**BEFORE THE HEARING COMMISSIONERS**

**IN THE MATTER** of the Resource Management Act 1991

**AND**

**IN THE MATTER** Proposed Plan Change 18 to the Mackenzie District Plan

**STATEMENT OF EVIDENCE OF DR PHILIP HUNTER MITCHELL ON BEHALF OF GENESIS ENERGY LIMITED**

**12 February 2021**

**EXECUTIVE SUMMARY**

1. This statement of planning evidence has been prepared at the request of Genesis Energy Limited (trading as “**Genesis**”)
2. As detailed in Genesis’ submission the key issue of concern to Genesis in respect of Plan Change 18 (“**P18**”) to the Mackenzie District Plan relates to ensuring the operation, maintenance and upgrading of the Tekapo Power Scheme is appropriately provided for.
3. I consider that there are two key issues with PC18:
   1. The lack of appropriate and accurate mapping identifying Significant Natural Areas and instead relying on the resource consenting process to do so; and
   2. The need to ensure that the ongoing operation, maintenance and enhancement of the Tekapo Power Scheme is provided for, while also managing the potential effects on indigenous biodiversity.
4. It is beyond debate that renewable electricity generation is an integral part of New Zealand’s transition to a low carbon economy. In this regard, the Government has agreed a framework that drives climate change policy towards low greenhouse gas emissions and climate resilience in New Zealand. This framework supports New Zealand’s international commitments under the Paris Agreement, including the target of reducing emissions by 11% below 1990 levels by 2030. By 2050, the aim is to reduce New Zealand’s greenhouse gas emissions to net zero. If New Zealand’s economy is to be successfully decarbonised, it seems logical to me that:
   1. The current output of renewable electricity generation should be protected and enhanced;
   2. Transforming New Zealand’s energy economy in this way will require a significant new quantum – by some estimates a doubling of current levels – of renewable electricity generation by 2050.
5. Irrespective, providing for and protecting the continued operation, maintenance and enhancement of New Zealand’s existing hydro schemes, including the Tekapo Power Scheme, will be a key component in achieving greenhouse gas emission reduction targets.
6. To give effect to the Canterbury Regional Policy Statement and National Policy Statement for Renewable Electricity Generation 2011, I consider that PC18 needs to be modified to include an objective specific to the renewable electricity generation and transmission, and to ensure that Policy 7 (which is specific to renewable electricity generation and transmission adequately provides for the ongoing operation, maintenance and upgrading of the Tekapo Power Scheme.

# INTRODUCTION

# Qualifications and experience

1. I hold the degrees of Bachelor of Engineering (Hons) and Doctor of Philosophy, both from the University of Canterbury.
2. I am employed by Mitchell Daysh Limited, an environmental consulting practice with five offices around New Zealand that I cofounded in 2016. Previously I was a Director of Mitchell Partnerships Limited, an environmental consultancy I established in 1997, and which was merged with Environmental Management Services to form Mitchell Daysh Limited. Prior to that, I was the Managing Director of Kingett Mitchell & Associates Limited, a firm that I co-founded in 1987.
3. I am a past president and founding executive committee member of the Resource Management Law Association, a full member of the New Zealand Planning Institute and in 2015 was a recipient of the New Zealand Planning Institute’s Distinguished Service Award.
4. I have practiced in the field of resource management for the past 34 years during which time I have had a lead resource management role in many significant projects throughout New Zealand. Such projects include number of hydro-electricity developments, including consent applications associated with the Waikaremoana Power Scheme, Tongariro Power Scheme and the Tekapo Power Scheme.
5. I have acted on several Ministerial advisory panels established to review aspects of the Resource Management Act 1991 (“**RMA**”) and was a member of the Technical Advisory Group established to review sections 6 and 7 of the RMA.
6. My principal areas of practice are: providing resource management advice to the private and public sectors; facilitating public consultation processes; undertaking planning analyses; managing resource consent acquisition projects; and developing resource consent conditions.
7. I have acted as a Hearings Commissioner on some 60 occasions, many in the role of Hearing Chair. In that regard, I am currently chairing the hearing of submissions on the Proposed Waikato District Plan.
8. Previously, I was appointed jointly by the Minister for Canterbury Earthquake Recovery and the Christchurch City Council as a Hearings Commissioner for the replacement of the Christchurch City District Plan (the district plan that is intended to facilitate the rebuilding of Christchurch).
9. I have prepared this statement of evidence in my capacity as an expert and acknowledge that I have read and understand the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note dated 1 December 2014. I have complied with it when preparing my statement of evidence, and I agree to comply with it when I give any oral evidence. Other than where I state that I am relying on the evidence of another person, my evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

# Involvement in the process

1. I was engaged in December 2020 by Genesis Energy Limited (trading as “**Genesis**”) to provide planning advice in respect of Proposed Plan Change 18 (“**PC18**”) to the Mackenzie District Plan (“**MDP**”).
2. I have prepared this statement of evidence at the request of Genesis.
3. In preparing this evidence I have reviewed Genesis’ current resource consents, as well as the following:
   1. Genesis’ Primary Submission on PC18, dated 9 March 2018;
   2. Genesis’ Further Submissions on PC18, dated 4 May 2018;
   3. Section 32 Evaluation Report for Plan Change 18 (“**section 32 report**”);
   4. Section 42A report on PC18, dated 14 December 2020 (“**section 42A report**”) and all appendices prepared by Ms Liz White; and
   5. Section 42A Technical Report - Ecology, dated 10 December 2020, prepared by Mr Mike Harding.

# Purpose and scope of evidence

1. In my evidence I will:
   1. Summarise the environmental setting within which the Tekapo Power Scheme (“**TekPS**”) sits;
   2. Set out the relevant planning context;
   3. Provide my analysis of the matters raised in Genesis’ submissions; and
   4. Provide a brief conclusion.

# ENVIRONMENTAL SETTING

1. The following provides a brief overview of the TekPS:
   1. The TekPS sits at the head of the Waitaki Valley and comprises the Tekapo A (25 megawatts (“**MW**”)) and Tekapo B (160MW) power stations, Lake Tekapo and its associated inflows, and the Tekapo Canal. The TekPS is part of the Waitaki Power Scheme.
   2. The TekPS generates approximately 980 gigawatt hours per annum of renewable electricity (equivalent to the amount of electricity used annually by some 120,000 households). In generating this electricity, the TekPS makes an important contribution to New Zealand’s security of electricity supply.
   3. The TekPS has been part of the existing environment of the Waitaki Catchment for many decades, with Tekapo A being commissioned in 1951 and Tekapo B in 1977.
   4. The Waitaki catchment hydroelectricity power schemes (which include the TekPS and the Meridian owned power stations) form a substantial body of renewable electricity generation, contributing, on average, 25% of New Zealand’s renewable electricity generation.
   5. The Waitaki catchment hydroelectricity power schemes are of national significance. They provide security of supply to New Zealand’s electricity network, particularly in the South Island. The Waitaki based schemes alone provide approximately 60% of New Zealand’s controllable hydro storage capacity.
2. The TekPS relies on being able to store water in, and manage water levels of, Lake Tekapo, and on being able to reticulate water from Lake Tekapo through a series of power stations and canals. Those operations are authorised by a suite of resource consents from the Canterbury Regional Council to take, dam, divert and discharge water which expire in 2025.
3. Most of Genesis’ activities associated with the operation and maintenance of the TekPS are controlled by the resource consents granted by the Canterbury Regional Council. I understand that Genesis does, however, undertake a range of ancillary activities and maintenance / upgrade activities that fall within the jurisdiction of the MDP. Some of these activities are permitted by way of the list of Scheduled Activities in the Rural Zone section of the MDP. However, other activities undertaken by Genesis do require resource consent, and therefore require full consideration of all applicable objectives and policies of the MDP, which as a result of PC18 will include the Indigenous Biodiversity section.
4. Such activities that have required resource consent include:
   1. Tekapo Canal Remediation Project (2012-2014)

* The removal and reinstatement of a double culvert and associated earthworks.
* The establishment and operation of a construction management site.
* The establishment and operation of borrow and spoil pits.
* The establishment and operation of security, maintenance and construction lighting.
* The storage and use of hazardous substances at the construction management site.
* All associated ancillary activities.
  1. Tekapo Intake Gate Project: To construct, operate and maintain a new intake gate structure for the Tekapo Power Scheme on the shoreline of Lake Tekapo.

# THE PLANNING CONTEXT

1. The statutory documents I have analysed when assessing PC18 are:
   1. The National Policy Statement for Renewable Electricity Generation 2011 (“**NPSREG**”); and
   2. The operative Canterbury Regional Policy Statement (“C**RPS**”).
2. Although they have no statutory effect at the present time, I have also considered both the Draft National Policy Statement for Indigenous Biodiversity (“**draft NPSIB**”), and the recently released draft report from the Climate Change Commission titled “2021 Draft Advice for Consultation” because they provide some useful context.

# National Policy Statement for Renewable Electricity Generation 2011

1. The objective of the NPSREG is:

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.

1. Overall, the NPSREG explicitly recognises that renewable electricity generation is a matter of national significance, and that significance is to be recognised by providing for the development, operation, maintenance and upgrading of existing renewable electricity generation activities.
2. In my opinion, and to be more specific, the policies of the NPSREG that are directly relevant to the consideration of PC18 are:

**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:

* 1. maintaining or increasing electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions;
  2. maintaining or increasing security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation;
  3. using renewable natural resources rather than finite resources;
  4. the reversibility of the adverse effects on the environment of some renewable electricity generation technologies;
  5. avoiding reliance on imported fuels for the purposes of generating electricity

**B. Acknowledging the practical implications of achieving New Zealand’s target for electricity generation from renewable resources**

POLICY B

Decision-makers shall have particular regard to the following matters:

1. 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
2. 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
3. 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.

**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:

1. the need to locate the renewable electricity generation activity where the renewable energy resource is available;
2. logistical or technical practicalities associated with developing, upgrading, operating or maintaining the renewable electricity generation activity;
3. 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;
4. designing measures which allow operational requirements to complement and provide for mitigation opportunities; and
5. adaptive management measures.

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.

**E. Incorporating provisions for renewable electricity generation activities into regional policy statements and regional and district plans**

….

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, maintenance, and upgrading of new and existing hydro-electricity generation activities to the extent applicable to the region or district.

1. The section 32 report for PC18 does not address the NPSREG. There is no evidence that the NPSREG was actively considered in the promulgation of PC18, much less that it has been given effect to.
2. However, the section 42A report does provide an analysis of the NPSREG, stating[[1]](#footnote-2):

31. The NPSREG sets out an objective and policies to enable the sustainable management of renewable electricity generation under the RMA. The overarching objective seeks recognition of the national significance of renewable electricity generation (REG) activities, by providing for their development, operation, maintenance and upgrade, to increase the proportion of energy generated from renewable energy sources in line with Government targets.

32. The NPSREG policies broadly require recognition and provision for the national significance and benefits of REG activities; particular regard to be given to the nature and constraints of REG activities and the achievement of REG targets; and consideration of offsetting and compensation for any residual adverse effects that cannot otherwise be avoided, remedied or mitigated. In relation to hydro-electricity resources, the NPSREG also directs that district plans include provisions to provide for the development, operation, maintenance and upgrading of new and existing hydroelectricity generation activities.

33. The NPSREG is relevant to PC18 as it includes specific provisions that apply to indigenous vegetation clearance associated with the Waitaki Power Scheme.

…

301. The NPSREG requires that the national significance of REG activities is recognised by providing for the development, operation, maintenance and upgrading of REG activities (Objective). It explicitly directs that district plans include provisions to provide for the development, operation, maintenance and upgrading of existing REG activities (Policy E2). It directs that the national significance of REG activities are recognised and provided for, including its benefits, which include the reversibility of adverse effects on the environment of some REG technologies (Policy A). The NPSREG also directs that particular regard is given to maintaining generation output, which may require protection of the assets, operational capacity and continued availability of the energy resource (Policy B). It also requires that particular regard is had to practical constraints of REG activities, including the location of the energy resource, logistical or technical practicalities and location of existing infrastructure. More specifically it requires particular regard is had to designing measures which allow operational requirements to complement and provide for mitigation opportunities; and for adaptive management measures (Policy C1). Policy C2 also requires that regard is had to offsetting measures or compensation, when considering any residual environmental effects that cannot be avoided, remedied or mitigated.

302. It is my view that the NPSREG does not direct that the environmental effects arising from REG activities are ignored. Policy C2 anticipates that environmental effects will be avoided, remedied or mitigated except where they “cannot” be. What the NPSREG requires is that the provisions within PC18 continue to provide for the development, operation, maintenance and upgrading of the WPS, as a REG activity. Provision can still be made for these activities through a consenting framework provided that the requirement for consent in relation to indigenous vegetation clearance does not impede the direction in the NPSREG. For example, does needing a consent stop generation output being maintained, affect operational capacity or affect the availability of the energy resource? Does the consenting framework require environmental effects to be avoided, remedied or mitigated, and allow for offsetting or compensation where this cannot be achieved? Does the consent process provide adequate consideration of the practical constraints associated with the WPS?

303. It is also important to remember that the rule package is required to implement the proposed policy direction and ultimately achieve the objectives in PC18, as well as give effect to the CRPS (both in terms of biodiversity outcomes and energy outcomes) and the NPSET. PC18 introduces a new policy framework relating to management of indigenous biodiversity and while there is still a need to provide for REG activities, in my view it will be appropriate, in some instances, to manage the effects of these activities through the consent process. This is necessary to ensure that the indigenous biodiversity outcomes sought by the MDP and CRPS are achieved at the same time.

304. In my view, at a broad level, the separate set of provisions for the WPS gives effect to the direction in the NPSREG. This is because it recognises that in the case of the WPS – being a REG activity – its development, operation, maintenance and upgrading must be provided for. Where consent is required, the consenting framework then allows for consideration of how the effects of the WPS on indigenous biodiversity are managed, whilst still providing for these activities.

1. While I generally agree with Ms White’s analysis of the NPSREG in the context of PC18, I still consider that some further refinements to the provisions of PC18 are required to ensure that it gives effect to the NPSREG. I discuss these refinements later in this statement of evidence.

# Canterbury Regional Policy Statement

1. The CRPS is not comprehensively addressed in the section 32 report, despite the requirement that PC18 must “give effect” to the CRPS.
2. There is an analysis of the CRPS in the 42A report, however the analysis in that report is predominantly confined to highlighting key provisions contained in Section 9 (Ecosystems and Indigenous Biodiversity).
3. In particular, the section 42A report states:

40. Chapter 9 of the CRPS pertains to ecosystems and indigenous biodiversity. Its stated focus is on s6(c) of the RMA.

41. In accordance with s62 of the RMA, Chapter 9 sets out which local authority is responsible for specifying provisions relating to controlling the use of land to maintain indigenous biological diversity. This sets out that territorial authorities have sole responsibility for controlling the use of land for the maintenance of indigenous biological diversity on all land outside of wetlands, the coastal marine area, and beds of rivers and lakes. The Regional Council and Mackenzie District have joint responsibility for controlling use of land in beds of rivers and lakes and wetlands, if the District Plan identifies a significant area which includes a bed of a river/lake or a wetland, or includes indigenous vegetation clearance provisions that apply to these areas. Otherwise, the responsibility for control of these areas for the maintenance of indigenous biological diversity falls to the Regional council.

42. There are three objectives in this chapter:

*9.2.1 – The decline in the quality and quantity of Canterbury’s ecosystems and indigenous biodiversity is halted and their life-supporting capacity and mauri safeguarded.*

*9.2.2 - Restoration or enhancement of ecosystem functioning and indigenous biodiversity, in appropriate locations, particularly where it can contribute to Canterbury’s distinctive natural character and identity and to the social, cultural, environmental and economic well-being of its people and communities.*

*9.2.3 – Areas of significant indigenous vegetation and significant habitats of indigenous fauna are identified and their values and ecosystem functions protected.*

43. Policy 9.3.1 directs how significance is to be determined and links to an Appendix containing criteria. Method 3 under this policy directs territorial authorities to provide for the identification and protection of significant areas, with District Plan rules managing indigenous vegetation clearance to provide for a case-by-case assessment of the significance of an area and whether protection is warranted. Method 5 also encourages working with landowners to identify significant areas for inclusion in district plans.

44. Policy 9.3.3 directs the adoption of an integrated and co-ordinated management approach to halting the decline in the region’s biodiversity through various methods. Of relevance to territorial authorities, Method 4 directs that provisions are included in district plans to achieve integrated management of the actual and potential effects of land use on the life-supporting capacity and/or mauri of ecosystems and the protection of indigenous biodiversity.

45. A number of the methods under different policies state all local authorities should protect significant areas/life-supporting capacity and/or mauri of ecosystems etc (depending on the focus of the policy), as they undertake their own operations, unless the adverse effects on the areas/habitats/ecosystems cannot be avoided, and are necessary for the maintenance of erosion or flood protection structures or for the prevention of damage to life or property by floods/fire or safeguarding public health.

46. Policy 9.3.4 seeks to promote the enhancement and restoration of Canterbury’ ecosystems and indigenous biodiversity in “appropriate locations” where it will improve the functioning and long term sustainability of the ecosystems.

47. Policy 9.3.6 sets criteria that are to be applied to biodiversity offsets. These are discussed further when I address the submissions on offsetting.

1. However, PC18 is required to give effect to the CRPS as a whole, not just specific chapters, and, in my opinion, that requires a broader analysis of the other chapters of the CRPS.
2. In that regard, I consider that the following provisions of the CRPS are also directly relevant to PC18:

**Policy 5.3.9 – Regionally significant infrastructure (Wider Region)**

In relation to regionally significant infrastructure (including transport hubs):

…

(2) provide for the continuation of existing infrastructure, including its maintenance and operation, without prejudice to any future decision that may be required for the ongoing operation or expansion of that infrastructure; and

(3) provide for the expansion of existing infrastructure and development of new infrastructure, while:

(a) recognising the logistical, technical or operational constraints of this infrastructure and any need to locate activities where a natural or physical resource base exists;

(b) avoiding any adverse effects on significant natural and physical resources and cultural values and where this is not practicable, remedying or mitigating them, and appropriately controlling other adverse effects on the environment; and

(c) when determining any proposal within a sensitive environment (including any environment the subject of section 6 of the RMA), requiring that alternative sites, routes, methods and design of all components and associated structures are considered so that the proposal satisfies sections 5(2)(a) – (c) as fully as is practicable.

**Methods**

Territorial authorities:

Will:

4. Set out objectives and policies, and may include methods in district plans which:

…

(c) avoid, remedy or mitigate the adverse effects of regionally significant infrastructure on the environment.

**Objective 16.2.2 - Promote a diverse and secure supply of energy**

Reliable and resilient generation and supply of energy for the region, and wider contributions beyond Canterbury, with a particular emphasis on renewable energy, which:

(1) provides for the appropriate use of the region’s renewable resources to generate energy;

(2) reduces dependency on fossil fuels;

(3) improves the efficient end-use of energy;

(4) minimises transmission losses;

(5) is diverse in the location, type and scale of renewable energy development;

(6) recognises the locational constraints in the development of renewable electricity generation activities; and

(a) avoids any adverse effects on significant natural and physical resources and cultural values or where this is not practicable, remedies or mitigates; and

(b) appropriately controls other adverse effects on the environment.

**Policy 16.3.3 – Benefits of renewable energy generation facilities**

To recognise and provide for the local, regional and national benefits when considering proposed or existing renewable energy generation facilities, having particular regard to the following:

(a) maintaining or increasing electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions;

(b) maintaining or increasing the security of supply at local and regional levels, and also wider contributions beyond Canterbury; 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 facilities;

(e) avoiding reliance on imported fuels for the purposes of generating electricity; and

(f) assisting in meeting international climate obligations.

**Methods**

…

# Territorial authorities:

Will:

(2) Set out objectives and policies, and may include methods in district plans that recognise the local, regional and national benefits of renewable energy supply, including security of supply, providing for electricity capacity, and assisting in meeting international climate obligations.

**Policy 16.3.5 - Efficient, reliable and resilient electricity generation within Canterbury**

To recognise and provide for efficient, reliable and resilient electricity generation within Canterbury by:

(1) avoiding subdivision, use and development which limits the generation capacity from existing or consented electricity generation infrastructure to be used, upgraded or maintained;

(2) enabling the upgrade of existing, or development of new electricity generation infrastructure, with a particular emphasis on encouraging the operation, maintenance and upgrade of renewable electricity generation activities and associated infrastructure:

(a) having particular regard to the locational, functional, operational or technical constraints that result in renewable electricity generation activities being located or designed in the manner proposed;

(b) provided that, as a result of site, design and method selection:

(i) the adverse effects on significant natural and physical resources or cultural values are avoided, or where this is not practicable remedied, mitigated or offset; and

(ii) other adverse effects on the environment are appropriately controlled.

(3) providing for activities associated with the investigation, identification and assessment of potential sites and energy sources for renewable electricity generation;

(4) maintaining the generation output and enabling the maximum electricity supply benefit to be obtained from the existing electricity generation facilities within Canterbury, where this can be achieved without resulting in additional significant adverse effects on the environment which are not fully offset or compensated.

**Methods**

Territorial authorities:

Will:

(3) Set out objectives and policies, and may include methods in district plans that:

…

(b) enable the upgrade of existing and establishment of new electricity generation infrastructure, while avoiding or mitigating the adverse effects referred to in Policy 16.3.5(2)(a) - (b) above and controlling other adverse effects;

(c) provide for activities associated with the investigation, identification and assessment of potential sites and energy sources for renewable energy generation.

…

1. I have seen no analysis to indicate that these provisions have been considered when preparing PC18.

# The Draft National Policy Statement for Indigenous Biodiversity

1. The draft NPSIB was released for submissions in 2019. While the draft NPSIB has no legal effect, I consider that it provides some useful context, but accepting that it is still, in theory, subject to change.
2. There are six (6) objectives in the draft NPSIB, including the objective to maintain indigenous biodiversity (Objective 1). The objectives are supported by 15 policies. Of particular importance to PC18, and the requirement to identify Significant Natural Areas (“**SNA**”), is Policy 6:

**Policy 6:** to identify and protect areas of significant indigenous vegetation or significant habitat of indigenous fauna by identifying and managing them as SNAs.

1. Policy 7 requires the maintenance of biodiversity outside of SNAs:

**Policy 7:** to manage subdivision, use and development outside SNAs as necessary to ensure indigenous biodiversity is maintained.

1. Policy 8 recognises that there are some activities that have locational constraints and must be located where the resource exists (which may include areas with high biodiversity values). I consider that renewable electricity generation (including hydro-electricity generation) is an example of an activity with a locational constraint in that they need to occur where the water resource allows for it.

**Policy 8:** to recognise the locational constraints that apply to specific subdivisions, uses and developments.

1. Similarly, Policy 10 is applicable for existing activities that have modified indigenous vegetation and habitats of indigenous fauna.

**Policy 10:** to provide for appropriate existing activities that have already modified indigenous vegetation and habitats of indigenous fauna.

1. Part 3 of the draft NPSIB sets out what local authorities must do to give effect to its objectives and policies. Implementation requirement 3.8 requires district councils to identify and map significant natural areas. Implementation requirement 3.9 sets out an effects management hierarchy for activities impacting SNAs that must be implemented. This requirement provides some flexibility for activities that have operational or functional needs to locate in a specific area, and for nationally significant infrastructure.
2. Implementation requirement 3.12 applies to the management of effects for existing activities within an SNA. This provision requires existing activities that may adversely affect indigenous biodiversity be provided for while also ensuring that there are no additional adverse effects on indigenous biodiversity.

# Climate Change Commission Draft Advice for Consultation

1. The Climate Change Commission recently released a draft report detailing its advice to the Government in respect to the commitment made by the Government to reach net zero emissions of long-lived gases by 2050. The Commission is currently seeking submissions on the draft report.
2. While this draft report has no legal effect, I consider it provides very useful context, and reiterates the importance of renewable electricity generation, including the TekPS, and the wider Waitaki Power Scheme, in meeting New Zealand’s climate change aspirations.
3. The draft report identifies a number of priority areas for action to achieve net zero emissions[[2]](#footnote-3):

Priority areas for action include increasing the number of electric vehicles on our roads, increasing our total renewable energy, improving farm practices and planting more native trees to provide a long-term carbon sink.

1. In respect of the “Heat, industry and power” sector, the report states[[3]](#footnote-4):

Aotearoa will need to maximise the use of electricity. This means generating and using more low emissions electricity for vehicles and for process heat. Building more renewable generation such as wind, solar and geothermal will be required.

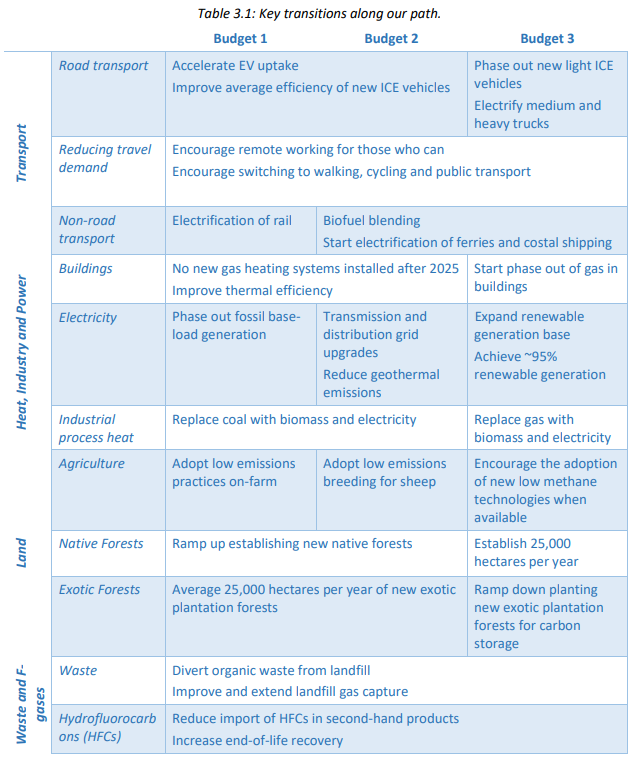
1. The report recommends that New Zealand will effectively need to eliminate the use of fossil fuels in the electricity sector[[4]](#footnote-5):

The Government needs to ensure the electricity system can reliably generate enough supply as Aotearoa shifts away from fossil fuels and increase its dependency on electricity generation. Currently, natural gas and coal provide this security of supply, particularly at peak times and in dry years when hydro lake levels are low. Relying on electricity to meet much of the country’s transport, heating, cooking and industry needs carries risk in a nation exposed to natural hazards and other potential disruptions.

…

The Government’s aspirational renewable electricity target is part of a bigger energy picture. To meet the 2050 target of net zero long-lived gases Aotearoa needs to transition away from fossil fuels and rely more heavily on renewable electricity and low emissions fuels like bioenergy and hydrogen, and improve energy efficiency[[5]](#footnote-6).

1. Section 3.7 of the draft report documents the key actions in New Zealand’s path to achieving the net-zero emissions across budget periods. The following table from the report summarises those key actions, which includes, in budget period 3 (2031 – 2035), expanding the renewable electricity generation base and achieving 95% renewable electricity generation. Table 3.1 is replicated below:



1. The commission also proposes to recommend that the Government set a renewable energy target of 60% renewable energy no later than 2035. For context, the draft report documents that in 2018, the country’s energy supply was 40% renewable with the remaining 60% coming from oil, natural gas and coal:



1. The draft report also states that it is anticipated that there will be a steep increase in demand for electricity as the number of electric vehicles on the country’s roads grows.

Through switching to electric vehicles, road transport, including heavy vehicles, can be almost decarbonised by 2050. This requires a rapid increase in electric vehicle sales so that nearly all vehicles entering the country’s fleet are electric by 2035. The switch to electric vehicles is expected to deliver significant cost savings while also reducing air and noise pollution and replacing imported fuels with local renewable electricity[[6]](#footnote-7).

….

Our path shows that annual electricity generation would need to increase by around 20% over 2018 levels by 2035 to meet industry and electric vehicles needs[[7]](#footnote-8).

1. The draft findings and recommendations of the Climate Change Commission reiterate the importance of New Zealand’s existing hydro-electricity generation fleet, and in my opinion, it seems logical to protect the output from existing assets, thus reducing reliance on yet to be identified and implemented alternatives.

# Analysis of Genesis’ Submissions on PC18

1. As I understand, the key issues of concern to Genesis in respect of PC18 are as follows:

# The identification of Significant Natural Areas and the lack of accurate mapping of these areas; and

# The provisions of PC18 appropriately recognising the TekPS while managing the effects of the activities associated with the TekPS on indigenous biodiversity.

1. I address each of these matters in turn.

*Identification of Significant Natural Areas*

1. The MDP currently does not identify Significant Natural Areas (“**SNAs**”). Rather it identifies Sites of Natural Significance (“**SONS**”). Mr Harding in his evidence states that the current list of SONS is “inadequate, dated and incomplete”[[8]](#footnote-9). Mr Harding explains that a review of the existing SONS, and the identification of additional SONS/SNAs, is underway but “far from complete”.
2. PC18 does not propose to add to the list of SONS, or to continue with managing indigenous vegetation clearance by type/location. Instead, the proposed approach would require resource consent for any clearance of indigenous vegetation (except that specifically identified as a permitted activity) with the resource consent process used to assess and determine significance of indigenous biodiversity.
3. The most appropriate way to protect SNAs/SONS, in my opinion, is to identify and map the areas, then ensure that those mapped areas are “significant” and then once that is complete, to clearly show the identified areas on the planning maps.
4. I note that Policy 6 of the draft NPSIB (which I discuss earlier in this statement) requires the identification and protection of areas of significant indigenous vegetation or significant habitat of indigenous fauna by identifying and managing them as SNAs.
5. The additional costs and uncertainty to private landowners as a result of lack of accurate SNA mapping and essentially using the resource consent process to determine an areas ecological significance cannot be justified in a section 32 context in my opinion. It is my opinion that the MDP should be clear in which areas are SONS/SNAs through appropriate ground truthing and mapping.
6. I note that the section 32 report did not even consider the mapping of SONS/SNAs as an option, and therefore no evaluation of the efficiency, effectiveness, costs and benefits of this option has been considered.
7. In respect of this, I consider that Policy 2 (from Attachment 1 from the section 42A report) could be amended as follows (my insertions in red underline and deletions in red ~~strikethrough~~):

**Policy 2**

To identify by mapping in the District Plan sites of significant indigenous vegetation or habitat in accordance with the criteria listed in the Canterbury Regional Policy Statement.

# *Renewable Electricity Generation / Waitaki Power Scheme Specific Provisions*

1. Genesis’ submission sought the inclusion of a new objective. I agree with Ms White that the objective that was proposed reads more like a policy than an objective. However, I still consider as specific objective is needed to address the management of indigenous biodiversity in relation to renewable electricity generation activities. My suggested wording is as follows:

While maintaining indigenous biodiversity, the special characteristics and significance of the Districts renewable energy generation and transmission assets are recognised and provided for

1. I also consider that an amendment should be made to Objective 1 (as numbered in Attachment 1 to the section 42A report) to ensure that the requirement to “enhance” significant areas is not absolute. There may be circumstances where it is appropriate to protect those areas, and some to protect and enhance. My suggested amendments are as follows (my insertions in red underline and deletions in red ~~strikethrough~~):

**Objective 1**

Land use and development activities are managed to:

(a) ensure the maintenance of indigenous biodiversity; and

(b) protect and, where practicable, enhance significant indigenous vegetation and significant habitats of indigenous fauna and riparian areas

1. In respect of Policy 7, which is renewable electricity generation specific, I agree with most of the amendments proposed by Ms White. However, I consider that further refinements are needed to ensure it gives effect to the direction of the NPSREG. I also consider that this policy should also include how effects are to be managed for renewable electricity generation activities, rather than reference to Policy 3 given that the NPSREG explicitly provides for environmental compensation to be considered alongside offsetting. The changes to Policy 7 I propose are as follows (my insertions in red underline and deletions in red ~~strikethrough~~):

**Policy 7**

To manage effects on indigenous biodiversity in a way that recognises and provides for the economic and social importance of the District’s nationally significant renewable energy generation and transmission network and also provides for ~~its~~ their development, operation, upgrading, and maintenance by:

(a) Enabling indigenous vegetation clearance that is essential for the operation, ~~and~~ maintenance and refurbishment of the Waitaki Power Scheme; and

(b) Providing for the upgrading and development of renewable energy generation, while managing the effects of development on indigenous biodiversity, ~~taking into account~~ having particular regard to:

(i) the location of existing structures and infrastructure, and the need to locate the activity where the renewable energy resource is available; and

(ii) the ~~wide extent and high~~ values of identified significant indigenous vegetation and habitat within and associated with the Tekapo, Pūkaki and Ohāu river systems; and

(iii) logistical, ~~or~~ technical or operational constraints ~~practicalities~~ associated with the activity; and

(iv) the importance of maintaining or increasing the output from existing renewable electricity generation activities; and

~~(v) in respect of Policy 6, environmental compensation which benefits the local environment affected, as an alternate, or in addition to offsetting, to address any residual environmental effects.~~

(c) When considering any residual environmental effects of renewable energy generation activities or electricity transmission activities that cannot be avoided, remedied or mitigated, having regard to offsetting measures or environmental compensation, including measures or compensation that benefits the local environment and community affected

1. In respect to my proposed clause (c), rather than focusing on an effects “management hierarchy” as set out in Policy 3 that prioritises one method over another in all situations, I consider that it would be preferable to refer to an “effects management” regime in the context of nationally significant renewable energy generation activities or electricity transmission activities where the effects of an activity can be appropriately considered taking into account the nature of the area potentially affected. For example, if a natural area with high biodiversity values is involved, it is logical that it should be protected, but for an area with some more limited biodiversity values it would be more appropriate to manage effects, to the extent needed to ensure that the biodiversity values can be maintained (or enhanced if practicable).
2. I note that draft NPSIB (which is not yet operative) includes a definition of “environmental compensation”. Appendix 4 of the draft NPSIB sets out the principles for environmental compensation. Similarly, the NPSREG explicitly contemplates environmental compensation being utilised in the case of renewable electricity generation activities (with offsetting and environmental compensation given the same priority) as per Policy C2 (which is set out in full earlier in my evidence).
3. A consequential change would be required to Policy 3 given that my proposed Policy 7 deals with how effects are to be managed in the context of renewable electricity generation activities. Some suggested wording is provided below (my insertions in red underline and deletions in red ~~strikethrough~~):

**Policy 3**

To manage the adverse effects of activities on significant indigenous vegetation and significant habitats of indigenous fauna by:

(a) avoiding the adverse effects of vegetation clearance and the disturbance of habitats as far as practicable; then

(b) remedying any adverse effects that cannot be avoided; then

(c) mitigating any adverse effects that cannot be remedied; and

(d) where there are any significant residual adverse effects, offsetting them in accordance with Policy 6.

This policy does not apply to activities associated with the Waitaki Power Scheme where Policy 7 applies.

1. In respect to the WPS specific rule framework, I do not agree with Ms White’s statement at paragraph 307 of the section 42A report where she states that “it is my view that permitting any vegetation clearance associated with REG activities is not appropriate, given the potential effects it could have on indigenous vegetation and habitats”. However, I note that Ms White does not make any significant changes to the Waitaki Power Scheme rule framework. It is my view that these rules, as notified, appropriately recognise the WPS through providing a permitted activity framework for operation and maintenance activities (which recognises the national significance of these electricity generation assets), and also ensures that if the permitted activity standards are not met, then resource consent will be required. Through that resource consenting process, any adverse effects on indigenous biodiversity can be appropriately considered and managed (through conditions of consent). In that regard, I agree with the minor changes to the rules as set out in Ms White’s section 42A report, and Attachment 1 to that report, as they appropriately give effect to the direction of the NPSREG.

# Section 32AA

1. Section 32AA of the RMA, requires that:

**Requirements for undertaking and publishing further evaluations**

(1) A further evaluation required under this Act—

(a) is required only for any changes that have been made to, or are proposed for, the proposal since the evaluation report for the proposal was completed (the changes); and

(b) must be undertaken in accordance with section 32(1) to (4); and

(c) must, despite paragraph (b) and section 32(1)(c), be undertaken at a level of detail that corresponds to the scale and significance of the changes; and

(d) must—

(i) be published in an evaluation report that is made available for public inspection at the same time as the approved proposal (in the case of a national policy statement or a New Zealand coastal policy statement or a national planning standard), or the decision on the proposal, is notified; or

(ii) be referred to in the decision-making record in sufficient detail to demonstrate that the further evaluation was undertaken in accordance with this section.

(2) To avoid doubt, an evaluation report does not have to be prepared if a further evaluation is undertaken in accordance with subsection (1)(d)(ii).

(3) In this section, proposal means a proposed statement, national planning standard, plan, or change for which a further evaluation must be undertaken under this Act.

1. In my opinion, the amendments I have proposed are more effective and efficient than those in the section 42A report because they will achieve similar environmental outcomes in respect to indigenous biodiversity, but do so in a manner that gives effect to the NPSREG and in so doing not impacting the ongoing operation, maintenance and upgrading of the TekPS.

# CONCLUSION

1. In addition to the amendments to PC18 recommended in the section 42A report, I consider that the additional amendments outlined in my evidence are necessary to give effect to the NPSREG and the CRPS.

# DR PHILIP HUNTER MITCHELL

12 February 2021

1. On pages 14 – 15 and 81 - 82. [↑](#footnote-ref-2)
2. On page11. [↑](#footnote-ref-3)
3. On page 15. [↑](#footnote-ref-4)
4. On page 90. [↑](#footnote-ref-5)
5. On page 111. [↑](#footnote-ref-6)
6. On page 50. [↑](#footnote-ref-7)
7. On page 90. [↑](#footnote-ref-8)
8. At paragraph 13. [↑](#footnote-ref-9)