effects of the activity, and:
1. any locational, logistical or technical constraints to developing, upgrading, operating or maintaining the activity;
2. the location of existing structures and infrastructure including, but not limited to, roads, navigation and telecommunication structures and facilities, and connections to distribution networks, and the efficient use of land;
3. the scale, intensity, duration or frequency of the activity's effects;
4. the design and site layout of the activity and its ability to internalise effects;
5. earthworks and construction effects;
6. adverse amenity, visual, traffic generation, safety, light overspill, shadow and noise effects;
7. adequate separation distances from sensitive activities and identified features to ensure conflict between activities, adverse effects and reverse sensitivity effects are minimised; and
8. use of adaptive management measures.
ENGY-P18 Require that all renewable electricity generation structures are remediated including, but not limited, to the removal of all surface equipment,</td><td>Rules
Renewable electricity generation activities
ENGY-R5 Small scale renewable electricity generation activities, including operation, maintenance and repairs, and upgrading
<table><tr><td>All zones</td><td>Activity status: PER
Where:
1. all Energy Effects Standards are complied with; and
2. all applicable underlying zone Effects Standards are complied with.</td><td>Activity status where compliance not achieved: RDIS
Matters over which discretion is restricted:
1. The extent and effect of non-compliance with any relevant Energy Effects Standards and any relevant matters of discretion in the infringed Effects Standard(s).</td></tr></table>
ENGY-R6 Exploratory wind generation activities
<table><tr><td>(1) Rural Production Zone</td><td>Activity status: PER
Where:
1. all Energy Effects Standards are complied with; and
2. all applicable Rural Production Zone Effects Standards are complied with.</td><td>Activity status where compliance not achieved: RDIS
Matters over which discretion is restricted:
1. The extent and effect of non-compliance with any relevant Energy Effects Standards and any relevant matters of discretion in the infringed Effects Standard(s).</td></tr><tr><td>(2) Commercial and Mixed Use Zones; Residential Zones; General Industrial Zone; Open Space And Recreation Zones; Special Purpose Zones; Rural Lifestyle Zone; Future Urban Zone</td><td>Activity status: NC</td><td>Activity status where compliance not achieved: N/A</td></tr></table>
ENGY-R7 Large scale renewable electricity generation activities, including operation, maintenance and repairs, and upgrading
<table><tr><td>(1) Rural Production Zone</td><td>Activity status: DIS</td><td>Activity status where compliance not achieved: N/A</td></tr></table></td><td>Application statement – other chapters contain provisions that may apply so 'Energy' chapter not standalone. Identifies cross references to other relevant District Plan provisions…
"In addition to the zone chapters, a number of District-wide and Overlay chapters also contain provisions that may be relevant for energy activities, including:
• Transport - The Transport Chapter contains provisions relating to traffic generation (TRAN-R8) and transport which relate to energy activities.
• Hazardous substances - The Hazardous Substances Chapter contains provisions relating to the management of any significant hazardous facility.
• Light - Energy activities can often be 24-hour a day operations and illumination is required for night operation resulting in light spill that may not be able to be fully internalised.
• Noise - The Noise Chapter contains specific controls in relation to large scale renewable electricity generation activities (NOISE-R10) and includes effects standards NOISES1 (maximum noise levels) and NOISE-S4 (noise insulation for noise sensitive activities).</td><td>Objectives recognise benefits of use and development of energy resources, but not specific to REG – incorporate all energy activities. Also recognise need to design energy activities to minimise effects while recognising technical, locational and operational constraints.

Provides specific provisions for wind, solar and small scale hydro.

No specific reverse sensitivity provisions for REG?

Onus on REG activities to demonstrate that they are "located appropriately".

The rules provide for the following:
Permitted activities (subject to standards) - in all zones, operation, maintenance, or upgrade of small-scale renewable electricity generation activities, and in the Rural Production Zone, Exploratory wind generation activities (subject to standards, doesn't appear to have a height standard);

Discretionary activities – in the Rural Production Zone, operation, maintenance, or upgrade of large-scale renewable electricity generation activities; Non-complying activities - Exploratory wind generation activities (all other zones), and operation, maintenance, or upgrade of large-scale renewable electricity generation activities (all other zones).</td><td>National Planning Standards format/ structure adopted.

ENGY chapter contains both oil and gas provisions (relevant to the district's context) and renewable electricity generation provisions.

NU (Network Utilities) chapter contains a specific cross-reference to the ENGY chapter (but not vice versa).

Two objectives (generic to all energy activities) and 7 REG-specific policies which:
• Allow investigation & assessment of potential sites
• Allow ongoing operation, maintenance, upgrading of existing REG provided adverse effects are appropriately avoided, remedied or mitigated
• Allow small scale REG while avoiding, remedying or mitigating adverse effects of structures, ensuring setbacks from sensitive activities and hazardous substances storage associated with REG
• Avoid locating REG within or adjacent to:
○ ONFLs
○ Coastal environment
○ Historic heritage and scheduled features
• Require large scale renewable electricity generation activities to demonstrate they are located appropriately with regard to their effects
• Require REG structure remediation and appropriate decommissioning (key difference from other plans).

Two scales explicitly provided for – small and large scale. Threshold for large scale is over 20kW (see definition).

Small-scale rule provisions applying to all zones – activities are permitted if can meet standards, or RD if standards not met.

Wind investigation activities – Permitted in Rural Production Zone if meet standards (RDA if don't), otherwise NC in all other zones [so very restrictive for other zones]</td></tr>
</table>

<table>
<tr><th>Plan & Status (Operative/ Appeals/ Proposed)</th><th>Applicable chapters/ sections</th><th>General REG policy approach (how REG dealt with; key issues; level of detail/ complexity; specific activity provision etc)</th><th>Provisions- Objectives & Policies</th><th>Provisions- Rules (including activity status, standards, matters of discretion)</th><th>Relationship with other plan provisions, overlays, defined terms, mapping, other methods (non-reg)</th><th>NPSREG recognition/ consistency (eg. level of recognition of benefits, enabling REG, managing reverse sensitivity etc)</th><th>Similarities / Differences (between the 6 plans and WCC operative)</th></tr>
<tr>
<td></td><td></td><td></td><td>all concrete surfacing, steel and cables during decommissioning or when sites have been decommissioned.</td><td>
<table>
<tr><td>(2) Commercial and Mixed Use Zones; Residential Zones; General Industrial Zone; Open Space And Recreation Zones; Special Purpose Zones; Rural Lifestyle Zone; Future Urban Zone</td><td>Activity status: NC</td><td>Activity status where compliance not achieved: N/A</td></tr>
</table>
Effects Standards

Small scale renewable electricity generation activities
ENGY-S1 Small scale wind turbine requirements
<table>
<tr><td>1. Maximum height above natural ground level to the tip of the blade: 20m.
2. Maximum number of turbines per site:
a. for sites comprising 20ha or less: one turbine;
b. for site comprising more than 20ha: three turbines
3. Maximum rotor diameter: 7.2m.
4. Minimum setbacks of the wind turbine and associated mast/pole:
a. from the closest wall of a habitable building (excluding balconies and decks): at least 60m; and/or
b. from the site boundaries site: a distance of at least 10 times the turbine/mast/pole's height (except where any adjoining site is in common ownership with the site where the turbine is located);
whichever is the greater.</td><td>Matters of discretion if compliance not achieved:
1. The type, scale, form and location of the turbine and any adverse effects on natural landforms and features, or the character and amenity values of the relevant zone.
2. The ability to mitigate any more than minor adverse visual amenity effects through use of screening, planting and alternative design.
3. Adverse noise and vibration effects on sensitive activities.</td></tr>
</table>
ENGY-S2 Small scale hydro turbine requirements
<table>
<tr><td>1. Maximum gross floor area of any associated building or structure (excluding structures within the bed of a river and/or existing dam structures): 50m .
2. Minimum setbacks:
a. No associated building or structure shall be located within an existing esplanade reserve or strip.
3. Any building or structure associated with small-scale hydro turbines shall be exempt from the setback from a priority waterbody in WB-R1, WB-R2 or WBR3.</td><td>Matters of discretion if compliance not achieved:
1. The type, scale, form and location of the turbine and any adverse effects on natural landforms and features, or the character and amenity values of the relevant zone.
2. The ability to mitigate adverse visual amenity effects through the use of screening, planting and alternative design.
3. Adverse noise and vibration effects on sensitive activities.</td></tr>
</table>
ENGY-S3 Solar panel requirements
</td><td>

Rural Production Zone - A number of energy activities are located in the Rural Production Zone and reference should also be made to that zone.
Major Facility Zone - Existing large-scale energy activities identified as major facilities are zoned with the Major Facility Zoning and provisions within the Major Facility Zone Chapter relate to these activities.”

Definitions:
DOMESTIC WIND TURBINE - means a wind turbine or other device used to derive energy from the wind with a blade length of no greater than 9m and a nacelle height of no greater than 20 metres from the ground. For other wind generating devices where a swept blade area is not applicable, then the output from the device shall be rated at no greater than 15kW. It does not include wind generating turbines/ devices, where there are more than one installed on any one site.
ENERGY ACTIVITIES - means the use of land and/or buildings for:

renewable electricity generation activities; and/or
oil and gas activities…

LARGE SCALE RENEWABLE ELECTRICITY GENERATION ACTIVITIES - means electricity generation activities utilising renewable energy sources with a capacity
</td><td></td><td>Provides for large scale REG only in Rural Production Zone as D. All other zones NC.
No specific reverse sensitivity provisions for REG?

Key difference – energy provisions provide for a ‘Major facilities zone’ which applies to existing large scale energy activities identified as major facilities but these are oil & gas related not REG.</td></tr>
</table>

Plan & Status (Operative/ Appeals/ Proposed)	Applicable chapters/ sections	General REG policy approach (how REG dealt with; key issues; level of detail/ complexity; specific activity provision etc)	Provisions- Objectives & Policies	Provisions- Rules (including activity status, standards, matters of discretion)	Relationship with other plan provisions, overlays, defined terms, mapping, other methods (non-reg)	NPSREG recognition/ consistency (eg. level of recognition of benefits, enabling REG, managing reverse sensitivity etc)	Similarities / Differences (between the 6 plans and WCC operative)
				1. Solar panels must: a. not be erected on a scheduled heritage building; and b. where erected on any roof of an existing building or structure: not exceed 250mm in height above the existing roof or structure. | Matters of discretion if compliance not achieved: 1. The effect on the special values and qualities of historic heritage 2. Whether the solar panels are of type, scale and form that is appropriate for the location and character of the zone. 3. The ability to mitigate adverse visual amenity effects through the use of screening, planting and alternative design. **Exploratory wind generation activities** **ENGY-S4 Exploratory wind generation requirements** Wind monitoring masts must comply with the following standards: 1. Minimum mast setbacks: a. from the site's boundaries: a distance of at least 10 times the mast's height (except where any adjoining site is in common ownership with the site where the turbine is located or where prior to the mast being erected, the written approval of owners and occupiers of any property that adjoins a site boundary where the minimum mast setback will not be achieved has been obtained and is clearly endorsed on all relevant building plans provided to the Council); and 2. Maximum duration of activity: five years; and/or 3. Removal of mast and all associated structures/equipment: no later than two months after the cessation of wind monitoring activities for any reason. | Matters of discretion if compliance not achieved: 1. The type, scale, form and location of the turbine and any adverse effects on natural landforms and features, or the character and amenity values of the relevant zone. 2. The ability to mitigate adverse visual amenity effects through the use of screening, planting and alternative design. 3. Adverse noise and vibration effects on sensitive activities.	of 20kW or greater for the purpose of exporting electricity directly into the distribution network or National Grid. It includes all ancillary components and activities such as substations, climate/ environmental monitoring equipment, earthworks, roading, maintenance buildings, temporary concrete batching plants, internal transmission and fibre networks, vegetation clearance, and site rehabilitation works. **SMALL SCALE RENEWABLE ELECTRICITY GENERATION ACTIVITIES** - means renewable electricity generation at a capacity of no greater than 20kW for the purpose of using or generating electricity on a particular site, or supplying an immediate community, or connecting into the distribution network, and includes generation using solar, wind, hydro and biomass energy resource.		