



Market Operations Weekly Report - Week Ended 3 May 2026

Overview

National hydro storage remains above average, though levels have eased slightly, declining from 112% to 110% of the historic mean for this time of year. North Island storage continues to be exceptionally high at 220% of the historic mean, while South Island storage is close to average at 102% of the mean.

This week's insight looks at the relationship between seasonal climate outlooks and historic inflows to controlled storage catchments.

Security of Supply Energy

National hydro storage decreased to 110% of historic mean at the end of last week. South Island storage decreased from 104% to 102% and North Island storage decreased from 228% to 221% with lower than average inflows for both islands last week.

Capacity

Residuals were healthy during morning and evening peaks last week. The lowest residual of 584 MW occurred during the morning of Friday 1 May which coincided with the highest demand peak of the week.

The N-1-G margins in the NZGB forecast remain healthy, but are trending downwards into winter with tighter spots appearing that we recommend the industry watch 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 decreased from 788 GWh to 758 GWh for the week with milder temperatures. The highest demand peak of 5,952 MW occurred at 7:30am on Friday 1 May.

Weekly Prices

The average wholesale electricity spot price at Otāhuhu last week was \$101/MWh, decreasing slightly from \$102/MWh the week prior. Wholesale prices peaked at \$196/MWh at Otāhuhu at 7:30am on Friday 1 May, coinciding with the highest demand peak of the week.

Generation Mix

Wind generation remained unchanged at 7% of the generation mix last week, while hydro generation also held steady at 59%. Thermal generation remained at 6%, slightly below its yearly average of 7%, and geothermal generation was unchanged at 25%, continuing to sit above its annual average of 23% as seen in recent weeks due to the additional geothermal capacity at Ngā Tamaraki.

HVDC

HVDC flows last week were predominantly northward, consistent with national hydro storage sitting slightly above average for this time of year. There were brief periods of southward flow overnight, coinciding with low wind generation at times. Overall, 92 GWh was transferred north, while 6 GWh was transferred south during the week.

Consultations and Engagement

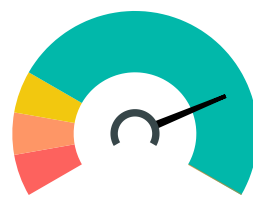
SOSA

Submissions on the [Draft Security of Supply Assessment \(SOSA\) 2026](#) are open until 5pm Thursday 14 May, followed by a one-week cross-submission period. The SOSA provides a 10-year outlook (2026–2035) on supply-demand balance to support security of supply risk management and investment decisions.

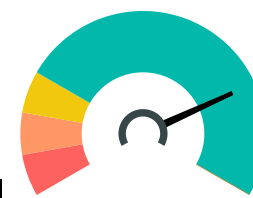
Emergency Reserve scheme

Expressions of interest are also open until Wednesday 20 May for an industry co-design panel to support the development of the new [Emergency Reserve](#) ancillary service, enabled by recent Electricity Authority Code changes.

New Zealand Energy Risk

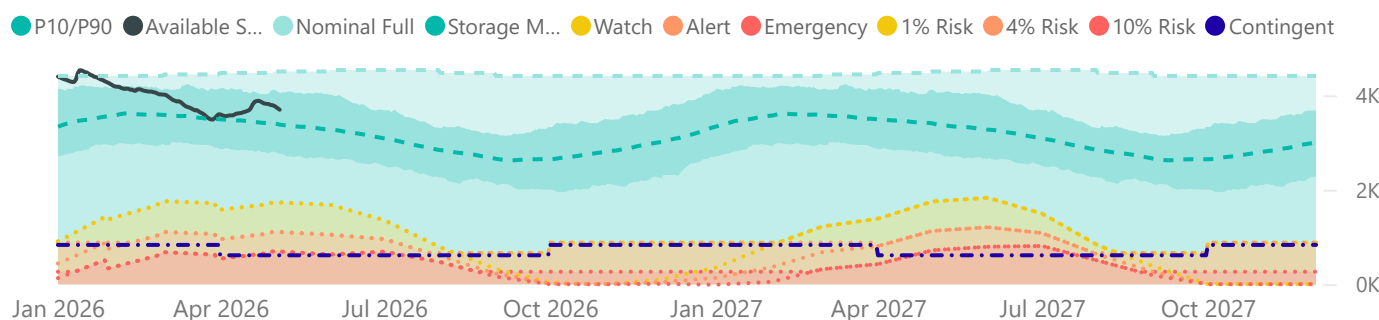


South Island Energy Risk

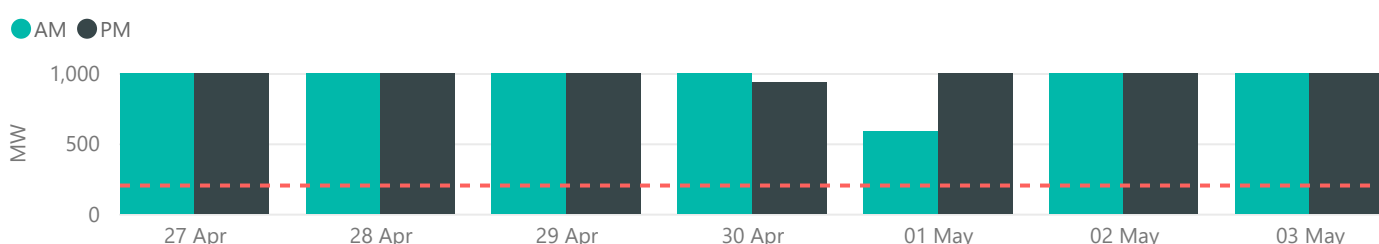


Normal Watch Alert Emergency

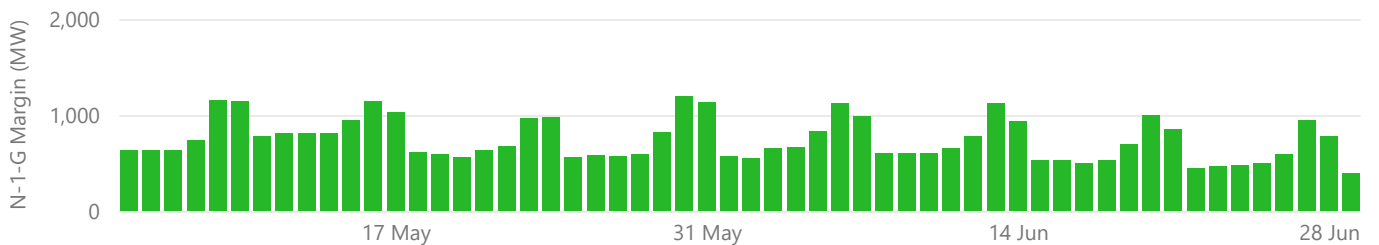
New Zealand Electricity Risk Status Curves (Available GWh)



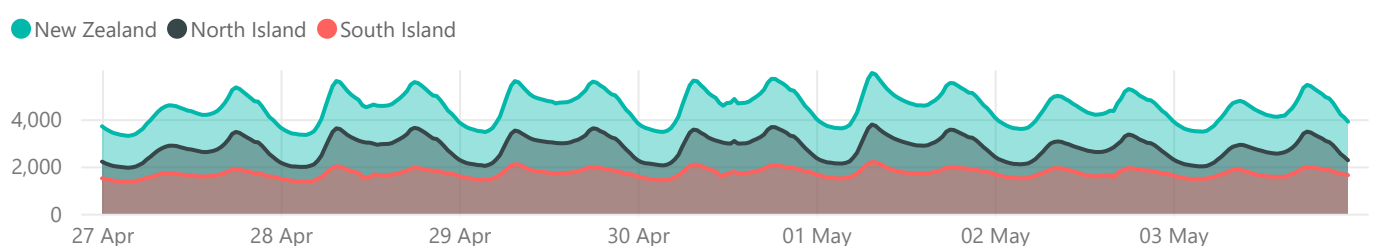
Lowest Residual Points - MW



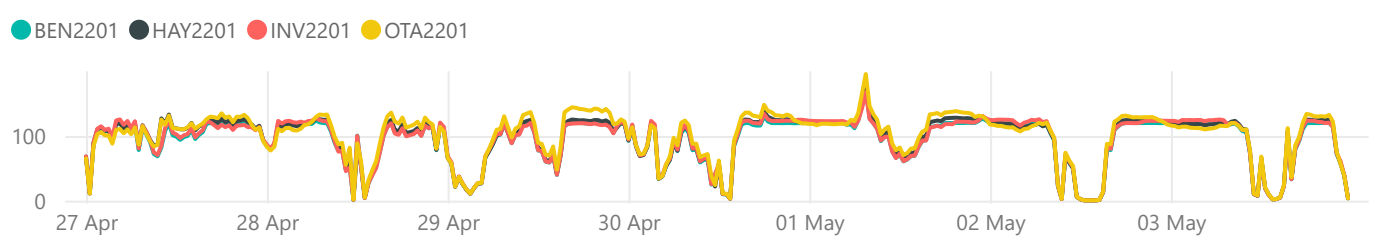
NZGB Look-Ahead (excluding next 7 days)



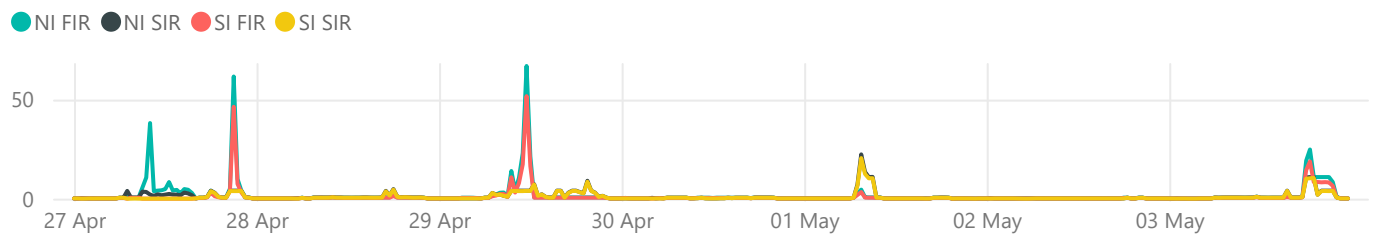
National Demand by Trading period - MW



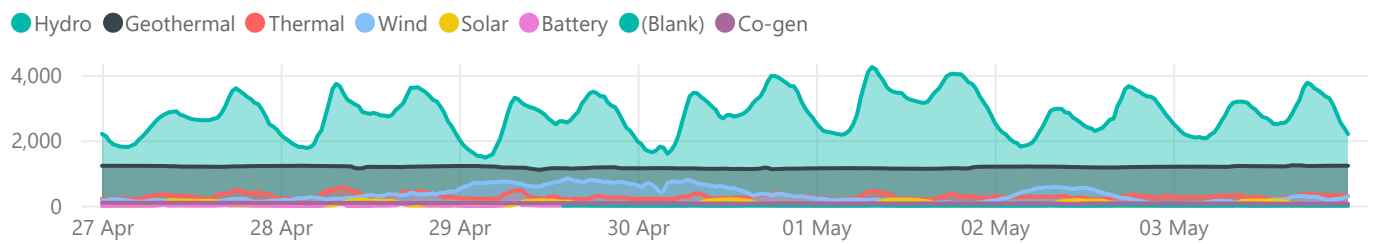
Energy Prices - \$/MWh



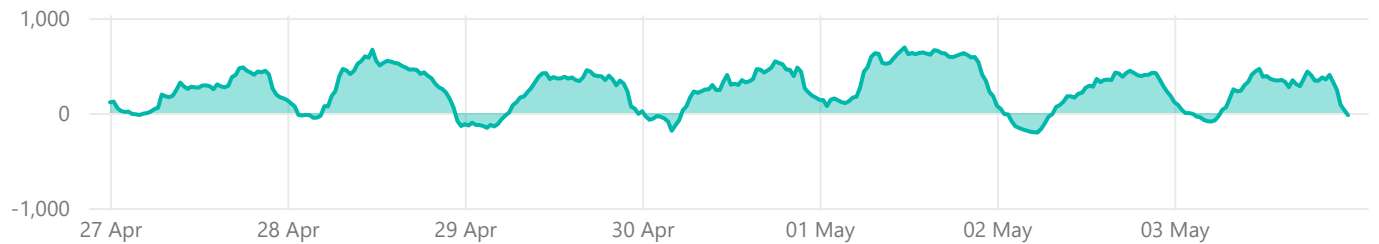
Reserve Prices - \$/MW



Generation - MW



Net HVDC Transfer - MW (Northward positive)



Weekly Insight - Relationship between Seasonal Climate Outlooks and Hydro Inflows

Over the past year, hydro generation has accounted for 59% of the weekly generation mix, underscoring the system's reliance on hydro resources. As a result, overall security of supply is highly sensitive to hydro inflows, particularly as we head toward winter. Climate outlooks provide useful signals for potential storage conditions over the coming quarter.

On 1 May, Earth Sciences New Zealand (formerly NIWA) published its latest [Seasonal Climate Outlook](#), indicating that May–July 2026 rainfall is expected to be near normal or below normal across most regions, with the west of the South Island more likely to see near- or above-normal rainfall.

This week's insight revisits previous analysis of how NIWA's seasonal rainfall outlooks compare with historical inflows into controlled storage catchments. While the outlooks are not deterministic forecasts, they provide useful directional signals for assessing medium-term security of supply risk.

The analysis compares rolling three-month inflows into the major controlled storage catchments in both islands against forecast rainfall categories used by NIWA for the same time of year. Three-month periods were selected to align with the horizon of the seasonal outlook, which is framed around quarterly conditions despite being updated monthly. Measured inflows are at specific storage catchments, whereas NIWA's outlook applies to broader regions across New Zealand so some divergence between the outlook and observed inflows is expected.

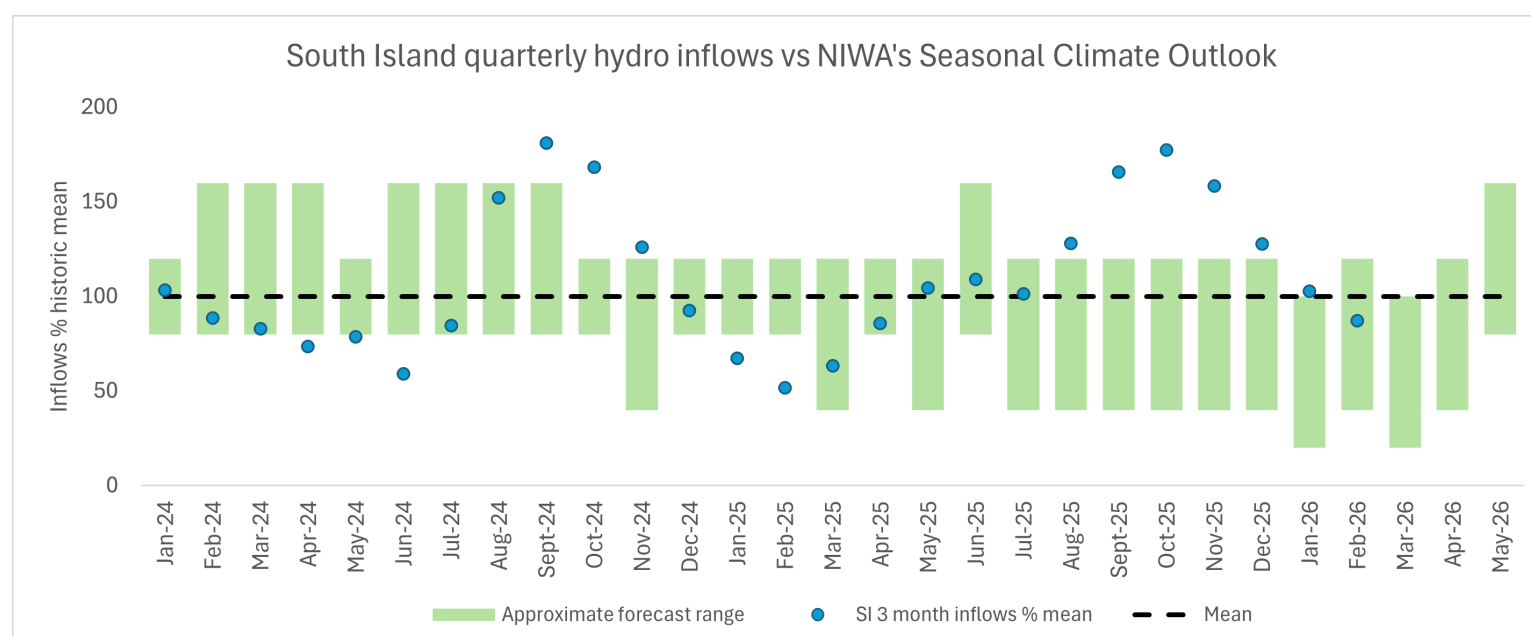
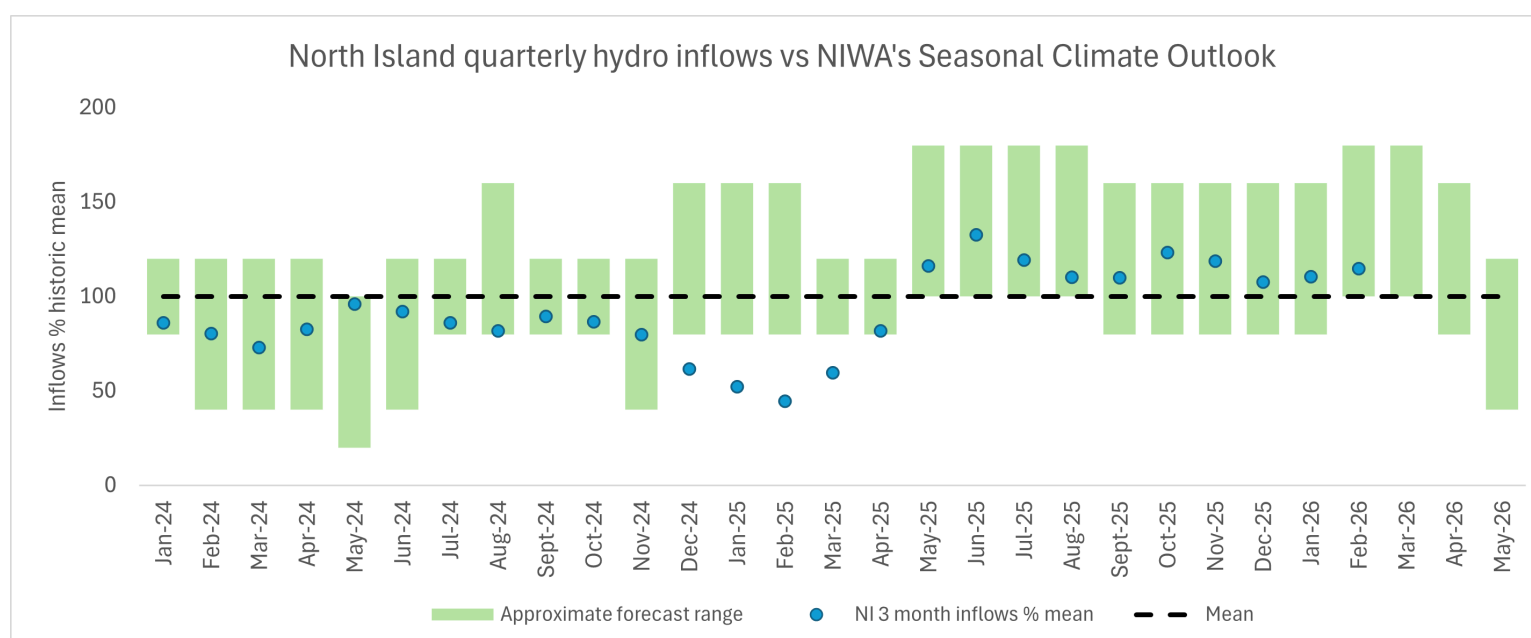
For the purposes of this analysis, NIWA's rainfall forecast categories have been approximated to the following ranges of inflows, expressed as a percentage of historic mean inflows:

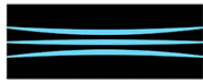
NIWA forecast category	Approximate inflows (% of historic mean)
Below	<100%
Normal-Below	<120%
Normal	80-120%
Normal-Above	>80%
Above	>100%

These ranges are shown as the shaded green bars in the charts below. Plotted as blue dots are rolling three-month inflows into the controlled storage catchments in each island expressed as a percentage of historic mean inflows for the same period. For example, the blue dot for January 2024 represents the inflows from January-March 2024 as a percentage of the historic average inflows through January-March on record.

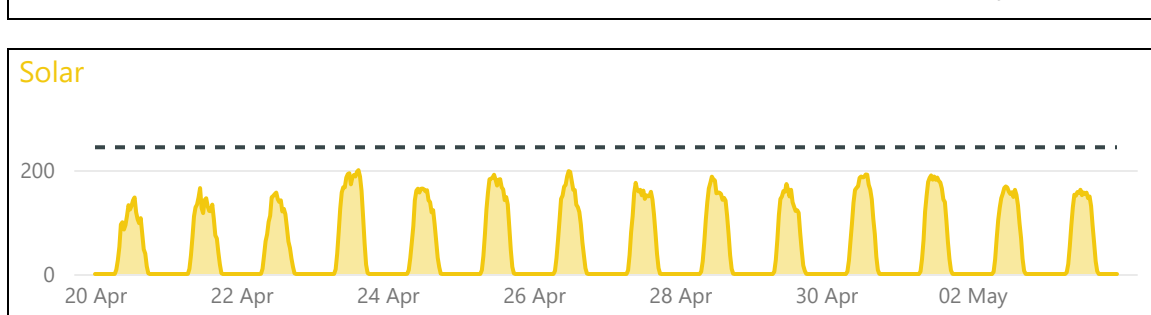
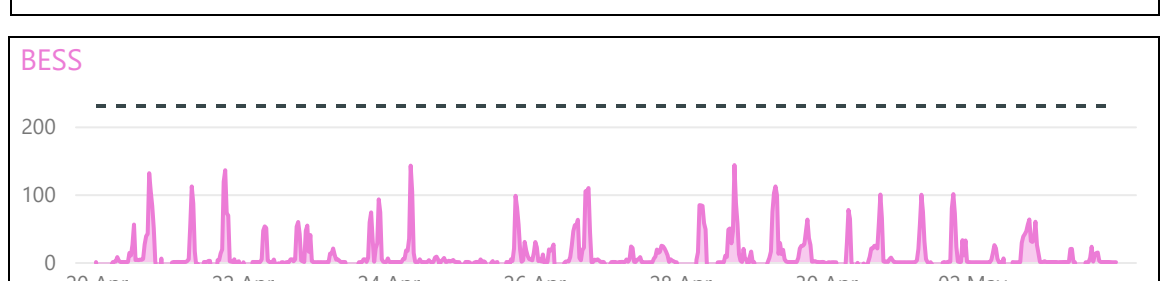
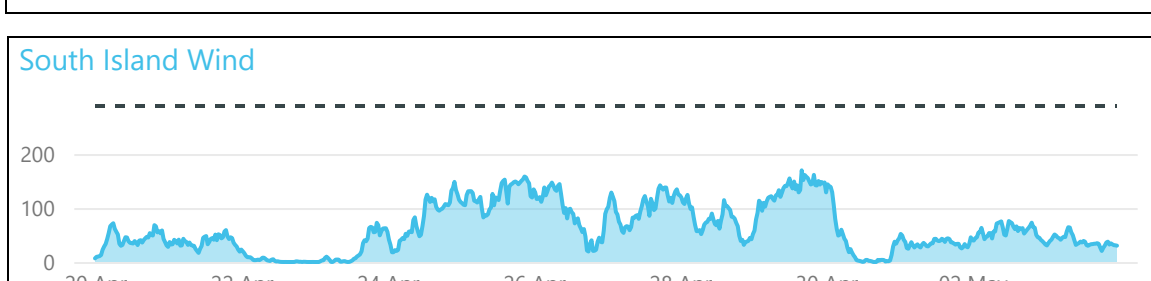
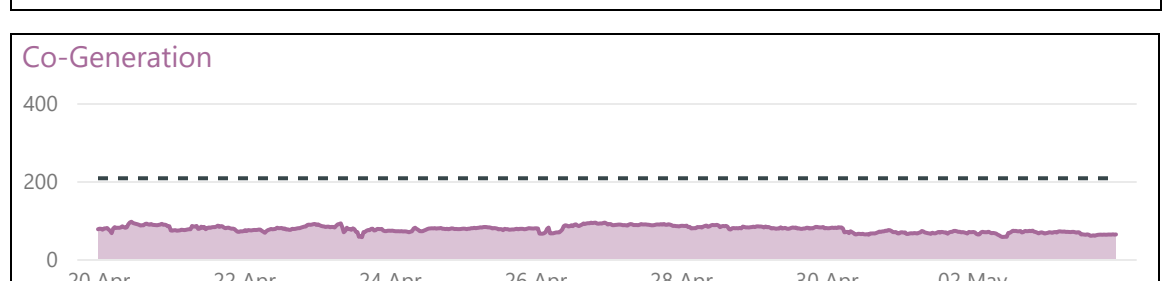
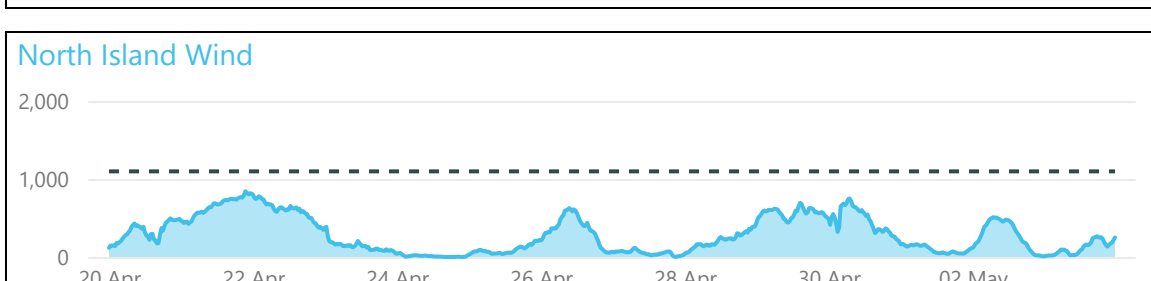
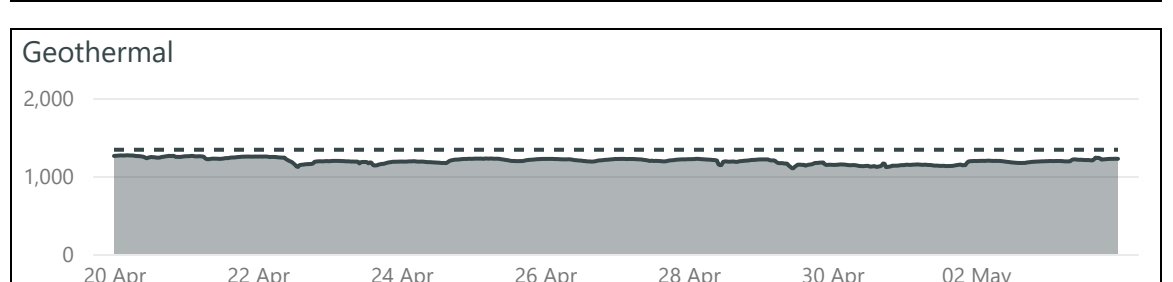
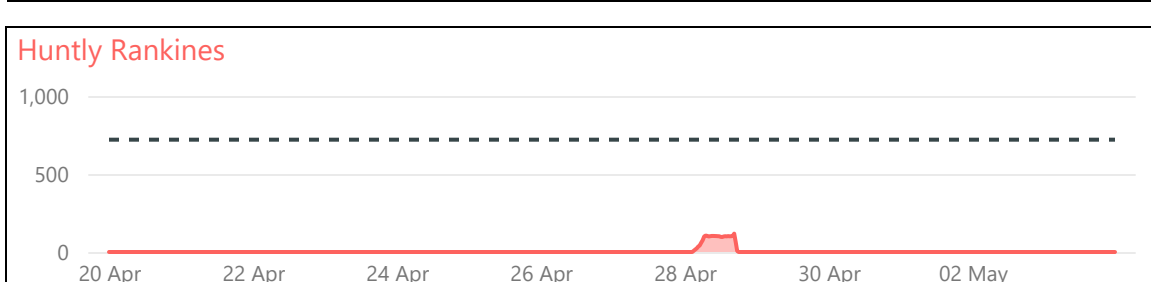
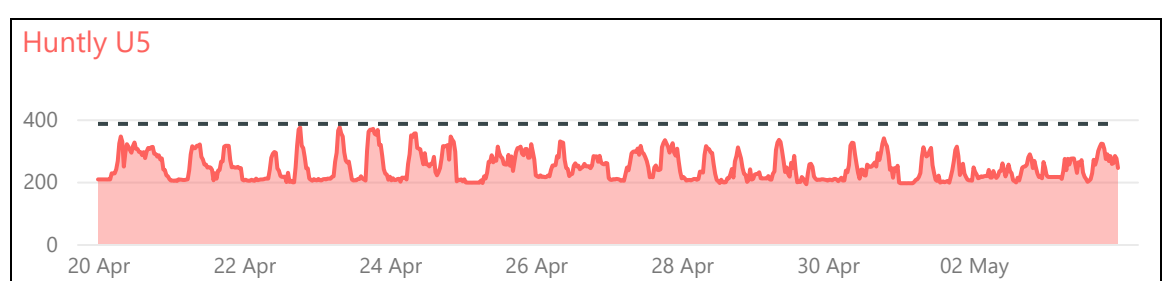
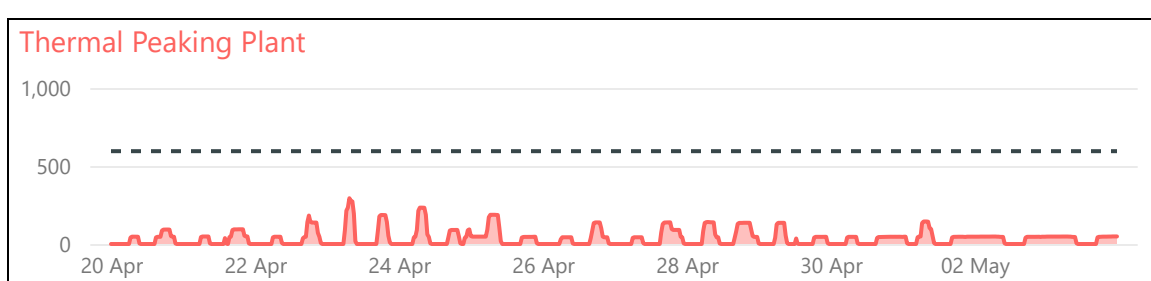
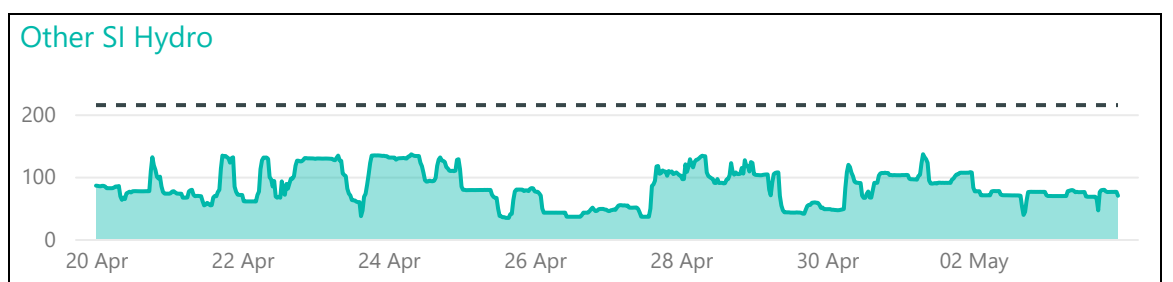
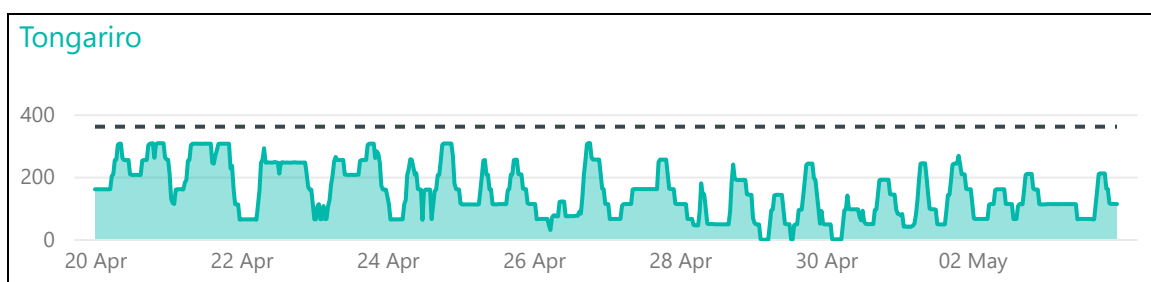
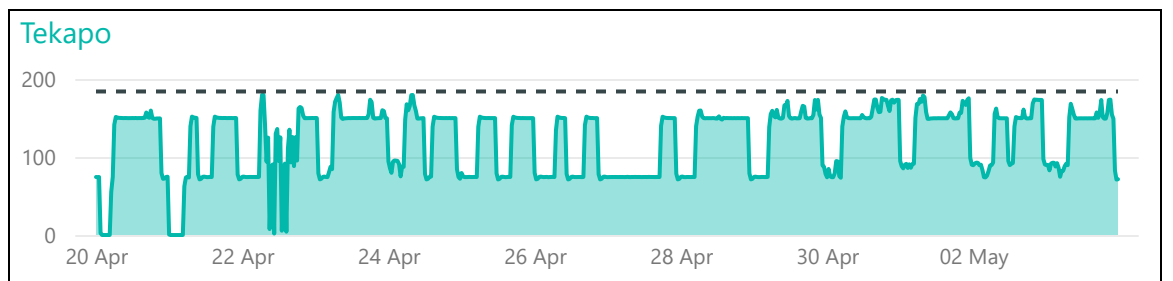
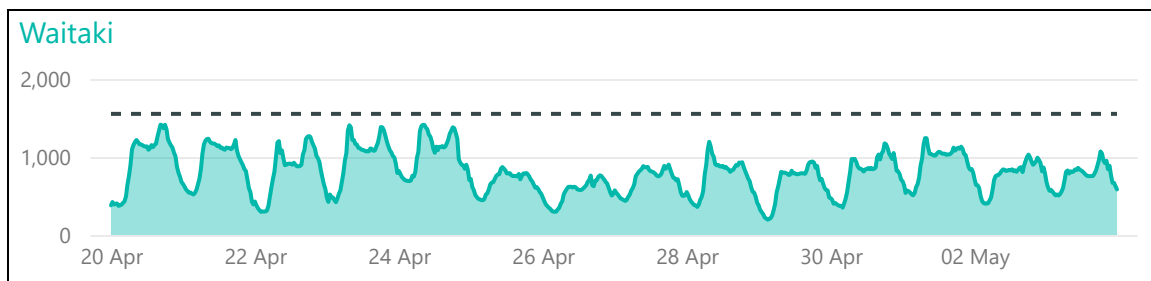
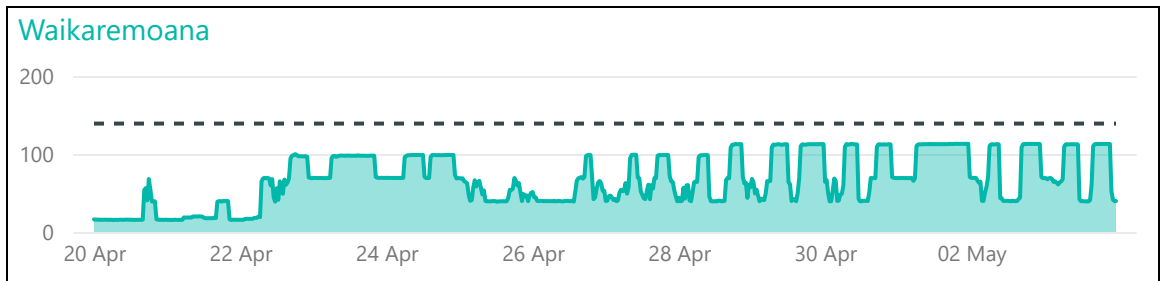
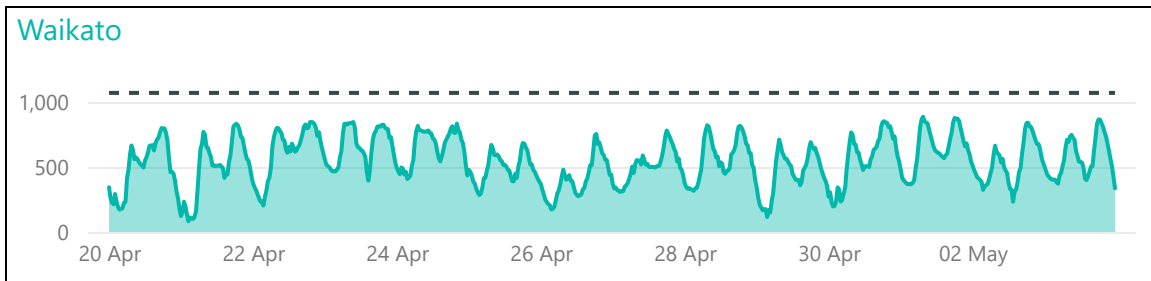
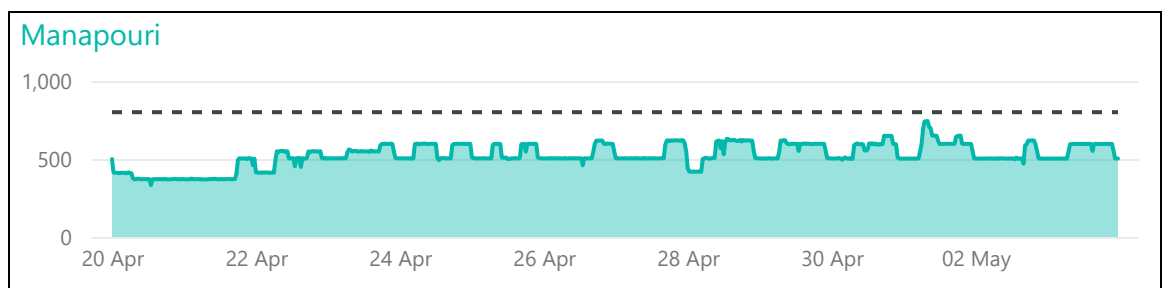
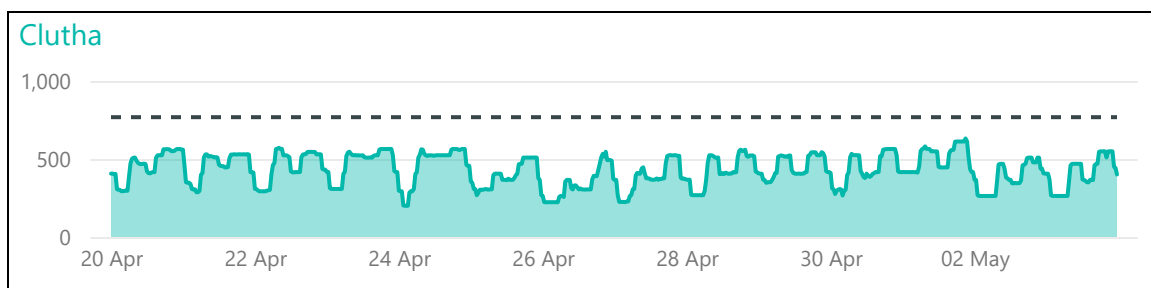
Observed inflows generally show some reasonable alignment with NIWA's seasonal rainfall outlooks over a three-month horizon. This relationship is stronger in the North Island, where inflows into Lake Taupō are more directly driven by forecast rainfall patterns. In the South Island, inflows show greater variability relative to the outlook forecast, reflecting the influence of snow storage and melt as well as geographic diversity over the range of contributing catchments. Over the analysis months considered in this study, total inflows into South Island controlled storage catchments were around four times greater than in the North Island.

The System Operator publishes a [Monthly Energy Security Outlook \(ESO\)](#), which provides a view of possible future storage trajectories (SSTs) and electricity risk curves (ERCs). Used alongside NIWA's Seasonal Climate Outlook, these tools help improve visibility of emerging security of supply risks, particularly given the inherent variability of South Island controlled inflows, which can be unpredictable and do not always align closely with broader South Island rainfall patterns.

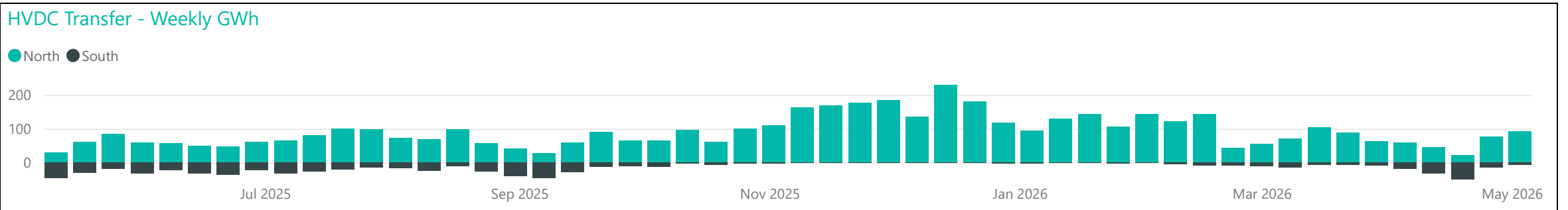
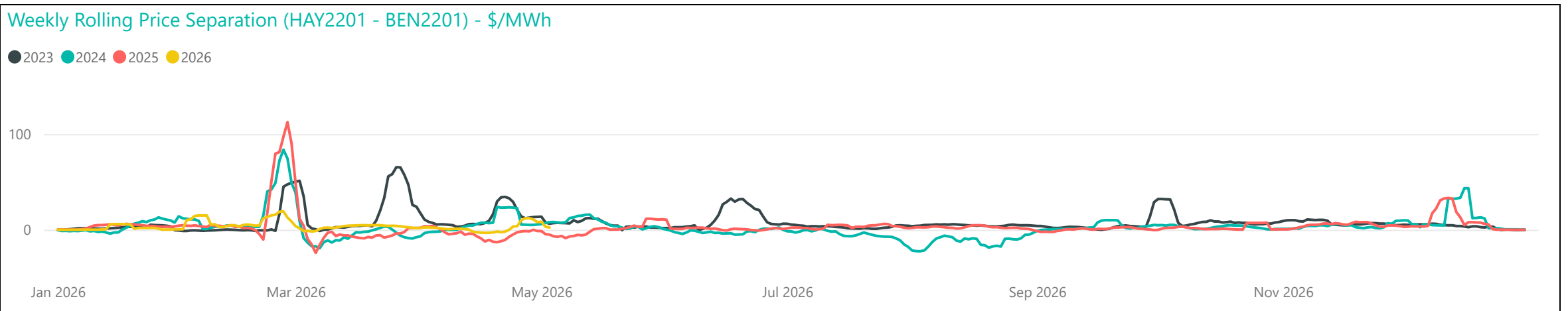
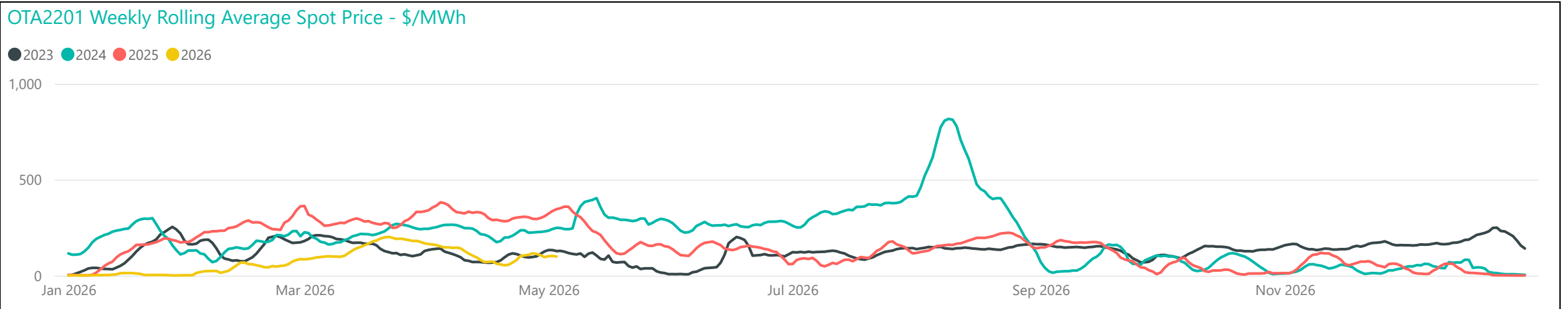
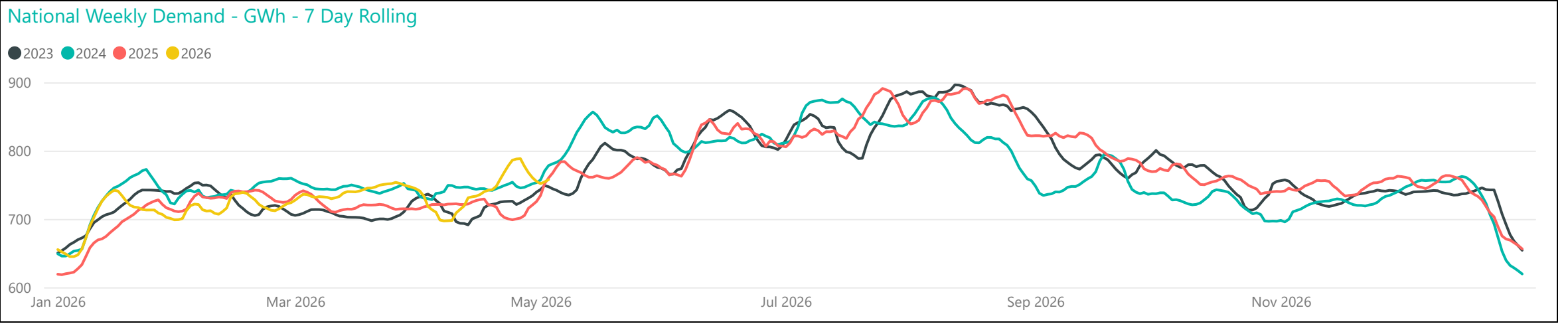




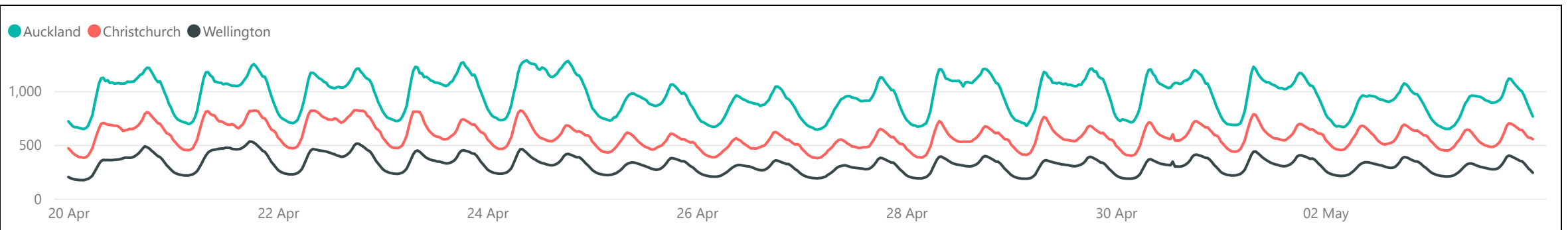
Generation Breakdown - Last Two Weeks *Measured in MW and displayed at trading period level for last 14 days*



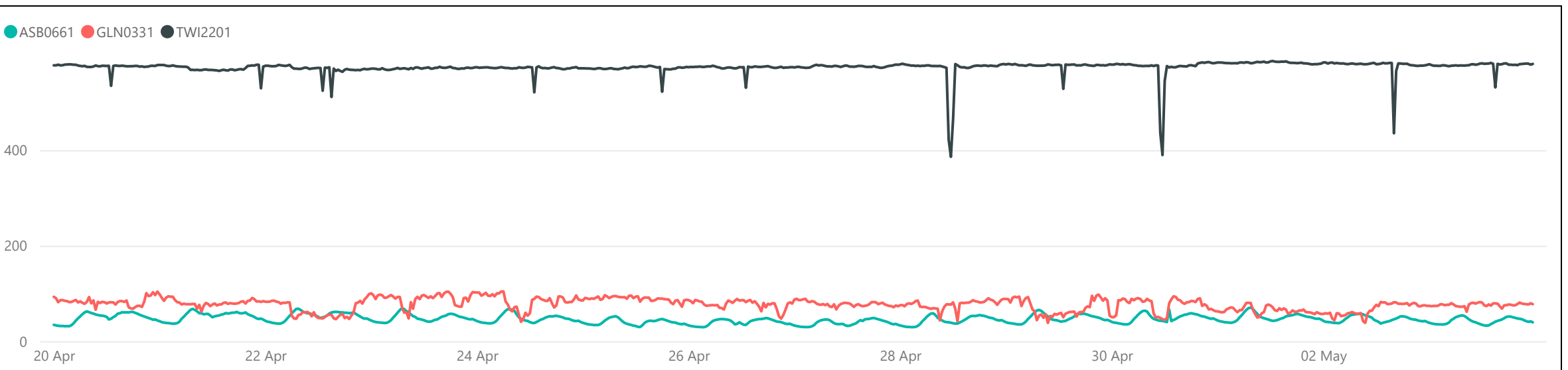
Weekly Profiles



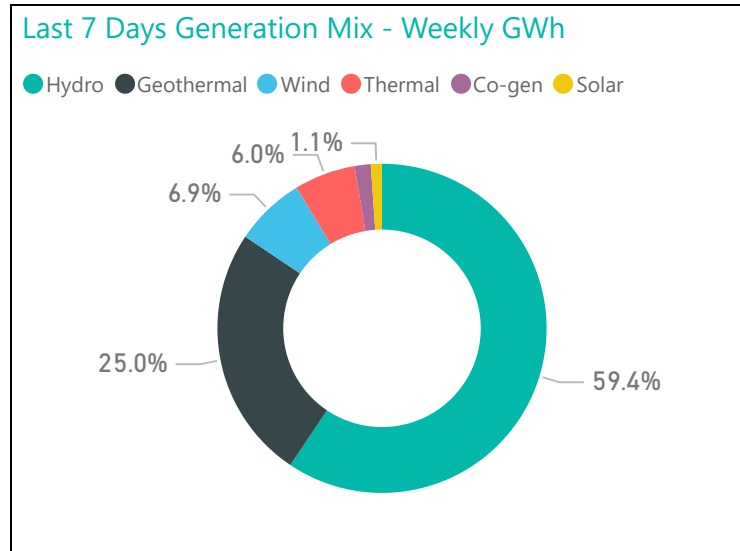
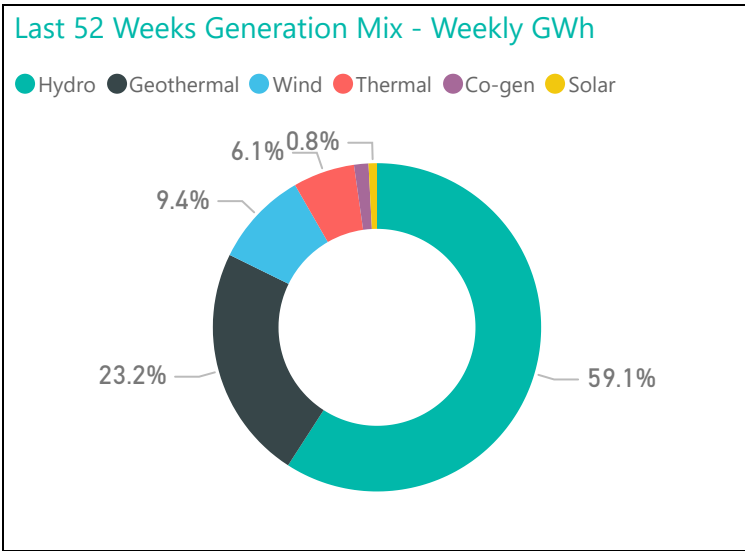
Conforming Load Profiles - Last Two Weeks *Measured in MW shown by region*



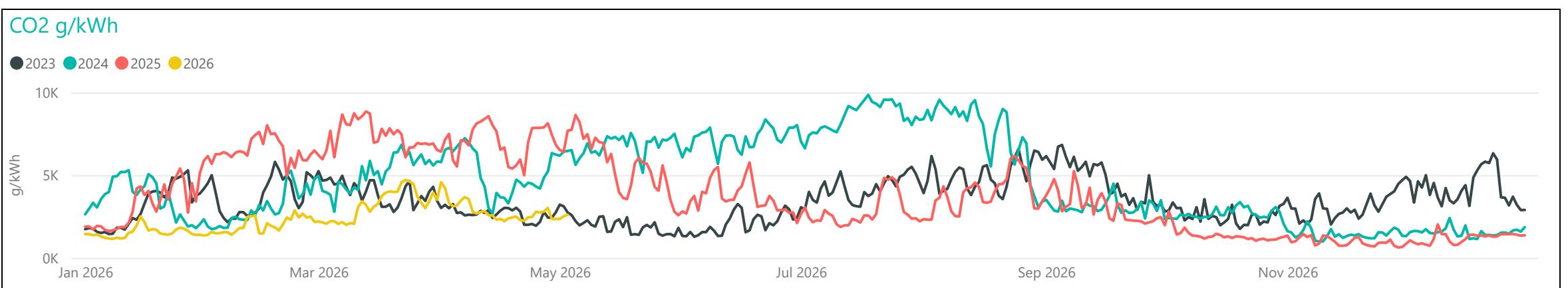
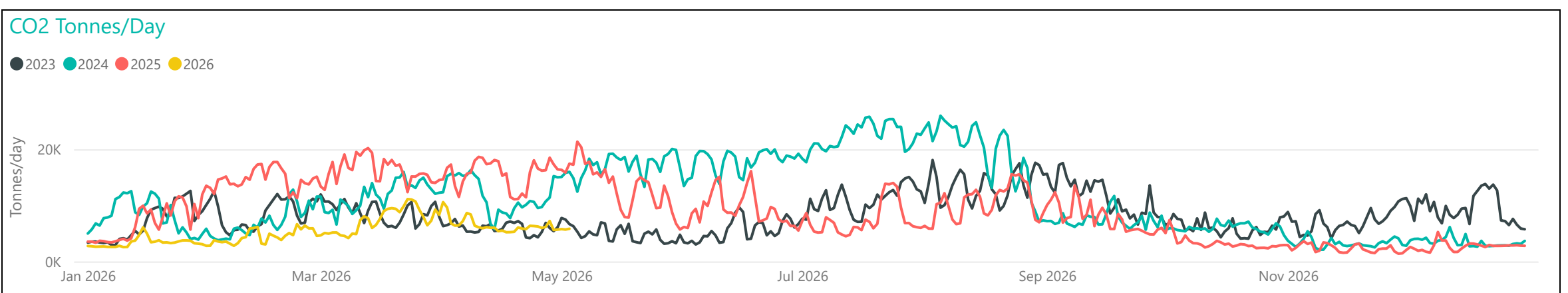
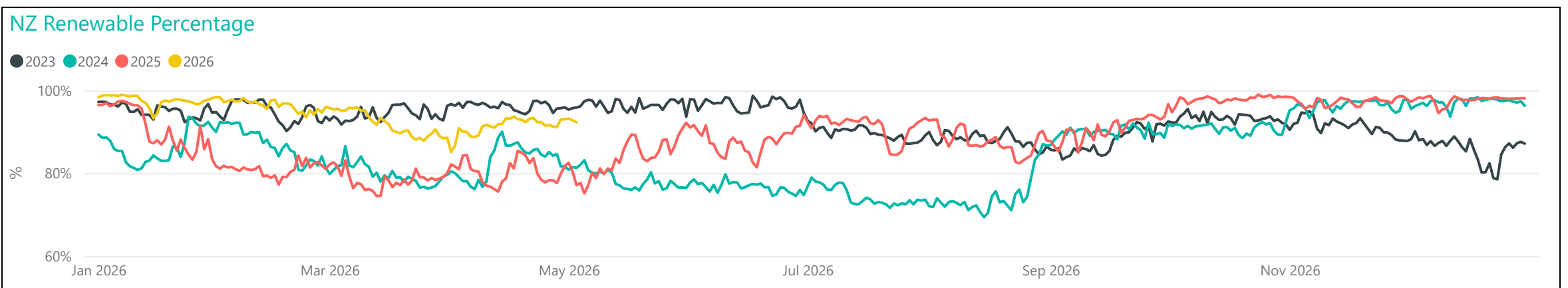
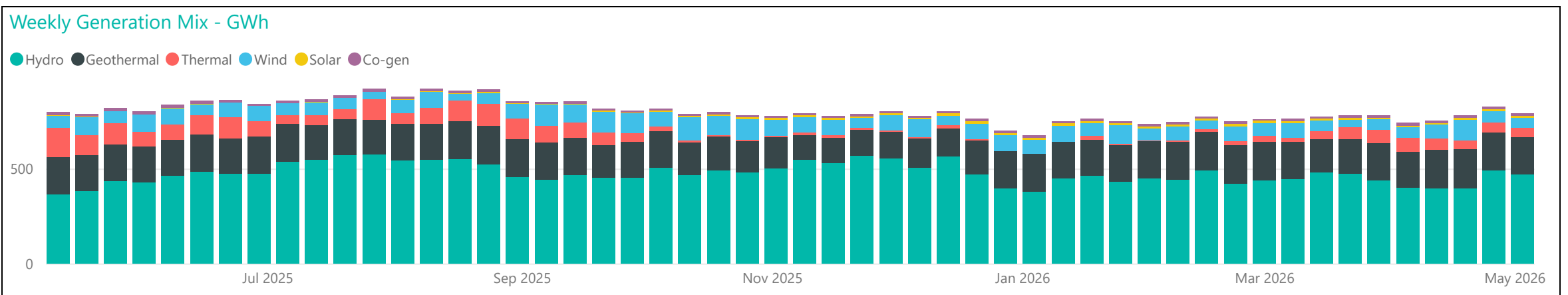
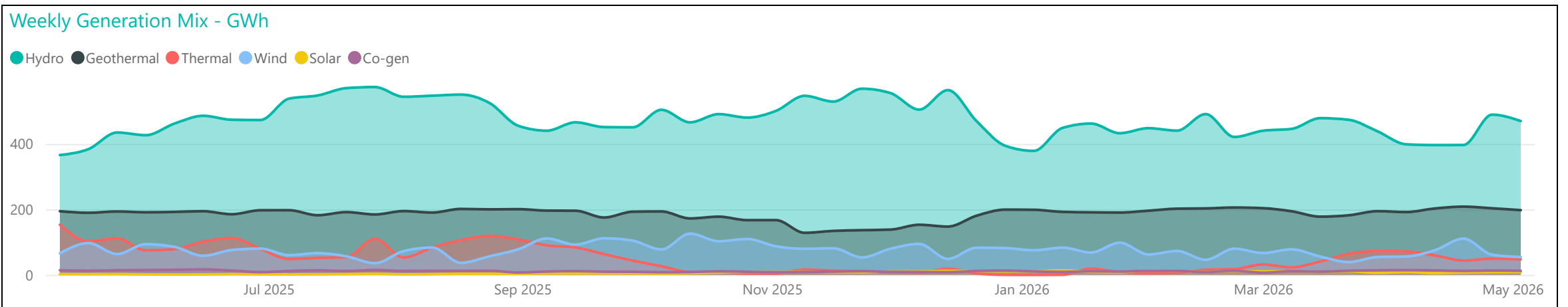
Non-Conforming Load Profiles - Last Two Weeks *Measured in MW shown by GXP*



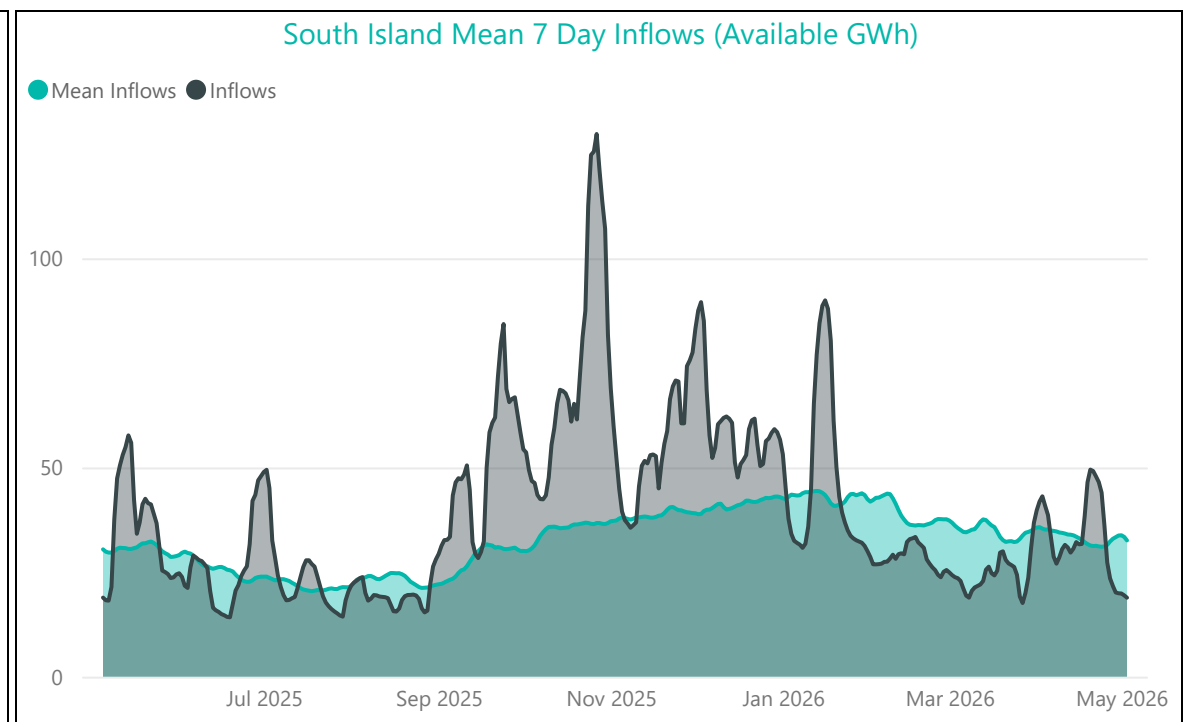
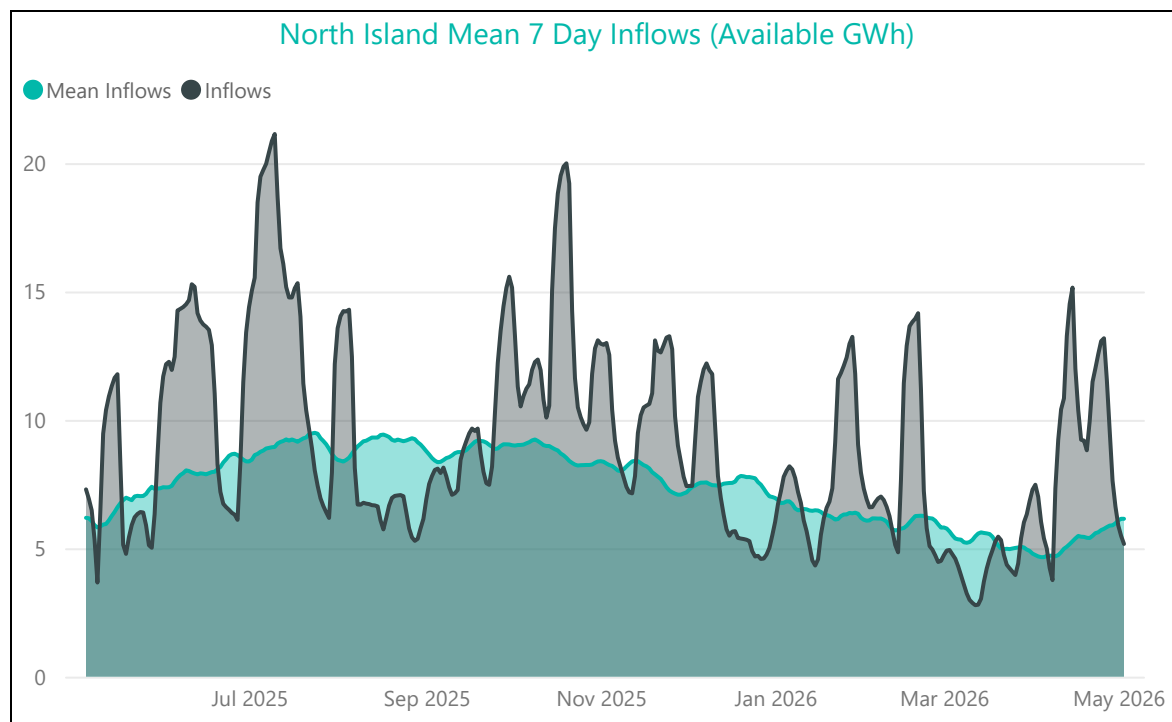
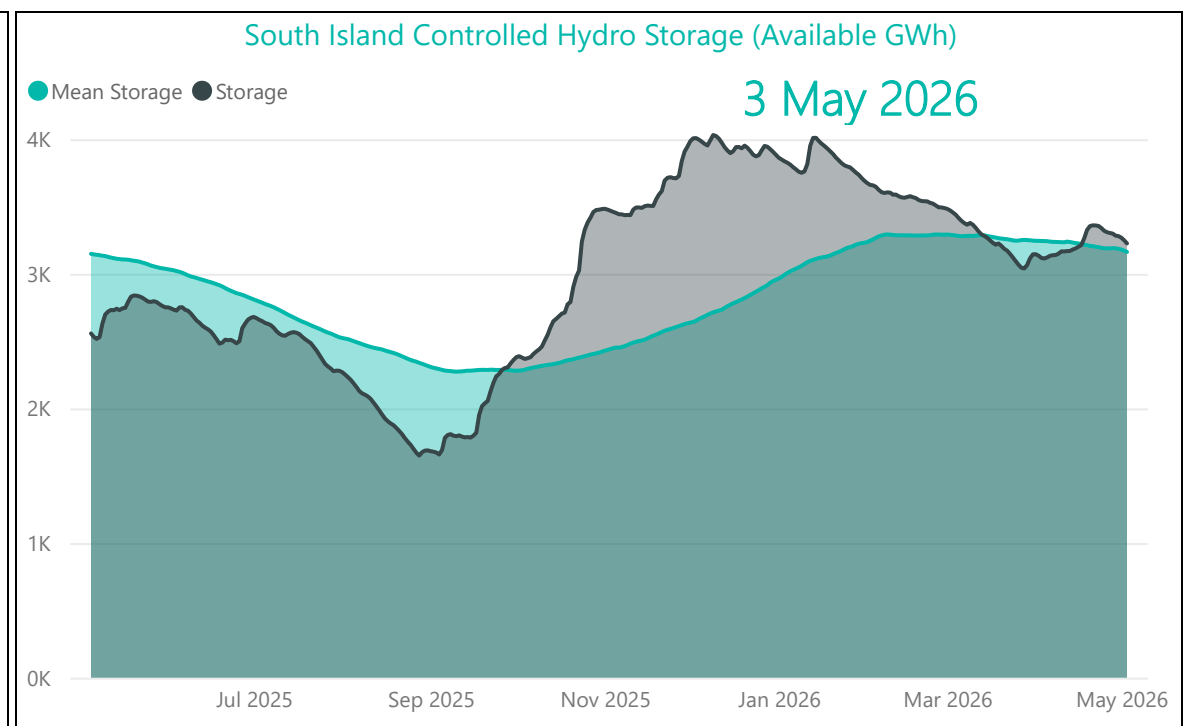
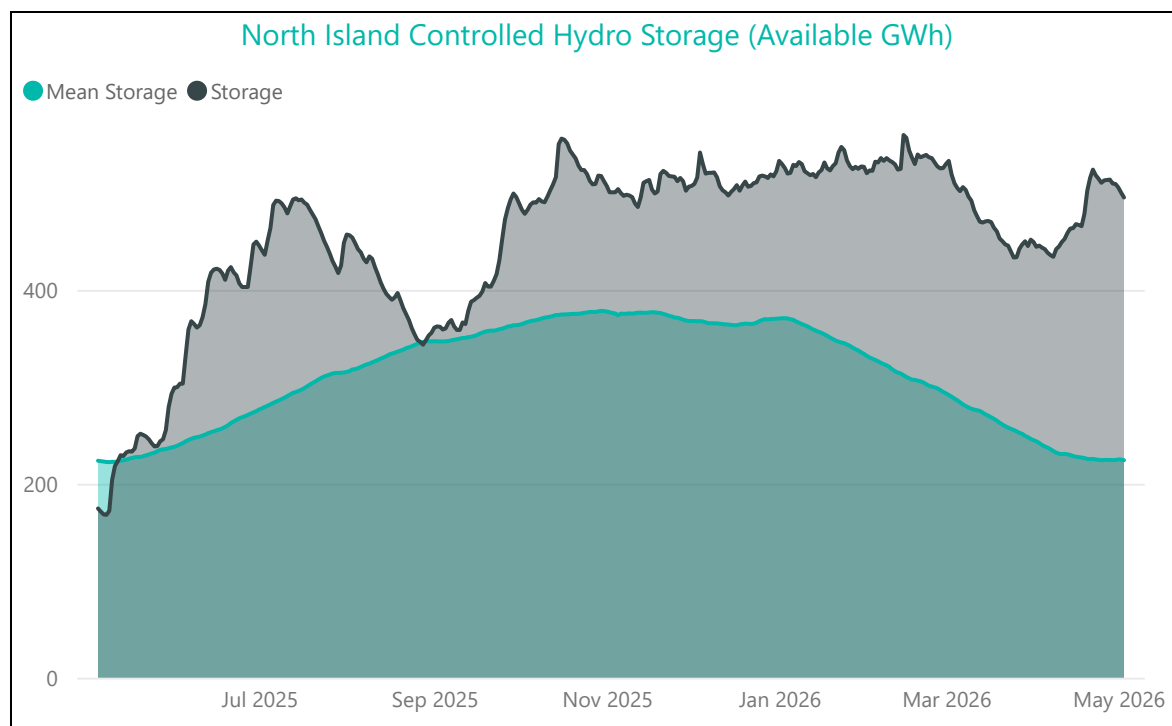
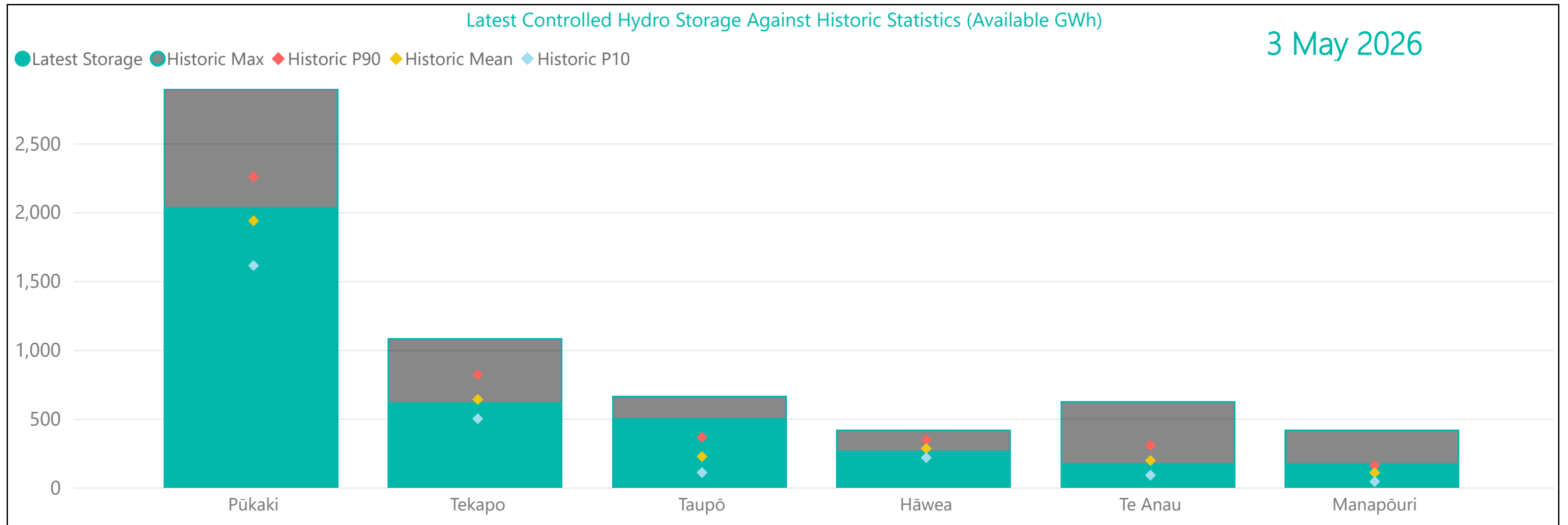
Generation Mix



Average Metrics Last 7 Days		
Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
92%	41,995	53.5
Average Metrics Last 52 Weeks		
Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
93%	45,206	55.1



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>.

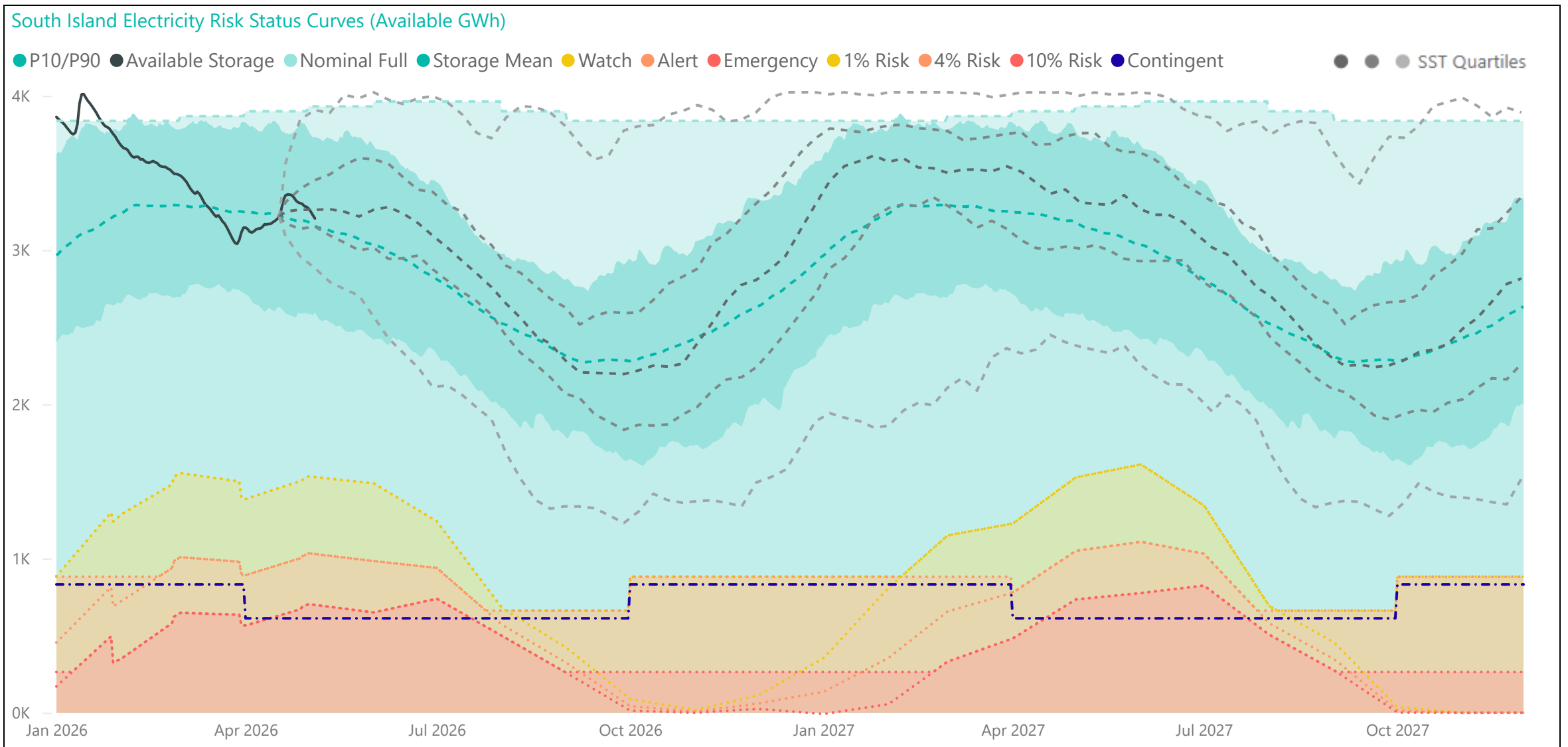
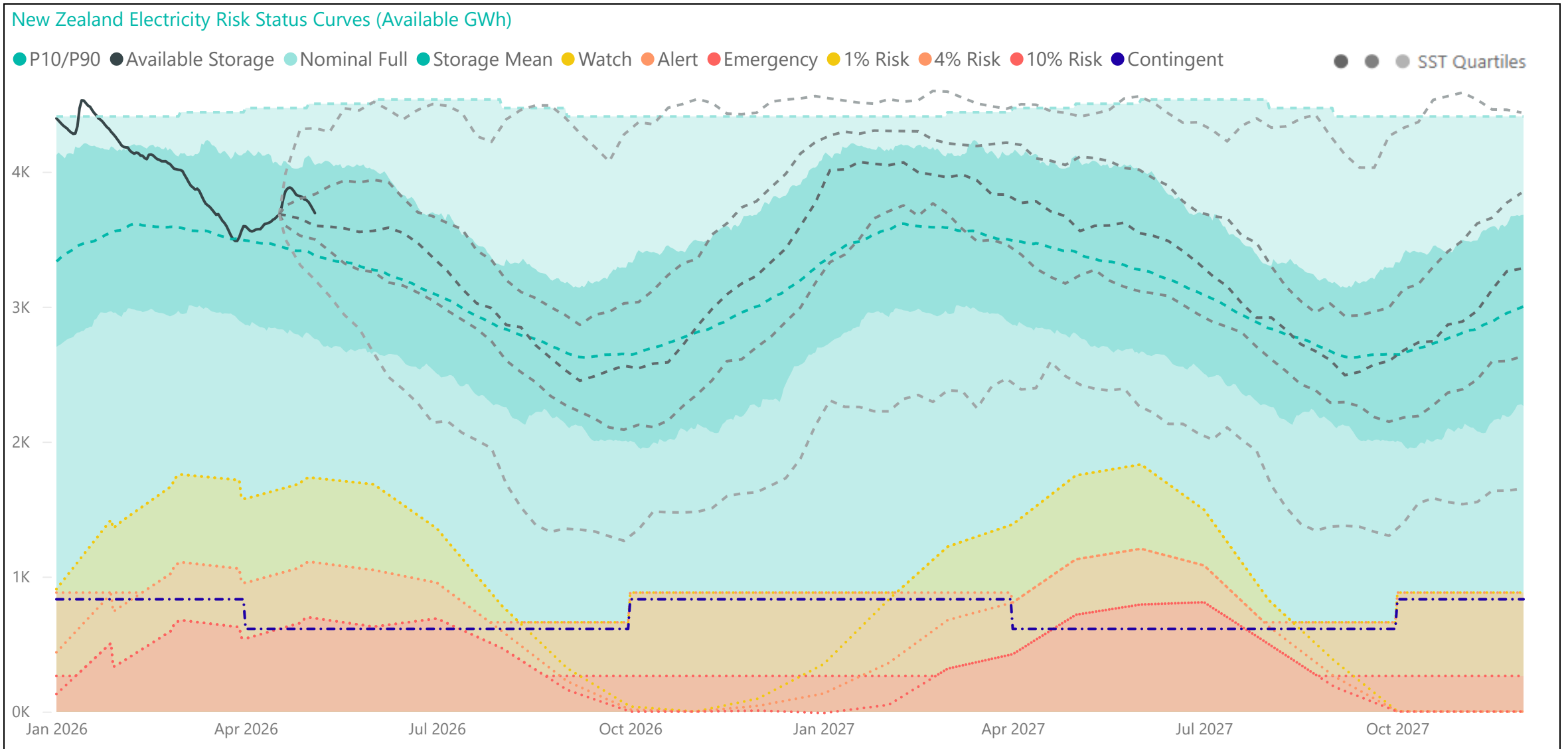
For any inquiries related to security of supply contact market.operations@transpower.co.nz

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).