



15 February 2024

Electricity Authority Te Mana Hiko

By email to OperationsConsult@ea.govt.nz

**OMV Exploration &  
Production**

## **Submission on *Potential solutions for peak electricity capacity issues***

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### **Background**

1. OMV New Zealand (OMV) is a major energy provider for the country, finding and developing natural gas deposits in Taranaki. Our business helps to meet the energy demands of New Zealanders in economically, environmentally, and socially responsible ways.
2. In 2022 OMV launched a new global strategy which will see our oil and gas business decline over time to be replaced with low carbon energy sources. By 2050 OMV intends to be a net zero company across all of Scope 1, 2 and 3 emissions. OMV will gradually reduce fossil fuel production by 2030, with a stronger decline in the following decades. By 2050 we will exit fossil production for energy use. OMV's strategy and investment priorities have a direct impact on Aotearoa New Zealand's energy transition.
3. OMV welcomes the opportunity to provide feedback on the Electricity Authority Te Mana Hiko's (the Authority) consultation document (the paper) *Potential solutions for peak electricity capacity issues*.

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### **The energy transition brings challenges**

4. OMV congratulates the Authority on increasing its scrutiny of peak electricity capacity issues, and its exploration of possible solutions. As the largest producer of indigenous energy in NZ, we are deeply concerned about the growing difficulty that the NZ electricity system has in responding to increasing peak demands. Your paper has succinctly identified the challenges of meeting peak demand as an inherent part of New Zealand's move to electrify the economy. In other words, this challenge is a feature, not a bug, within the energy transition.
5. You recognise that as the level of intermittent generation, such as wind and solar, increases, there is a growing need for other resources to provide the flexibility and firming. New Zealand is increasingly reliant on slow-start thermal generation, such as the Huntly coal-fired Rankine units or large gas turbines such as Huntly unit 5 and the Taranaki Combined Cycle unit to provide this role. This not their optimal use and you correctly identify that they require the strongest signals earliest. We are aware that coordination of response using these assets has been challenging in the recent past.

You also correctly note that much of the thermal generation fleet is ageing and has reduced reliability and availability.

6. The paper notes that fast-start gas turbines and hydro generators have been the electricity industry's traditional response to the need to vary generation rapidly. However, despite the growth in peak demand, no new investments have recently been made in these vital traditional tools. Earlier this month Genesis noted *"you don't have any investment into real firming and peaking products and generation at the moment, so the cost servicing wind and solar is going to be significant from a firming perspective. That is something the market hasn't fully come to terms with yet"*<sup>1</sup>. The Authority itself has suggested that investment in new flexible OCGT capacity is unlikely to be beneficial in the period up to 2032 and considers that the existing fleet is capable of meeting demand<sup>2</sup>- a position disagreed with by several other studies (see paragraph 12, below).
7. Given the ageing, ill-suited fleet, and the lack of new gas turbines being built to complement the build out of renewables, we remain deeply concerned that adequate flexible resources will not be supplied at the scale and pace required. Although the gas market in early 2024 is currently fuel-constrained, there is plenty of gas in the ground with contingent gas resources of 1,727 PJs awaiting commercial development opportunities. We note that supply of gas for firming remains a high-value and attractive option for any available produced gas.

### **Gas plays a critical role in the NZ energy sector**

8. In New Zealand we are fortunate to enter the energy transition in an enviable position, with renewable energy sources providing 87% of our electricity and 44% of our total primary energy in 2022. Gas plays an important role in the current energy system. It provides a secure energy supply for electricity generation and for users of industrial heat, as well as a feedstock into chemicals such as methanol which is exported and displaces what would otherwise be coal-produced methanol in China.
9. MBIE's Briefing to the Incoming Minister for Energy noted that *"gas is an important contributor to New Zealand's economy, as both a provider of energy and a component of methanol and urea production. As part of the energy system, gas is vital to our energy security in the short to medium term .... we expect it to remain critical for firming and meeting peak electricity demand for some time"*.
10. We note the paper states that *"Gas will also play a role, both in the short-term as one of the few options currently available to address an urgent capacity need, and the medium-term should industry invest in additional gas peaking plant"*. We agree with this statement. However, despite making this statement, the paper pays no further attention to gas peaking. We suggest that the Authority may wish to increase its examination of the investment challenges for this option.

### **Forecasts suggest that gas must continue to play a role during the transition**

11. The sector has benefited from many recent modelling studies and forecasts. The direction of travel in these scenarios is clear, with a consensus that thermal generation will materially decline during the transition.

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<sup>1</sup> Malcom Johns, Genesis CE, in EnergyNews 22<sup>nd</sup> February 2024

<sup>2</sup> Electricity Authority "Ensuring an Orderly Thermal Transition" consultation paper, June 2023

12. However, we note that several recent studies have highlighted conclusions with respect to the vital role of new thermal generation for managing peak capacity. For example, modelling conducted in late 2022 by BCG suggested that fast-start flexible, supply-side resources will play an important role in ensuring resource adequacy at peak periods in the future. BCG identified that a total of 400 MW of battery storage and 700 MW of gas peaking capacity is needed to meet the highest 2030 demand peak. New thermal peaking capacity is also suggested by the Climate Change Commission's 2021 *Inaia Tonu Nei* Demonstration Pathway, and by two cases within MBIE's 2019 Electricity Demand and Generation Scenarios. The Business Energy Council's TIMES-NZ modelling also shows New Zealand's electricity system is likely to need natural gas, with gas peakers playing a role beyond 2030, with an additional 200-400MW of new thermal plant by 2030. We have previously submitted on the differing views of the importance of new thermal peaking between the Authority's own models and these analyses.
13. More recently, Transpower<sup>3</sup> has signalled an urgent need for investment in flexible resources *including* fast start generation, storage, or demand response due to winter capacity challenges. And Meridian Energy has recently stated that gas remains critical for the country's hydro firming options in order to underpin an efficient transition.

### **The new Government has stated that it sees a continuing role for gas**

14. Government policies under the 52<sup>nd</sup> and 53<sup>rd</sup> Parliament had a strong focus on renewable generation. The target of 100% renewable electricity by 2030 and the NZ Battery Project have meant there has been little incentive for investment in thermal generation, while changes to the Crown Minerals Act for gas exploration and decommissioning have discouraged new gas supply.
15. The new Coalition Government abandoned some of these policies, which it saw as significant inhibitors on investment. Moreover, it has clearly signalled that security of supply is its top priority in energy. The Government has indicated that it will not "pick winners" and will take a fuel-agnostic approach to energy. It sees that gas is a critical feature to firm markets and keep the lights on and will play a central part of the energy transition<sup>4</sup>.
16. We suggest that the Paper does not adequately take into account this new Government direction.
17. Accordingly, in Question 4 we do not agree that the Authority should focus its resources on identifying and lowering barriers for BESS and demand side flexibility. A wider lens should be taken to the pressing problem of peak capacity shortfalls. The Authority's focus should be on ensuring peak capacity is delivered, at least cost to consumers and industry, without picking particular technologies.
18. We also question whether demand response at scale from industry should be an accepted, desirable first-order response to NZ's peak capacity issues. This will require incentives to encourage industries to episodically switch from their core role in producing revenue-generating export products towards supporting the nation's electricity supply, in an effort that will likely be ultimately paid for by power consumers.
19. In Question 5, we note that all the listed criteria in Section 5.8, apart from (e) are in agreement with those listed in the Authority's document *Driving efficient solutions to promote consumer interests through Winter 2023, decision March 2023*. However, criteria (e) differs. The March 2023 document contained a criteria that options must align with the aim of transitioning to

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<sup>3</sup> Transpower, "Whakamana i te Mauri Hiko monitoring update", October 2023

<sup>4</sup> Hon Simeon Brown, Business Energy Council speech, 20<sup>th</sup> February 2024

100% renewables. The current paper notes criteria (e) as “align with net zero by 2050 target”, and further notes incorrectly in footnote 41 that the ‘100% renewables by 2030’ strategy is a governmental aspiration for the industry”. This is no longer the government aspiration<sup>4</sup>. Consideration of options that align with the “net zero by 2050 target” provides a wider spread that would include thermal generation coupled with carbon capture, for example.

20. We also have concerns with your assessment of adequate reliability. The paper correctly identifies that consumers expect a very high level of reliability in their electricity supply, and also that it is not possible to achieve 100% reliability. The paper refers to a 2012 standard that determined that up to 22 hours per annum of energy or reserve shortfall (as a result of a capacity shortage) is economic and concludes that the power system continues to deliver high levels of security of supply. We consider that this sanguine economic approach underestimates the public and political reaction that the Authority will likely receive in the event of capacity shortfalls in our modern, increasingly-electrified economy. Consumers have realistic expectations of the reliability of the power system in the event of natural disasters or weather events. However we suggest that public expectations may well be very different if the lights go out due to a lack of capacity. We remind you that the new Minister for Energy has been very clear that his top priority is keeping the lights on.

### **The Authority plays an important role, but needs to widen its view**

21. We congratulate the Authority on developing the Paper and turning its attention to a key issue in the energy transition. We have previously noted to you that the Authority is only one participant in a complex and rapidly-changing policy landscape. Other submitters have criticised the hard “bureaucratic boundaries” the Authority adheres to. Accordingly we welcome your statement that *“this is not something we can do alone, and a broad range of government agencies and market participants are contributing to this work to ensure the energy transition happens in a way that efficiently manages the supply risk to consumers”*. We look forward to further engagement on this important work.
22. We recommend that the Authority aligns with the Gas Industry Company and MBIE to ensure that it maintains visibility of the risks and challenges of all fuels that contribute to potential solutions to peak capacity issues. A joined-up approach between the regulators of the sector is advantageous in the complex energy transition for Aotearoa New Zealand.

Thank you for the opportunity to provide feedback on the paper.

Yours sincerely

A handwritten signature in blue ink, appearing to read "H. Mosser".

**Henrik Mosser**  
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