Market Operations Weekly Report - Week Ended 12 July 2026

Overview

National hydro storage remains well above average, with levels sitting at 130% of the historical mean for this time of year. North Island storage is at 123% of the historical mean, while South Island storage has continued to increase and now sits at 130%.

In this week's insight, we look at the mix of generation that has supplied Aotearoa's highest demand peaks over the last four years.

Security of Supply

Energy

National hydro storage increased from 128% to 130% of the historical mean over the past week. South Island storage followed the same trend, rising from 128% to 130% of the historical mean, while North Island storage declined from 135% to 123%. Storage levels remain well above average across both islands, supported by average to above-average inflows into hydro catchments during the week.

Capacity

Residuals were lower than usual during several morning and evening peak periods last week, driven by increasing demand, lower wind generation at times and reduced thermal commitment. The lowest residual was 287 MW during the evening peak on 7 July.

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 increased to 864 GWh last week from 857 GWh the week prior due to colder temperatures. The highest demand peak of 6,607 MW occurred at 6:00pm on Thursday 9 July.

Weekly Prices

The average wholesale electricity spot price at Ōtāhuhu last week increased slightly to $79/MWh from $78/MWh the week prior. Wholesale prices peaked at $770/MWh at Ōtāhuhu at 6:30pm on Saturday 11 July, when a combination of low wind generation and a tight offer stack resulted in thermal peaking generation setting the price.

Generation Mix

Wind generation increased to 7% of the generation mix last week, remaining lower than its yearly average of 10%. Hydro generation increased from 63% to 64% of the mix and thermal generation decreased from 5% to 3% of the generation mix. Geothermal generation remained at 24% last week, sitting just above its annual average of 23%.

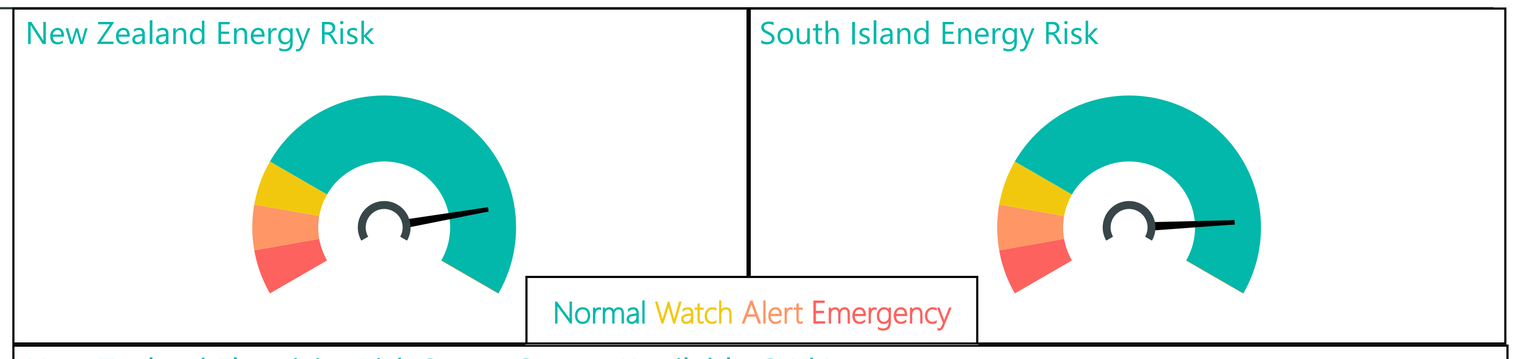
HVDC

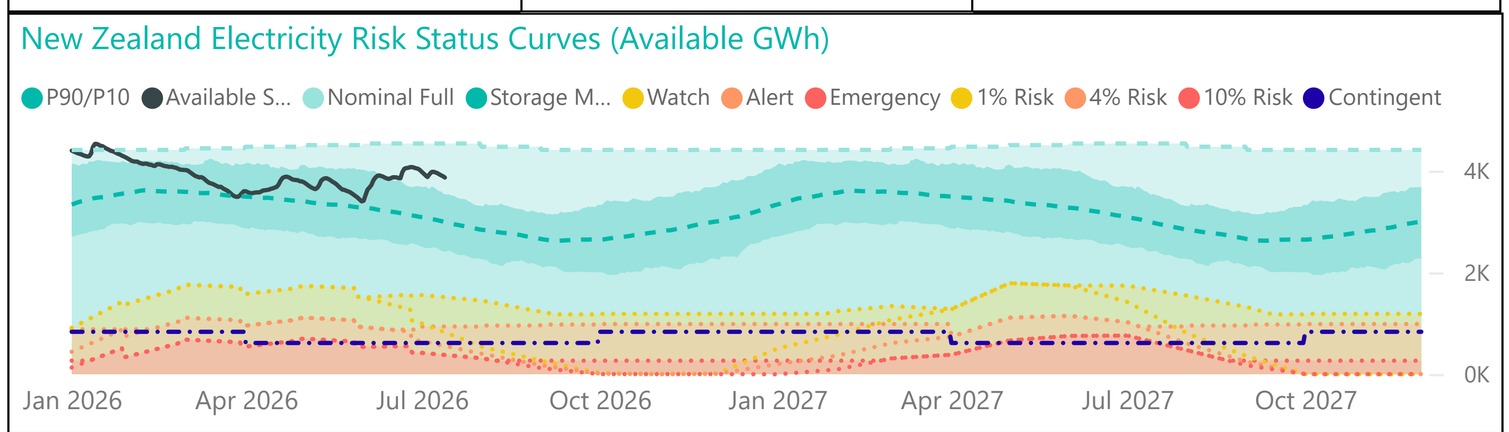
HVDC flows last week were predominantly northward with two very brief periods of southward flow overnight. Overall, 156 GWh was transferred north, while 2 GWh was transferred south during the week.

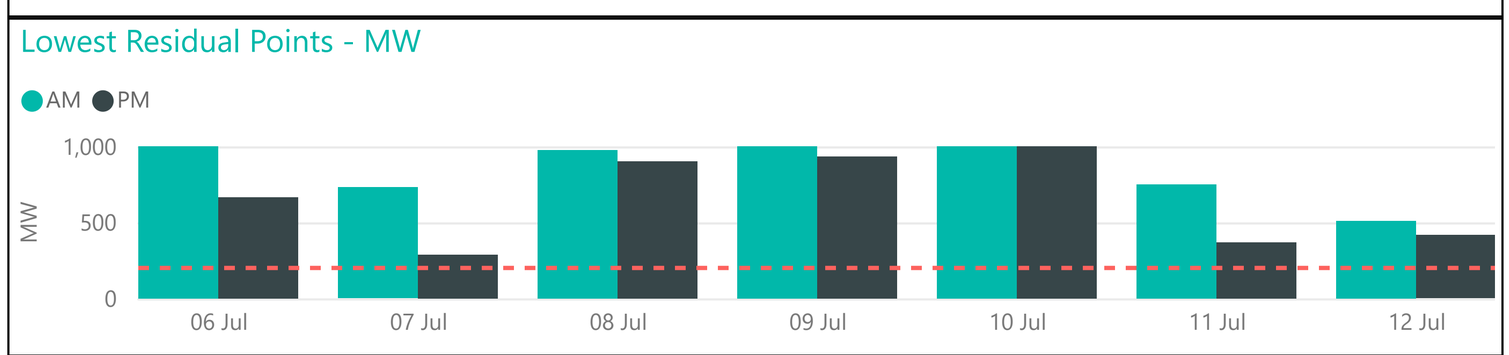
Consultations and Engagement

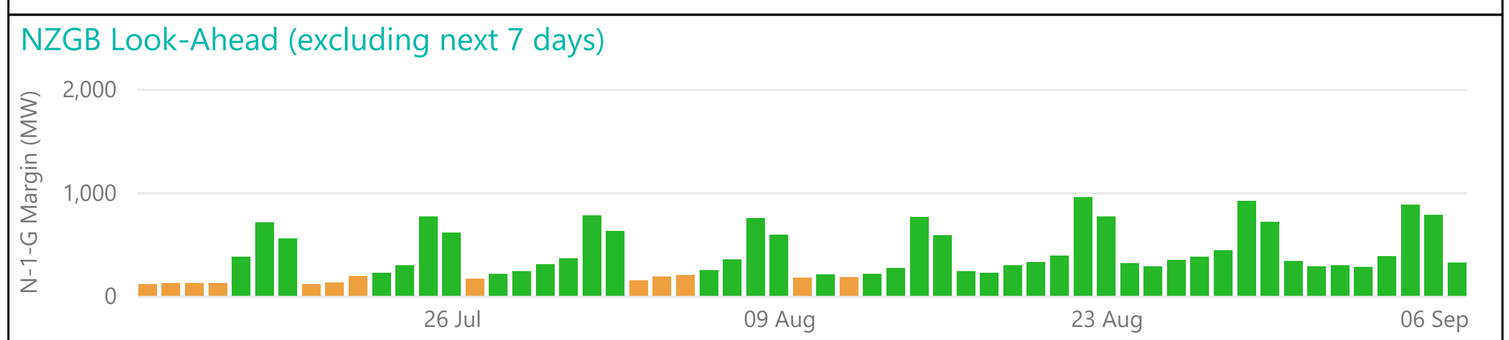
System Operator Strategy

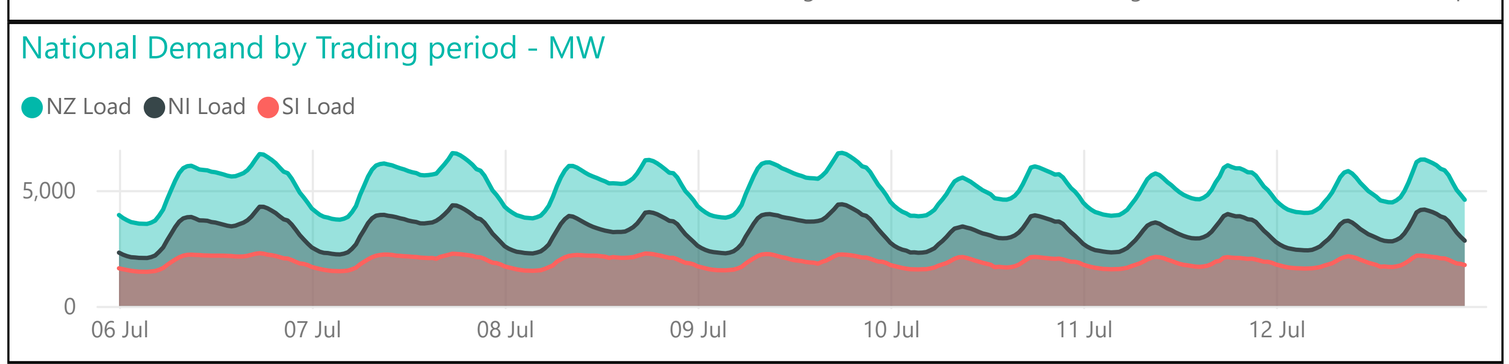
Our Phase 2 Consultation for the development of a new System Operator Strategy is open. Responses are due by Friday 24 July 2026. The draft Strategy sets out our proposed direction for how the System Operator service will need to evolve over the next ten years to support a secure, reliable and efficient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

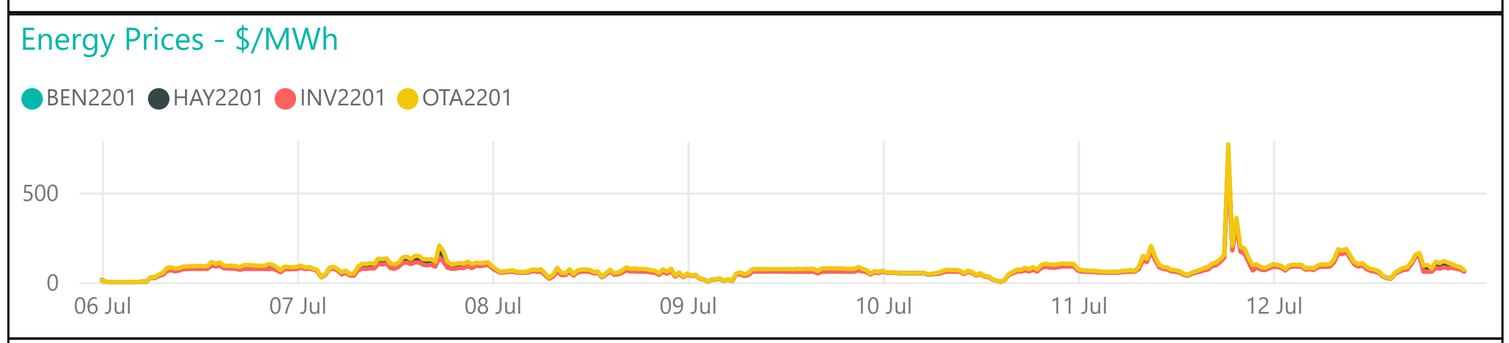


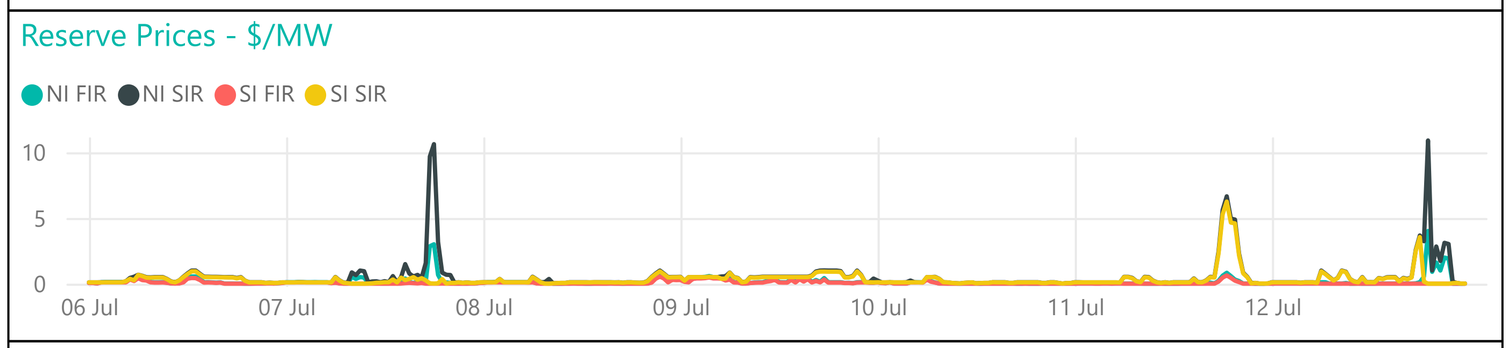


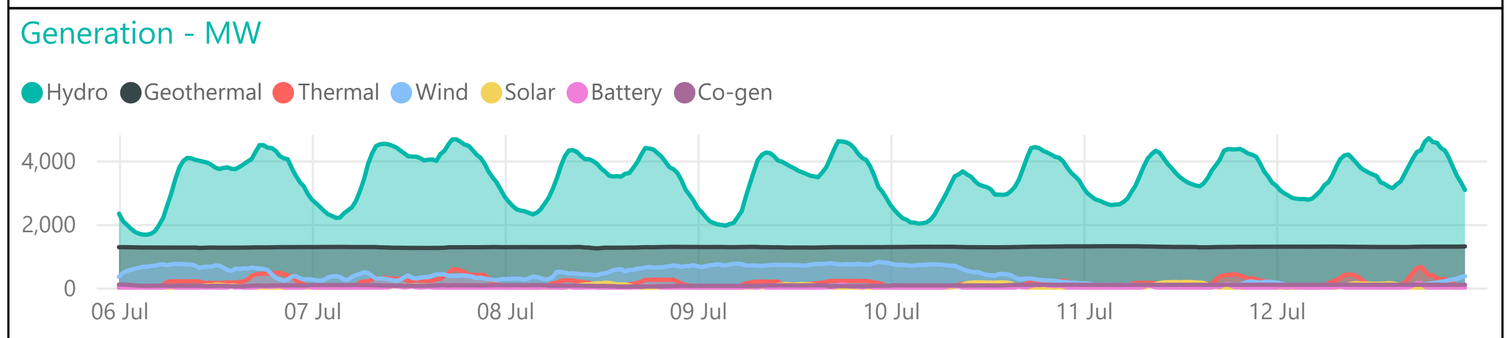


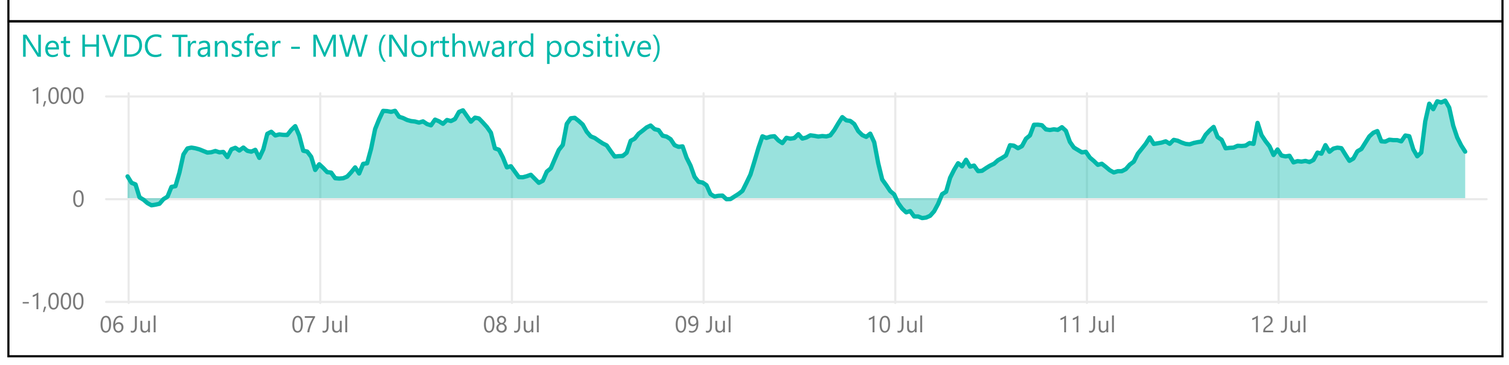










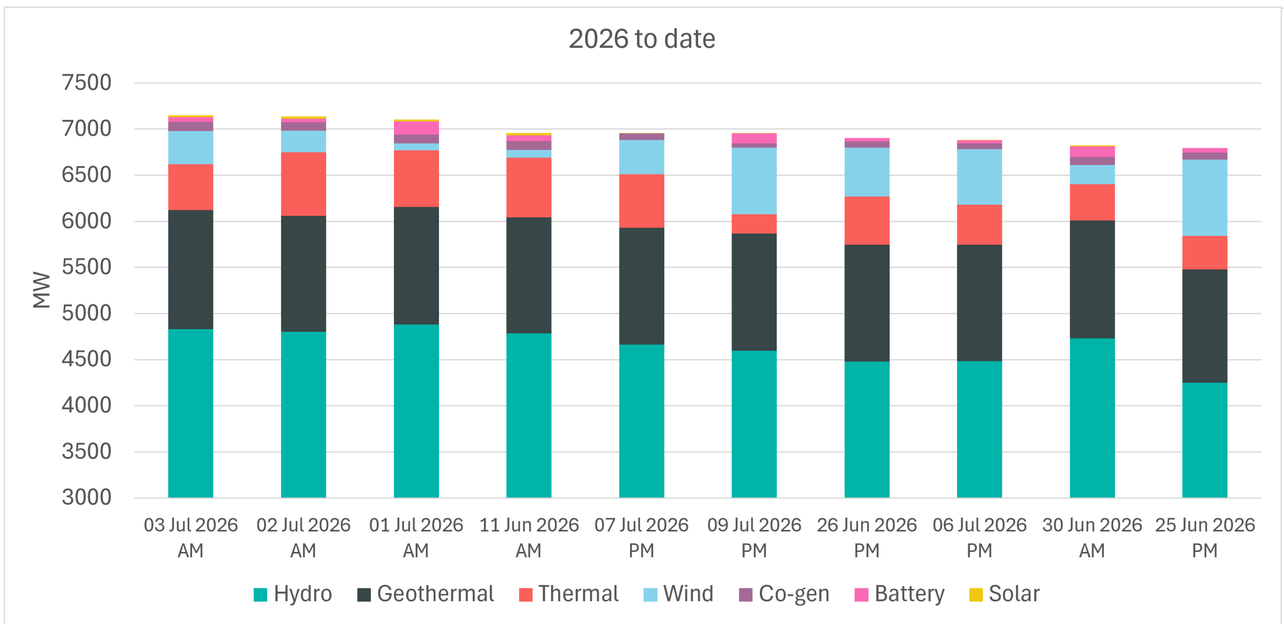


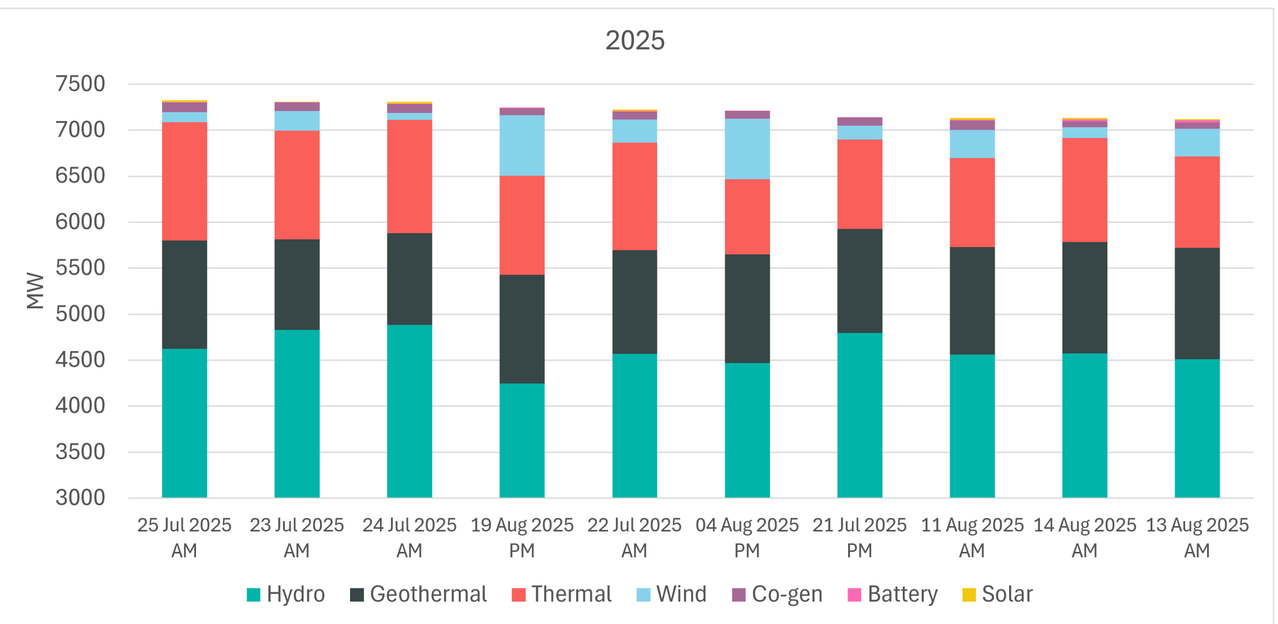
Weekly Insight - Generation mix during top demand peaks in recent years

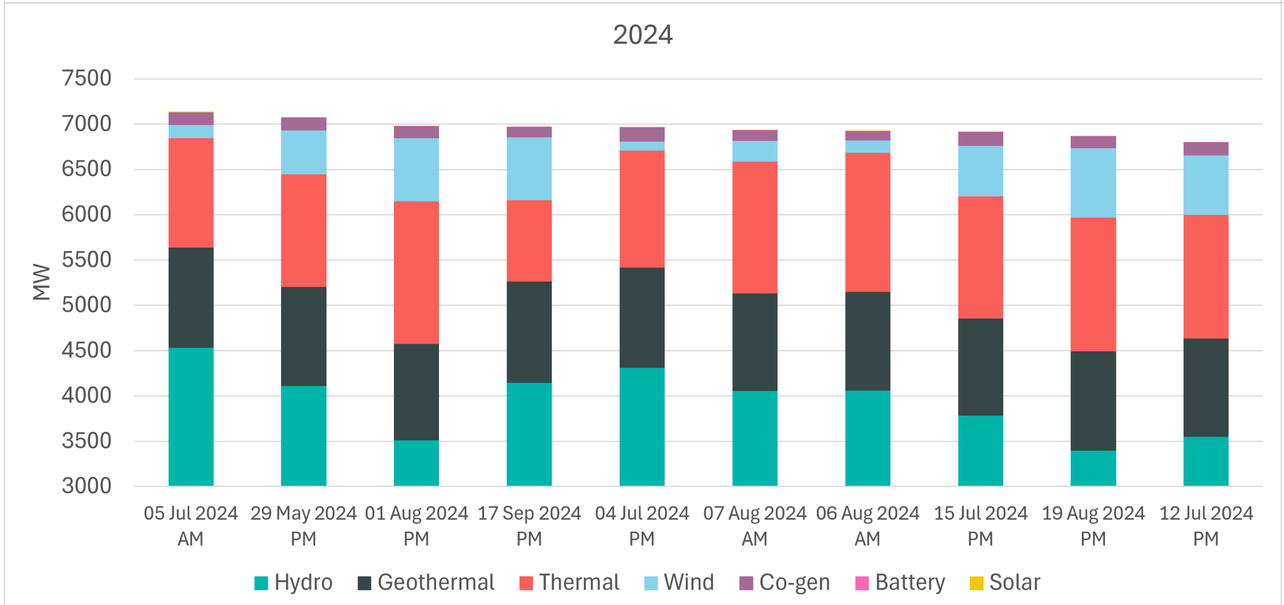
In this week's insight, we look at the mix of generation that has supplied Aotearoa's highest demand peaks over the last four years. With hydro storage currently well above average and inflows remaining strong in recent weeks, the power system is navigating winter with a healthy energy buffer. While both energy and capacity risks remain important considerations for system security, high hydro storage conditions tend to reduce energy-related security of supply risks, placing greater emphasis on the system's ability to meet peak demand. This provides an opportunity to examine how peak demand has been supplied in recent years.

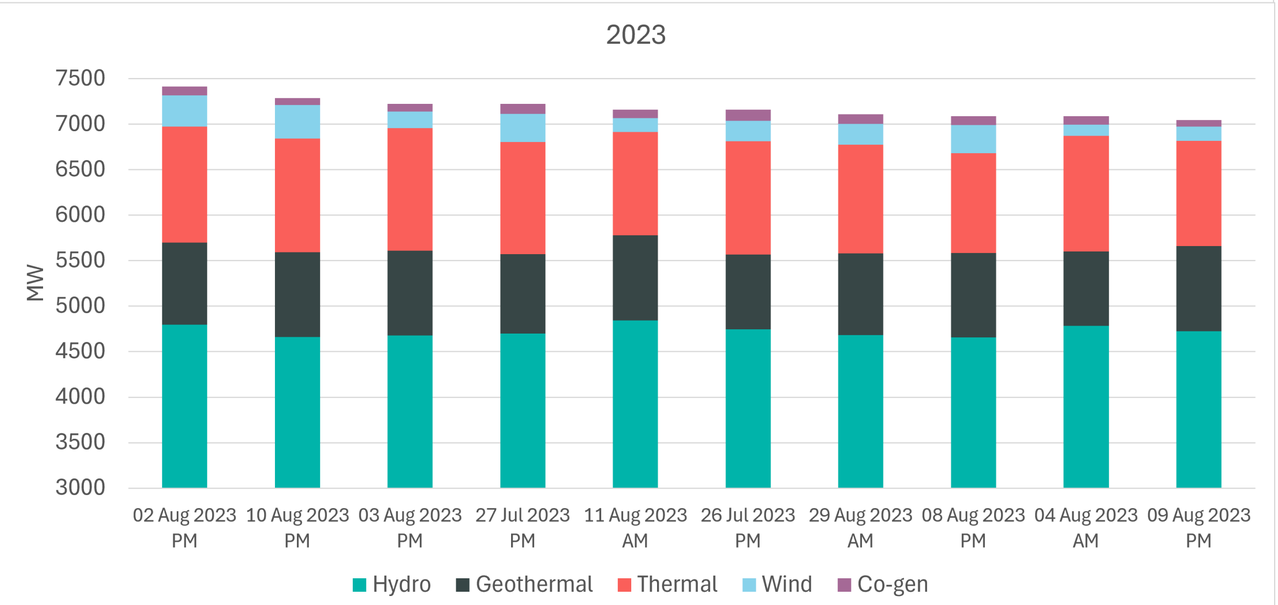
Figure 1 shows the generation mix during the ten highest demand trading periods in each of 2023, 2024, 2025, and 2026 year-to-date. The results show a notable shift in the mix of generation sources supplying peak demand.

Figure 1: Generation mix during top 10 demand trading periods 2023 - 2026 to date









Note: the y-axis has been truncated and starts at 3,000 MW to improve visibility of differences in the generation mix. As a result, the hydro component below 3,000 MW is not fully visible in the columns.

Table 1: Average generation share during top 10 demand trading periods 2023 - 2026 to date

	Battery	Co-gen	Geothermal	Hydro	Solar	Thermal	Wind
2023	0.00%	1.32%	12.50%	65.84%	0.00%	17.00%	3.34%
2024	0.04%	1.92%	15.67%	56.69%	0.02%	19.26%	6.42%
2025	0.13%	1.18%	15.77%	63.83%	0.16%	14.99%	3.94%
2026	0.92%	1.14%	18.17%	66.75%	0.15%	7.11%	5.77%

As shown in Table 1, hydro's share of generation during the highest demand periods increased from 57% in 2024 to almost 67% in 2026, while geothermal contribution rose from 13% in 2023 to more than 18% this year. The increase in geothermal generation reflects the addition of new capacity, including Tauhara, Te Huka 3, TOPP2, and the Ngā Tamariki upgrade, which have added to baseload renewable generation during demand peaks. Meanwhile, thermal generation's share has more than halved since 2024. However, it is worth noting the highest demand peaks in recent years have typically occurred in late July and August, while the 2026 analysis only includes data up to mid-July. Batteries remain a relatively small contributor but are now visible during peak demand periods, reflecting the growing role of storage and flexibility resources within the system.

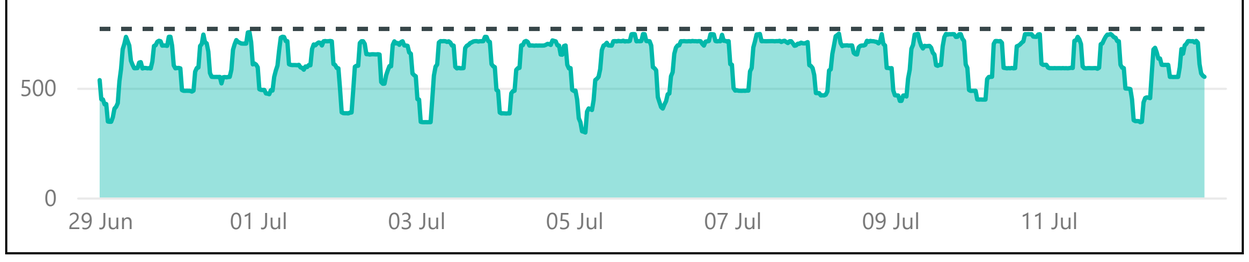
The variation in hydro and thermal contribution across the years is closely linked to hydro storage and inflow conditions. The lower hydro share observed in 2024 coincided with tighter storage conditions, which increased reliance on thermal generation. Stronger storage conditions this year have made hydro generation more economic to dispatch, enabling it to play a larger role in meeting demand during system peaks so far. periods of peak demand still require sufficient firm and flexible generation to be available, particularly when intermittent generation conditions are unfavourable or unplanned outages occur.

Increased geothermal and wind capacity, alongside the introduction of battery storage, are helping diversify the supply mix and support system reliability during periods of high demand. Solar generation is also contributing to the system, although its role remains relatively modest given many demand peaks occur outside daylight hours. As these resources have become more prominent, the role of thermal generation during peak demand periods has declined, although thermal generation continues to play an important role during extended dry periods. Together, these developments highlight the increasingly diverse mix of resources available to meet Aotearoa's electricity needs while maintaining system reliability.

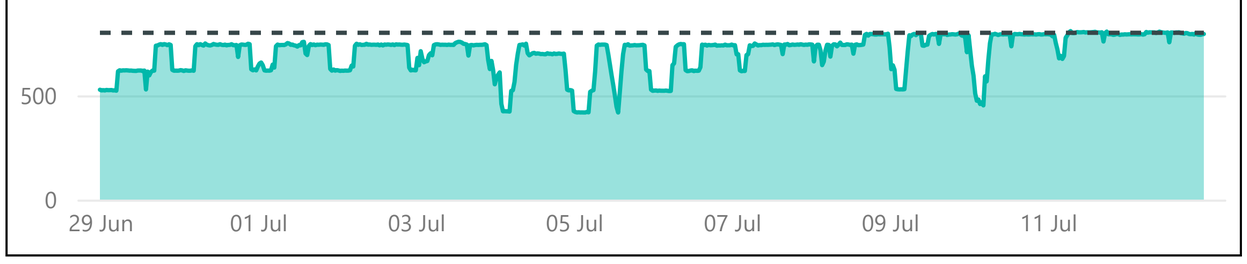
Generation Breakdown - Last Two Weeks

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

Clutha



Manapōuri



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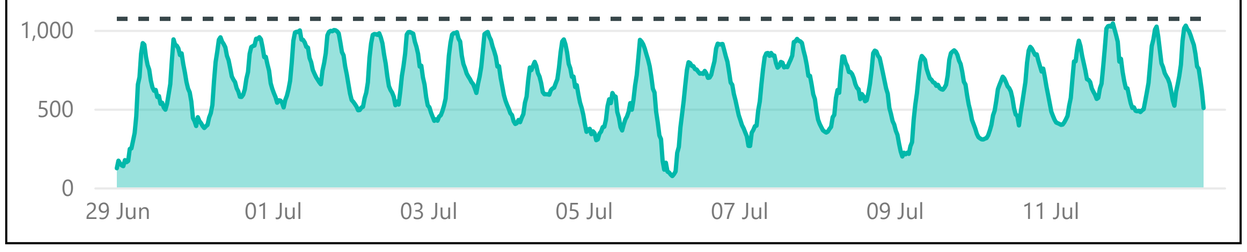
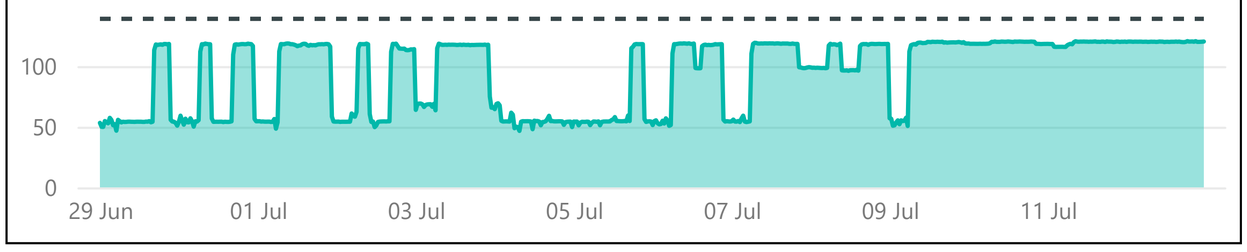
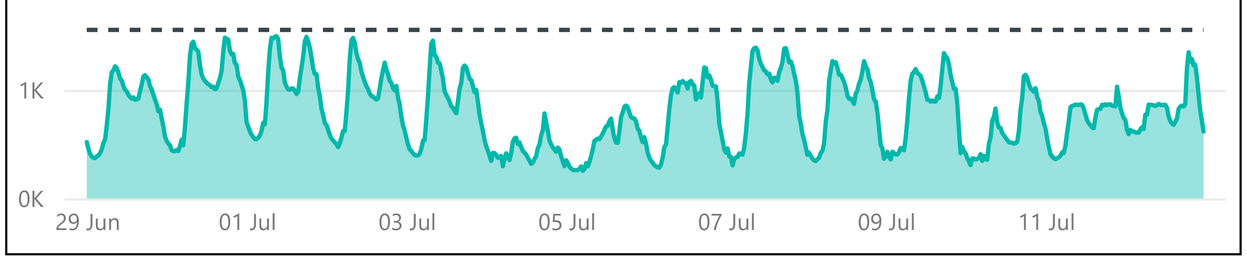


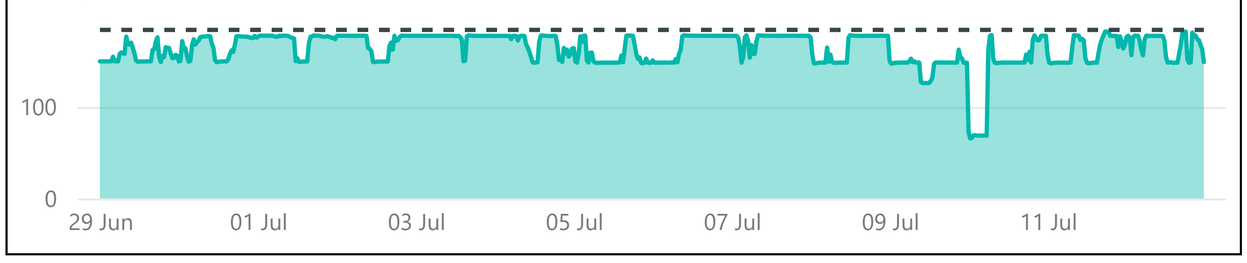
Waikaremoana



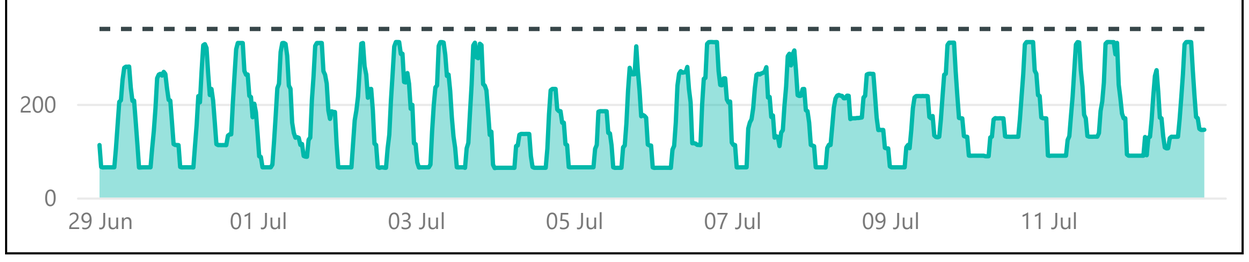
Waitaki



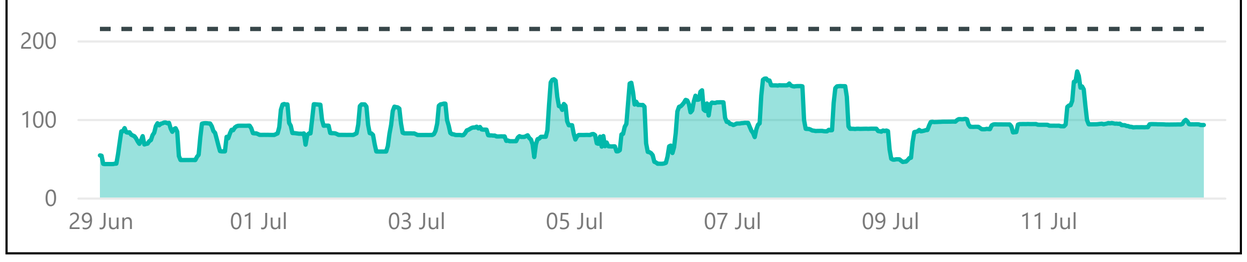
Tekapo



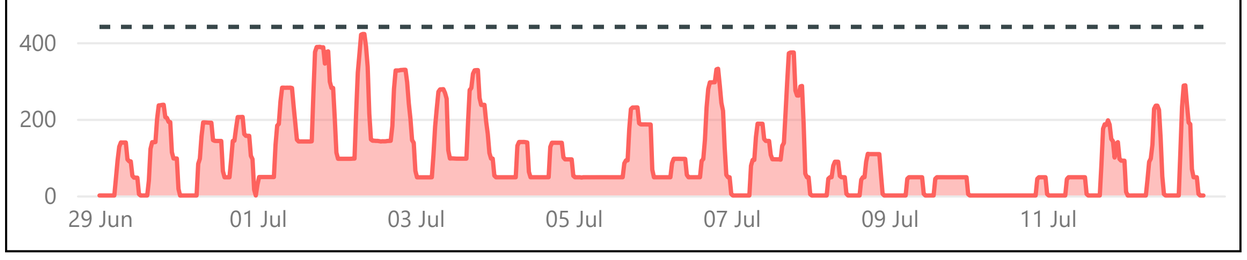
Tongariro



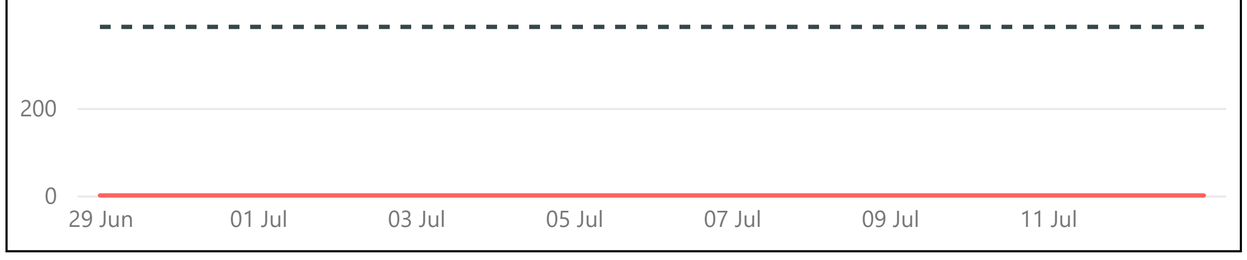
Other SI Hydro



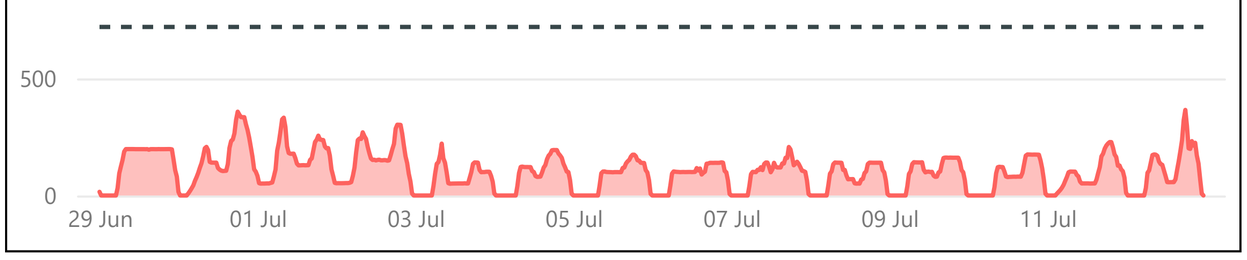
Thermal Peaking Plant



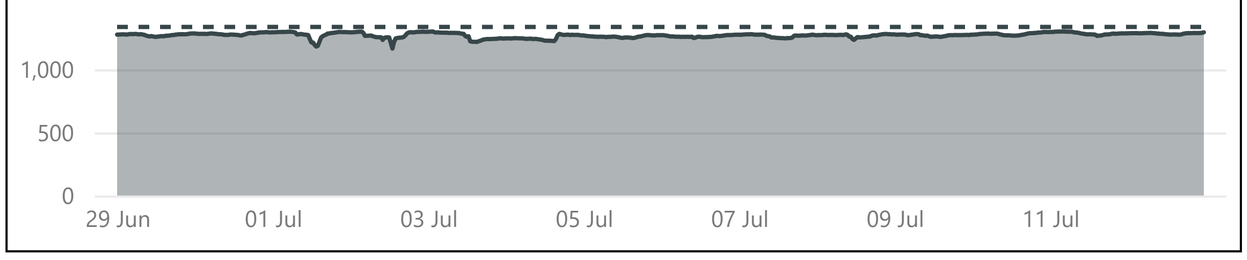
Huntly U5



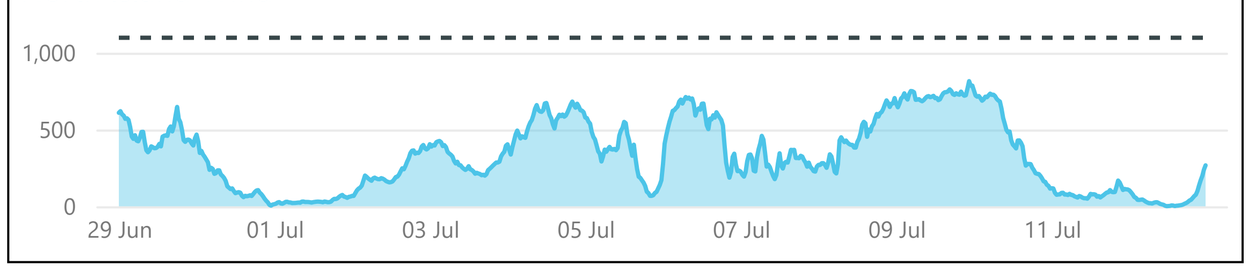
Huntly Rankines



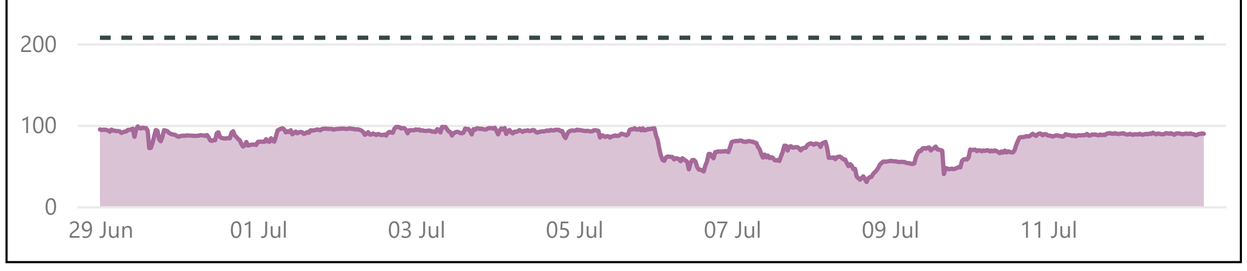
Geothermal



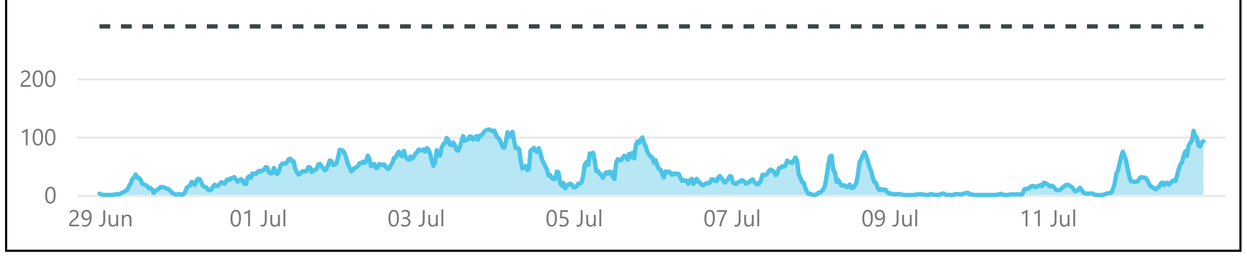
North Island Wind



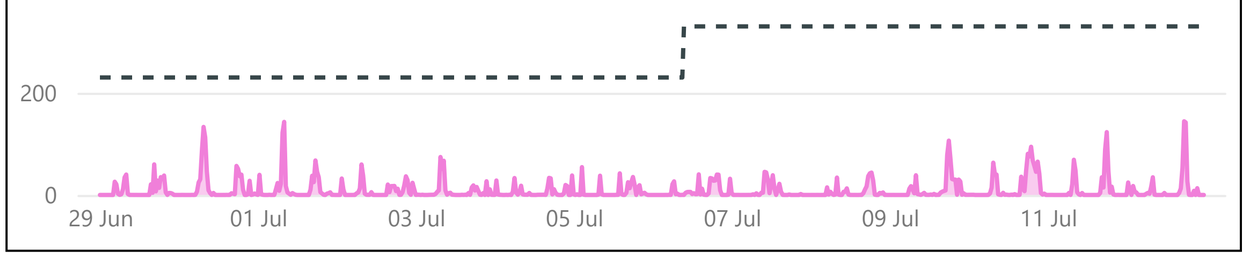
Co-Generation



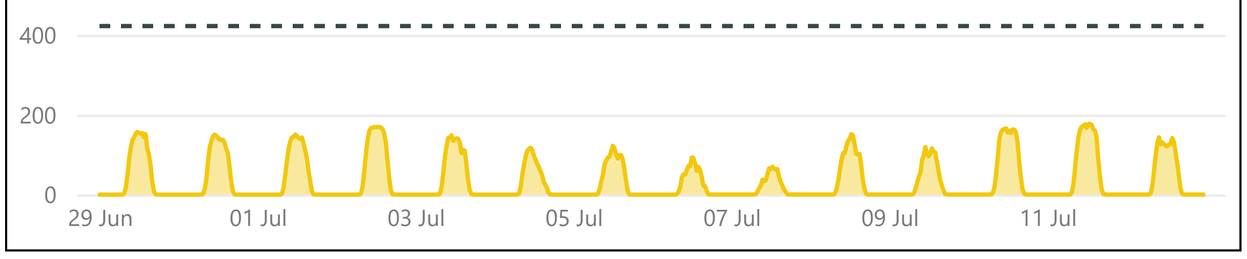
South Island Wind



BESS

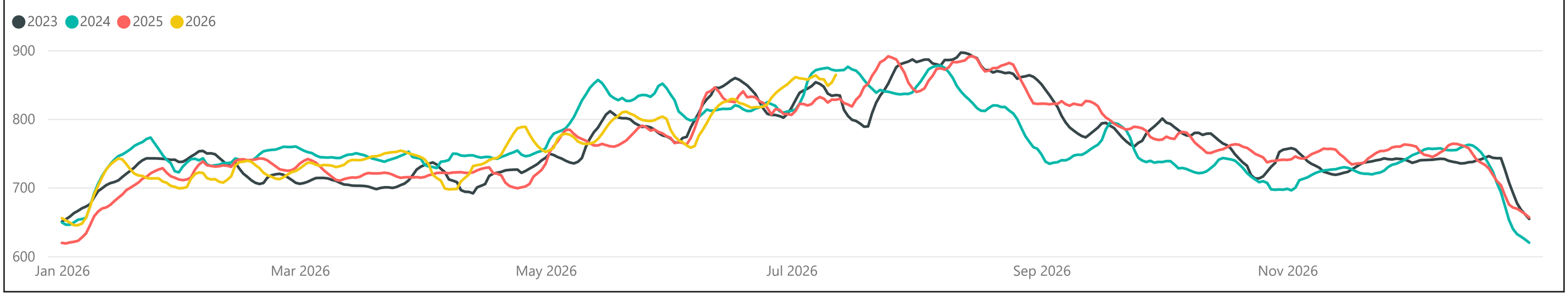


Solar

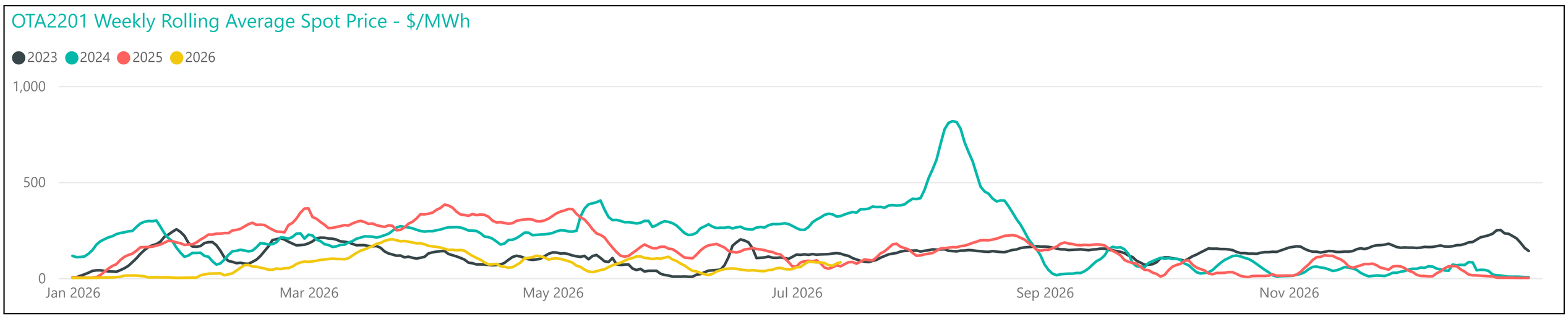


Weekly Profiles

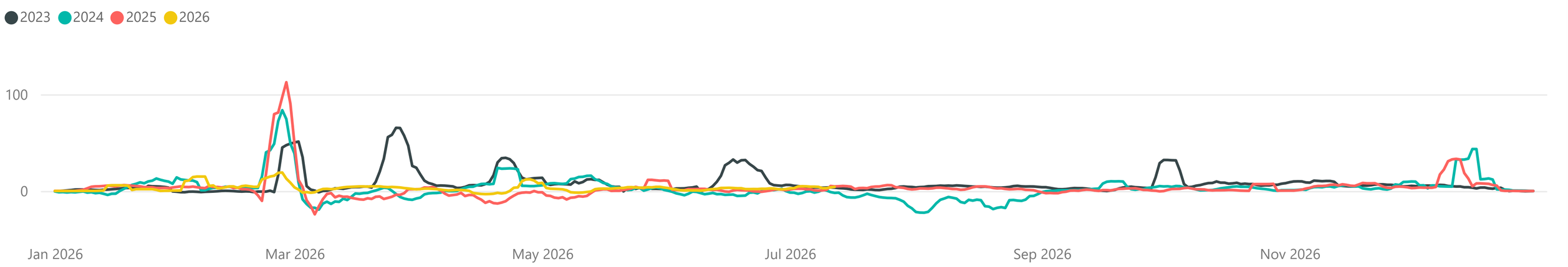
National Weekly Demand - GWh - 7 Day Rolling



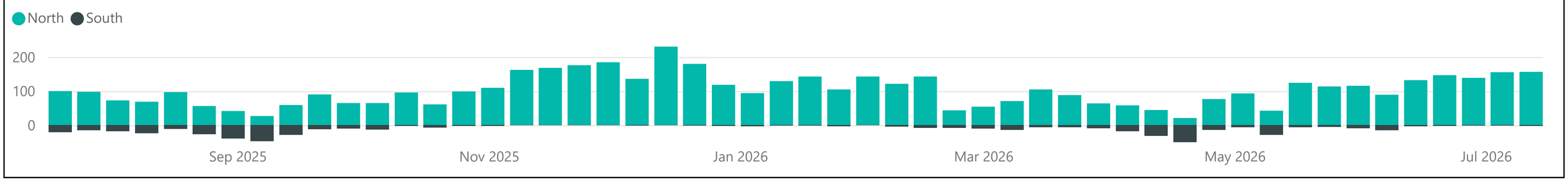
OTA2201 Weekly Rolling Average Spot Price - $/MWh



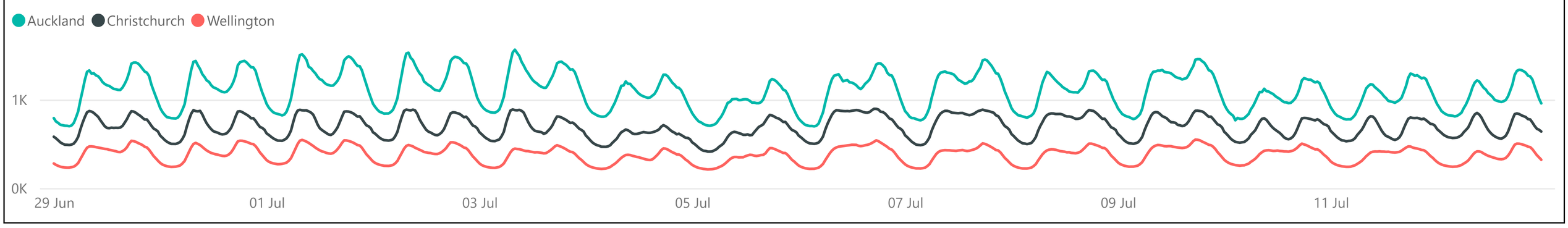
Weekly Rolling Price Separation (HAY2201 - BEN2201) - $/MWh



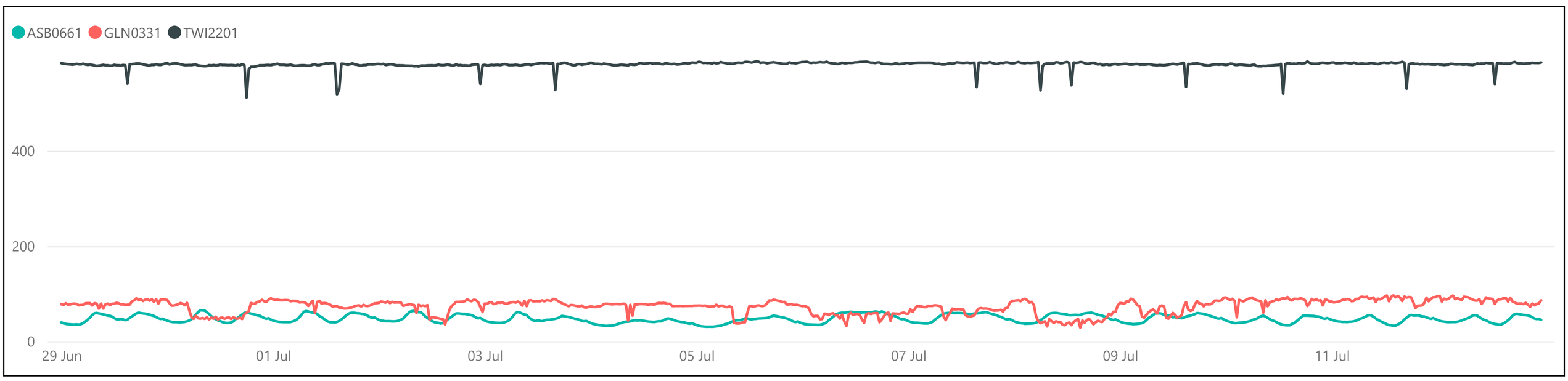
HVDC Transfer - Weekly GWh



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



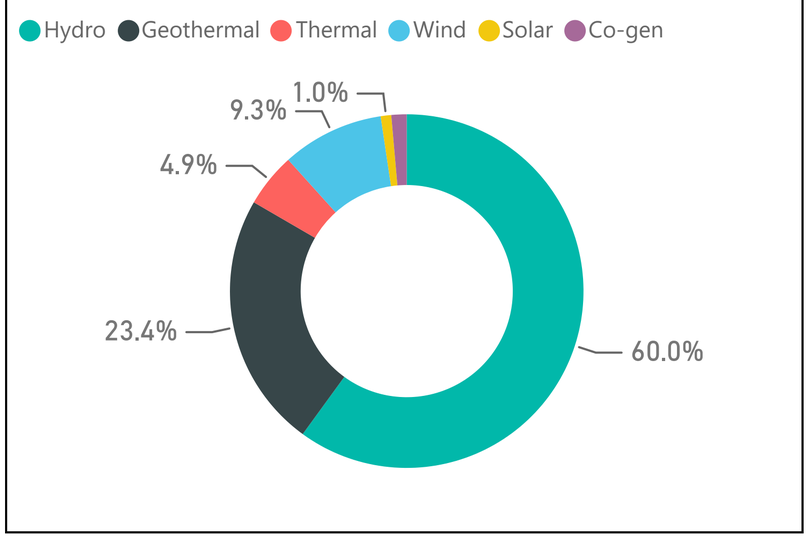
Non-Conforming Load Profiles - Last Two Weeks *Measured in MW shown by GXP*



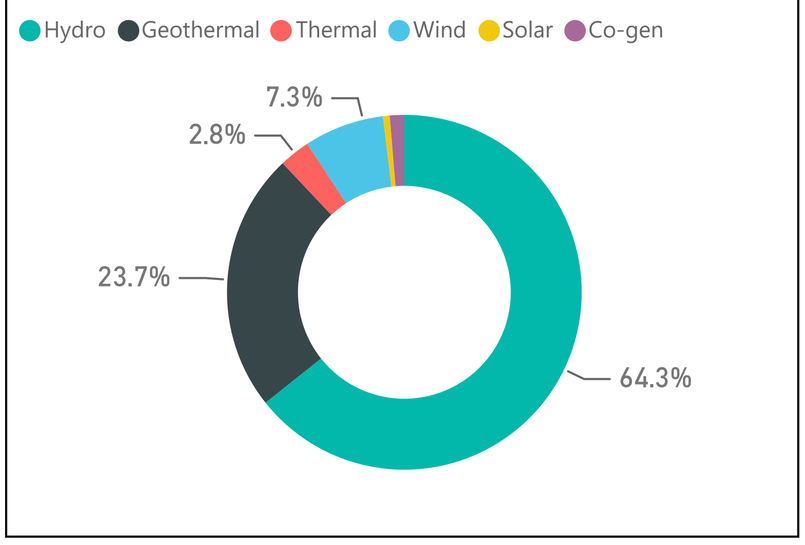
TRANSPOWER

Generation Mix

Last 52 Weeks Generation Mix - Weekly GWh



Last 7 Days Generation Mix - Weekly GWh



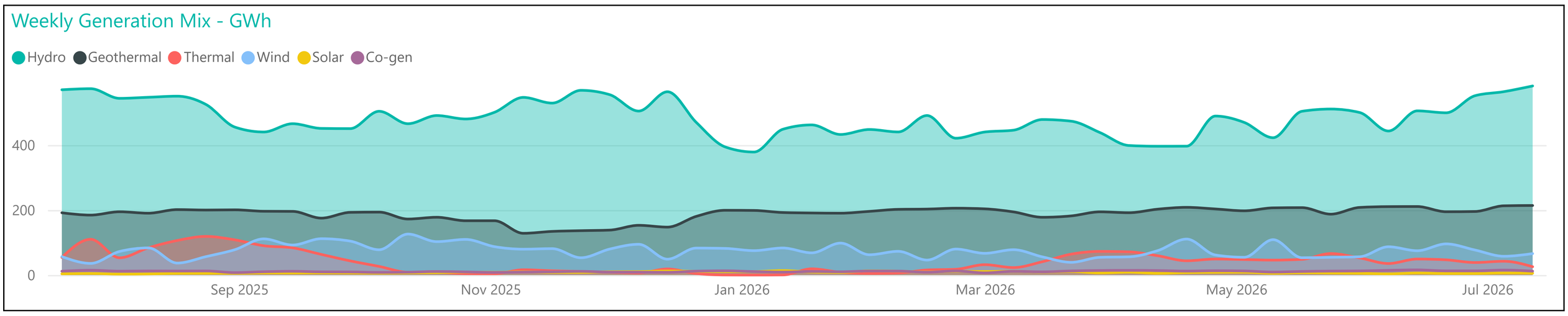
Average Metrics Last 7 Days

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
96%	38,898	42.0

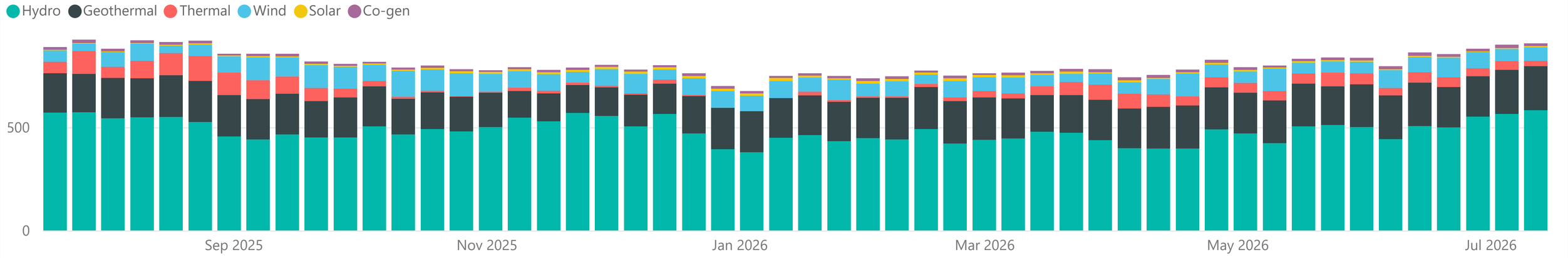
Average Metrics Last 52 Weeks

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
94%	40,106	48.6

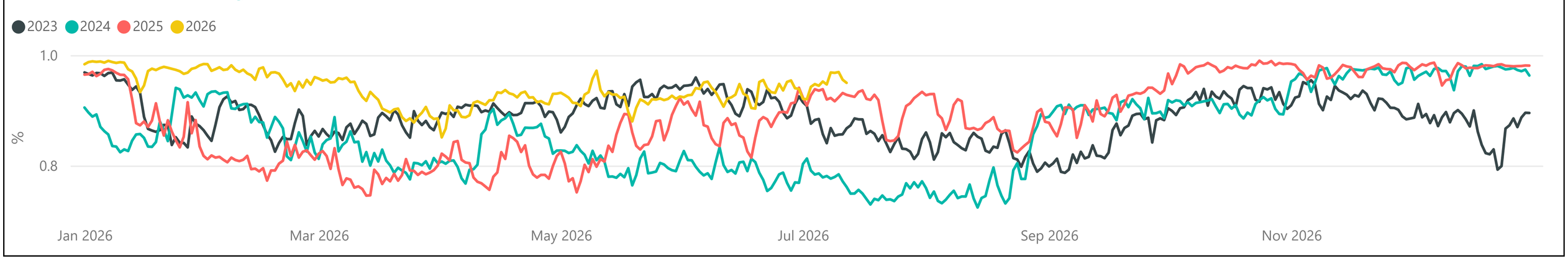
Weekly Generation Mix - GWh



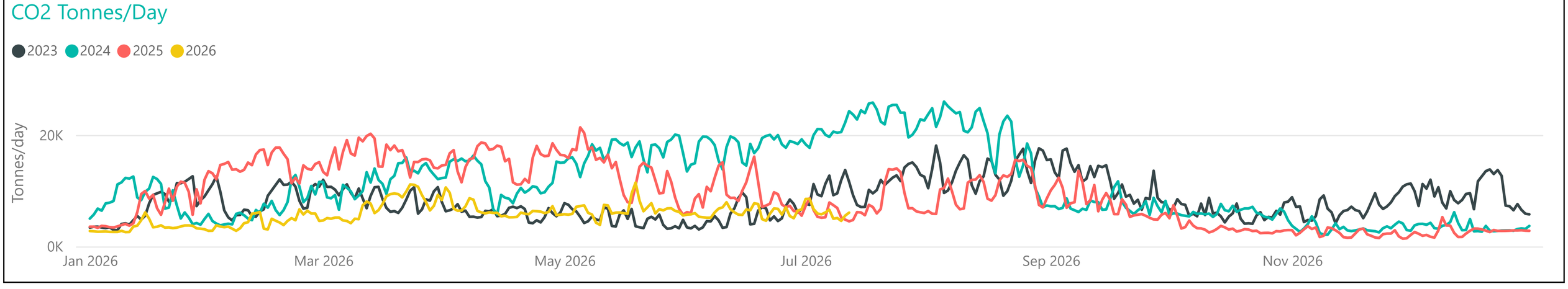
Weekly Generation Mix - GWh



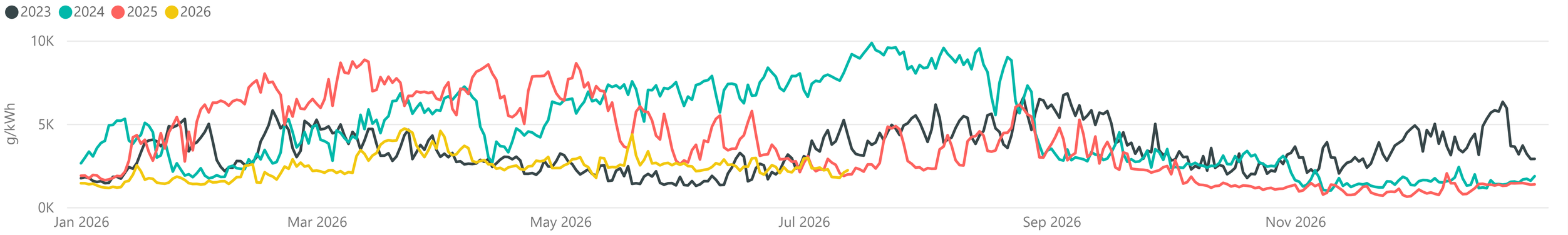
NZ Renewable Percentage



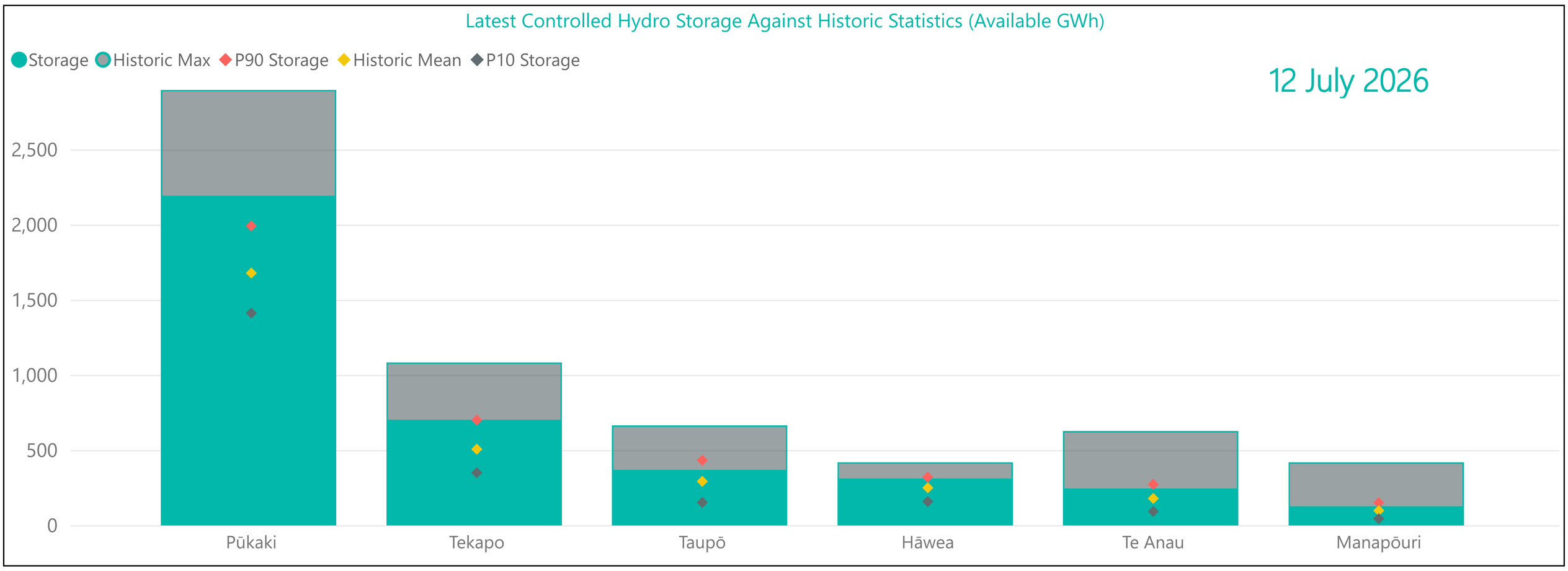
CO2 Tonnes/Day

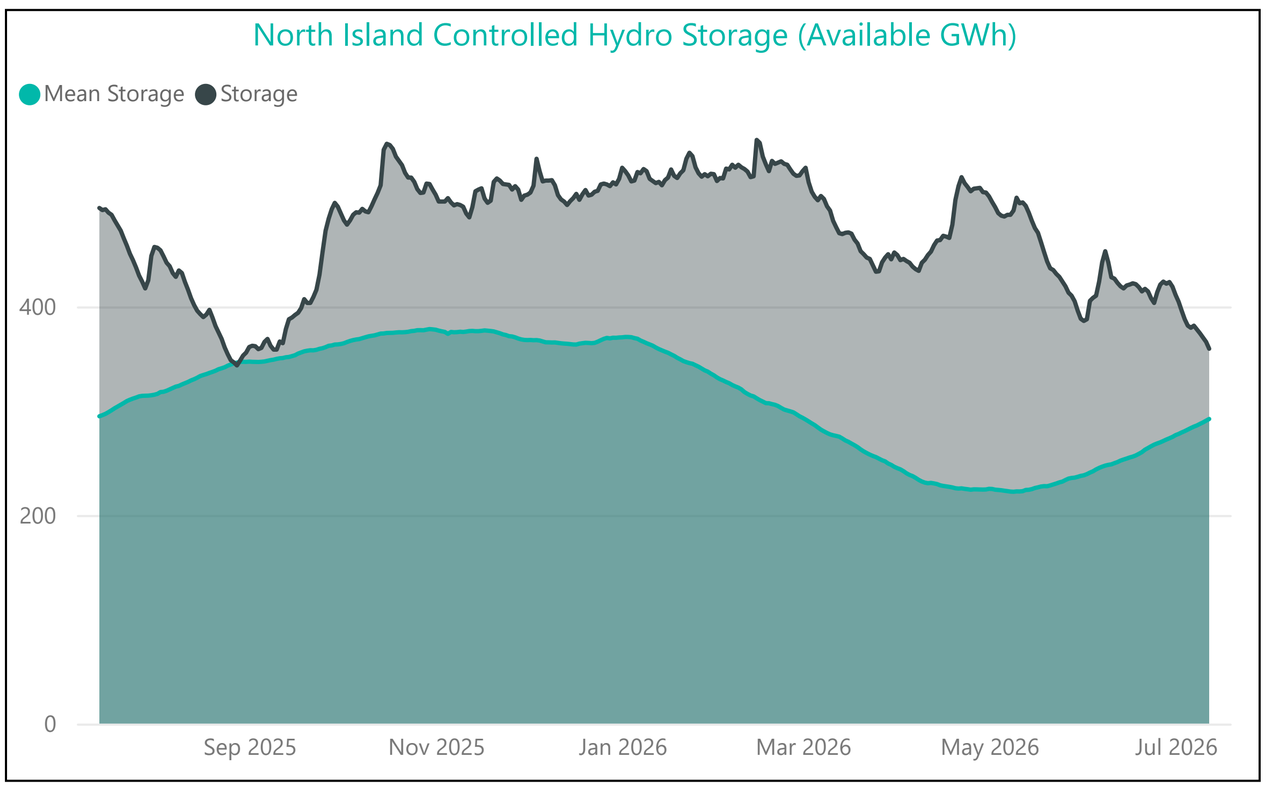


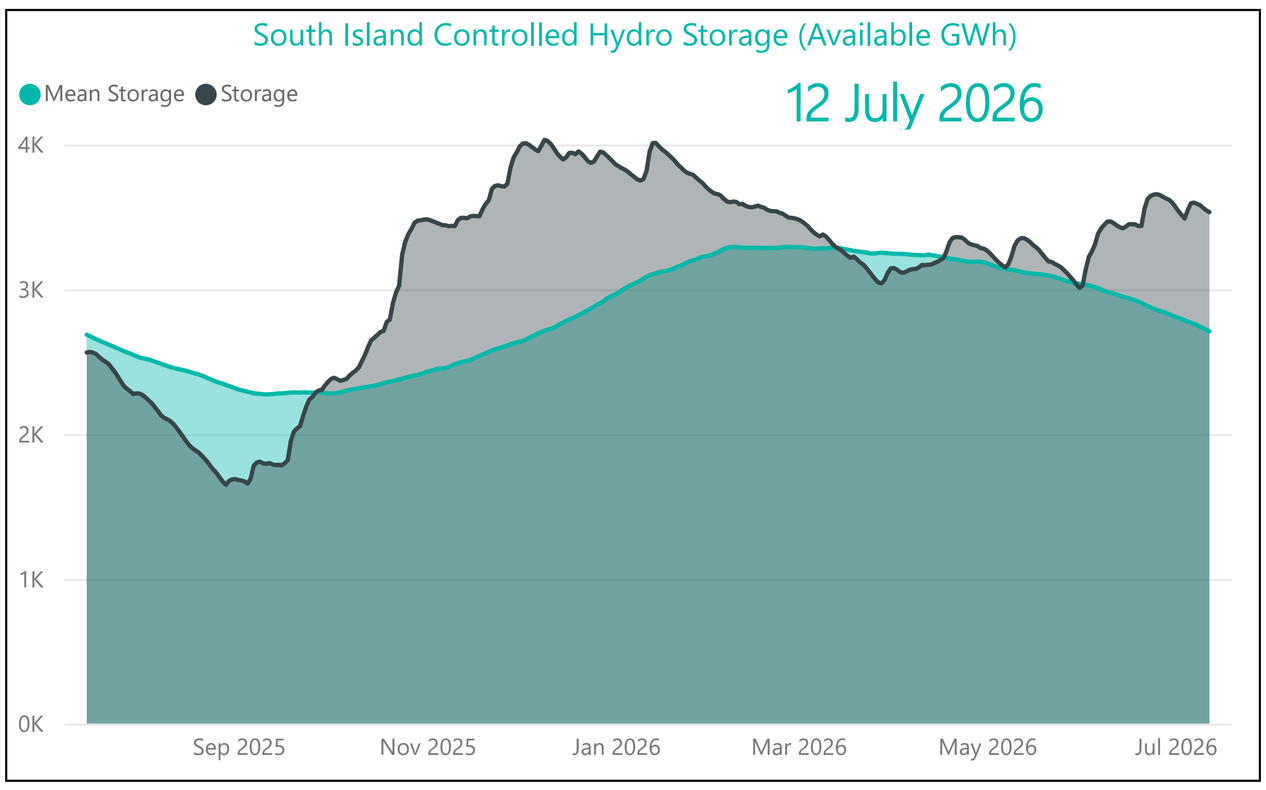
CO2 g/kWh

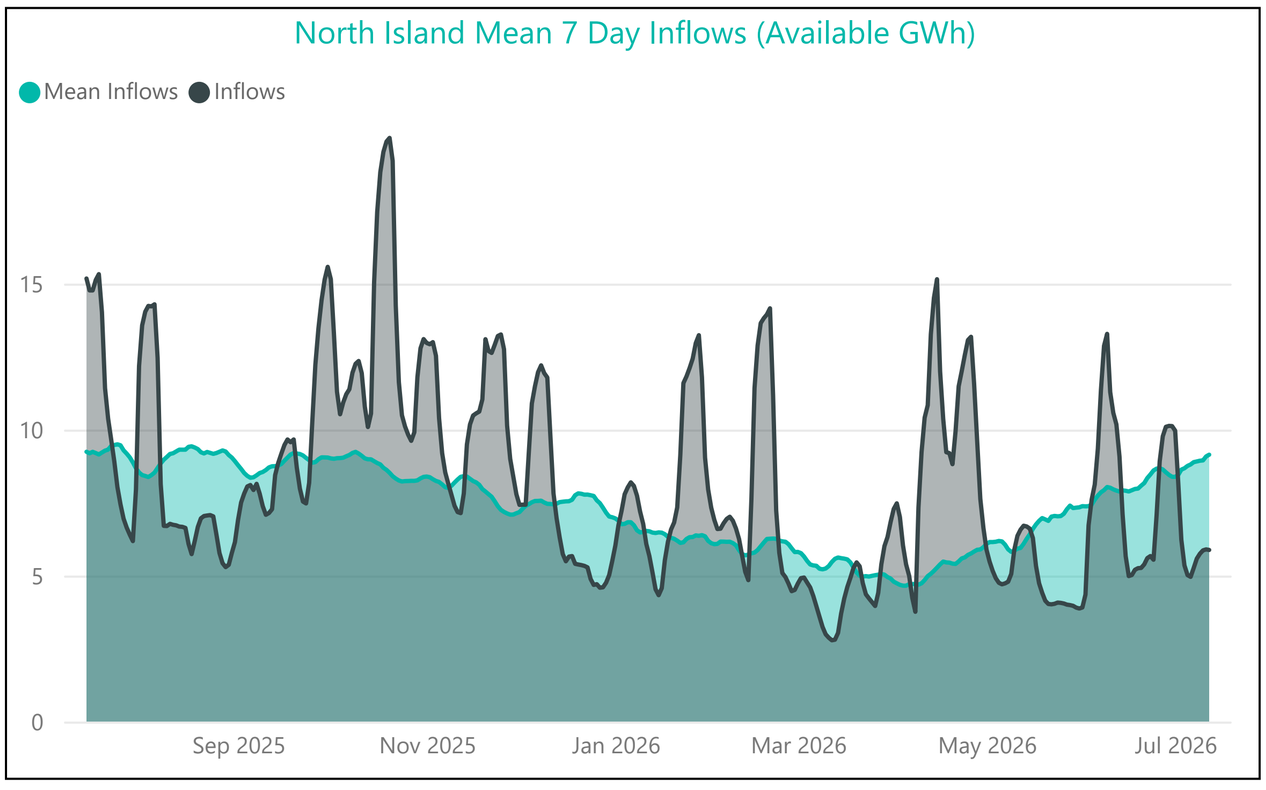


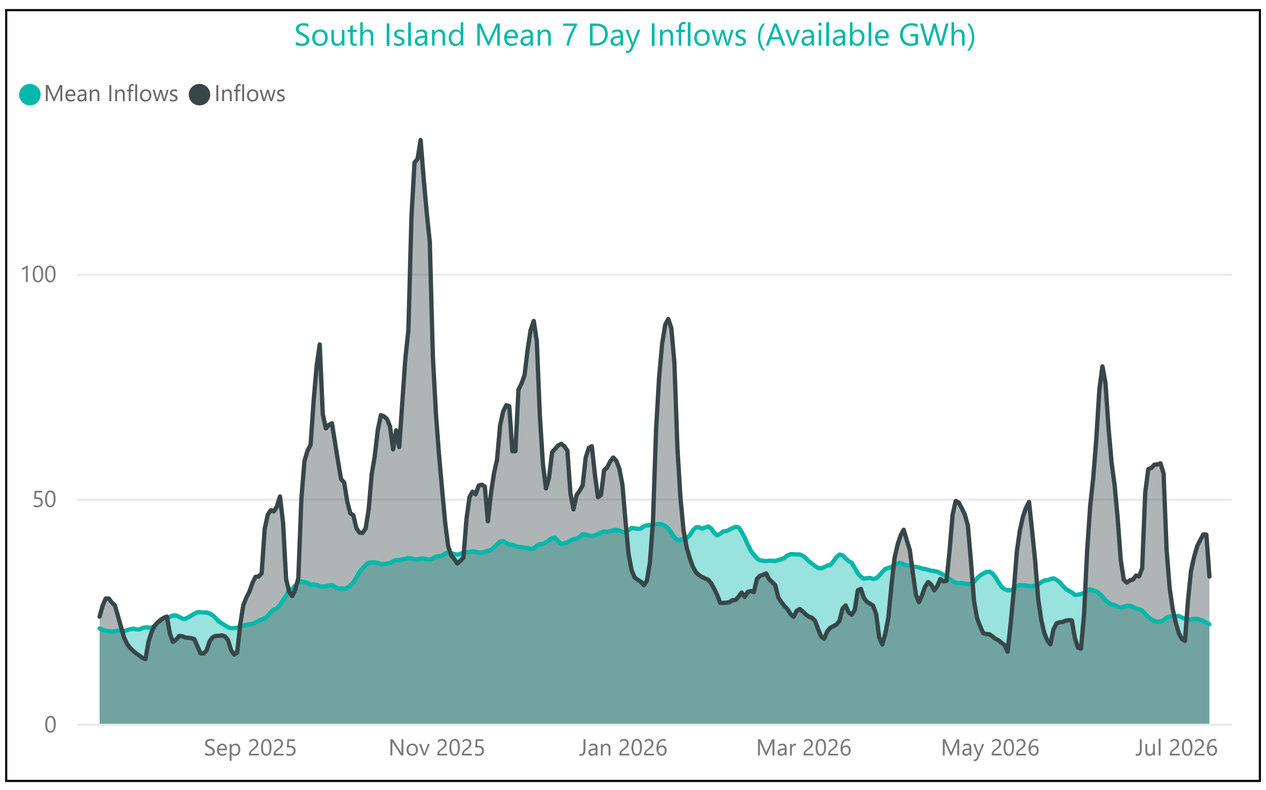
Hydro Storage











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

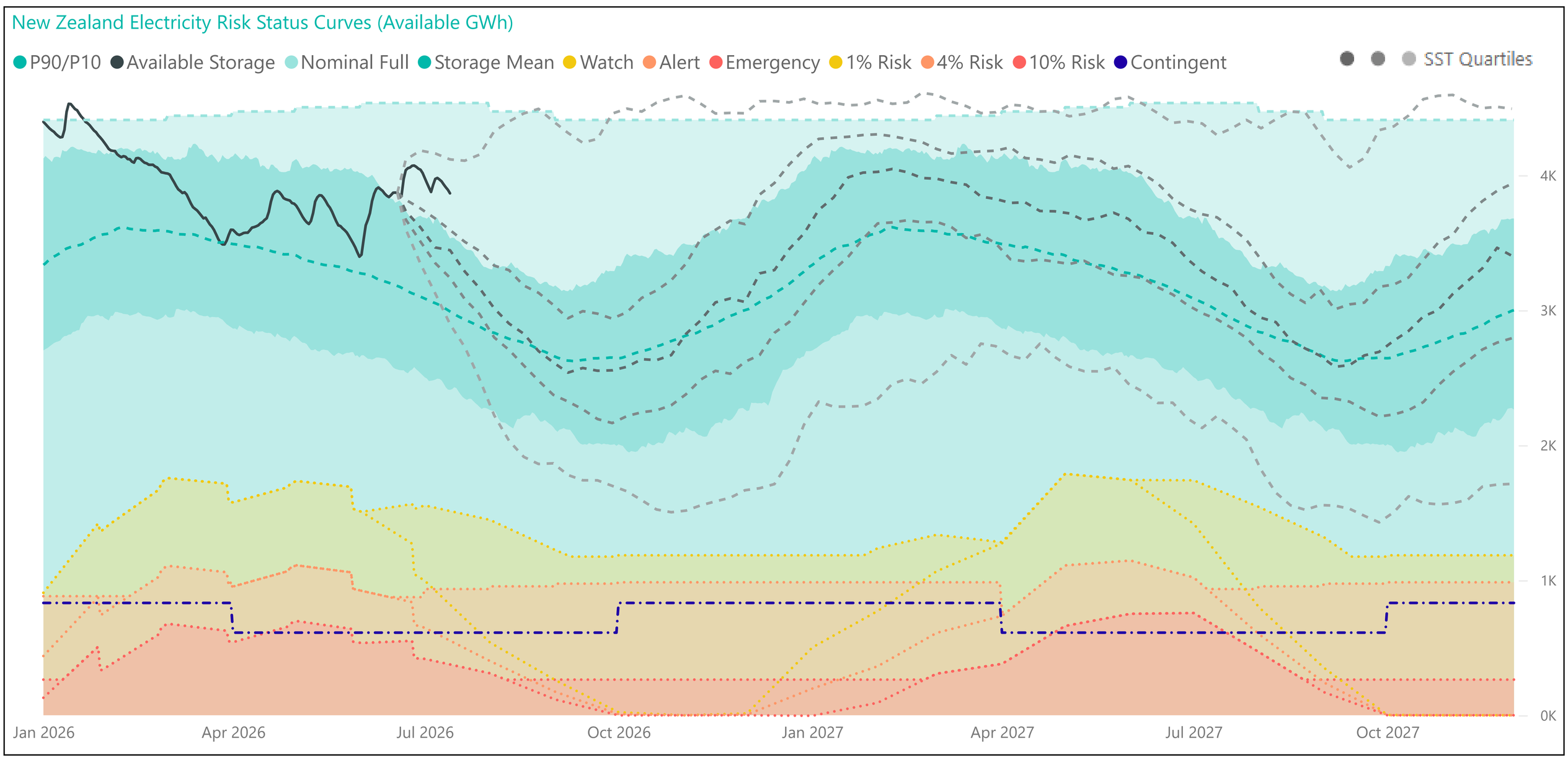
For any inquiries related to security of supply contact market.operations@transpower.co.nz

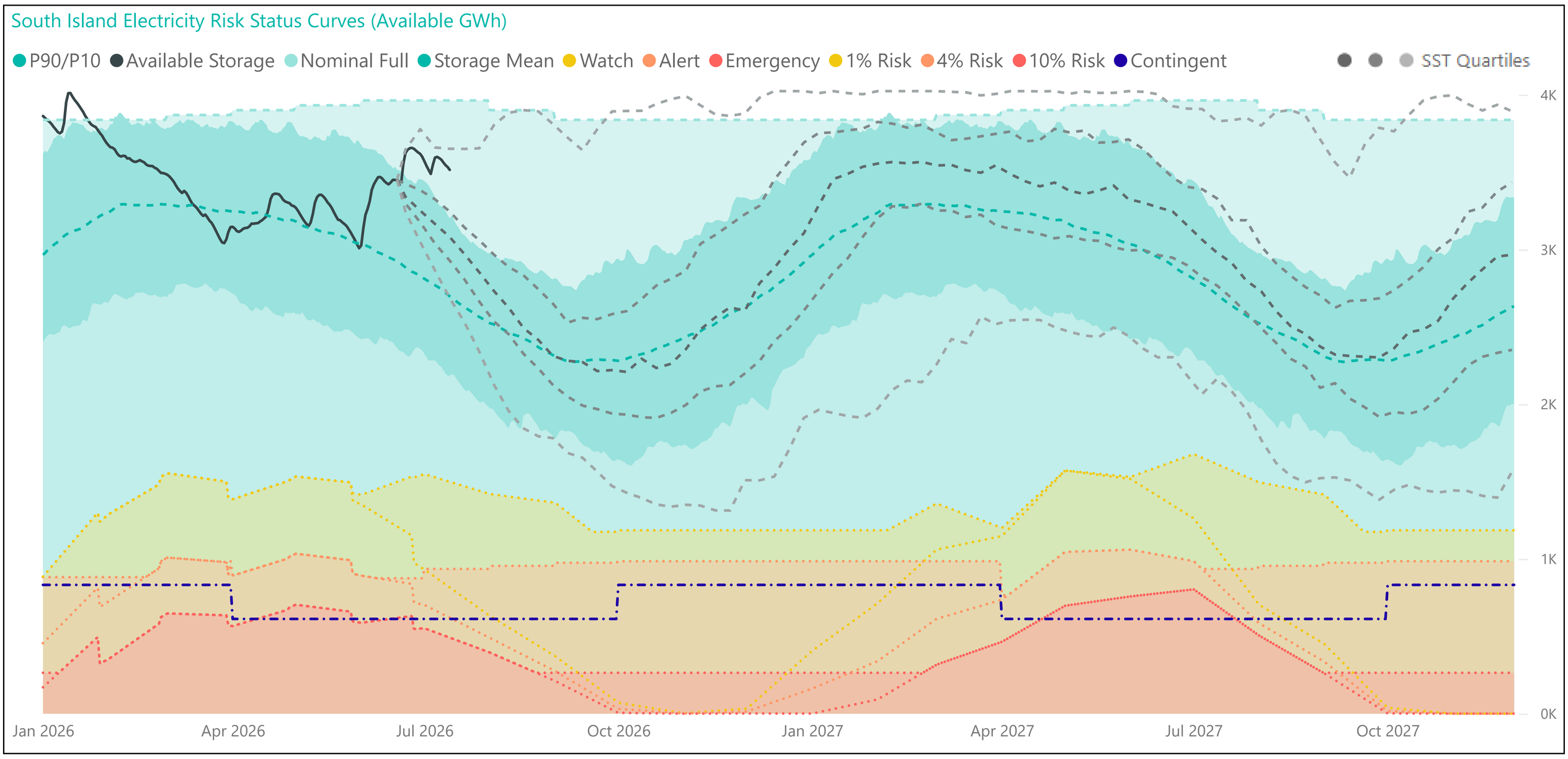
Hydro data used in this report is sourced from *NZX Hydro*.

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





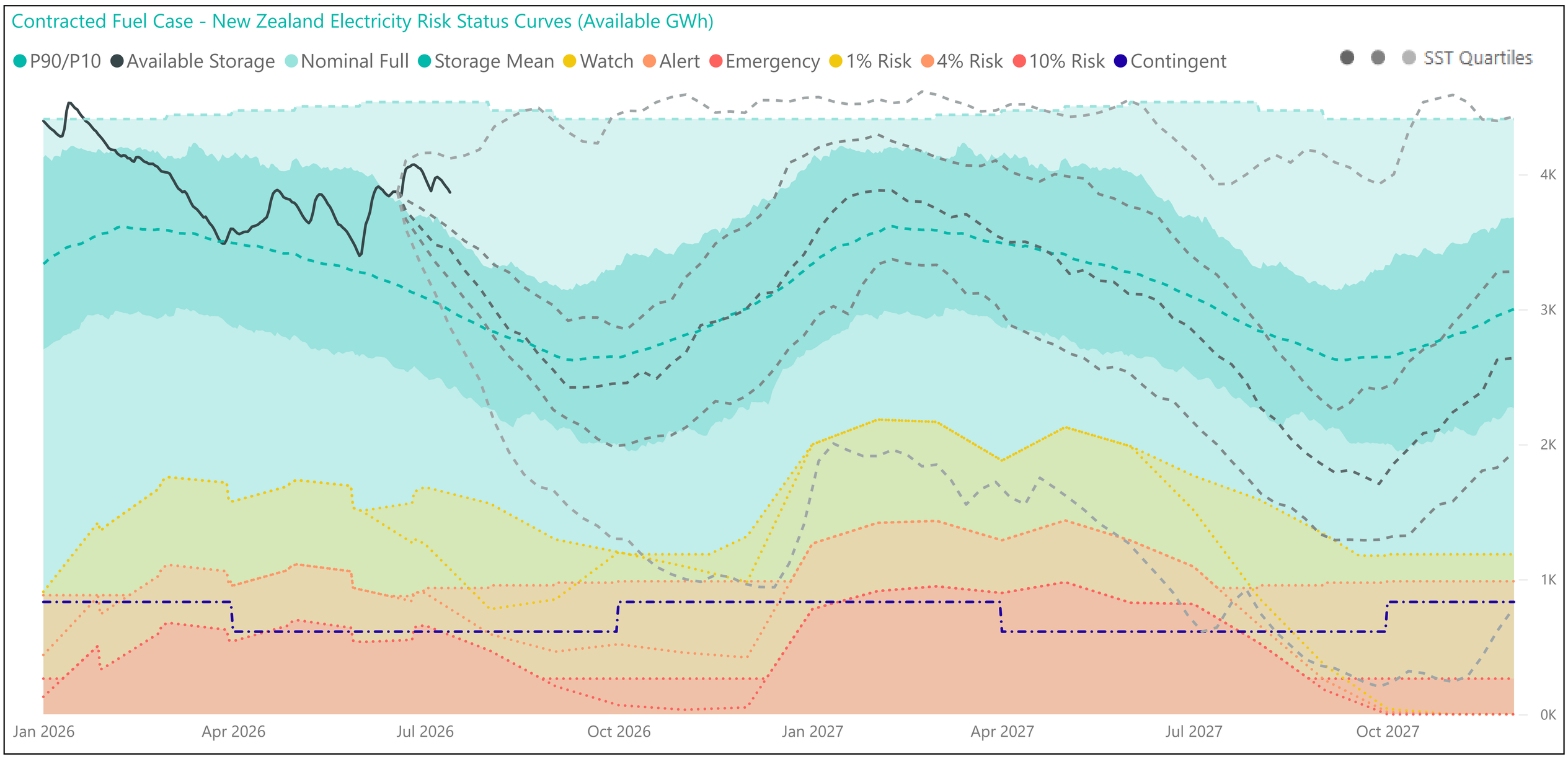
Electricity Risk Curve Explanation:

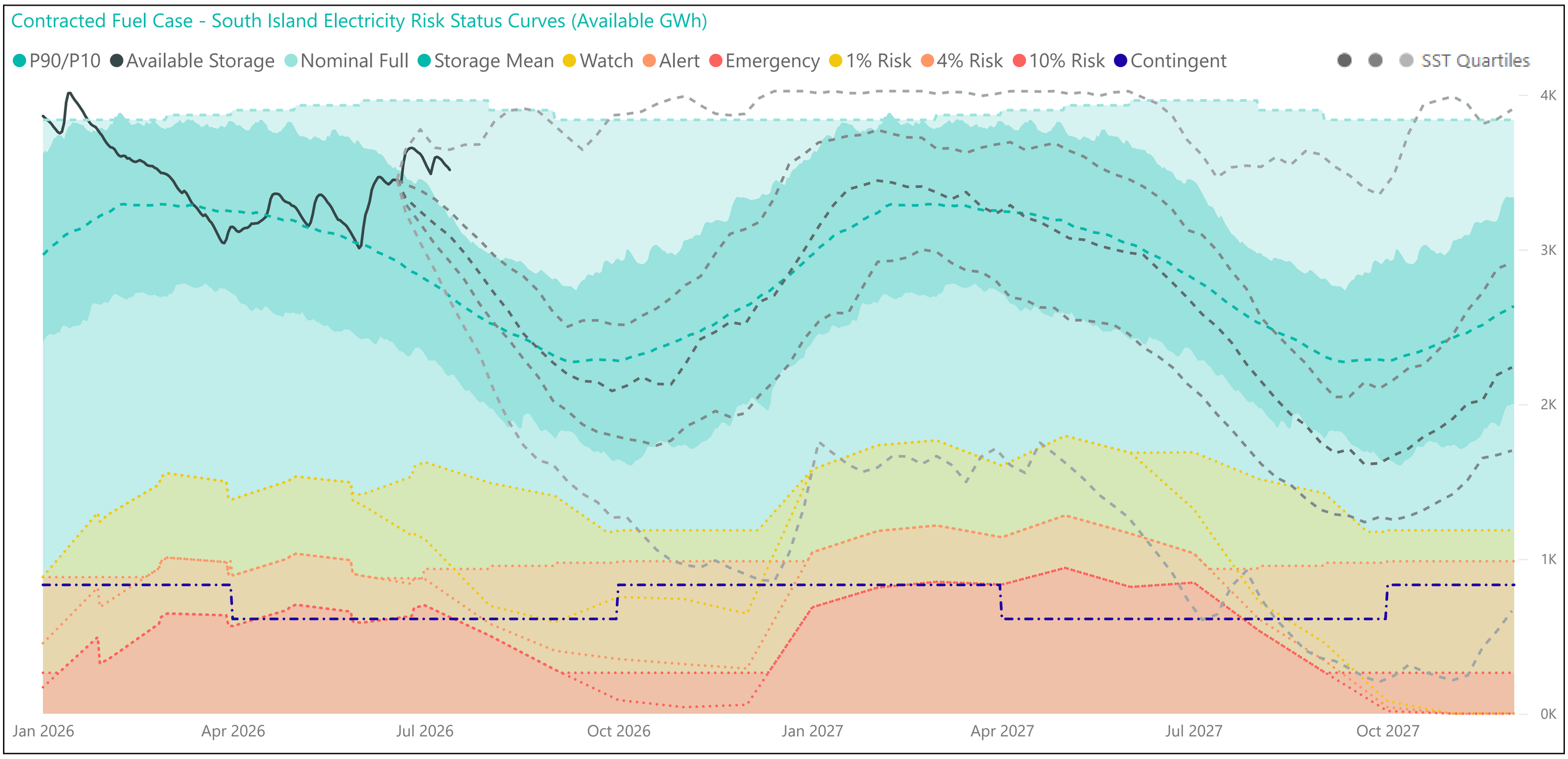
Watch Curve - The maximum of the one percent risk curve or the Alert curve plus the greater of the Watch adder or the worst-case simulated storage drop
Alert Curve - The maximum of the four percent risk curve and the floor and buffer
Emergency Curve - The maximum of the 10 percent risk curve and the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