Market Operations Weekly Report - Week Ended 30 August 2026

Overview

Last week saw increased inflows into hydro storage lakes with national storage back to well above its average for this time of year at 127%.

In this week's insight we look at the proportion of generation from renewable sources and the contribution of new generation over the last few years.

Security of Supply

Energy

National hydro storage increased to 127% of the historic mean from 113% the week prior. South Island storage increased from 119% to 135% and North Island storage increased from 69% to 72%.

Capacity

Residuals last week were healthy with the lowest residual of 711 MW occurring during the morning of Monday 24 August, coinciding with a drop in NI wind and the largest demand peak of the week.

The N-1-G margins in the NZGB forecast are increasing as we head into spring with healthy levels through to the end of October. Within seven days we monitor these more closely through the market schedules. The latest NZGB report is available on the NZGB website.

Electricity Market Commentary

Weekly Demand

Total demand decreased to 810 GWh last week from 859 GWh the week prior. The highest demand peak occurred at 7:30 am on Monday 24 August at 6,302 MW.

Weekly Prices

The average wholesale electricity spot price at Ōtāhuhu decreased from $95/MWh in the previous week to $43/MWh last week. Prices peaked at $189/MWh at 7:30am on Monday 24 August, coinciding with the highest demand peak.

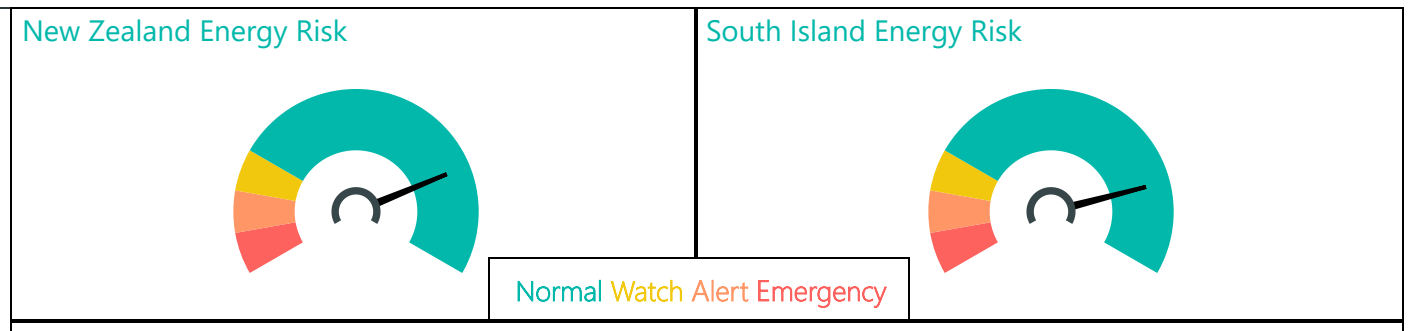
Inter-island price separation occurred frequently last week with high HVDC transfer rates. The largest separation on Thursday 27 August coincided with relatively high wind generation in the South Island and low wind in the North.

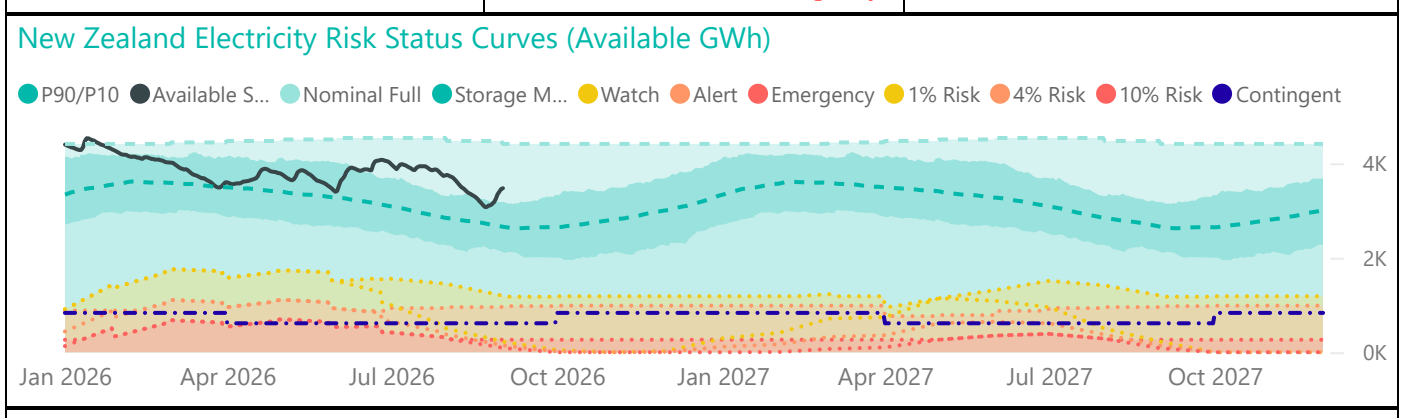
Generation Mix

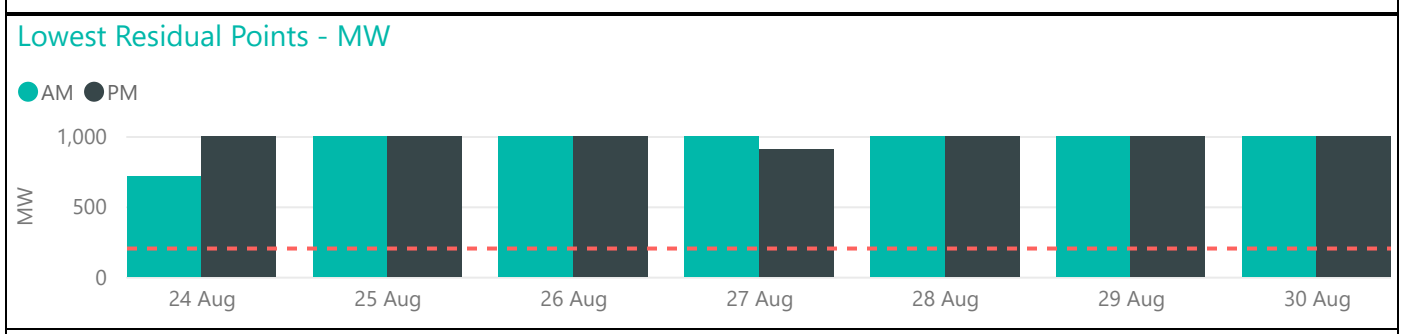
Renewable generation was above average last week. Wind generation contributed 15% of the generation mix, above its 10% annual average, and hydro generation contributed 60%. Geothermal contributed 24% and the thermal contribution was minimal at 1%.

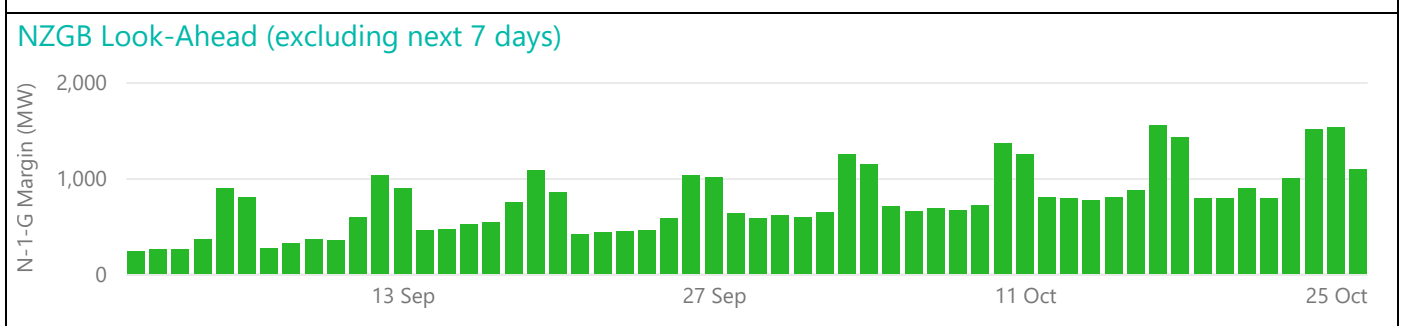
HVDC

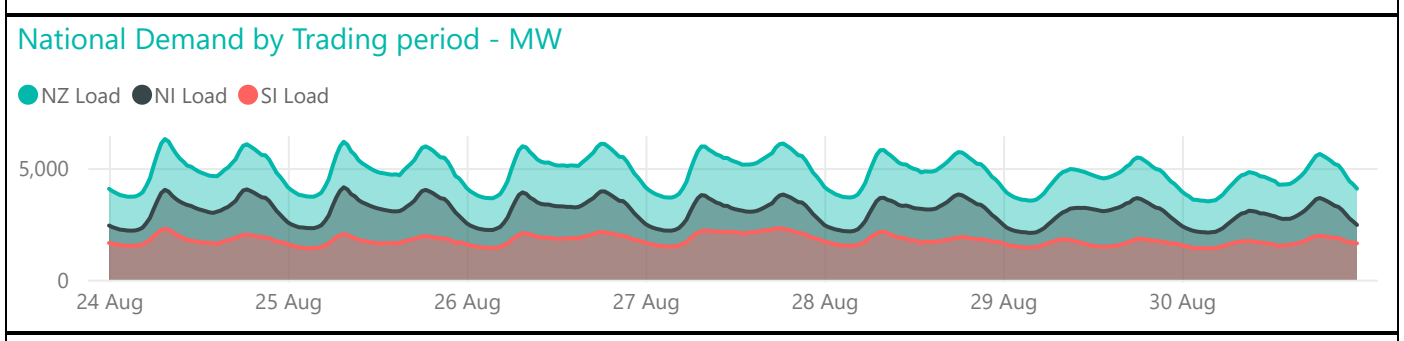
HVDC flows last week were entirely northward. Overall, 110 GWh was transferred north.

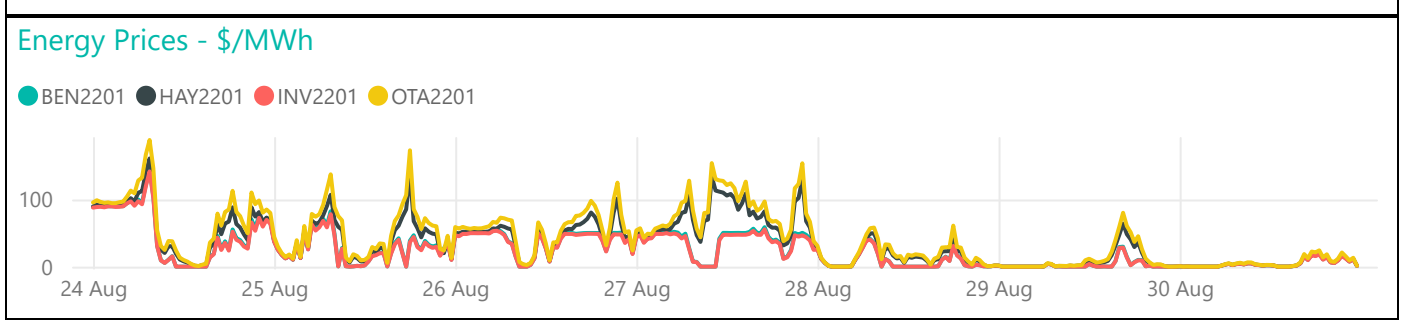


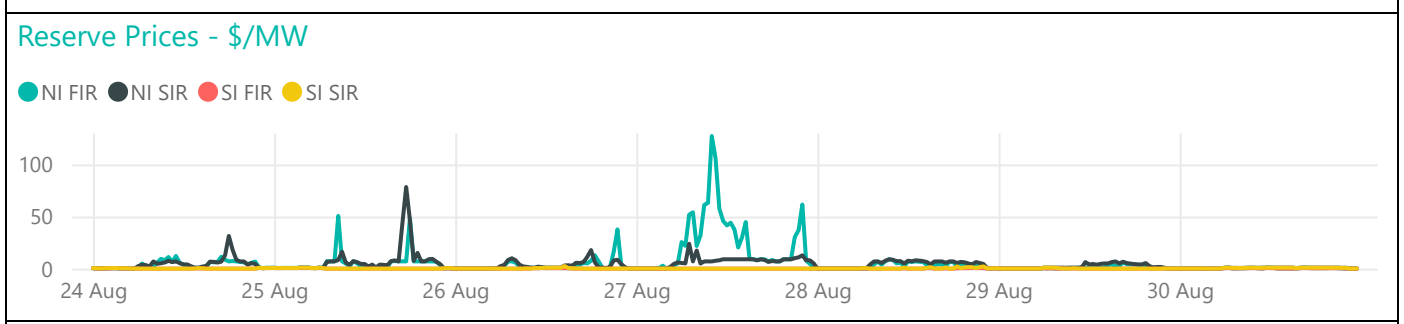


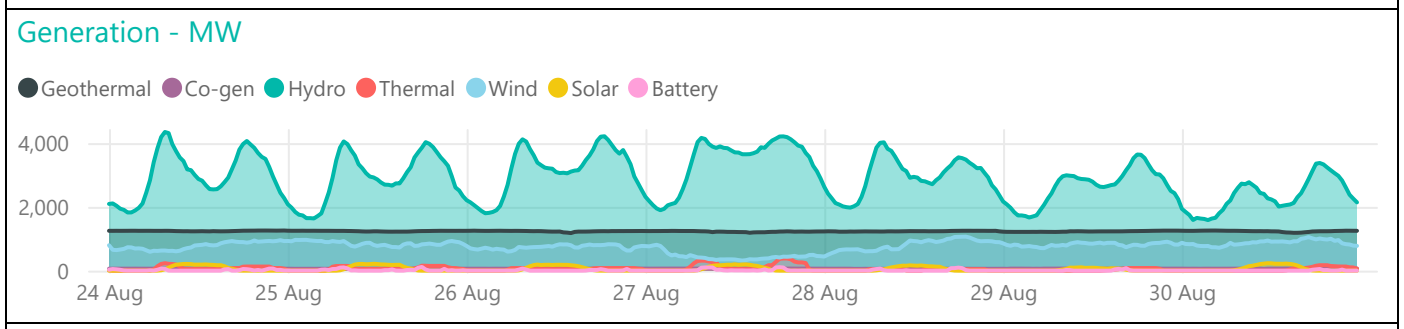


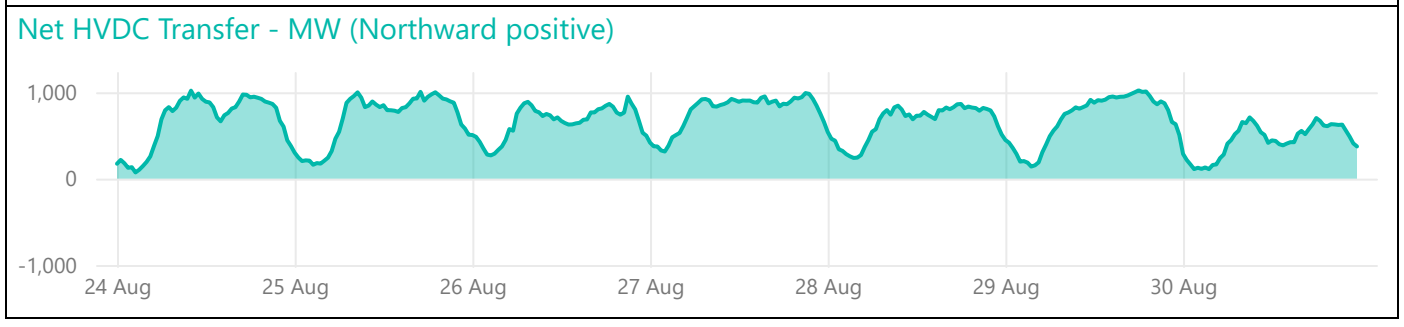










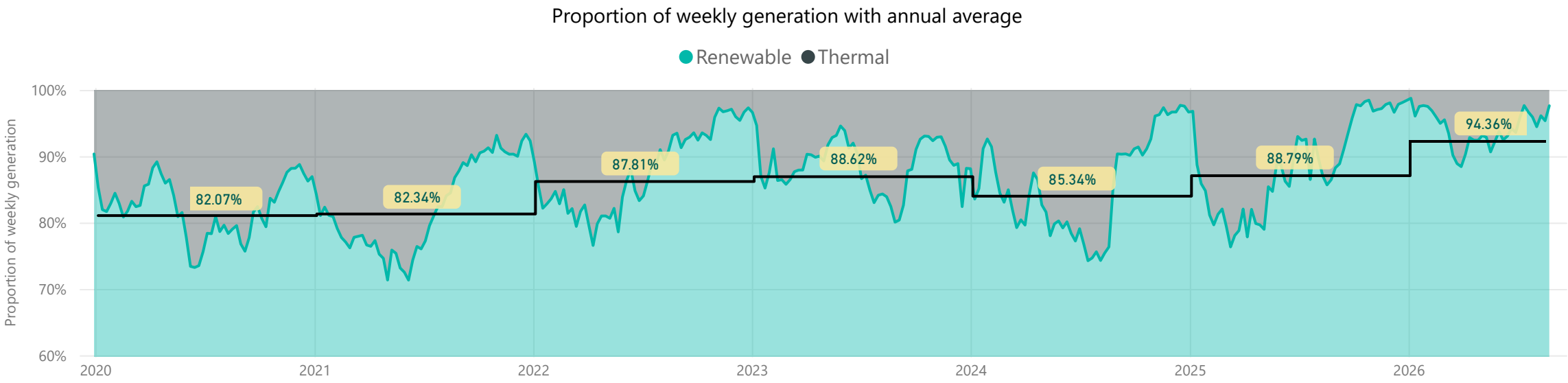


Weekly Insight - High percentages of renewable generation

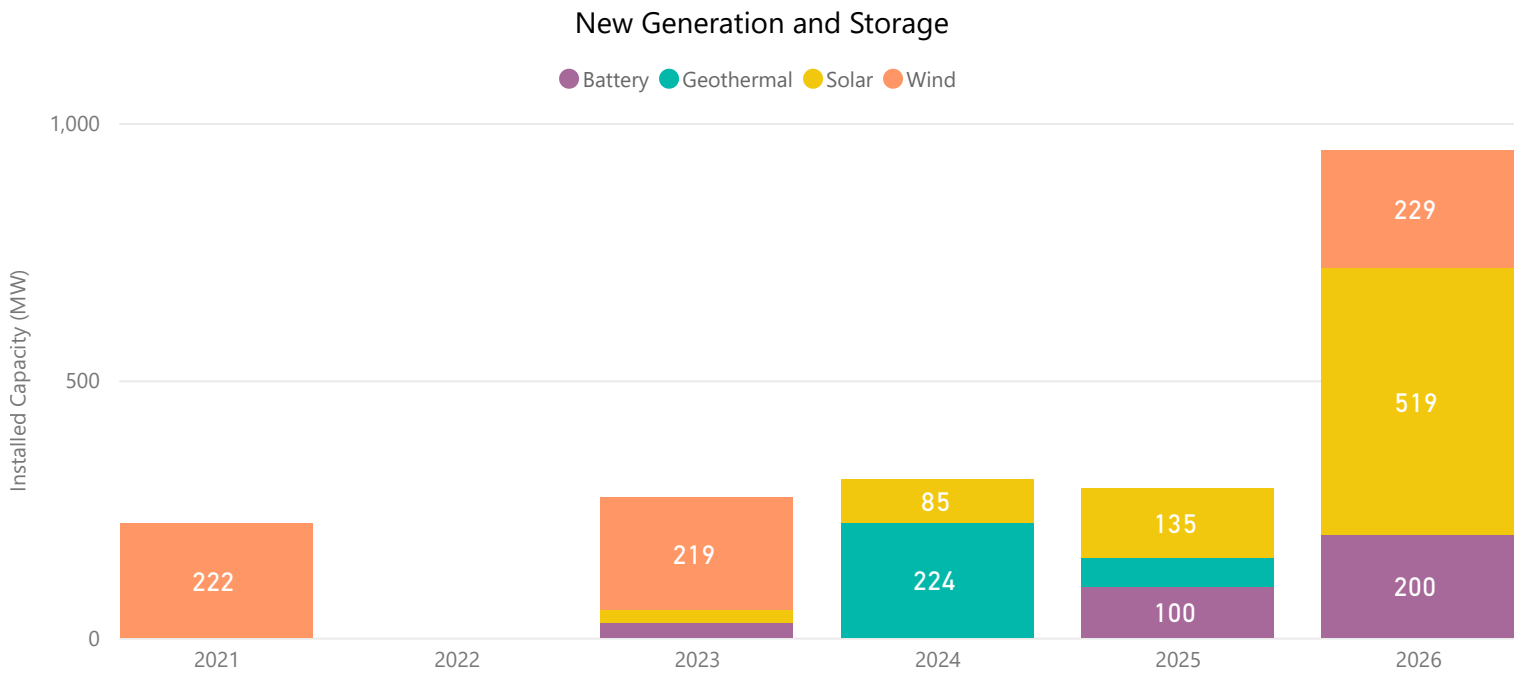
This week's insight covers the high percentage of renewable generation that has persisted over winter this year. This has reduced Aotearoa's need for fossil fuels even as the electricity sector has managed record-breaking high demand peaks.

This decline of thermal generation's contribution to grid electricity can be attributed to the increase in renewable generation capacity we have seen in recent years as well as high hydro storage across winter. A previous insight from November 2025 covered the change in the renewable share of generation over the past few years and this insight includes new renewable generation available this year.

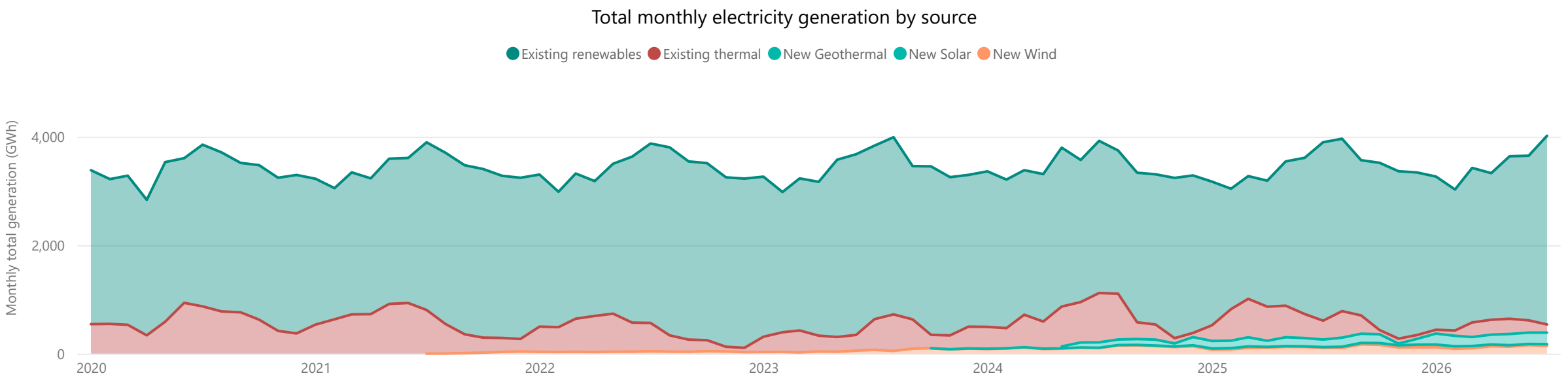
In the graph below we show the percentage of weekly grid electricity generation from renewable (blue) sources and from thermal (red) sources. The renewable percentage fluctuates week-to-week but has grown over the last six years. The lowest weekly proportion of renewable generation in 2026 so far occurred in March at 88%, but this is still well above lows of previous years. The annual average renewable percentage is shown by the black line and yellow value for each year, noting that the value for 2026 does not yet encompass a full year.



The consistently high levels of renewable generation this year can be largely attributed to high hydro inflows, and this has reduced the need for thermal generation to cover peaks. However, the increasing proportion of other renewables must also be acknowledged. The last few years has seen huge growth in new renewable generation connecting to the grid, particularly wind and solar. The figure below shows the capacity of new generation connected to the grid by energy source since 2021, including projects expected to connect to the grid by the end of 2026.



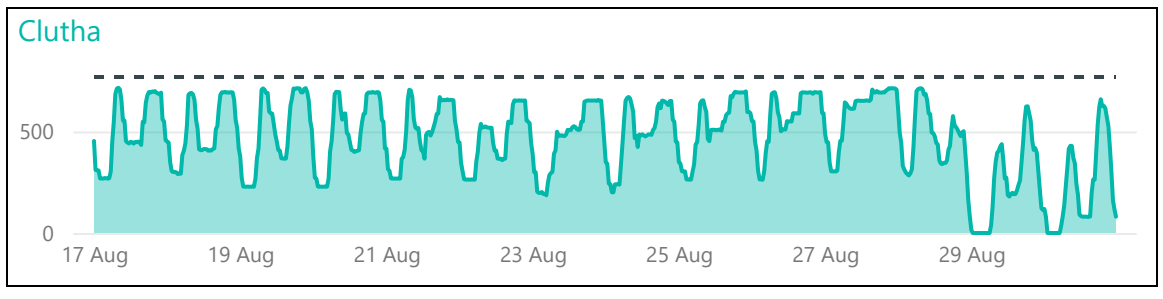
The contribution of new renewable generators is shown in the figure below, where the addition of new wind and geothermal can be seen replacing a portion of thermal generation. The contribution of new solar is small but significant, with the latest record of 365.8 MW generation from solar on 17 August (see last week's insight) and the peak solar season still to come.

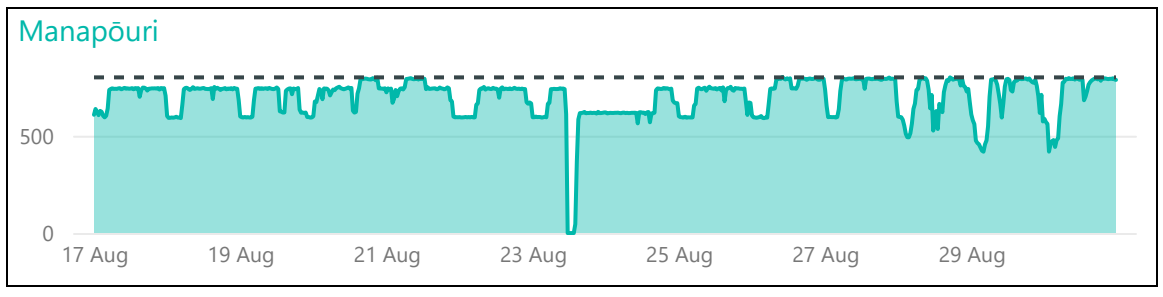


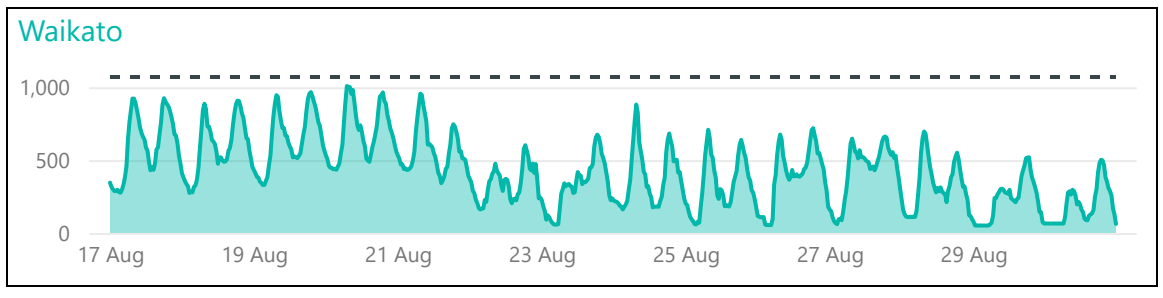
While renewable generation has increased over recent years, thermal generation continues to provide important backup to the system. In winter 2024 an extended dry period coincided with low wind which required increased thermal generation to meet the country's electrical energy needs. Dispatchable thermal generators are also necessary to provide security during high morning or evening demand peaks when there is low intermittent renewable generation.

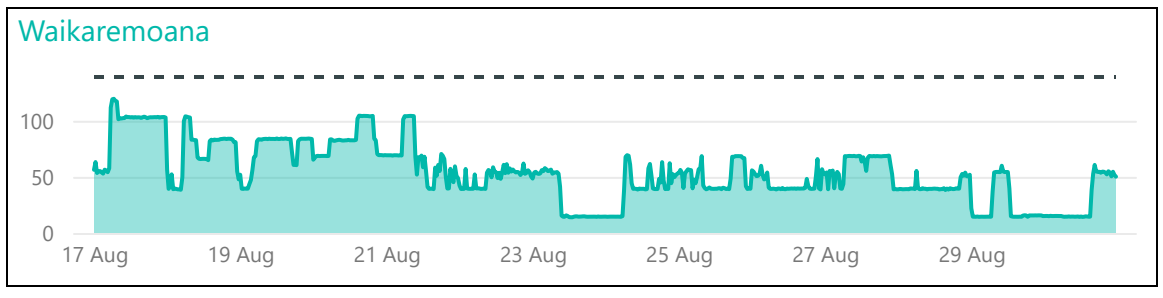
Generation Breakdown - Last Two Weeks

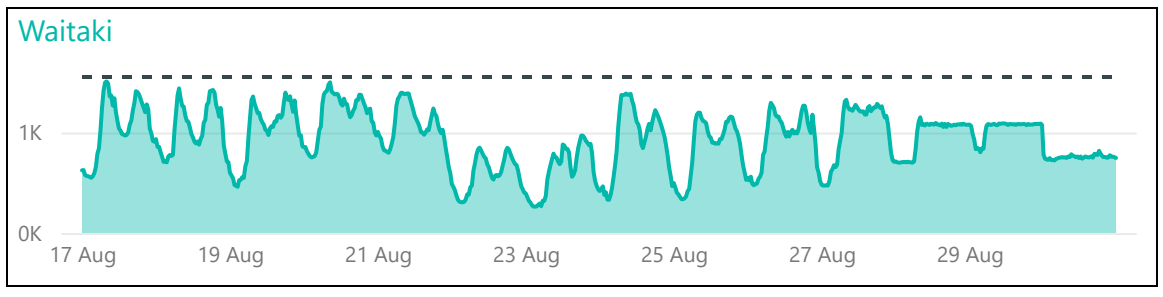
Measured in MW and displayed at trading period level for last 14 days

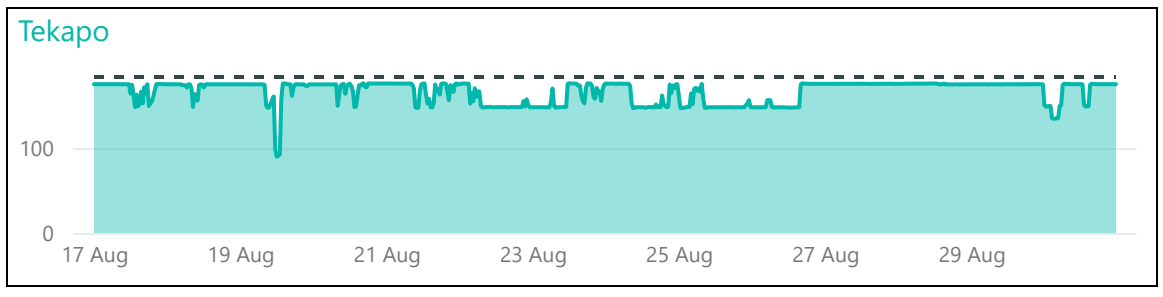


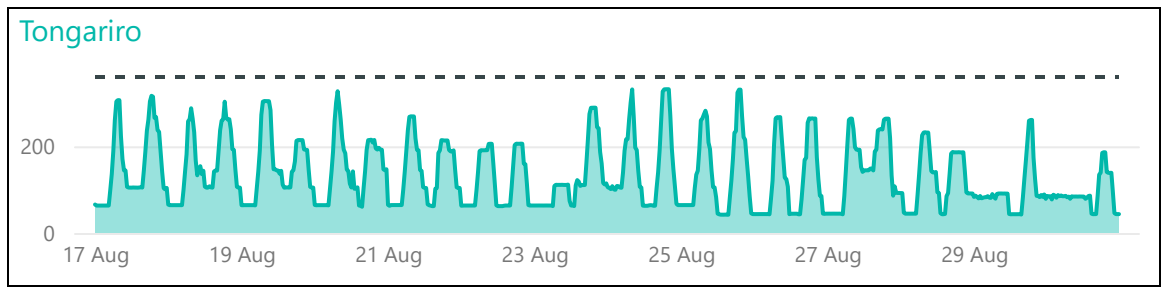


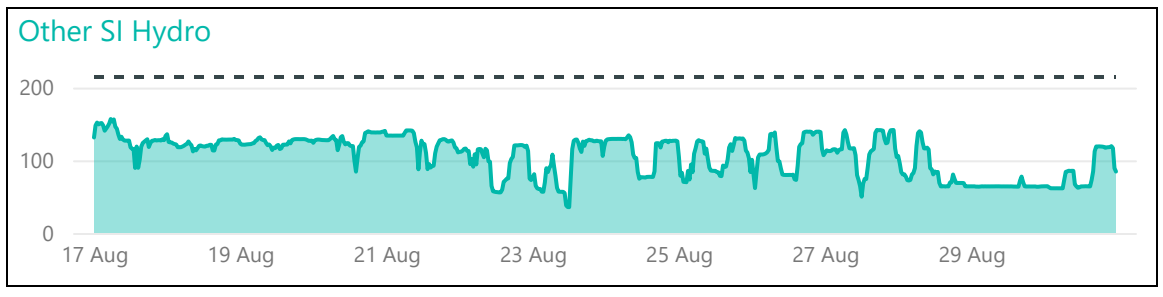


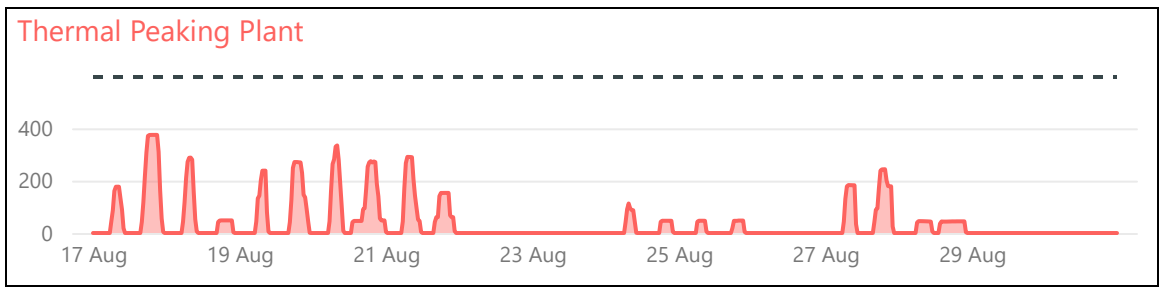


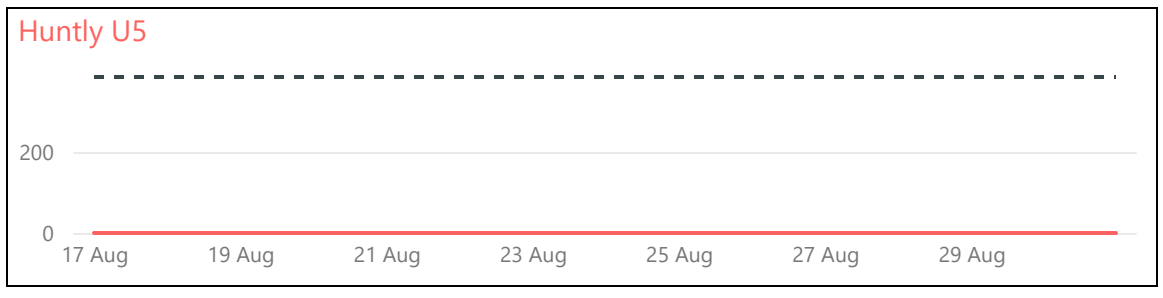


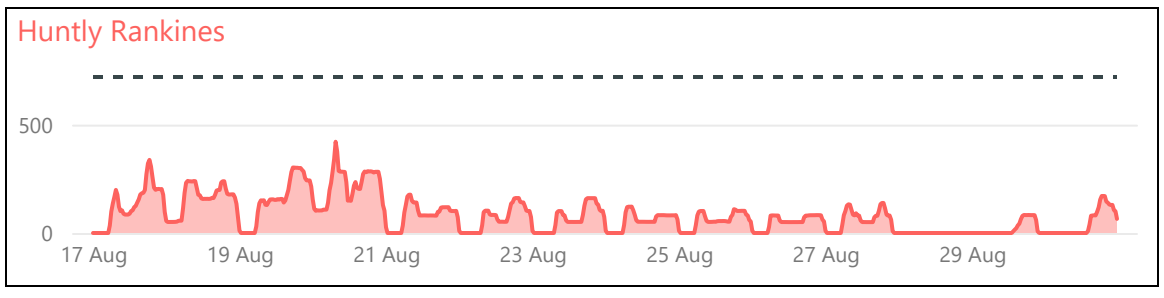


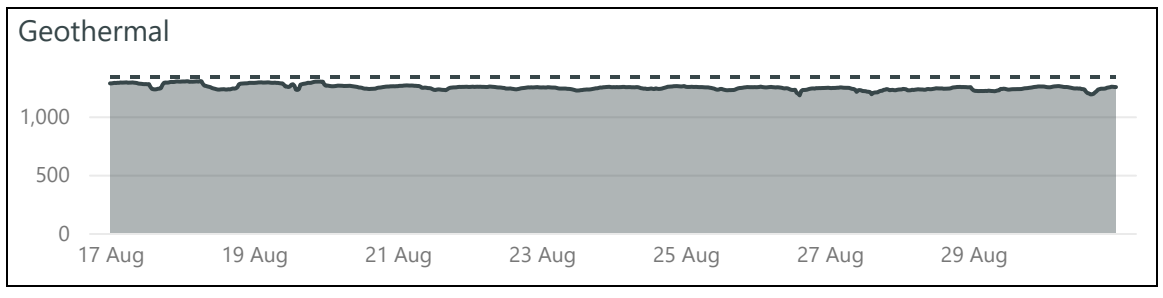


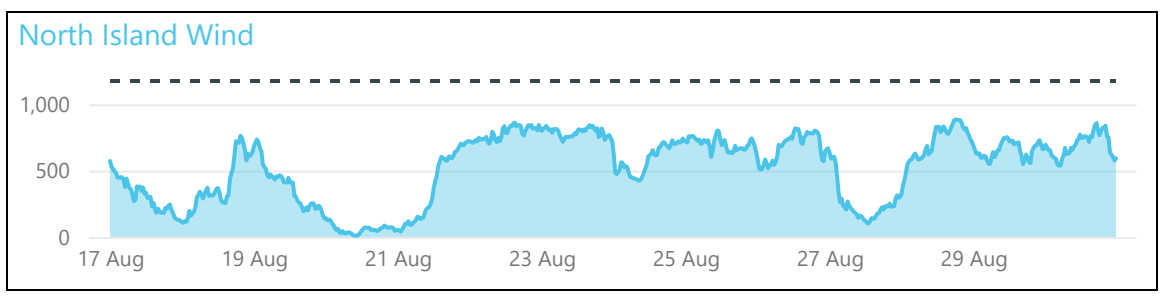


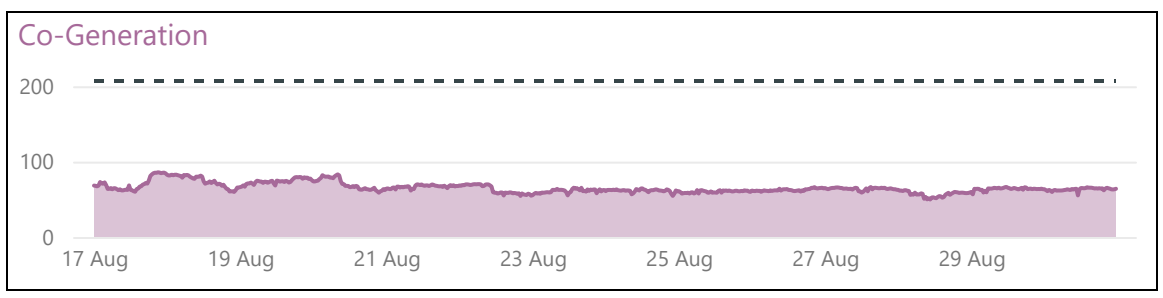


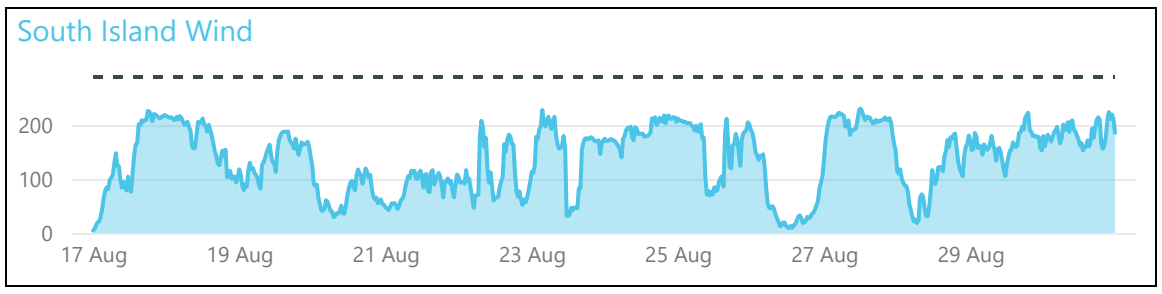


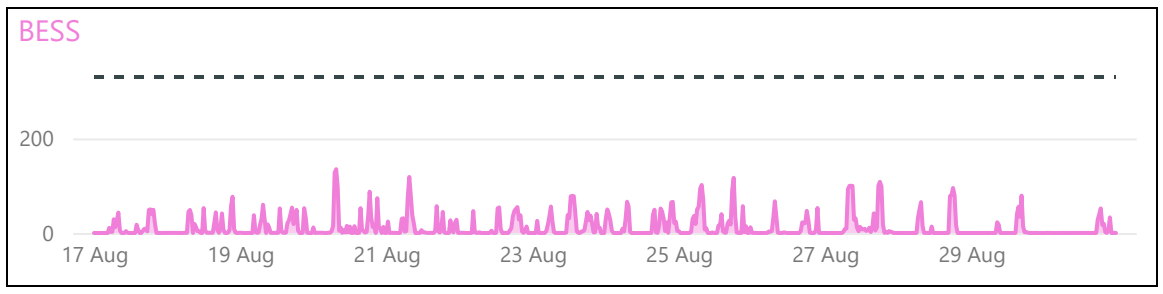


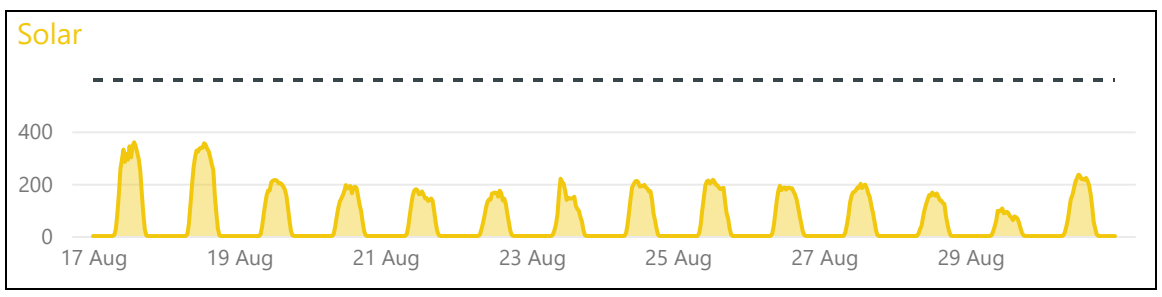






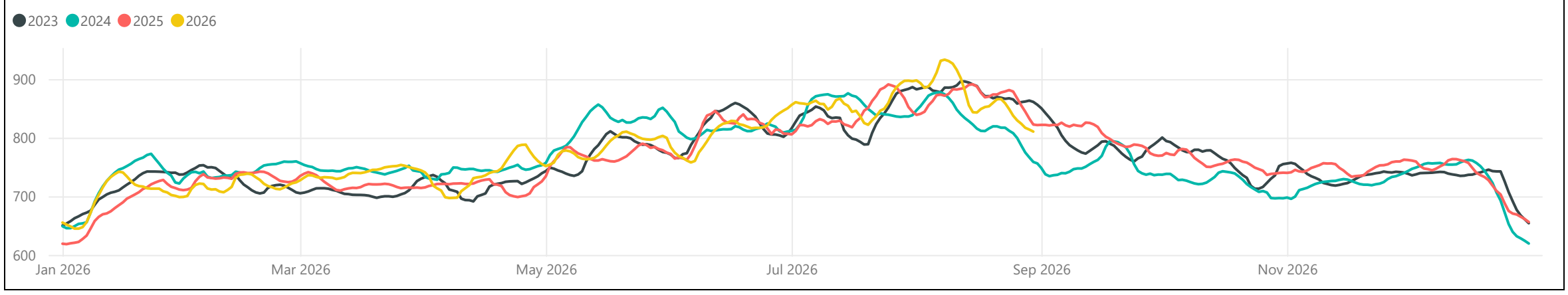




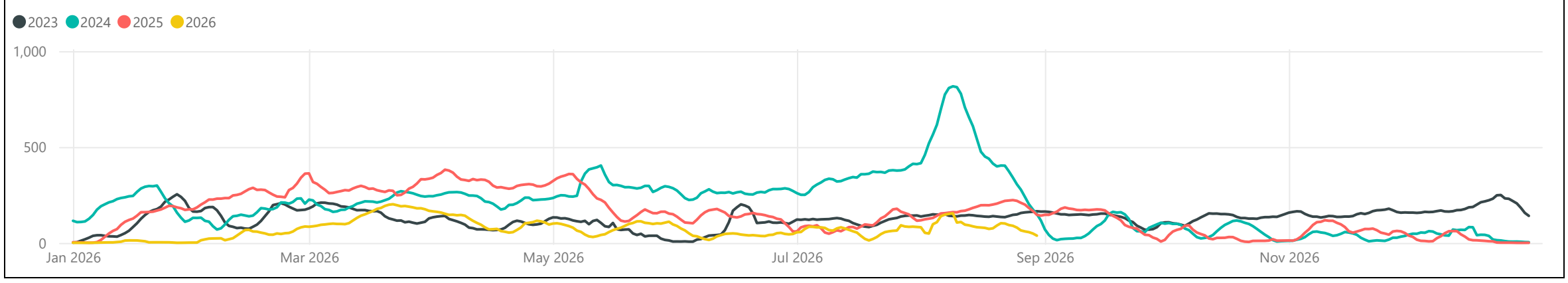


Weekly Profiles

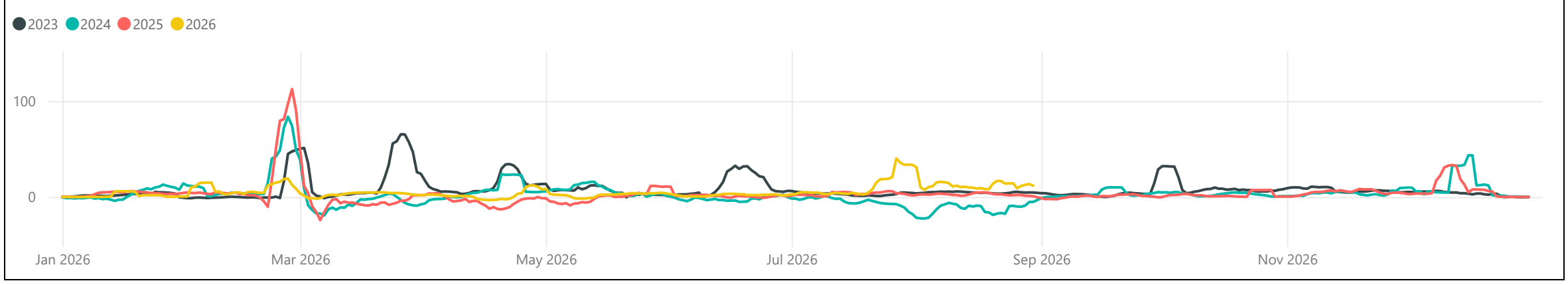
National Weekly Demand - GWh - 7 Day Rolling



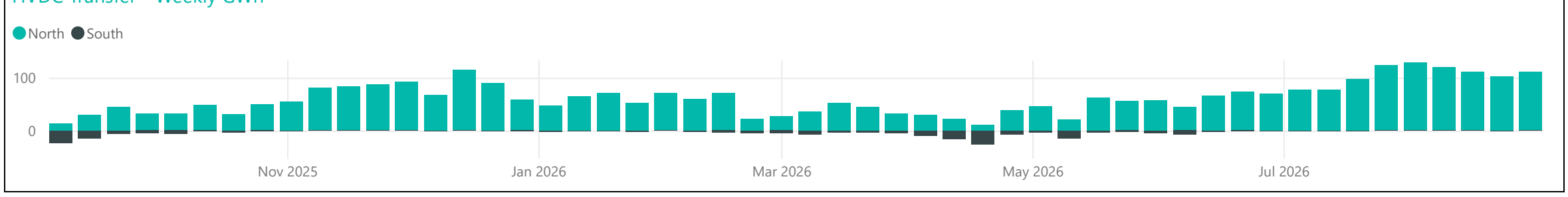
OTA2201 Weekly Rolling Average Spot Price - $/MWh



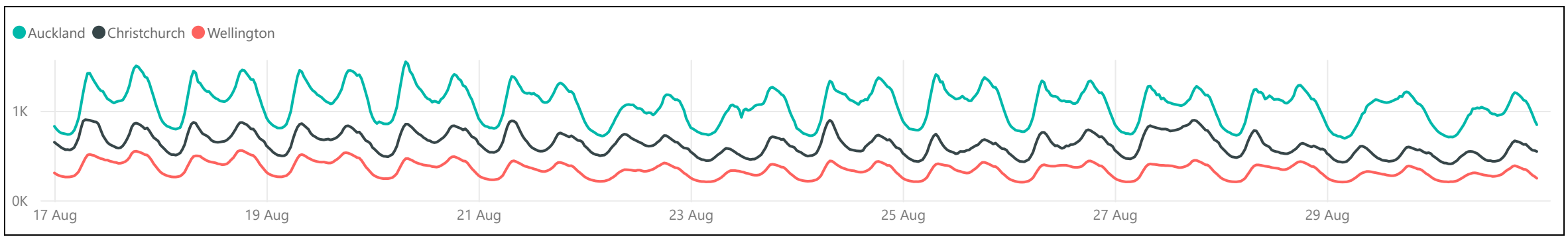
Weekly Rolling Price Separation (HAY2201 - BEN2201) - $/MWh



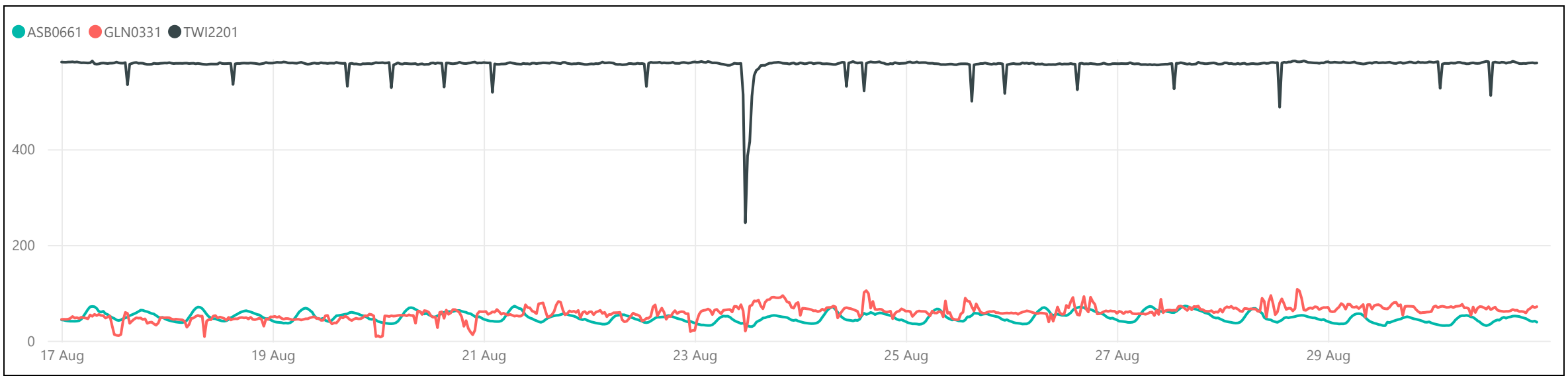
HVDC Transfer - Weekly GWh



Conforming Load Profiles - Last Two Weeks *Measured in MW shown by region*



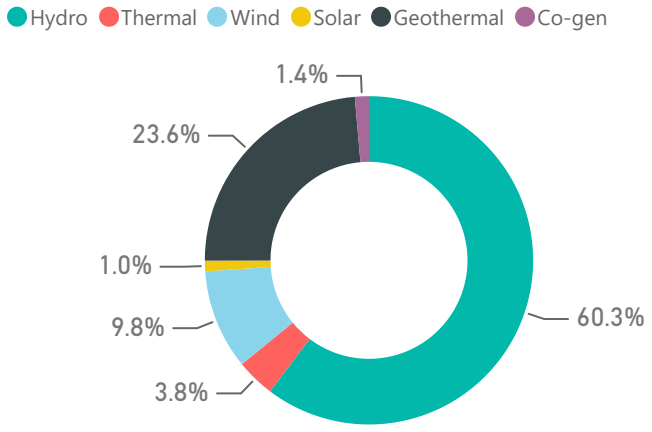
Non-Conforming Load Profiles - Last Two Weeks *Measured in MW shown by GXP*



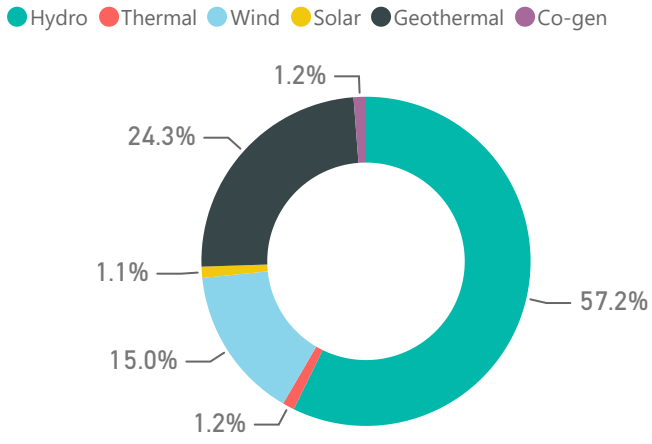
TRANSPOWER

Generation Mix

Last 52 Weeks Generation Mix - Weekly GWh



Last 7 Days Generation Mix - Weekly GWh



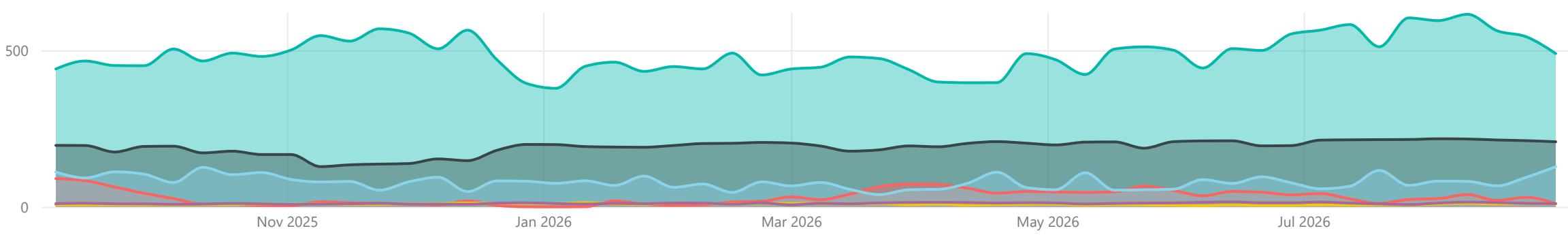
Average Metrics Last 7 Days

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
98%	27,193	31.6

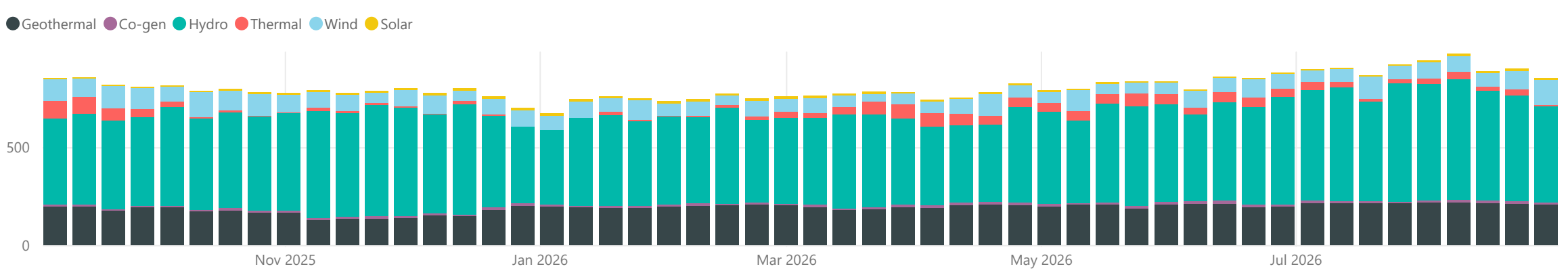
Average Metrics Last 52 Weeks

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
95%	35,883	43.8

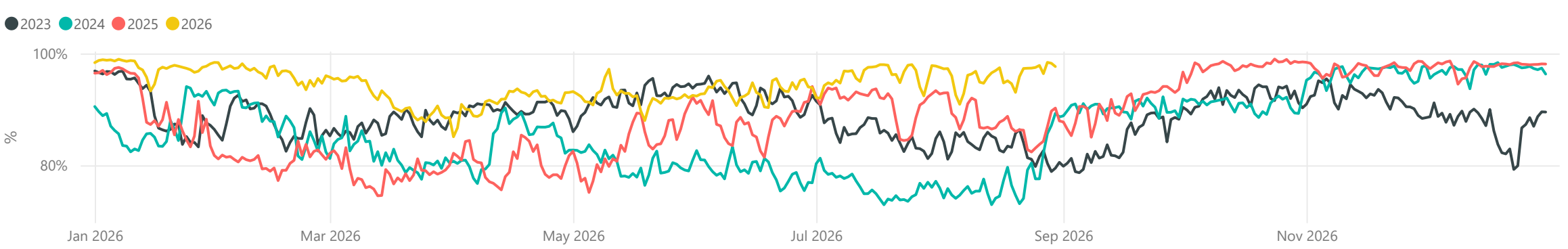
Weekly Generation Mix - GWh



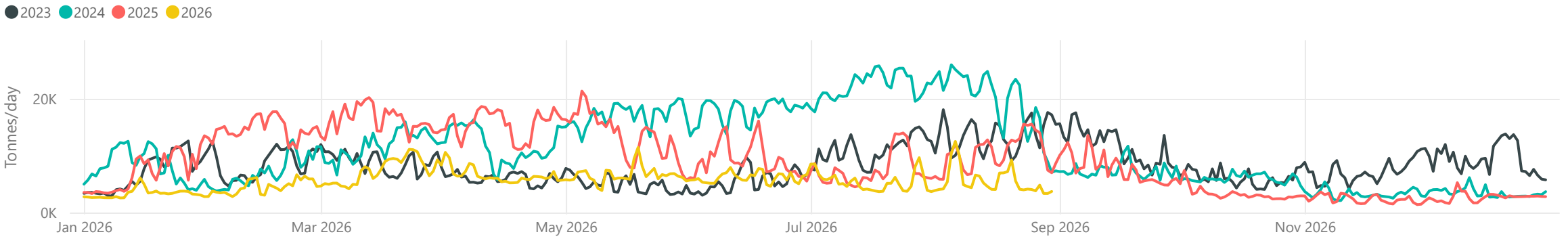
Weekly Generation Mix - GWh



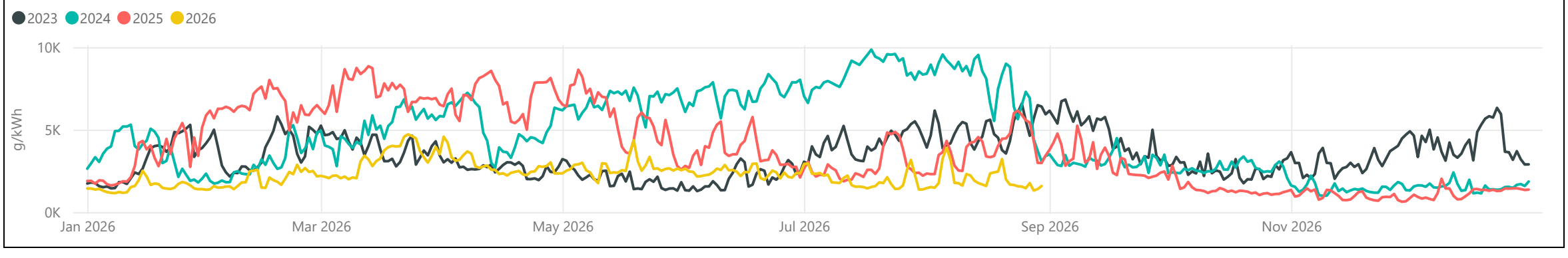
NZ Renewable Percentage



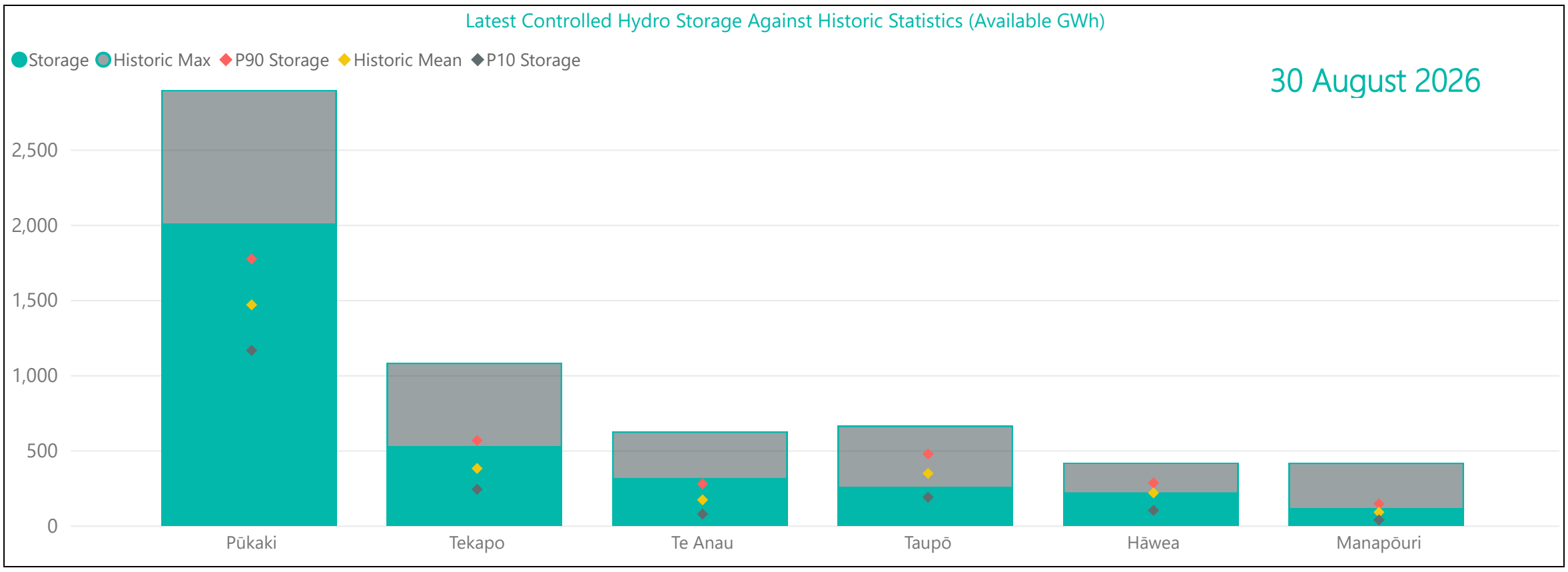
CO2 Tonnes/Day

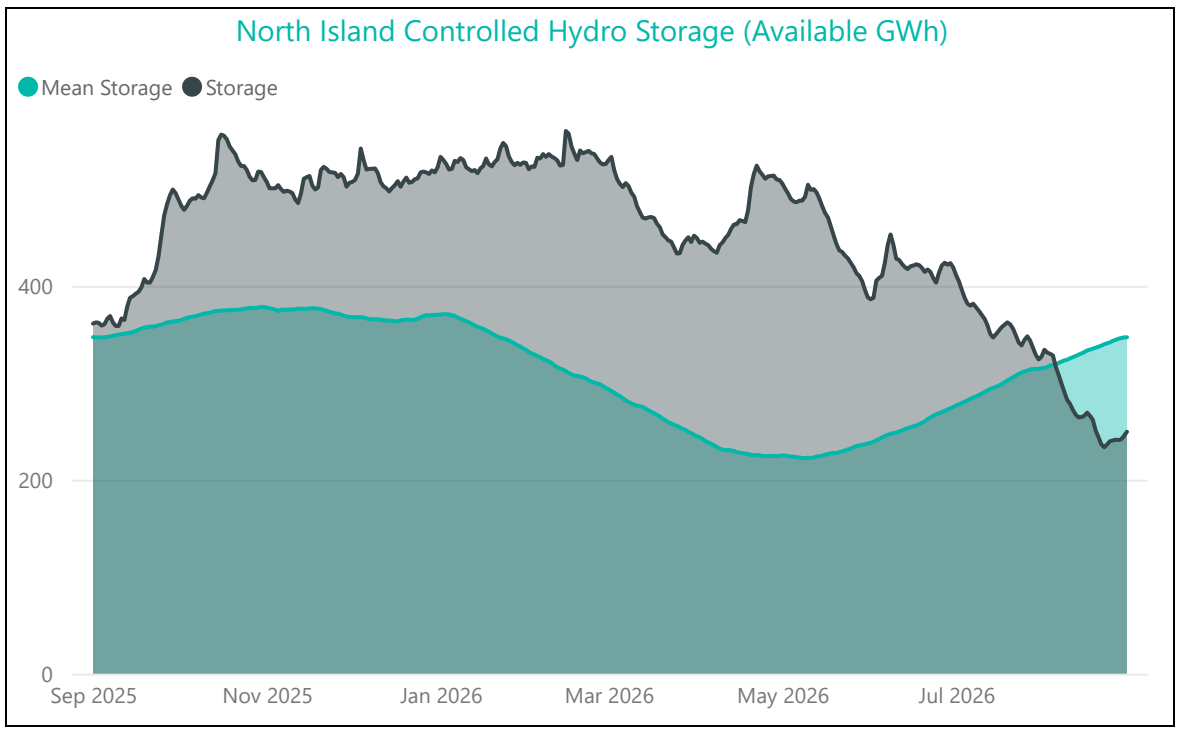


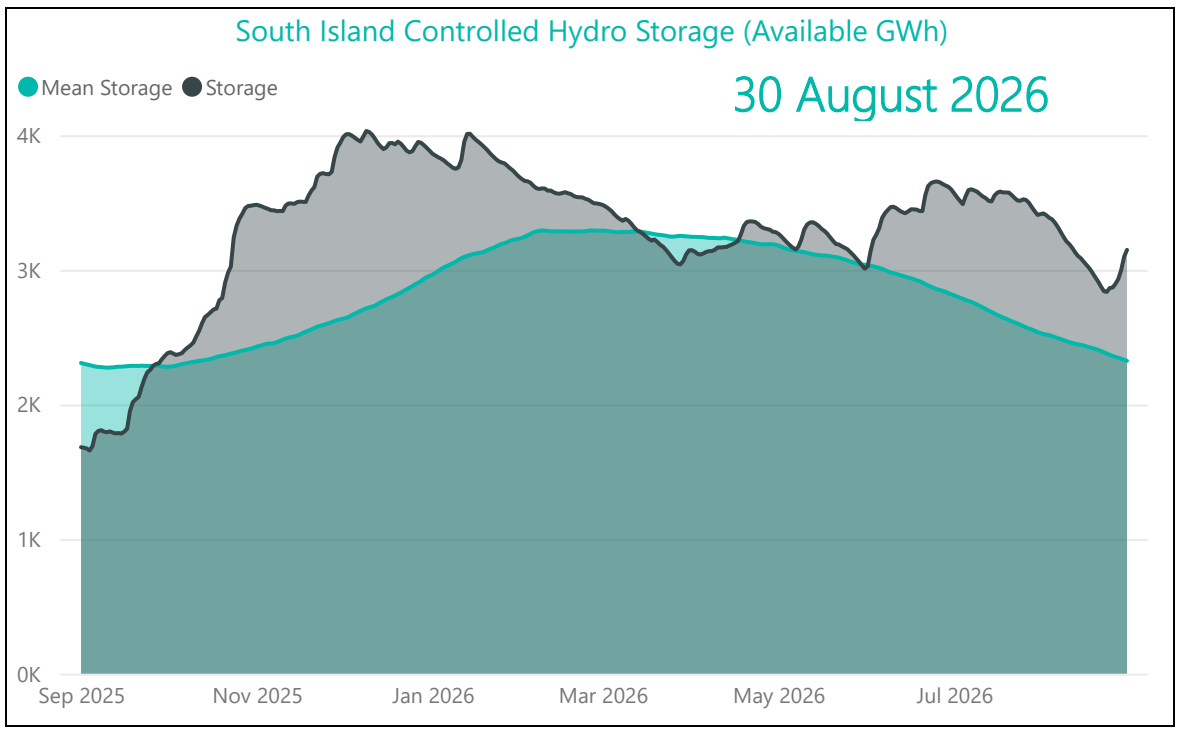
CO2 g/kWh

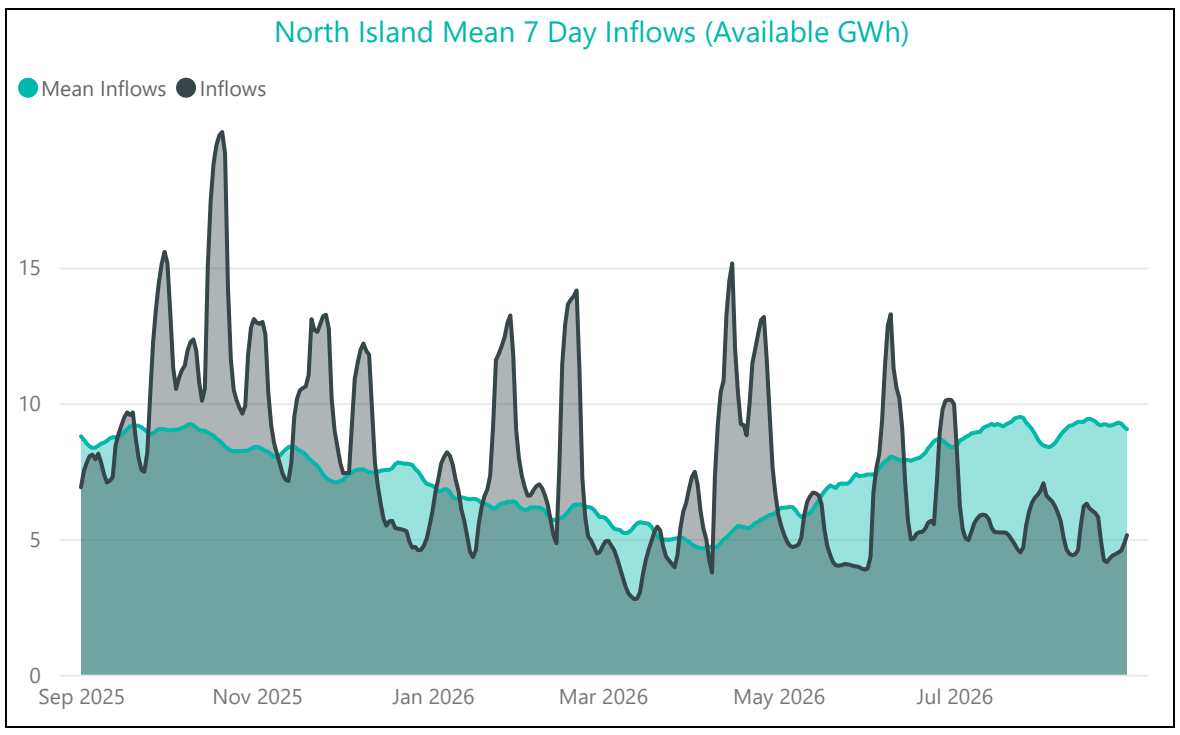


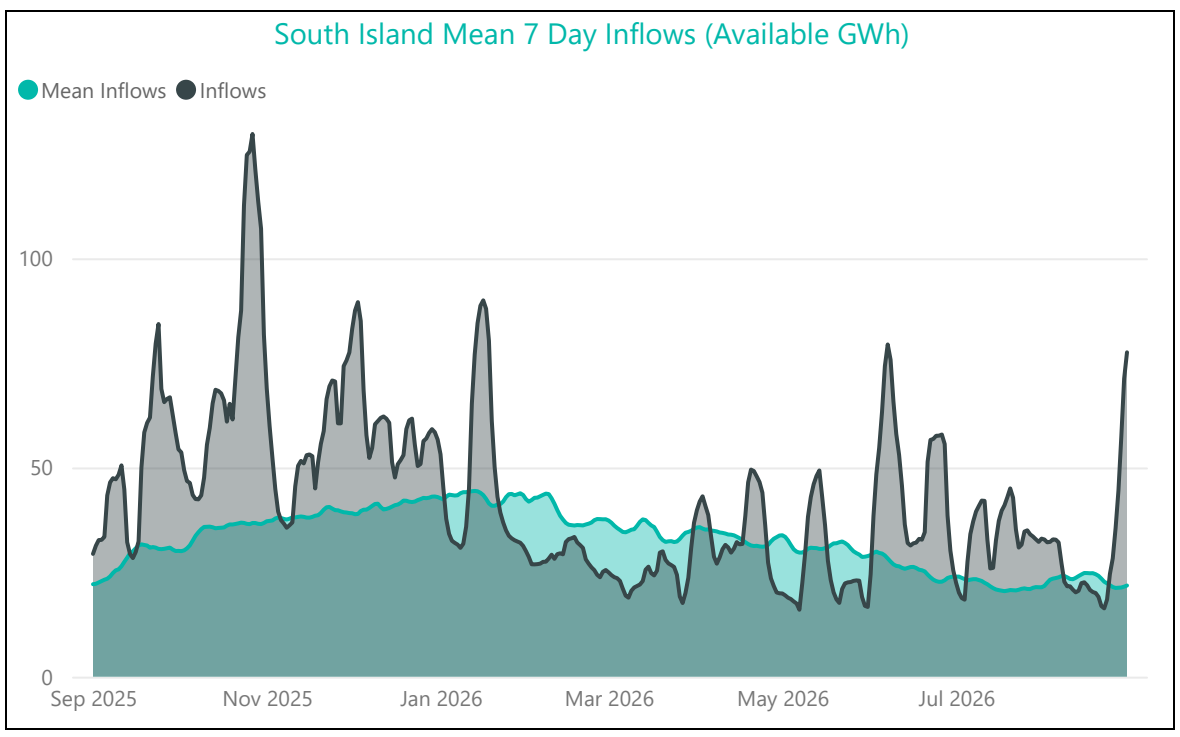
Hydro Storage











For further information on security of supply and Transpower's responsibilities as the System Operator, refer to our webpage here: https://www.transpower.co.nz/system-operator/security-supply

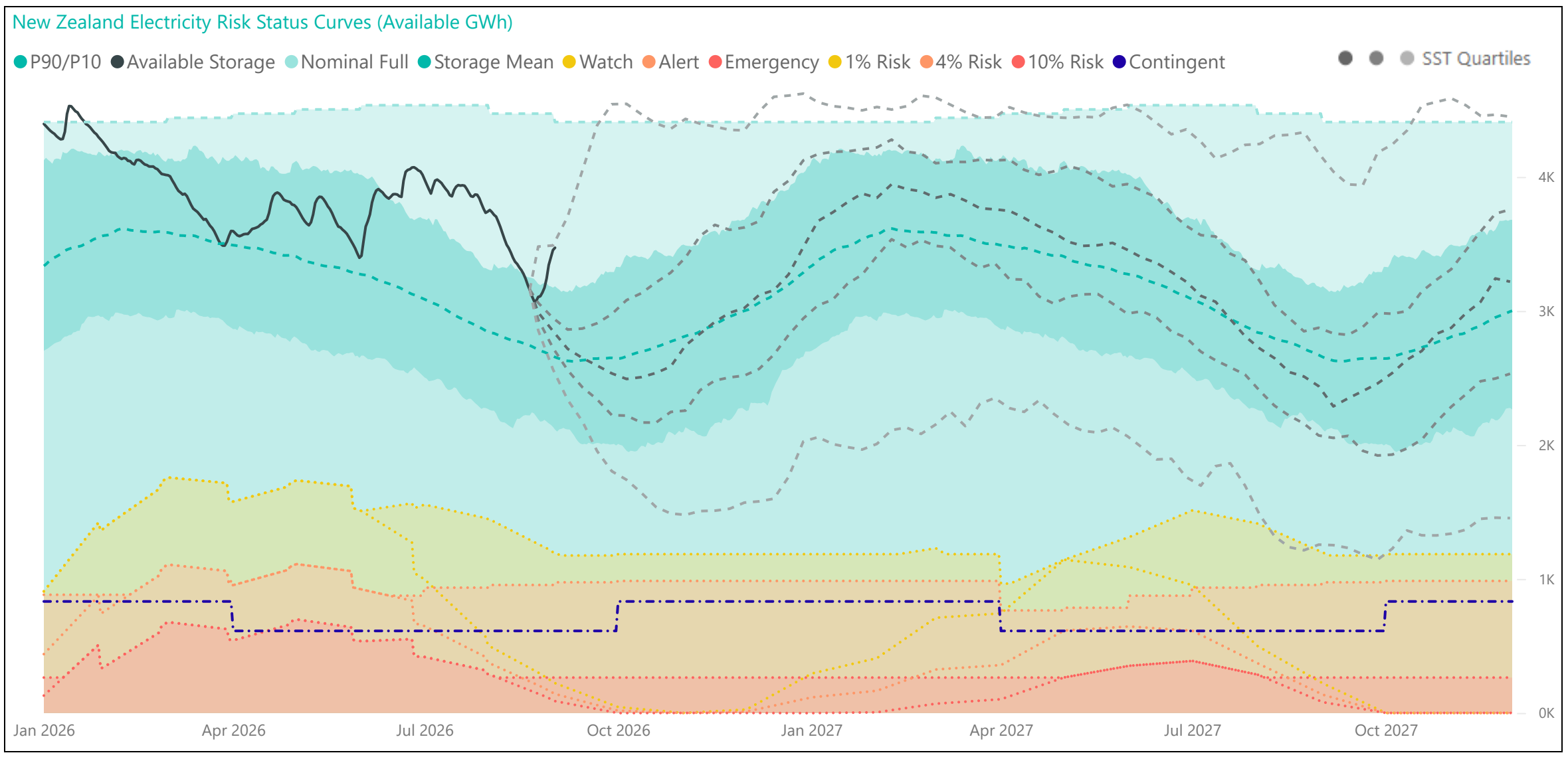
For any inquiries related to security of supply contact market.operations@transpower.co.nz

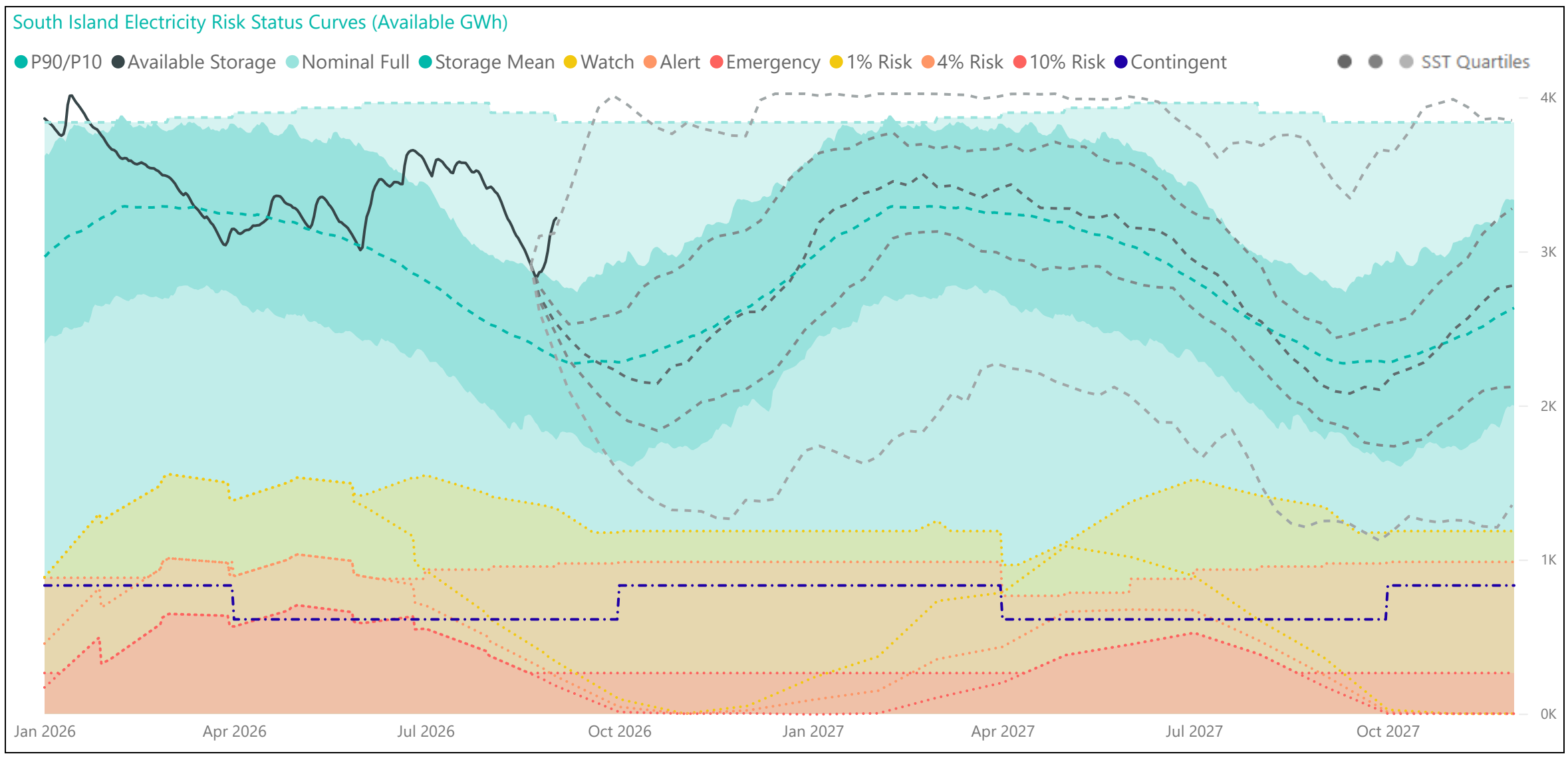
Hydro data used in this report is sourced from *NZX Hydro*.

Electricity risk curves have been developed for the purposes of reflecting the risk of extended energy shortages in a straightforward way, using a standardised set of assumptions.

Further information on the methodology of modelling electricity risk curves may be found here: https://www.transpower.co.nz/system-operator/security-supply/hydro-risk-curves-explanation

Electricity Risk Curves





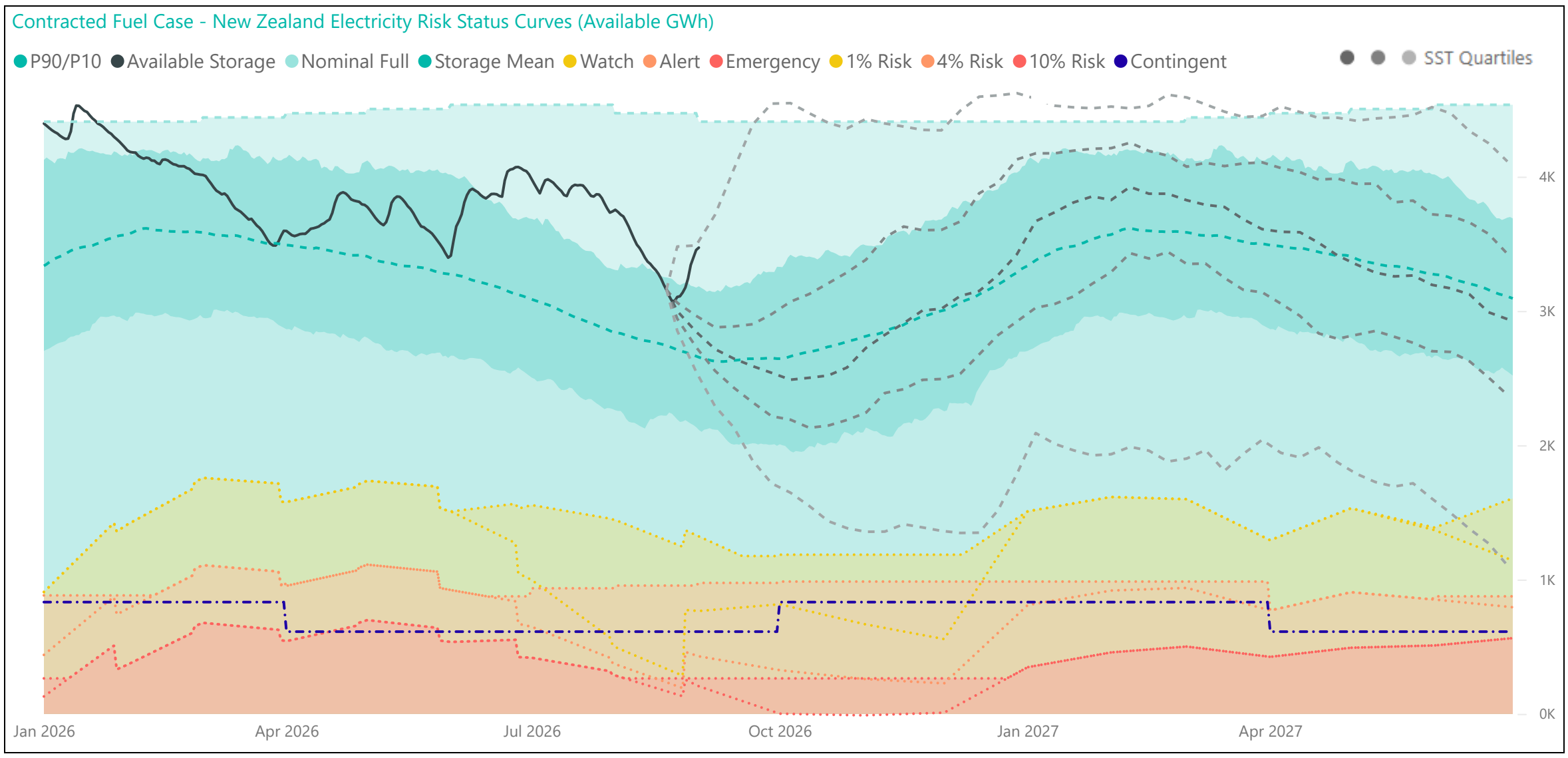
Electricity Risk Curve Explanation:

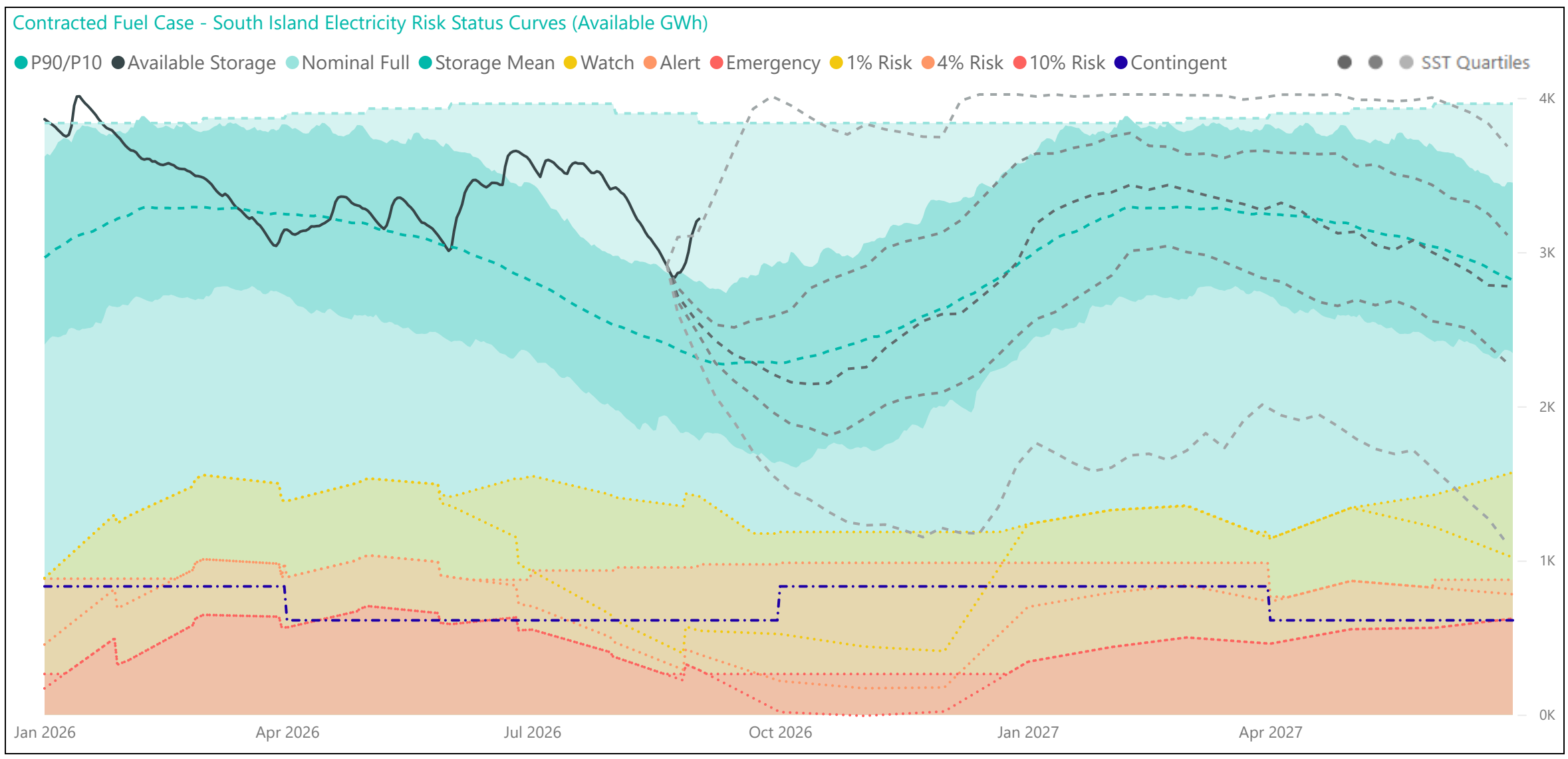
Watch Curve - The maximum of the one percent risk curve or the Alert curve plus the greater of the Watch adder or the worst-case simulated storage drop
Alert Curve - The maximum of the four percent risk curve and the floor and buffer
Emergency Curve - The maximum of the 10 percent risk curve and the floor and buffer
Official Conservation Campaign Start - The Emergency Curve
Official Conservation Campaign Stop - The maximum of the eight percent risk curve and the floor and buffer

Note: The floor is equal to the amount of contingent hydro storage that is linked to the specific electricity risk curve, plus the amount of contingent hydro storage linked to electricity risk curves representing higher levels of risk of future shortage, if any, and the buffer as specified in the SOSFIP.

The dashed grey lines represent the minimum, lower quartile, median, upper quartile and the maximum range of the simulated storage trajectories (SSTs). These will be updated with each Electricity Risk Curve update (monthly).

Electricity Risk Curves - Contracted Fuel Case





Electricity Risk Curve Explanation:

Watch Curve - The maximum of the one percent risk curve or the Alert curve plus the greater of the Watch adder or the worst-case simulated storage drop
Alert Curve - The maximum of the four percent risk curve and the floor and buffer
Emergency Curve - The maximum of the 10 percent risk curve and the floor and buffer

Note: The floor is equal to the amount of contingent hydro storage that is linked to the specific electricity risk curve, plus the amount of contingent hydro storage linked to electricity risk curves representing higher levels of risk of future shortage, if any, and the buffer as specified in the SOSFIP.

The dashed grey lines represent the minimum, lower quartile, median, upper quartile and the maximum range of the simulated storage trajectories (SSTs). These will be updated with each Electricity Risk Curve update (monthly).