

**BEFORE AN EXPERT PANEL
LAKE PŪKAKI HYDRO STORAGE
AND DAM RESILIENCE WORKS**

FTAA-2510-1120

Under the **FAST-TRACK APPROVALS ACT 2024**

In the matter of an application for resource consents for the Lake Pūkaki
Hydro Storage and Dam Resilience Works

By **MERIDIAN ENERGY LIMITED**

Applicant

COMMENTS BY GENESIS ENERGY LIMITED

8 April 2026

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EXECUTIVE SUMMARY

1. Genesis Energy Limited (**Genesis**) has been invited under section 53 of the Fast-track Approvals Act 2024 (**FTAA**) to provide written comments on the substantive application by Meridian Energy Limited (**Meridian**) for the Lake Pūkaki Hydro Storage and Dam Resilience Works (**Pūkaki Project**).
2. Genesis' comments explain the adverse impacts of allowing Meridian to access, without restrictions, the contingent hydro storage (our 'fuel of last resort') at Lake Pūkaki. More recently Meridian has publicly recognised that "New Zealand's dry year risk is reducing".¹ The implications of the Pūkaki Project include:
 - (a) a nationally significant increase in system risk due to the loss of the contingent storage to the system and increased reliance on aging thermal assets, adversely affecting the security and reliability of electricity supply for New Zealand consumers relative to the existing regime;
 - (b) the implementation of a material change to the regime for access to Lake Pūkaki below 518 mRL without the comprehensive regulatory scrutiny that would ordinarily be required to properly assess and manage the resulting system-level risks; and
 - (c) a potentially prolonged loss of generation from nationally significant infrastructure, with cascading system-wide effects, if the Tekapo B Power Station temporary tailrace and weir (**Temporary Structure**) is compromised.
3. Failure of the Temporary Structure could result in system costs of up to \$2.5 billion in the worst-case scenario, depending on outage duration, storage levels, inflows and system conditions.
4. Taken together, these impacts go directly to whether the adverse impacts are sufficiently significant to be out of proportion to the project's benefits under section 85(3) of the FTAA. Genesis, supported by expert evidence, considers they are. Given the integrated nature of New Zealand's electricity system, the Pūkaki Project cannot be assessed in isolation. It affects the entire electricity system. These changes risk nationally significant adverse system impacts. On the other side of the equation the Pūkaki Project delivers marginal benefits.

¹ See **Appendix One**.

5. Genesis does not consider that the complexities of the matter, and the significance of the adverse impacts, can be managed through conditions. The Panel should exercise its discretion to decline the approvals.

Structure of these comments

6. Genesis' comments are summarised below. More details are provided in **Appendix One**. Genesis' comments also include:
 - (a) **Appendix Two**: evidence of Mr Andrew Balme on the background to, and operational context around, the Temporary Structure;
 - (b) **Appendices Three and Four**: evidence of Ms Jan Stanway and Mr Mark Groves attaching WSP New Zealand Limited (**WSP**) reports on the condition of, and potential risk to, the Temporary Structure;
 - (c) **Appendix Five**: evidence of Mr David Weaver on the likely market impact of failure of the Temporary Structure;
 - (d) **Appendix Six**: evidence of Mr Simon Coates on Meridian's benefit analysis; and
 - (e) **Appendix Seven**: evidence of Dr Phillip Mitchell attaching proposed conditions to at least provide an avenue towards managing the potential nationally significant adverse impacts on the Temporary Structure should the approvals be granted (an outcome which Genesis opposes).

BACKGROUND

7. The Pūkaki Project seeks approval under the FTAA to:
 - (a) lower the level of Lake Pūkaki below 518 mRL; and
 - (b) undertake maintenance works to protect the Pūkaki dam from the lower lake levels enabled by the application.
8. An application under the FTAA is required as lowering the lake levels as proposed is a prohibited activity under the Resource Management Act 1991 (**RMA**).
9. Lake Pūkaki provides at least 40% of New Zealand's electricity storage. Storage held in reserve for use in emergencies (**contingent storage**) and therefore plays a central role in New Zealand's energy security. Access to that supply, managed by Transpower as the System Operator, ensures that in

emergency situations New Zealand can retain access to sufficient electricity to power our economy and essential services.

10. In contrast, the Pūkaki Project, if granted, would bypass the role of Transpower (as System Operator). The electricity system operates as an interconnected whole. Lake Pūkaki cannot be viewed in isolation and the removal of its System Operator managed contingent storage places the entire electricity system at risk. If supply issues arise Transpower and the Electricity Authority have the statutory and regulatory roles and powers to manage and adapt the system for the benefit of New Zealand as a whole.
11. The maintenance works, the second part of the application, are solely required due to Meridian seeking a much broader ability to lower the lake levels below 518 mRL.² The present, emergency access only, has never resulted in the lowering of Lake Pūkaki below 518 mRL. Even if that was to happen in the next three winters it would be tightly managed and of short duration. Accordingly, the national benefits claimed by Meridian in respect of improved resilience of the dam,³ arise only in circumstances created by the broader operating regime it seeks to introduce.
12. Further, while Meridian's application refers to Policy 37 of the Waitaki Catchment Water Allocation Regional Plan, it does not mention rule 3(3). Under that rule the temporary lowering of Lake Pūkaki for the purposes of maintenance or rehabilitation of electricity generation infrastructure is a discretionary, not prohibited, activity. This confirms that there is no need for Meridian to seek the prohibited lake lowering consent to obtain consent to undertake maintenance works.
13. In its referral application, Meridian stated that (Genesis' emphasis added):⁴

Meridian is seeking approval to apply under the Fast-track Approval Act 2024 for consent to temporarily ease access restrictions on Lake Pūkaki contingent storage, allowing it to operate between 518 mRL and 513 mRL **over the next three years in winters 2025, 2026 and 2027, a period of potential electricity shortages**, without SSA or OCC triggers. Given the date of submission of this application, Meridian seeks flexibility to confirm the duration sought during the substantive application process. The reason being that based on current timelines it is possible that the consent may not be in place for the winter of 2025, thus subject to the decision makers' approval, Meridian may seek to

² See for example Meridian's application at 11, 14 and 17.

³ Meridian's application at 45.

⁴ Meridian's referral application at 4 (section 2.2).

amend the duration to be the three consecutive winters following the granting of the consent.

14. As a referred project, the 'project' is as described in the notice under s 28 of the FTAA.⁵ The s 28 notice provides the following description (Genesis' emphasis added):⁶

The project is described as seeking resource consents for water takes from Lake Pūkaki **to occur over three consecutive winters from winter 2026** at levels lower than the currently authorised minimum normal operating level of 518mRL (meters Relative Level).

The project also seeks resource consents to install permanent rock armouring on Pūkaki Dam at the southern end of the lake. Rock armouring works can only be undertaken when lake levels are lower than the normal minimum operating level of 518mRL. The works will take approximately 10-12 weeks to complete and may occur in stages over multiple years as lake levels allow.

15. Winter is not defined in the referral application or s 28 notice and should be given its natural and ordinary meaning.⁷

16. However, Meridian's substantive application does not limit the drawdown to three consecutive winters and is outside the scope of the 'project' under the FTAA.⁸ Meridian's modelling used a period of interest of January 2026 to January 2029 and estimates:⁹

- (a) a 3-4% probability the lake levels might fall below 518.0 mRL in any given week (ie not only during winter);
- (b) in the first year of eased operation, 23% of the historical modelled hydrological sequences dip below 518 mRL; and
- (c) in a worst-case scenario, the lake level falling below 518 mRL in early September and not returning above 518 mRL until December (not within the winter period).

17. The purpose of the FTAA is to "facilitate the delivery of infrastructure and development **projects** with significant regional or national benefits." When considering the purpose of the FTAA in deciding whether to grant the Pūkaki Project, the Panel must apply the 'project' as defined in the s 28 notice. Given

⁵ FTAA, s 4(1) definition of 'project'.

⁶ [Notice of Decision Lake Pūkaki Hydro Storage and Dam Resilience Works \(002\)](#)

⁷ The Electricity Industry Participation Code 2010 includes a definition of 'winter energy margin', but not 'winter'. Meridian's application and the s 28 notice do not refer to the code.

⁸ See page 11 under section 2.4 in respect of the proposed temporary operating framework: "for a three-year period through 2028"; page 14 under section 3 as to the proposed activity: "over the next three years to 31 December 2028"; page 14 under section 3.1 in respect of eased access "in the calendar years 2026-2028".

⁹ See Appendix B to the application, summarised at section 3.1 of the application.

the scope of the 'project' is explicitly time-bound to the winters of 2026, 2027 and 2028 by the s 28 notice, Genesis considers that if consent was to be granted, it must be confined to those circumstances.

ADVERSE IMPACTS OF THE PŪKAKI PROJECT

Adverse impact on System Security and Governance

18. The current framework deliberately reserves access to contingent storage as a fuel of last resort, triggered by the System Operator (Transpower) based on system-wide conditions. It is a benefit to New Zealand for such material decisions to be made by a regulated entity with full system visibility, driven by ensuring security of electricity supply and independent of commercial incentives.
19. The Pūkaki Project would remove that safeguard for a three-year (winter) period and replace it with owner/operator discretion, allowing contingent storage to be accessed based on commercial decision making rather than strictly system need focused on New Zealand as a whole (as explained in the evidence of Mr Coates).
20. This is not a marginal change. It is a structural shift in system governance from Transpower to Meridian, that has implications for the timing and frequency of use of what is currently contingent storage and has adverse impacts on the availability of storage during genuine system stress and where system risk sits if things go wrong.
21. Further, by pursuing the Pūkaki Project, Meridian is seeking to bypass the comprehensive regulatory scrutiny (both in respect of the Electricity Authority and Transpower) that would ordinarily apply to such a material system change.

Adverse impact on System Risk and Resilience

22. Hydro contingent storage is fast, finely controllable, and geographically dispersed. These characteristics mean it can respond quickly, scale flexibly, and avoid single points of failure, making it uniquely suited as a system-level 'fuel of last resort'.
23. Mr Coates' evidence is that easing restrictions on access to contingent storage has the adverse impact of increasing our exposure to low-probability, high-impact "black swan" events by reducing the system's storage buffer against unexpected supply shocks, which is a critical component of system resilience.

24. If the Pūkaki Project proceeds and this storage is used before all other system resources are deployed, security of supply may be dependent on the 44-year-old thermal generation units at Huntly Power Station. While highly reliable for assets of their age, they remain large, ageing, discrete machines that do not share the characteristics nor the reliability of hydro generation. This further increases the system's vulnerability to supply disruptions in those same low-probability, high-impact scenarios and is why the system must be viewed as an interconnected whole.

Adverse impact on the Temporary Structure

25. The purpose and/or condition of the Temporary Structure, and its operational importance, is set out in the evidence of Mr Balme, Ms Stanway and Mr Groves.
26. The Temporary Structure is critical to maintaining the tailwater levels required for safe operation of Tekapo B Power Station (Tekapo B) if the level of Lake Pūkaki falls below 518 mRL. If the Temporary Structure fails or degrades in such a way that it cannot maintain the necessary tailwater level at Tekapo B, Genesis must cease generation at Tekapo B to avoid rapid and potentially significant damage to the Tekapo B turbines and associated equipment.
27. In the event Genesis had to cease operating Tekapo B, the interconnected nature of the Tekapo Scheme means that Tekapo A Power Station would not be able to generate, and inflow from the Tekapo Scheme into Lake Pūkaki would stop. This would impact on available generation inflows for the remaining Waitaki Scheme Power Stations until the Tekapo Power Scheme was returned to operation.
28. The significance of that consequence is not speculative. Mr Balme confirms that outage durations required for repairs cannot be predicted as it would depend on repair scope and access constraints.
29. The Temporary Structure:
- (a) was designed and constructed in the 1970s as a short-term, high-risk facility¹⁰ to enable Tekapo B Power Station to operate while Lake Pūkaki was raised to its minimum operating level of 518 mRL, and has now significantly exceeded its intended service life;

¹⁰ As set out in the evidence of Mr Balme.

- (b) was described in a 1977 Ministry of Works and Development memo, emphasises the temporary nature of the structure (which must reflect the standard to which it was constructed):¹¹

It should be stressed that the chute is a high risk structure and minimal use only can be recommended. Continued filling of the lake is the only certain solution to freedom of operation of Tekapo B in this respect.

- (c) is summarised in the engineering assessment by WSP as:¹²

This position is consistent with WSP's assessment and conclusion that residual risk remains during re-operation of the temporary weir, chute, and sill structures. In particular, the potential for condition deterioration, historical performance issues, and uncertainty associated with submerged elements means that the likelihood of failure during operation is greater than it was at the time of original construction. This increased risk applies to both the chute and sill structures and reflects the temporary nature of the original design, the documented history of scour and repair, and the absence of confirmation that the existing condition is sufficient to safely accommodate the operating scenarios.

- (d) has been submerged for approximately 50 years, with observed deterioration, material displacement and uncertainty as to foundation condition.¹³

30. As explained above, under the existing regime, reliance on the Temporary Structure is only required during very rare (they have never occurred), system-triggered (i.e. Transpower as System Operator) emergency events. The Pūkaki Project would convert this into an unconditioned discretionary operational regime, fundamentally changing the risk profile of the Temporary Structure.

'Benefits' of the Pūkaki project

31. Mr Coates provides a review of Meridian's benefit analysis which shows that the potential benefits associated with allowing Meridian to lower Lake Pūkaki when it is in Meridian's commercial interests to do so, are limited, incremental in nature and depend on normal operating conditions continuing.
32. Further, it is unlikely that the modelled benefit, if realised, would translate into lower electricity costs for most end consumers. Any such benefit would be limited to those consumers directly exposed to spot wholesale prices and not hedged against that exposure. Accordingly, the extent to which any short-term

¹¹ Appendix A to the evidence of Mr Balme.

¹² WSP memo dated 26 March 2026 appended to the evidence of Mr Groves.

¹³ Evidence of Ms Stanway.

benefit would be passed through to consumers is uncertain and likely to be limited.

33. Against any benefits of the Pūkaki Project, and what can serve as a direct example of:
- (a) needing to look at the system as a whole; and
 - (b) the type of low-probability, high-impact risk that becomes more likely as reliance on lower lake levels increases.
34. Mr Weaver provides evidence specifically on the likely market impact of failure of the Temporary Structure. Failure of the Temporary Structure could result in system costs of up to \$2.5 billion in the worst-case scenario, depending on outage duration, storage levels, inflows and system conditions. Those figures are scenario based but they illustrate the scale of potential downside consequence. Importantly, those consequences are system-wide and would be borne by New Zealand consumers.
35. Genesis' position is that the adverse impacts of the Pūkaki Project are significant and the benefits are marginal such that the Panel may decline the approvals.

DECISION-MAKING CRITERIA

36. Greater detail on the decision-making criteria is set out in **Appendix One**.
37. The significance of this application cannot be underestimated. Under the RMA the operation of the lake levels outside the contingent storage release boundary (and limited other circumstances¹⁴) is a prohibited activity. That is not an activity status that is lightly applied under the RMA. While the Panel may still grant approvals for prohibited activities under the FTAA, it reinforces the need for rigorous scrutiny and a cautious approach to be adopted.

Adverse impacts are out of proportion to the Pūkaki Project's benefits

38. Genesis acknowledges the high bar the FTAA imposes for decline of a project,¹⁵ but this is a project that exceeds that bar. Section 85(3) of the FTAA requires the Panel to consider whether adverse impacts are sufficiently

¹⁴ Water taken for Town and Community water supplies, stock drinking-water, tourism and recreational facilities, maintaining fire-fighting capacity and the processing and storage of perishable produce, is exempt from all minimum lake levels specified. A temporary reduction in lake level below the minimum lake level specified in Table 4 of the Waitaki Catchment Water Allocation Regional Plan for the purposes of maintenance or rehabilitation of electricity generation infrastructure is also exempt from the minimum lake levels specified.

¹⁵ See for example the comments on the High Court in *Ngāti Kuku Hapū Trust v Environmental Protection Agency* [2025] NZHC 2453 at [66].

significant to be out of proportion to the Pūkaki Project's benefits. However, even if a project's adverse impacts are out of proportion to the project's benefits, the Panel retains a discretion to decline an approval or not.¹⁶ In exercising that discretion there are several matters which should weigh in favour of a decline, including:

- (a) the application for lowering the lake level (not for the maintenance works) is otherwise for a prohibited activity;
- (b) the nationally significant increase in system risk due to the loss of the contingent storage to the system and increased reliance on aging thermal assets, adversely affecting the security and reliability of electricity supply for New Zealand consumers relative to the existing regime; and
- (c) a potentially prolonged loss of generation from nationally significant infrastructure, with cascading system-wide impacts, if the Temporary Structure is compromised by the application.

Imposition of conditions

39. In March 2026, Meridian filed updated versions of its proposed conditions. For the lake lowering approval, Meridian added the following text to the start of the approval:

CONSENT SCOPE

Note: This consent relates to the operation of Lake Pūkaki below the normal minimum level of 518.0 m above mean sea level (m RL) (to a minimum of 513.0 m RL), during times of electricity shortage when not otherwise provided for as a permitted activity under the relevant Regional Plan or by a resource consent.

40. This new text appears to be an advice note. Advice notes are not a substitute for clear, certain and enforceable conditions. They do not operate as a condition and cannot be enforced.¹⁷

41. Further, the note from Meridian relies on the undefined phrase "electricity shortage". This is a very difficult phrase to define. Genesis considered, unsuccessfully, a range of hydrological or other condition options. Dr Mitchell

¹⁶ See for example the [draft decision on the Taranaki VTM project](#) at [246].

¹⁷ See *Hapu Kotare Ltd v Manukau City Council* EnvC Auckland 133/05, 15 August 2005 at [80]; *Ngāti Whātua Ōrākei Whai Maia Ltd v Auckland Council* [2025] NZEnvC 311 at [16]; and *The Wellington Company Ltd v Save Erskine College Trust* [2018] NZEnvC 35 at [53].

has provided some proposed drafting but, recognising the complexities, has inserted a drafting note that there may be alternative solutions.

42. Genesis has concerns with the drafting proposed and ultimately considers the appropriate determination of any such trigger is, as is currently provided for, through industry consultation with the System Operator. Given that existing pathway, the complexities involved and Genesis' concerns as to the nationally significant adverse impacts of the Pūkaki Project, Genesis does not consider that its concerns can be adequately conditioned.
43. If, however, the Panel decides to grant the approvals then Dr Mitchell has prepared conditions to at least provide an avenue towards managing the potential nationally significant adverse impacts on the Temporary Structure.

CONCLUSION

44. For the reasons set out above, Genesis' position is that the adverse impacts of the Pūkaki Project are sufficiently significant to be out of proportion to the project's benefits under section 85(3) of the FTAA and the Panel should exercise its discretion to decline the approvals.



David Allen / Chelsea Easter
Counsel for Genesis Energy Limited

APPENDIX ONE: ADDITIONAL DETAILS TO SUPPORT GENESIS' COMMENTS

CONTEXT

Background to the Temporary Structure

1. Tekapo B Power Station was designed to operate within a defined Lake Pūkaki operating range, with the minimum operational tailwater level at 518 mRL.¹⁸ To enable early operation of Tekapo B prior to the raising of Lake Pūkaki to its current operating range, a temporary tailrace and weir system was constructed. That system comprises a concrete control weir at the outlet of Tekapo B and a downstream rock-lined discharge chute incorporating transverse concrete ribs. Further details are provided in Mr Balme's evidence, including **Figure 1** below.

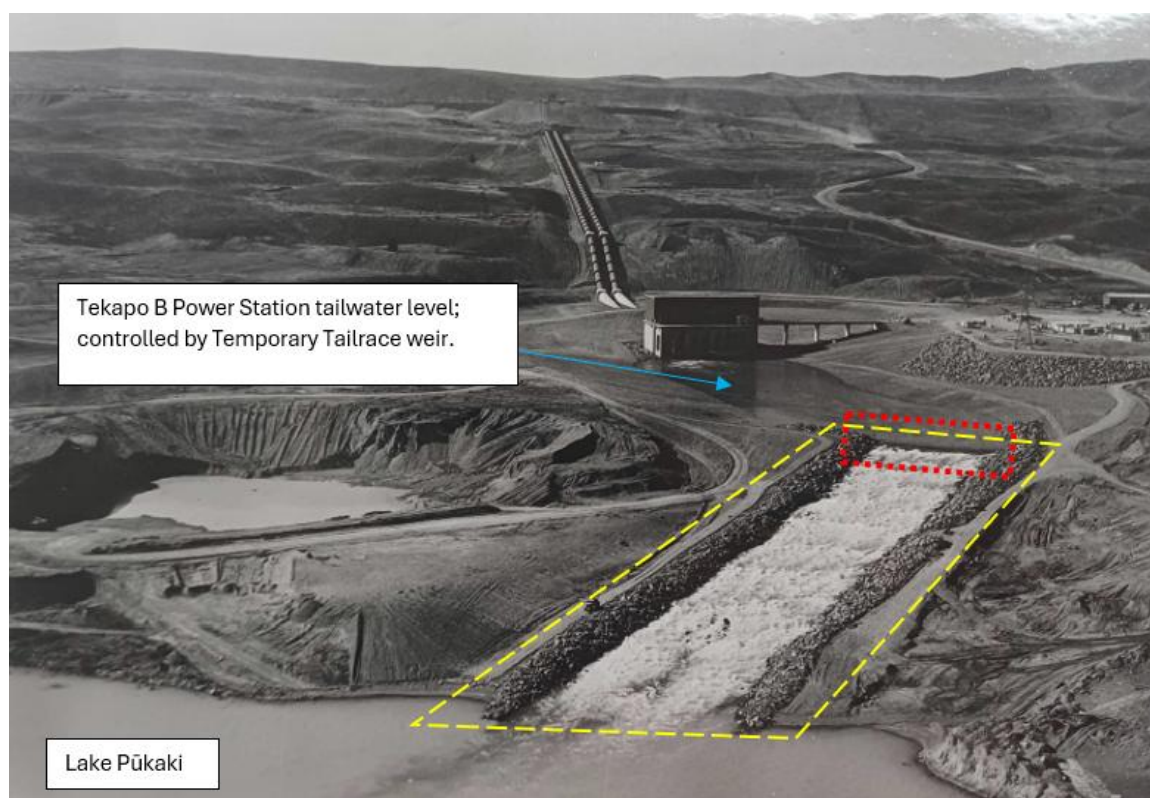


Figure 1: Photo taken 1977 showing the Tekapo Structure in operation. Weir is shown by red dotted outline and chute is shown by yellow dashed outline. Note - chute extends further below the water level in the photograph.

¹⁸ The original minimum design tailwater level for the overall power station system was 1696ft which converts to 518.24m. For consistency, this document adopts 518mRL which is the current minimum control level and the design basis for the weir.

Existing regime constraints

2. Under the current operating framework, operation below 518 mRL is a prohibited activity, except in rare, system-triggered and time limited¹⁹ events:²⁰
 - (a) at the time of a Security of Supply Alert (**SSA**), the lake may be operated between the alert minimum control level of 515 mRL and 518 mRL
 - (b) during a time when an Official Conservation Campaign (**OCC**) is commenced, the lake can be operated between the minimum control level of 513 mRL and 518 mRL.
3. Temporary lowering of the lake level for maintenance or rehabilitation purposes is a discretionary activity under rules 3(3) and 17 of the Waitaki Catchment Water Allocation Regional Plan. However, Meridian's application to alter the lake levels is prohibited under the Waitaki Catchment Water Allocation Regional Plan, which was prepared by the Waitaki Catchment Water Allocation Board under the Resource Management (Waitaki Catchment) Amendment Act 2004. The Board's decision focused on amenity, intrinsic and cultural effects.²¹ This is unsurprising, given that at the time the whole scheme was owned and operated by Meridian, such that any effects on the Tekapo Power Scheme would have arisen from, and fallen on, Meridian itself. In that context, there was no need for those effects to be separately assessed or considered. Genesis only acquired the Tekapo Assets in June 2011. Irrespective, section 42(5)(a) of the FTAA provides that a substantive application may seek approval for a prohibited activity.
4. The Panel should give significant weight to the fact that operation below the current operating range at Lake Pūkaki is currently tightly constrained by the contingent storage release boundary, which occurs when hydro storage crosses the 'Alert' or 'Emergency' electricity risk curves, or as otherwise triggered at the System Operator's discretion, representing a modelled risk of future storage. Such an event has never occurred.
5. Further, operation below 518 mRL is also currently time-limited and externally controlled such that the lower lake levels only last as long as the boundary has

¹⁹ Genesis disagrees with Meridian's statement at section 7.3 of its substantive application that the adverse impacts of what is proposed is essentially the same as those experienced in a lake lowering due to an OCC or SSA triggered event. That simply cannot be correct when compared to a unconstrained ability to lower the lake to any level for as long as Meridian wishes.

²⁰ Rule 12 provides that an activity that does not comply with Rule 3 is a prohibited activity. Rule 3 requires the minimum lake levels in Table 4 to be maintained except in limited circumstances.

²¹ [Waitaki Catchment Water Allocation Regional Plan: Annex 1 - Decision and principal reasons for adopting the Plan provisions](#) at [123].

been crossed, and thereafter, normal lake levels apply (subject to refilling the lake). From 1 May 2026 a status of 'Alert' will continue for a minimum of four weeks unless:²²

- (a) available hydro storage increases above the watch status curve earlier;
or
- (b) the conditions for the electricity risk meter status moving to 'Emergency' occur earlier.

Existing vs proposed risk profile of the Temporary Structure

6. Genesis acknowledges that under the present framework there is an inherent risk associated with emergency use of the Temporary Structure. Since Plan Changes 1 and 3 to the Waitaki Catchment Water Allocation Regional Plan (**PC1** and **PC3**), and the introduction of lower limits if Transpower calls a SSA or OCC, Genesis has accepted a risk to the Temporary Structure (see paragraph 9 below), should a dry year emergency occur, the SSA or OCC be triggered and the lake be lowered below 518 mRL. However, as explained by Mr Balme:
 - (a) that risk is exceptionally infrequent (since Lake Pūkaki was raised to its current operating regime in 1978, the lake has never operated below 518 mRL);
 - (b) likelihood and duration of these events is significantly lower and shorter than that being sought by Meridian;
 - (c) any such lowering is transparent and foreseeable with ample notice given across the entire system, allowing for a planned and targeted operational response in the context of the specific situation.
7. The last point is important as it provides time for Genesis (and all generators plus the System Operator) to consider system wide and specific mitigations and responses well in advance of an event triggering lake lowering occurring.
8. The Pūkaki Project therefore materially changes the existing risk profile of the Temporary Structure by converting an exceptional, system-triggered, operating condition into an unconditioned discretionary operating regime.²³

²² See clause 7A.5 of the [Security of Supply Forecasting and Information Policy](#) effective 1 May 2026.

²³ Meridian's effects assessment selectively relies on the policy intent of Plan Changes 1 and 3 to the Waitaki Catchment Water Allocation Regional Plan to normalise the eased access, while omitting the safeguards that were fundamental to their acceptability, i.e. the rarity and exceptional nature of lowering lake level below the normal operating range.

9. Genesis continues to undertake an operational and asset risk review of the Temporary Structure. Those assessments are ongoing with no current operational constraints or committed outages. However, if the Temporary Structure fails, degrades, or cannot maintain the necessary tailwater then Genesis must cease generation at Tekapo B to protect the turbines and associated generation equipment, as explained by Mr Balme. As the Tekapo A and B power stations are connected by a canal, generation would also cease at Tekapo A as water run through Tekapo A cannot bypass Tekapo B. It is feasible that this could occur when access to Tekapo storage (contingent or otherwise) is required, further increasing system risk.

Engagement with Meridian

10. Meridian lodged its referral application in April 2025. Meridian did not engage with Genesis and Genesis was not provided with a copy of that application.
11. Meridian's referral application incorrectly relied on Crown ownership of the lakebed over which Meridian holds an operating easement. Genesis own fee simple land within the lakebed over which Meridian has no operating easement. Despite Genesis' informing Meridian of the position, Meridian's substantive application was also incorrect. Following a series of requests by Genesis, Meridian corrected this error by stating in Schedule 1 to its memorandum of 26 January 2026 that:

Genesis Energy Limited (Genesis) owns fee simple land within the bed of Lake Pūkaki upon which the Tekapo B power station and related infrastructure is located and land adjacent to the riverbed. This land ownership was not identified in Meridian's referral application. In Meridian's substantive application it was incorrectly stated that Meridian's operating easement for Lake Pūkaki included this land. This error has been noted by Meridian via email to the EPA Project Lead. Genesis has also written to the EPA and Panel Convener noting their landownership.

12. While Meridian acknowledged Genesis' land ownership, it refused to accept Genesis owned land to which the substantive application relates or land adjacent to that land. The Panel agreed with Genesis' interpretation and invited Genesis to comment under section 53(2)(h) of the FTAA.²⁴
13. On hearing about the proposed Pūkaki Project, Genesis raised its technical concerns in respect of the Temporary Structure with Meridian in June 2025. Correspondence has been exchanged and two meetings have occurred in

²⁴ [Minute 2](#) at [21].

October 2025 and March 2026 (a December meeting was cancelled as Genesis was awaiting its technical reports).

14. Despite recent confidential and without prejudice discussions Genesis and Meridian have not reached agreement as to how the nationally significant adverse impacts of the Pūkaki Project could, and should, be appropriately mitigated. Genesis suggested that Meridian request an extension of time for comments from the Panel to enable those discussions to continue. That did not eventuate.

RISKS AND ADVERSE EFFECTS

System Security and Governance

15. Genesis defers to Transpower, in its role as System Operator, in relation to the design and operation of contingent storage access arrangements. Any increase in access to contingent storage must be approached on a system-security and resilience basis with appropriate discretion and is better subject to full consultation, modelling, and scrutiny of impacts across the electricity system.
16. In relation to the robustness of the current system governance framework, from 1 May 2026, the Security of Supply Forecasting and Information Policy (**SOSFIP**) will include a Contingent Storage Release Boundary buffer discretion process.²⁵ The Electricity Authority has stated in respect of the changes that:²⁶

The changes will be in place before this winter and will materially improve the contingent storage release boundary buffer. We believe it will address many of the concerns about accessing that storage that were highlighted during the 2024 dry sequence.

17. On this basis, there is therefore no compelling emergency justification for unconstrained access.
18. Further, Meridian has also recently posted on LinkedIn that the dry year risk is reducing (and provided a graph, see **Figure 2** below²⁷).

²⁵ [Security of Supply Forecasting and Information Policy 2026.pdf](#)

²⁶ [Policy changes to strengthen dry year risk management | Electricity Authority](#)

²⁷ https://www.linkedin.com/posts/meridian-energy_new-zealands-dry-year-risk-is-reducing-activity-7440143750317752320-fwVS?utm_source=share&utm_medium=member_desktop&rcm=ACoAAB-n4WsBCgZW95FTnNTFjUJJGyvnsIOkKo4

New Zealand's dry year risk is reducing 🌱

You've probably heard the term 'dry risk'. It's when lower than usual rainfall results in less hydro storage than normal, and what that means for electricity generation.

While dry years are already relatively infrequent, the dry-year risk facing Meridian and the country is reducing significantly. While up to 4 TWh of additional generation is required to mitigate the risk right now, that'll drop to 3TWh by 2028, and 2.5TWh by 2035.

That's down to the Huntly Strategic Energy Reserve that we and others have worked on, and the assumption that Meridian will be successful in our efforts to access contingent storage for the next three years while more renewables are built.

It's also a recognition of just how much development is underway - the industry is currently building at a rate 25% higher than at the peak of the Think Big days!

The more renewables that are built, the more we can protect the storage in our hydro lakes and the Huntly stockpile, and the better that is for New Zealand.

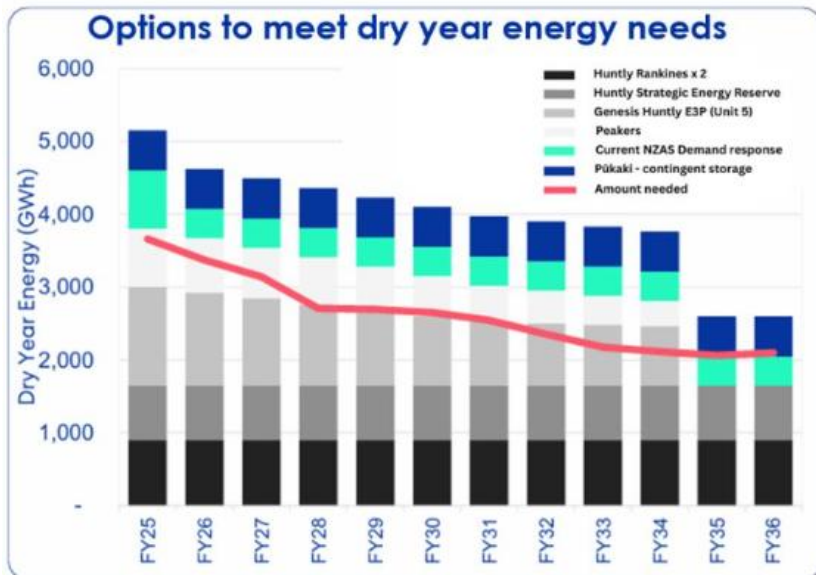


Figure 2: Meridian LinkedIn post March 2026

19. The graph in Figure 2 shows that Pūkaki contingent storage is not required to meet dry year energy needs until 2035 when the Huntly Strategic Energy Reserve ends. Genesis is unclear why Pūkaki contingent storage is included in Meridian's own modelling beyond 2028 given that the Pūkaki Project is limited to the winters of 2026, 2027 and 2028.
20. Taken together, these factors reinforce that the current framework already provides for access to contingent storage when genuinely required, and that the Pūkaki Project instead introduces an unconditioned discretionary regime that is not driven by system need.

System Risk and Resilience

21. To assist the Panel:
 - (a) Mr Coates has provided evidence reviewing Meridian's benefit analysis; and
 - (b) Mr Weaver has provided evidence assessing the electricity system impacts of a failure of the temporary tailrace and weir under lower lake operation.
22. In considering system resilience, Mr Coates considers that easing restrictions on access to contingent storage inherently increases exposure to low-probability, high-impact “black swan” events by reducing the system’s buffer against unexpected supply shocks.
23. If what is currently reserved as contingent storage is removed as the system’s backstop, security of supply becomes increasingly reliant on thermal generation at Huntly Power Station. When combined with reduced storage buffers, increased reliance on aging thermal assets amplifies vulnerability to supply shocks and increases the likelihood and consequence of adverse system effects in low-probability, high-impact scenarios.
24. “Black swan” events are difficult to predict or quantify but have occurred from time to time in New Zealand, including concurrent dry years, sudden fuel supply disruptions, and unplanned outages of major generation or transmission assets. In those circumstances, contingent storage functions as a critical last-resort reserve, and its earlier or discretionary use materially reduces the system’s ability to respond when multiple adverse conditions coincide.
25. Mr Coates identifies examples of such events that illustrate the risk of major disruption in his evidence, including:
 - The oil shock of the 1970s, occurring at a time when New Zealand relied on some oil-fired generation. (In this respect it is worth noting that New Zealand’s electricity system is now largely isolated from such international fossil fuel shocks but, if New Zealand goes down the path of investing in an LNG terminal, we would once again be exposed to the kind of shock that is currently being experienced due to the Iran war.)
 - Two concurrent years of low inflows (1991 & 1992) coupled with a material miscalculation of thermal fuel supplies

- The unexpected drop in gas supply in 2024, coinciding with a dry period and a system that was significantly under-built due to uncertainty over whether the Tiwai smelter would exit.
26. Damage to, or failure of, the Temporary Structure would qualify as such an event and would have immediate and significant consequences for generation across the integrated Waitaki scheme. Increasing exposure to such an event without appropriate mitigations would increase the risk of prolonged loss of generation with system-wide exposure.
27. Mr Coates also states in his evidence:
- Additionally, New Zealand likely faces risks associated with an unexpected and prolonged outage of a major supply asset (eg, the Huntly 5 CCGT, or a pole of the HVDC) coinciding with a relatively dry period, or even a natural disaster (eg, earthquake or cyclone) taking out key supply assets (generation or transmission) for a prolonged period. Although these are all plausible events, there is poor information to assess the likelihood of their occurrence.
28. The future risk identified by Mr Coates in this statement, in relation to the possibility of prolonged outages of major assets, is particularly relevant when considering New Zealand's energy system's reliance on aging thermal assets during dry years.
29. Once the above resilience considerations are properly accounted for, Genesis' position is that the net effect of easing access to contingent storage is detrimental to the electricity system rather than beneficial.
30. These system risks translate directly into substantial and nationally significant costs on consumers and the wider electricity system.
31. In the event of a failure of the temporary tailrace and weir, Mr Weaver concludes that there will be:
- (a) forced outages at Tekapo B, and a consequential loss of hydroelectric generation from Tekapo A, Tekapo B, Ōhau A, Ōhau B and Ōhau C; and
 - (b) an increase in electricity costs and emissions with system costs potentially up to \$2.5 billion depending on outage duration, storage levels and inflows.
32. In particular, Mr Weaver states in his evidence that:

If lowering Pūkaki below 518 masl were to result in the temporary tailrace and weir failing, this would significantly restrict generation from the Waitaki scheme until it was restored. This reduction in generation could lead to an increase in national electricity costs, potentially up to \$2.5bn depending on how long it takes to repair the temporary tailrace and weir, storage levels when the temporary tailrace and weir failed and whether inflows in the period beyond such a failure were relatively 'wet' or 'dry'.

33. In his peer review of Meridian's project, Mr Coates found that:
- (a) the New Zealand electricity system supply and demand balance has changed since Winter 2024 and New Zealand is in a substantially better position;
 - (b) the Pūkaki Project would reduce electricity system resilience to unexpected supply outages; and
 - (c) when resilience of the electricity system to deal with unanticipated supply shocks is considered, there is a material likelihood that the overall net effect of the Pūkaki Project could be detrimental to New Zealand electricity consumers.
34. Mr Coates also provides a robust analysis of the economic benefits asserted by Meridian against the September 2025 analysis undertaken by John Culy Consulting (JC²) on behalf of the System Operator.²⁸ Taken as a whole, the analysis of JC², together with Mr Coates's own modelling, clearly identifies differences to Meridian's asserted projected benefits, being:
- (a) materially smaller savings (both with and without major unexpected supply outages);
 - (b) the absence from Meridian's benefits analysis of the potential for stress events such as major unexpected supply outages; and
 - (c) the extent to which allowing unfettered access to contingent storage may alter the economics of thermal stations to a degree that would impact on their economic viability.

35. Mr Coates concludes in his evidence that:

If the temporary tailrace and weir were to fail... The resulting loss of generation during periods of system stress would likely increase wholesale electricity prices, increase

²⁸ Available for download here: https://static.transpower.co.nz/public/bulk-upload/documents/Contingent_storage_Final_Summary_Report_20Sep25_V2.pdf?VersionId=0N4nD5Vcu56YDa6ktn0yRA7SS3KDn4G7

reliance on thermal generation, raise emissions, and create additional risks to security of supply.

This would almost certainly increase electricity prices at a time of underlying system stress. Any decision whether to ease access to contingent storage should first assess whether the increased accessing of lower lake levels should appropriately allocate the materially elevated risk of failure of the structure.

36. Planned outages at Tekapo B to undertake proactive repairs would have materially lesser consequences for the wider scheme and the electricity system than a forced outage following failure. Should the Panel (despite Genesis' opposition) grant the approvals the conditions must expressly provide for proactive repairs and regular operational investigations and maintenance as required, rather than leaving New Zealand exposed to a reactive failure scenario.
37. The reliable supply of electricity (through investment in dry year reserve measures) and the long-term benefit of consumers (including in relation to potentially significant costs) must be considered by the Panel when assessing whether the adverse effects are sufficiently significant to outweigh the benefits and whether any conditions can provide a proper basis to conclude that those effects are adequately mitigated.

Structural

38. Genesis commissioned WSP to assess the condition of the Tekapo B temporary tailrace and weir to determine if the temporary tailrace and weir could be safely and reliably operated should the level of Lake Pūkaki be lowered on the basis sought by Meridian. WSP has also reviewed the Damwatch Documents.
39. The evidence of Ms Stanway appends the Tekapo Submerged Weir – Structural Condition Assessment dated 25 March 2026.
40. The evidence of Mr Groves appends the:
 - (a) Tekapo B Weir Assessment – Summary of Findings dated 19 December 2025;
 - (b) Tekapo Submerged Weir – Bathymetric Survey and Hydraulic Assessment dated 19 December 2025; and
 - (c) Tekapo B Power Station Submerged Weir – Damwatch Document Reviews dated 26 March 2026.

41. The WSP reports must be read in full. However, in summary the WSP reports illustrate that the Temporary Structure is degraded, beyond its intended service life, and carries an elevated risk of failure if returned to service as proposed by Meridian without pre-emptive repair and intervention. Regular and robust monitoring is then required. Even if this occurs residual risk remains because of the original temporary design, historical performance issues, and the continuing uncertainty associated with submerged and partly obscured elements.
42. In respect of the structural condition and service life, WSP retains numerous concerns related to:
- (a) silt deposition and ability to identify any defects;
 - (b) hydraulic and rock chute stability at higher flows; and
 - (c) structural performance:
 - (i) purpose of the concrete weir and sill beams;
 - (ii) stability of structure for future use;
 - (iii) implications of undermining of concrete weir and sills
 - (iv) implications of loss of connection of the weir and sill caps from the concrete base;
 - (v) implications of existing damage to concrete weir and sills; and
 - (vi) implications of damage to concrete weir and sills due to the condition of the concrete.
43. In its Memorandum of 26 March 2026, attached to the evidence of Mr Groves, WSP notes that while Damwatch has acknowledged the risk that concrete weir and sill performance may be compromised it has not recommended any actions to address the vulnerabilities. WSP provides numerous recommendations to ensure that before any reliance is placed on the Temporary Structure for the Pūkaki Project required repair works / investigations are completed.

Other effects

44. An extended outage of Tekapo A and Tekapo B would also cause:

- (a) a reduction in water quality in the Tekapo Canal due to the lack of flow (potentially for an extended period of time), with consequential potentially significant impacts on the internationally significant recreational fishery, and commercial fishing operations (Mount Cook Alpine Salmon), in the Tekapo Canal; and
- (b) adverse recreational effects due to potentially greater spills into the Takapō River and the effects of that adversely affecting the operability of the nationally significant Tekapo White Water Course.

FTAA REQUIREMENTS

Scope of the 'project'

45. Section 4(1) of the FTAA defines 'project' (emphasis added):

project—

(a) means,—

(i) in relation to a listed project, the project as described in Schedule 2:

(ii) in relation to an unlisted project,—

(A) the project as described in the referral application for the project or, if the referral application is yet to be lodged, as it will be described in the application; or

(B) **if the project has been referred, the project as described in the notice under section 28;** and

(b) includes any activity that is involved in, or that supports and is subsidiary to, a project referred to in paragraph (a)

46. As noted in Genesis' comments, the s 28 notice for the Pūkaki Project describes the water takes as occurring "over three consecutive winters from winter 2026". When considering the purpose of the FTAA when deciding whether to grant the Pūkaki Project, the Panel must apply the 'project' as defined in the s 28 notice. In this case, the 'project' is solely the winters of 2026, 2027 and 2028.

Grant or decline

47. Genesis recognises that the FTAA prescribes very limited grounds by which the Panel can decline to grant an approval,²⁹ and that there is a high bar for declining an approval. In particular:

- (a) the purpose of the FTAA must be given the greatest weight, ahead of all other considerations;³⁰ and
- (b) when considering the purpose of the FTAA, the Panel must consider the extent of the Pūkaki Project's regional or national benefits;³¹
- (c) adverse effects, after considering conditions, must be "sufficiently significant to be out of proportion to" the regional and national benefits;³² and
- (d) the Panel cannot determine that an adverse effect is "sufficiently significant".³³

... solely on the basis that the adverse impact is inconsistent with or contrary to a provision of a specified Act or any other document that a panel must take into account or otherwise consider...

48. The Panel must also take into account s 87A(6)(b) of the RMA, which provides that a consent authority must not grant a consent for a prohibited activity. As noted in Genesis' comment, while that does not require the Panel to decline the application it reinforces the need for robust consideration and caution by the Panel.

49. The Panel must also take into account s 104 of the RMA, which sets out the matters that the panel must have regard to, subject to Part 2.³⁴

50. Section 104(1)(a) of the RMA requires the Panel to have regard to any actual and potential effects on the environment of allowing the activity. Section 8 of Meridian's substantive application concludes, on the basis of the Damwatch report as at that time, that there are no areas of specific concern for the Temporary Structure. Genesis disagrees with that conclusion for the reasons set out above and in the evidence of Ms Stanway and Mr Groves.

²⁹ FTAA, ss 81(2)(f) and 85.

³⁰ FTAA, ss 81(2)(b) and (3)(a) and sch 5 cl 17(1).

³¹ FTAA, s 81(4).

³² FTAA, s 85(3)(b).

³³ FTAA, s 85(4).

³⁴ FTAA, ss 81(2)(b) and (3)(a) and sch 5 cl 17(1)(b) by reference to the provisions of Part 6 of the RMA that direct decision-making.

51. 'Environment' and 'effect' are broadly defined.³⁵ In relation to Genesis' concerns for the Temporary Structure, effect includes any potential effect of low probability which has a high potential impact.³⁶ Genesis' evidence establishes that failure of the Temporary Structure is a credible risk and that the consequences of failure are potentially severe, prolonged, and system-wide.
52. Section 104(1)(b)(iii) requires the Panel to have regard to any relevant provision of a national policy statement. Section 10.2 of Meridian's substantive application addressed the National Policy Statement for Renewable Electricity Generation 2011 (**NPS-REG**). The NPS-REG was amended in December 2025. Policy B(1)(b) now requires the Panel to recognise and provide for the importance of: "avoiding, where practicable, any overall or cumulative losses of REG capacity and output from a region, district or existing REG assets and activities." This policy supports Genesis' position and also, if the Panel does decide to grant the approvals, then the conditions Genesis seeks the Panel to impose.

Conditions

53. The Panel can only impose conditions if they:³⁷
- (a) are for a resource management purpose and not for any ulterior purpose;
 - (b) fairly and reasonably relate to the Pūkaki Project (noting that s 108AA of the RMA requires a condition to be "directly connected" to an adverse effect of the activity on the environment and/or an applicable planning rule or environmental standard);³⁸
 - (c) are not so unreasonable that no reasonable decision maker could have imposed them; and
 - (d) are no more onerous than necessary to address the purpose for which they are set.

³⁵ RMA, ss 2 and 3.

³⁶ RMA, s 3(f).

³⁷ *Newbury District Council v Secretary of State for the Environment* [1980] 1 All ER 731 (HL) at 739, endorsed in the context of the RMA in *Housing NZ Ltd v Waitakere City Council* [2001] NZRMA 202 (CA) at [18]. FTAA, s 81(2)(d) and 83. RMA ss 108 – 108A.

³⁸ Section 84A of the FTAA, inserted on 17 December 2025, allows a panel to set conditions to ensure that infrastructure in the project area or other infrastructure the project will rely on is or can be made adequate to support the project.

54. A condition that substantially decreases the probability that a potential adverse effect will occur is "directly connected" for the purpose of s 108AA(1)(b)(i) of the RMA.³⁹
55. There is an exemption to the requirements above if the conditions are agreed to by Meridian, either on its own initiative or at the invitation of the Panel.⁴⁰ Meridian has refused to entertain any conditions that restrict its discretionary operation of the Pūkaki Project.
56. In setting the conditions, the Panel must give greater weight to the purpose of the FTAA.⁴¹ Further, given the limited discretion for decline, conditions should be focused on significant effects and, the implications on the benefits must also be weighed before imposing the condition.⁴² However, that does not justify a conditions package that leaves potentially nationally significant adverse effects to Meridian's discretion on a "trust us" basis.
57. A condition is invalid if it relies on the approval of a third party where the consent holder has no ability to control compliance. A condition that is incapable of performance, or that requires an applicant to bring about a result, which is not within the applicant's power is invalid.⁴³ However, a condition precedent is not invalid.⁴⁴ Conditions that defer the ability for Meridian to carry out the lake lowering until specific requirements are fulfilled are lawful. In this case there is no time rush for Meridian to exercise its consents as:
- (a) there is no need for additional generation through this year's winter;
and
 - (b) the maintenance works are solely required to mitigate effects of lower lake levels (which are not required at least for this winter and on Meridian's information not until 2035).
58. As is the case under the RMA generally, the Panel cannot impose a requirement for compensation without agreement from Meridian. Section

³⁹ *Lindis Catchment Group Inc v Otago Regional Council* [2020] NZEnvC 130 at [69]. At [70] the Environment Court states that "To implement that we consider that section 108AA(1)(b)(i) must be read as requiring a condition to be directly connected to the [avoidance, remediation or mitigation of an actual or potential] adverse effect of the activity on the environment."

⁴⁰ RMA s 108AA(1)(a); FTAA, s 69(2)(b)(i) and 85(3)(b)(ii).

⁴¹ FTAA, ss 81(2)(b) and (3)(a) and Sch 5 cls 17(1) and 18.

⁴² FTAA, s 85(3).

⁴³ *Dart River Safaris Ltd v Kemp* [2000] NZRMA 440 (HC) at [18].

⁴⁴ *Westfield (New Zealand) Ltd v Hamilton City Council* (2004) 10 ELRNZ 254 (HC) at [56].

104(1)(ab) of the RMA explicitly applies to the Panel's decision making on resource consents.⁴⁵ Genesis does not seek any such conditions.

59. As addressed in Genesis' comments:

- (a) Genesis considers the appropriate determination of any trigger for an "electricity shortage" is, as is currently provided for, through industry consultation with the System Operator. Given that existing pathway, the complexities involved and Genesis' concerns as to the nationally significant adverse impacts of the Pūkaki Project, Genesis does not consider that its concerns can be adequately conditioned.
- (b) However, if the Panel disagrees, Dr Mitchell has prepared conditions to at least provide an avenue towards managing the potential nationally significant adverse impacts on the Temporary Structure.

⁴⁵ FTAA, ss 81(2)(b) and (3)(a) and Sch 5 cls 17(1) and 18. Imposing compensation or offsetting not proposed or agreed to, or altering conditions proposed by Genesis, would not help facilitate delivery of the Pūkaki Project and would likely be more onerous than necessary.