



Submission by Genesis Energy Limited

Trading as Genesis

ON

Mackenzie District Plan Review – Stage 4

**Proposed Plan Changes 28 & 29 and associated variations to Plan
Changes 23, 26 & 27**

22 January 2025

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Proposed Plan Changes 28 & 29 and associated variations to Plan Changes 23, 26 & 27

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1. Introduction

Genesis Energy Limited (**Genesis**) welcomes the opportunity to provide a submission to Mackenzie District Council on Proposed Plan Changes 28 (**PC28**) and 29 (PC29) and associated variations to Plan Changes 23, 26, and 27 of the Mackenzie District Plan, with a particular focus on those sections that relate to Hazards and Risks.

Genesis is one of Aotearoa's largest electricity generator and energy retailer with a diverse portfolio of electricity generation assets. The electricity generation profile comprises a range of energy sources, including thermal and renewable energy sources from hydro, wind and solar. In the Mackenzie District, Genesis owns and operates the Tekapo Power Scheme (**TekPS**, the **scheme**), which is a part of the nationally significant Waitaki Power Scheme.

Section 2 of this submission outlines Genesis' specific submission points, the reasons for the submission, and the relief sought.

The focus of the specific submission points is to ensure the development, operation, maintenance and upgrade of the existing nationally significant Tekapo Power Scheme (and more broadly the Waitaki Power Scheme) assets are appropriately enabled and protected from reverse sensitivity effects within the Mackenzie District.

A particular focus of this submission is on reverse sensitivity effects of Hydro Inundation, as this has significant technical and financial implications for Genesis. The Building Act 2004 requires classification of dams into three categories of potential impact, 'Low', 'Medium' and 'High', based on the type of activity located in proximity to the dam, and has safety management requirements based on each category. These safety management requirements are impacted by the number of people within the Hydro Inundation overlay mapped within the Mackenzie District Plan. Therefore, increasing activity through development and subdivision within areas that are at risk of hydro inundation has the potential to require Genesis to retrospectively update and increase its safety management requirements, which in turn has technical and financial implications. Genesis' submission seeks to ensure all activities that have potential to affect its safety management requirements have regard to this potential effect.

Genesis wishes to be heard in support of this submission. If others make a similar submission, Genesis would be prepared to consider presenting a joint case with them at any hearing.

Genesis does not gain an advantage in trade competition through this submission.

Nāku noa, nā



Alice Barnett

Environmental Policy and Planning Manager

2. Submissions and Relief Sought

SUBMISSION AND RELIEF OF GENESIS ENERGY ON MACKENZIE DISTRICT COUNCIL PLAN CHANGE 28 – HAZARDS AND RISKS, HISTORIC HERITAGE AND NOTABLE TREES – VARIATION 1 TO PLAN CHANGE 26 AND VARIATION 1 TO PLAN CHANGE 27

Submission Point	Plan Section / Provision	Support / Oppose	Reason for Submission	Relief Sought (or wording of like effect)
Definitions				
1.	Critical Infrastructure (in relation to Natural Hazards Chapter only)	Support	The definition of critical infrastructure is appropriate and supported.	Retain the definition of critical infrastructure as notified.
2.	Major Hazard Facility	Support	The definition of major hazard facility is appropriate and supported.	Retain the definition of major hazard facility as notified.
3.	Natural Hazard Sensitive Building	Support	The definition of natural hazard sensitive building is appropriate and supported.	Retain the definition of natural hazard sensitive building as notified.
Variation 1 to Plan Change 26				
4.	INF Introduction Table 1	Support	The inclusion of the provisions of the contaminated land chapter, natural hazards, hazardous substances, historic heritage and notable trees chapters into table 1 of the INF introduction is appropriate because these provisions are relevant to the chapter.	Retain variation to table 1 as notified.
5.	REG Introduction – Table 1	Oppose in part	As noted in the introduction of the Hazardous Substances chapter, the risks of hazardous substances are already managed through other legislation. Applying additional controls to Renewable Energy Generation (REG) facilities, which often require storage of hazardous substances for batteries, transformers, and other operational necessities, is in opposition to the intention of the REG Chapter which seeks to provide for these activities.	Remove reference to the Hazardous Substances chapter in Table 1.
Hazardous Substances (HAZS)				
Subject to submission point 5, that the Hazardous Substances chapter should not apply to the REG chapter				
6.	Objective HAZS-01	Support	The recognition of the benefits of the use and storage of hazardous substances is supported	Retain Objective HAZS-01 as notified.
7.	Objective HAZS-02	Support	The recognition of reserve sensitivity effects on major hazard facilities is supported.	Retain Objective HAZS-02 as notified.
8.	Policy HAZS-P2	Support	The protecting of major hazard facilities is supported.	Retain Policy HAZS-P2 as notified.

Submission Point	Plan Section / Provision	Support / Oppose	Reason for Submission	Relief Sought (or wording of like effect)
9.	Rule HAZS-R1	Support	The provision for use and/or storage of hazardous substances outside of the High Flood Hazard Area as permitted activity is supported.	Retain Rule HAZS-R1 as notified.
10.	Rule HAZS-R2	Support	Control of new major hazard facilities and addition or alterations to existing major hazard facilities is supported.	Retain Rule HAZS-R2 as notified.
11.	Rule HAZS-R3	Support	Recognition of the risk associated with sensitive activities on sites adjoining major hazard facilities is supported.	Retain Rule HAZS-R3 as notified.
12.	Rule HAZS-R4	Support	Recognition of the risk associated with sensitive activities on sites of major hazard facilities is supported.	Retain Rule HAZS-R4 as notified.
Natural Hazards (NH)				
13.	Objective NH-01	Support	The objective is supported as it seeks to mitigate the risk of natural hazards to infrastructure.	Retain Objective NH-01 as notified.
14.	Objective NH-01	Support	The recognition of the risk of natural hazards to critical infrastructure is supported.	Retain Objective NH-02 as notified.
15.	Policy NH-P4	Support	The provision for the operation, maintenance, repair, replacement and upgrades of critical infrastructure where it doesn't increase flood risk on another site is supported.	Retain Policy NH-02 as notified.
16.	Policy NH-P5	Support	The recognition of functional and operational need for new critical infrastructure in the High Flood Hazard Area is supported.	Retain Policy NH-P5 as notified.
17.	Policy NH-P8	Support	The recognition of functional and operational need for critical infrastructure in the Fault Hazard Overlay is supported.	Retain Policy NH-P5 as notified.
18.	Rules NH-R3	Support	The provision for maintenance and upgrading of critical infrastructure in the Flood Hazard Assessment Overlay as a permitted activity, where the ground level is not raised, is supported.	Retain Rule NH-R3 as notified.
19.	Rule NH-R4	Support	The provision for new critical infrastructure where is it located outside of a High Flood Hazard Area as stated in a Flood Hazard Assessment as a permitted activity is supported.	Retain Rule NH-R4 as notified.
20.	Rule NH-R6	Support	The restricted discretionary activity status for new critical infrastructure in a fault hazard overlay is supported. The recognition of functional and operational need for critical infrastructure to be located in the overlay is also supported.	Retain Rule NH-R6 as notified.
Hydro Inundation (HI)				
21.	Hydro Inundation - Introduction	Support	The introduction of the Hydro Inundation Chapter is supported in general.	Retain the introduction as notified.
22.	Objective H1-01	Support	The recognition and protection of reverse sensitivity effects on hydro	Retain Objective HI-01 as notified.

Submission Point	Plan Section / Provision	Support / Oppose	Reason for Submission	Relief Sought (or wording of like effect)
			electricity generation activities is supported.	
23.	Policy HI-P1	Support	The recognition of the potential for reverse sensitivity effects on hydro electricity generation activities is supported.	Retain Policy HI-P1 as notified.
24.	Rule HI-R1	Support in part	<p>The provision that new occupied buildings in the GRUZ, within the Hydro Inundation Hazard Overlay, are only permitted activities where these buildings do not raise the Potential Impact Classification (“PIC”) is supported, as this recognises the increased reverse sensitivity towards the presence and operation of the Waitaki Power Scheme. However, it is also important to note that activities that that may impose requirements to change operational or management practices are not limited to those that raise the PIC between “Low, Medium and High”. For example, where an activity causes an increase in or change to a population at risk, there may be impacts on the Waitaki Power Scheme even where the PIC does not increase between the low, medium or high categories. Changes within each PIC classification can also affect the Scheme.</p> <p>The changed requirements can include changes in Emergency Response Plans and potential changes in performance criteria as well as implications for scheme upgrades that may not be technically feasible or financially viable. The recommended relief proposed by Genesis will ensure that increases in the safety management requirements of a hydroelectricity scheme not associated with changes in PIC are also appropriately captured.</p>	<p>Amend wording of the text as follows:</p> <p><i>HI-R1 – New Occupied Buildings</i></p> <p><i>Activity Status: PER</i></p> <p><i>Where:</i></p> <ol style="list-style-type: none"> <i>It is demonstrated that the building, will not raise the Potential Impact Classification (Low, Medium, High) under the Building Act 2004, <u>or increase the safety management requirements for a hydroelectricity scheme</u>, in a manner that would lead to a requirement to cease to operate, upgrade, modify, or replace the hydro-electricity related structures or to significantly alter the operation of an affected portion of a hydroelectricity scheme; and</i> <i>The building is located at least 150m from the toe of the embankment of any canal, dam or associated structure; and</i> <i>The building is sited within an area of low hazard where “Low Hazard Area” means those areas that result from any dam breach which are subject to inundation where the water depth (metres) x velocity (metres per second) is less than or equal to 1, or where depths are less than 0.5 metre; and</i> <i>The building is designed so that any habitable floor area of any residential building is a minimum of 300mm above the maximum inundation level that would result from any dam breach; or</i> <i>The building is a temporary structure that is required by the owner/operator of the hydro-electricity generation scheme to undertake maintenance of any dam, canal or and associated structures, and the building is in place for not longer than 12 months.</i>
25.	New Rule HI-R1A	New Rule	Whist the proposed definition of “New Occupied Buildings” encompasses a range of activities, and Genesis supports the need for, new occupied buildings to demonstrate that they will not raise or change the PIC of hydroelectricity related structures, Genesis considers that Rule HI-R1 does not adequately capture the scope of other activities (which may not necessarily be associated with new occupied buildings) that may also result in a PIC change or increase in the safety management requirements	<p><u><i>HI-R1A – All Activities (except residential visitor accommodation which is addressed by Rule HI-R3)</i></u></p> <p><u><i>Activity Status: PER</i></u></p> <p><u><i>Where:</i></u></p> <ol style="list-style-type: none"> <u><i>It is demonstrated that the activity, will not raise or change the Potential Impact Classification (Low, Medium, High) under the</i></u>

Submission Point	Plan Section / Provision	Support / Oppose	Reason for Submission	Relief Sought (or wording of like effect)
			<p>for a hydroelectricity operator. Changed requirements may have implications for scheme operations or upgrades that may not be technically feasible or financially viable.</p> <p>The recommended relief proposed by Genesis to include a new rule that captures these other activities ensures reverse sensitivity effects of activities within the Hydro-Inundation Overlay are appropriately managed.</p>	<p><i>Building Act 2004, or increase the safety management requirements for a hydroelectricity scheme, in a manner that would lead to a requirement to cease to operate, or to a requirement to upgrade, modify, or replace the hydro-electricity related structures or to significantly alter the operation of an affected portion of a hydroelectricity scheme; or</i></p> <p>2. <i>The activity is required by the owner/operator of the hydroelectricity scheme to undertake maintenance of any dam, canal or any associated structures.</i></p>
26.	Rule HI-R3	Support	This provision strikes an appropriate balance between enabling landowners to develop and use their land and minimising risks to human health and property from possible hydro inundation.	Retain HI-R3 as notified.
Subdivision (SUB)				
27.	SUB-R7E	Support in part	Subdivision within the Hydro Inundation Hazard Overlay will allow for increased activity in the overlay, which could increase the Potential Impact Classification of a hydroelectricity scheme and therefore result in additional technical and/or financial burden on operators. Therefore, this is a relevant consideration that should be given regard to when assessing applications.	<p>Amend wording of the text as follows:</p> <p>Activity Status: RDIS</p> <p>Matters of discretion are restricted to:</p> <p>a. <i>The potential effects of hydro inundation on people, buildings and structures.</i></p> <p>b. <i>The potential for future activities on the site to raise or change the Potential Impact Classification (Low, Medium, High) under the Building Act 2004, or increase the safety management requirements for a hydroelectricity scheme, in a manner that would lead to a requirement to cease to operate, or to a requirement to upgrade, modify, or replace the hydro-electricity related structures or to significantly alter the operation of an affected portion of a hydroelectricity scheme.</i></p> <p>And the activity complies with the following standards:</p> <p>SUB-S1 Allotment Size and Dimensions</p> <p>SUB-S2 Property Access</p> <p>SUB-S3 Water supply</p> <p>SUB-S4 Wastewater Disposal</p> <p>SUB-S5 Walkable Blocks</p> <p>SUB-S6 Corner Splays</p> <p>SUB-S7 Electricity Supply and Telecommunications</p> <p>SUB-S10 Stormwater Disposal</p> <p>PA-S1 Esplanade Requirements</p>

Submission Point	Plan Section / Provision	Support / Oppose	Reason for Submission	Relief Sought (or wording of like effect)
				<i>Matters of discretion are restricted to:</i> <i>SUB-MD1 Design</i> <i>SUB-MD2 Infrastructure</i> <i>SUB-MD3 Water Supply</i> <i>SUB-MD4 Stormwater Disposal</i> <i>SUB-MD5 Transportation Networks</i> <i>SUB-MD6 Easements</i> <i>SUB-MD7 Reverse Sensitivity</i> <i>SUB-MD8 Public Access</i> <i>SUB-MD9 Wastewater Disposal</i>

SUBMISSION AND RELIEF OF GENESIS ENERGY ON MACKENZIE DISTRICT COUNCIL PLAN CHANGE 29 – OPEN SPACE AND RECREATION ZONES, NOISE, ISNGS AND TEMPORARY ACTIVITIES - VARIATION TO PLAN CHANGE 23, VARIATION 2 TO PLAN CHANGE 26 AND VARIATION 2 TO PLAN CHANGE 27

Submission Point	Plan Section / Provision	Support / Oppose	Reason for Submission	Relief Sought (or wording of like effect)						
Variation to Plan Change 26										
28.	INF Introduction Table 1	Support	The inclusion of the provisions of the noise and signs chapters into table 1 of the INF introduction is appropriate because these provisions are relevant to the chapter.	Retain variation to table 1 as notified.						
Noise										
29.	NOISE R6	Support	The reference to NZS 6803:1999 Acoustics – Construction Noise and the Restricted Discretionary activity status when compliance is not achieved is supported.	Retain Rule NOISE-R6 as notified.						
30.	NOISE-Table 1 – Noise Limits	Support	Increasing the nighttime (10pm - 7am) noise limits from 40dBA to 45dBA, as measured from receiving sites in the GRUZ, is more consistent with NZS 6802:2008 and World Health Organisation guidelines.	Retain Table 1 as notified.						
Temporary Activities										
31.	Temporary Activities (TEMP)	Support in part	<p>Subject to acceptance of Genesis’ submission on Plan Change 28, the objectives, polices, and rules in the TEMP chapter are accepted.</p> <p>Genesis’ submissions on Plan Change 28 seek to ensure that any activities within the Hydro Inundation Overlay do not result in increased risks that require changes or upgrades to existing critical infrastructure.</p> <p>If the Plan Change 28 submissions are not adopted, then the objectives, polices, and rules in the TEMP chapter need to be updated to provide control of temporary activities within the Hydro Inundation overlay to recognise the reverse sensitivity effects these activities could have on hydroelectricity schemes by increasing the Potential Impact Classification.</p>	<p>Chapter HI is updated as per the Genesis submissions on Plan Change 28.</p> <p>Alternatively, update the Temporary Activities provisions to ensure that control of temporary activities within the Hydro Inundation overlay recognises the reverse sensitivity effects these activities could have on hydroelectricity schemes by changing or increasing the Potential Impact Classification. This includes:</p> <div><div>1. Amending TEMP-P1 Managing Effects of Temporary Activities as follows:</div><div>Manage the frequency and duration of temporary activities, and the bulk and location of temporary structures, to ensure amenity values are maintained <i>and reverse sensitivity effects within the Hydo Inundation Overlay are managed.</i></div><div>2. Amending TEMP-R1, R2, R3, R4, R5 and R6 to include a new condition 3 that any activity within the Hydro Inundation Overlay does not change or increase the PIC classification or increase the safety management requirements of for a hydroelectricity operator.</div><div>3. A new Standard “TEMP-S3” is added as follows:</div></div> <table><tr><td>TEMP-S3</td><td>Activities in the Hydro Inundation Overlay</td><td>Activity status where compliance not achieved:</td></tr><tr><td></td><td>1. Any activity within the Hydro Inundation Overlay will not raise or change the Potential Impact Classification (Low, Medium, High) under the Building Act</td><td>DIS</td></tr></table>	TEMP-S3	Activities in the Hydro Inundation Overlay	Activity status where compliance not achieved:		1. Any activity within the Hydro Inundation Overlay will not raise or change the Potential Impact Classification (Low, Medium, High) under the Building Act	DIS
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	1. Any activity within the Hydro Inundation Overlay will not raise or change the Potential Impact Classification (Low, Medium, High) under the Building Act	DIS								

						<p><u>2004, or increase the safety management requirements for a hydroelectricity scheme, in a manner that would lead to a requirement to cease to operate, or to a requirement to upgrade, modify, or replace the hydro-electricity related structures or to significantly alter the operation of an affected portion of a hydroelectricity scheme; or</u></p> <p>2. <u>The activity is required by the owner/operator of the hydroelectricity scheme to undertake maintenance of any dam, canal or any associated structures.</u></p>	
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