

28 February 2025

Energy Competition Task Force
Electricity Authority
AON Centre
1 Willis Street
WELLINGTON 6011



Genesis Energy
Limited
155 Fanshawe Street
Auckland 1010

PO Box 90477
Victoria St West
Auckland 1142

By email: taskforce@ea.govt.nz

Power Purchase Agreement Working Paper

Genesis welcomes the opportunity to provide feedback on the Energy Competition Task Force's working paper "*Entrant generators – context, headwinds and options for power purchase agreements*" (**Paper**).

The Task Force's careful approach to evaluating potential regulatory interventions for Power Purchase Agreements (PPAs) demonstrates commendable prudence in a complex and dynamic energy market landscape. While PPAs have an important role in facilitating new generation, we agree with the Task Force that the benefits of greater PPA activity are not guaranteed, and that unmerited or poorly designed regulatory intervention could undermine investment incentives and / or distort market outcomes. We consider the mandatory reallocation of firming capacity is not merited, and would give rise to these risks.

Delivering new renewable generation and a significant PPA player

Genesis has a clear pathway to deliver ~5 TWh of renewable energy by FY28 as part of our Gen35 strategy. PPAs play an important role in delivering our goals, and we have significant PPA experience. Both as buyer and seller, and across different generation types:

- As a buyer from Mercury for Waipipi Wind (133MW, 20-year term);
- As a buyer from Mercury for Kaiwaikawe Wind (75MW, 20-year term);
- As a buyer from Contact for Tauhara geothermal (63MW, 15-year term); and
- As a seller for Lauriston Solar Farm to Spark (63MW, 10-year term).

We are actively developing renewable projects, with our Leeston Solar project (67MW) at an advanced development stage and our Foxton Solar project (200MW) progressing through consenting.

Our strategy recognises the dual need for renewable expansion and system security, with Genesis looking to unlock 1,300MW of flexible capacity (coal, gas, biomass, BESS) to secure the increasing market volatility in a highly renewables-based grid.

Regulation in Context - Emerging trends shaping the New Zealand energy landscape

It is important that any regulatory framework for PPAs consider the current context. This includes three fundamental issues that the New Zealand's energy system faces:

1. **Structural Change in Gas Market:**

New Zealand's gas supply has become increasingly constrained and uncertain. The continuing decline in New Zealand's gas production, and consequent supply constraints have been, and continue to be, well publicised. There are also regular updates from the Gas Industry Company, which show that gas production has declined quicker than anticipated, and MBIE has advised that gas production is likely to fall below gas demand by 2027.¹ The consequences are significant. The events of Winter 2024, and concerns relating to Winter 2025 supply risks, has resulted in, amongst other things:

- (a) the Government: (i) directing the establishment of the Gas Security Response Group, comprising a wide range of market participants and stakeholders) to identify and respond to any issues around gas security of supply; (ii) introducing legislation to repeal the ban on offshore gas exploration; (iii) announcing its intention to remove regulations impeding the construction of facilities to import liquefied natural gas;
- (b) industry discussions and initiatives concerning alternative fuel sources including biomass and LNG; and
- (c) electricity market participants making plant and portfolio decisions such as: (i) Meridian exercising Tiwai demand response options and entering into new ones; (ii) Contact deciding not to retire its Taranaki Combined Cycle thermal plant at the end of 2024 as previously announced; and (iii) Genesis decisions concerning coal purchases and making a third Rankine available to the market for Winter 2025 if required.²

This structural change has profound implications for the safety and reliability of our energy system.

¹ See: <https://www.gasindustry.co.nz/assets/DMSDocumentsOld/quarterly-reports/Quarterly-Report-June-2024.pdf>; *Energy in New Zealand 2024*, September 2024, Ministry for Business, Innovation and Employment; <https://www.mbie.govt.nz/about/news/gas-production-forecast-to-fall-below-demand>.

² See: <https://www.genesisenergy.co.nz/about/news/genesis-prepared-for-winter-demand>

2. Value of flexible capacity:

After years of reducing utilisation, Huntly's Rankine units are again demonstrating their critical importance to New Zealand's energy security providing firming when required and will also be critical to keeping electricity costs low. Analysis by KPMG and Concept Consulting demonstrates that without the Rankine units, wholesale prices would be approximately 60% higher in the short term (the next two-to-three years) and 11% higher in the long term (10+ years). These units provide essential multi-fuel flexibility that cannot be readily replaced by other resources in the short to medium term.³

3. Demand for Flexible Generation Exceeds Supply

As New Zealand's energy system incorporates more non-dispatchable renewables, the need for flexibility has increased substantially. Even in a highly renewable future (98% renewable scenario), modelling shows a need for 1,000 GWh of flexible generation on average, ranging from 200 GWh to 2,700 GWh depending on hydrological conditions. This flexibility need is concentrated in extended periods (weeks to months) during dry years, which distinguishes New Zealand from many other markets globally.

In our view, the real challenge is energy security and system stability. The market needs settings that support investment in dispatchable energy resources. New renewable (non-dispatchable) generation entering the market creates stability risks, and these compound without more firming capacity backed by stored energy.

Firming capacity is not a headwind to PPAs and new generation

We disagree with the assertions that limited firming capacity is a headwind to PPA activity or that this is used by gentailers to prevent PPAs and ultimately foreclose the entry of new generators. Genesis competes actively with other participants for retail customers and generation opportunities. Market participants (including Genesis) already have incentives to support PPA development that aligns with their portfolio strategies. In our experience, factors such as price, scale, risk appetite and counterparty credit risk are typically the key considerations for PPA transactions.

We agree that firming capacity provided by dispatchable generation is limited and believe that the focus should be on developing additional firming capacity rather than mandating redistribution of existing resources. Flexibility resources, especially those which may remain inactive for extended periods, require appropriate economic incentives to remain viable. Further, as discussed above, the fundamental challenge for New Zealand is ensuring energy system stability and security. This requires investment in new firming capacity supported by stored energy, not forced redistribution of existing resources.

³ See <https://assets.kpmg.com/content/dam/kpmg/nz/pdf/2025/02/the-need-for-energy-storage-kpmg-and-concept-consulting-february-2025.pdf>

Mandating the reallocation of existing firming capacity:

- (a) would distort efficient price signals essential for investment decisions;
- (b) could lead to suboptimal use of flexibility resources during scarcity events;
- (c) may create unintended consequences for security of supply, for instance, if this reduced capacity available for long duration flexibility needs (e.g. reducing the volume or availability of products like the Huntly Firming Options); and
- (d) does not address fundamental issues, such as credit strength and scale, required to underwrite significant new generation.

Market-based approaches remain in our view the most efficient method for valuing and allocating these essential resources.

Without evidence that foreclosure is actually happening, mandatory reallocation of firming capacity would be a solution to a problem that hasn't been proven to exist. The Paper presents a theoretical mechanism by which foreclosure could occur, but does not provide market data, case studies, or other evidence showing that:

- (a) PPA sellers are being denied access to firming;
- (b) PPA buyers are unable to secure firming at reasonable prices; and
- (c) Gentrailers are strategically withholding firming capacity from competitors.

Mandatory allocation of existing firming resources strikes us therefore as a high-risk approach to the wrong problem. Instead, we recommend the task force investigate market settings and measures to unlock the constraints on physical capacity, and to facilitate the supply of new dispatchable stored energy.

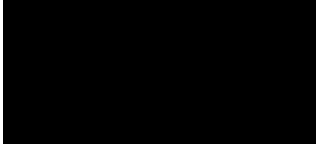
Summary

Genesis Energy remains committed to New Zealand's energy transition, as evidenced by our Gen35 strategy and renewable generation. PPAs play an important role in facilitating new generation and while there are headwinds to new generation entering the market, firming capacity is not one of them.

We believe that energy security and system stability must remain paramount considerations given, in particular, the structural changes in the gas market and the value and demand for flexible capacity. Mandatory reallocation of firming capacity gives rise to several risks, including unintended consequences for security of supply. Instead, the focus should be on market settings that facilitate the entry of additional flexible capacity into the market.

Please contact me if you have any questions or would like to discuss any of the matters in this submission further.

Yours sincerely



Warwick Williams
Senior Regulatory Counsel and Group Insurance Manager