Market Operations Weekly Report - Week Ended 23 August 2026

Overview

Hydro storage continues to decline but is still sitting above average for this time of year at 113%. We expect to see inflows increase and demand slightly ease as we head into spring.

In this week's insight we look at recent records in solar generation output.

Security of Supply

Energy

National hydro storage continued to decrease but remains above the historic mean at 113%. South Island storage decreased from 125% to 119% and North Island storage decreased from 81% to 69%.

Capacity

Residuals last week were healthier than in recent weeks as demand returned to a more moderate level. The lowest residual of 326 MW occurred during the morning of Thursday 20 August during a period of low wind and high demand.

The N-1-G margins in the NZGB forecast show tighter spots continuing as we are now in winter; we recommend the industry watch these closely. 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 increased to 859 GWh last week from 843 GWh the week prior. The highest demand peak occurred at 6:30 pm on Monday 17 August at 6,745 MW.

Weekly Prices

The average wholesale electricity spot price at Ōtāhuhu increased from $77/MWh in the previous week to $95/MWh last week. Prices peaked at $417/MWh at 7:00am on Thursday 20 August, coinciding with the lowest residual generation period of the week. The price spike occurred during a period of low wind generation, high thermal generation, and high demand during the morning peak.

There was also some price separation between the North and South Islands during the week, with the largest separation occurring at 7:00am during the lowest residual period.

Generation Mix

Generation remained in line with yearly averages across most fuel types last week. Hydro generation contributed 60% of the generation mix, while geothermal contributed 23%. Wind generation increased to 11% of the generation mix and thermal contribution was close to 3%.

HVDC

HVDC flows last week were almost entirely northward. Overall, 95 GWh was transferred north. There were brief periods of southward flow in the early hours of Saturday 22 and Sunday 23 August.

Operational Update

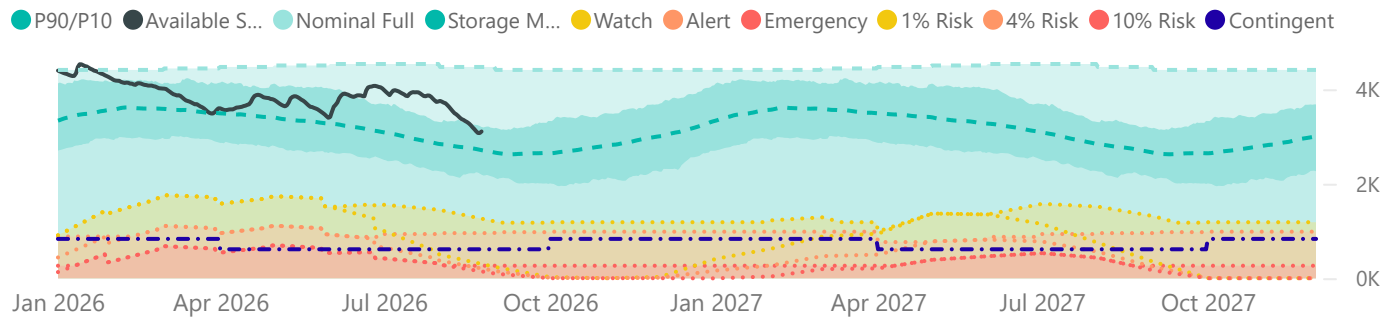
A lower South Island Grid Emergency was declared on 23 August following widespread unplanned outages in the lower South Island, resulting in a loss of supply to several areas. The Grid Emergency was declared to reconfigure the grid and restore load, and was lifted once supply had been restored. Investigation into this event is ongoing.

New Zealand Energy Risk

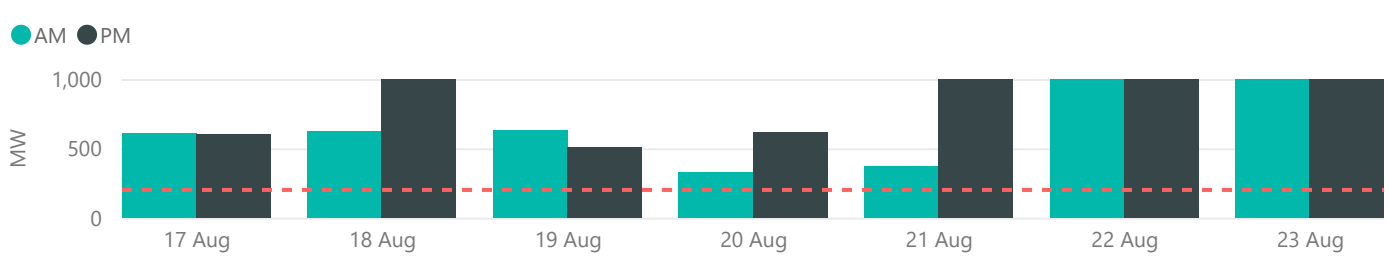
South Island Energy Risk

Normal Watch Alert Emergency

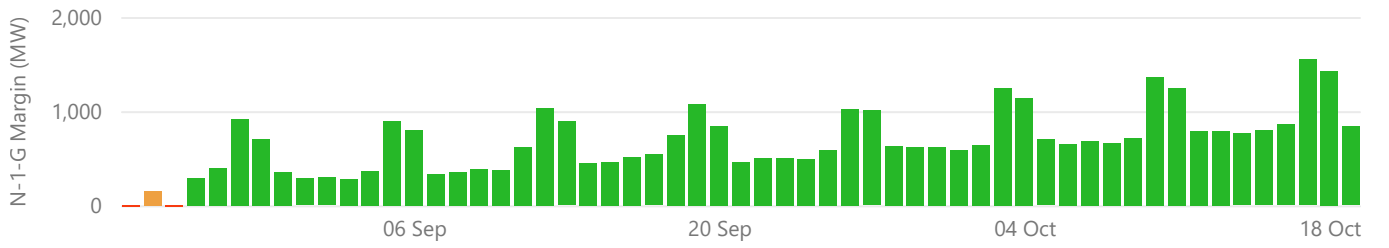
New Zealand Electricity Risk Status Curves (Available GWh)



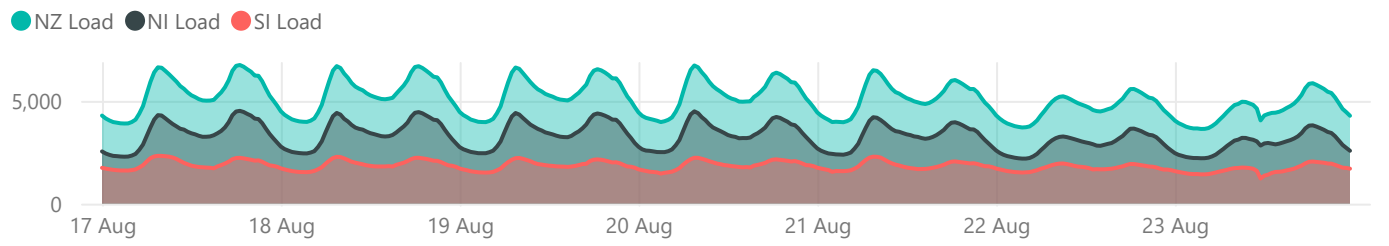
Lowest Residual Points - MW



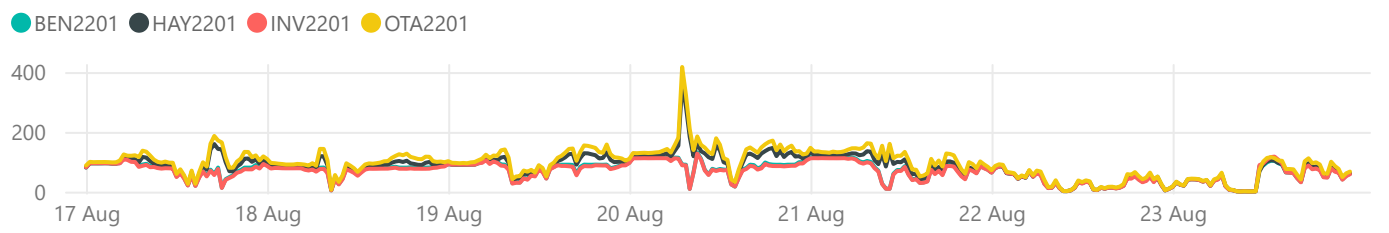
NZGB Look-Ahead (excluding next 7 days)



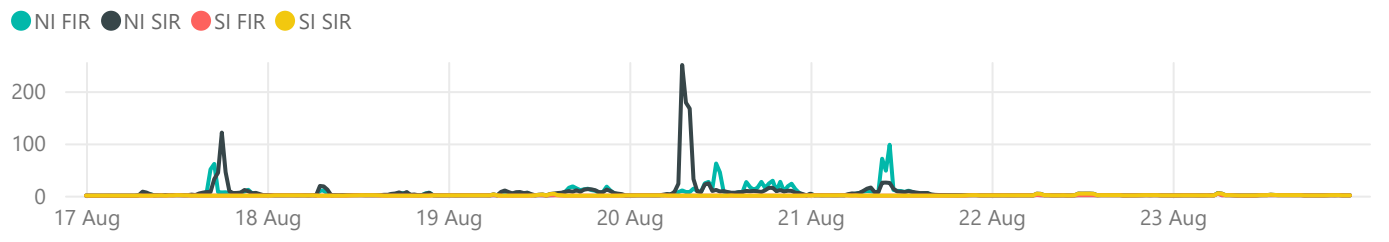
National Demand by Trading period - MW



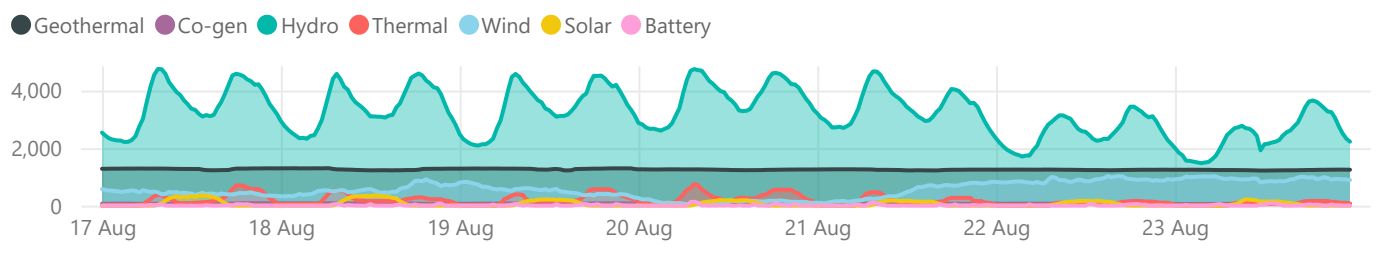
Energy Prices - $/MWh



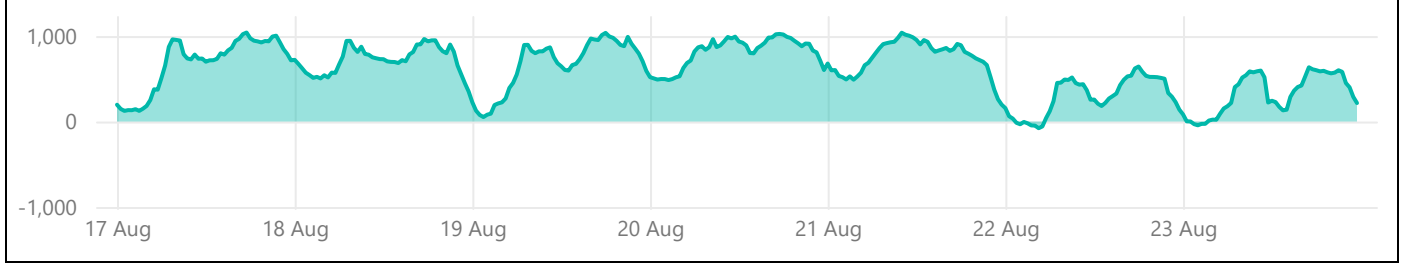
Reserve Prices - $/MW



Generation - MW



Net HVDC Transfer - MW (Northward positive)



Weekly Insight - Solar generation reaches new highs following recent capacity additions

Solar generation reached a new record of 365.8 MW on 17 August, continuing a series of record-breaking outputs since several large-scale solar farms were commissioned from late June.

Figure 1 shows the highest solar generation achieved each day and a 30-day rolling average. Daily peak output is quite variable due to changing weather conditions, resulting in the short-term fluctuations visible in the chart. The 30-day rolling average helps remove this day-to-day variability and provides a clearer view of the underlying trend in solar generation capability. Since 2023, both daily peaks and the rolling average have steadily increased, reflecting the growing solar generation fleet. The rolling average has increased sharply this winter reflecting an increase in solar generation capacity and bucking the seasonal trend for low winter solar generation output.

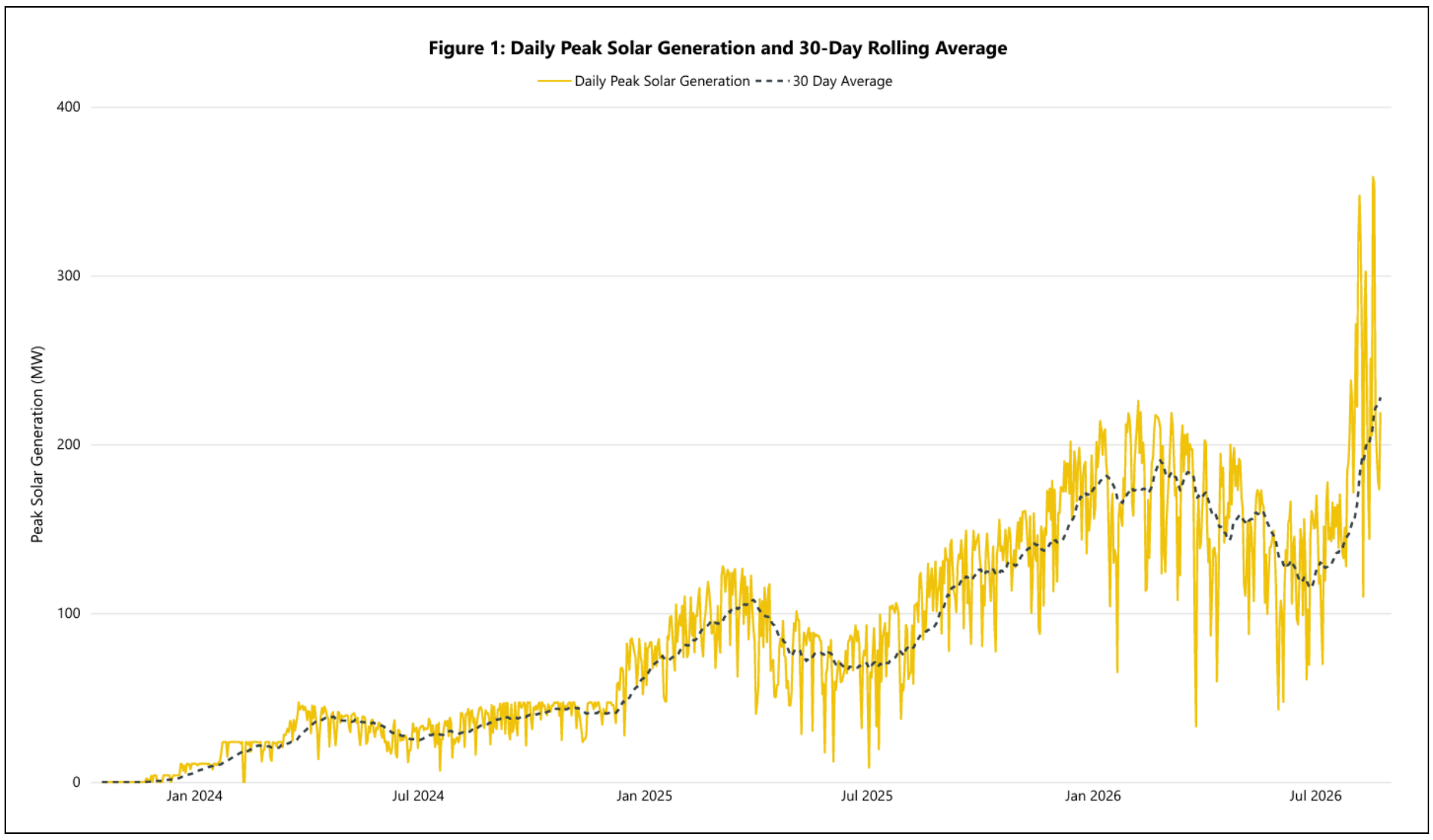
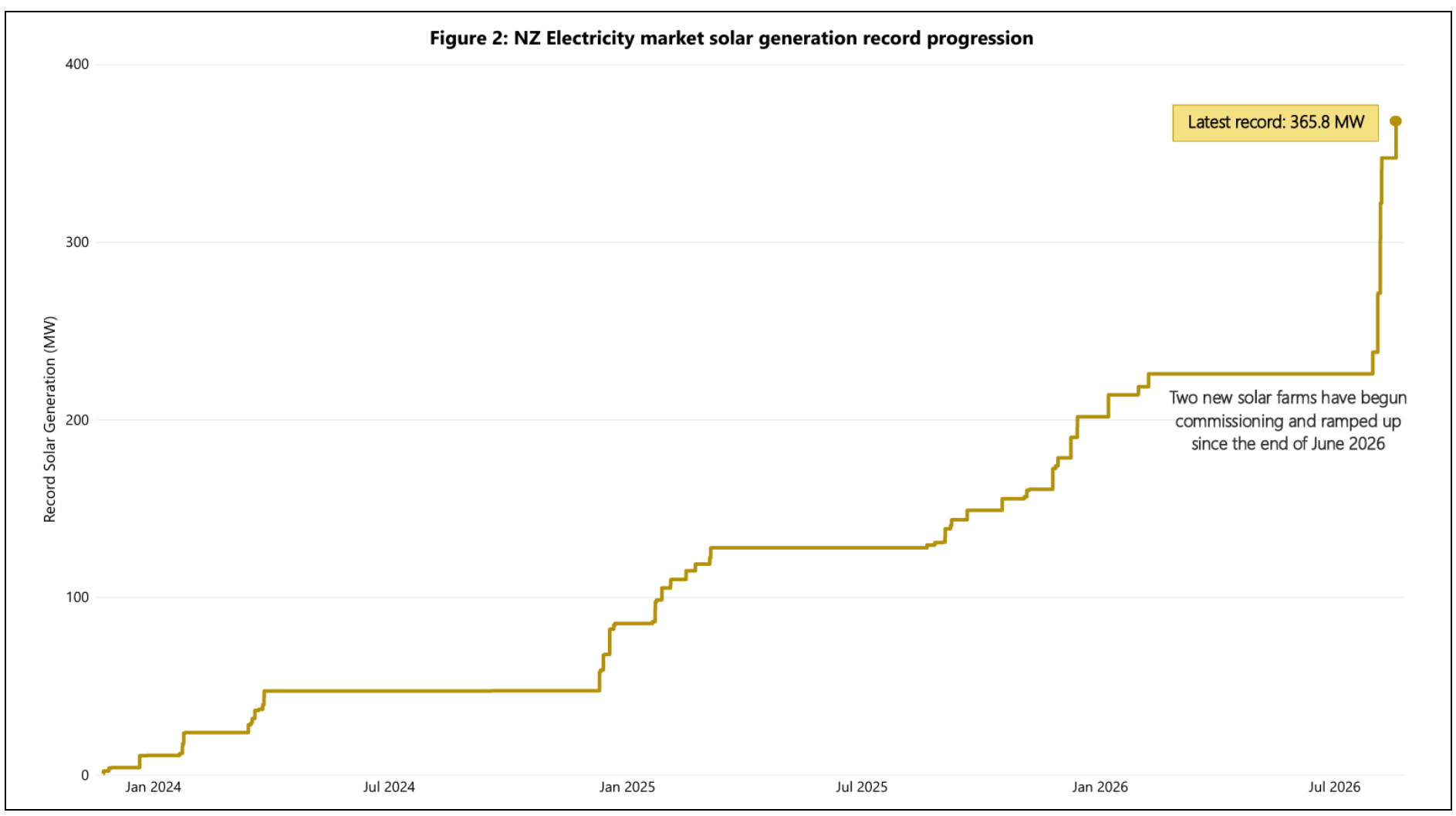


Figure 2 shows the progression of all-time solar generation records (traded in the wholesale electricity market), with each step representing a trading period in which solar generation exceeded every previous record.

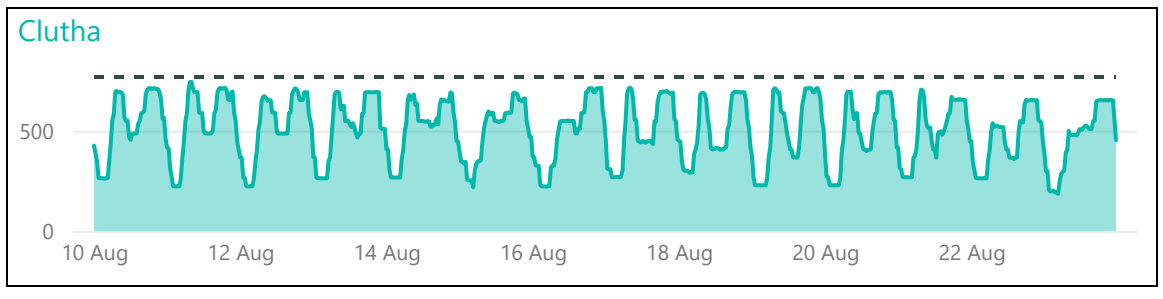
The chart highlights relatively gradual record increases through 2024 and early 2025, followed by a more rapid succession of new records from late 2025 onwards. The sharp increase in August 2026 coincides with the commissioning and ramp-up of new large-scale solar farms, including Tauhei and Clandeboye. These charts highlight an increase in the frequency of record-breaking solar output and the amount of solar generation participating in the wholesale electricity market.

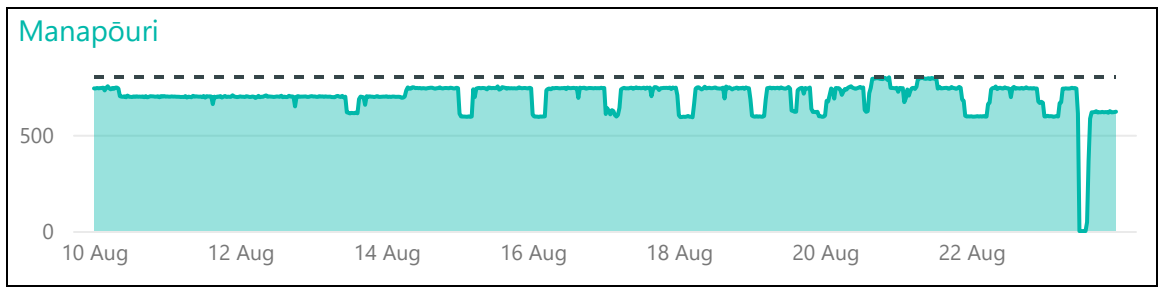
As seasonal conditions improve over the coming months and recently commissioned solar farms continue to ramp up towards full capacity, it will be interesting to see how much further these records can extend as we head into spring and summer. Looking ahead, Kōwhai Park, Puna Komaru, and Ruakākā solar farms are expected to commission before the end of 2026, contributing to the continued growth in available solar generation capacity.

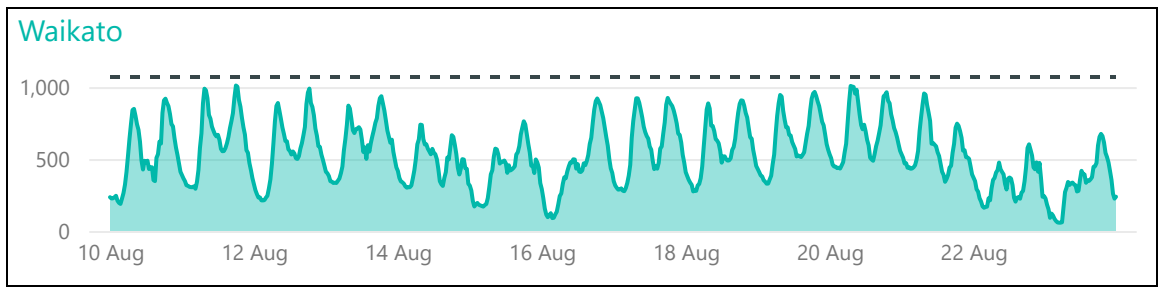


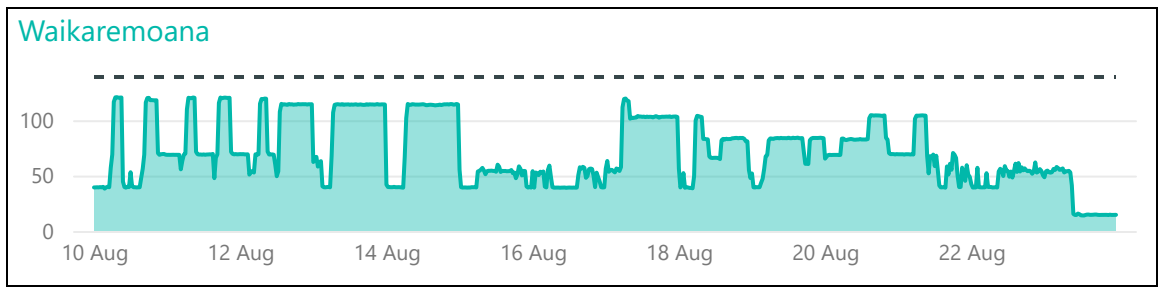
Generation Breakdown - Last Two Weeks

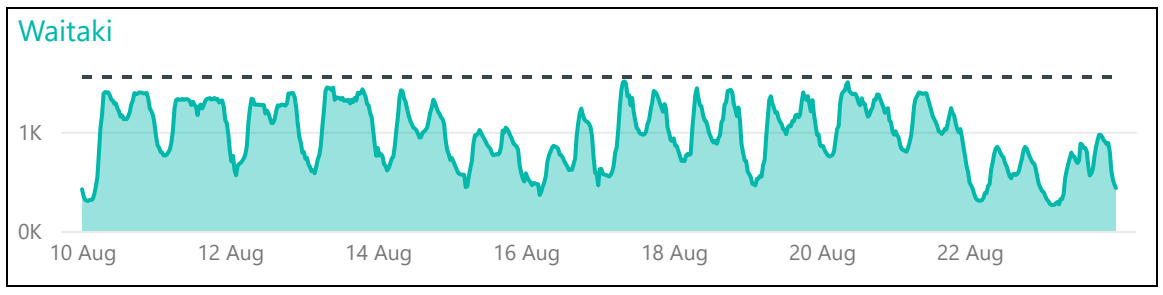
Measured in MW and displayed at trading period level for last 14 days

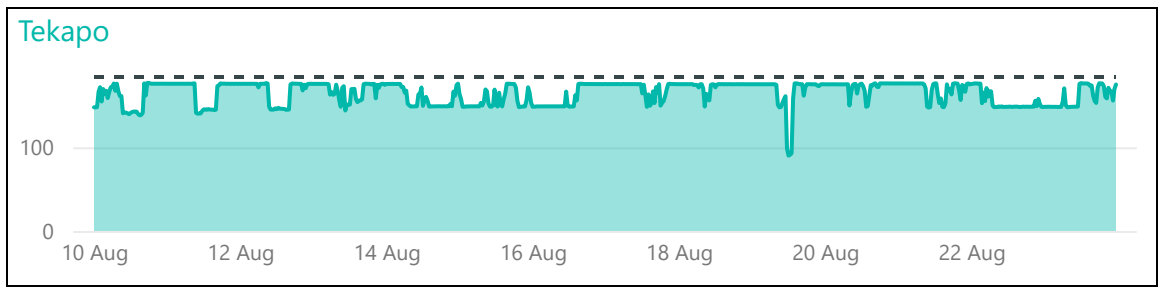


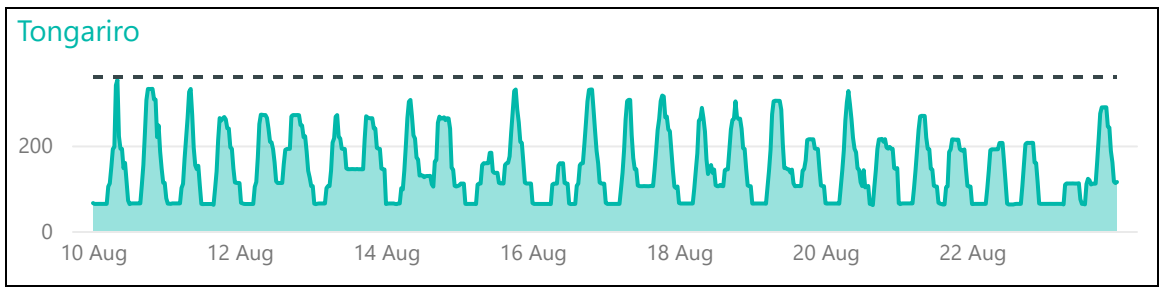


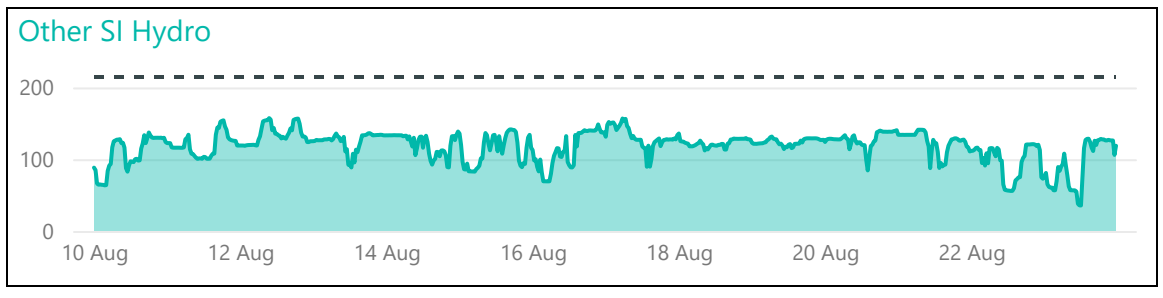


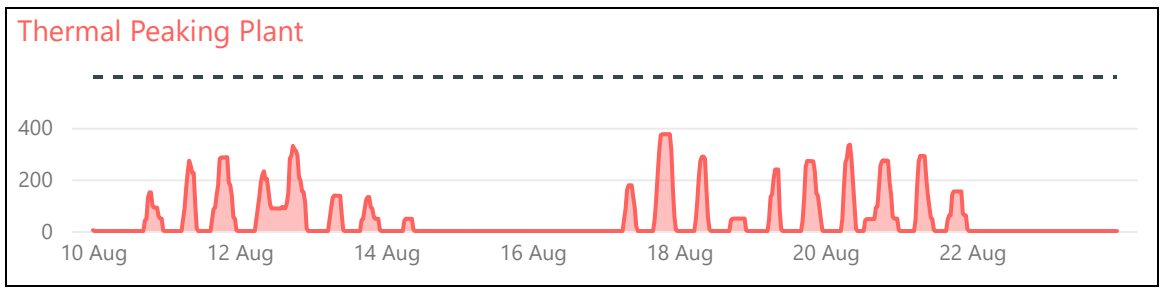


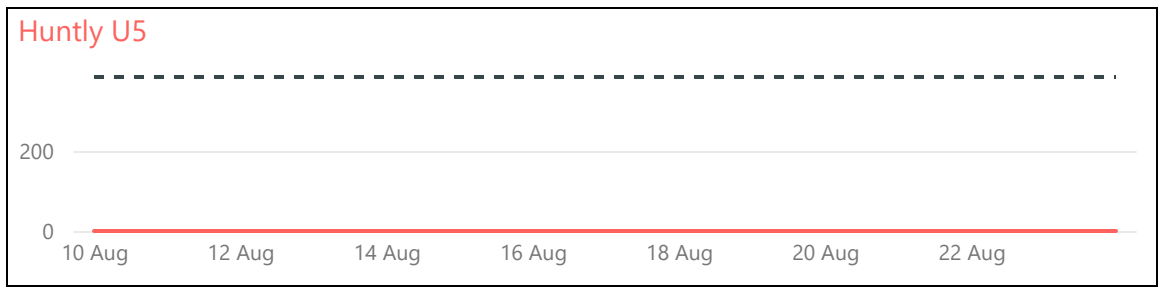


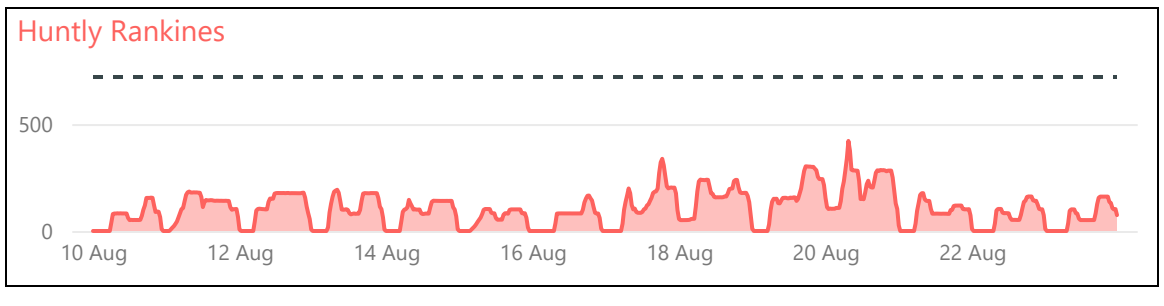


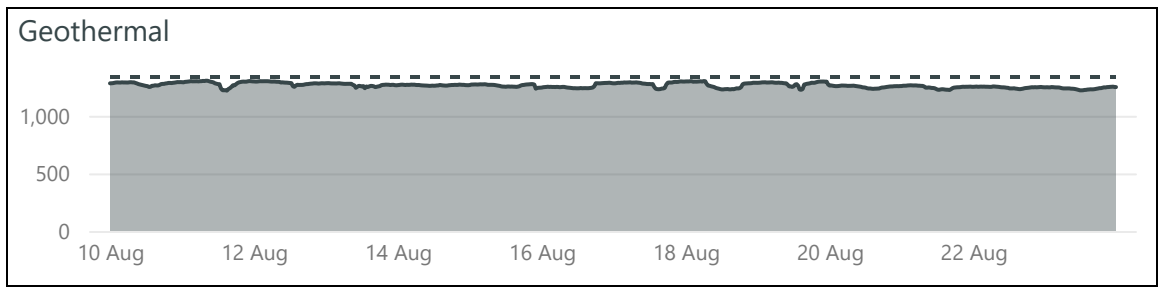


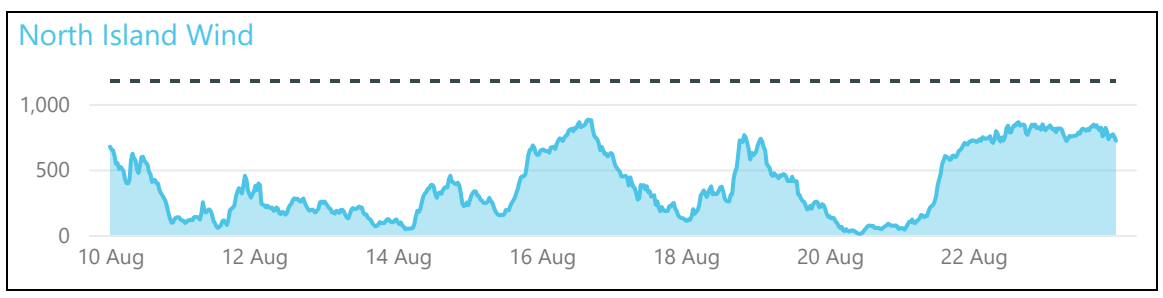


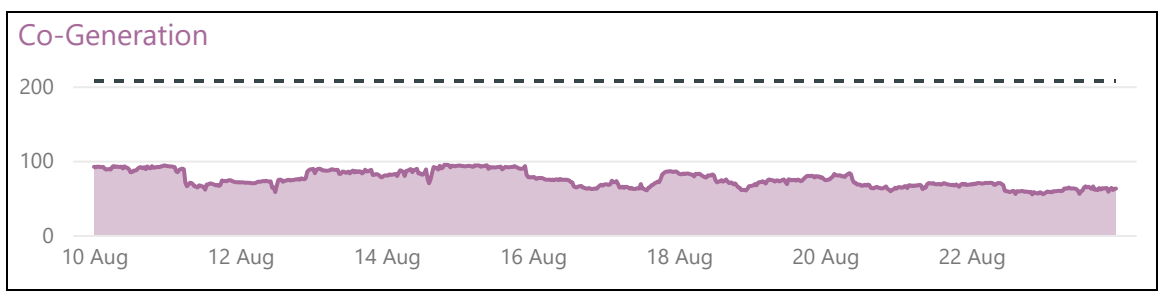


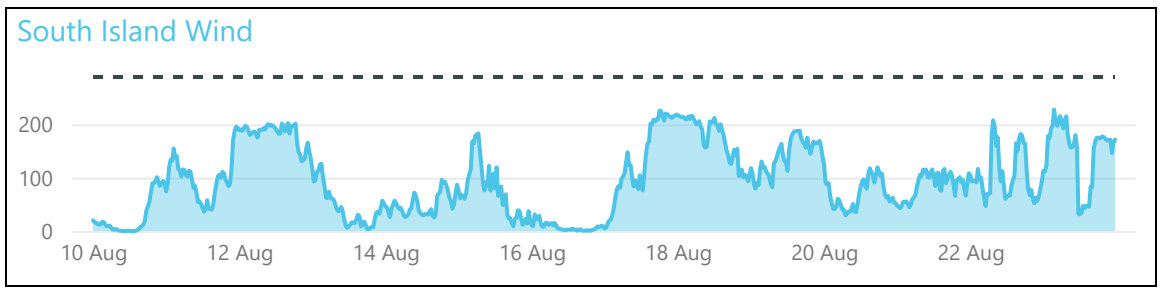


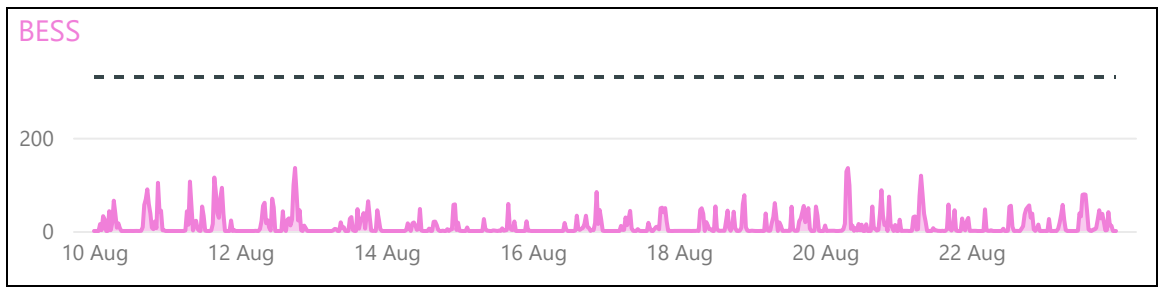


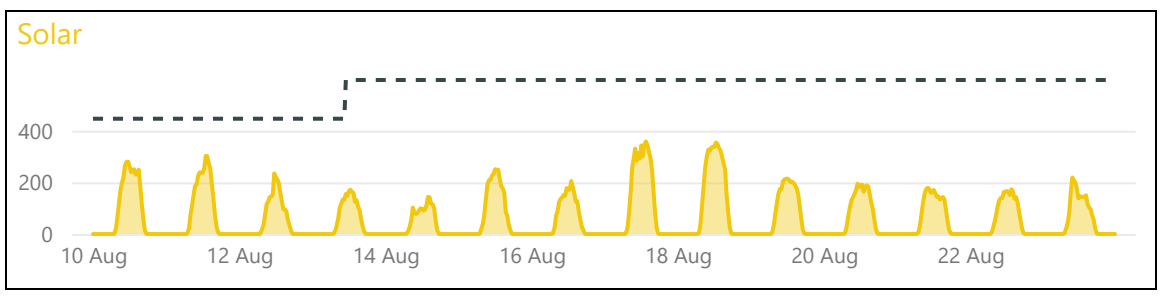






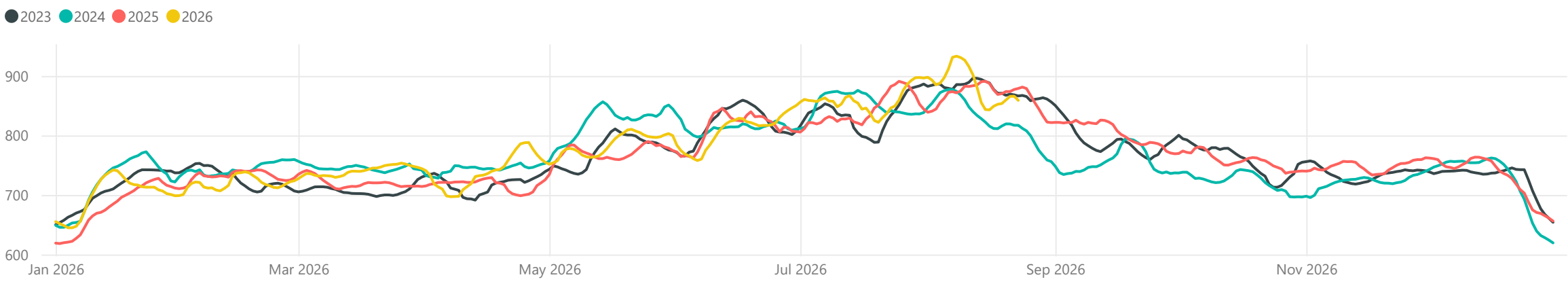




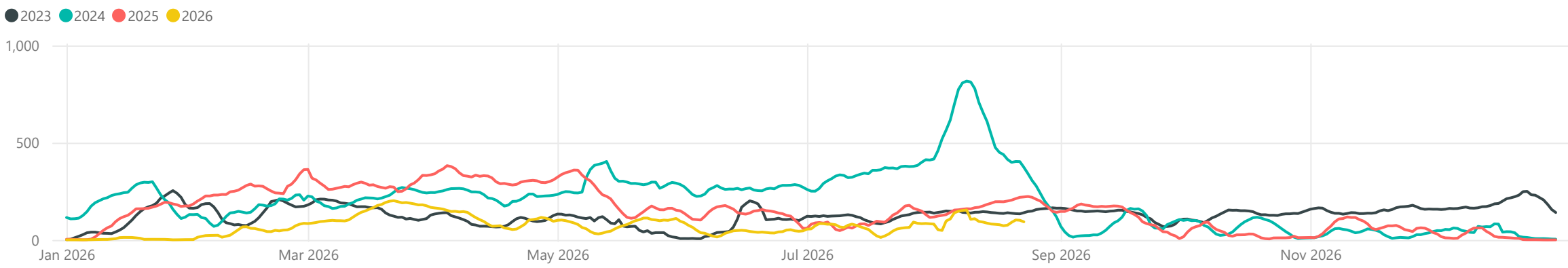


Weekly Profiles

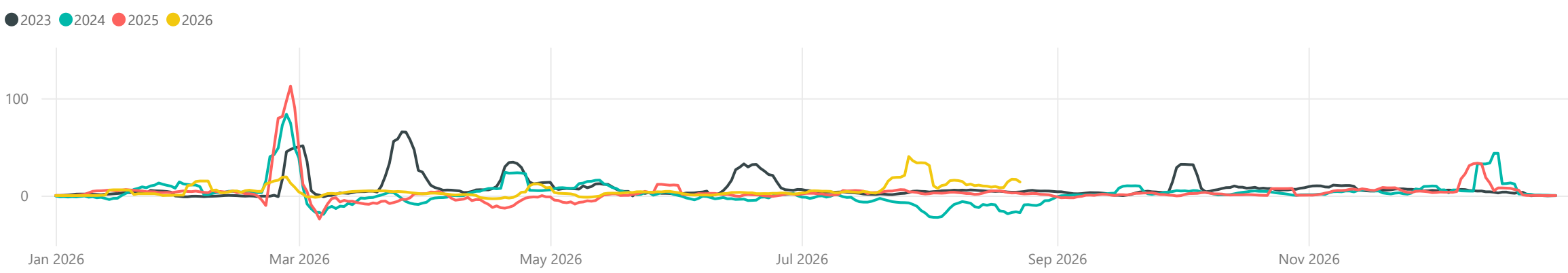
National Weekly Demand - GWh - 7 Day Rolling



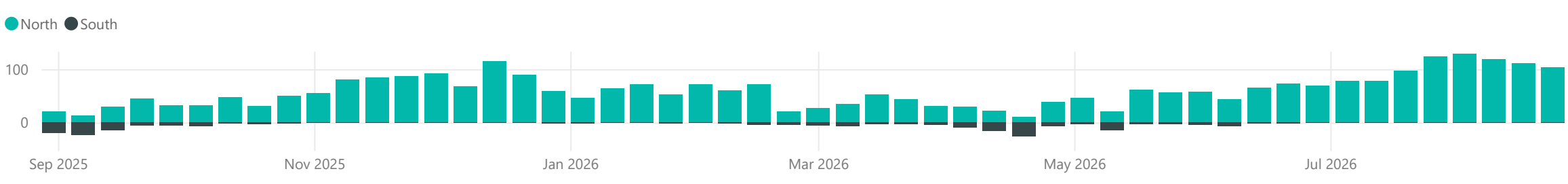
OTA2201 Weekly Rolling Average Spot Price - $/MWh



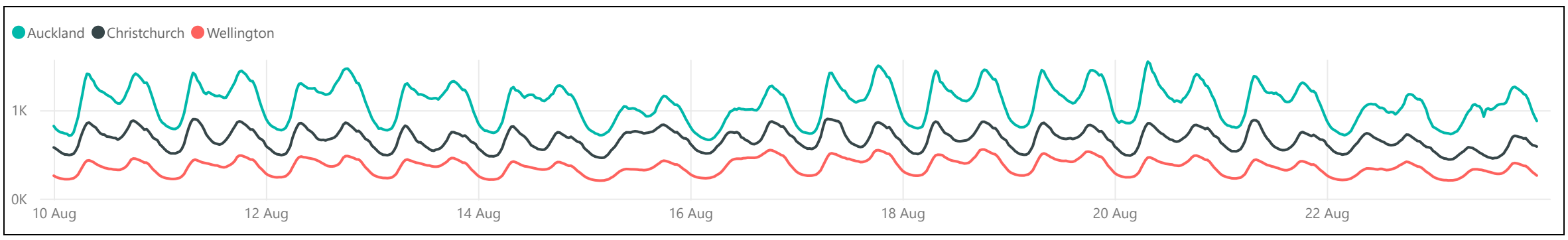
Weekly Rolling Price Separation (HAY2201 - BEN2201) - $/MWh



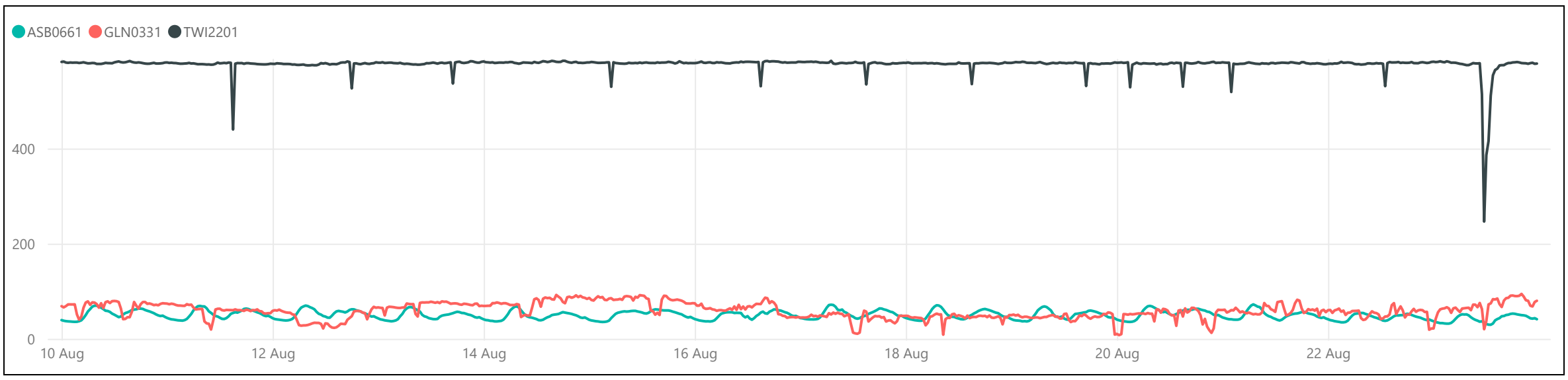
HVDC Transfer - Weekly GWh



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



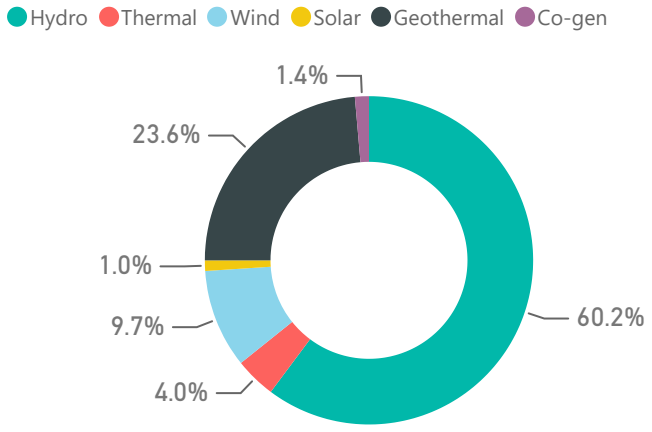
Non-Conforming Load Profiles - Last Two Weeks *Measured in MW shown by GXP*



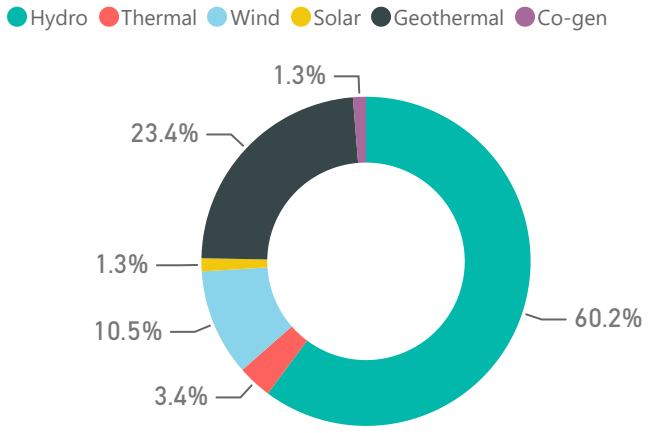
TRANSPOWER

Generation Mix

Last 52 Weeks Generation Mix - Weekly GWh



Last 7 Days Generation Mix - Weekly GWh



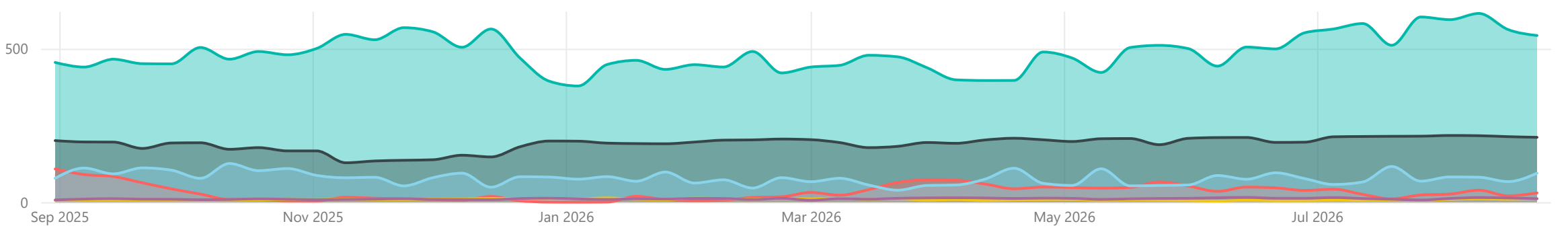
Average Metrics Last 7 Days

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
95%	43,981	46.8

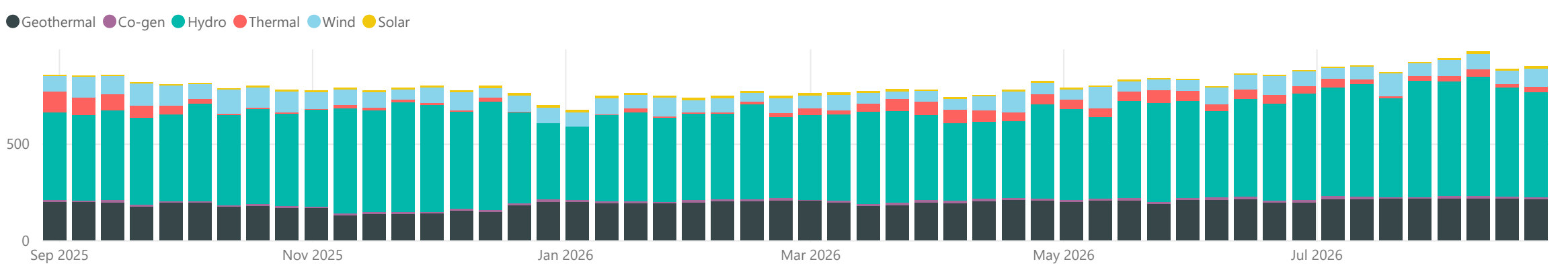
Average Metrics Last 52 Weeks

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
95%	36,862	44.9

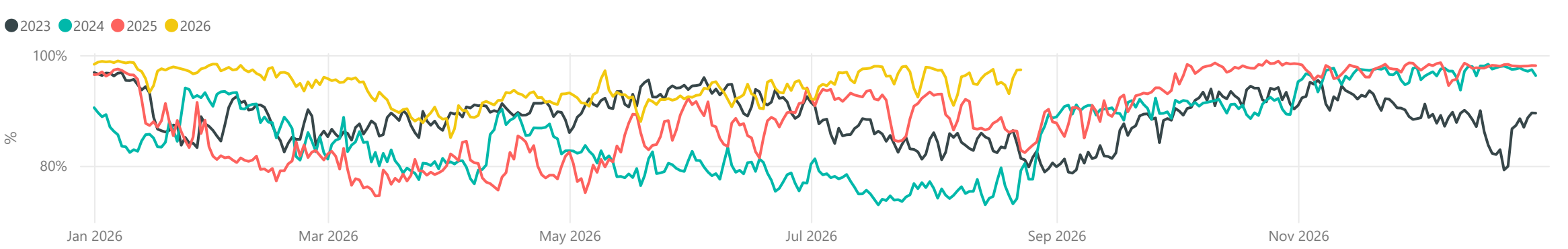
Weekly Generation Mix - GWh



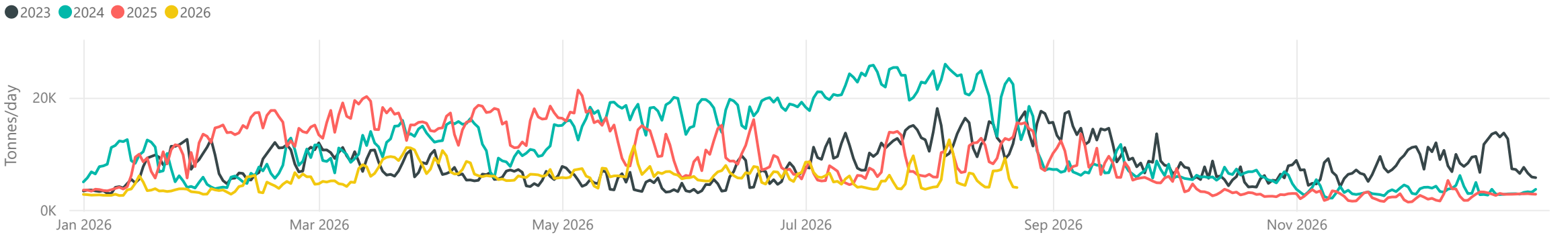
Weekly Generation Mix - GWh



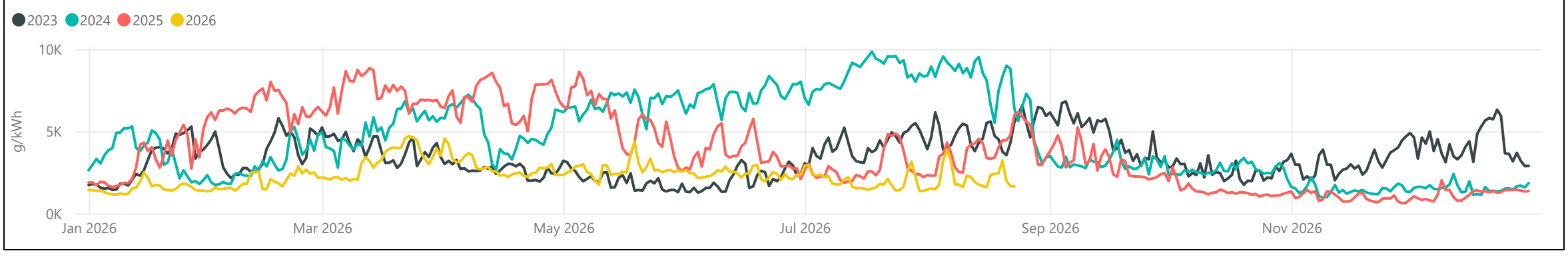
NZ Renewable Percentage



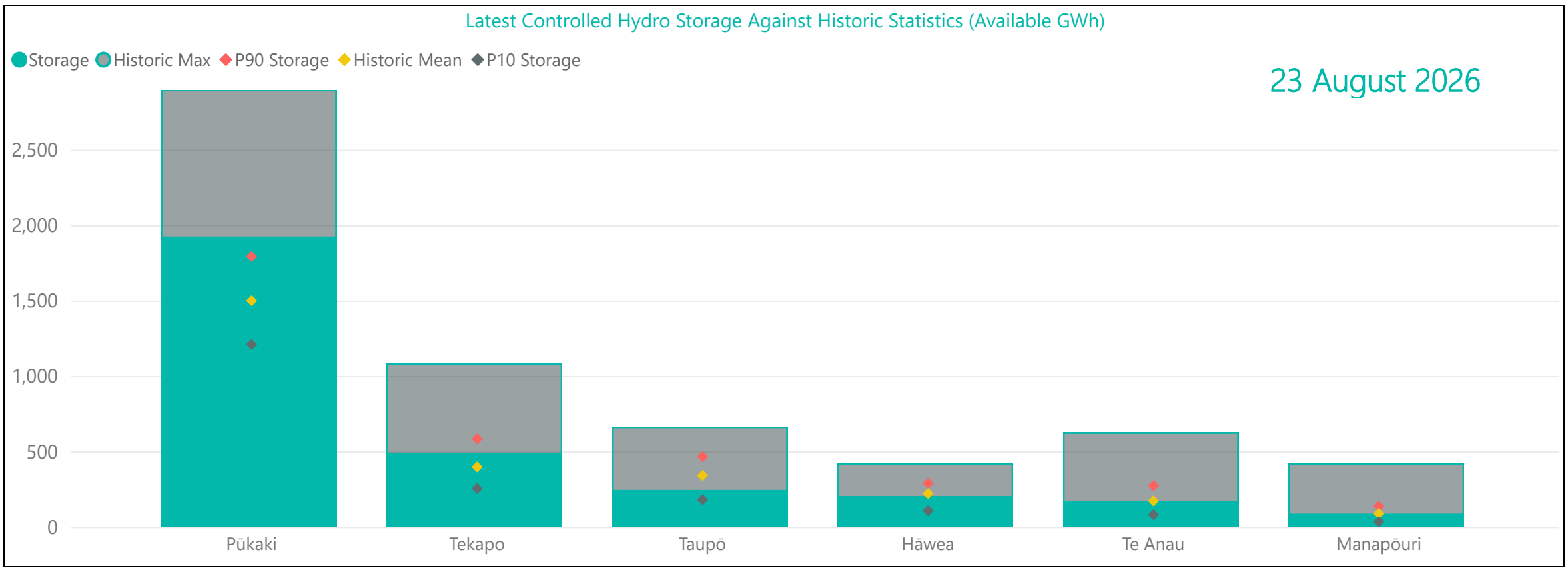
CO2 Tonnes/Day

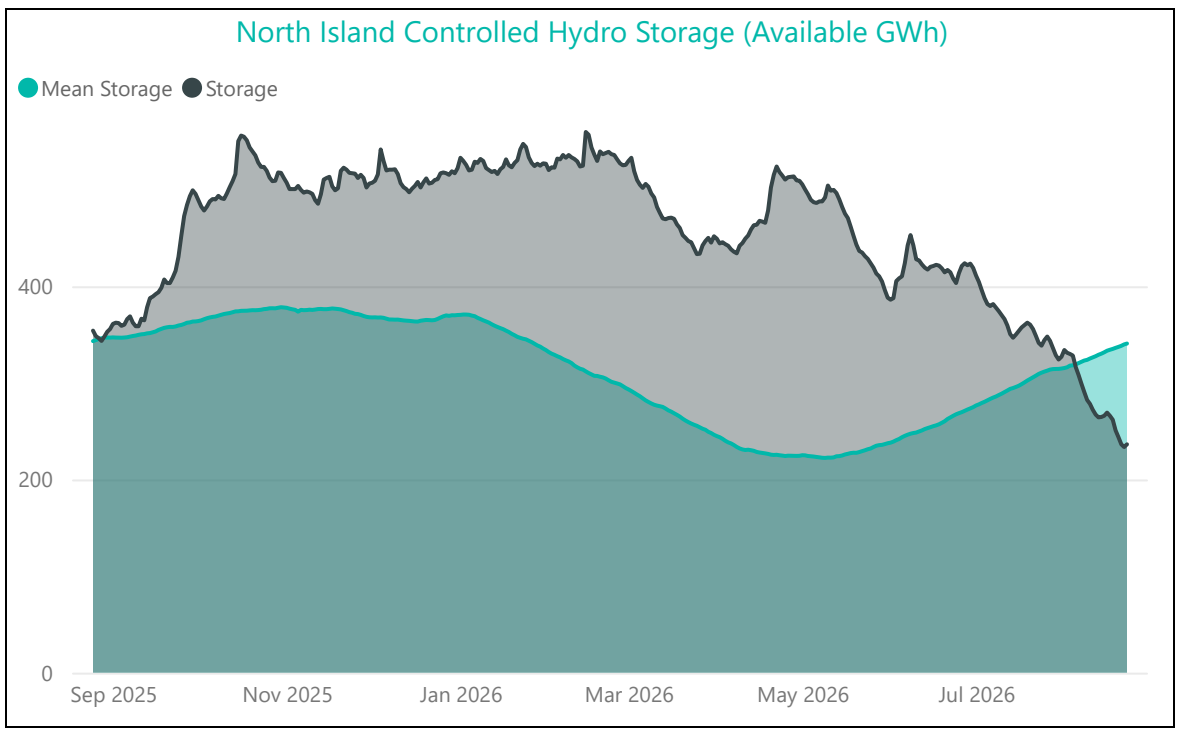


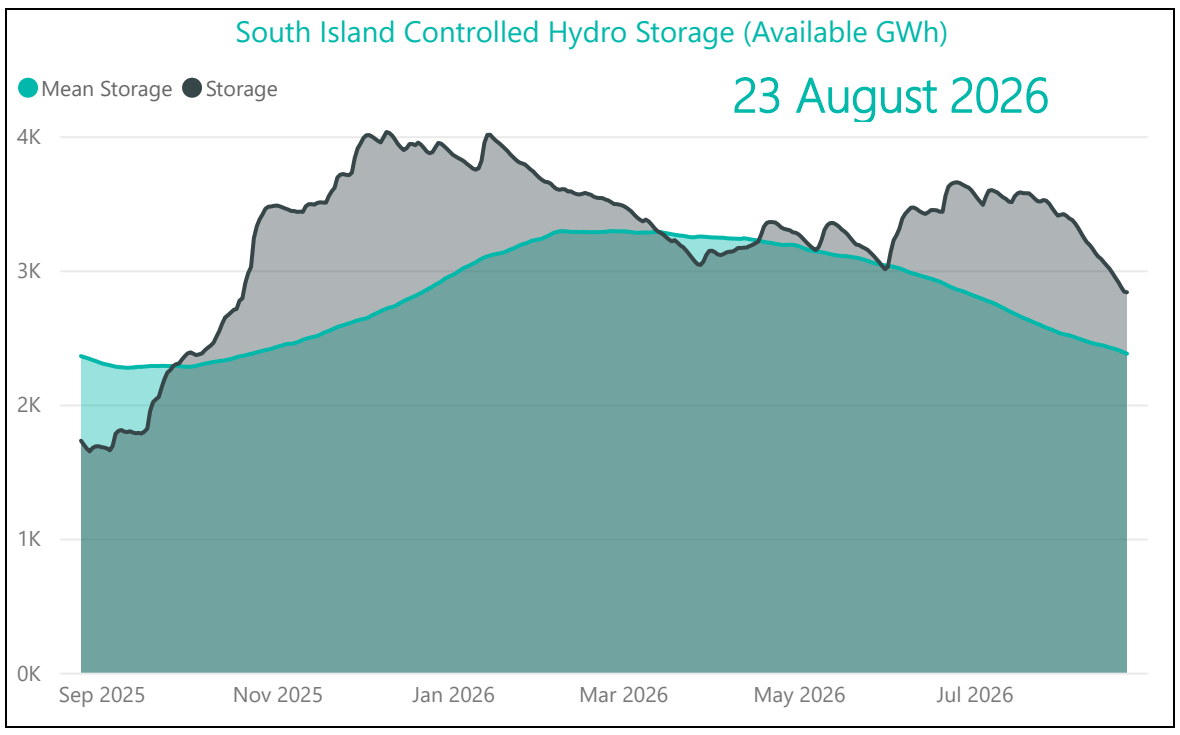
CO2 g/kWh

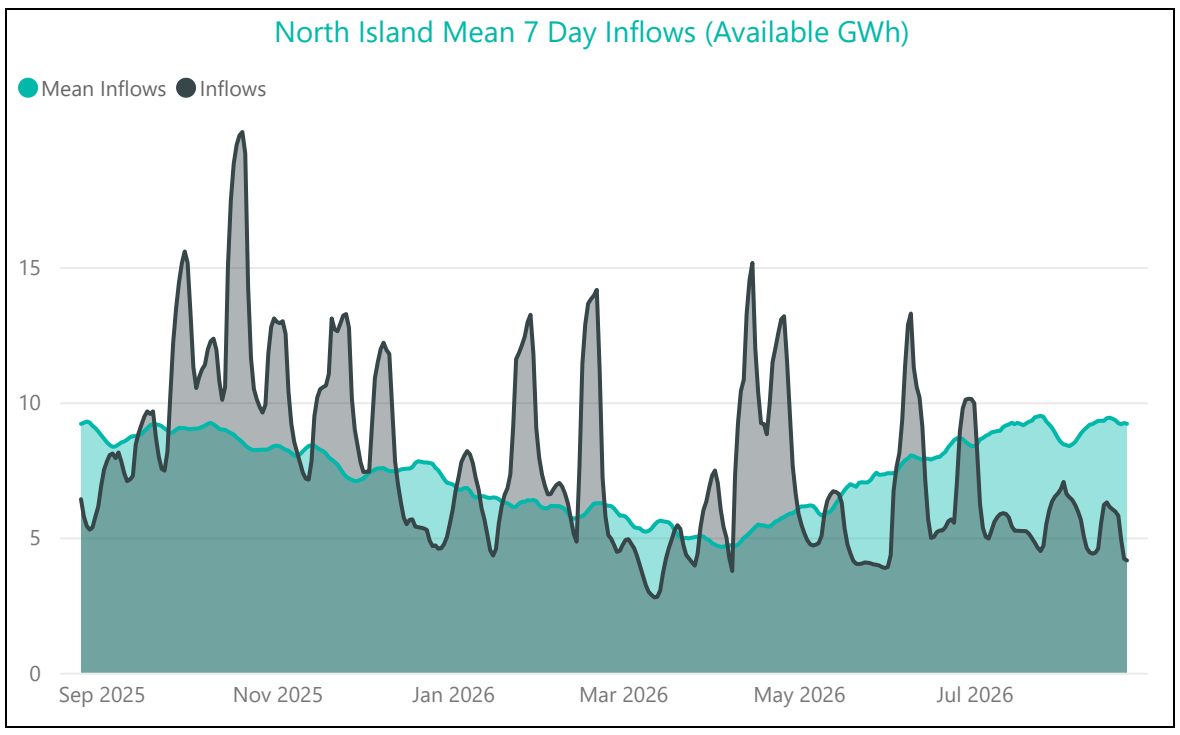


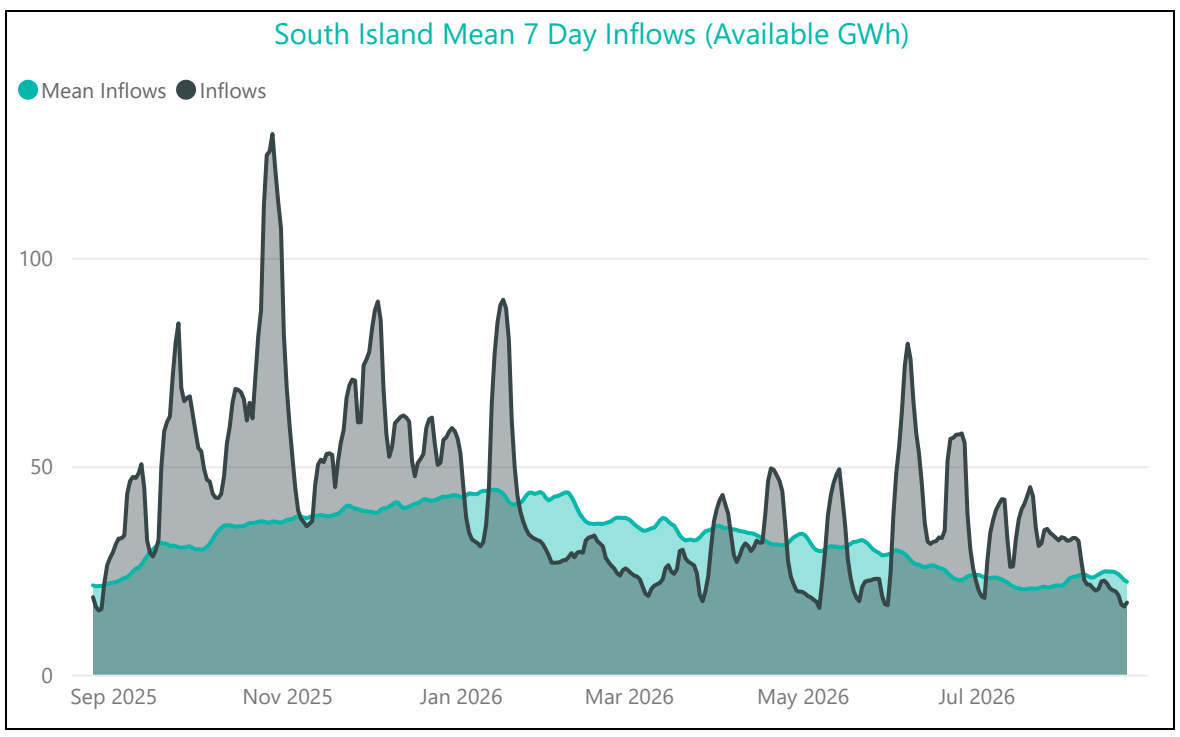
Hydro Storage











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

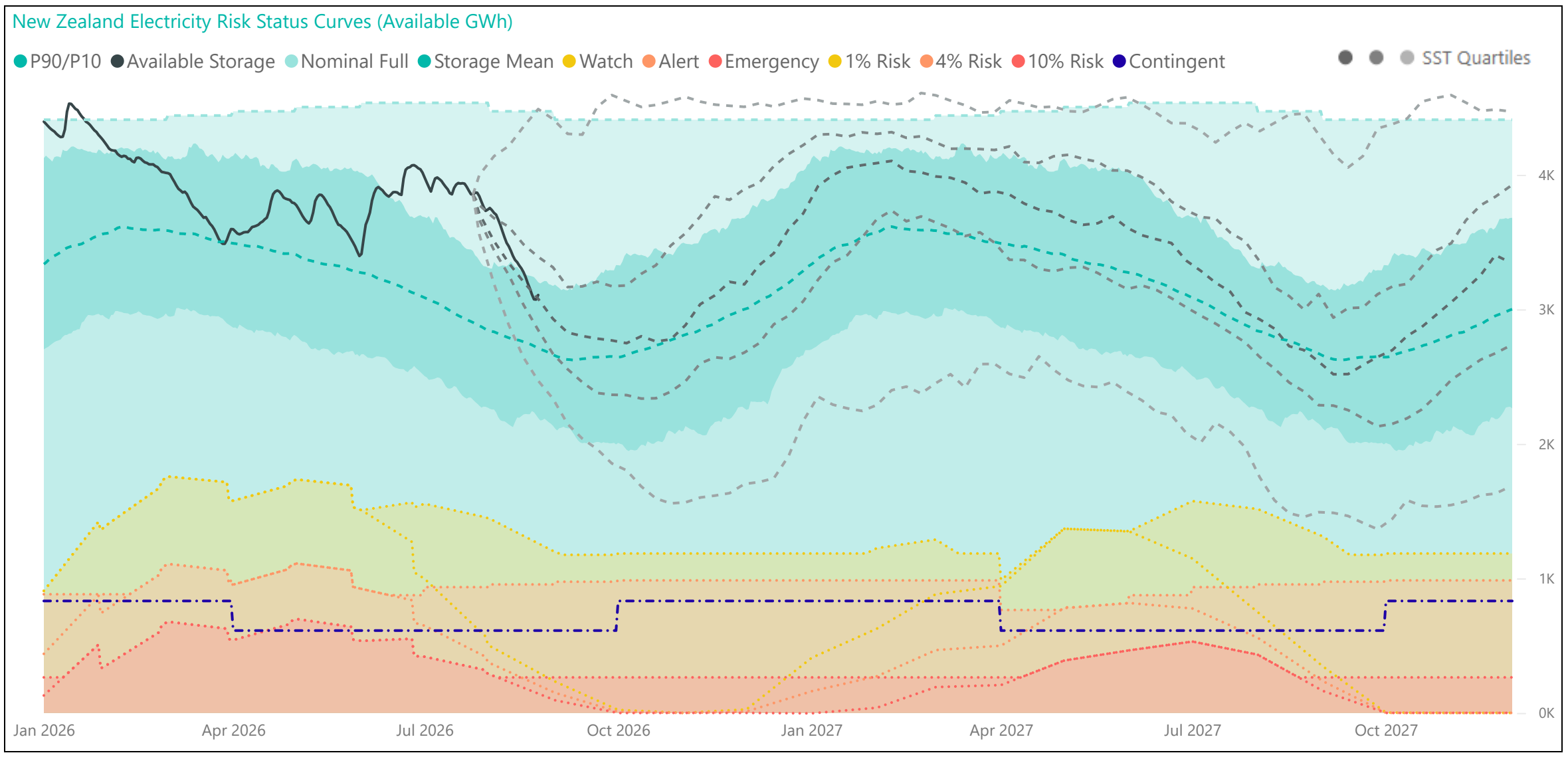
For any inquiries related to security of supply contact market.operations@transpower.co.nz

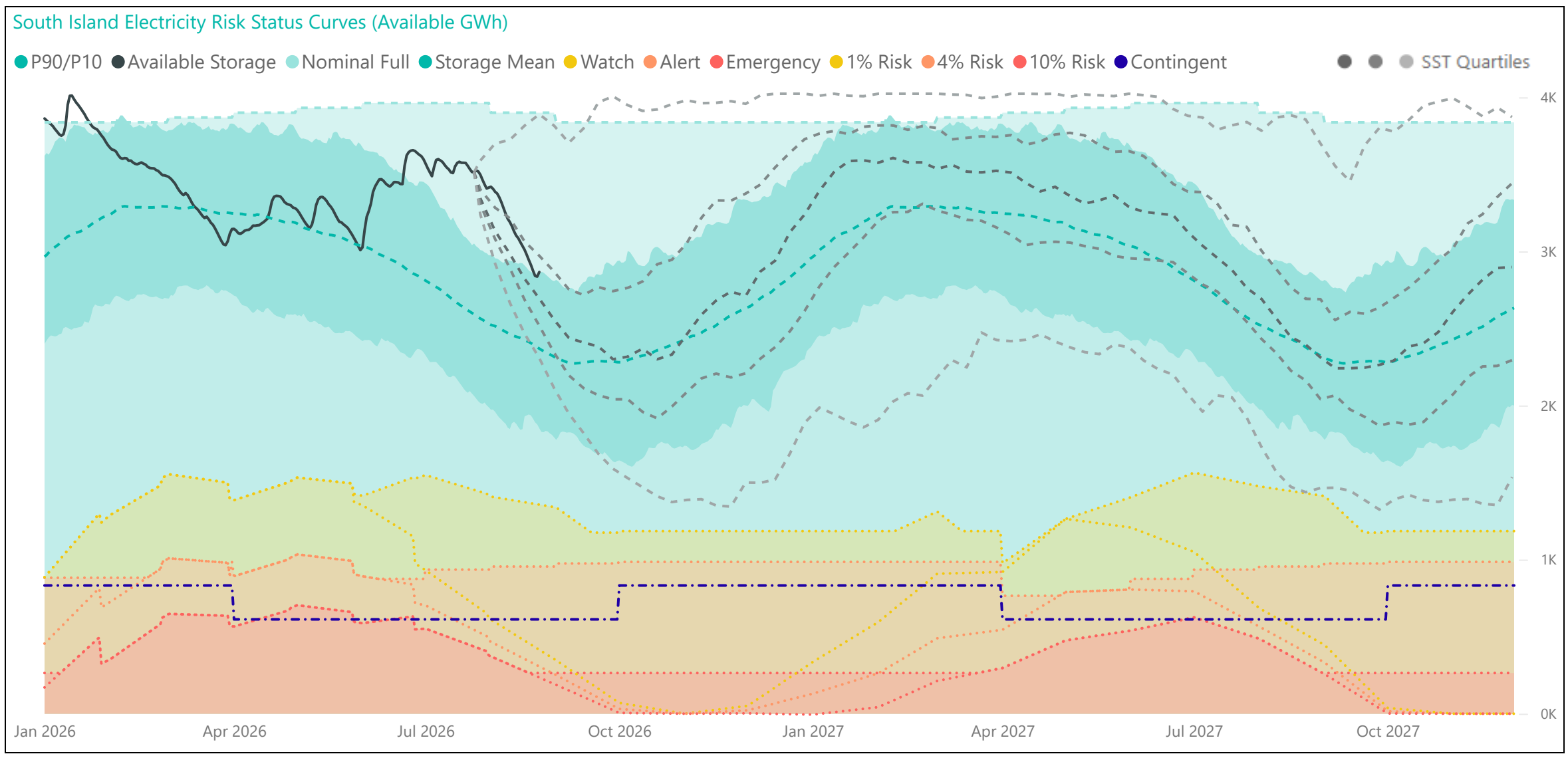
Hydro data used in this report is sourced from *NZX Hydro*.

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





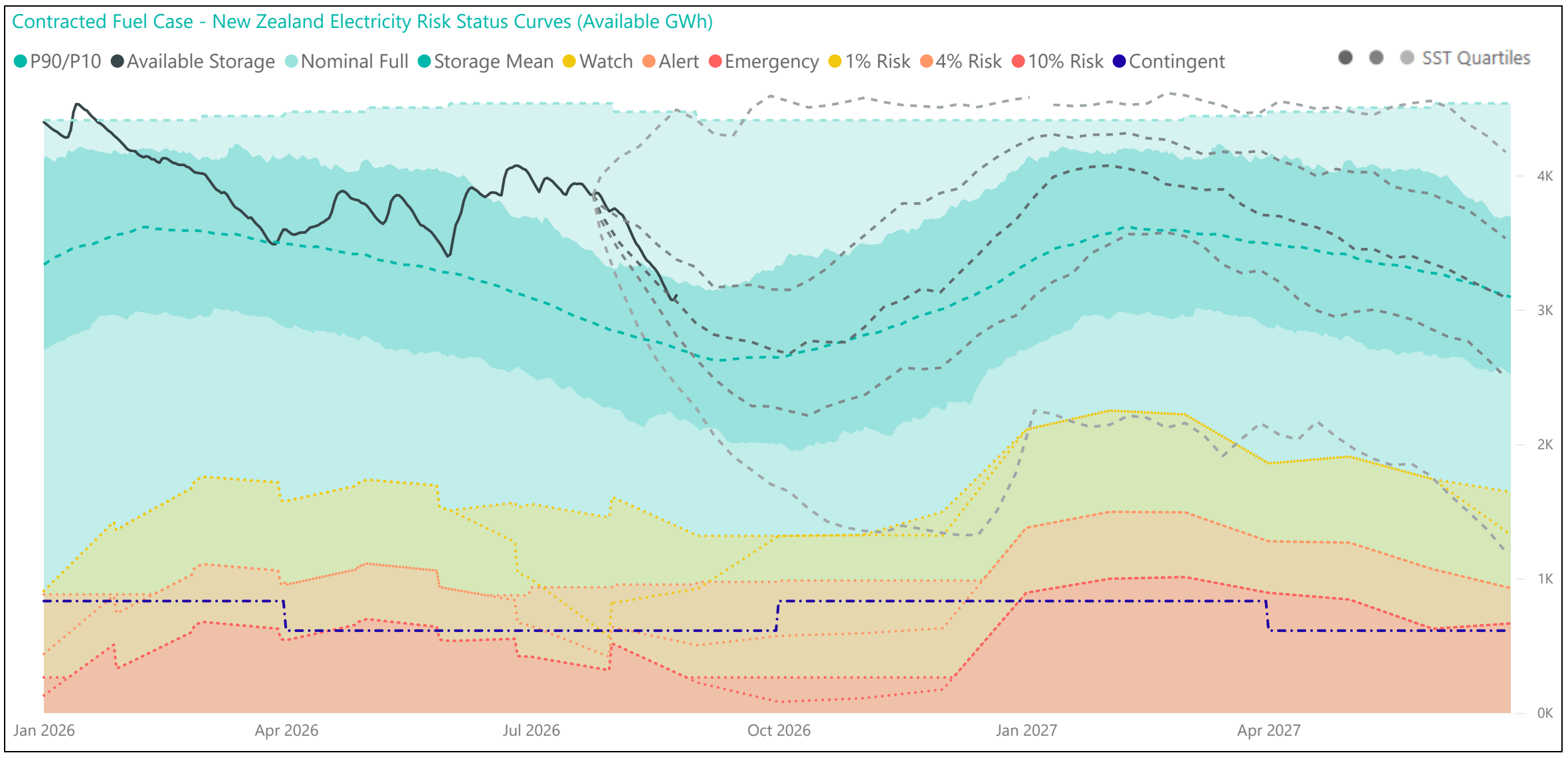
Electricity Risk Curve Explanation:

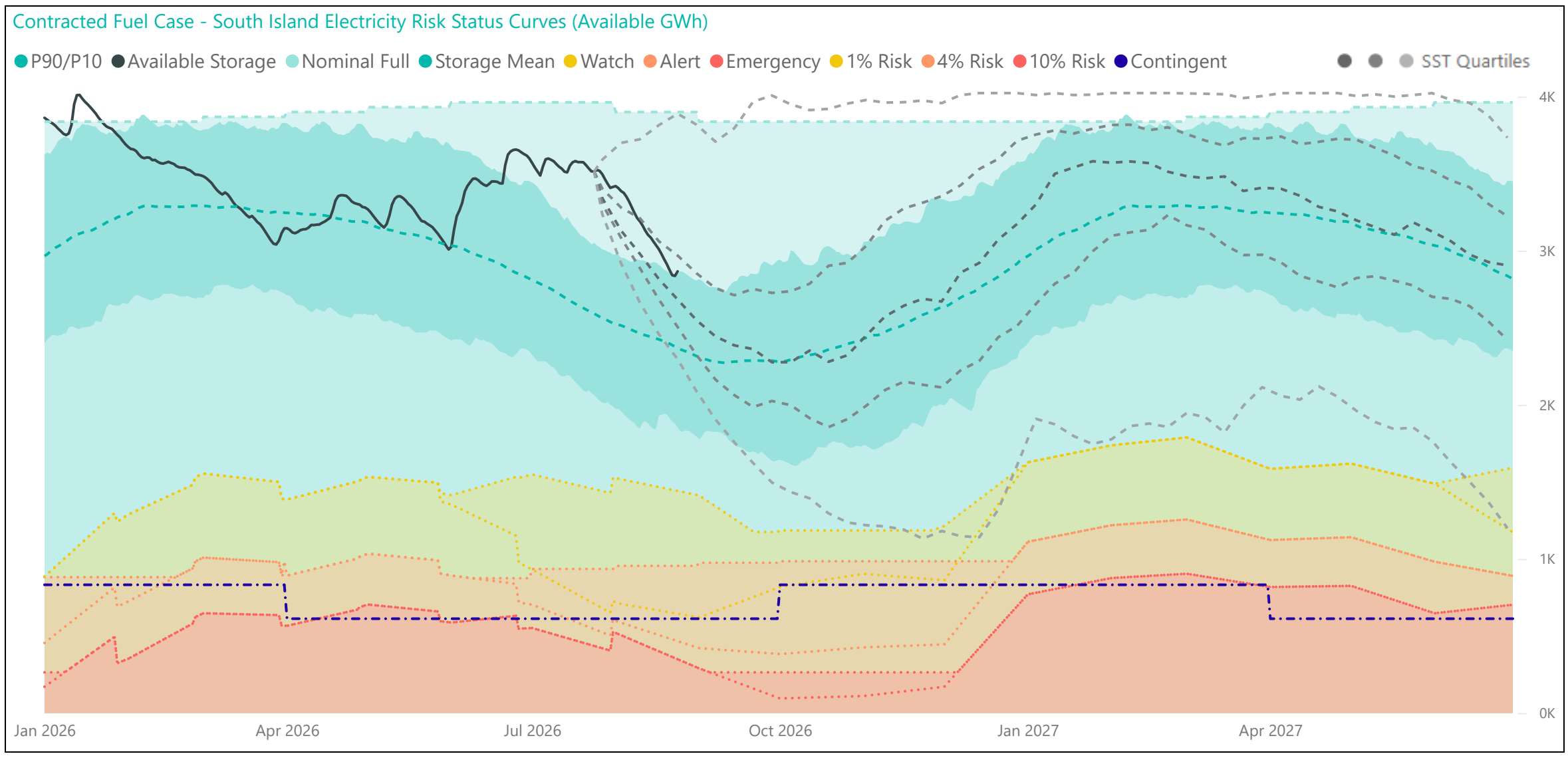
Watch Curve - The maximum of the one percent risk curve or the Alert curve plus the greater of the Watch adder or the worst-case simulated storage drop
Alert Curve - The maximum of the four percent risk curve and the floor and buffer
Emergency Curve - The maximum of the 10 percent risk curve and the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