Market Operations Weekly Report - Week Ended 7 December 2025

Overview

New Zealand hydro storage decreased to 146% of the historic mean last week, but remains at nominal maximum capacity.

This week's insight looks at the year to date; the highs and lows of peak demand, prices, and generation contributions by fuel type.

Security of Supply

Energy

National hydro storage decreased from a historic high for this time of year at 149% to now sitting at 146% of the historic mean. South Island hydro storage decreased from 150% to 147% of the historic mean, while North Island storage increased from 137% to 141%.

Capacity

Residuals were mostly healthy with at least 800 MW of residual across all peaks last week. The lowest residual period for the week was the Thursday morning peak at 869 MW.

The N-1-G margins in the NZGB forecast are healthy through to early February. 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 last week decreased to 742 GWh from 762 GWh the week before, and was in line with previous demand levels of the past few years. The highest demand peak of 5,214 MW occurred at 8:00 am on Wednesday 3 December.

Weekly Prices

Average wholesale spot prices decreased last week in line with high hydro storage and inflows. The average wholesale electricity spot price at Ōtāhuhu last week was $8/MWh, down from $54/MWh the week prior. Wholesale prices peaked at $98/MWh at Ōtāhuhu at 4:00 pm on Wednesday 3 December. There were several occurrences of price separation throughout the week as HVDC northward flow was limited by binding constraints.

Generation Mix

Wind generation increased to 12% of the generation mix, above its average contribution of 9%. Hydro generation remained well above average at 65% of the mix. Thermal generation remained very low at just 0.8% of the mix, with co-generation also at 1.1% and solar generation exceeding both at 1.3%. The geothermal share increased to 20% of the mix but remains below its average contribution of 23% with multiple geothermal units on planned outage during the week. Total renewable contribution to the mix was 98%, the ninth consecutive week of at least 97% renewable generation.

HVDC

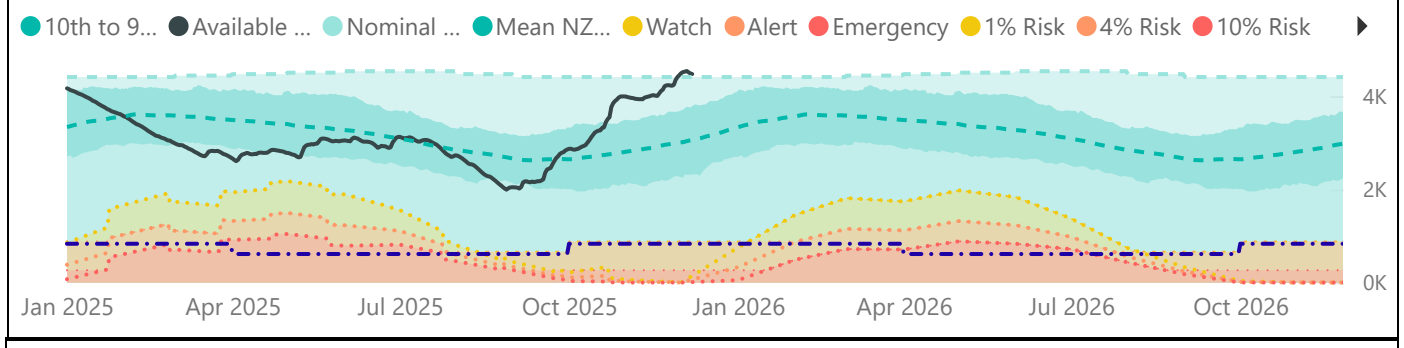
HVDC flow last week was entirely northward with high hydro generation, decreased geothermal generation, and higher demand in the North Island. In total, 66 GWh was transferred north. AC asset outages have reduced transmission capability, causing the northward limit to constrain flows at times.

New Zealand Energy Risk

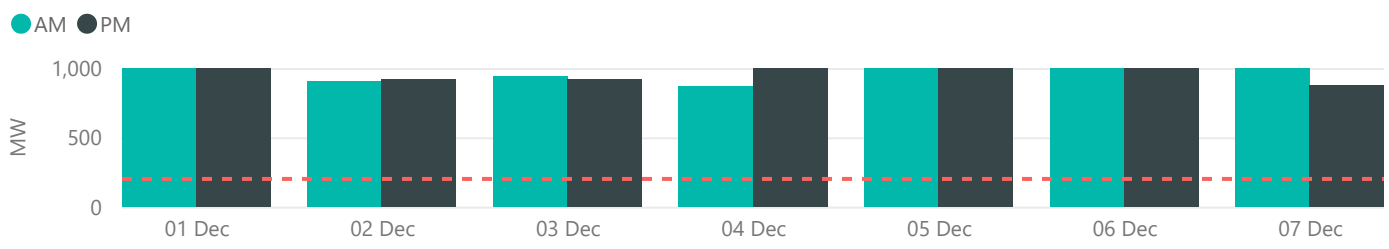
South Island Energy Risk

Normal Watch Alert Emergency

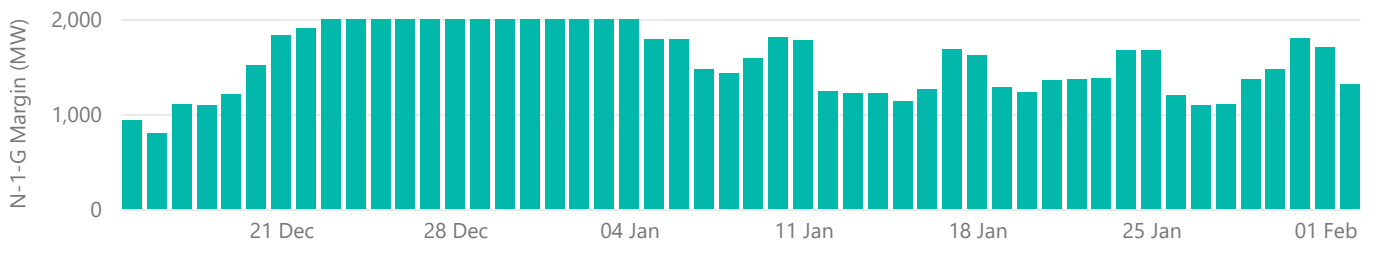
New Zealand Electricity Risk Status Curves (Available GWh)



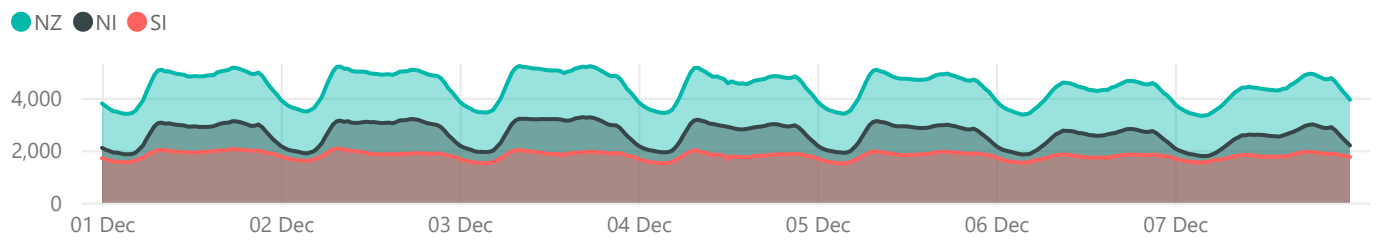
Lowest Residual Points - MW



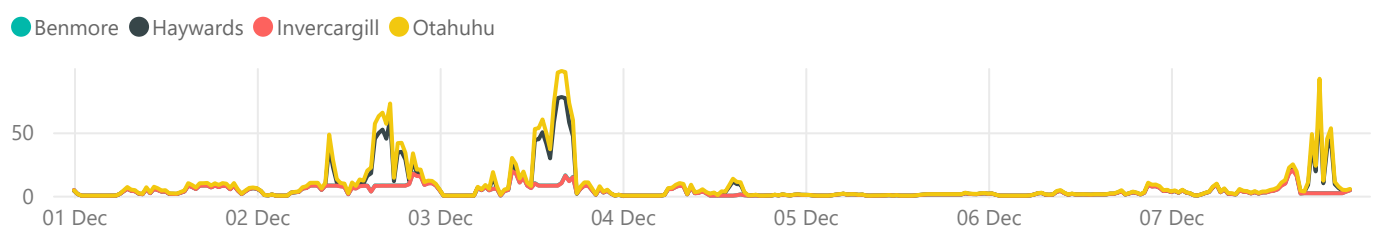
NZGB Look-Ahead (excluding next 7 days)



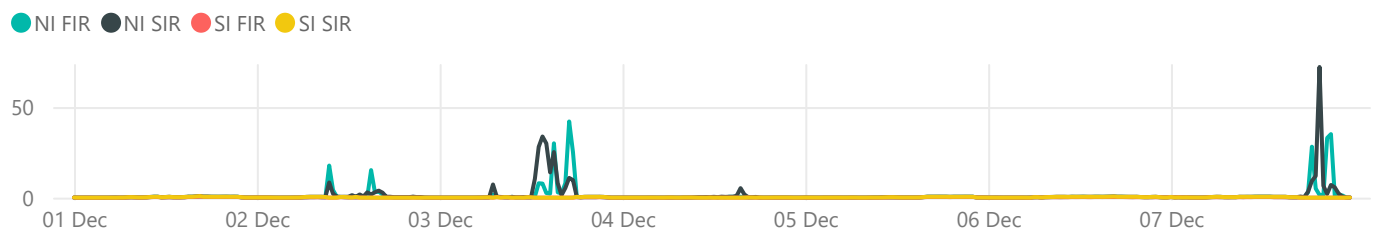
National Demand by Trading period - MW



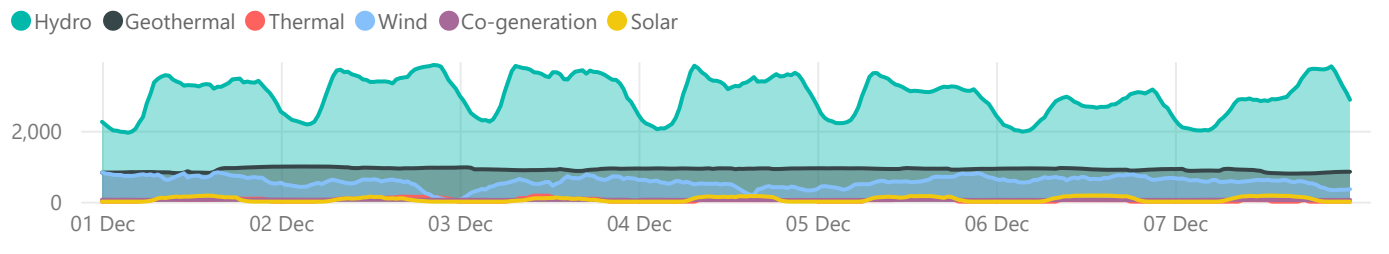
Energy Prices - $/MWh



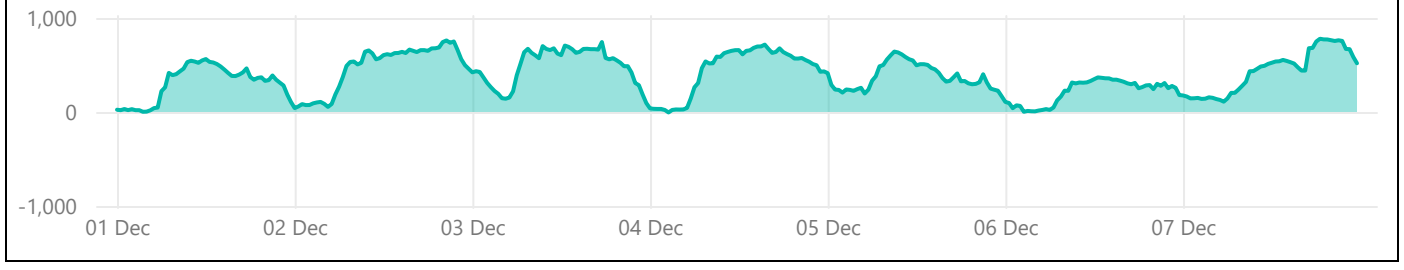
Reserve Prices - $/MW



Generation - MW



Net HVDC Transfer - MW (Northward positive)



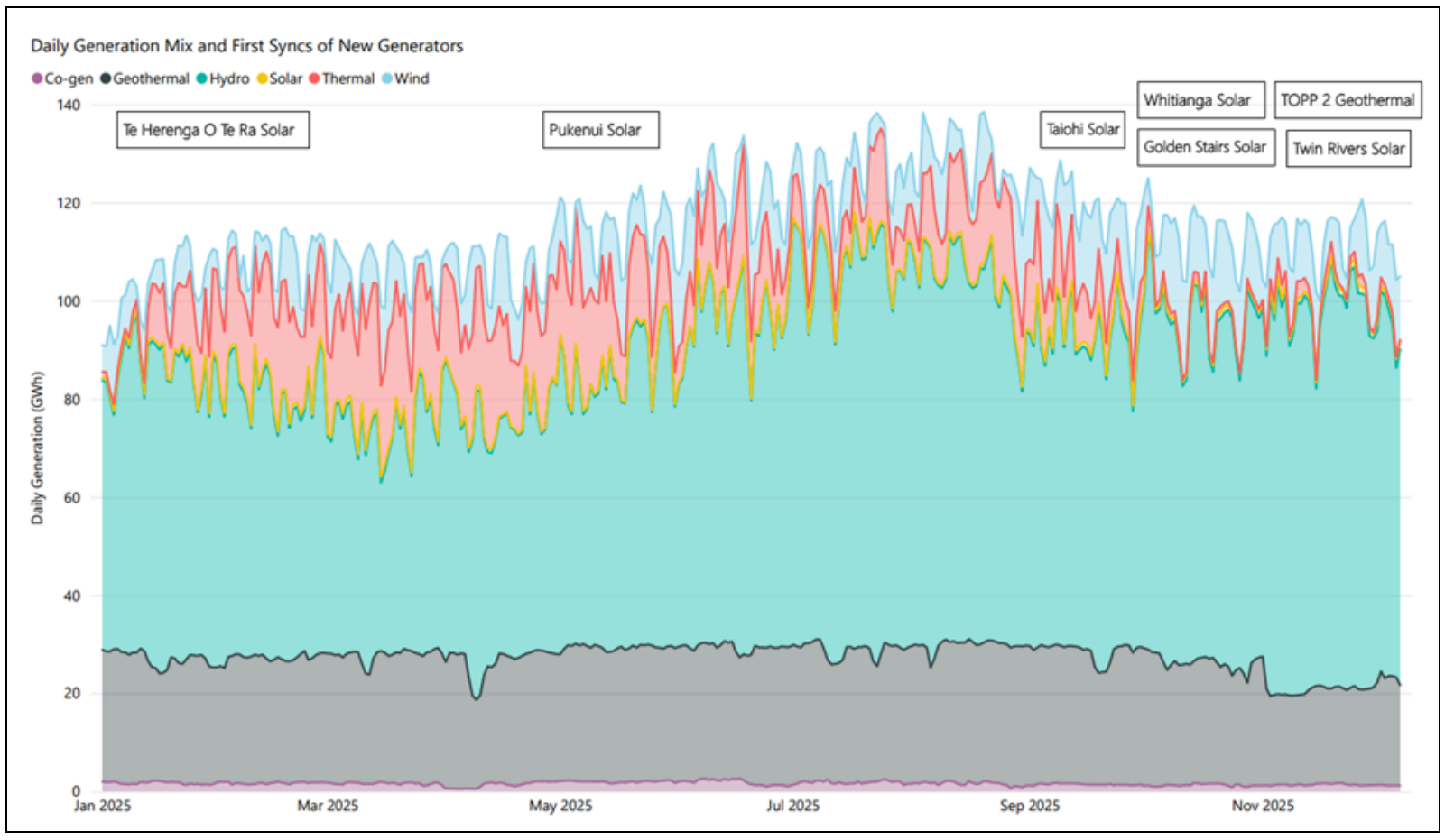
Weekly Insight - Year in Review 2025

This year has featured plenty of activity and change to keep us busy in our System Operator role, and this insight takes a high-level look at some of the key trends that have shaped the system through 2025.

The year began with a rapid decline in hydro storage due to a combination of record low inflows, thermal outages, reduced gas availability and low wind. Increased thermal generation and the Tiwai demand response was needed to arrest the decline in hydro storage. This early tightness in supply contributed to elevated prices from February to May, including a sharp spike on 24 February when a Customer Advice Notice (CAN) was issued for a low residual situation.

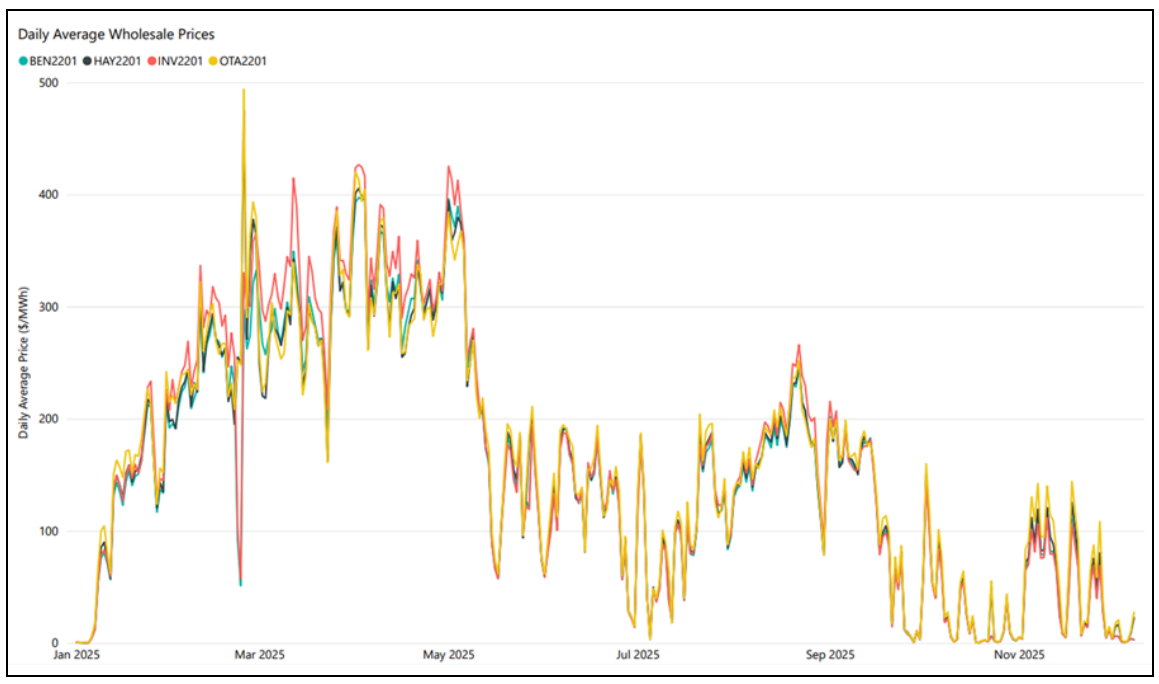
As the year progressed, hydro storage began to recover during winter and ended up contributing 55.7% of the year's average generation mix. Other renewables, such as geothermal, wind, and solar made up 22.6%, 9.1% and 0.7% respectively, while thermal generation came in at 10.4%.
We also saw the first injections of several renewable generation and storage assets throughout 2025, these being:

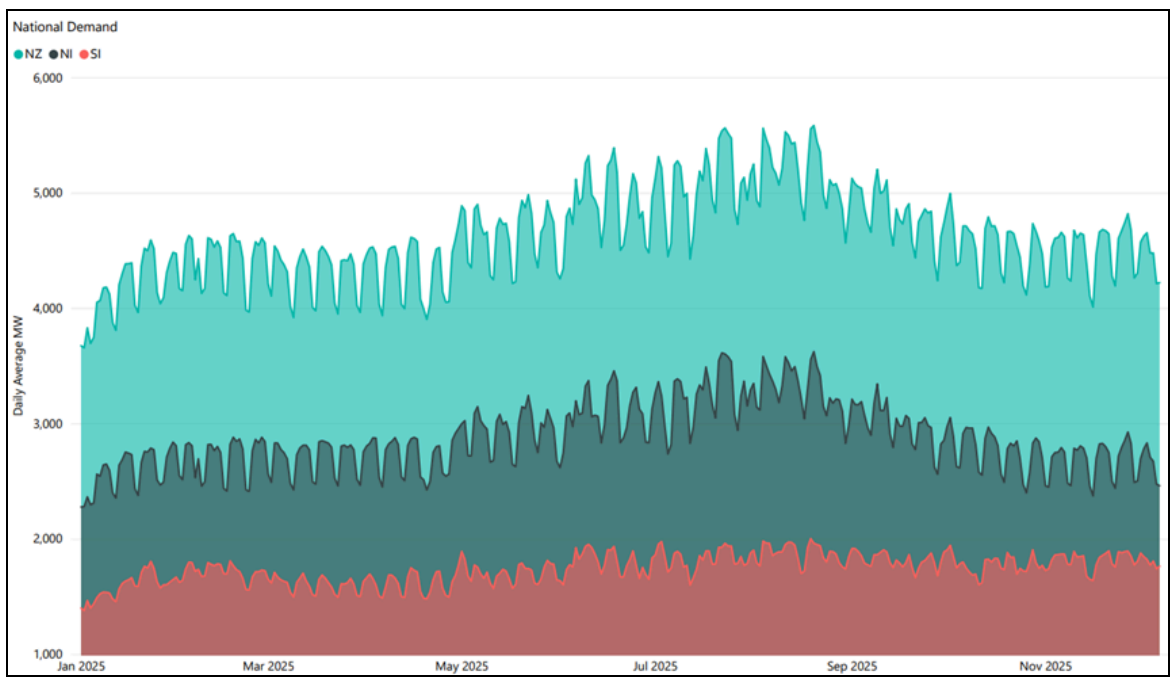
- Ruakākā BESS (100 MW) – Jan 2025
- Te Herenga O Te Rā Solar (22.8 MW) – Jan 2025
- Pukenui Solar (17.2 MW) – May 2025
- Taiohi Solar (22.4 MW) – Oct 2025
- Whitianga & Golden Stairs Solar Farms – Nov 2025
- Twin Rivers Solar Stage 2 (24 MW) and TOPP 2 Geothermal (55 MW) - Dec 2025



Prices were elevated early in the year, with daily averages peaking above $400/MWh from February to May, before trending downward through winter and spring. By late 2025, prices stabilised at lower levels, supported by strong hydro inflows and increased renewable generation.

National electricity demand followed typical seasonal patterns, with combined North and South Island daily averages peaking at around 5,500–6,000 MW during winter months, compared to roughly 4,000 MW in summer.





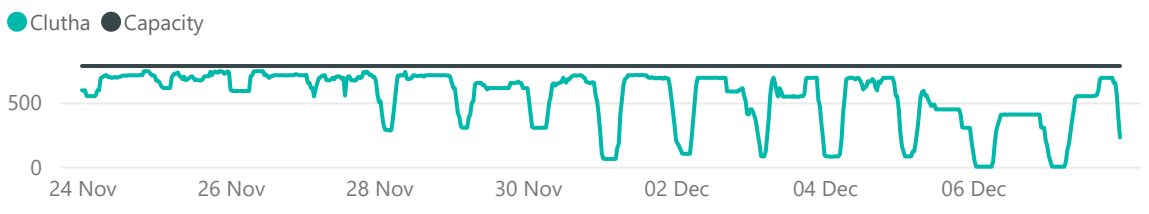
Although 2025 saw several challenges and events on the system, the combination of new investment, market response, and industry working together helped to manage risks, ensure there was enough generation available to meet demand, and adapt to a number of evolving dynamics.

Looking ahead to 2026, there is a growing amount of wind and solar capacity set to come online that will help strengthen energy adequacy and batteries to help manage capacity adequacy. To be best placed as an industry to weather trends and events on the system, it's important to sustain the focus on plant availability, trading and contracting to ensure sufficient resources, including fuel, generation capacity and demand-side resources are available when needed.

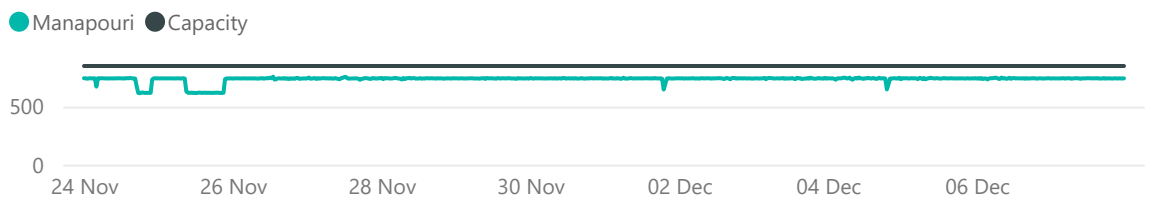
Generation Breakdown - Last Two Weeks

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

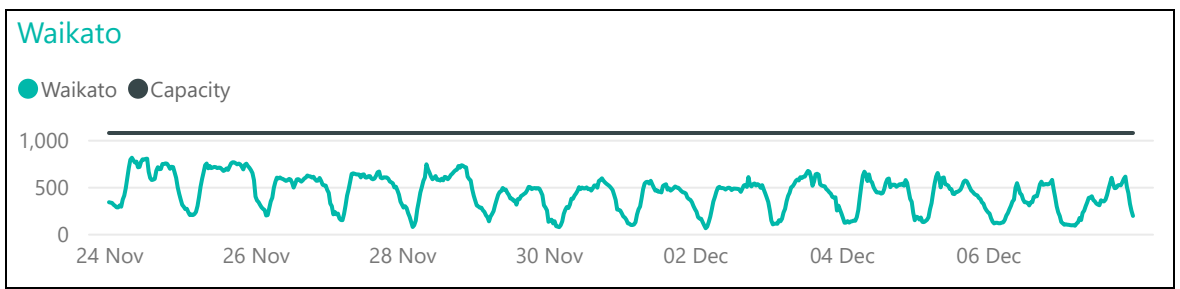
Clutha



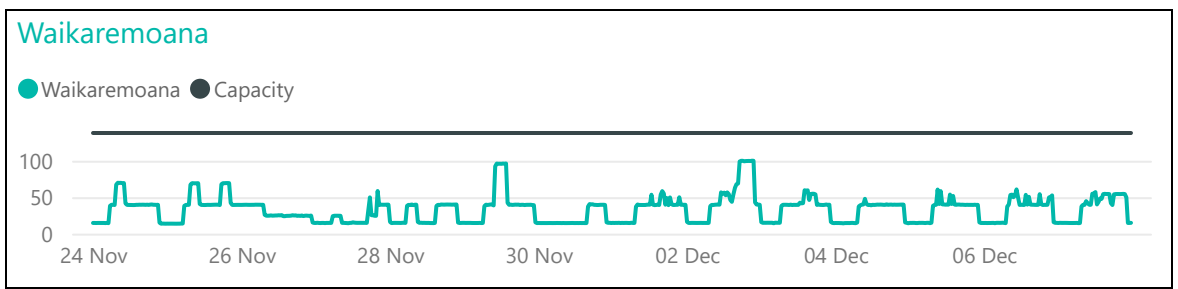
Manapouri



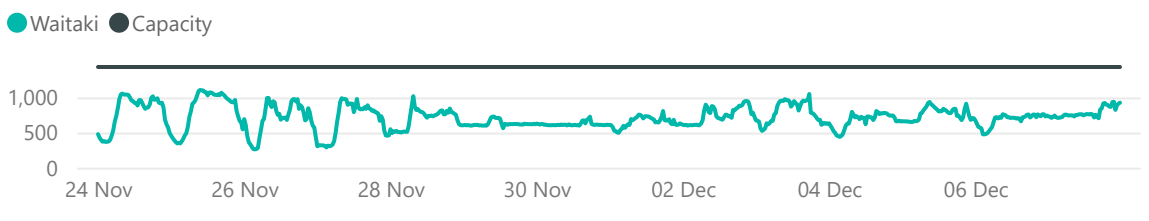
Waikato



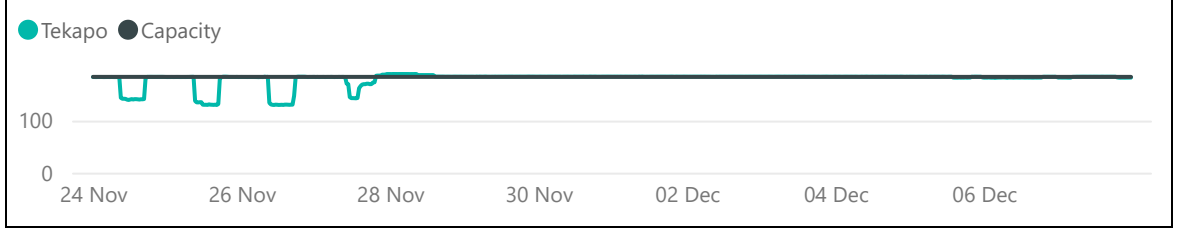
Waikaremoana



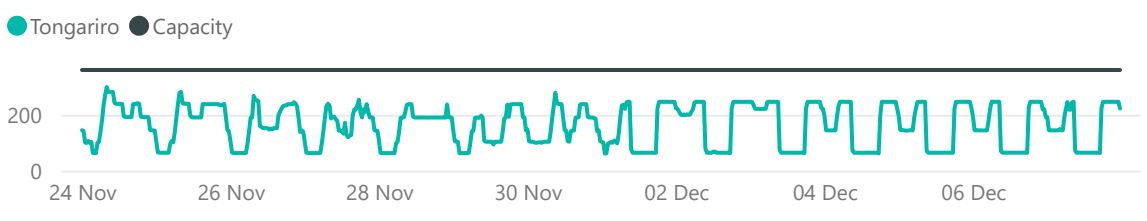
Waitaki



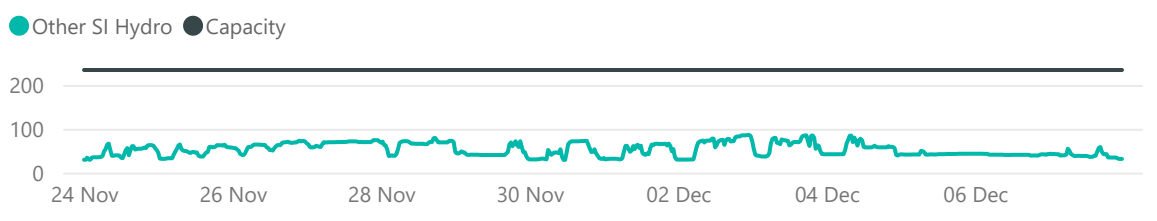
Tekapo



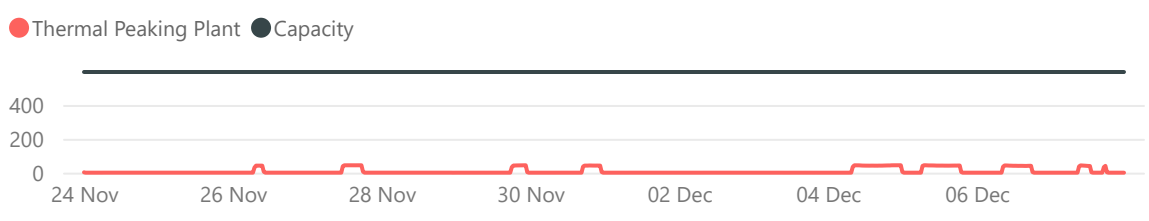
Tongariro



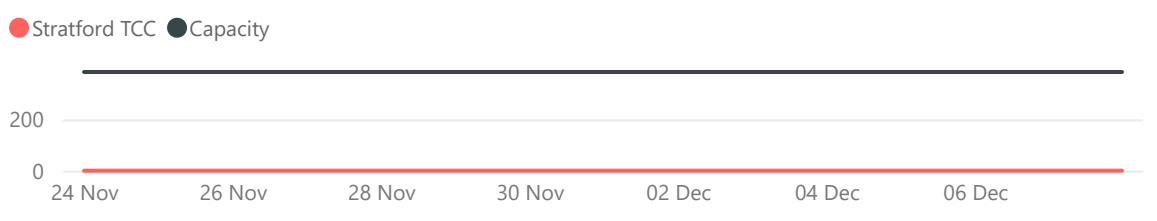
Other SI Hydro



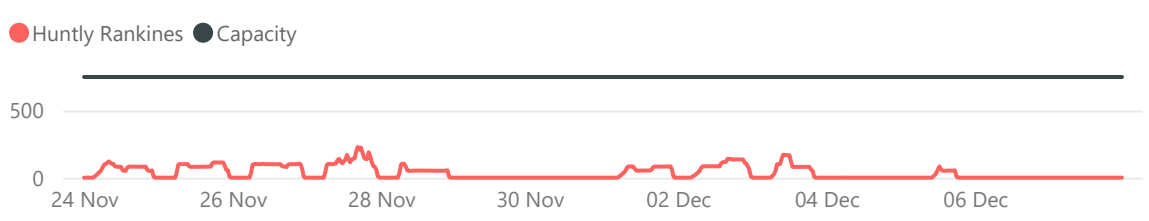
Thermal Peaking Plant



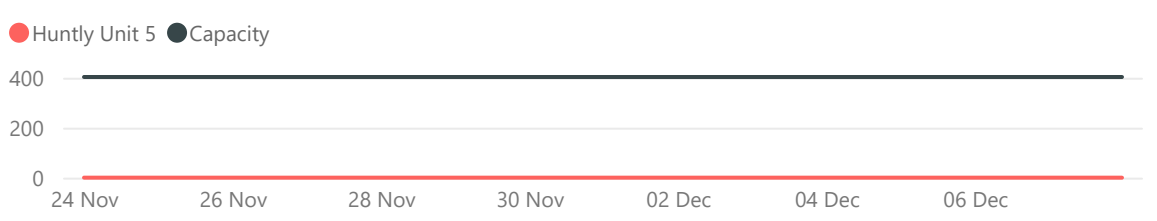
Stratford TCC



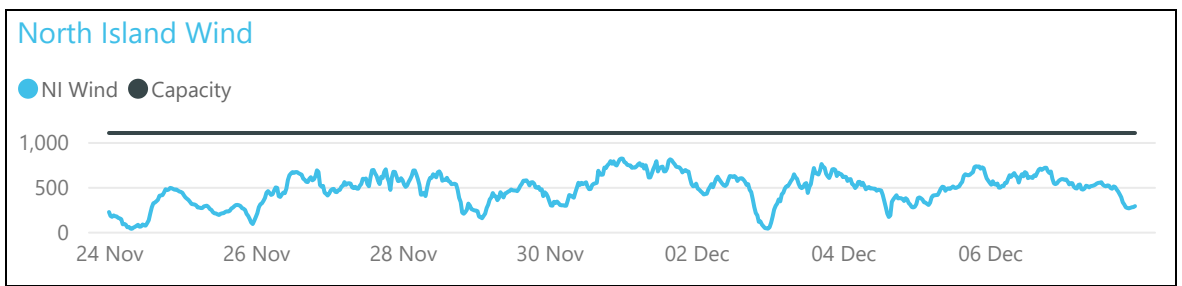
Huntly Rankines



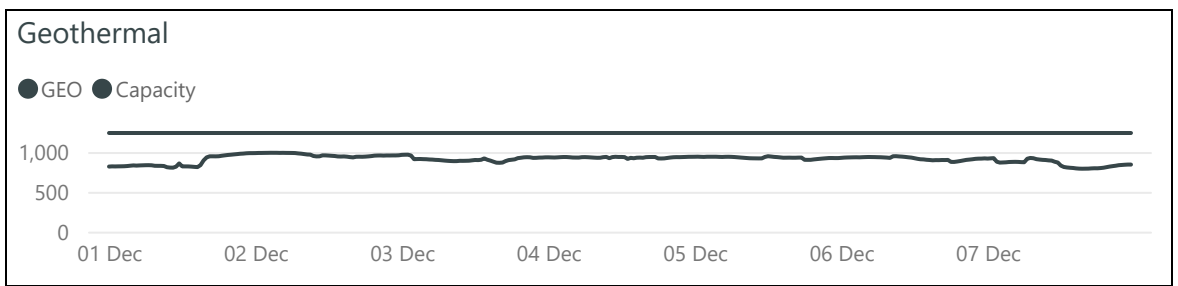
Huntly U5



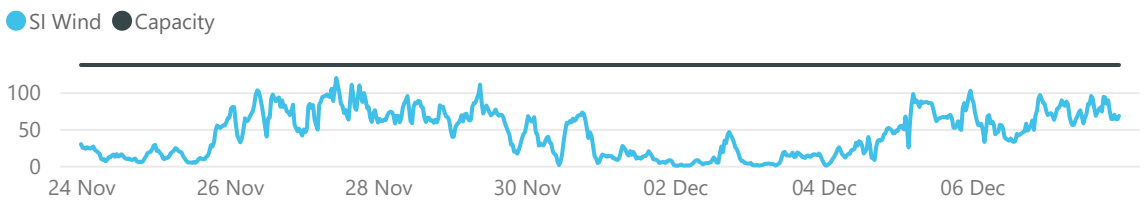
North Island Wind



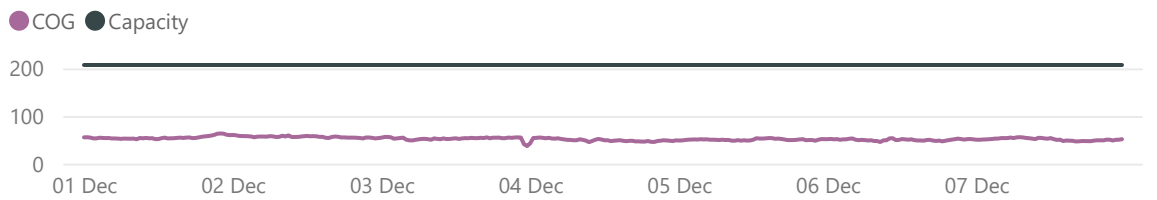
Geothermal



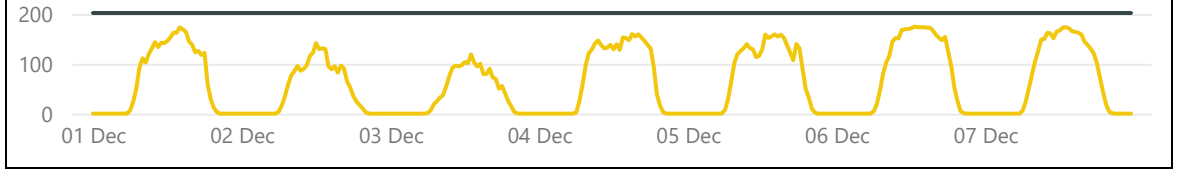
South Island Wind



Co-Generation

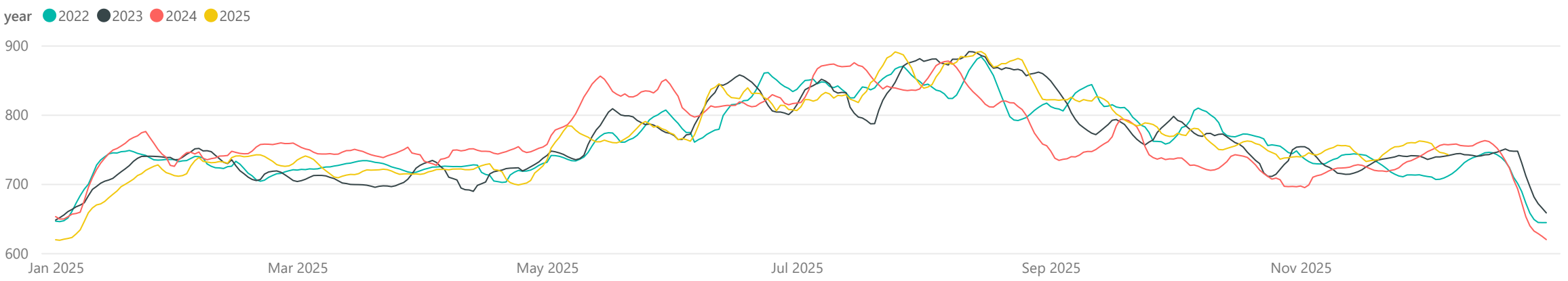


Solar

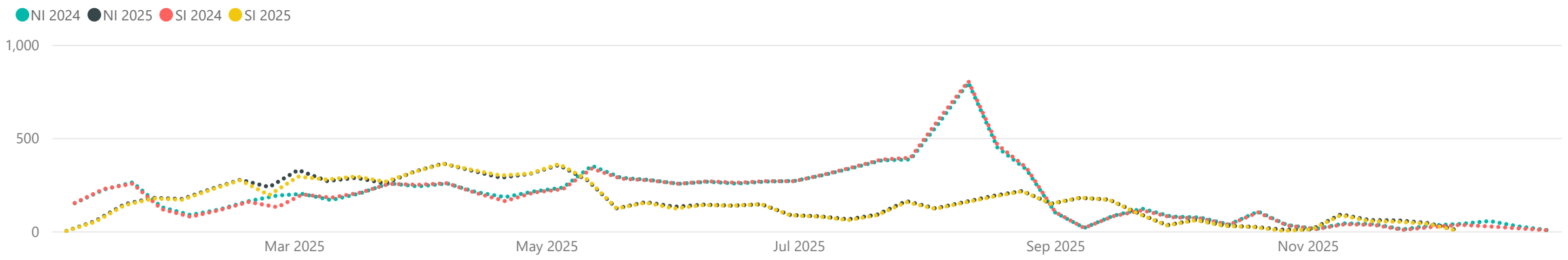


Weekly Profiles

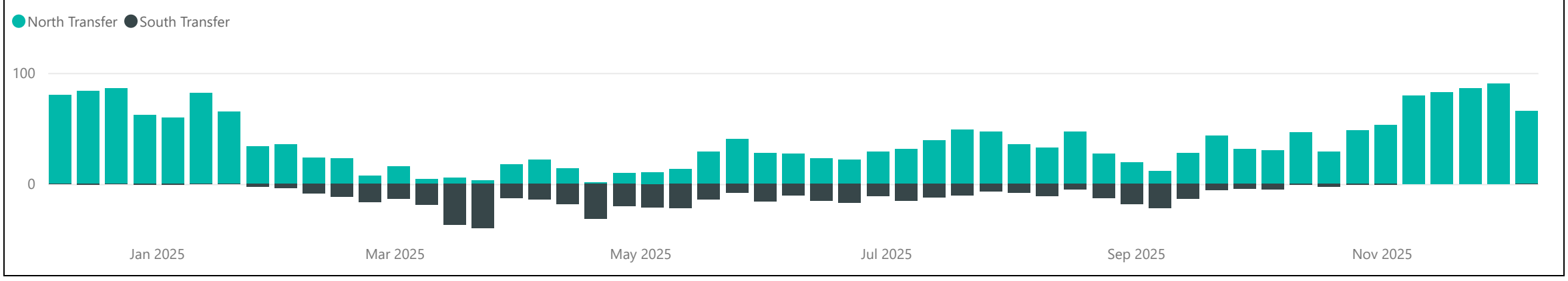
National Weekly Demand - GWh - 7 Day Rolling



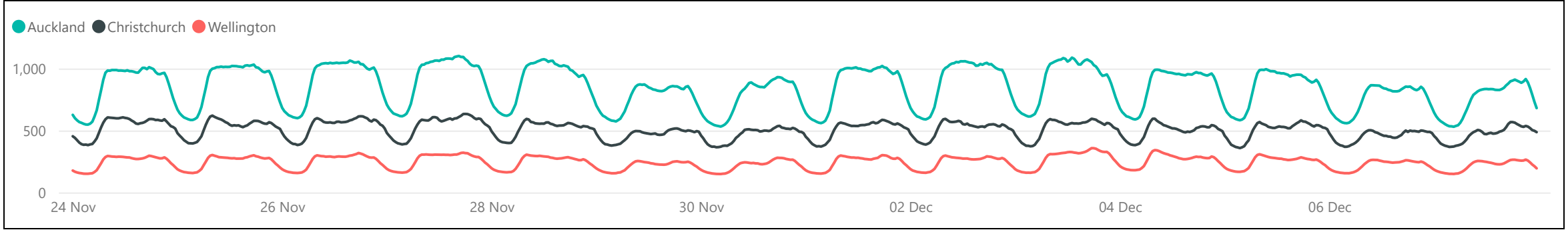
Weekly Spot Price - $/MWh



HVDC Transfer - Weekly GWh



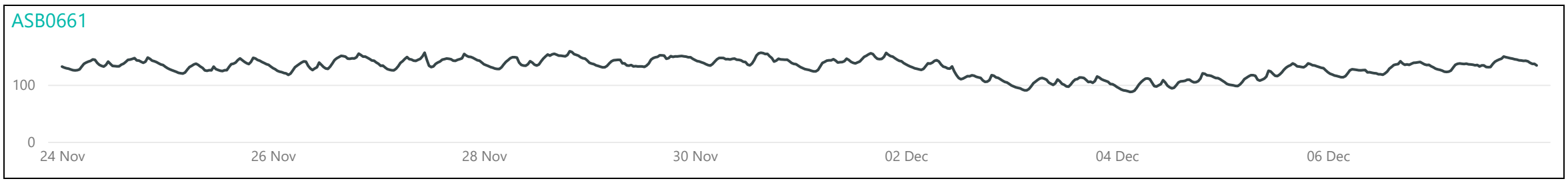
Conforming Load Profiles - Last Two Weeks *Measured in MW shown by region*



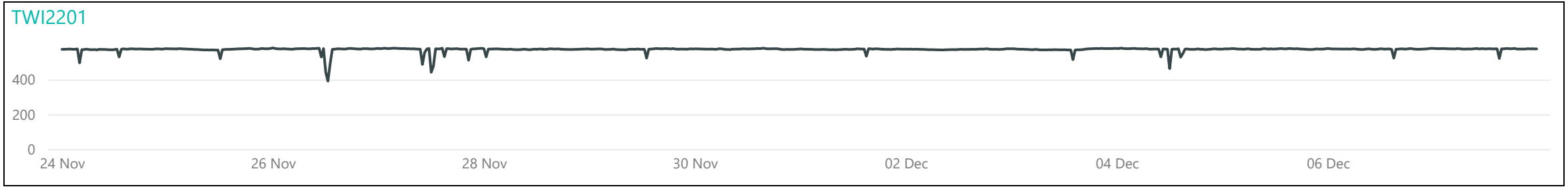
Non-Conforming Load Profiles - Last Two Weeks *Measured in MW shown by GXP*

GLN0331

ASB0661



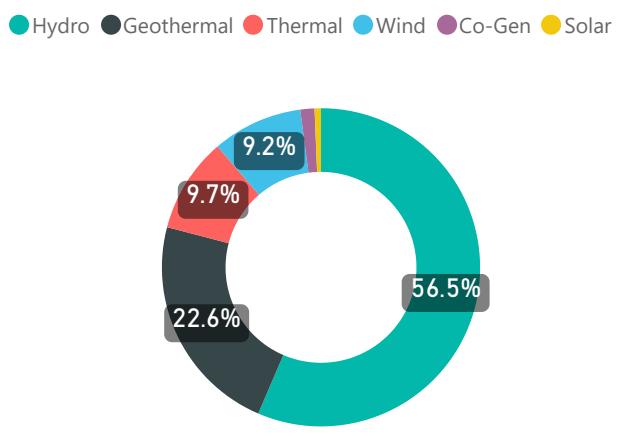
TWI2201



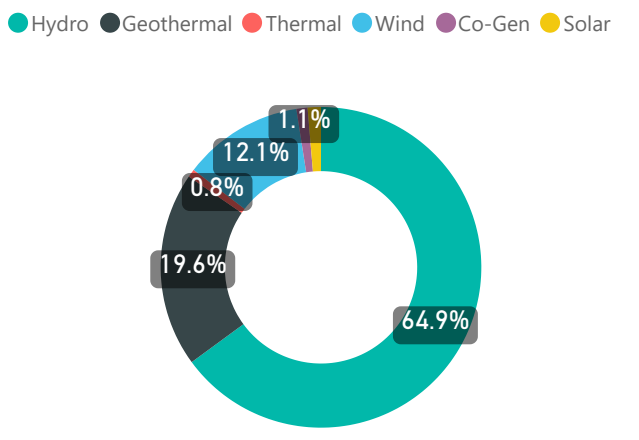
TRANSPOWER

Generation Mix

Last 52 Weeks Generation Mix - Weekly GWh



Last 7 Days Generation Mix - Weekly GWh



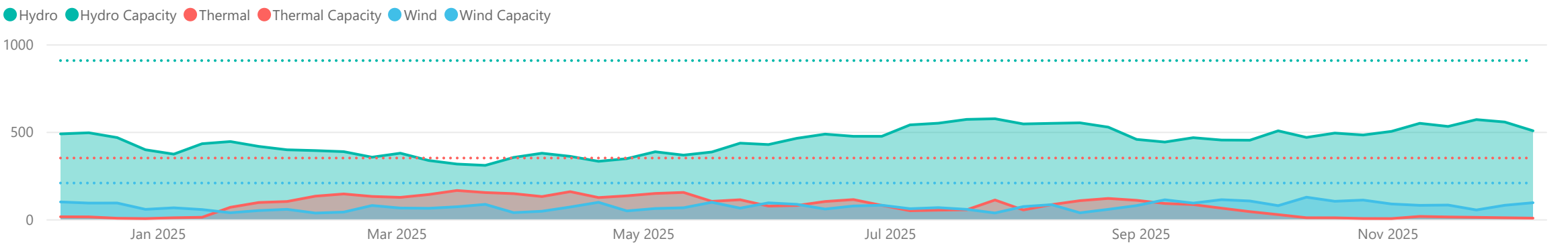
Average Metrics Last 7 Days

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
98%	14,199	18.0

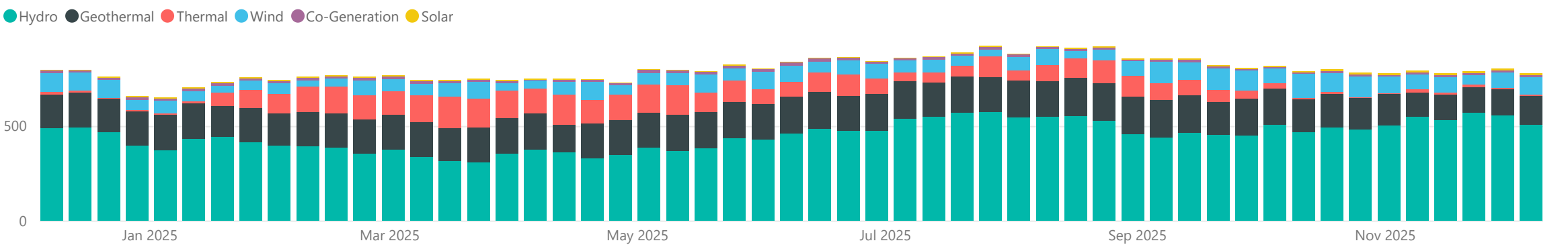
Average Metrics Last 52 Weeks

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
89%	64,648	81.3

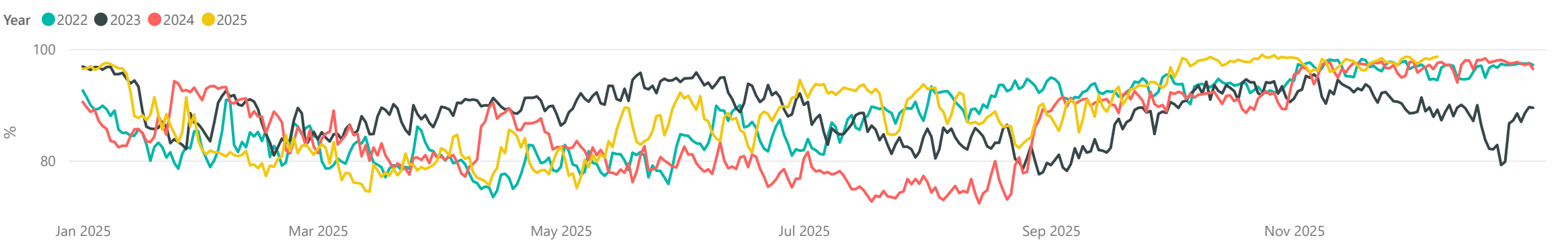
Weekly Generation Mix vs Capacity - GWh



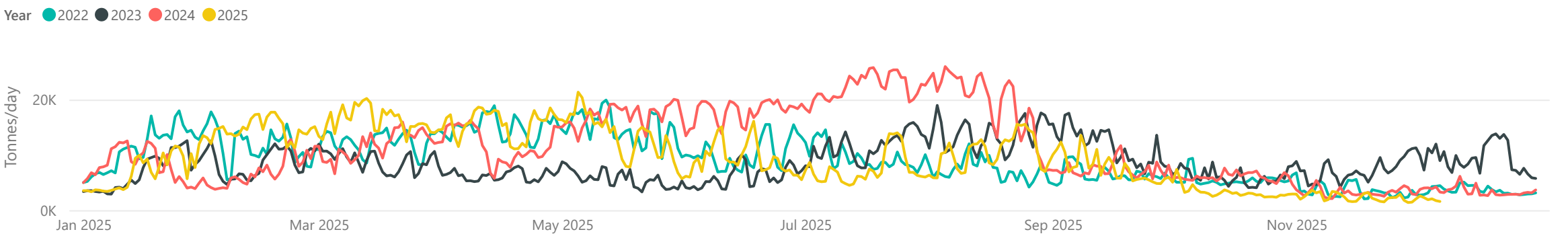
Weekly Generation Mix - GWh



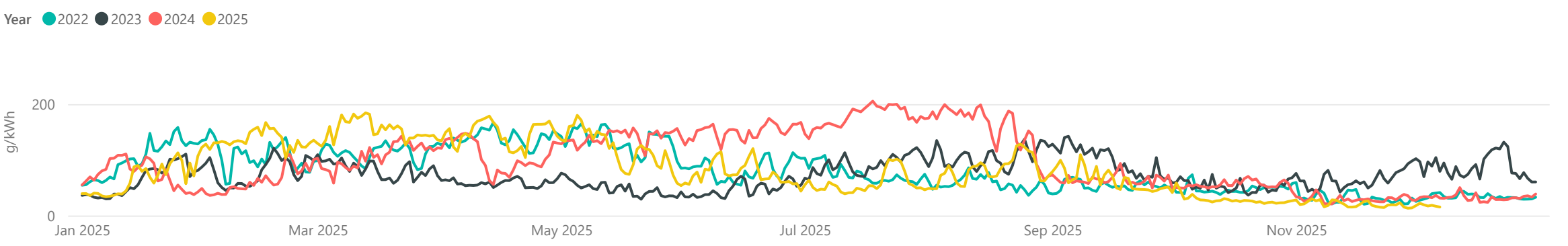
NZ Renewable Percentage



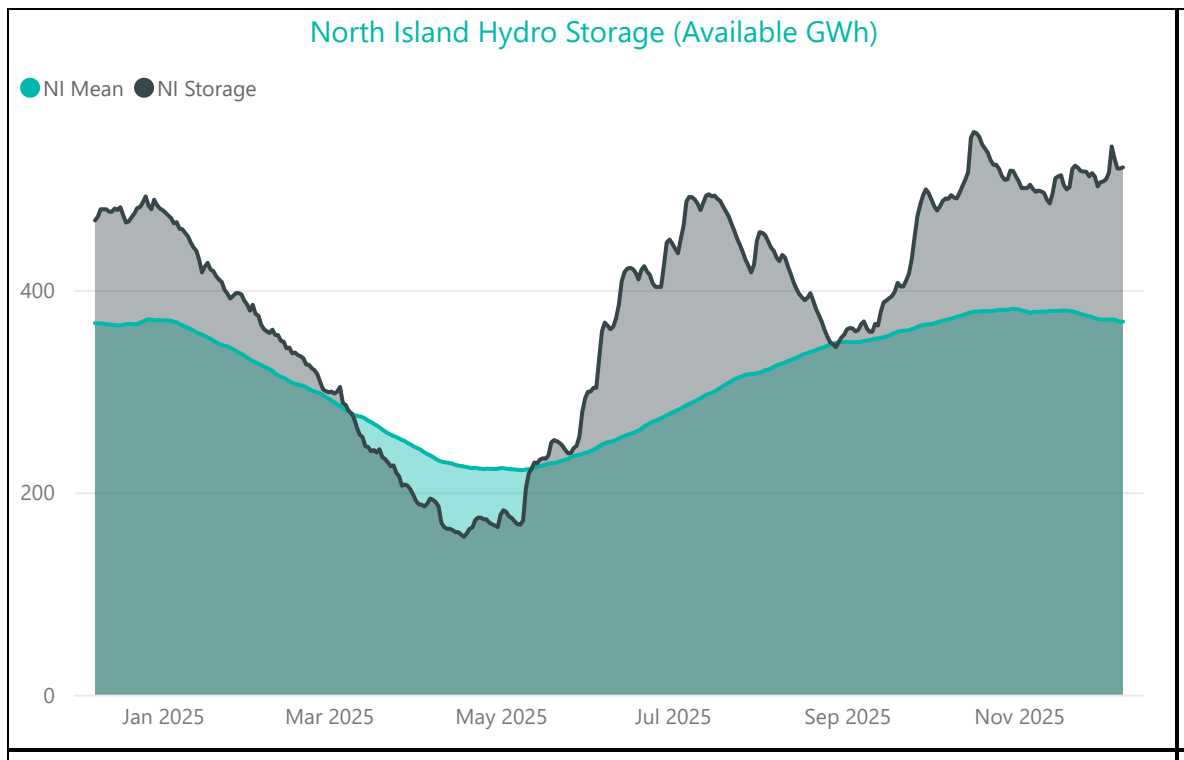
CO2 Tonnes/Day

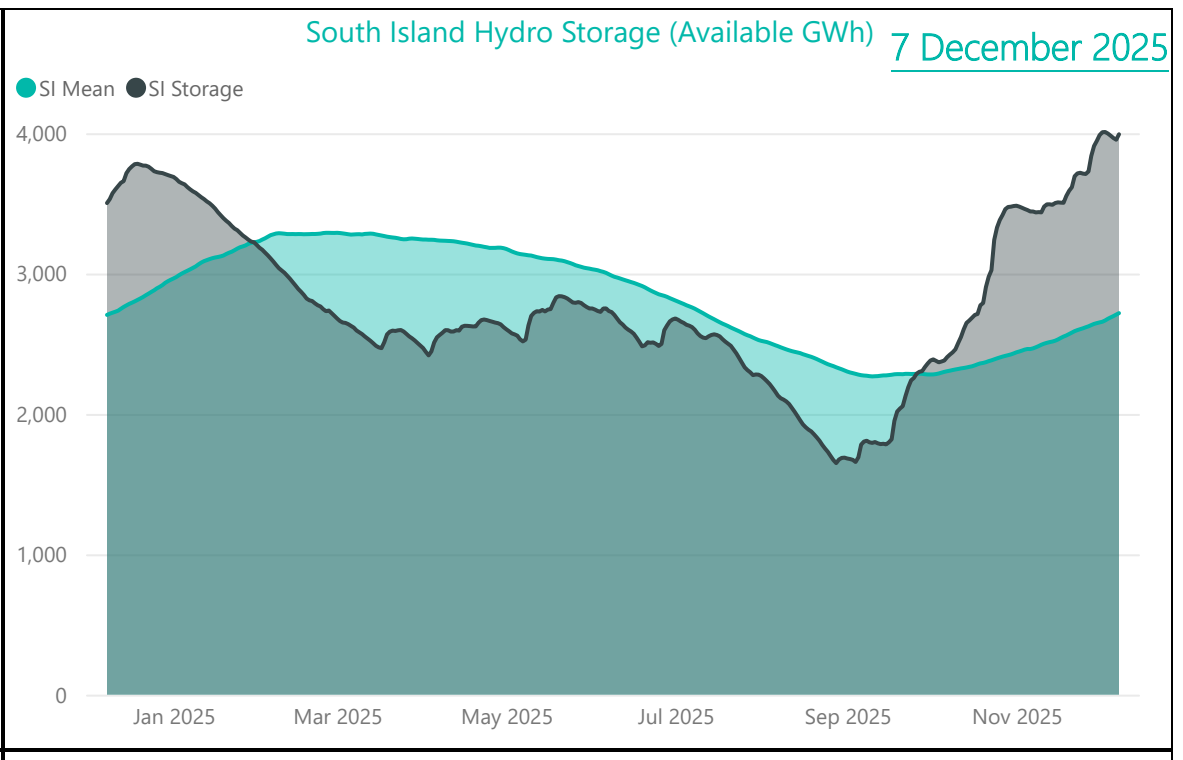


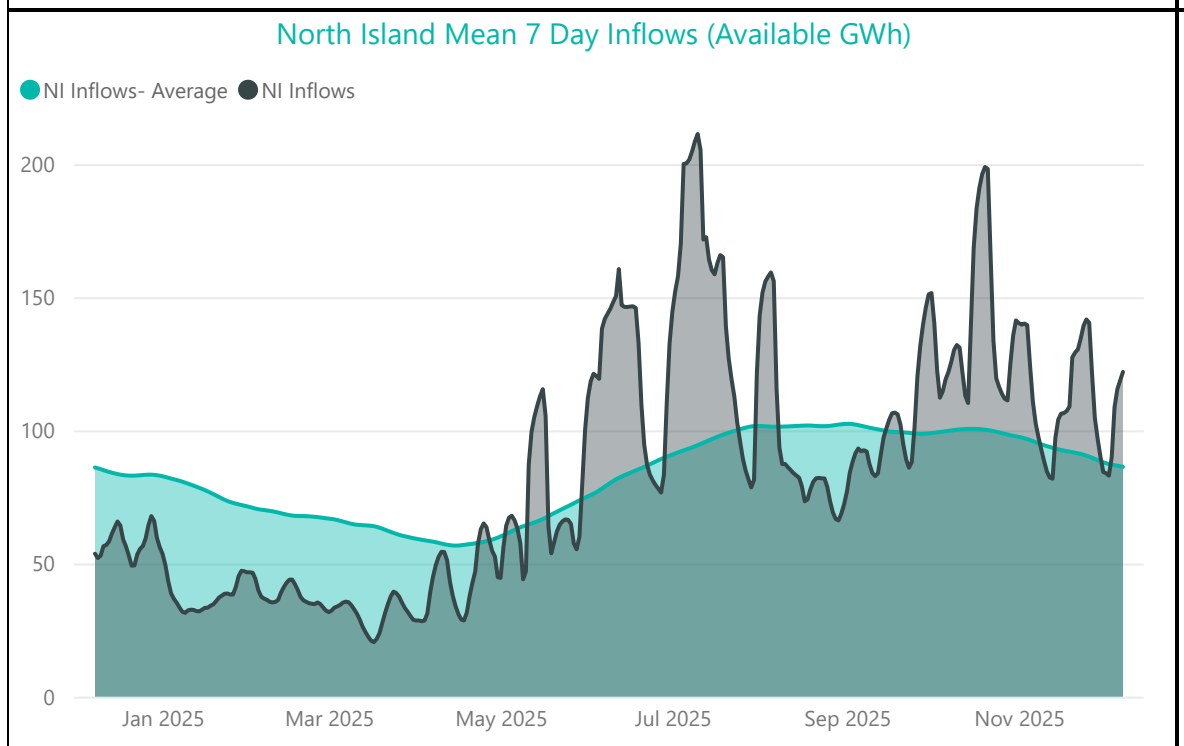
CO2 g/kWh

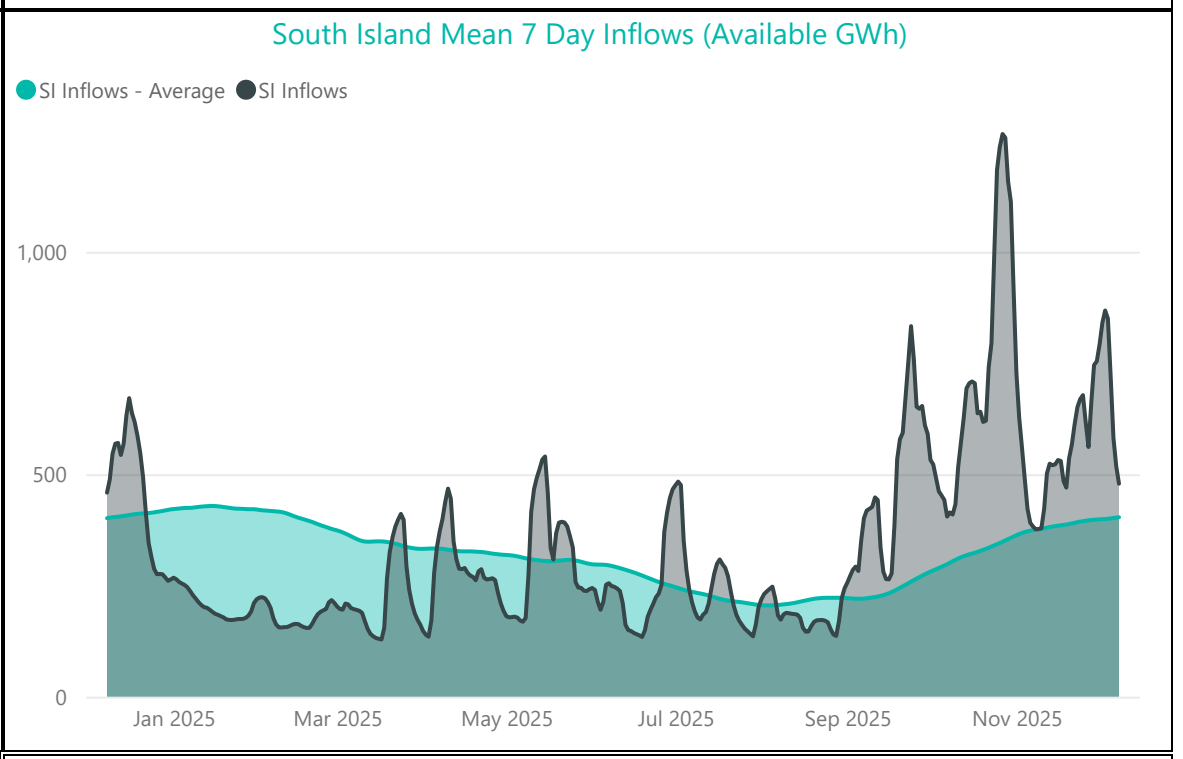


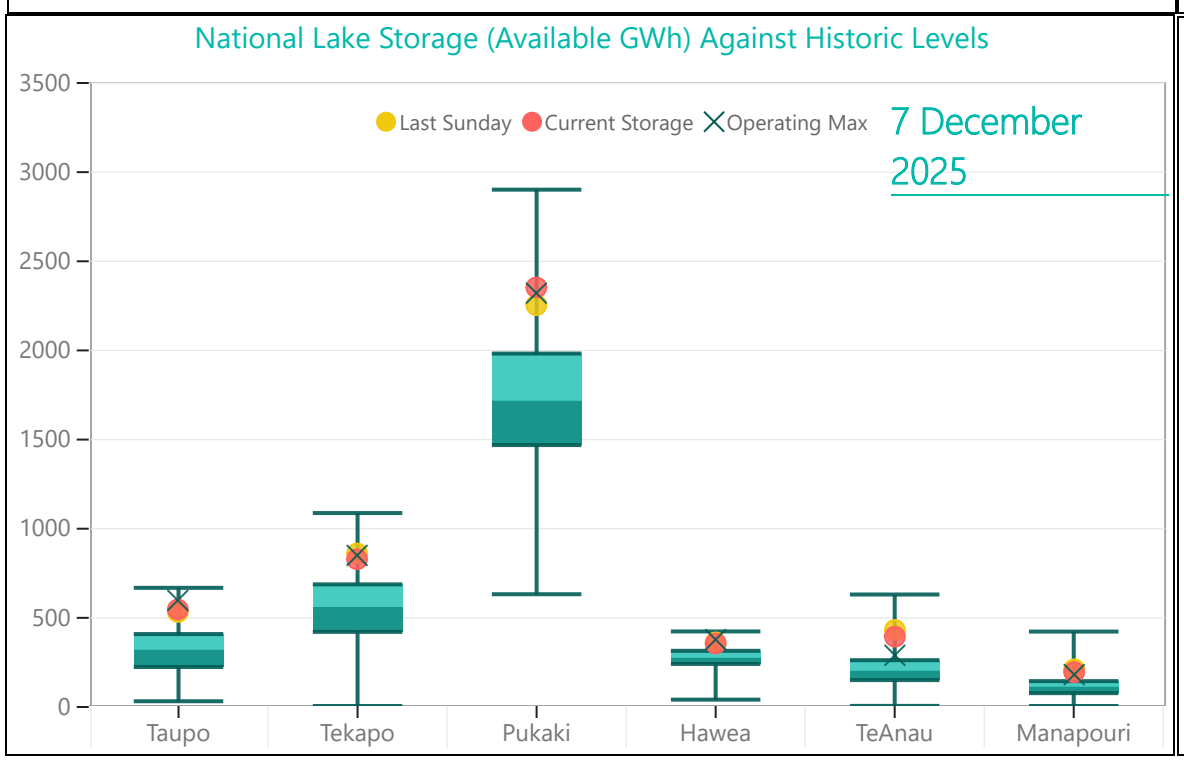
Hydro Storage

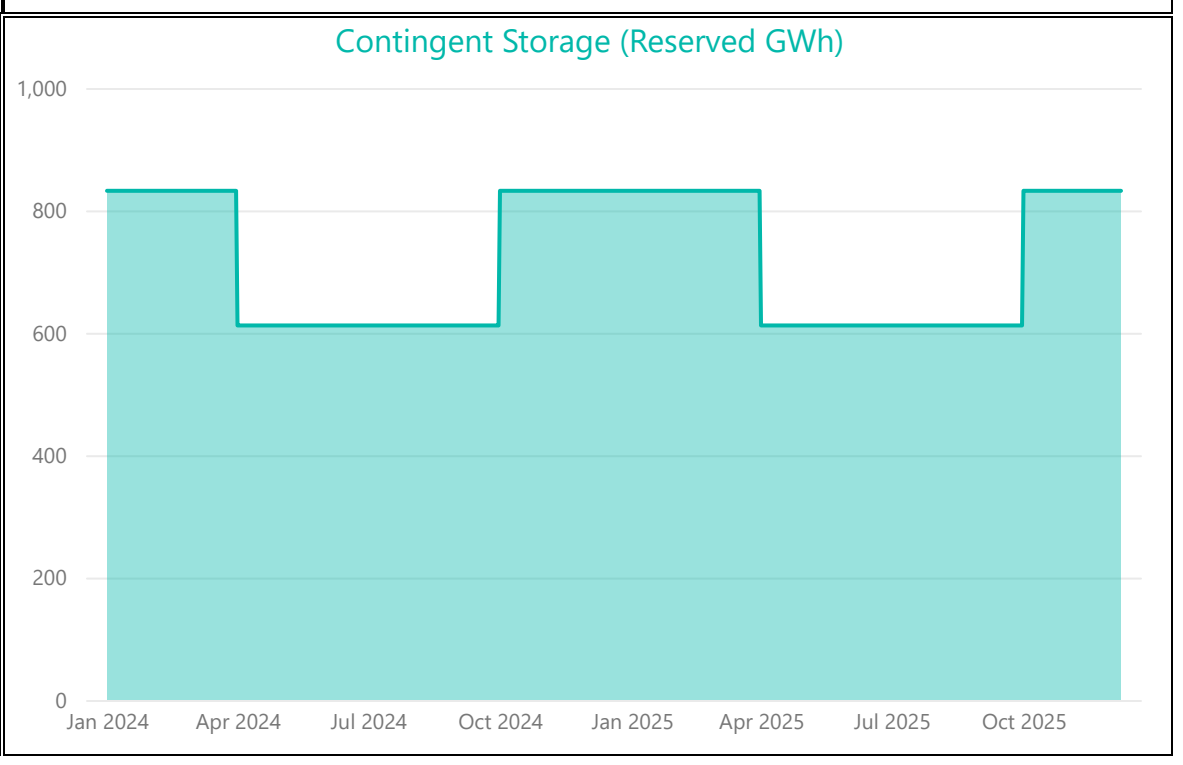












For further information on security of supply and Transpower's responsibilities as the System Operator, refer to our webpage here: https://www.transpower.co.nz/system-operator/security-supply

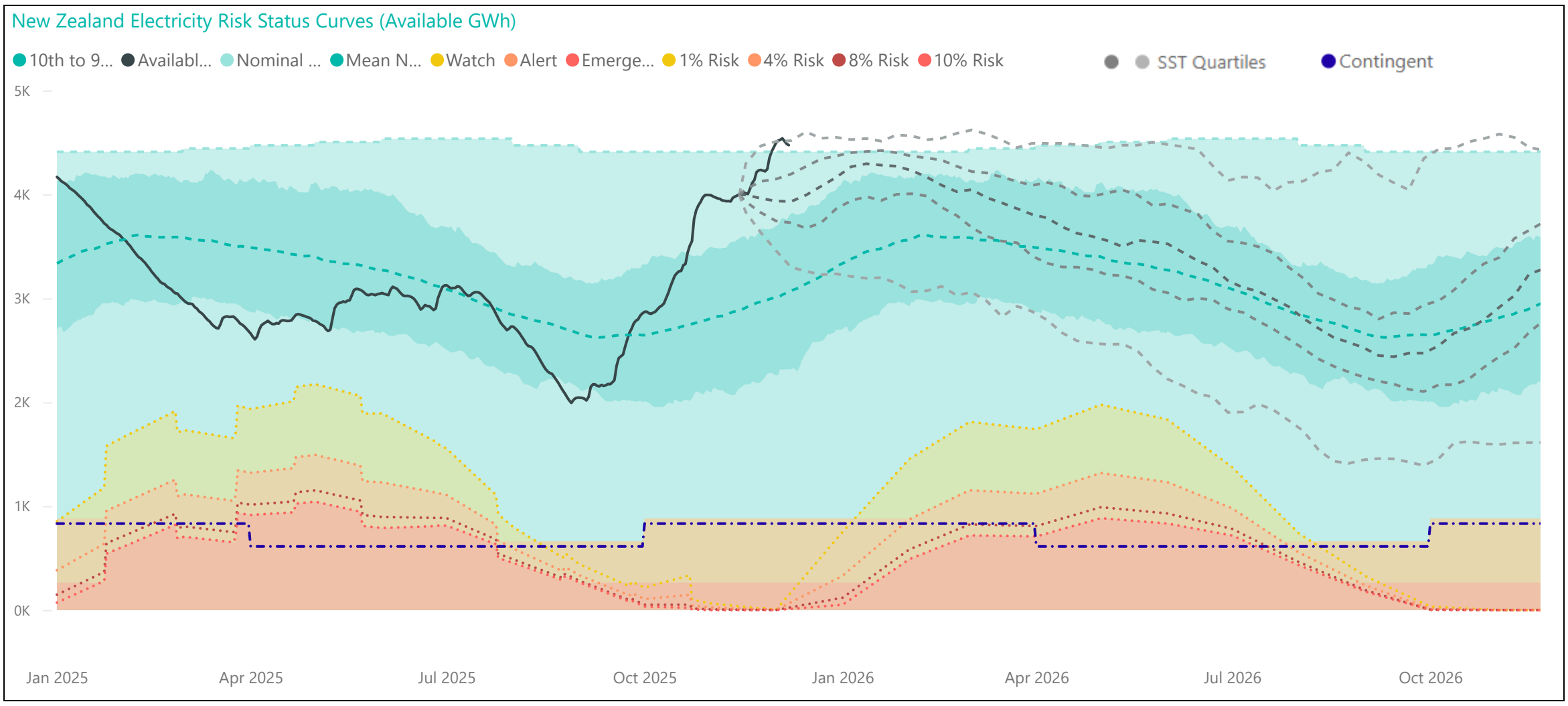
For any inquiries related to security of supply contact market.operations@transpower.co.nz

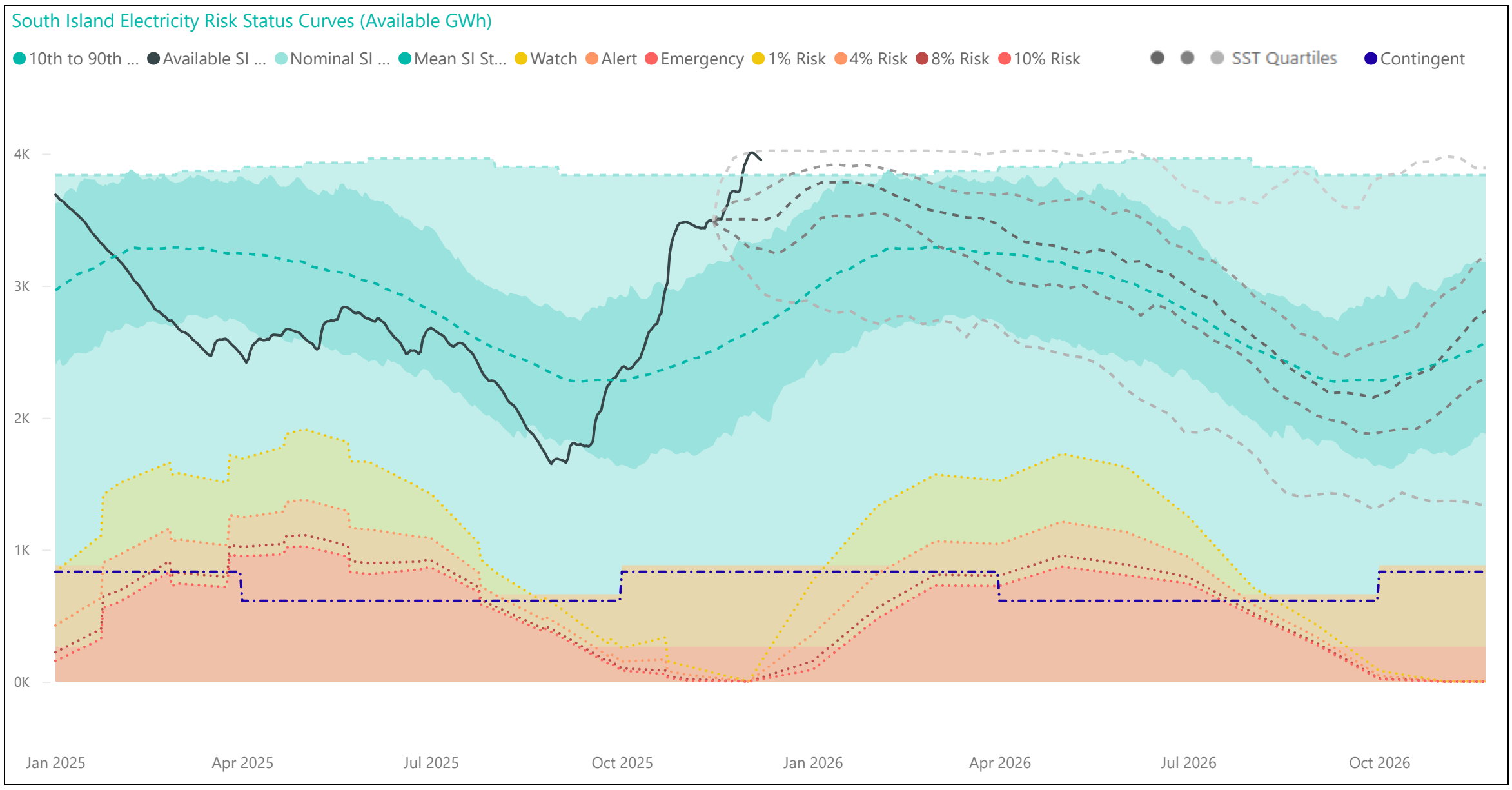
Hydro data used in this report is sourced from *NZX Hydro*.

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 and the floor and buffer
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. The buffer is 50 GWh.

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).