

October 2025 Energy Security Outlook

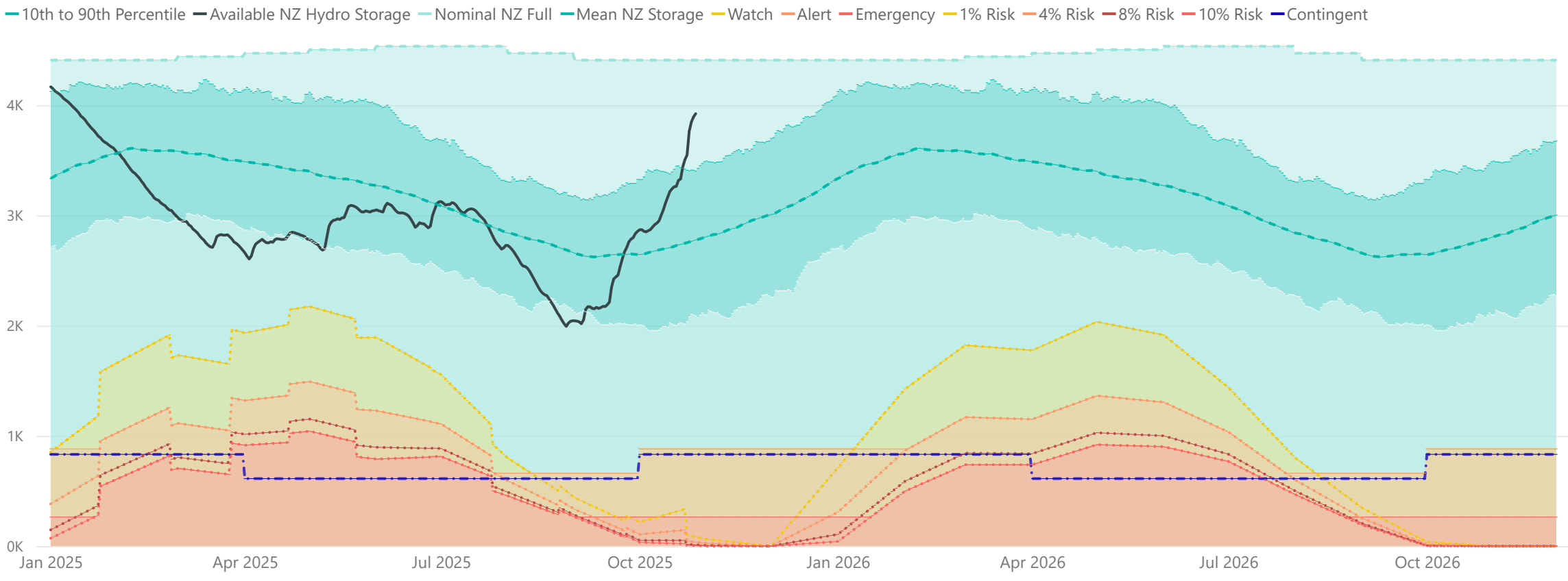
Thursday, 23 October 2025

- The national controlled hydro storage position has increased since last month's update and sits at 143% of the historic mean at 28 October (up from 102% at 25 September). South Island storage is at 142%.
- This month's base case models the third Rankine remaining rather than it retiring in January 2026. This change reflects the [Commerce Commission's draft determination](#) to authorise the agreements between the gentailers to keep the third Rankine up to the end of 2035.
- In this month's scenario we look at the impact if the third Rankine were to be retired in January 2026. This raises the NZ Watch curve by up to 713 GWh, and given the hydro storage as of 15 October there are three SSTs crossing the Watch curve in 2026 in May and June.
- The Electricity Risk Curves (ERCs) for 2026 have reduced primarily due to the base case now assuming the retention of the third Rankine. There has been a small additional decrease in the early months of 2026 due to an increased starting coal stockpile and an improved gas production forecast. The risk curves for the remainder of 2025 are materially unchanged and mostly set by the Alert and Emergency floors reflecting energy held in contingent hydro storage.
- No Simulated Storage Trajectories (SSTs) cross the Watch curve in 2025 or 2026. This assumes the market supplements the existing coal stockpile at its maximum import capability to maintain increased thermal generation during low hydro inflows.
- Looking ahead to winter 2026, electricity supply risks can be reduced through hydro storage management and ensuring sufficient backup thermal fuel and capacity to support increased thermal generation under extended periods of low inflows.

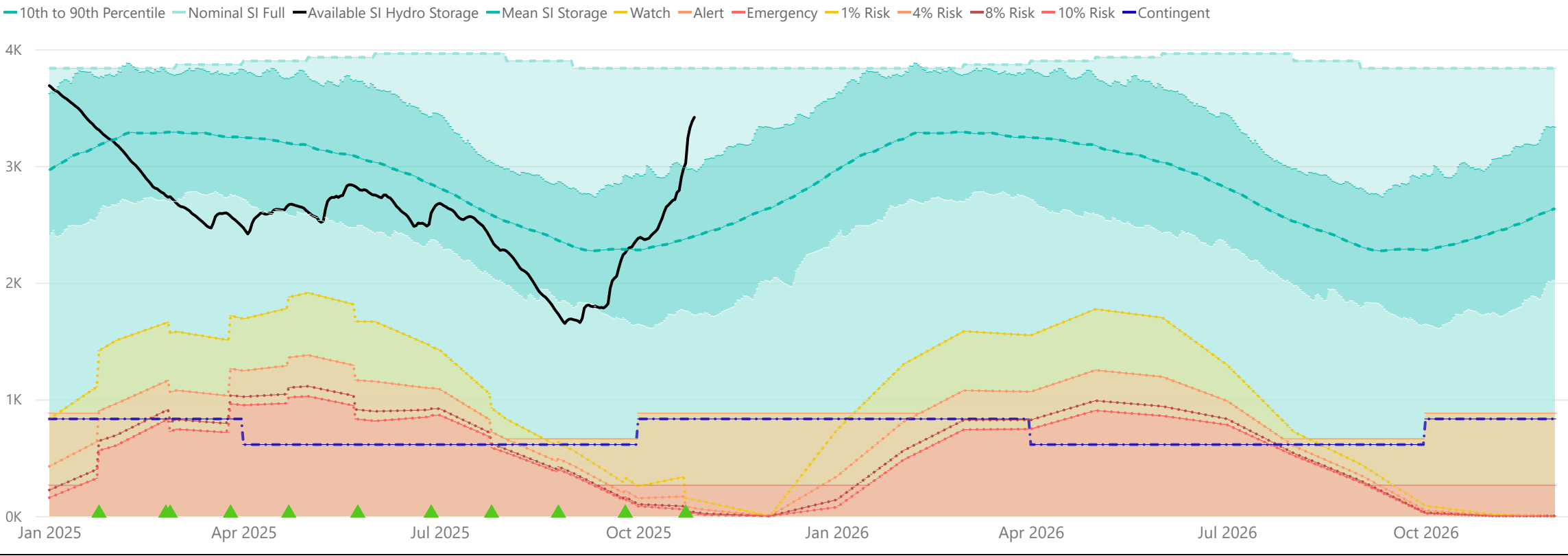
Base Case - Electricity Risk Curves (ERCs) Updates and Assumptions

- A decrease in Ahuroa gas storage, a slight increase to the current starting coal stockpile and a slight increase to the gas production forecast in early 2026.
- Inclusion of the third Rankine.
- TCC is modelled to exit at the earlier of its estimated remaining operating hours being exhausted or its announced decommissioning at the end of 2025, depending on the inflow sequence.
- Updates to planned generator outages and upcoming commissioning dates.
- Input data was prepared as of 15 October. The current hydro storage level is as of 28 October.

Base Case New Zealand Electricity Risk Status Curves (Available GWh)



Base Case South Island Electricity Risk Status Curves (Available GWh)



Energy Security Outlook Explanation:

[Energy Security Outlook 101](#)

Watch Curve - The one percent risk curve.

Alert Curve - The maximum of the four percent risk curve and the floor.

Emergency Curve - The maximum of the 10 percent risk curve and the floor.

Official Conservation Campaign Start - See cl. 9.23 of the code.

Official Conservation Campaign Stop - See cl. 9.23A of the code.

Triggers and actions of Watch/Alert/Emergency status are set only by the official base case curves (not scenario curves).

Note: The floor is equal to the amount of contingent hydro storage that is linked to the specific electricity risk curve, plus any contingent hydro storage linked to electricity risk curves representing higher levels of risk of future shortage, and the buffer. The default buffer is 50 GWh.



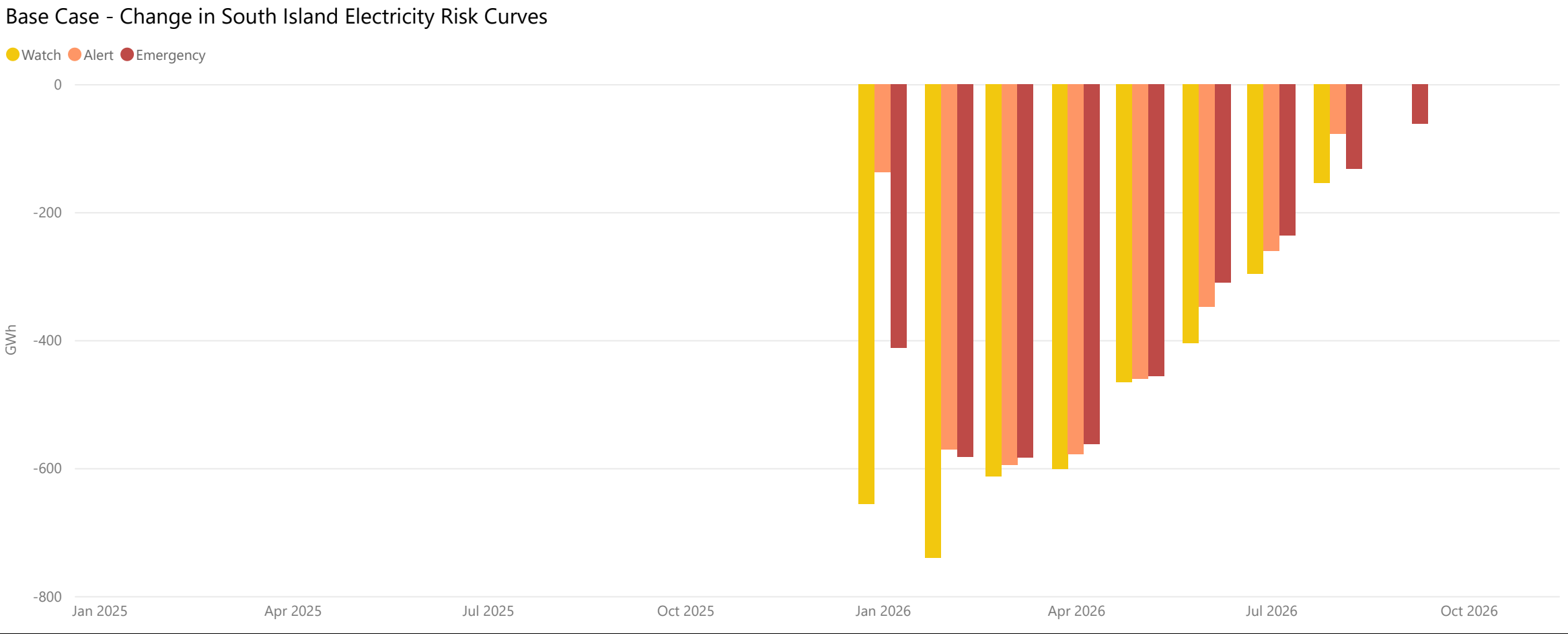
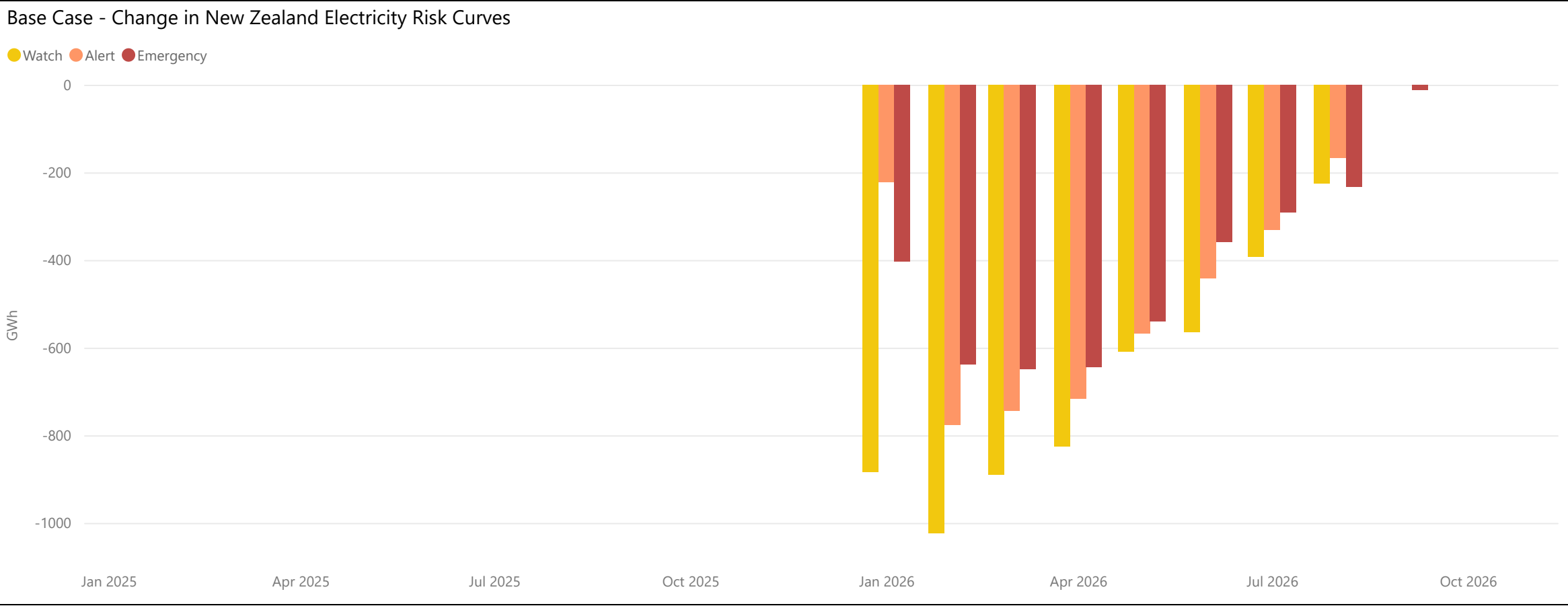
Base Case - Changes in the Electricity Risk Curves From Previous Update

Thursday, 23 October 2025

The changes to the Watch/Alert/Emergency curves compared to the last update are shown below.

The most significant change in this update to the ERCs is the assumption that the third Rankine remains which has resulted in a significant decrease to the risk curves. There is little change to the ERCs for the remainder of 2025 as this is the period when the ERCs are set by the Alert and Emergency floors. An increase to the starting coal stockpile and an improved gas production forecast also contributed a small amount to the reduction of the curves in early 2026.

The New Zealand Watch curve decreased by up to 1023 GWh (in February 2026), while the Emergency curve decreased by up to 648 GWh (in March 2026). The South Island Watch curve decreased by up to 740 GWh (in February 2026) while the Emergency curve decreased by up to 583 GWh (in March 2026).



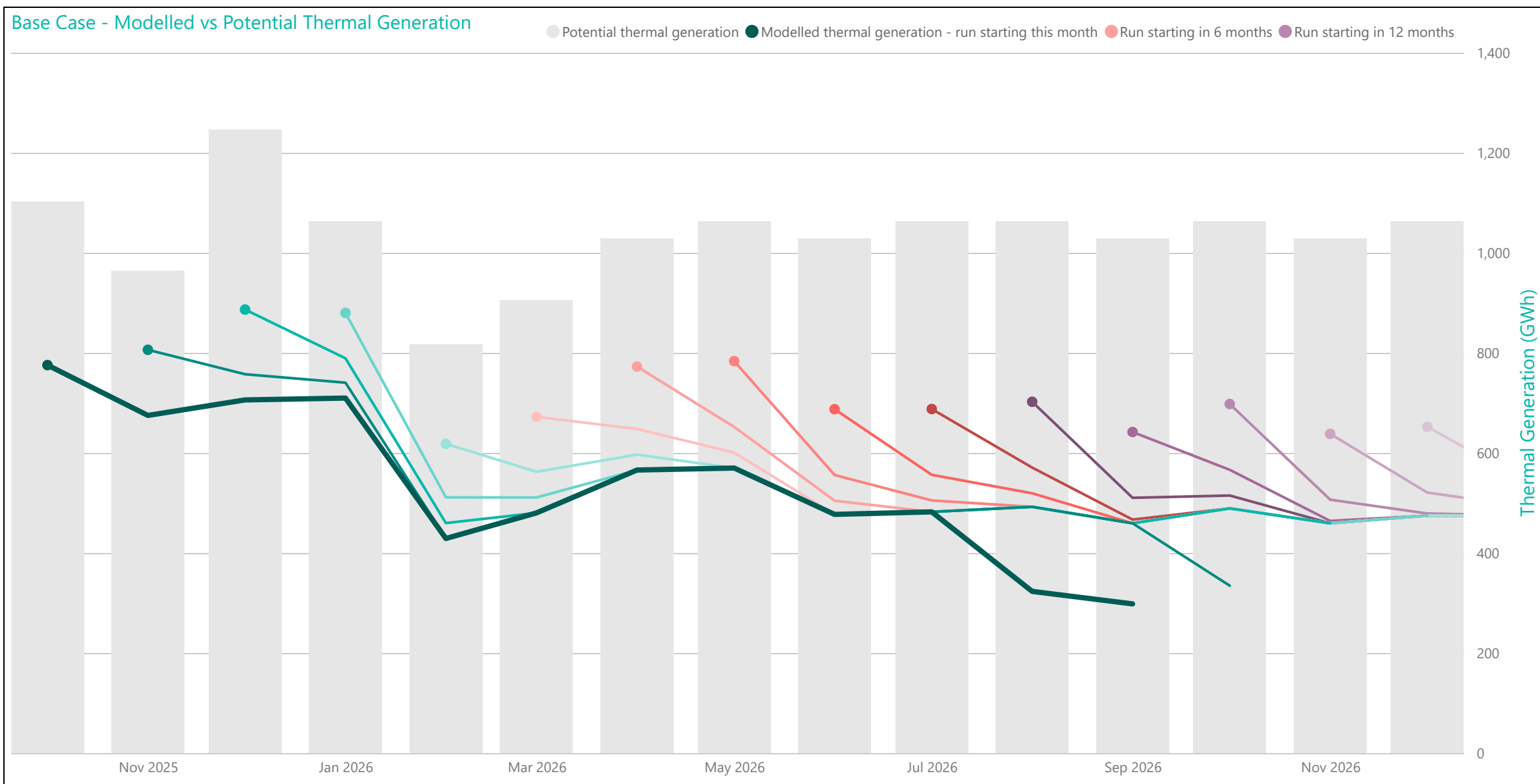
Base Case - Thermal Deratings

 Thursday, 23 October 2025

The thermal deratings and key considerations for the October 2025 ERCs update are below:

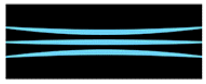
- Thermal generation capability increased through most of next year in this update, due to the availability of the third Rankine.
- Note that the deratings on thermal generation would decrease if more coal or gas is made available for electricity generation than what has been modelled. Continued focus on fuel (both hydro and thermal) and asset availability is needed to reduce energy risk ahead of winter 2026.
- Modelled gas storage levels have decreased to 2.9 PJ as of the beginning of September and could fuel a large combined cycle gas plant at full output for ~1.4 months (ignoring draw down rates) or a peaker for ~4.5 months.
- The current coal stockpile can fuel three Rankines at full output for ~4 months, or one Rankine for ~12 months without further imports.

On the chart below, potential thermal generation is the total capacity of available units. Modelled thermal generation (shown by the lines) is what those units could generate using the gas and coal available for electricity generation. There is a separate model run starting each month, with the start of each run shown by a dot. In the table, each row corresponds to a separate run. Each run starts with a stockpile of stored coal and gas, and modelled generation tends to decline initially as this stockpile is consumed. Whirinaki is a diesel generator and is not included in the charts below, however it is still included in the model where it is limited to 60 GWh generation over a 6 month period.



Modelled Thermal Generation (GWh) by Run Month

[illegible]



Base Case - Simulated Storage Trajectories (SSTs)

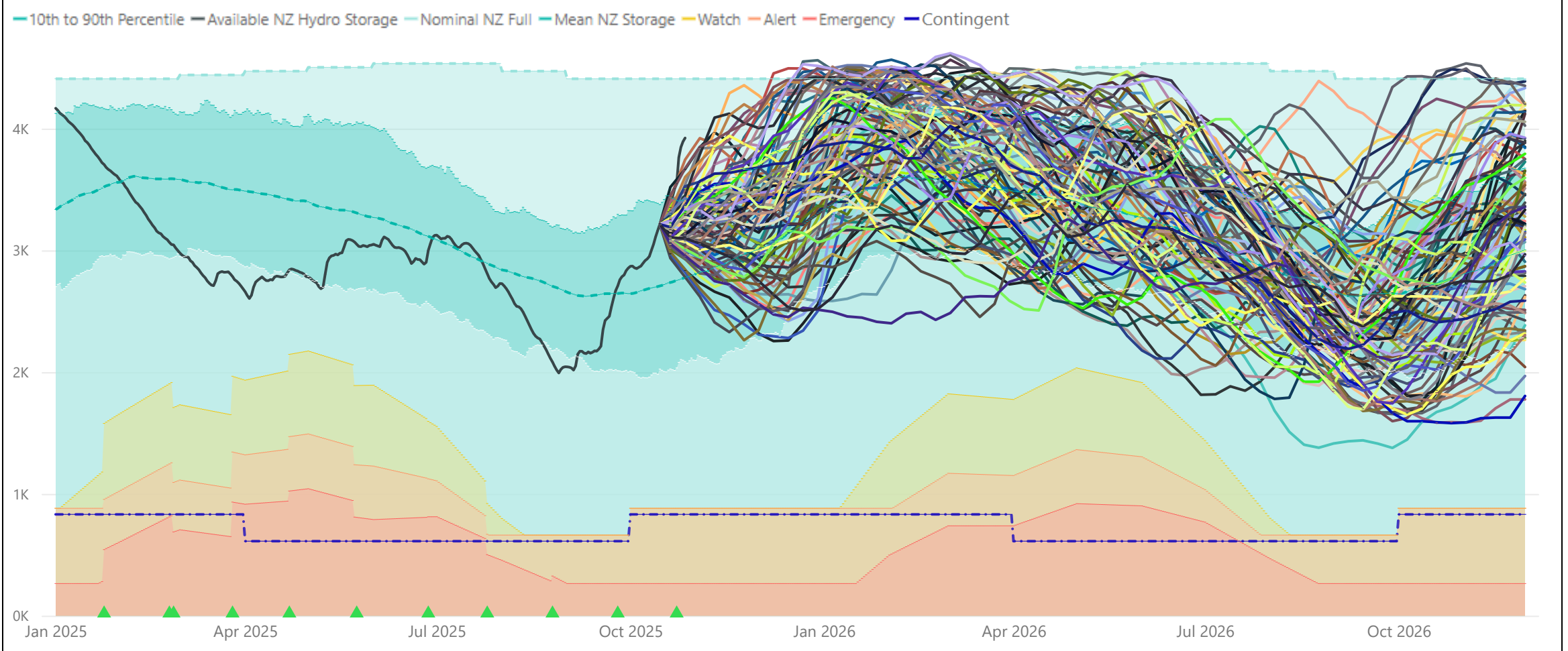


The October SST update is shown below:

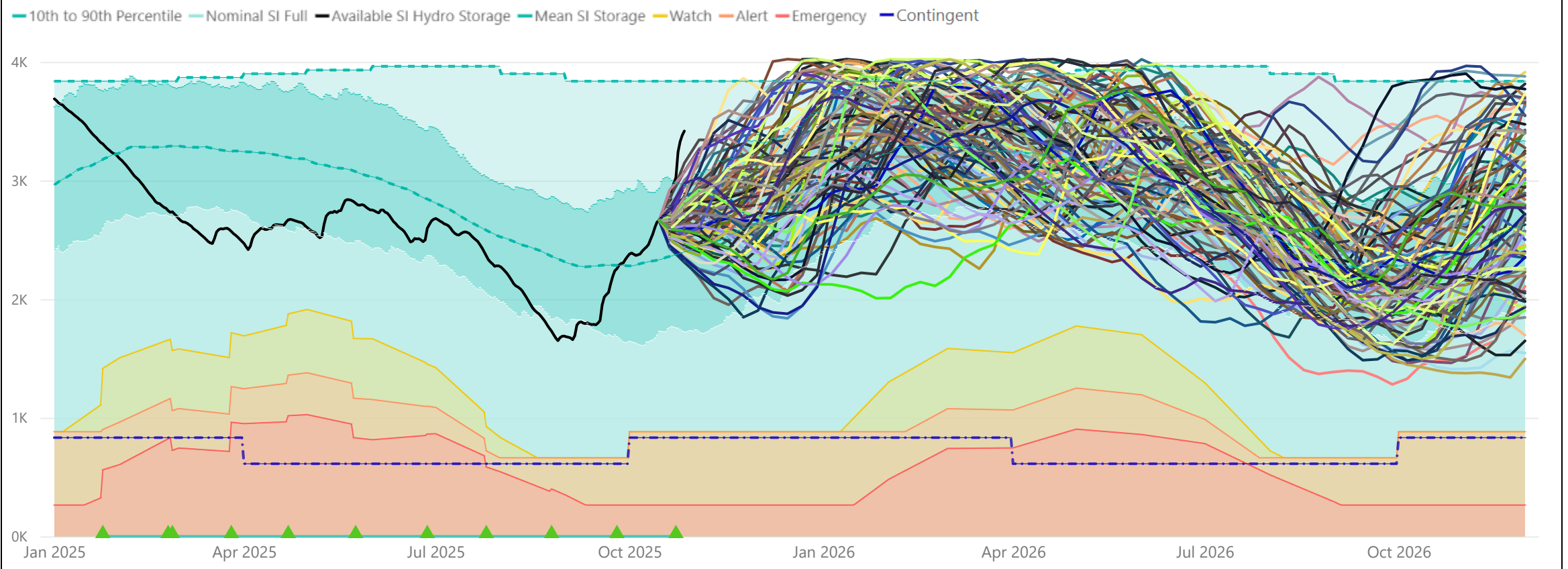
- No SSTs cross the NZ Watch status curve in 2025 or 2026.
- No SSTs cross the NZ Alert status curve in 2025 or 2026.
- No SSTs cross the South Island Watch status curve in 2025 or 2026.
- No SSTs cross the South Island Alert status curve in 2025 or 2026.

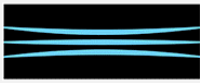
SSTs have a hydro storage starting date of 15 October.

Basecase - New Zealand SST Electricity Risk Status Curves (Available GWh)



Basecase - South Island SST Electricity Risk Status Curves (Available GWh)





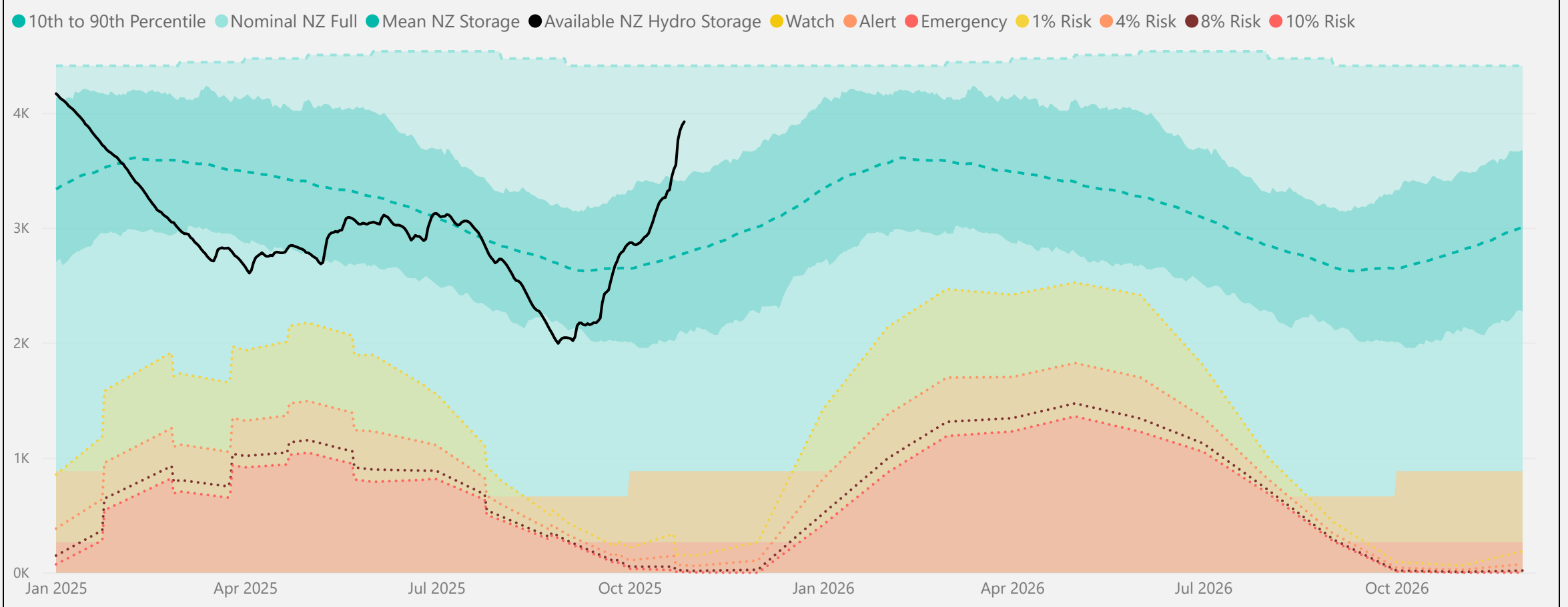
October 2025 Rankine Retires Scenario - Electricity Risk Curves

Our base case Electricity Risk Curves (ERCs) for October assume that all three Rankine units at Huntly will remain available as indicated by the Commerce Commission's draft determination proposing authorisation of a series of agreements between the gentailers to keep the third Rankine up to the end of 2035.

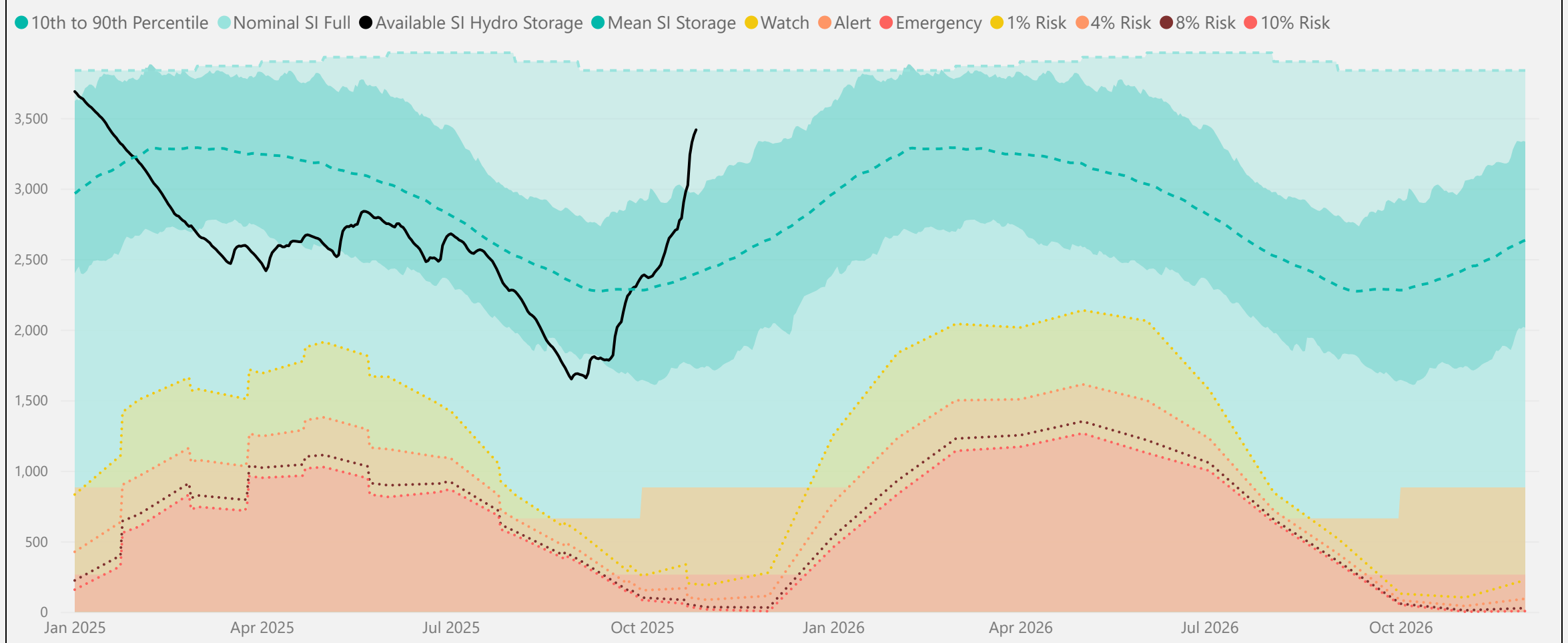
This scenario examines the impact on ERCs (relative to the base case assumptions) if the third Rankine is decommissioned on 1 January 2026. This increases the New Zealand Watch curve by up to 713 GWh in February 2026 and results in three SSTs briefly crossing the Watch curve in 2026, where no SSTs crossed it under the base case.

The October 2025 ERCs Scenario is shown below.

Scenario - New Zealand Energy Risk Status Curves (Available GWh)

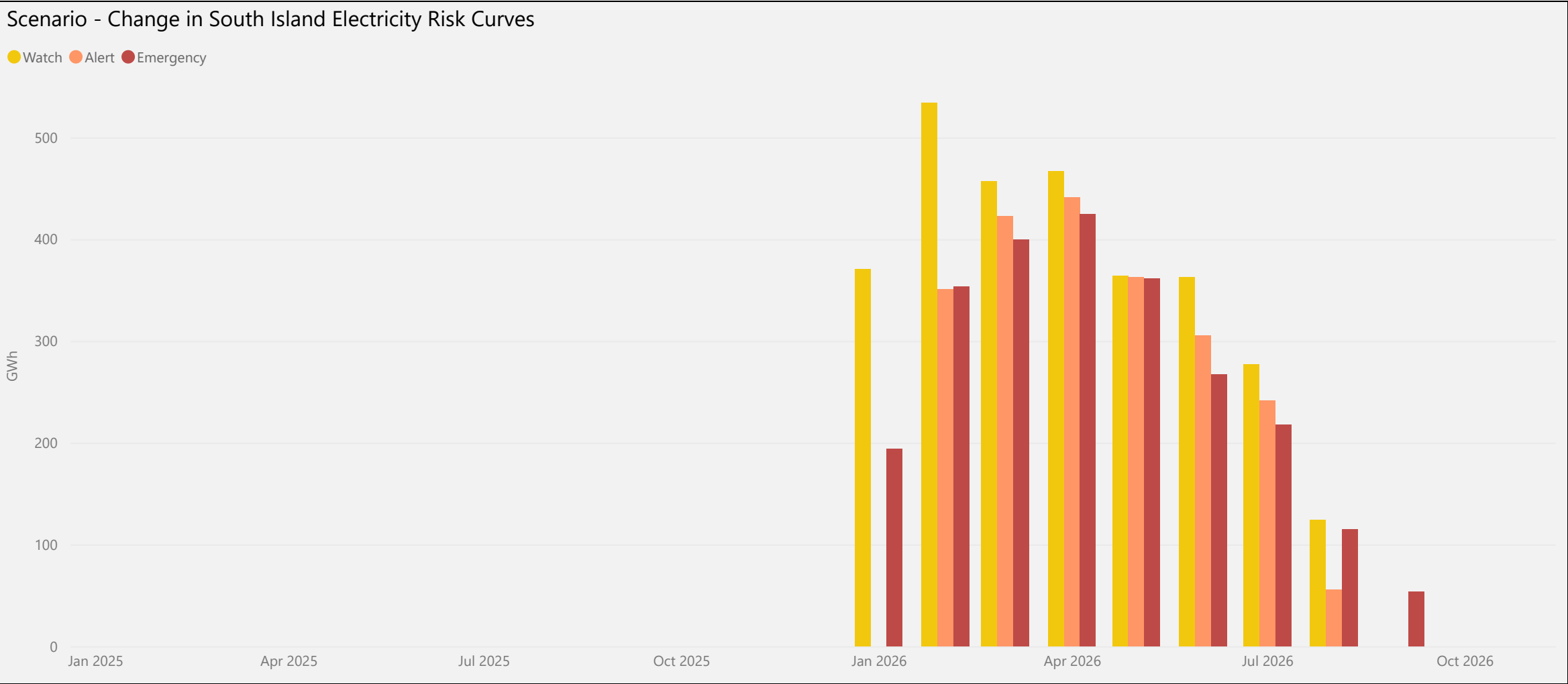
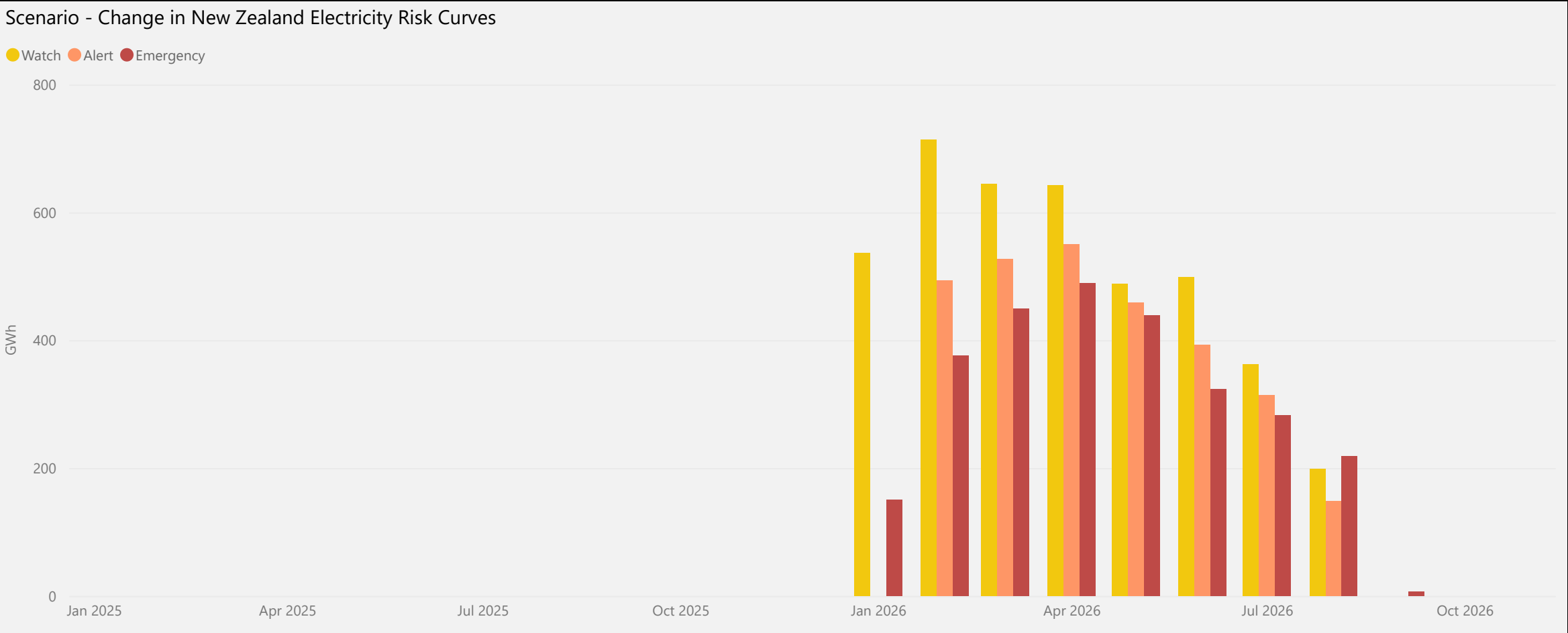


Scenario - South Island Energy Risk Status Curves (Available GWh)

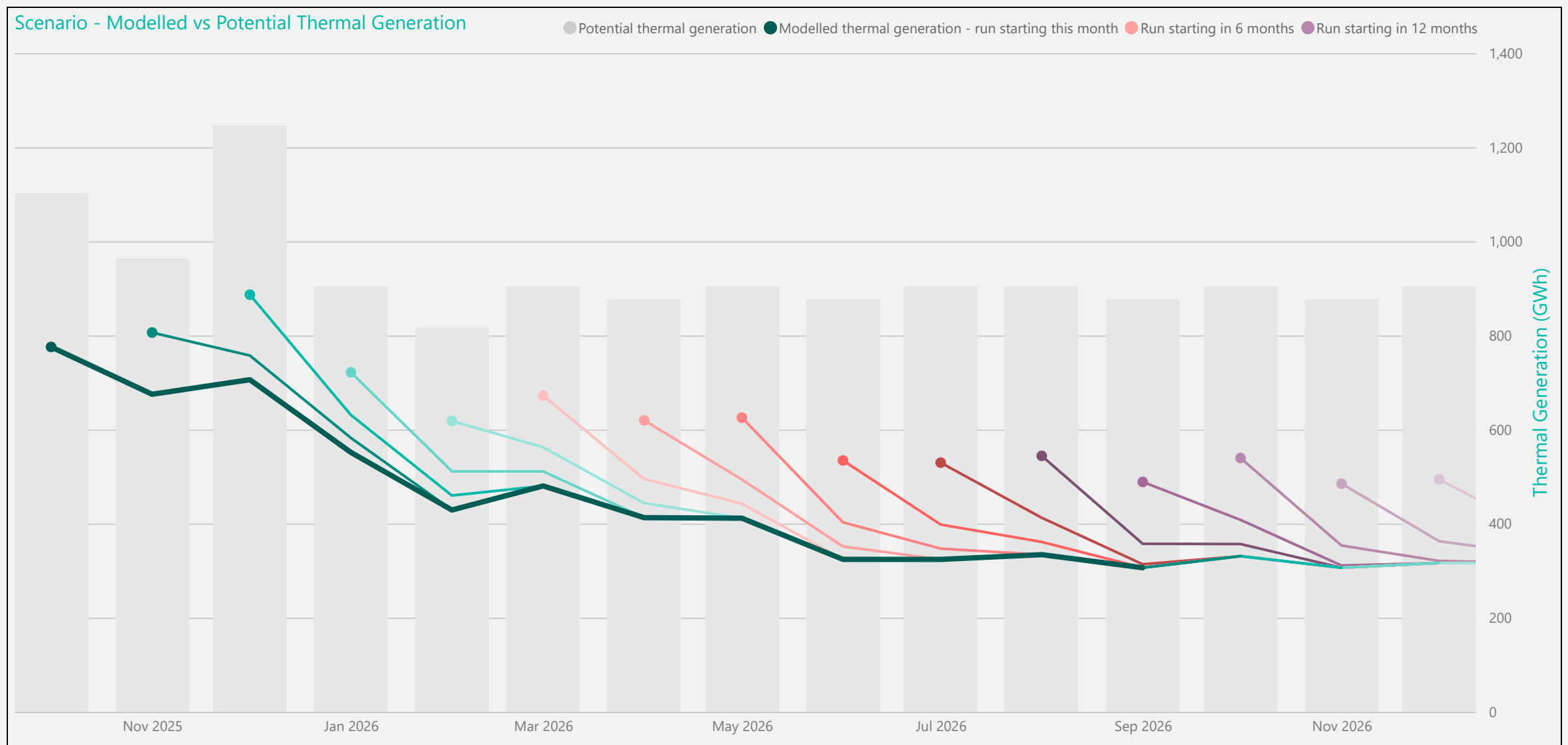


Scenario - Changes in the Electricity Risk Curves from the Base Case

The changes to the scenario Watch/Alert/Emergency curves compared to the base case are shown below. The increase in the curves over 2026 is the result of the third Huntly Rankine unit being retired in January 2026 (versus all three being available).



The thermal deratings and key considerations for the October 2025 third Rankine is retired scenario are below. Potential thermal generation in 2026 (grey bars) is significantly lower with one less Rankine unit available. This results in reduced generation in the early months of each run, which increases risk.

[illegible]



Scenario - Simulated Storage Trajectories

The risk curves have increased in the third Rankine retires scenario as this assumes the market has less access to thermal generation capacity. The increase in risk curves results in three SSTs crossing the New Zealand Watch curve in 2026, where no SSTs crossed it under the base case. The scenario does not result in any SSTs crossing the New Zealand Alert or Emergency curves, or any South Island risk curves, in 2025 or 2026.

