Market Operations Weekly Report - Week Ended 28 June 2026

Overview

National hydro storage remains above average, with levels at 130% of the historic mean for this time of year. North Island storage continues to be high at 155% of the historic mean, while South Island storage is at 128% of the mean.

In this week's insight we go over price separation which was caused by a spring washer effect in the lower South Island.

Security of Supply

Energy

National hydro storage has increased to 130% of historic mean at the end of last week from 125% the week prior. South Island storage has increased from 123% to 128% and North Island storage decreased from 159% to 155%.

Capacity

Residuals were lower than usual during morning and evening peaks most of the last week. The lowest residual of 507 MW occurred during the evening of Wednesday 24th June.

The N-1-G margins in the NZGB forecast show tighter spots appearing 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 was high for this time of year at 842 GWh as shown on the top graph of page four. The highest demand peak of 6,572 MW occurred at 5:30pm on Friday 26th June, coinciding with a large southerly moving across the country.

Weekly Prices

The average wholesale electricity spot price at Ōtāhuhu last week increased to $47/MWh from $37/MWh the week prior. Wholesale prices peaked at $144/MWh at Ōtāhuhu at 1:00 pm on Wednesday 24th June due to a tight offer stack.

Generation Mix

Wind generation returned to its annual average of 9%, down from 11% the week prior. Hydro generation contributed 63%, slightly above its yearly average of 60%. Thermal generation was 4% of the mix last week, just under its annual average of 5%. Geothermal generation decreased slightly to 22%.

HVDC

HVDC flows last week were predominantly northward with one brief period of southward flow during Saturday night. Overall, 138 GWh was transferred north, while 2 GWh was transferred south during the week.

Consultations and Engagement

Security of Supply Annual Assessment (SOSA)

Today we have published our Security of Supply Annual Assessment 2026 (SOSA 2026). The annual assessment is used by market participants, policy makers and other stakeholders to inform risk management and investment decisions, including about the development of new generation and transmission infrastructure.

System Operator Strategy

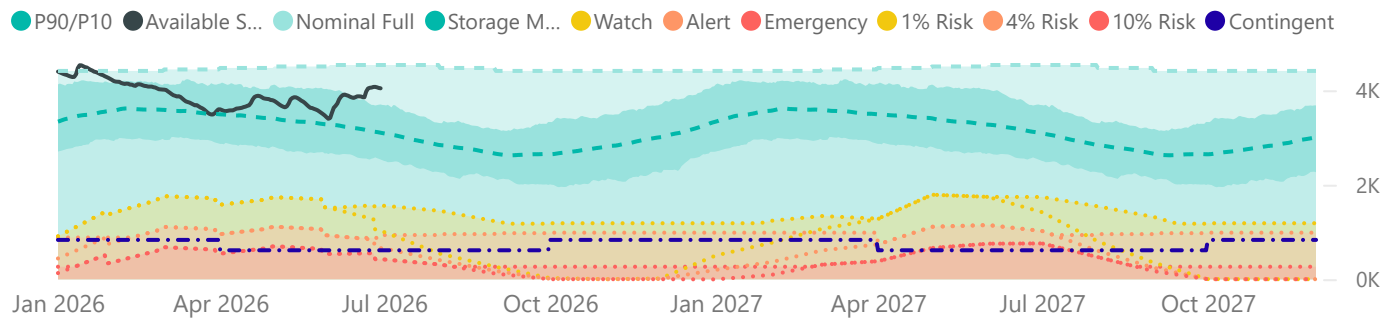
Our Phase 2 Consultation for the development of a new System Operator Strategy is open. Responses are due by Friday 24 July 2026. The draft Strategy sets out our proposed direction for how the System Operator service will need to evolve over the next ten years to support a secure, reliable and efficient power system.

New Zealand Energy Risk

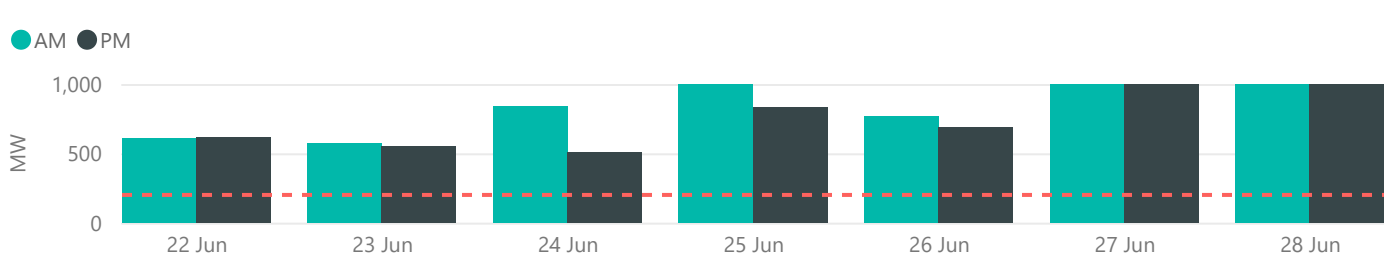
South Island Energy Risk

Normal Watch Alert Emergency

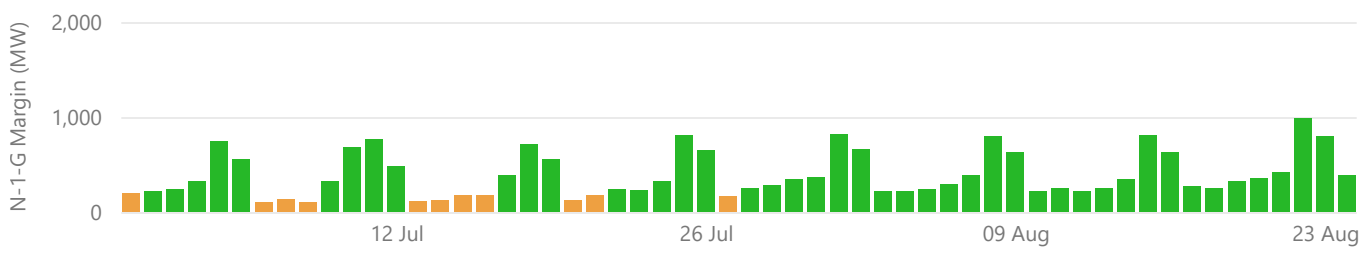
New Zealand Electricity Risk Status Curves (Available GWh)



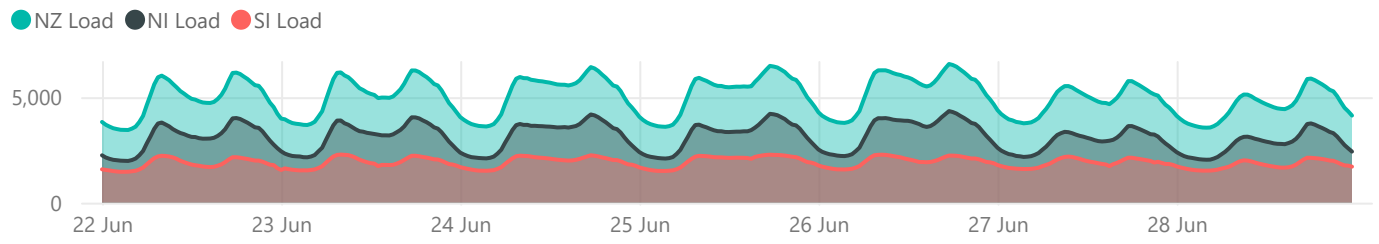
Lowest Residual Points - MW



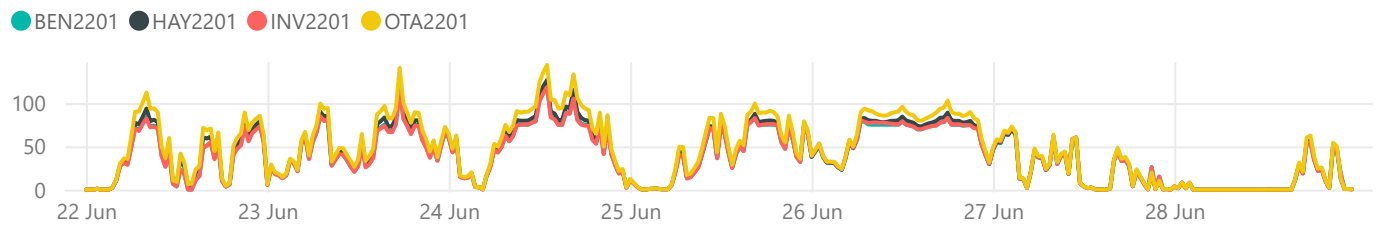
NZGB Look-Ahead (excluding next 7 days)



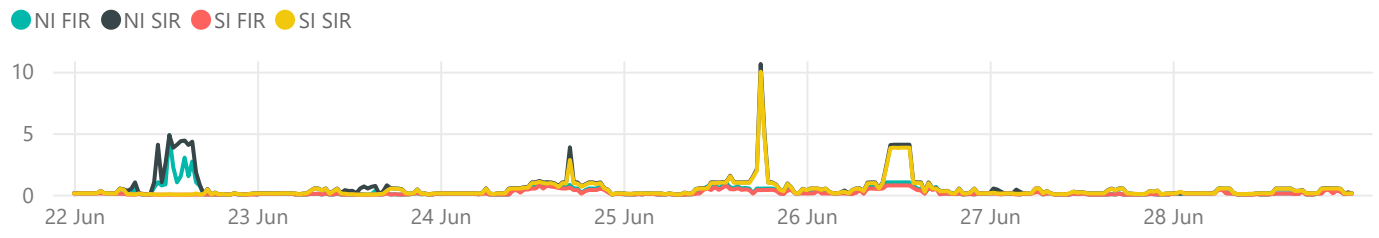
National Demand by Trading period - MW



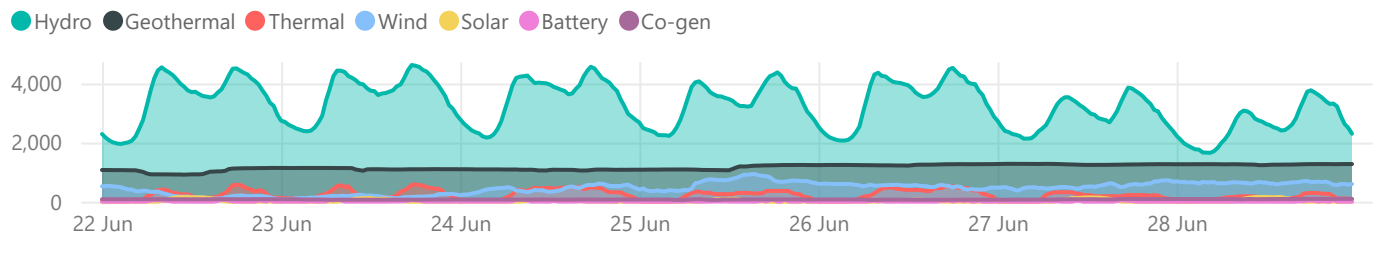
Energy Prices - $/MWh



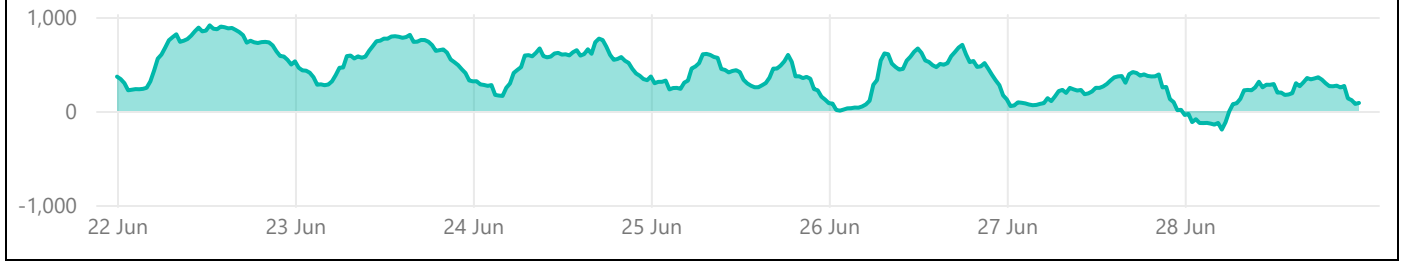
Reserve Prices - $/MW



Generation - MW

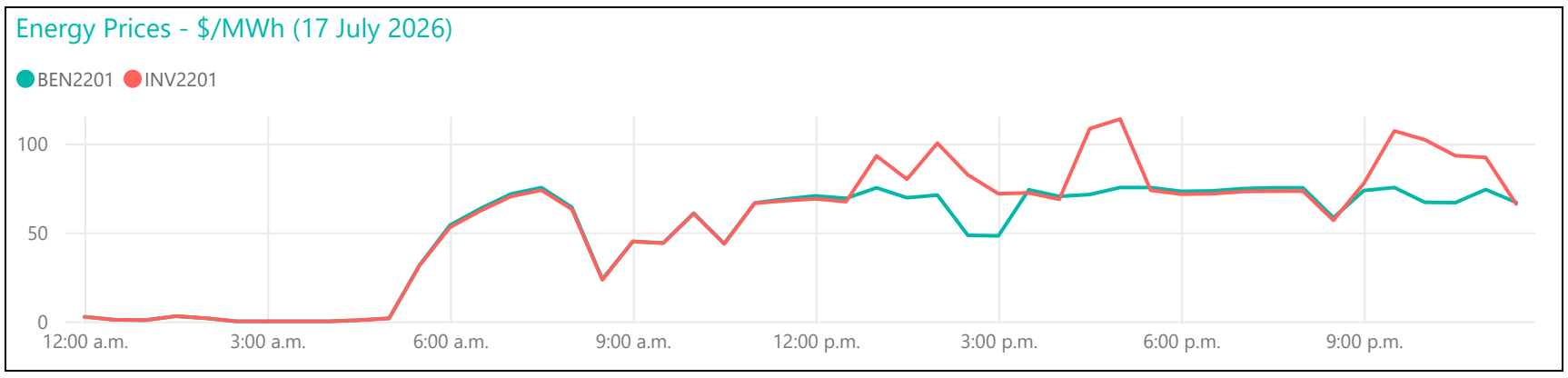


Net HVDC Transfer - MW (Northward positive)

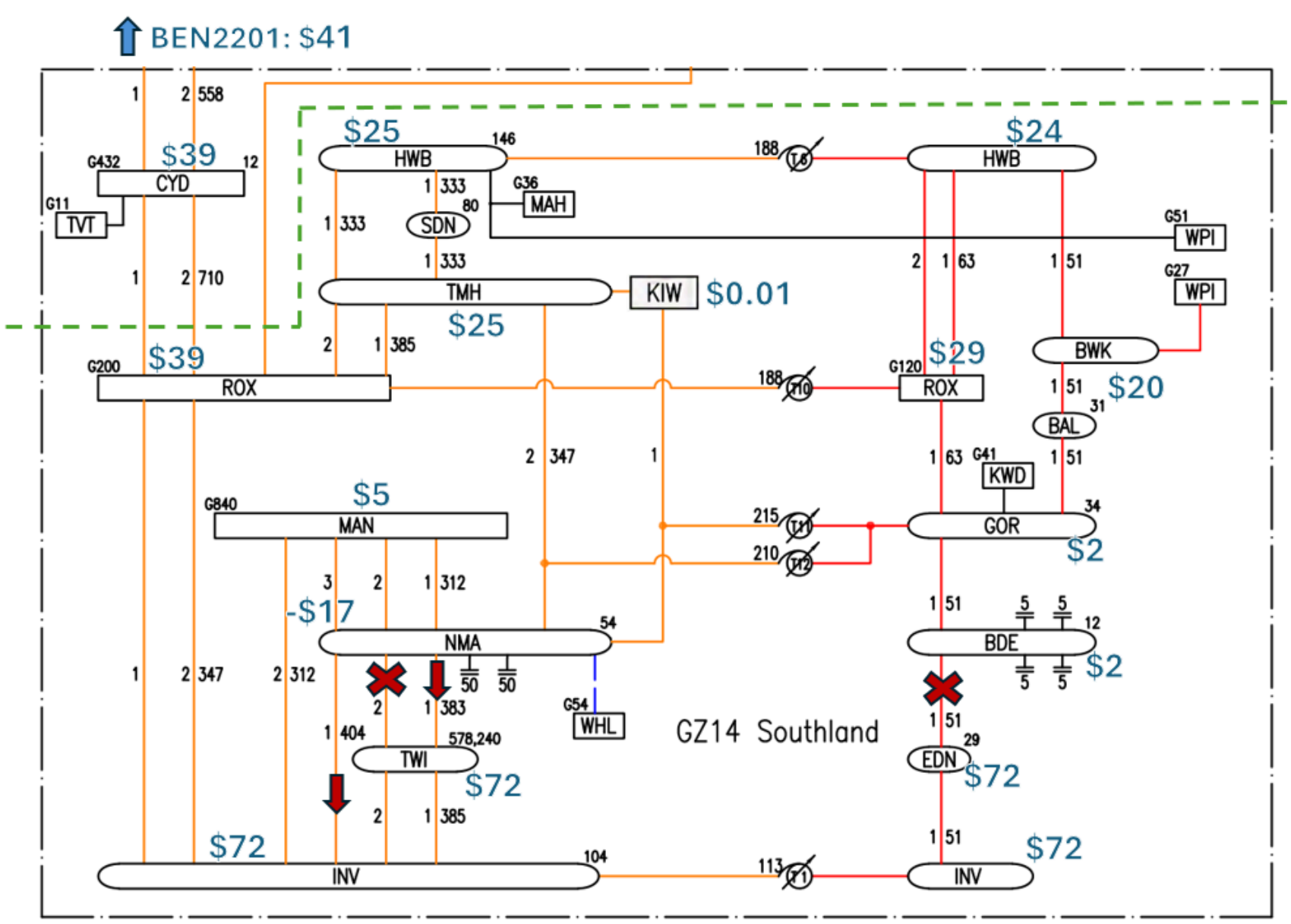


Weekly Insight - Spring Washer contributing to Benmore and Invercargill price separation

On 17 June, there were periods of price separation across the lower South Island, with prices at Invercargill (INV) higher than those at Benmore and other South Island nodes.



The higher prices at Invercargill (INV) were driven by a spring washer effect that resulted from transmission constraints in the lower South Island. One of the two NMA_TWI lines was on a planned outage. To protect the INV_NMA line from overloading in the event that the remaining NMA_TWI line tripped, a constraint was applied to the combined southward power flow (towards INV and TWI) on the remaining NMA_TWI line and the INV_NMA line. This constraint became binding, limiting the amount of power that could flow from the North Makarewa substation (NMA) to INV. At the same time, one of the BDE_EDN lines was also out of service. The relevant outages and constraints are illustrated in the diagram below.



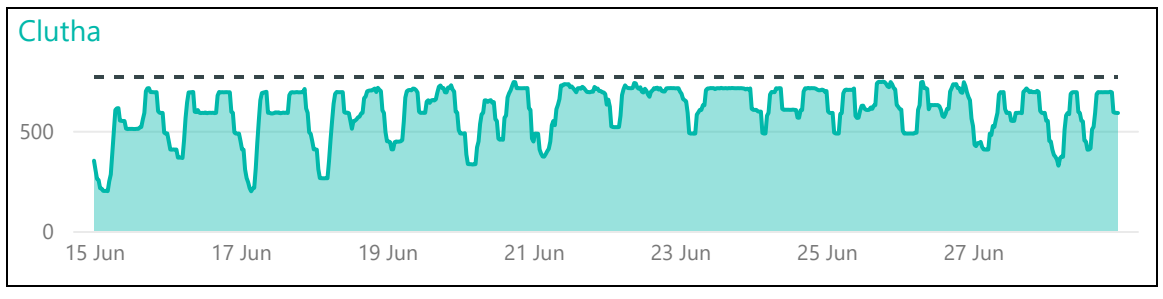
The diagram above shows nodal prices in the lower South Island for the 14:35 Real-Time Dispatch (RTD) schedule on 17 June. As shown by the green outline, the Roxburgh substation (ROX) is the sole connection point between the lower South Island and the rest of the national grid. For this RTD schedule, the marginal generator was located outside the lower South Island. As a result, supplying additional power to Invercargill required more generation needing to flow from ROX towards INV.

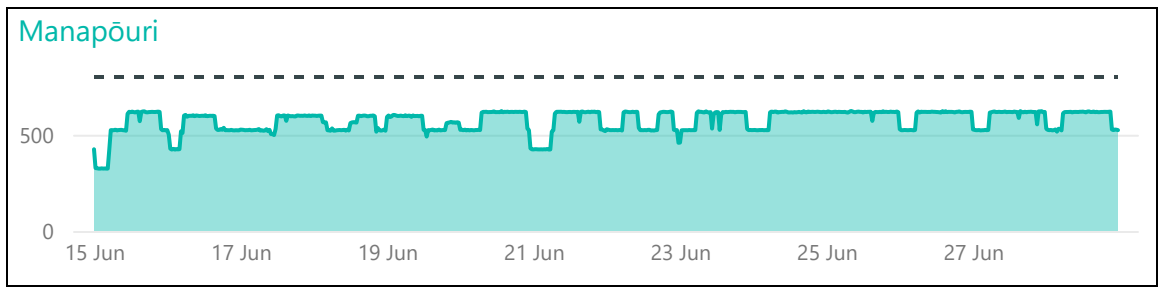
Because electricity flows across all available parallel paths in inverse proportion to impedance, part of this transfer from INV to ROX would flow via NMA. Without intervention, this would have breached the combined power flow constraint on the NMA_TWI and INV_NMA lines. To avoid this, generation at the White Hill wind farm (WHL) and the Kaiwera Downs Stage 2 (KWE) wind farm was curtailed, causing the price at NMA to fall to -$17/MWh. The need to curtail generation meant that supplying an additional MW at INV required not only purchasing that extra energy, but also replacing the generation that had been reduced. Since nodal prices reflect the marginal cost of serving additional demand at a node, this increased the price at INV relative to Roxburgh and Benmore. The same underlying factors drove the price separation in all RTD schedules that experienced substantial differences between Benmore and Invercargill prices throughout the day.

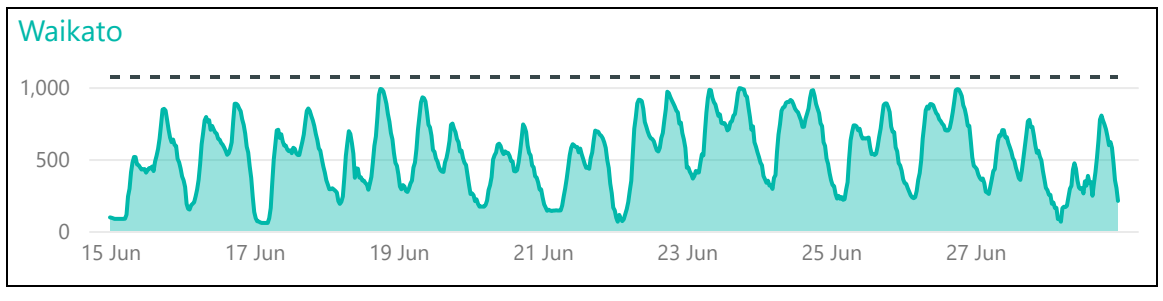
For more information about the spring washer effect, please see our video playlist on this phenomenon here.

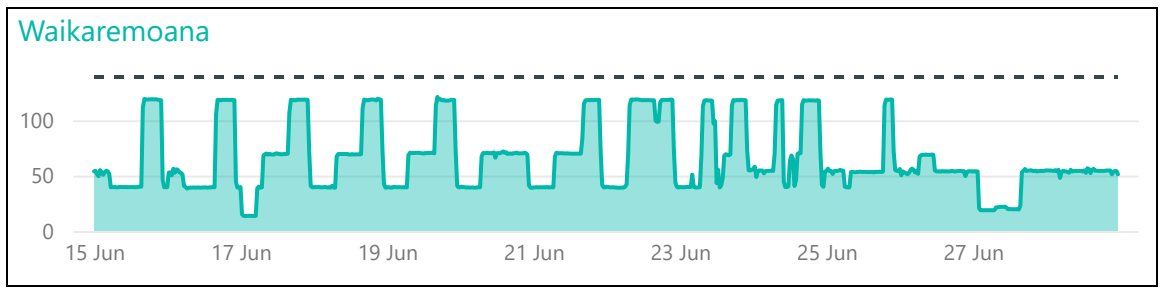
Generation Breakdown - Last Two Weeks

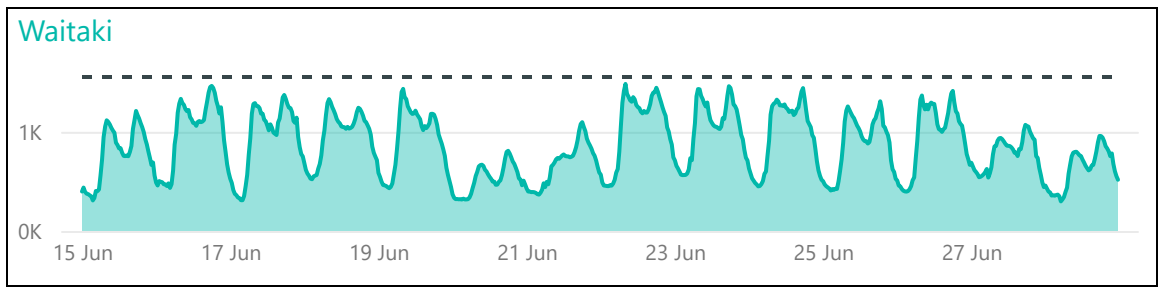
Measured in MW and displayed at trading period level for last 14 days

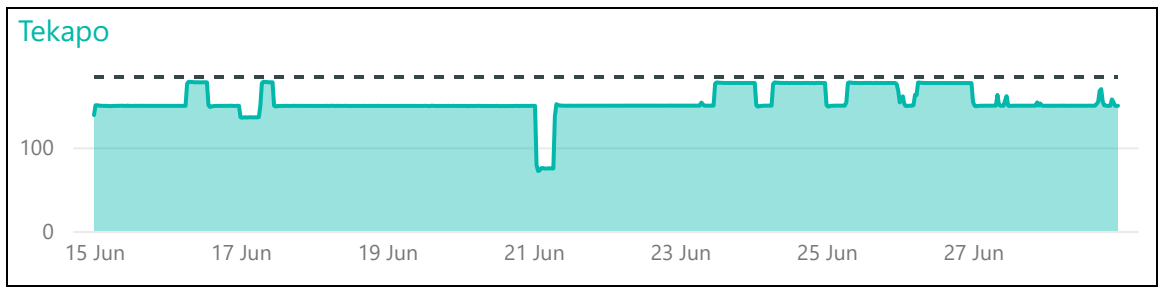


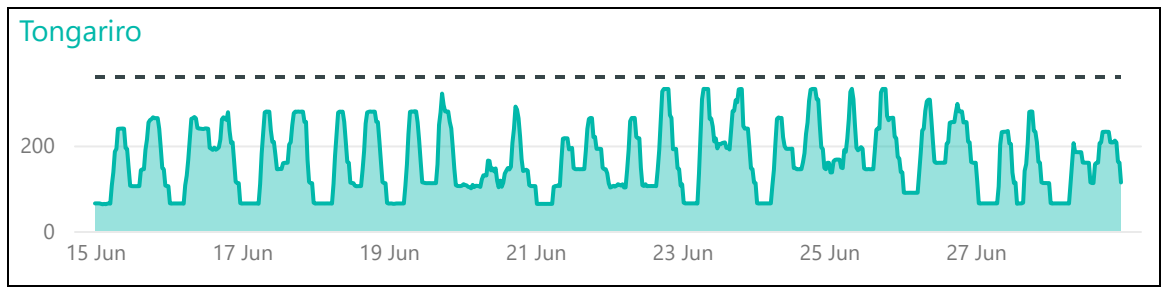


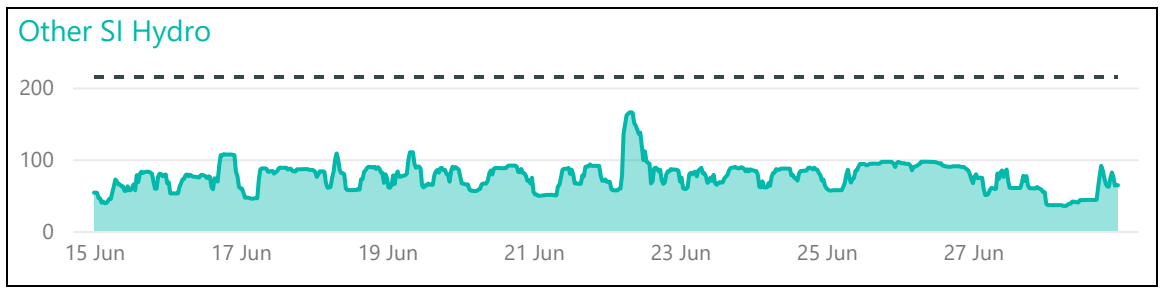


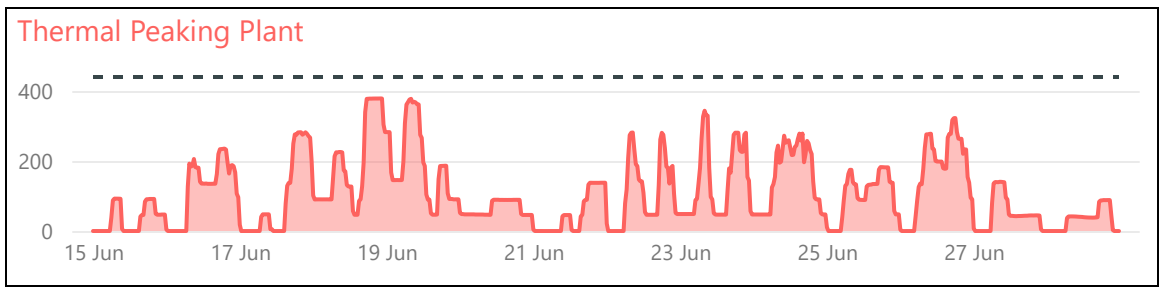


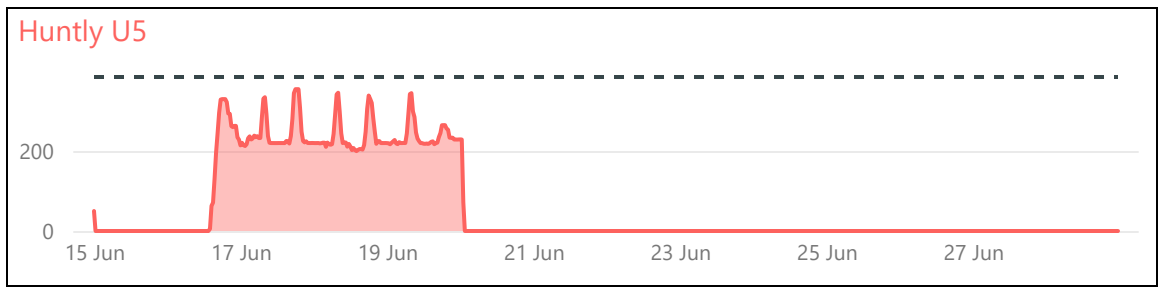


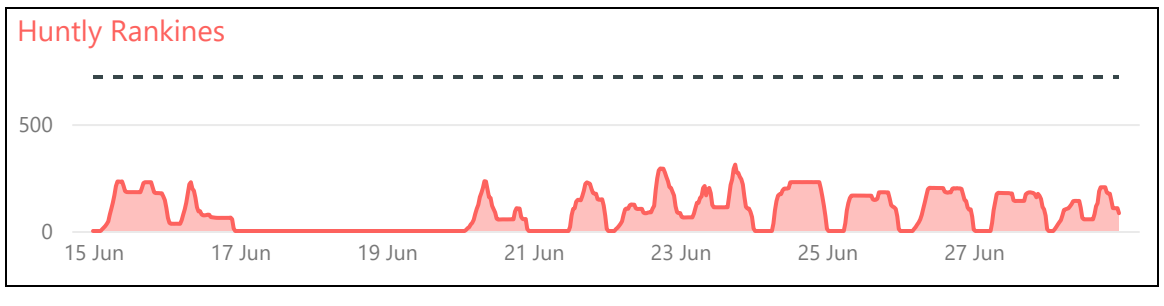


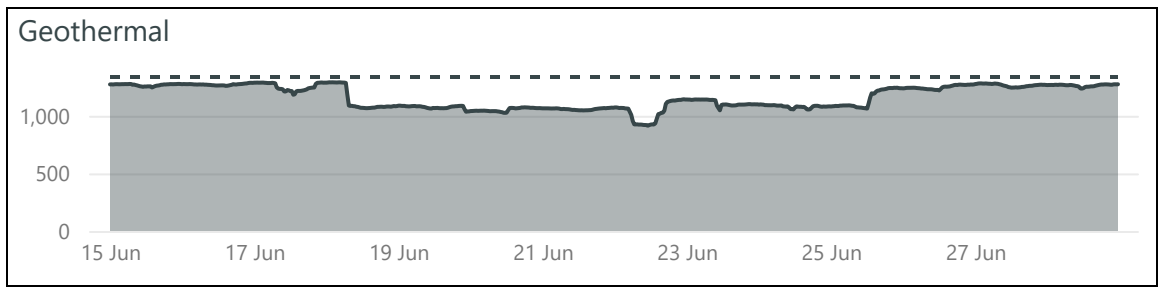


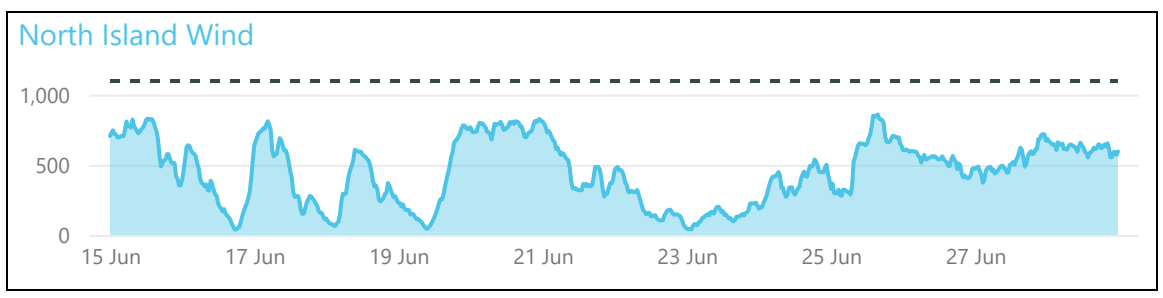


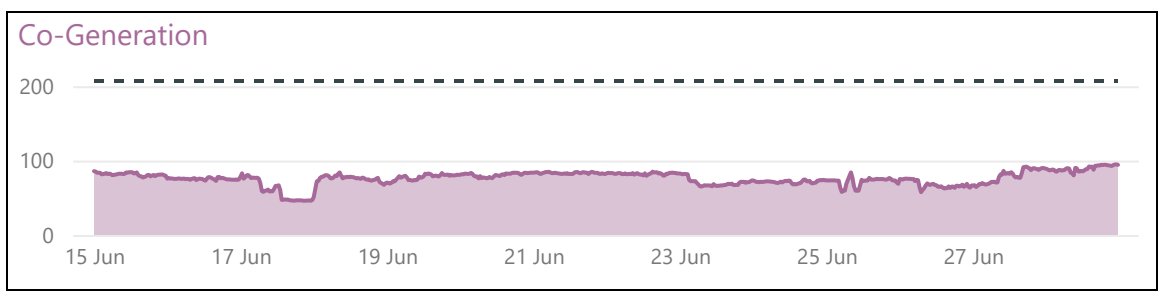


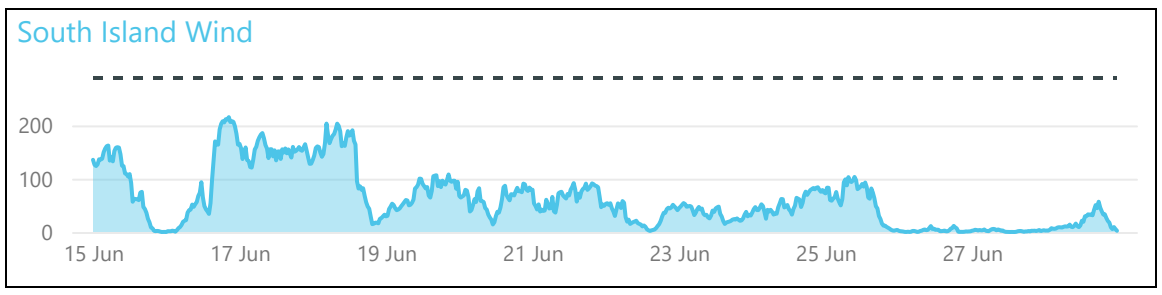


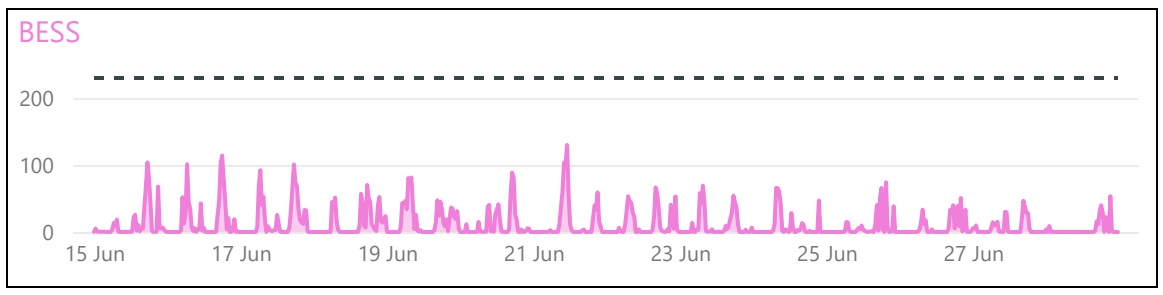


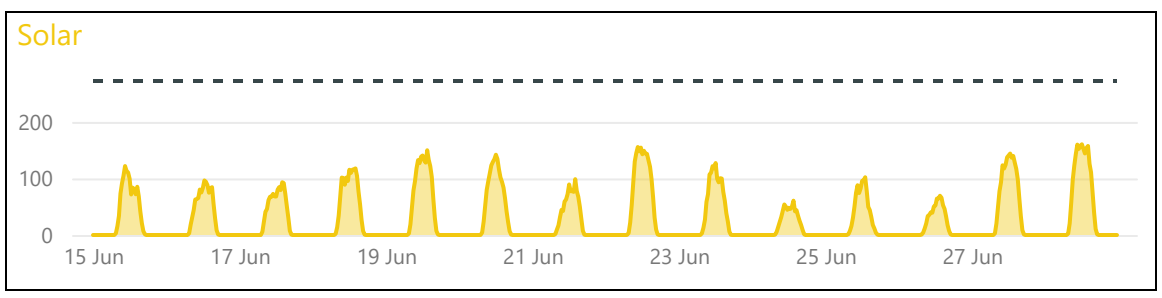






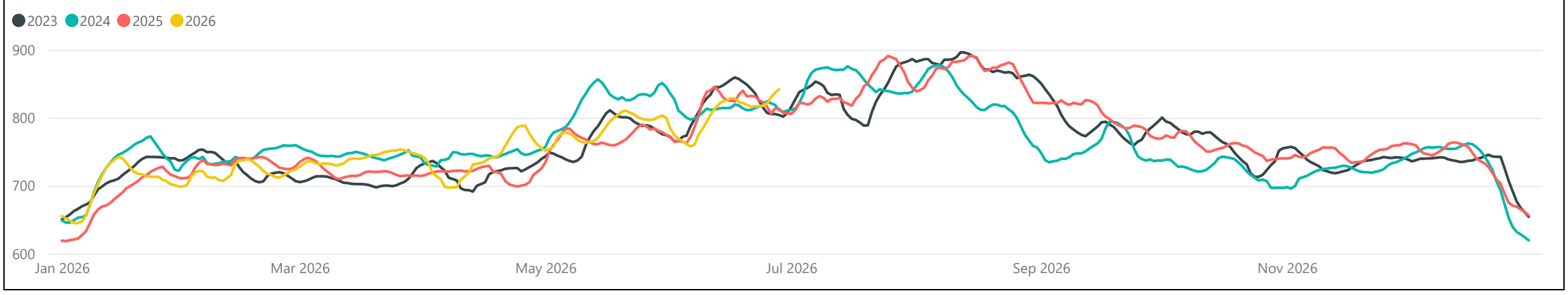




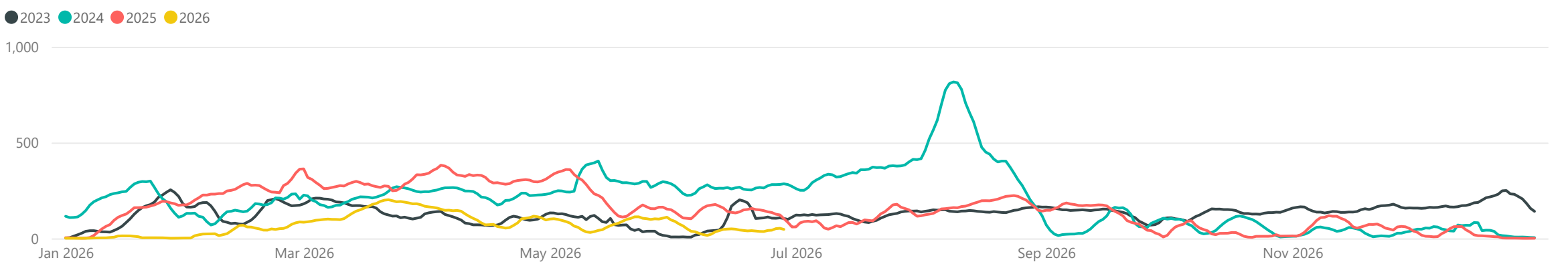


Weekly Profiles

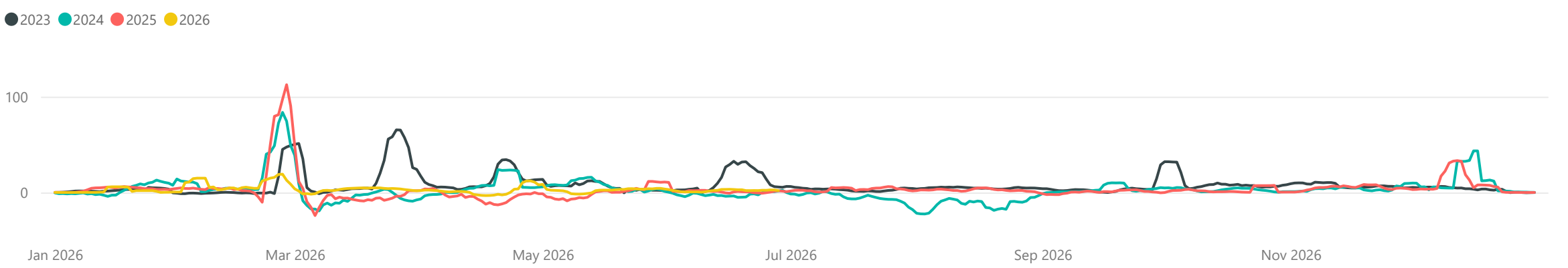
National Weekly Demand - GWh - 7 Day Rolling



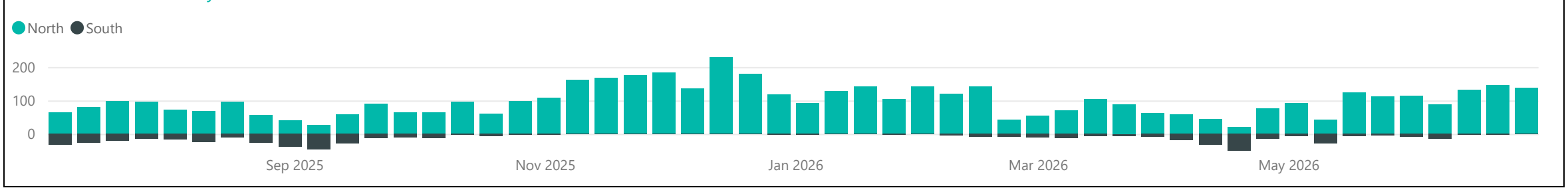
OTA2201 Weekly Rolling Average Spot Price - $/MWh



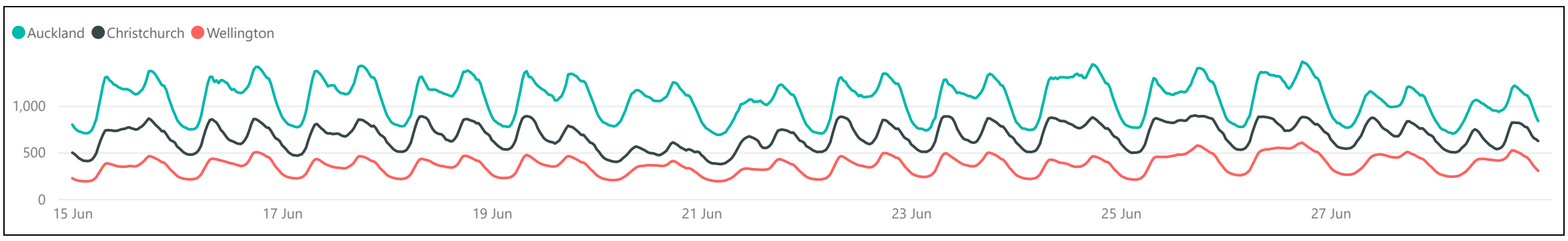
Weekly Rolling Price Separation (HAY2201 - BEN2201) - $/MWh



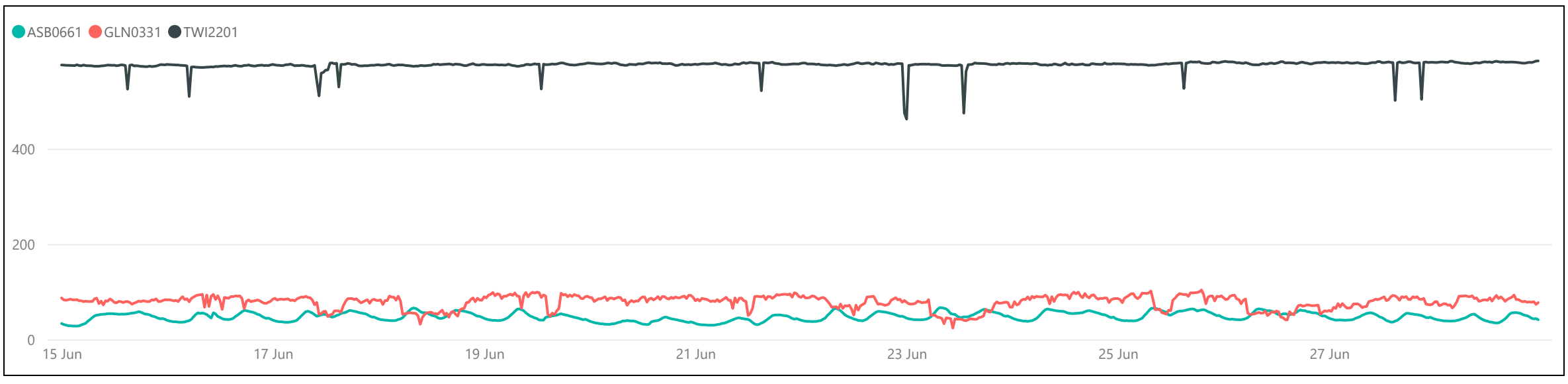
HVDC Transfer - Weekly GWh



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



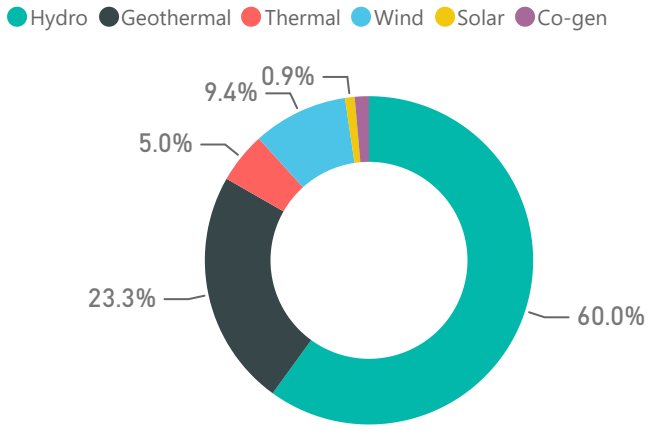
Non-Conforming Load Profiles - Last Two Weeks *Measured in MW shown by GXP*



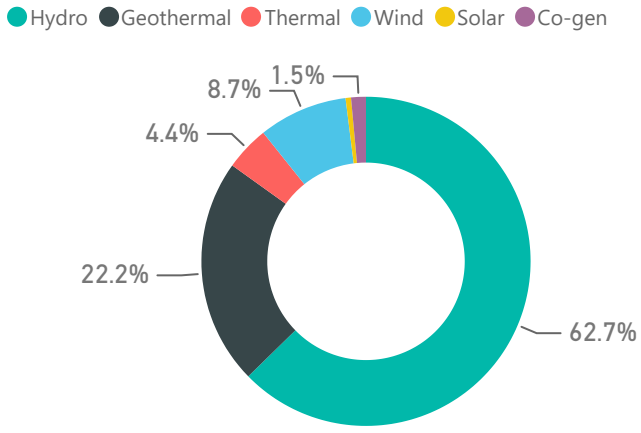
TRANSPOWER

Generation Mix

Last 52 Weeks Generation Mix - Weekly GWh



Last 7 Days Generation Mix - Weekly GWh



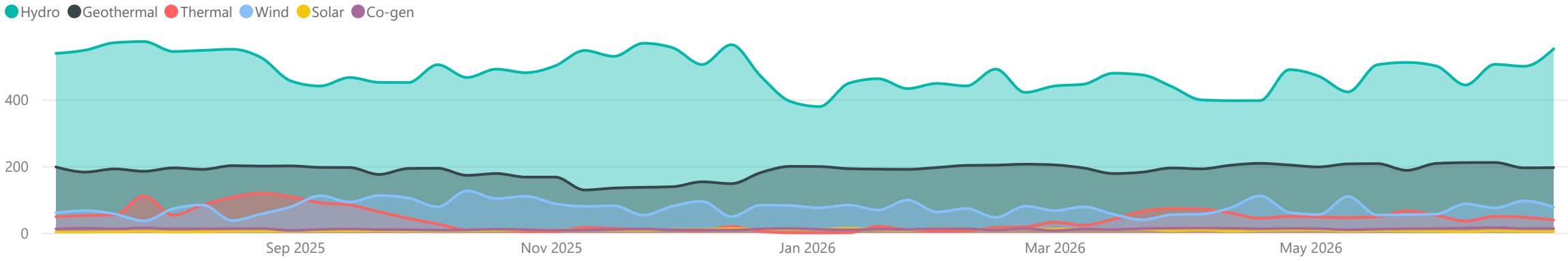
Average Metrics Last 7 Days

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
94%	42,684	47.1

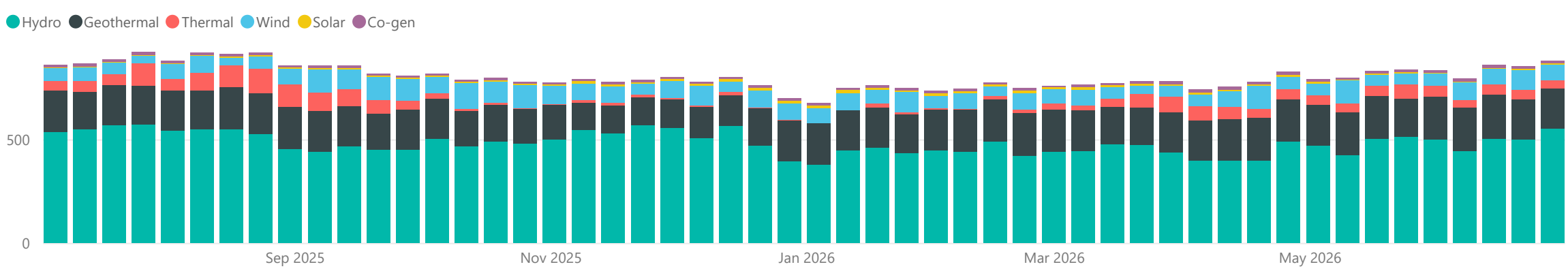
Average Metrics Last 52 Weeks

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
94%	40,061	48.7

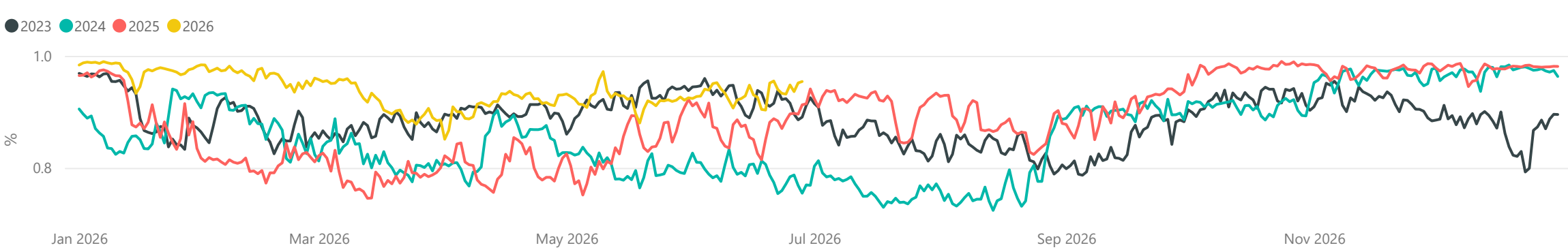
Weekly Generation Mix - GWh



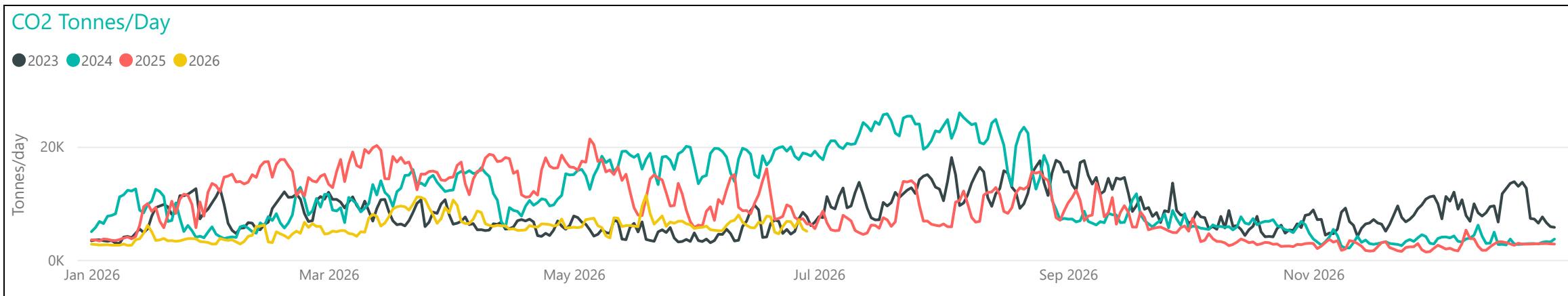
Weekly Generation Mix - GWh



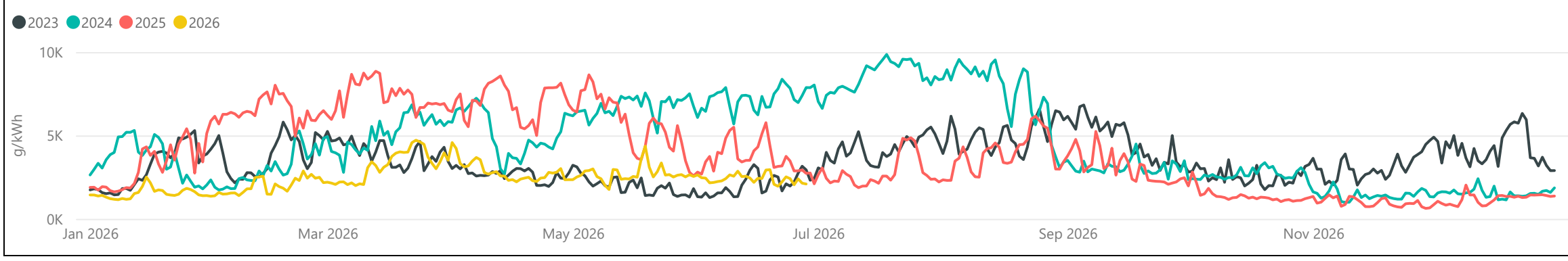
NZ Renewable Percentage



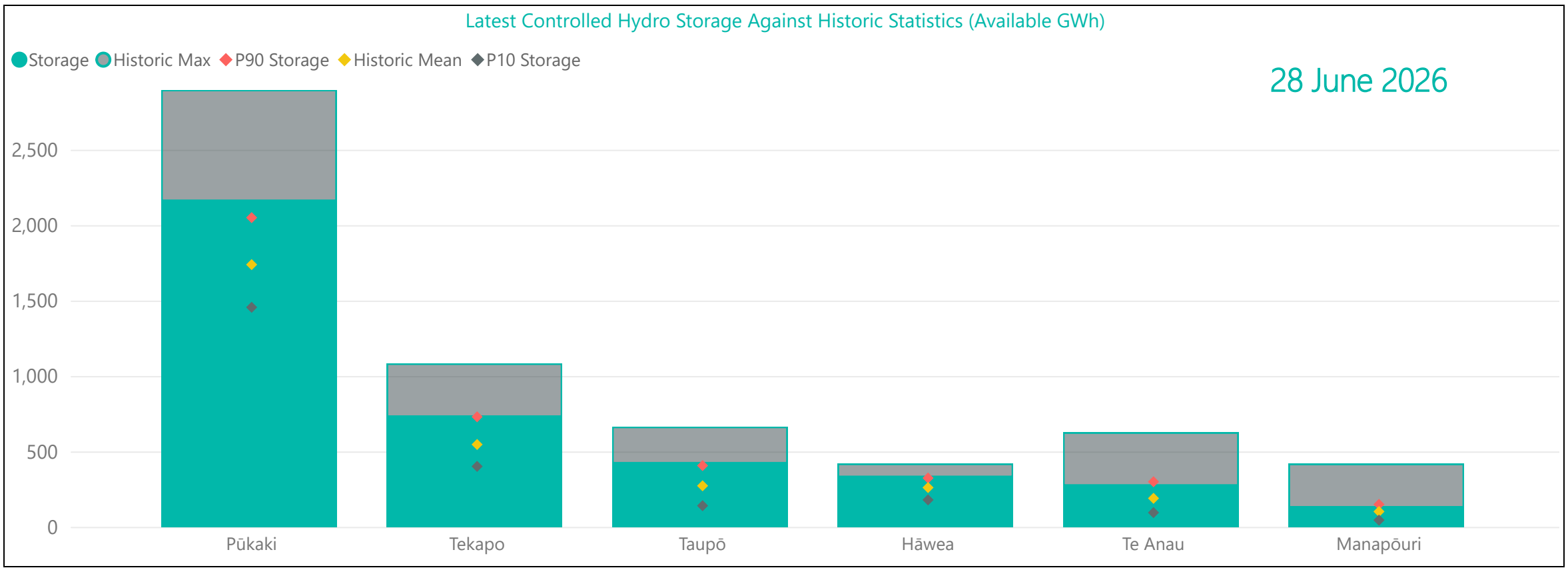
CO2 Tonnes/Day

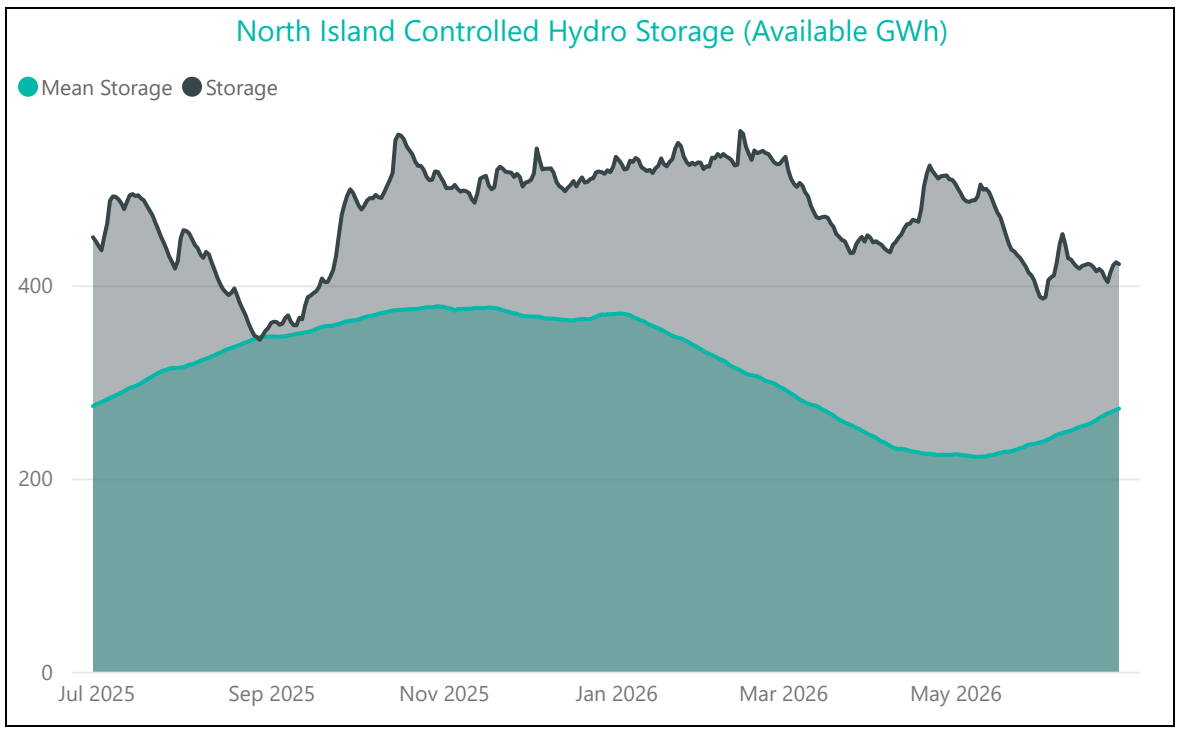


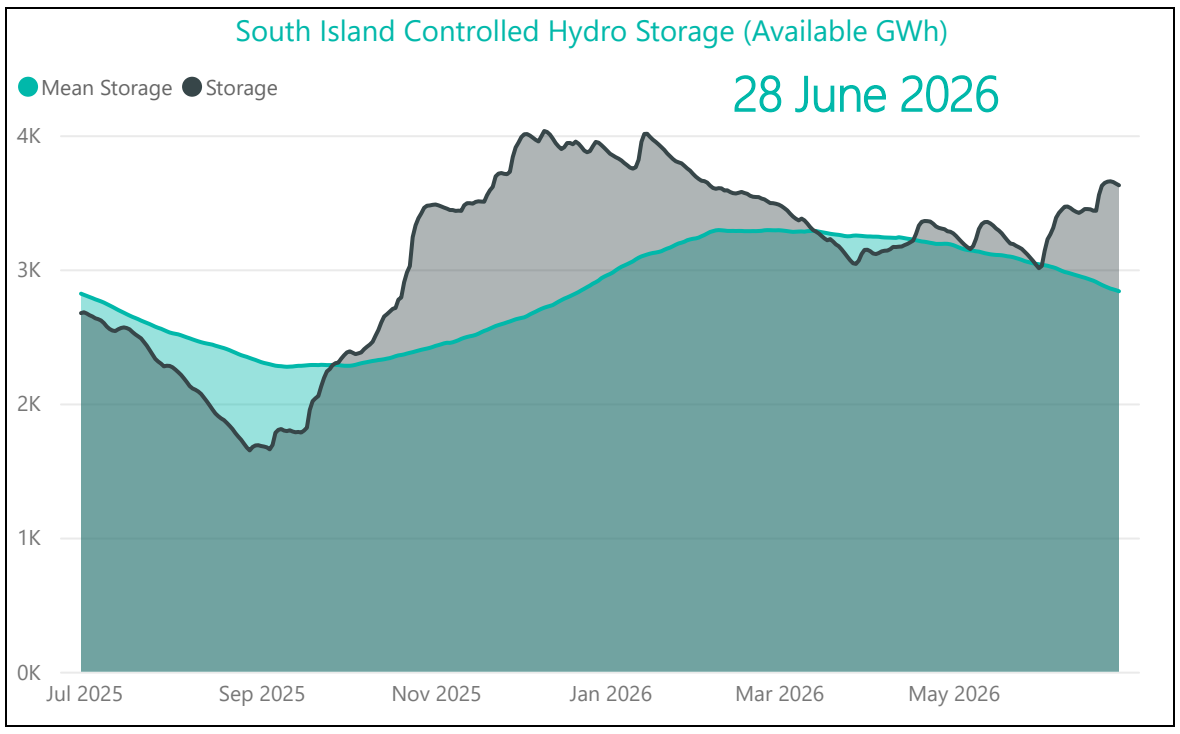
CO2 g/kWh

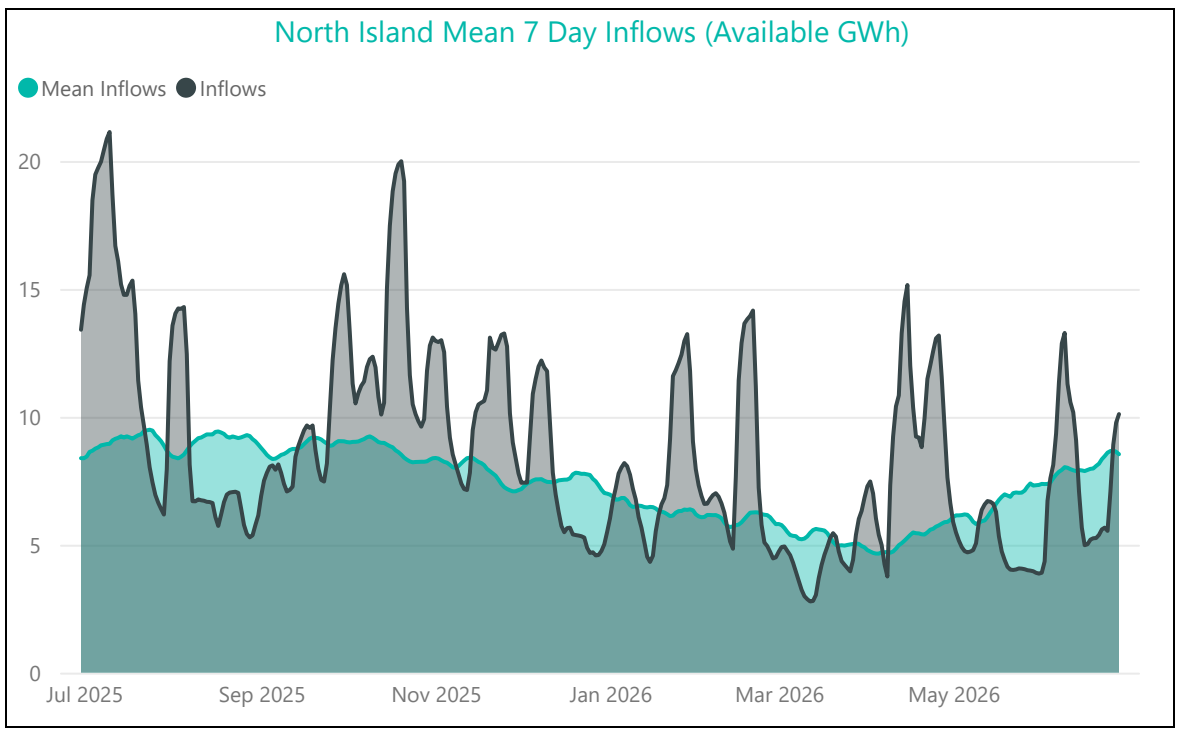


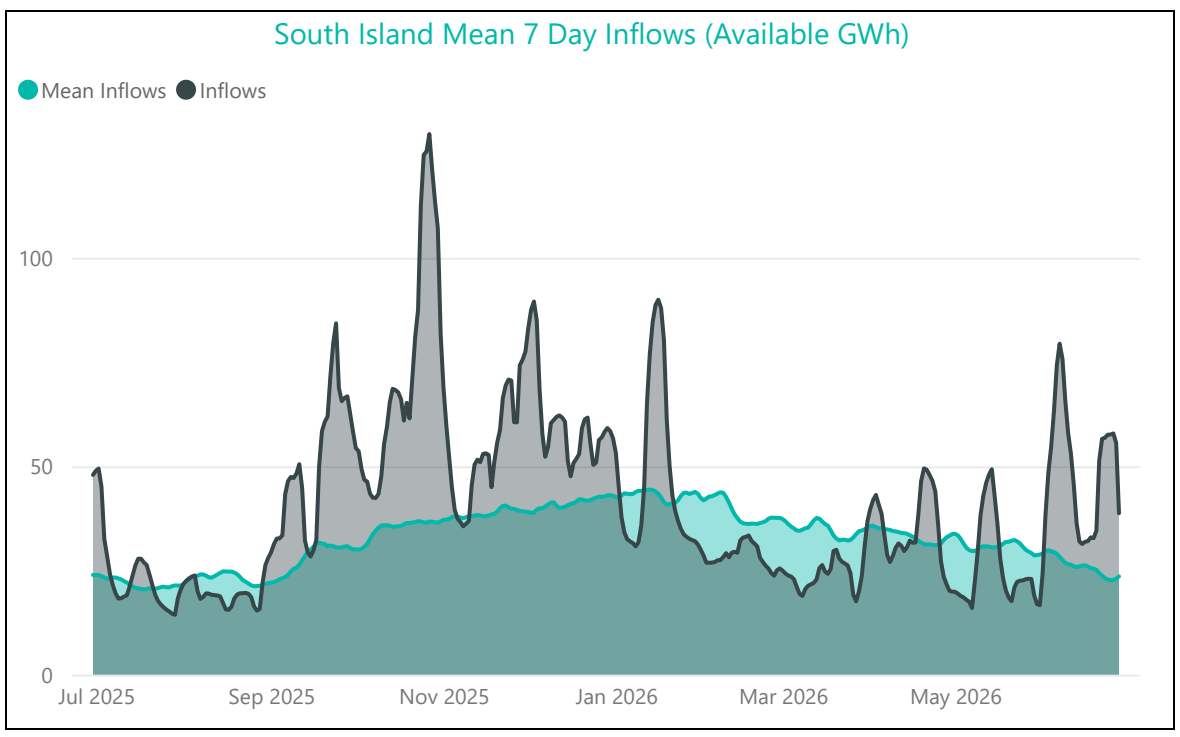
Hydro Storage











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

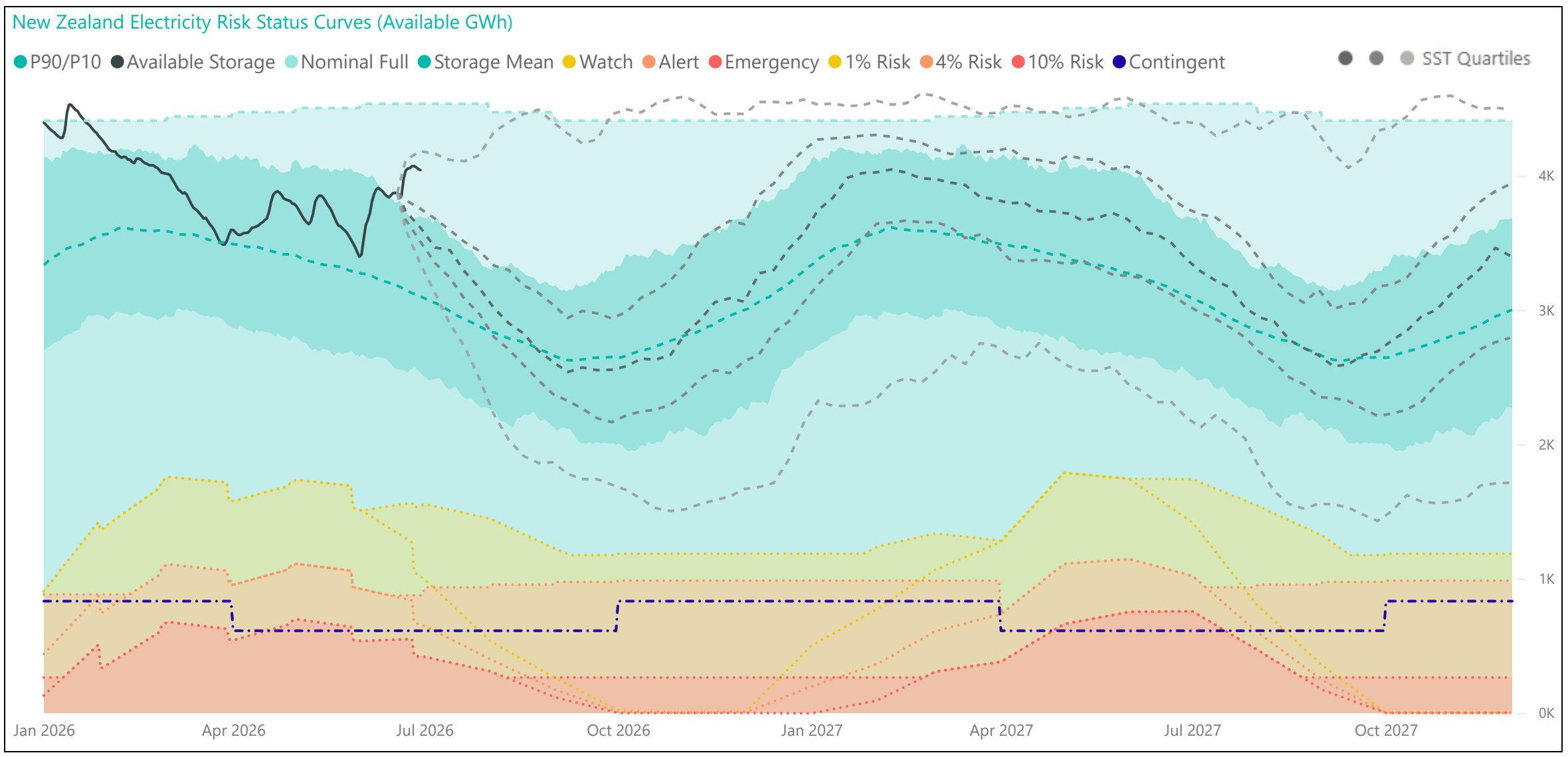
For any inquiries related to security of supply contact market.operations@transpower.co.nz

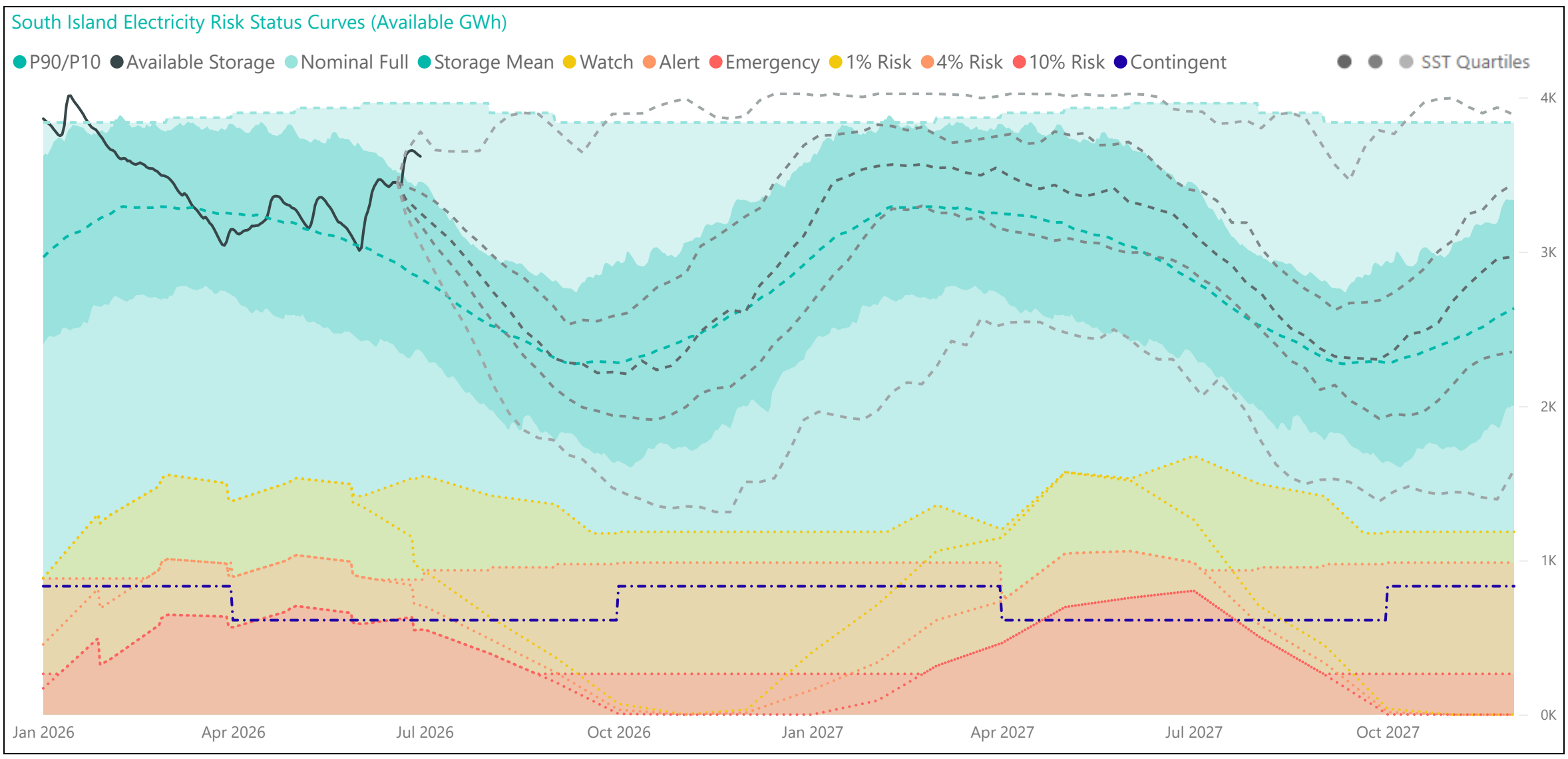
Hydro data used in this report is sourced from *NZX Hydro*.

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





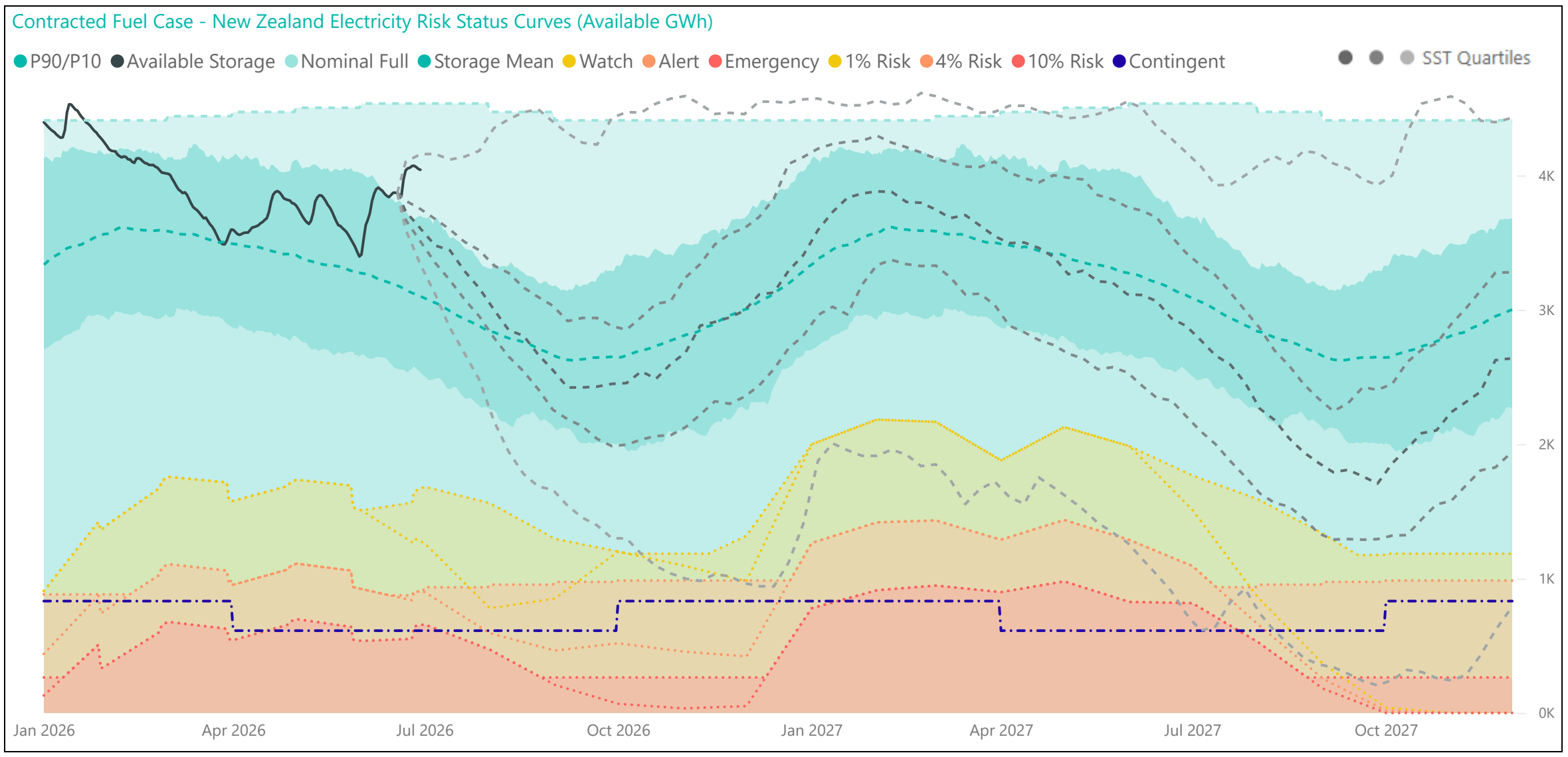
Electricity Risk Curve Explanation:

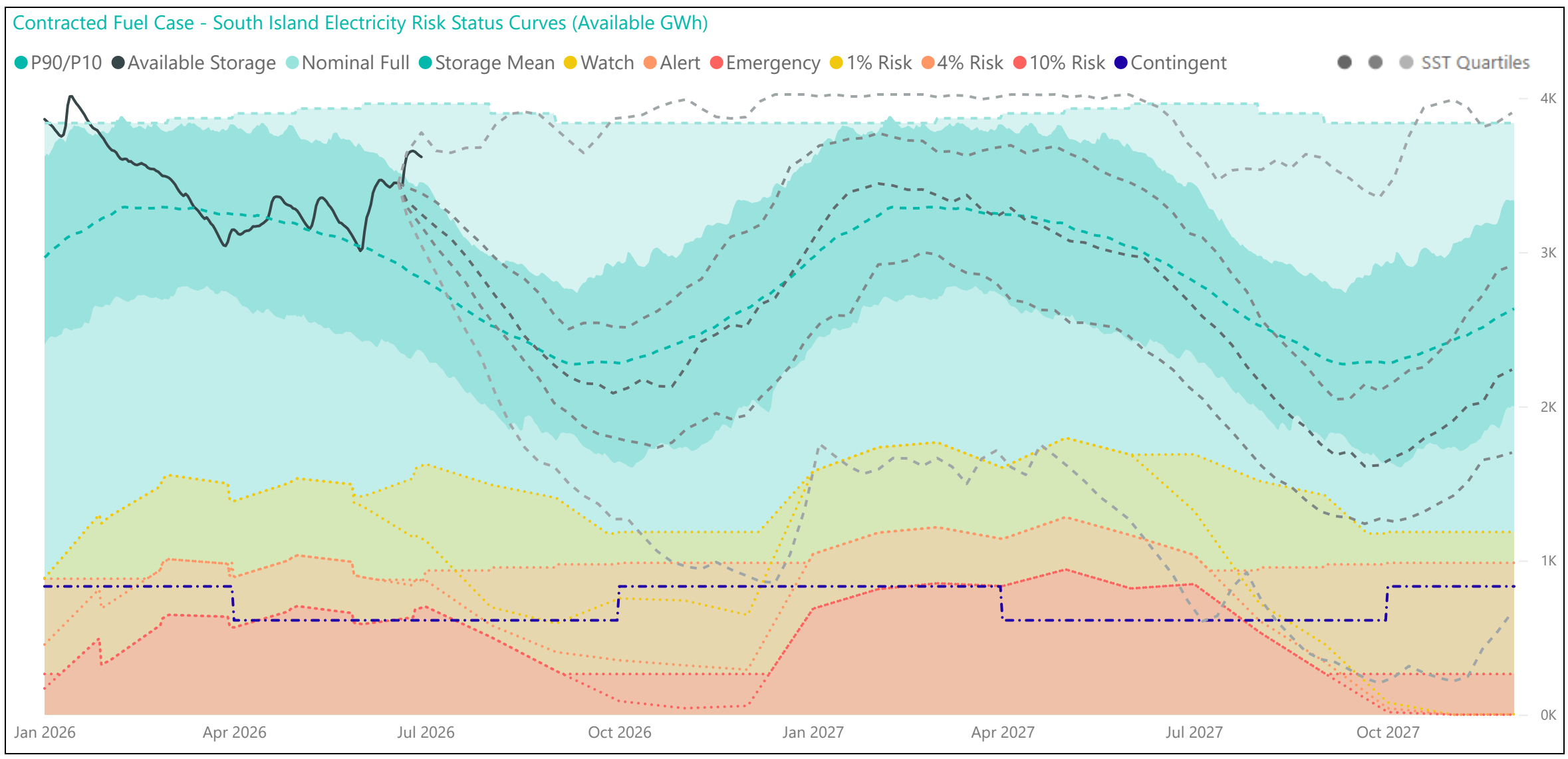
Watch Curve - The maximum of the one percent risk curve or the Alert curve plus the greater of the Watch adder or the worst-case simulated storage drop
Alert Curve - The maximum of the four percent risk curve and the floor and buffer
Emergency Curve - The maximum of the 10 percent risk curve and the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