Before a panel appointed under the Fast-Track Approvals Act 2024 **FTAA-2510-1120**

UNDER:	the Fast-track Approvals Act 2024
IN THE MATTER:	an application for approvals for the Lake Pūkaki Hydro Storage and Dam Resilience Works
BY:	**MERIDIAN ENERGY LIMITED** **Applicant**

STATEMENT OF EVIDENCE OF RORY BLUNDELL ON BEHALF OF MERIDIAN ENERGY LIMITED

Electricity system roles and modelling of costs and benefits

Dated: 15 April 2026

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INTRODUCTION

1. My full name is Rory Peter Blundell.

2. I am the General Manager of Strategy and Portfolio at Meridian Energy Limited. My team is responsible for the core strategic and portfolio elements of Meridian's business, including the water valuations that inform the way Meridian offers hydro generation into the wholesale electricity market.

3. I have worked in the electricity industry for over 20 years including as the General Manager of Market Performance at the Electricity Authority between 2015 and 2020 and various management roles at Contact Energy Limited between 2004 and 2015 including Integrated Portfolio Manager, Trading Operations Manager, Wholesale Development Manager, and Spot Market Manager. I have a Bachelor of Commerce majoring in Economics and a Bachelor of Engineering with First Class Honours from the University of Auckland.

4. I have been asked by Meridian Energy Limited to provide a response to the specific matters contained in the written comments on the application from persons invited by the Panel to comment under section 53 of the Act, specifically Transpower NZ and the Electricity Authority.

5. I have prepared this statement within the limited time available to me. Consequently, it is necessarily at a high level. I am able to provide a more fulsome response to the issues covered in this statement if the Panel requires further assistance from me.

CODE OF CONDUCT

6. I confirm that I have read the Code of Conduct for Expert Witnesses as contained in section 9 of the Environment Court Practice Note (2023), and while I am an employee of Meridian and therefore not independent in that sense, I have complied with it in preparing this evidence. I confirm the issues addressed in this evidence are within my area of expertise, and I have not omitted material facts known to me that might alter or detract from my evidence. The opinions I express in this evidence are my own opinions, and not necessarily Meridian's corporate position. I have been careful in my evidence to clearly differentiate between my personal opinions and the corporate view or position of Meridian, where appropriate.

RESPONSE TO TRANSPOWER

There is no regulated regime for contingent resources in the New Zealand electricity market

7. Transpower characterises the water stored in the contingent ranges of Lake Pūkaki below 518m as a "fuel of last resort" or a "strategic reserve" to be held back for use only in extremely stressed conditions.

8. Transpower also opines that the status quo is the product of careful design decisions that have culminated in established policy settings and suggests that the status quo should not be changed without "careful thought, modelling, analysis and full consultation with industry participants". However, the current contingent storage arrangements are not a deliberate construct. They are an accident of history and disparate consenting decisions made over time. There is no strategic reserve or contingent storage policy in New Zealand, nor is it accurate for Transpower to assert that the status quo consenting arrangements amount to an agreed policy. Meridian strongly agrees with the Electricity Authority's comment (at paragraph 42) that:

> *"The contingent storage arrangements are not a centrally designed strategic reserve; instead, they have evolved over time in a way that hasn't been coordinated or designed to minimise total costs."*

9. New Zealand has an energy-only electricity market by design, meaning there is no mechanism for procurement of strategic energy reserves. That is because neither Parliament nor the Electricity Authority have to date considered the establishment of such mechanisms to be in the best interests of New Zealand electricity consumers. As it stands, the market determines the most efficient allocation of resources to meet electricity demand and provide backup for dry years and other events.

Transpower's role

10. Transpower asserts (at paragraph 37.1) that "The contingent hydro storage in New Zealand's electricity system is regulated by the Electricity Authority and Transpower, including through the Security of Supply Forecasting and Information Policy (SOSFIP)." That is incorrect.

11. Transpower is not a regulator. It is a State-Owned Enterprise that is contracted by the regulator (the Electricity Authority) to provide the services of

the System Operator. It is not the role of the System Operator to ensure that supply meets demand over the medium to longer term. Rather, as set out in clause 7.2 of the Electricity Industry Participation Code 2010 (**Code**), the System Operator is tasked with dispatching assets made available in a manner that avoids cascade failure and results in a loss of electricity to consumers i.e. it is responsible for the real-time coordination and dispatch of the market. The System Operator's role is helpfully articulated in the October 2024 Government Policy Statement on Electricity:

> *"In accordance with market rules and arrangements, the System Operator is -*
>
> - *Not responsible for ensuring the adequacy of offers to meet demand, but rather –*
>
> - *To efficiently coordinate the utilisation of electricity generation and demand-side offers that have been made available in the wholesale market by market participants in response to spot price signals.*
>
> *This decentralised approach to risk management is the best way to deliver the level of reliability that consumers want at the lowest possible cost to consumers."*

12. As implied by the Government's reference to a "decentralised approach", it is the responsibility of market participants to build, maintain and make available generation (and demand response) such that electricity demand can be met both in the short and the long term. Market participants do this in response to wholesale prices signals and according to the regulatory framework established under the Code. As the Government Policy Statement makes clear, this is the best way to deliver the level of reliability that consumers want at the lowest possible cost.

13. In addition to its core function of dispatching the system, Section 8 of the Electricity Industry Act 2010 (**Act**) states that the System Operator must provide information, and short- to medium-term forecasting on all aspects of security of supply; and manage supply emergencies.

14. Clause 7.3 of the Code further sets out the functions of the System Operator in relation to security of supply and emergency management including that the System Operator must prepare and publish a Security of Supply Forecasting

and Information Policy (**SOSFIP**); and prepare and publish an Emergency Management Policy.

15. As implied by its name, the SOSFIP is primarily concerned with "the provision of high-quality security of supply related information to all interested parties" and among other things includes requirements for the System Operator to determine electricity risk curves, publish an electricity risk meter, publish a weekly security of supply report and publish an annual security of supply assessment.

16. The Emergency Management Policy sets out the steps that the System Operator will take in response to an extended emergency, including:

    (a) providing information and forecasts to participants in accordance with the SOSFIP;

    (b) requesting an urgent temporary grid reconfiguration;

    (c) commencing an official conservation campaign;

    (d) making any supply shortage declaration and giving directions to specified participants; and

    (e) for the purposes of maintaining common quality during any extended emergency, require asset owners and purchasers to co-operate with the system operator generally.

17. It is not the System Operator's role to require that a particular resource be held back as the "fuel of last resort" or otherwise determine how market participants should deploy available resources in response to market signals.

18. The Electricity Authority, on the other hand, has a wider remit as summarised by its statutory objective to promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers. The Electricity Authority's simultaneous focus on competition, reliability and efficiency means it has a more balanced and holistic perspective on the matter of contingent storage.

19. As per Section 32(1)(b) of the Act, the Electricity Authority is specifically empowered to change the Code where it would be necessary or desirable to promote the reliable supply of electricity to consumers. In fulfilling this

function, it is possible that the Authority could have established a "fuel of last resort" scheme or otherwise set aside a particular system resource as backup for use in energy shortage situations such as dry years. However, there are no such mechanisms in the Code. This suggests the Authority's view is that such a scheme would not promote its statutory objective. If the consent sought is granted, the Authority could in future choose to use its powers to put in place restrictions on the use of hydro storage or other resources and instead reserve them for times of market stress, if it believed doing so was consistent with its statutory objective. However, the Authority's comments to the panel make clear its view that removing constraints on contingent storage access could "result in more competition", "improve efficiency" and "improve system reliability", thereby promoting all limbs of its statutory objective. In my opinion, it is remarkable for any proposal to promote all three limbs of the Authroity's statutory objective with no trade-offs identified between the three limbs.

20. The roles and responsibilities established under the wider regulatory framework make the Authority the most relevant party to comment on the electricity sector benefits (or otherwise) of Meridian's proposal. The System Operator, while entitled to its opinion and to raise potential concerns based on its scenario modelling is beyond its statutory remit to the extent it goes further and makes normative assertions about the merits of Meridian's application or the appropriate role of contingent hydro in New Zealand's electricity system or the existence of a fuel of last resort.

Meridian's consent application is in no way a "bypass" of due process

21. As an example of Transpower opining beyond its role, Transpower expresses concern (at paragraph 10.2) that granting the consent would be "effectively bypassing the views of various participants in the electricity industry, as well as the established mechanisms under the electricity industry legislation for regulating access to, and the use of, contingent hydro storage at Lake Pūkaki (and other hydro lakes)." Transpower also suggests (at paragraph 11.1) that the Electricity Authority should have a role to approve any changes to the existing consenting arrangements for contingent hydro storage. Transpower refers extensively to recent processes to amend the SOSFIP.

22. The SOSFIP is an instrument incorporated into the Code, which is itself regulation created under the Act. The Electricity Authority is responsible for setting the overall framework but Transpower, in its role as the System

Operator, is tasked with implementing the SOSFIP regime. As discussed above, the SOSFIP is a suite of measures to monitor security of supply and ensure market participants are well informed about the security of supply situation and how it is changing. It is a situation monitoring and information reporting regime. The SOSFIP itself does not regulate the use of contingent hydro storage. However, some existing resource consents refer to the Alert and Emergency status under the SOSFIP regime as triggers to permit use of lower lake ranges. Transpower and the Authority via the SOSFIP decide what constitutes a security of supply Alert or Emergency and that is a process that will continue to operate regardless of consenting decisions in respect of the use of hydro storage.

23. As discussed above, there is no regulatory mechanism currently to require any specific fuels to be held in reserve as a last resort. Given that consent conditions and plan provisions gave rise to existing contingent storage arrangements, changes to consents are the most suitable mechanism to modify any of these arrangements. It is not a bypass of processes but rather the only proper course to alter the existing contingent storage arrangements.

24. Transpower also appears to take a dim view of the consultation processes under the Fast-track Approvals Act 2024 relative to its own consultation on recent SOSFIP amendments. However, the fast-track is a consenting pathway that Parliament has agreed should be available to facilitate the delivery of infrastructure and development projects with significant regional or national benefits. Consenting is simply not Transpower's role, nor is it Transpower's role to identify resources that should be held in reserve as a fuel of last resort. As discussed above, Parliament (via legislation) and the Electricity Authority (via the Code) have the power to establish such a mechanism but have not done so and the Electricity Authority supports Meridian's application.

25. If Transpower considers that some form of strategic energy reserve is required (beyond current market-led arrangements such as the Huntly Strategic Energy Reserve and Tiwai Demand Response), it should convince the Electricity Authority that such a mechanism would be in the best interests of consumers and then work with the Authority to intentionally design a regime that is appropriately sized, fuel agnostic, and transparently procured to ensure the least cost to consumers. It is very unlikely that low-cost and low-emission

hydro generation would be procured as the fuel to set aside for emergency use only.

Unconstraining fuel supplies must have a positive effect on the market

26. Transpower has sought to characterise Meridian's application as one that would "eliminate significant hydro storage" (see paragraphs 11.4, 101.1, and 101.2) or "result in New Zealand giving up a substantial amount of contingent hydro storage". This is incorrect.

27. As a matter of fundamental logic, it is not possible to remove a fuel constraint and have a negative impact on security of supply and prices. If the consent is granted, the same resources will be available to the market as in the status quo. The consent sought by Meridian would simply enable more efficient prioritisation of resources by the market, i.e. least-cost first. From the energy system's point of view there is no difference between the last GWh of energy from water in Lake Pūkaki and energy from any other resource.

28. Meridian seeks the ability to use the hydro storage below 518m to support security of supply and reduce wholesale prices for three years and considers that in the absence of current consenting constraints, generation resources will be prioritised by the market more efficiently. This is the opposite of the "elimination" of resources in Transpower's characterisation. The Electricity Authority's comments are persuasive that:

> *"Allowing Meridian the option to use Pūkaki contingent hydro more readily, means the system has more risk management options available."*
>
> *"The proposal should result in more competition for contingent energy resources … for the period it is in effect. This could benefit consumers by ensuring that the cheapest contingent resources are used first, rather than keeping Pūkaki contingent storage as a last resort even when it would be a lower cost option."*

29. Enabling use of hydro storage below 518m would also result in reduced spill, which Transpower agrees with (see paragraph 64.5), so granting the consent would in fact be a net increase of the fuel resources in the New Zealand power system rather than an action that would "eliminate" resources.

Transpower's modelling of benefits

30. The statements of evidence provided by Dr Brent Layton and Mr Grant Telfar adeptly address Transpower's comments on the modelling of benefits and impacts, including the reasonableness of modelling wholesale spot price benefits and the likelihood of those flowing to consumers over the duration of the consent sought. I do not wish to repeat those points. I do however want to address aspects of Transpower's comments that I can helpfully clarify for the Panel based on my knowledge of how the incentives created by the wholesale electricity market influence Meridian's behaviour.

31. The modelling commissioned by Transpower is directionally in agreement with Meridian's own modelling suggesting significant benefits on average as a result of eased access to contingent hydro storage in Lake Pūkaki. By Transpower's estimate, a saving of $38 million per annum in fuel, operating, and carbon costs, compared to Meridian's modelling of a reduction in load-weighted spot prices of approximately $437 million per year. However, Transpower's comments seek to reduce the benefits identified in its own modelling results and instead focus on an extreme tail risk scenario. Transpower also seeks to persuade the panel that the tail risk could be higher.

32. I first address Transpower's comments that seek to dilute the quantum of Transpower's own modelled benefits. Transpower states (at paragraph 77) that the $38 million per annum benefit that it has modelled is the "*maximum* plausible amount of those (annual) ongoing operational benefits" and suggests that the "true benefit is more likely to be around 50% of the maximum or around $20 million per year." At paragraph 79, Transpower appear to base this view of the "true" benefit on its uncertainty regarding Meridian's behaviour under the status quo compared to if the consent were granted.

33. I can confirm that Meridian would make greater use of the hydro storage in Lake Pūkaki if the consent was granted – that is the point of the application. Under the status quo, Meridian's valuation of the water in Lake Pūkaki effectively ignores contingent storage. Despite the recent changes to the SOSFIP (which are positive), it remains necessary for Meridian to operate this way because there remains uncertainty that if lake levels get to near 518m Meridian would be able to access contingent storage. Put another way, the recent SOSFIP changes do not resolve uncertainty and do not remove discretions reserved to the System Operator, and they have not altered Meridian's valuation of the hydro generation that it offers to the market.

Therefore, the framing of restricted and unrestricted access scenarios in the modelling of both Transpower and Meridian continues to reflect the reality.

34. Despite the SOSFIP changes, Meridian continues to have uncertainty regarding access to contingent storage because:

(a) Transpower has discretion to reassess the Alert Electricity Risk Curve at any time.

(b) Inflows into any one catchment in New Zealand could prevent the sum of controlled hydro storage being low enough to trigger an Alert and therefore prevent access to contingent hydro storage for reservoirs that are low.

(c) Meridian's competitors who control relatively less hydro storage and also control thermal generation assets have incentives to avoid enabling access to contingent storage through the operation of their own hydro lakes. For example, Genesis, as the owner and operator of the Huntly power station, has commercial incentives to maintain Tekapo lake levels in order to defer wider access to contingent storage and maximise use of its thermal plant as national storage starts to decline.

35. The financial consequences for Meridian of being at 518m and not being able to continue to draw on stored energy in Lake Pūkaki are potentially catastrophic. In that scenario, Meridian could be severely exposed to financial losses due to the need to continue to supply customers on lower fixed price contracts.

36. Only if the consent were granted would it be certain that the right to operate below 518m in Lake Pūkaki can be relied upon. That certainty would enable Meridian to offer its hydro generation less conservatively at all times.

37. I also note that logically, Transpower proposes two contradictory approaches to considering costs and benefits.

(a) Transpower asserts that Meridian might not behave very differently if the consent is granted relative to the status quo and accordingly that should reduce the average benefit in its modelling by 50%;

(b) However, Transpower's comments also argue the opposite view and seek to inflate the potential impacts under its low probability "double-contingency" and 'triple-contingency' scenarios (discussed below).

Modelling of impacts

38. The modelling commissioned by Transpower posits an extreme "double-contingency" scenario that combines the lowest year of inflows ever experienced in New Zealand with a long-term outage of New Zealand's largest thermal generation unit. That scenario has never before occurred in the New Zealand electricity market.

39. Transpower suggests (at paragraph 92) that the impact of unrestricted use of the contingent storage at Lake Pūkaki in the "double-contingency" scenario could be in the order of $440 million to $740 million in 2026. It is important that the Panel understands this modelled impact is no longer a realistic estimate. It is a modelled impact if the "double-contingency" scenario were to occur in 2026, with the extent of the modelled impact declining quickly through time due to the commissioning of significant volumes of new generation. We now know from Transpower's own March 2026 Energy Security Outlook that New Zealand hydro storage is around average for this time of year and there are zero inflow trajectories from the historic record that would give rise to security of supply concerns in 2026. This makes Transpower's estimate of impacts in the "double-contingency" scenario in 2026 entirely unrealistic.

40. The upper bound of Transpower's 2026 estimate of impacts is based on an additional assumption that there are only two of the large Rankine units available at Huntly Power Station. This is not realistic given the Commerce Commission recently approved contracts between the four largest generator-retailers that will have the effect of keeping three Rankine units available to the market and fuelled through to 2035. The $740 million upper bound is therefore not an estimate of the worst-case "double-contingency" scenario but an even more extreme "triple-contingency" that removes not only the largest thermal generator in New Zealand but also one of the second largest generation units during the worst inflow year ever recorded.

41. The likelihood of such a scenario should obviously be assessed. The Electricity Authority's comment noted that a double-contingency "is very unlikely" and it goes without saying that an exact coincidence of a "triple-contingency" is considerably more unlikely. The evidence of Dr Brent Layton and Mr Grant Telfar note the criticality of probability weighting these Transpower estimates of tail risk for comparison with the average annual benefits to consumers. I will not repeat those comments here.

Conclusion

42. The current resource consent for Lake Pūkaki that links access to hydro storage below 518m to security of supply monitoring triggers results in operational uncertainty. The uncertainty currently means that the storage cannot be relied upon and that comes at a cost to consumers.

43. Meridian's application is intended to remove uncertainty and thereby lower wholesale electricity prices. I believe that is the only logical outcome of granting the temporary consent sought. I am confident of this despite Transpower's attempts to downplay its own modelling of significant benefits and instead focus on very unlikely "double-contingency" and "triple-contingency" tail risks.

44. The expert industry regulator, the Electricity Authority, agrees that granting the consent should promote competition, efficiency, and reliability for the long-term benefit of consumers.

45. There is no fuel of last resort or strategic energy reserve in the New Zealand electricity market. Transpower's suggestion that the status quo should be treated as a deliberately constructed strategic energy reserve policy and should not be "bypassed" is not supported by the evidence or by the Authority.

Dated: 15 April 2026

Rory Blundell