

Market Operations Weekly Report - Week Ended 19 October 2025

Overview

New Zealand hydro storage increased to 121% of the historic mean last week and currently sits just below the 90th percentile.

This week's insight looks at the high renewable share observed over the last two weeks and how it compares to historical data.

Security of Supply

Energy

Inflows to catchments continued last week resulting in national hydro storage increasing to 121% of the historic mean from 115% the week prior. South Island hydro storage increased from 112% to 118% of historic mean and North Island storage increased from 135% to 143%.

Capacity

Capacity residual margins were relatively healthy for most of last week, however residuals dropped slightly lower during some morning peaks. The lowest residual of 446 MW occurred during the morning peak on Friday 17 October during a period of low wind generation.

We continue to monitor capacity closely during the spring shoulder season despite decreasing demand. Outages, reduced thermal unit commitment, and the possibility of cold snaps or large swings in wind generation mean that capacity can be tight despite much lower peaks than in winter.

The N-1-G margins in the NZGB forecast are healthy through to mid December. 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 increased from 750 GWh the week prior to 762 GWh, reflecting slightly colder temperatures and a return to typical levels of demand after the school holiday period ended. Total demand is similar to that observed at this time of year over the past three years. The highest demand peak at 5,669 MW occurred at 7:30 am on Wednesday 15 October.

Weekly Prices

The average wholesale electricity spot price at Ōtāhuhu last week decreased to \$26/MWh from \$34/MWh the week prior in line with increasing hydro storage and higher than average wind generation. Long periods of very low pricing occurred during the weekend.

Wholesale prices peaked at \$419/MWh at Ōtāhuhu at 7:30am on Friday 17 October during a period of low wind and high demand which meant highly priced thermal generation was required to help supply the morning peak.

Generation Mix

Renewable generation remains high and contributed 98% of the generation mix last week. Wind generation decreased its share of the mix from 16% to 13% of the mix, while remaining above its average contribution of 9%. Hydro generation was above average and increased to 62% of the mix from 59% the week prior. Thermal generation remained low at 1% of the mix reflecting high hydro and wind generation and thermal outages including [Huntly unit 5](#). The geothermal share increased to 22% of the mix, close to its annual average level of 23%.

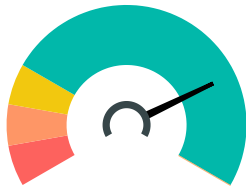
HVDC

HVDC flow last week was predominantly northward with the exception of some brief periods of overnight low southward flow. These periods coincided with periods of high wind generation and lower North Island demand. In total, 29 GWh was transferred north and 3 GWh was transferred south.

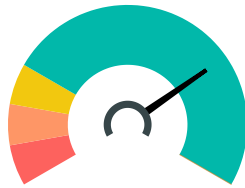
SOSFIP Consultation Open

[Consultation on a draft amendment](#) to the System Operator Forecasting and Information Policy (SOSFIP) is now open. The closing date for submissions is 5pm on Tuesday 4 November 2025, with cross-submissions due by 5pm on Tuesday 11 November 2025.

New Zealand Energy Risk

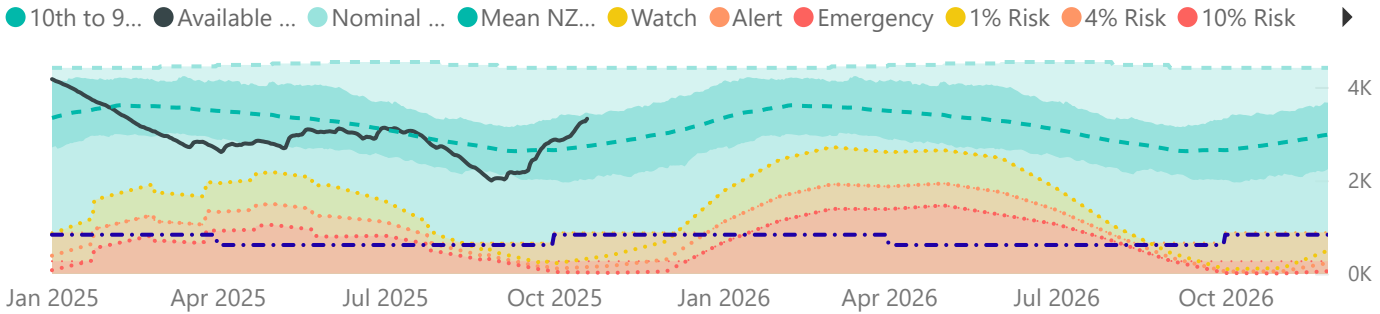


South Island Energy Risk

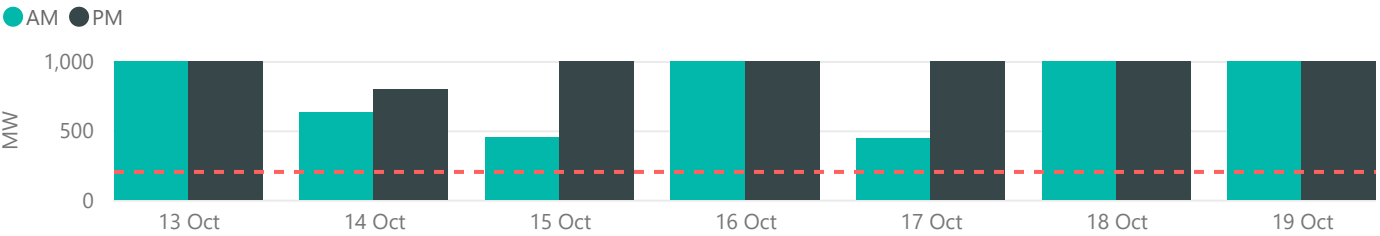


Normal Watch Alert Emergency

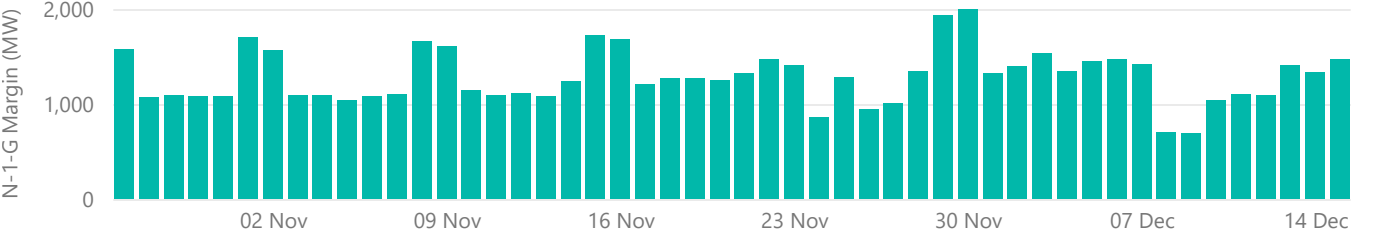
New Zealand Electricity Risk Status Curves (Available GWh)



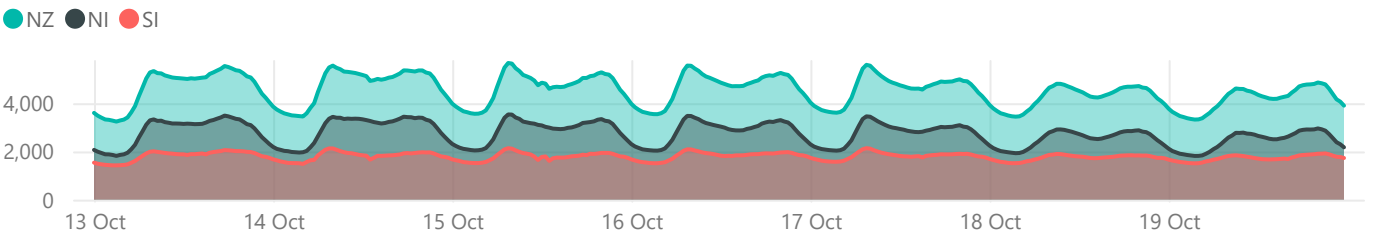
Lowest Residual Points - MW



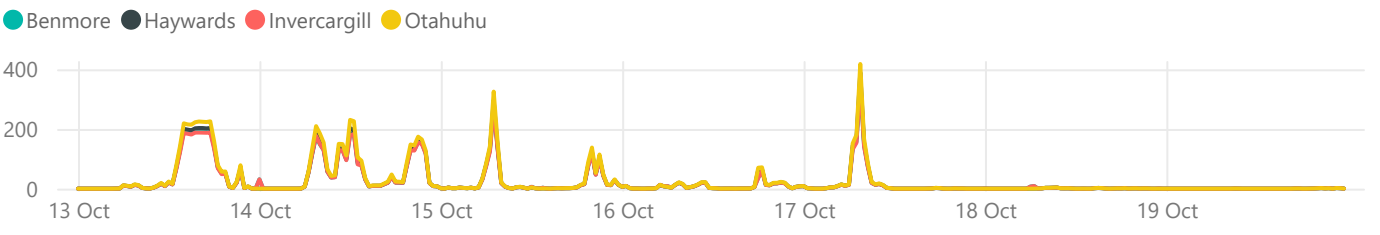
NZGB Look-Ahead (excluding next 7 days)



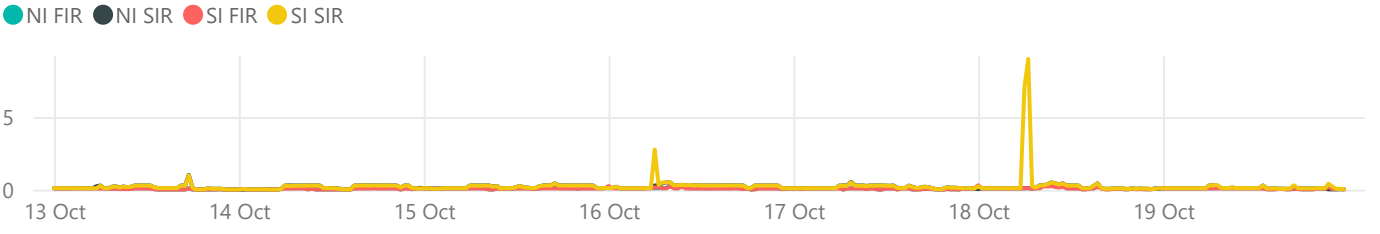
National Demand by Trading period - MW



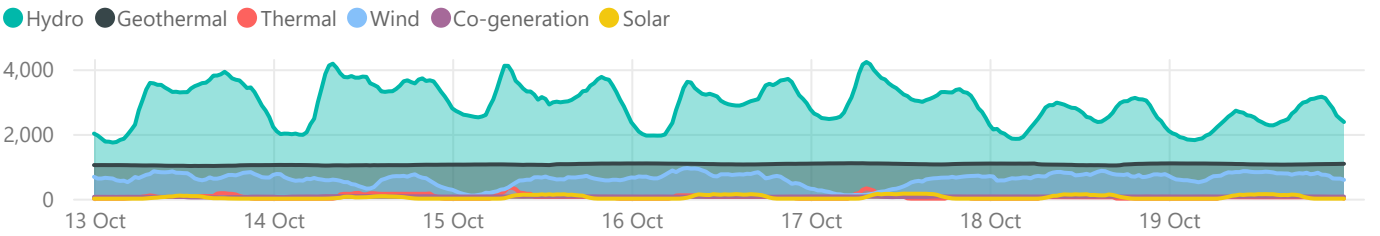
Energy Prices - \$/MWh



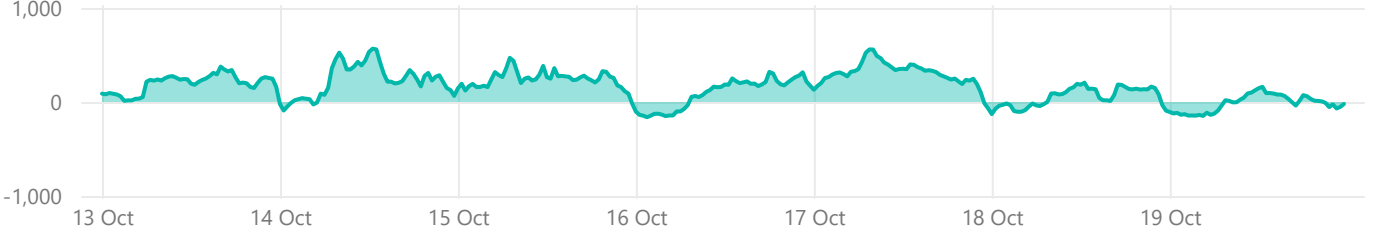
Reserve Prices - \$/MW

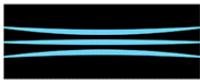


Generation - MW



Net HVDC Transfer - MW (Northward positive)



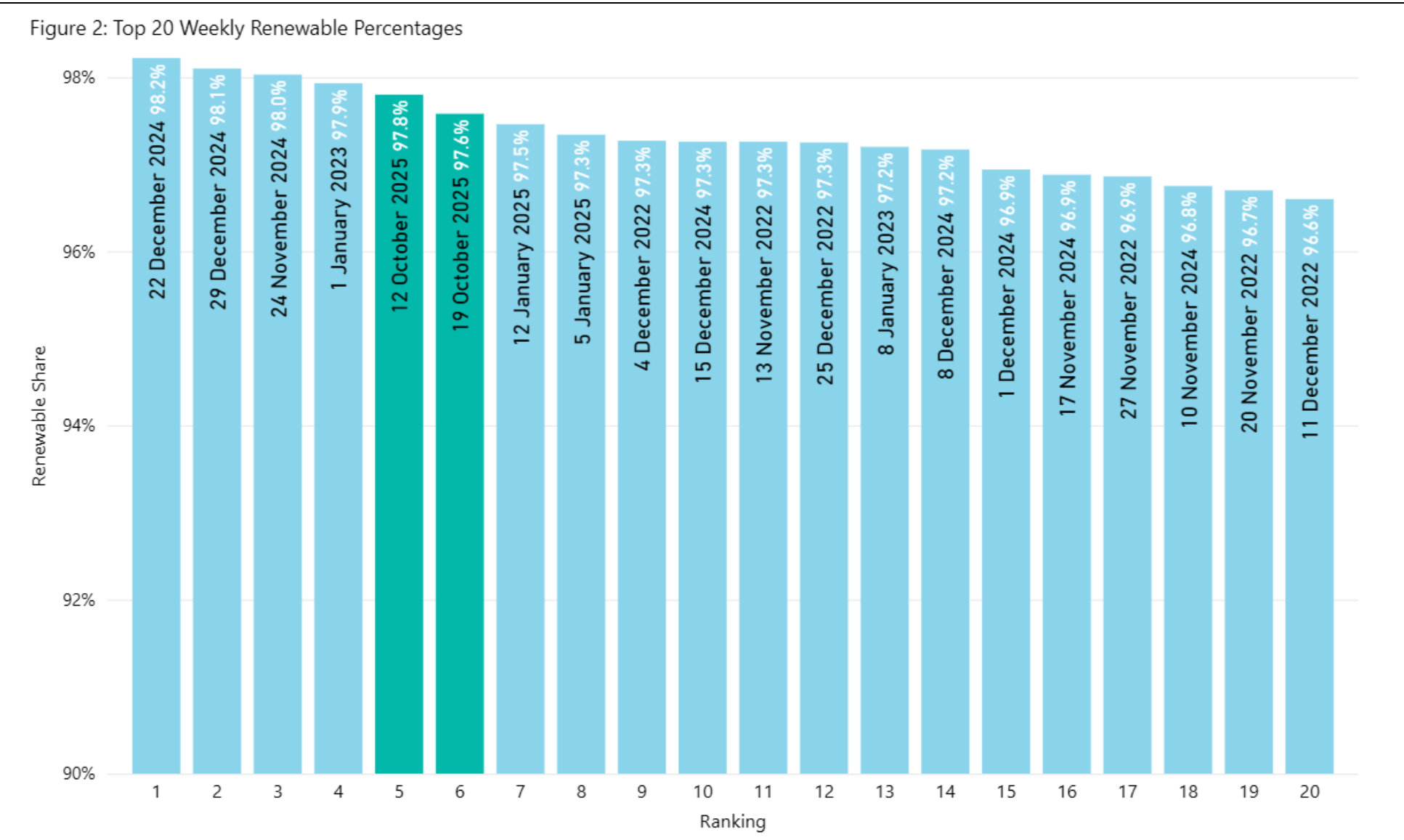
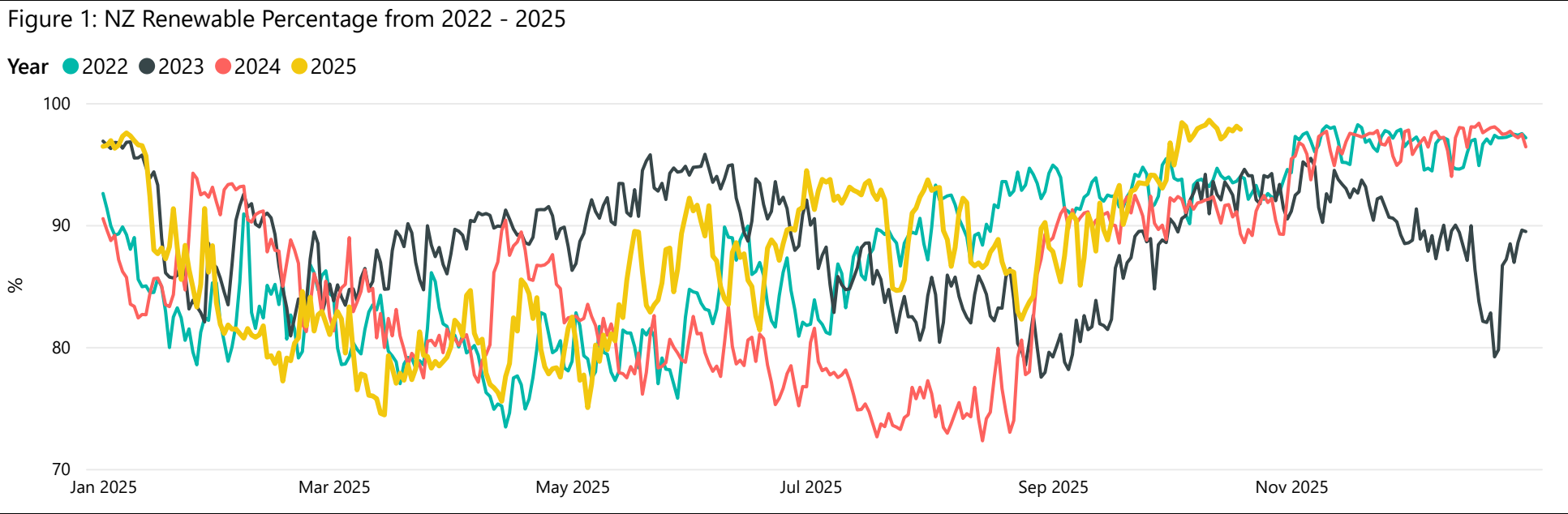


Weekly Insight - High renewable share in recent weeks

This week's insight looks at the high renewable share observed over the last two weeks and how it compares to historical data.

Over the past four years, renewable generation has typically peaked during summer months (December – January), when hydro storage increases due to rainfall and snow melt to catchments. However, as seen in Figure 1, October 2025 has broken this pattern with significantly high renewable percentages occurring in spring rather than summer.

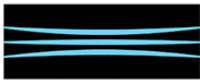
When compared to historical weekly renewable percentages, the last two weeks ranked among the top six highest for renewable share, shown in Figure 2. While most of the highest-ranked weeks have historically occurred in summer, some have also been in late spring (November). This makes the last two weeks notable for how early in the season they occurred.



Several factors contribute to higher renewable shares of the weekly generation mix. Hydro generation was the key driver in the last two weeks, supported by high inflows which resulted in above average storage in both North and South Island catchments. This allowed hydro to supply 62% of the generation mix last week, compared with its annual average of around 56%. Wind generation was also strong, contributing 16% of the mix in the week ending 12 October 2025 and 13% last week, well above the annual average of 9%.

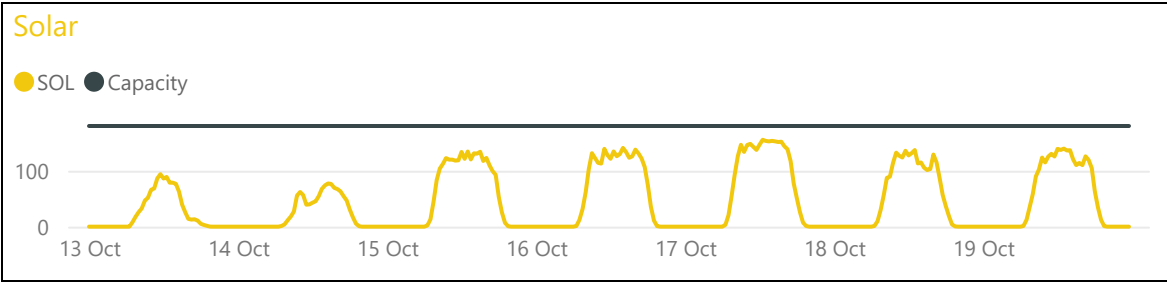
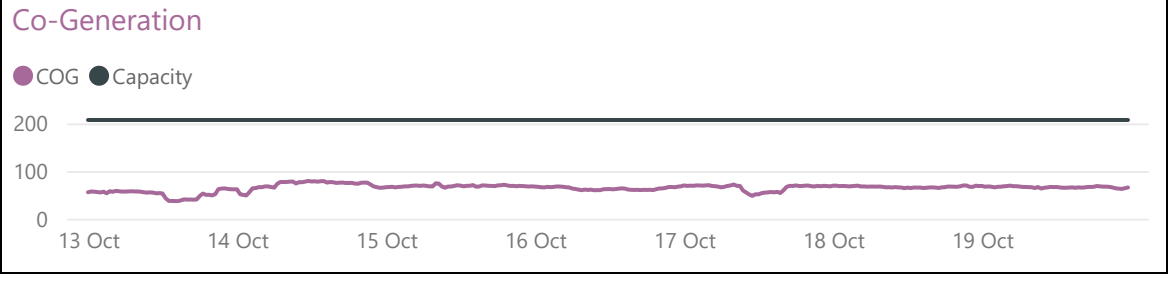
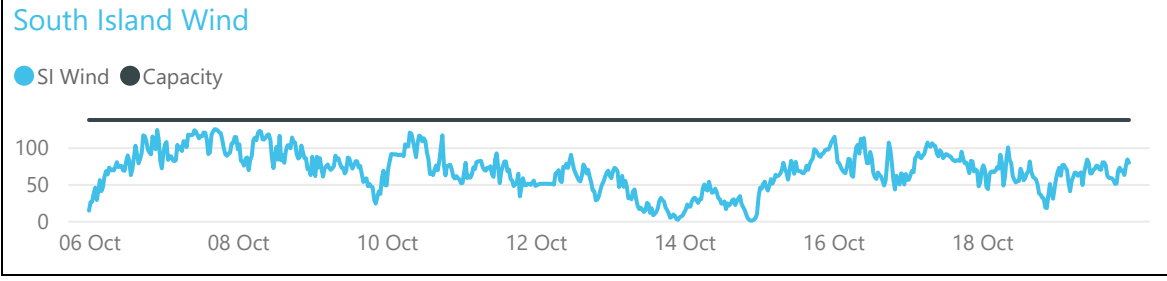
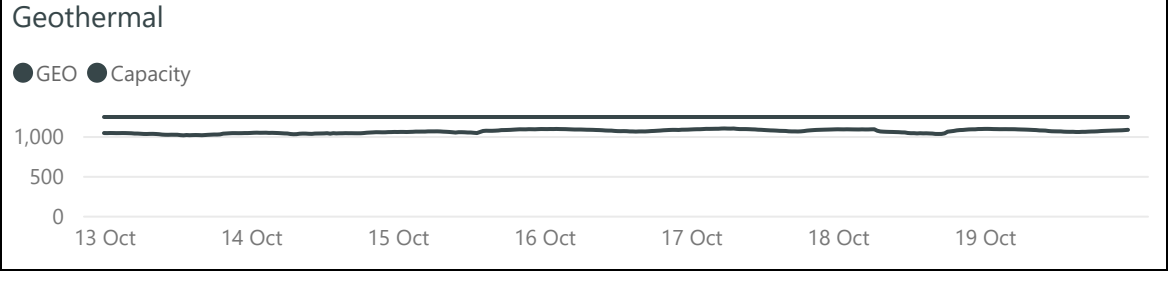
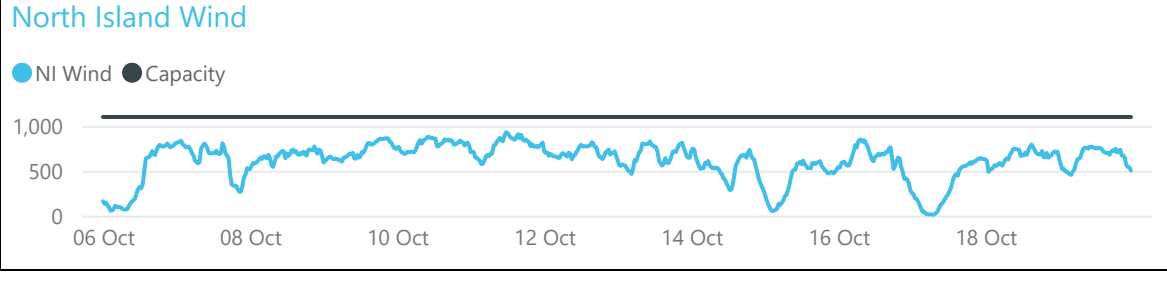
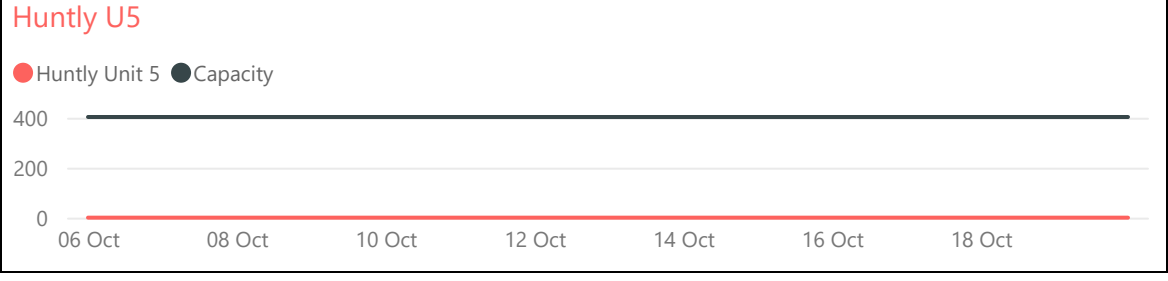
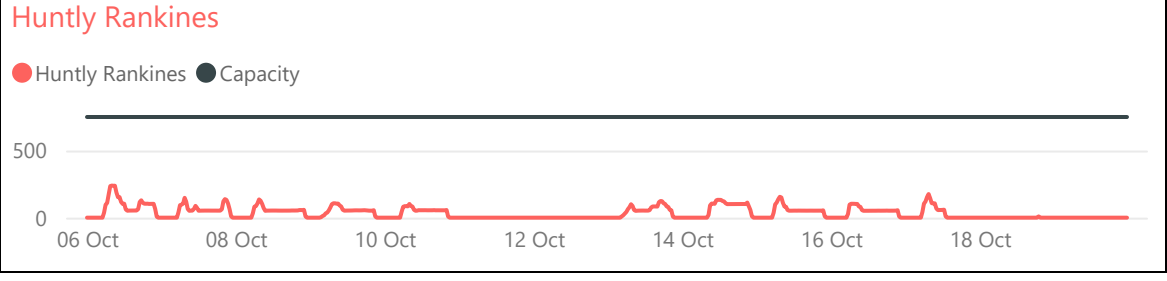
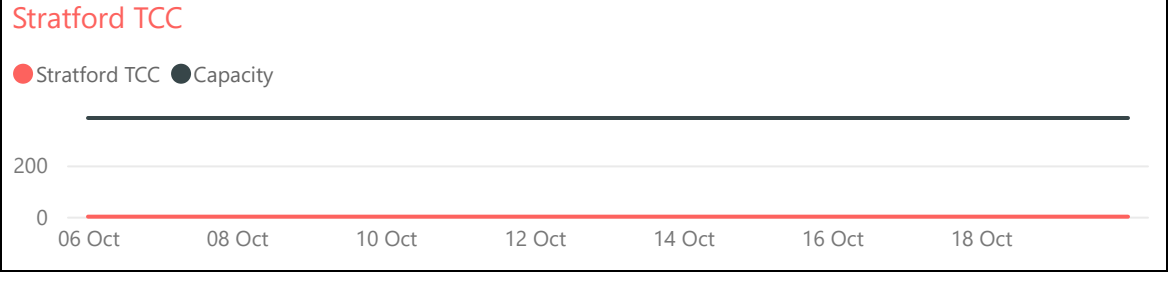
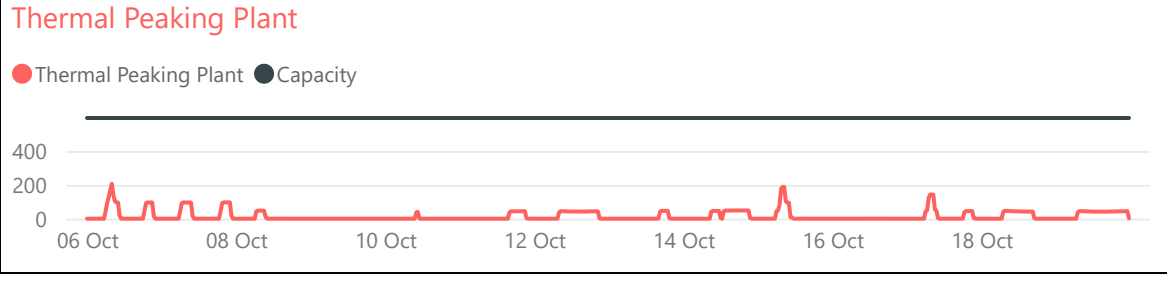
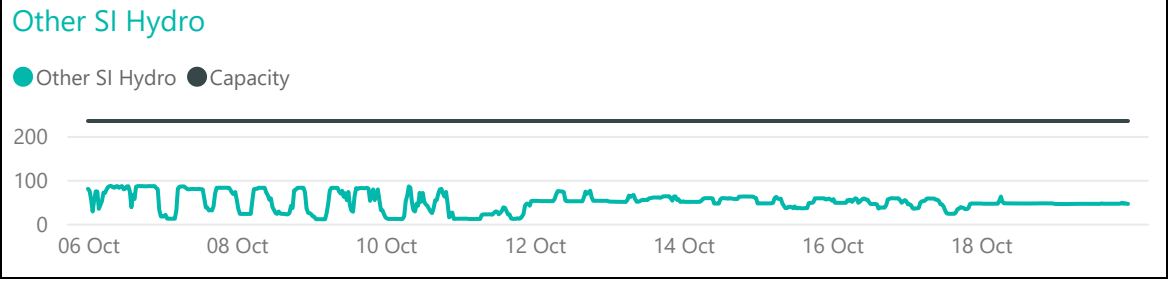
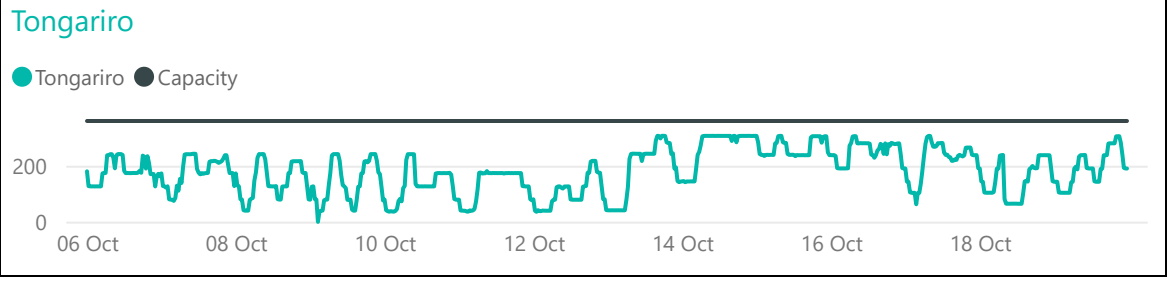
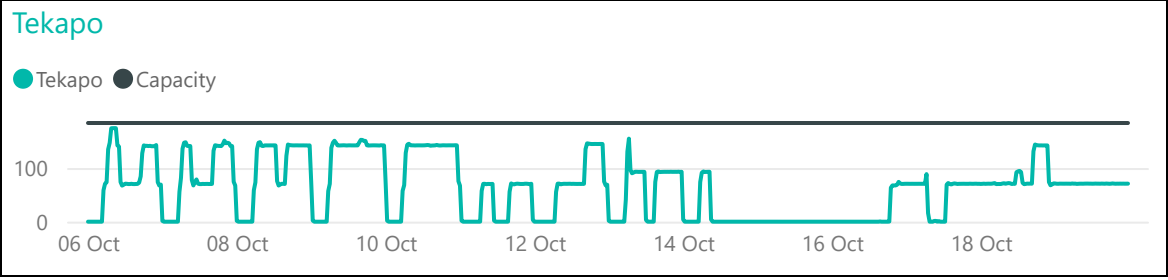
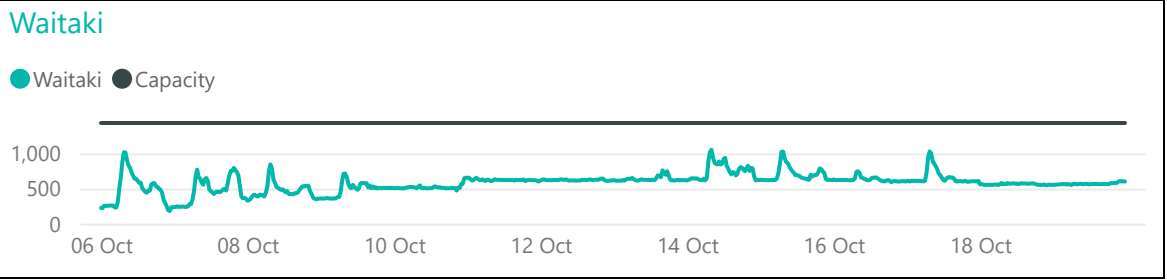
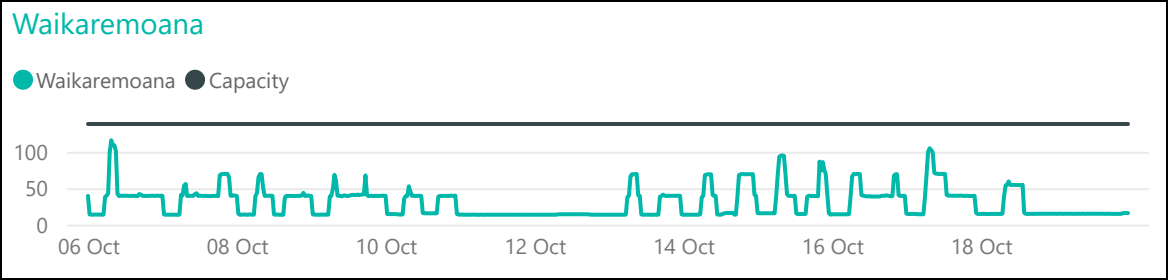
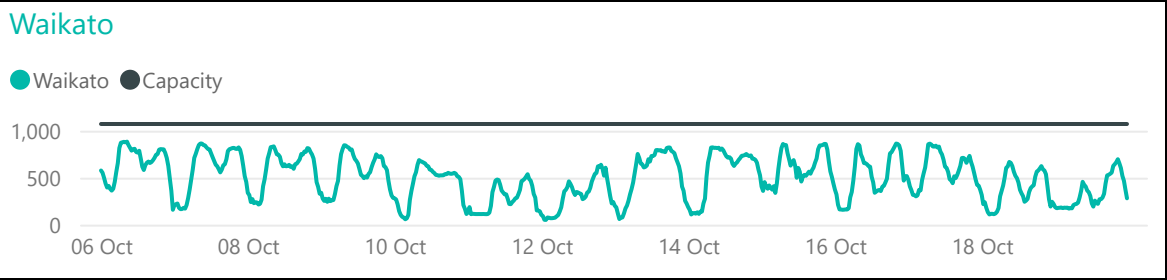
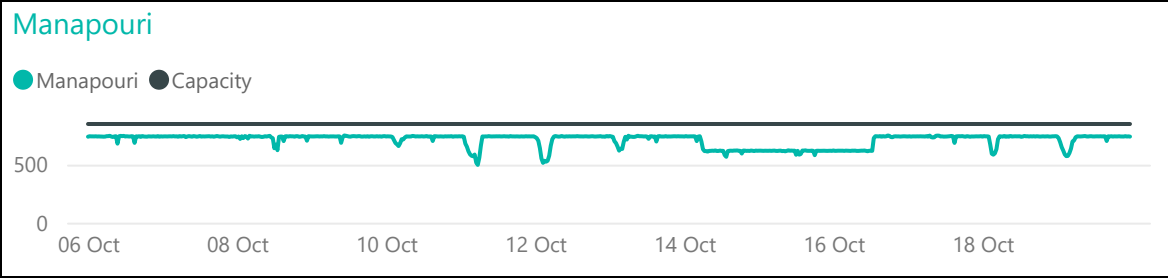
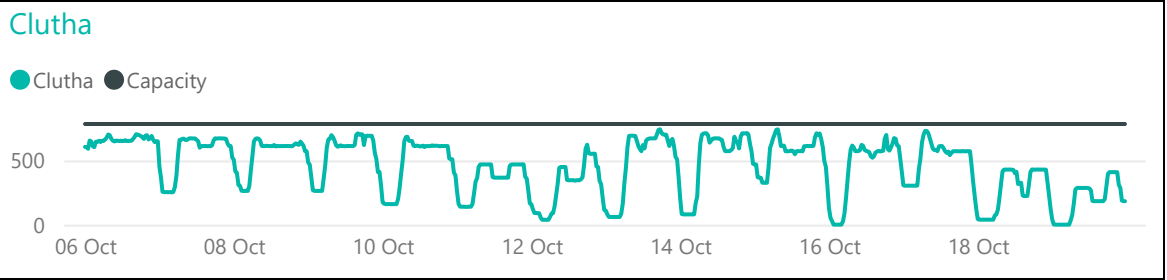
In addition to high wind and hydro generation, warmer temperatures and the school holiday period resulted in lower demand across the motu. With reduced demand and high renewable generation, thermal generation contributed only 1% of the generation mix in each of the last two weeks. Thermal outages may have also contributed to the low thermal share of the generation mix, including the [extended outage of Huntly Unit 5](#). The other 1% of the generation mix was supplied by cogeneration. We categorise these generators separately from other thermals as their generation is determined by industrial processes rather than spot market signals.

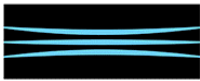
Recent generation build is another factor that can support higher renewable percentages. Over the last few years several new renewable projects have been commissioned, including large geothermal plants. These additions increase renewable capacity, which combined with strong hydro inflows and high wind conditions can help push weekly renewable shares to these high levels.



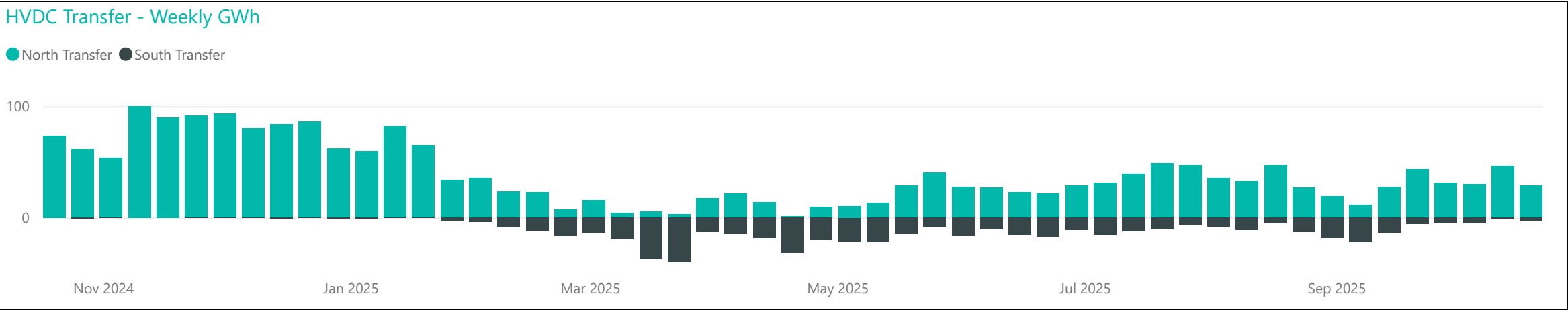
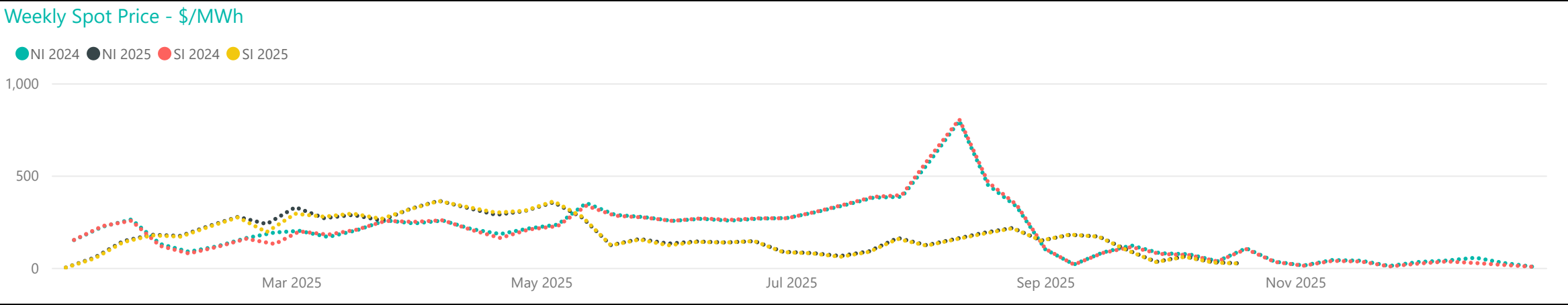
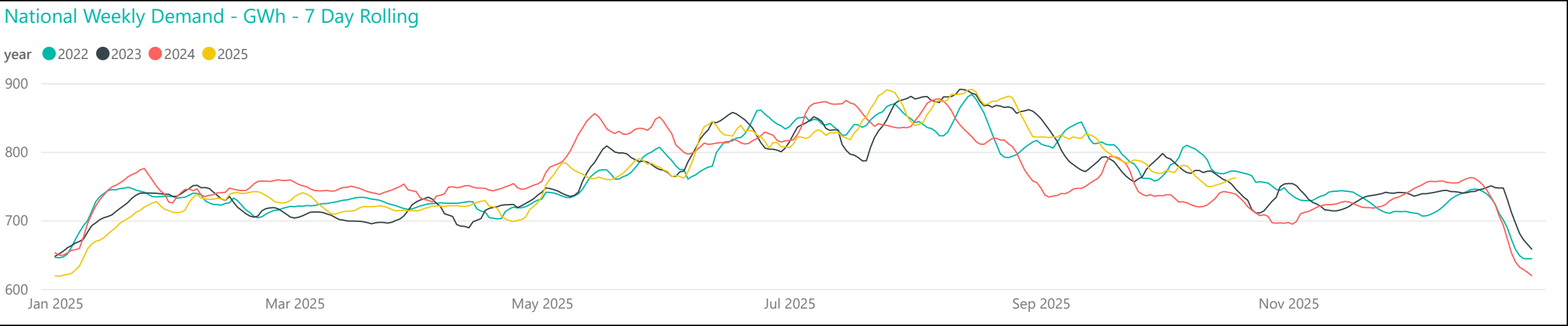
Generation Breakdown - Last Two Weeks

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

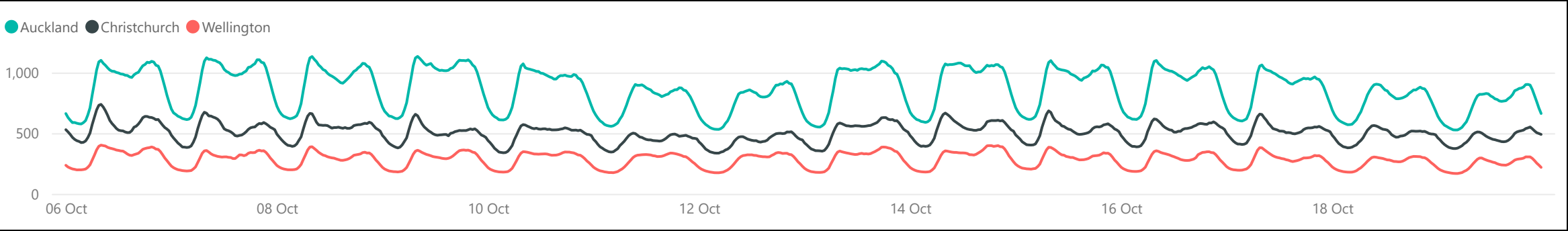




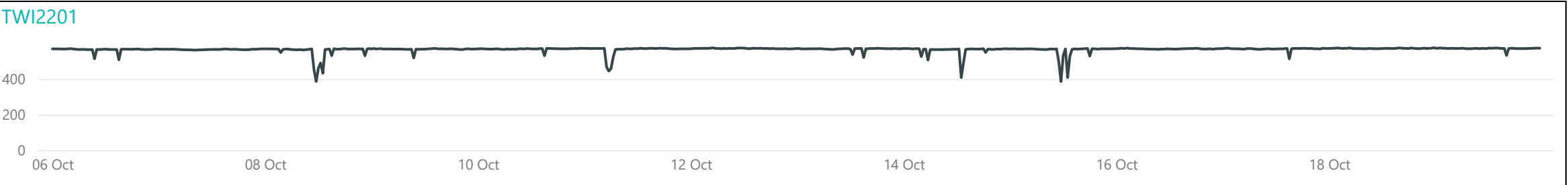
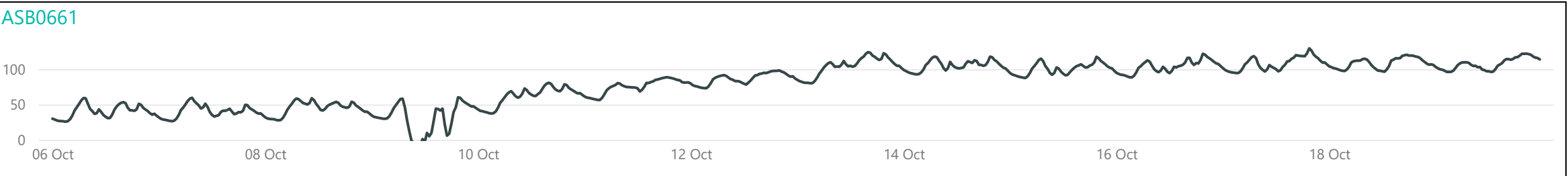
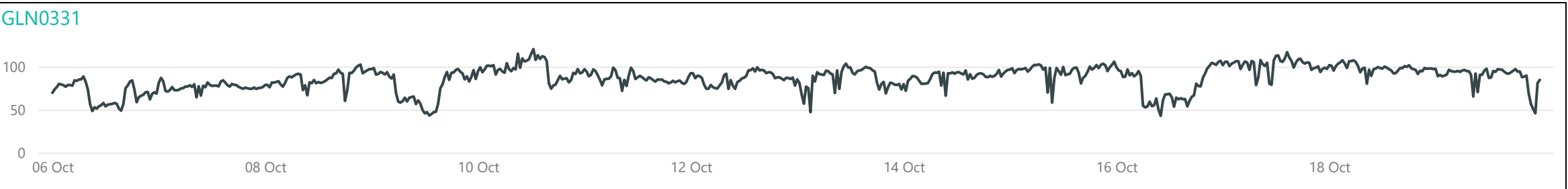
Weekly Profiles



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

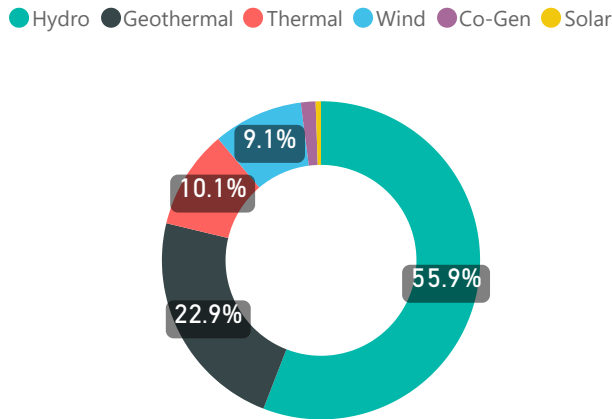


Non-Conforming Load Profiles - Last Two Weeks *Measured in MW shown by GXP*

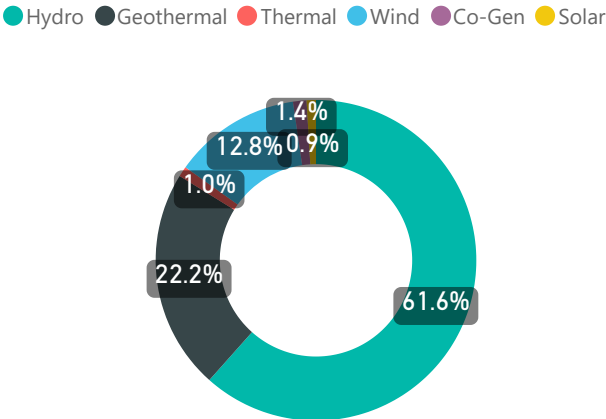


Generation Mix

Last 52 Weeks Generation Mix - Weekly GWh



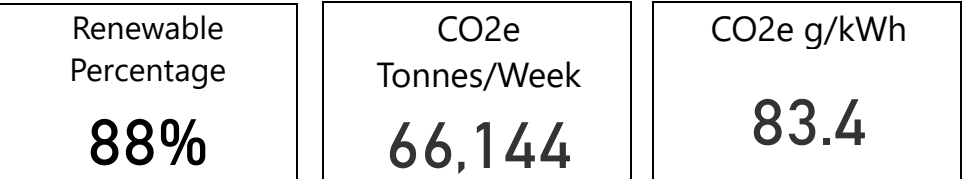
Last 7 Days Generation Mix - Weekly GWh



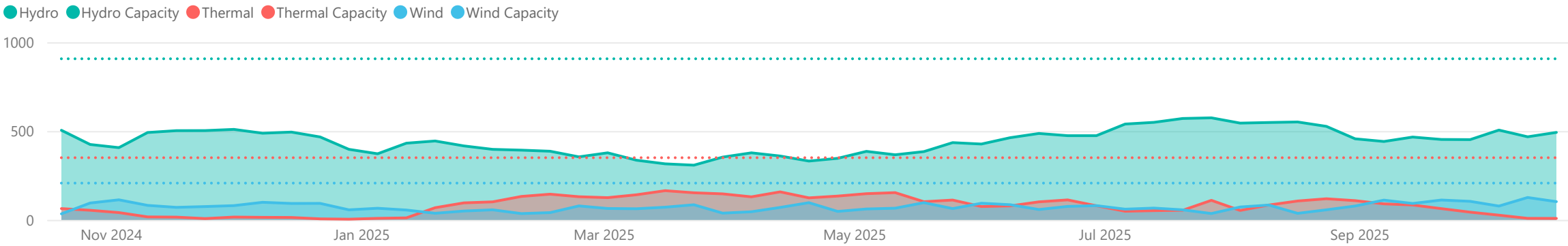
Average Metrics Last 7 Days



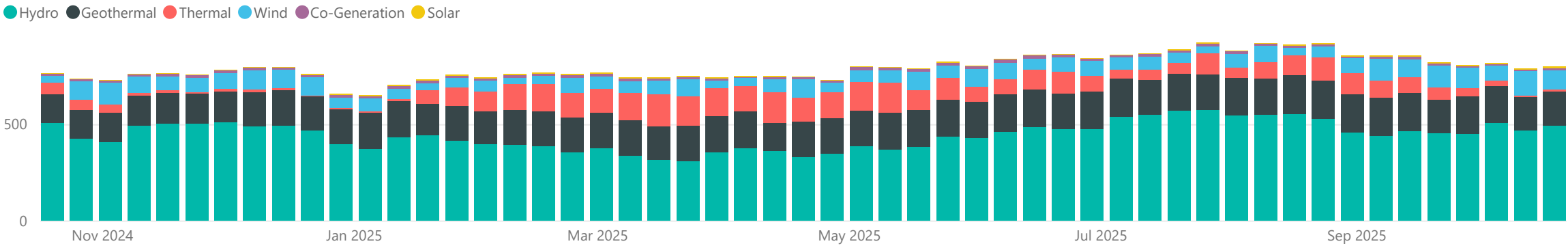
Average Metrics Last 52 Weeks



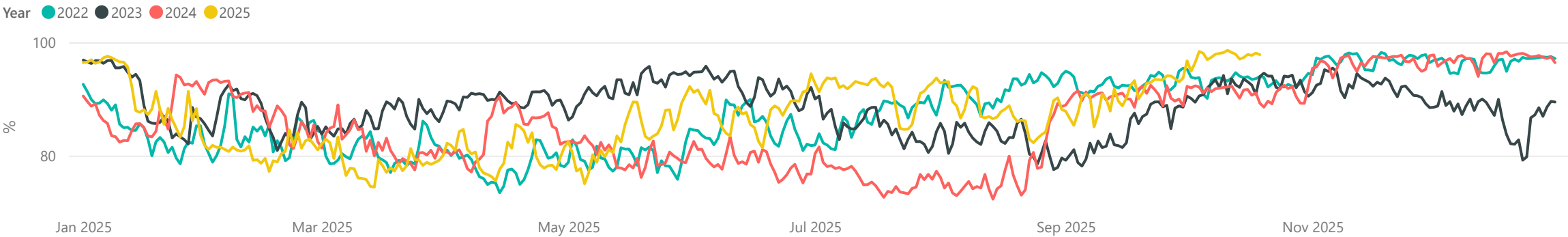
Weekly Generation Mix vs Capacity - GWh



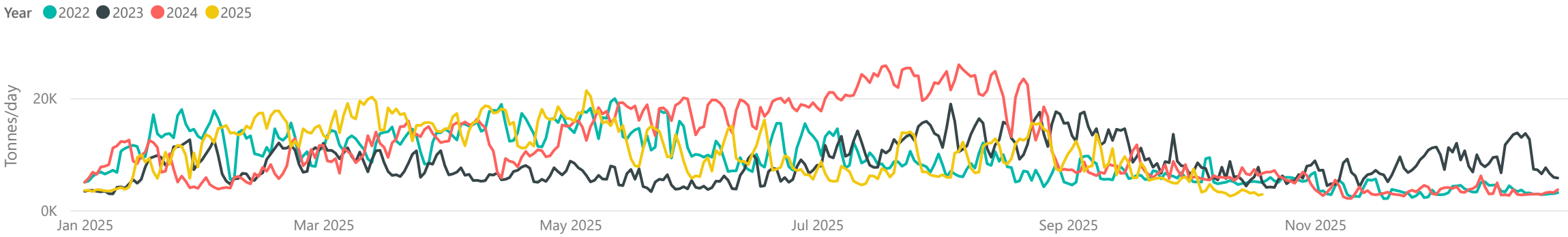
Weekly Generation Mix - GWh



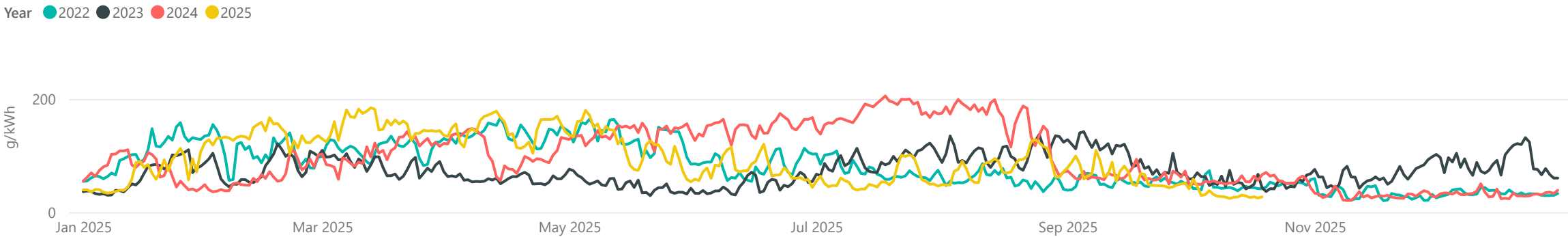
NZ Renewable Percentage

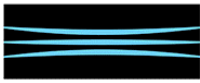


CO2 Tonnes/Day

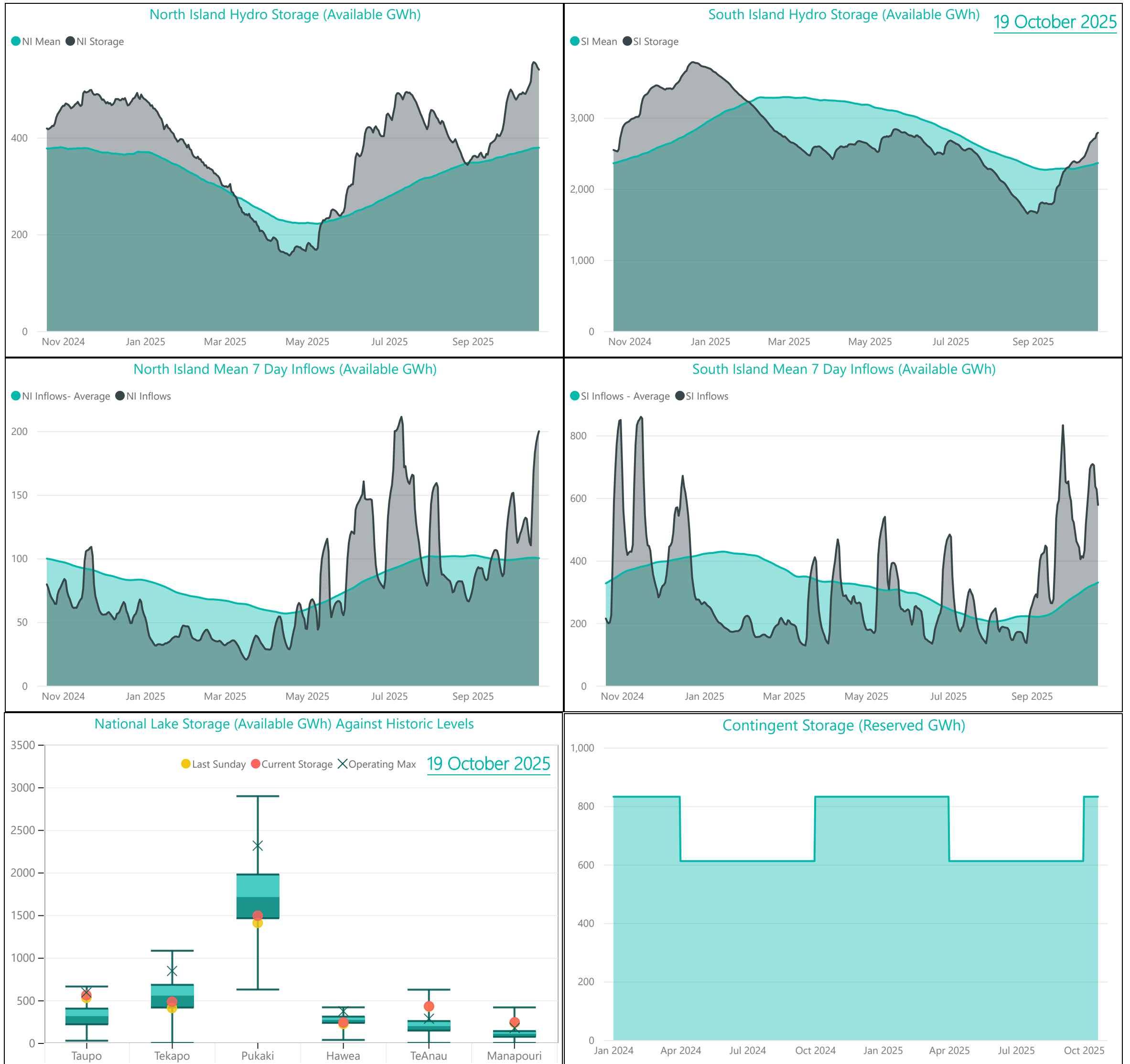


CO2 g/kWh





Hydro Storage



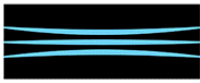
For further information on security of supply and Transpower's responsibilities as the System Operator, refer to our webpage here: <https://www.transpower.co.nz/system-operator/security-supply>.

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

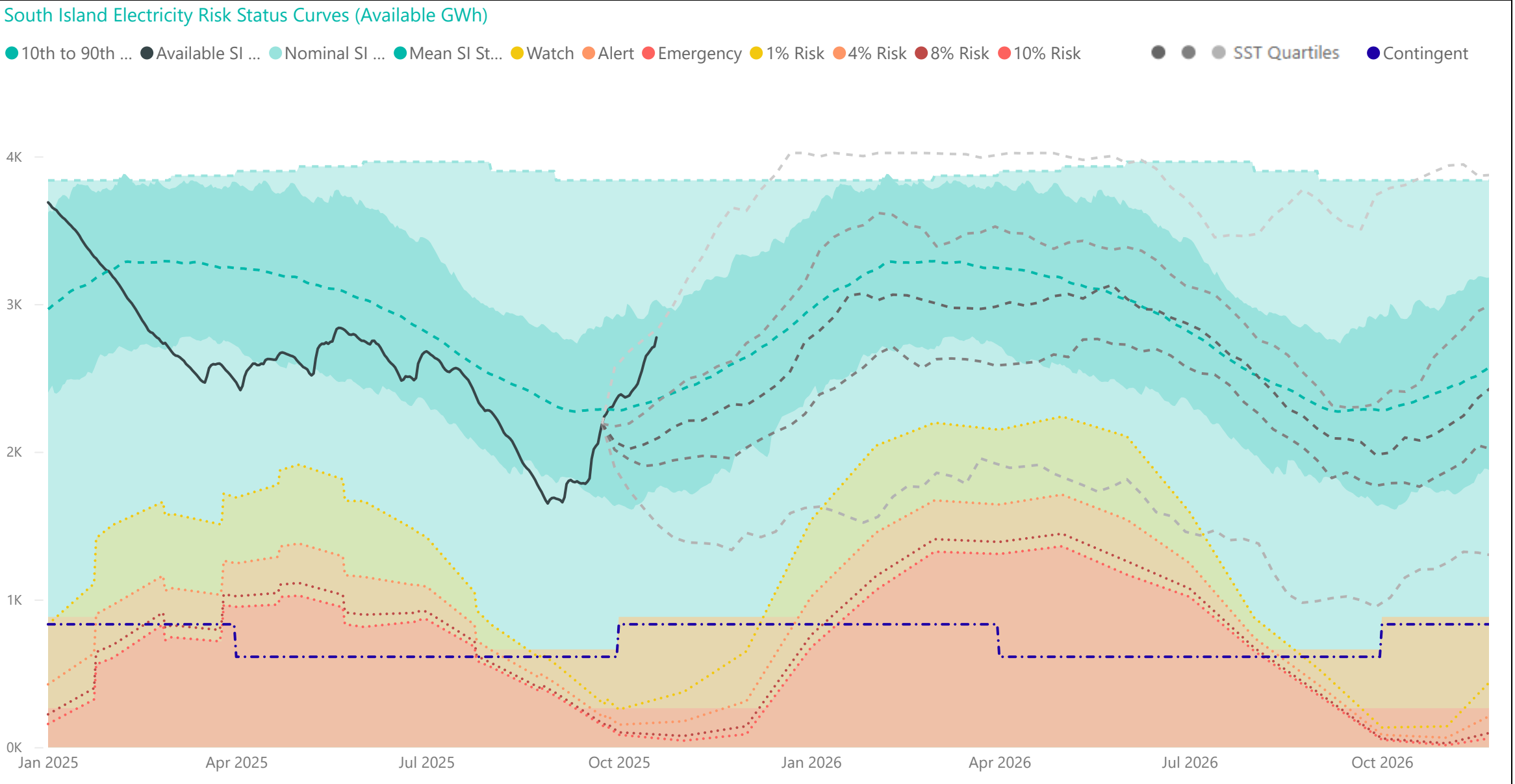
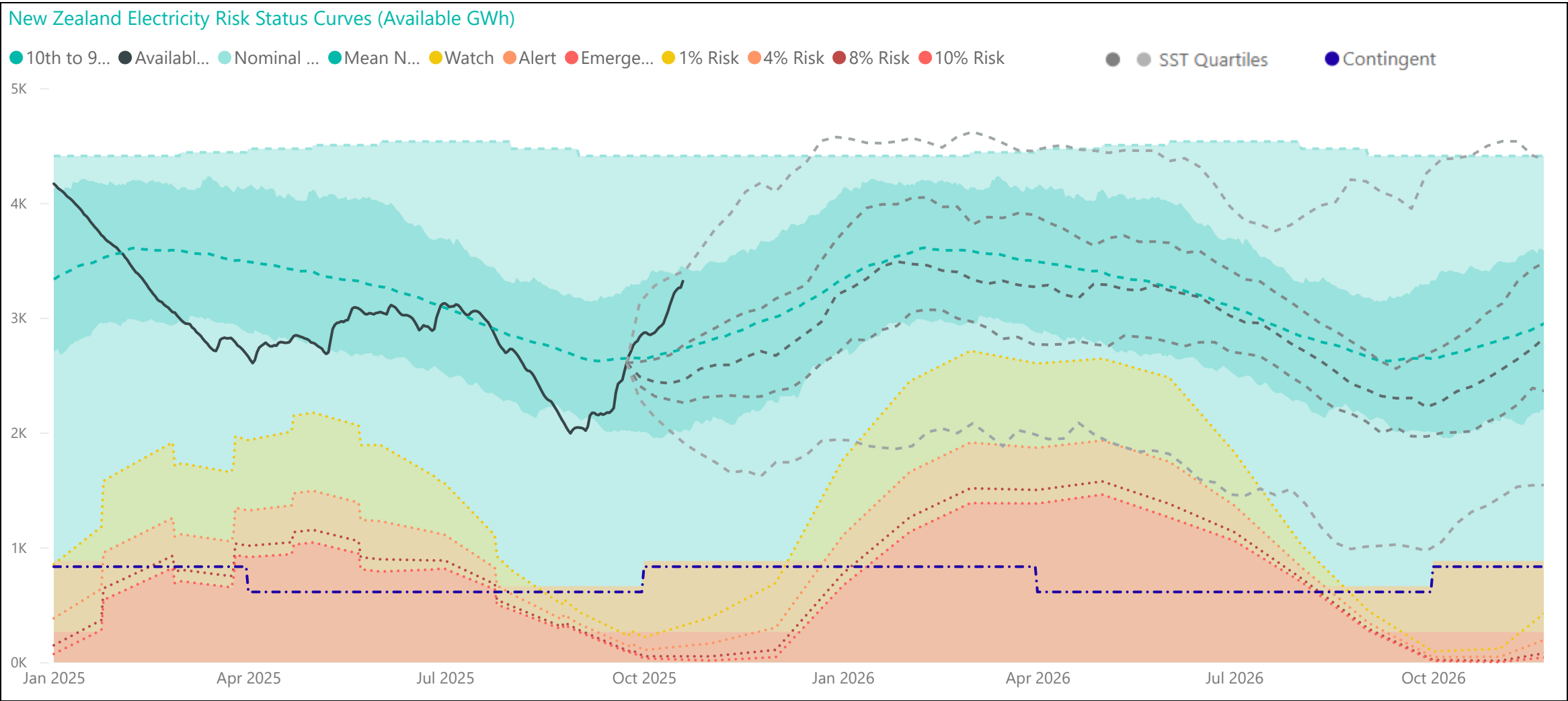
Hydro data used in this report is sourced from [NZX Hydro](https://www.nzx.co.nz/hydro).

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).