Market Operations Weekly Report - Week Ended 8 November 2026

Overview

National hydro storage remained above the 90th percentile last week, with inflow events throughout the country. Although solar and wind generation reduced last week, renewable generation remains above the annual average, at 97% of the mix.

In this week's insight we look at the effects on hydro generation and storage from the introduction of more renewable generation.

Security of Supply

Energy

National hydro storage increased to 126% of the seasonal average from 125% the week prior. South Island storage remained at 133% while North Island storage increased from 74% to 82%.

Capacity

Residual generation was healthy last week. The lowest residual was 784 MW on the morning of Wednesday 4 November.

The N-1-G margins in the NZGB forecast are at healthy levels through to early January. 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 last week to 747 GWh from 770 GWh the week prior. The highest demand peak occurred at 8:00 am on Monday 4 November at 5,397 MW with cooler temperatures in parts of the country.

Weekly Prices

Wholesale electricity spot prices increased last week with the average Ōtāhuhu price up to $94/MWh from $36/MWh the previous week. The Ōtāhuhu price peaked at $300/MWh at 7:30 pm on Wednesday 4 November, coinciding with constrained HVDC northward flow and lower North Island wind generation.

Periods of inter-island energy price separation occurred throughout the week during periods of high HVDC northward transfer, with outages of lower North Island grid equipment lowering the northward transfer limit.

Generation Mix

Solar and wind generation both dropped last week to 3% and 9% respectively, from 4% and 15% the week prior. This coincided with a pickup in hydro generation last week from 56% of the mix to 62%. The remaining mix stayed relatively consistent from the week prior.

HVDC

HVDC flows last week were almost entirely northward, consistent with above average South Island hydro storage. Northward transfer decreased on 3 November coinciding with lower overnight demand and high North Island wind generation and again over the weekend when demand was lower. In total 117 GWh was transferred north.

Ancillary Services Procurement Plan updated

The Authority approved the System Operator's changes to the Ancillary Services Procurement Plan on 23 October 2026. The new procurement plan became effective on 21 October 2026.

Consultations

The consultation on the TSO:DSO coordination: operations requirements paper. has now closed. Formal submissions have now been published.

New Zealand Energy Risk

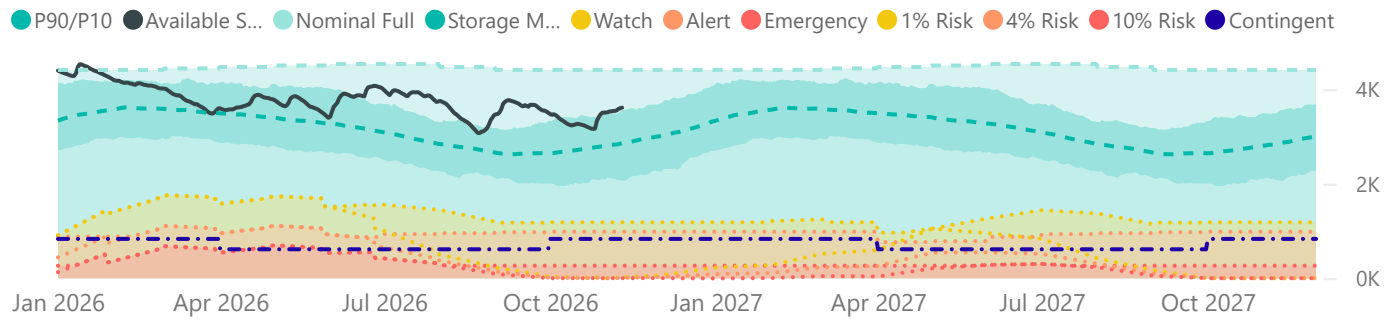


South Island Energy Risk

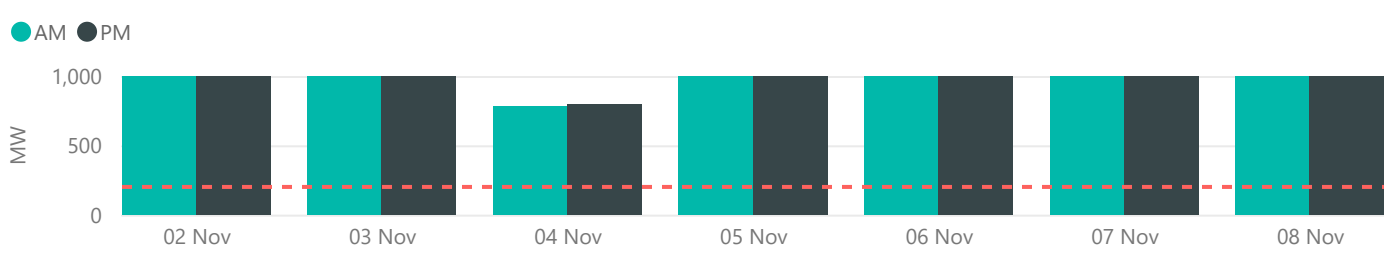


Normal Watch Alert Emergency

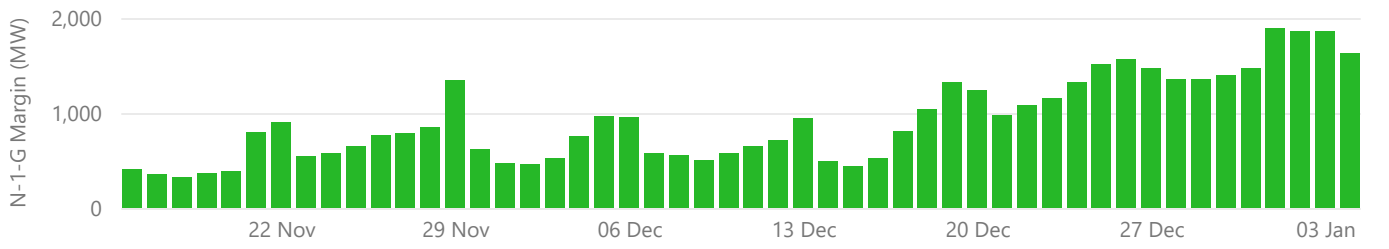
New Zealand Electricity Risk Status Curves (Available GWh)



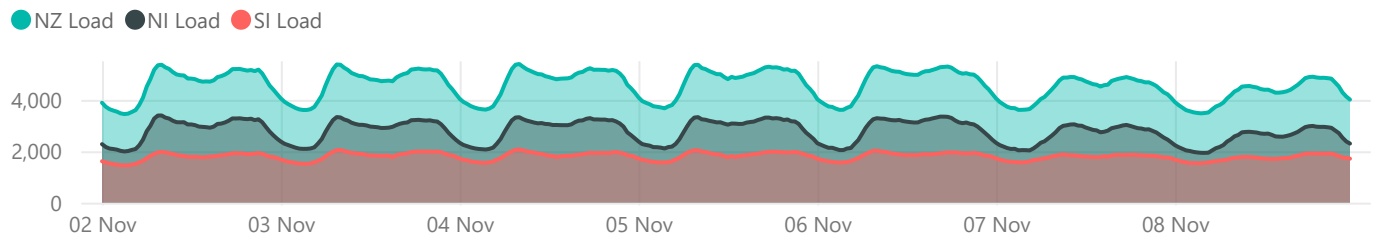
Lowest Residual Points - MW



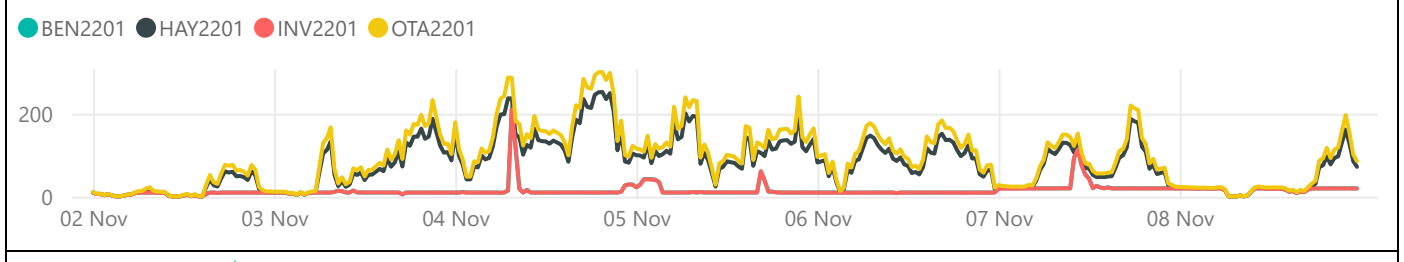
NZGB Look-Ahead (excluding next 7 days)



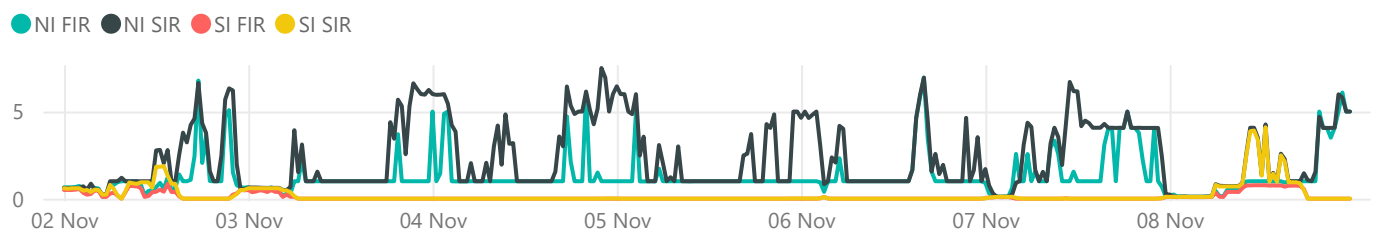
National Demand by Trading period - MW



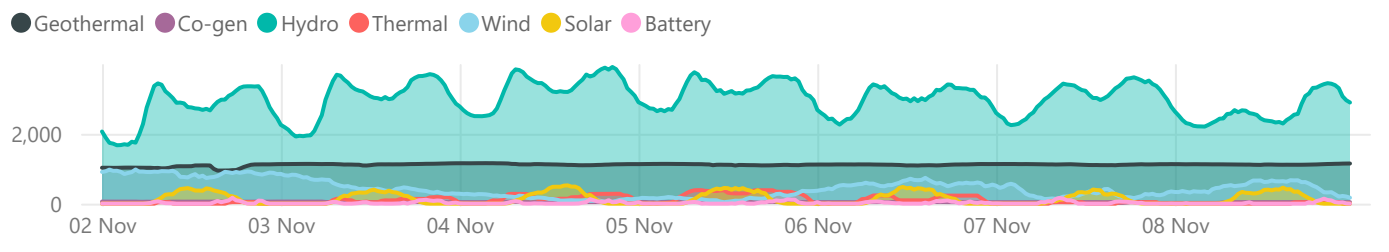
Energy Prices - $/MWh



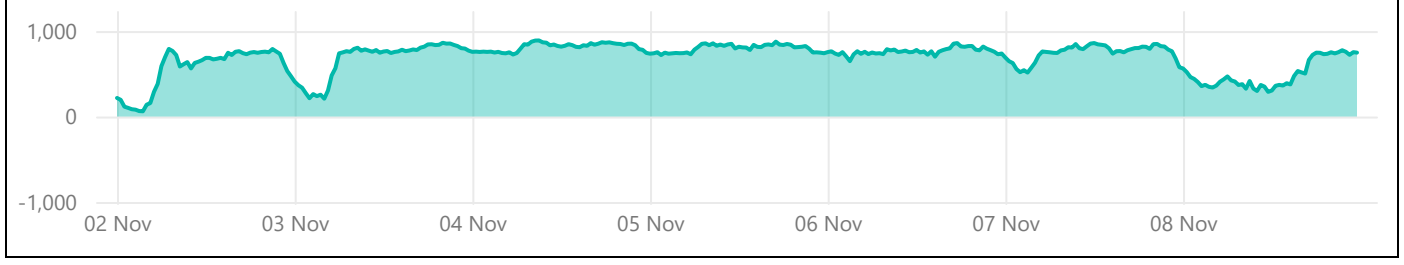
Reserve Prices - $/MW



Generation - MW



Net HVDC Transfer - MW (Northward positive)



Weekly Insight - The impact of additional renewable generation on hydro levels

In this week's insight, we look at how the increase in renewable generation capacity in New Zealand's power system in recent years is allowing hydro lakes to be held higher, providing an early glimpse of how a more highly renewable power system could operate.

As new wind, solar and geothermal generation enters the system, in favourable conditions more electricity can be produced without drawing on stored hydro water. That gives hydro generators greater flexibility over when to use their water, allowing it to be conserved when other generation is available and used when it is most valuable to the system.

The chart below shows the contrast between 2023 and 2026[1]. Overall hydro inflows have been broadly similar, but storage has followed a very different path. Storage fell substantially through 2023, while in 2026 more water has been retained as the year has progressed. The key difference is how much of that water has needed to be used for generation.

Total Inflows, Storage and Generation (GWh)

Year	Demand	Storage	Inflows	Geothermal	Wind	Solar	Hydro	Thermal	Co-gen	Renewables (%)
2023										
May	3,444	4,295	3,785	561	203		2,543	224	60	92.1%
June	3,533	3,502	2,169	588	230		2,592	234	48	92.3%
July	3,719	2,810	1,482	646	322		2,335	301	65	90.0%
August	3,878	2,024	1,563	674	238		2,423	390	68	87.9%
September	3,359	2,665	2,837	631	358		1,935	333	58	88.2%
2026										
May	3,482	3,053	1,861	894	288	27	2,147	232	50	92.2%
June	3,490	3,674	2,797	873	350	21	2,164	181	60	93.4%
July	3,826	3,427	2,198	950	352	29	2,531	115	48	96.0%
August	3,805	3,205	2,266	942	414	46	2,442	104	57	96.0%
September	3,412	3,127	2,446	863	438	66	2,147	43	39	97.7%

Wind and solar are producing considerably more electricity in 2026 as new capacity has entered the market, while increased geothermal generation is providing more consistent output. Together, these sources are meeting demand that might otherwise have required more hydro or thermal generation.

The relationship is not one-for-one. An additional GWh of wind, solar or geothermal does not automatically mean a GWh of water is saved, because generation decisions also depend on prices, transmission constraints and system conditions. But over time, more non-hydro generation reduces the need to draw on stored water and creates more opportunity to retain it.

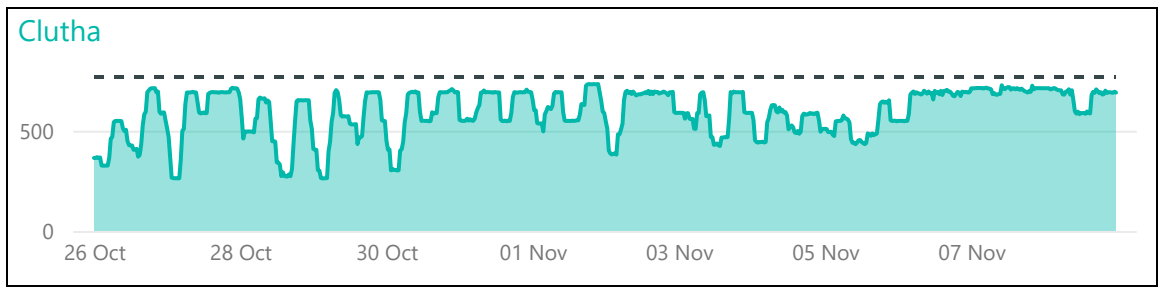
Thermal generation is changing too. With more renewable generation, healthier hydro storage and batteries increasingly available, thermal generation can play a more targeted role, particularly during periods of low wind and solar generation or high electricity demand.

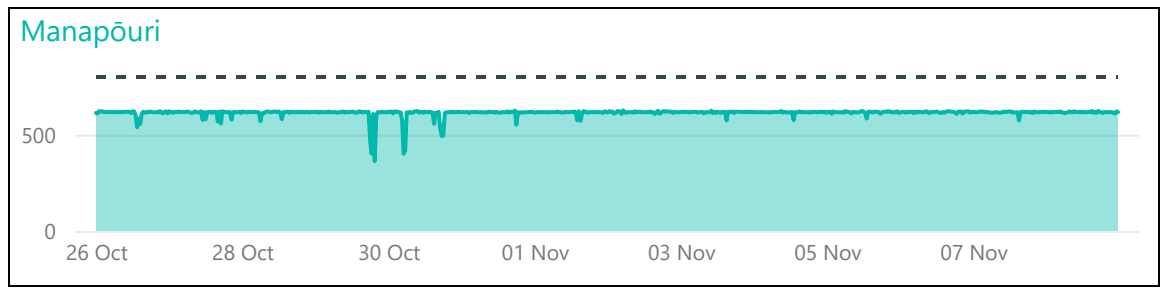
This is an early indication of how the changing generation mix might influence the role of hydro generation in future. As the generation fleet grows and diversifies, hydro's value increasingly lies not just in the energy it produces, but in the flexibility stored water provides when the system needs it most.

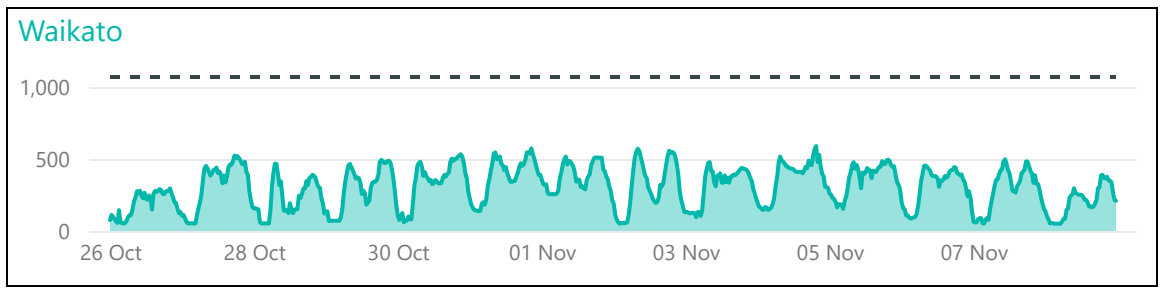
[1]The chart shows values in GWh (total energy over each month) and is what would have been calculated at the very end of the month. Storage and inflows are also only calculated for each major lake catchment: Pukaki, Manapouri, Tekapo, Hawea, Ohau, Te Anau and Taupo. Hydro generation includes all generators and not just those at these major catchments.

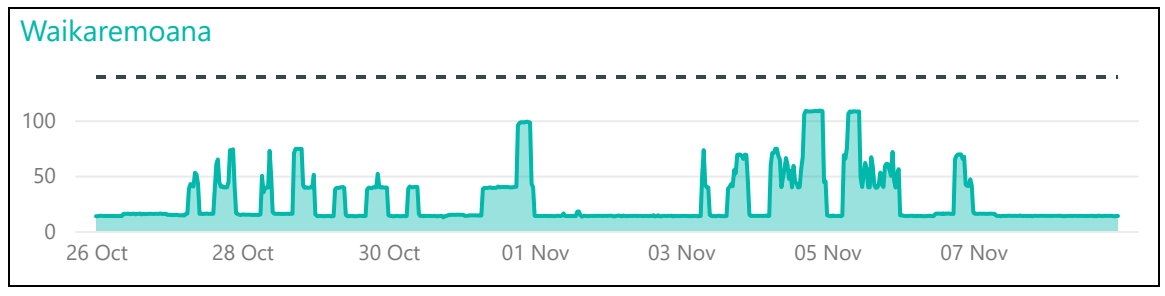
Generation Breakdown - Last Two Weeks

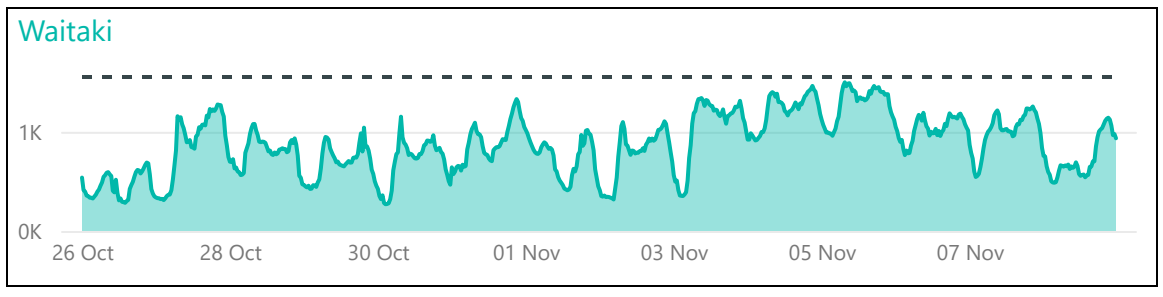
Measured in MW and displayed at trading period level for last 14 days

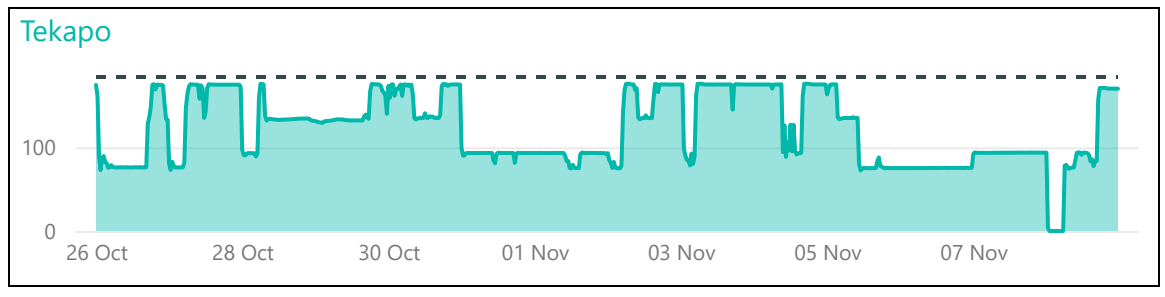


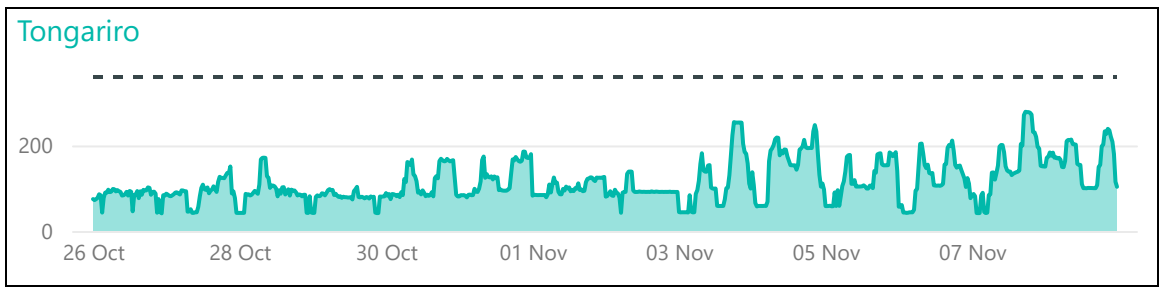


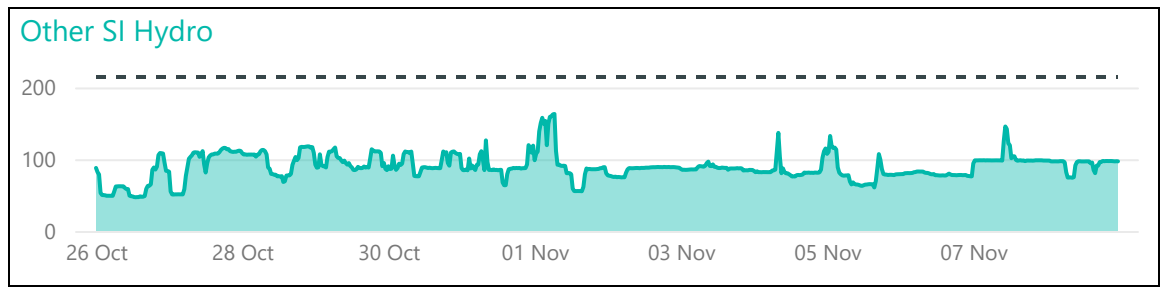


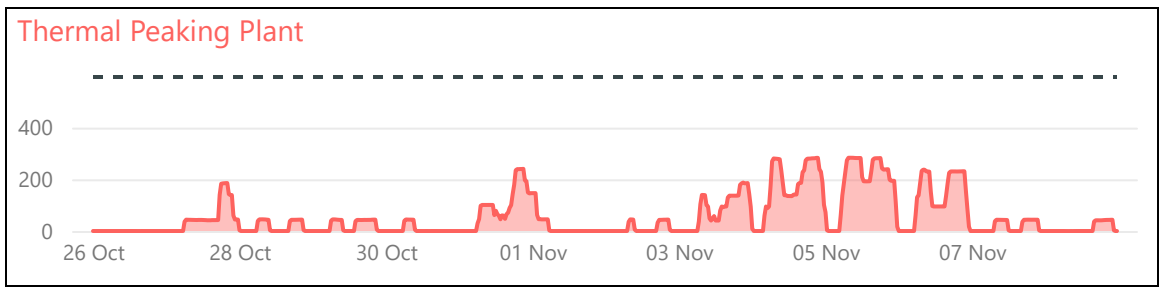


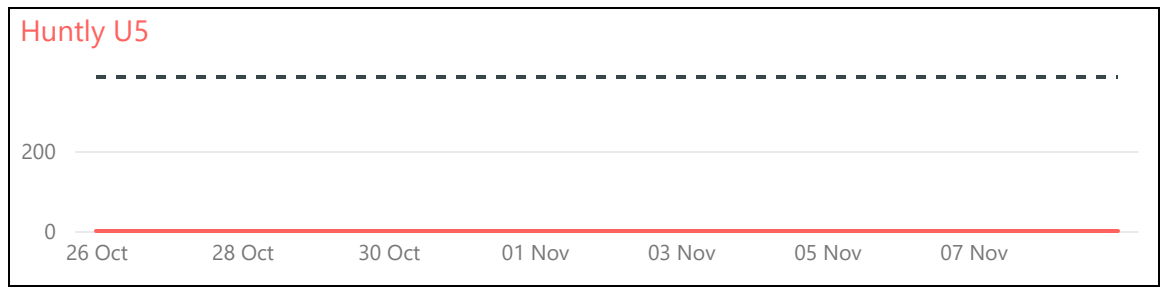


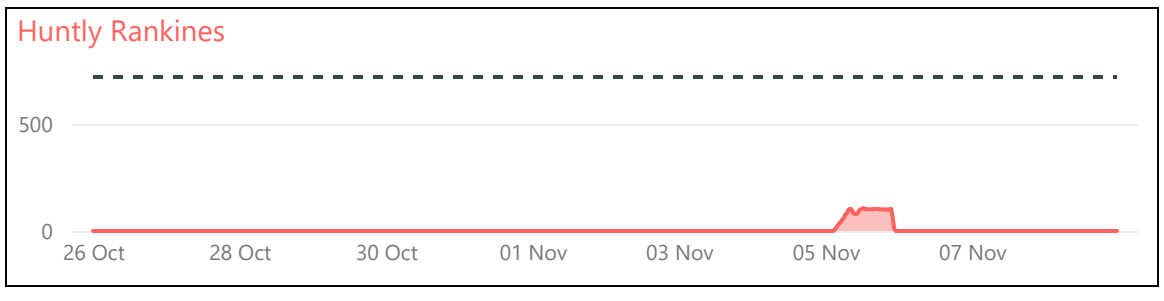


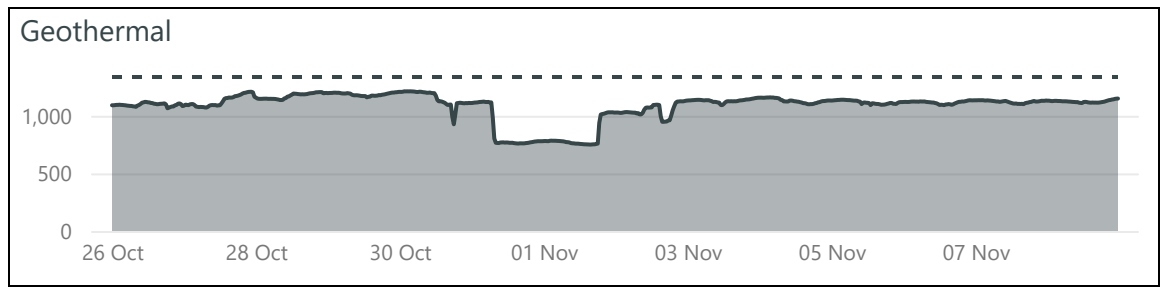


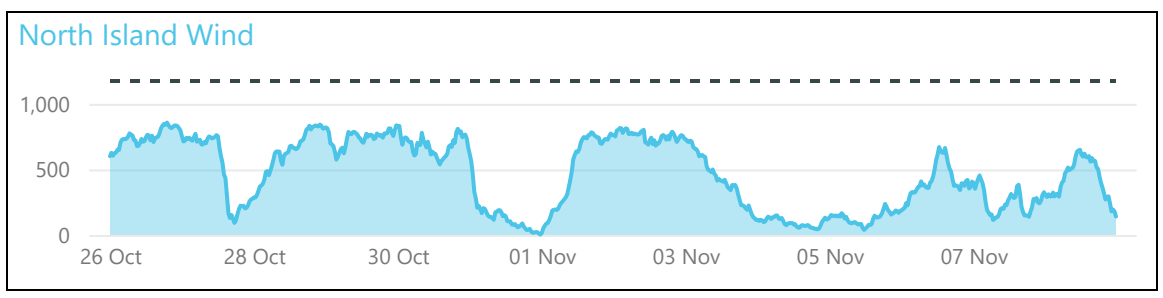


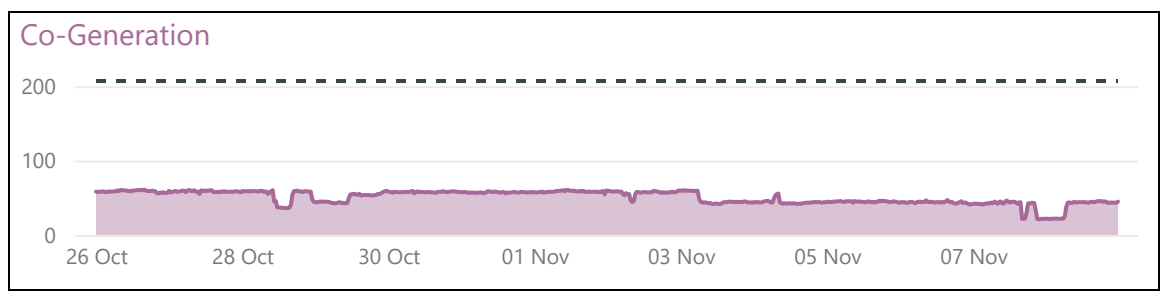


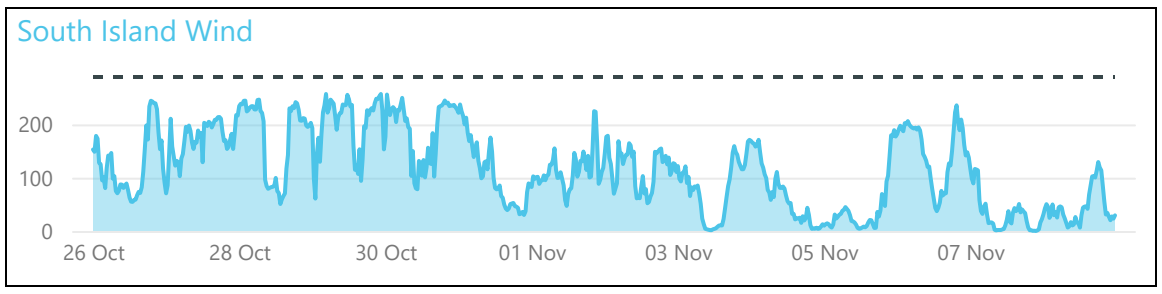


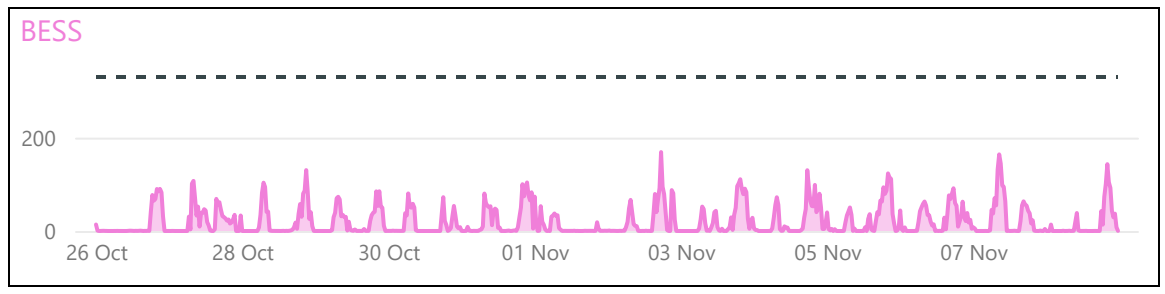


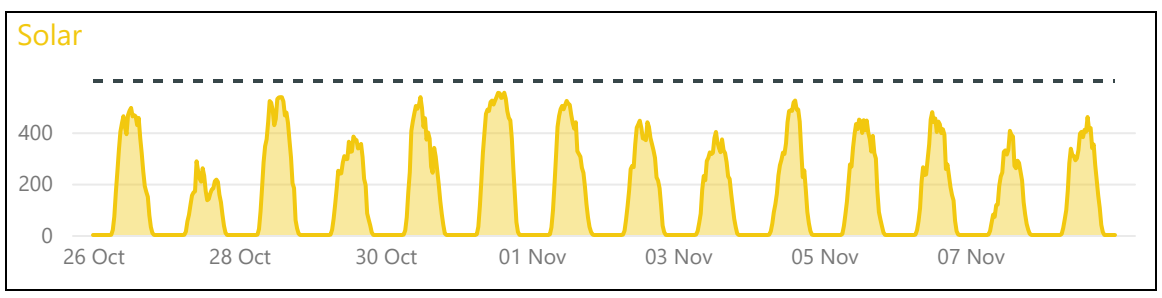






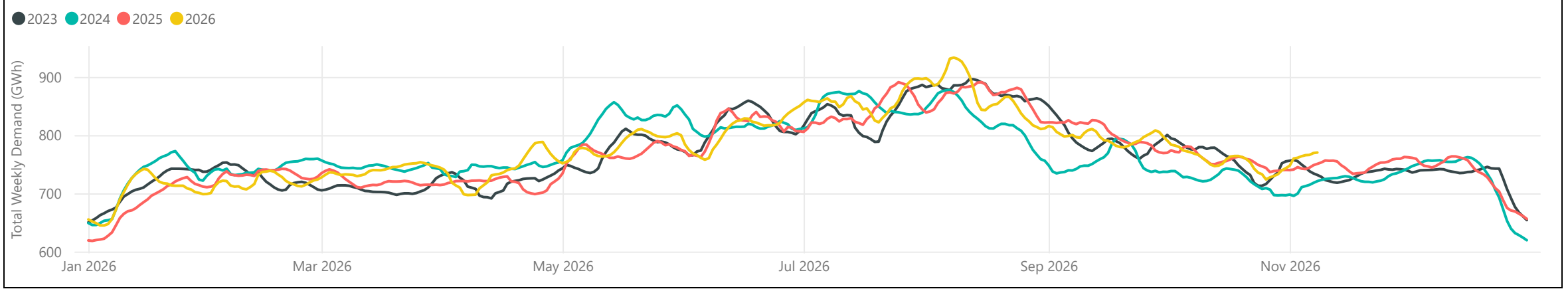




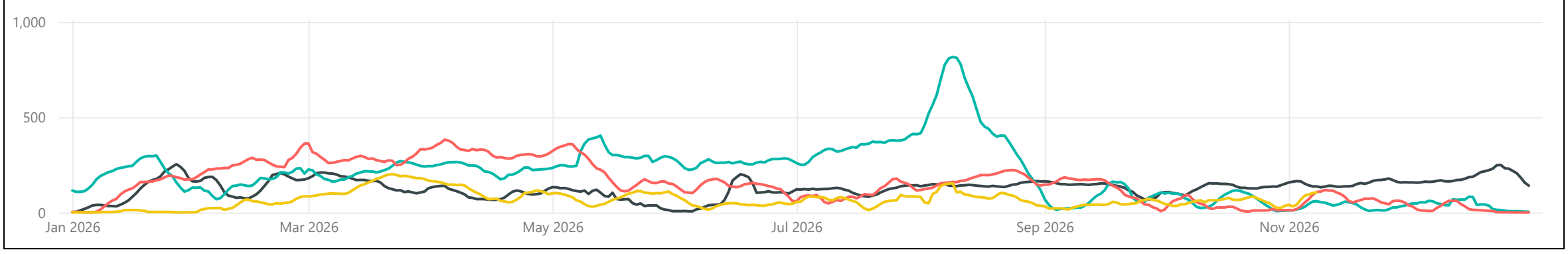


Weekly Profiles

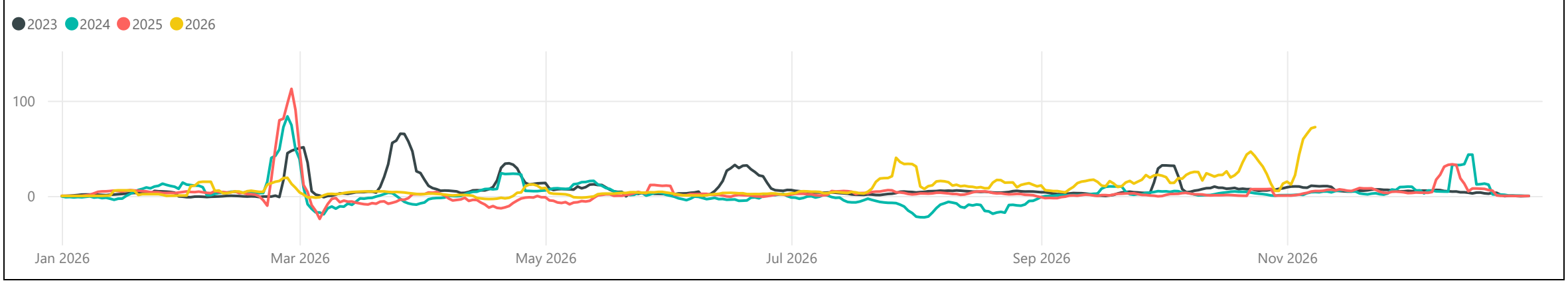
National Weekly Demand - GWh - 7 Day Rolling



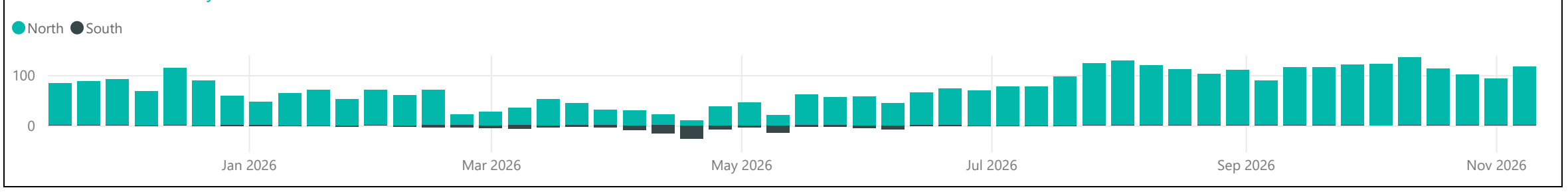
OTA2201 Weekly Rolling Average Spot Price - $/MWh



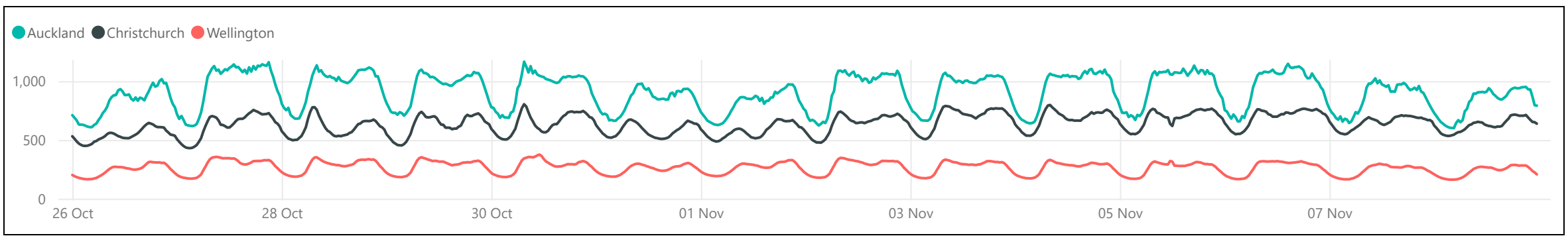
Weekly Rolling Price Separation (HAY2201 - BEN2201) - $/MWh



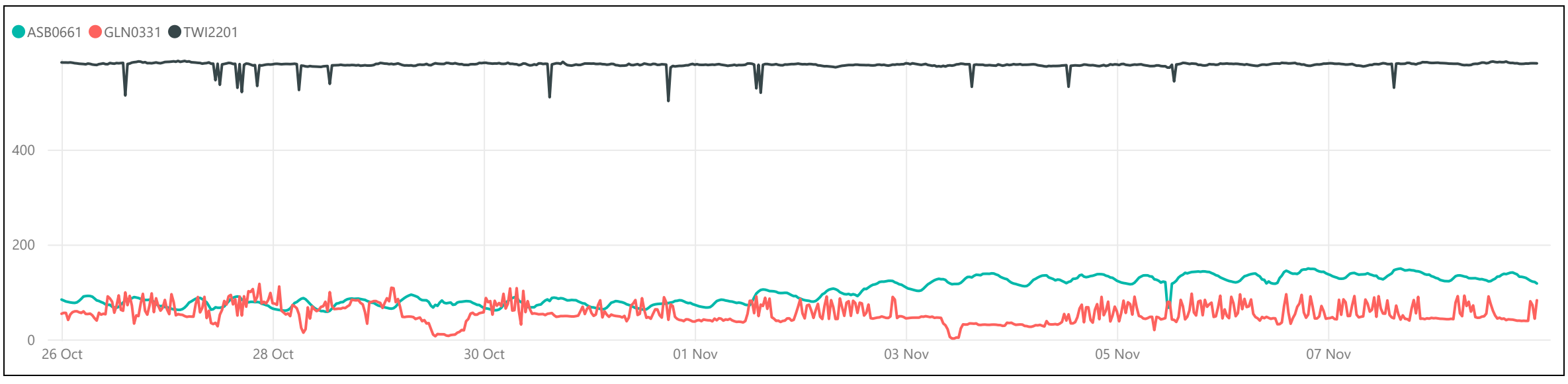
HVDC Transfer - Weekly GWh



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



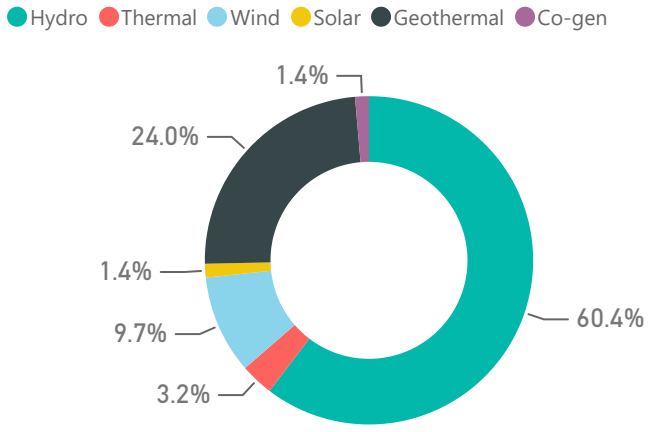
Non-Conforming Load Profiles - Last Two Weeks *Measured in MW shown by GXP*



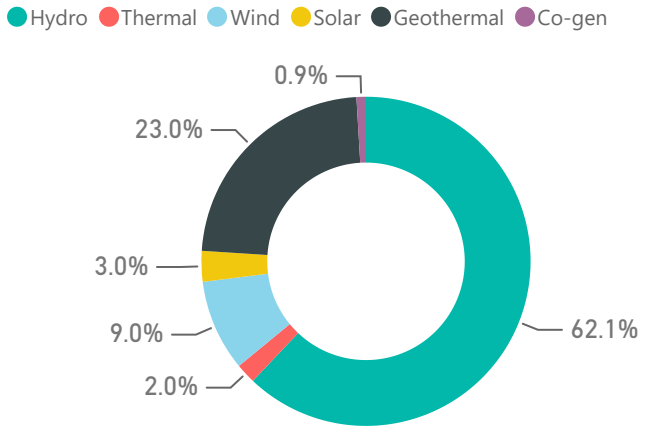
TRANSPOWER

Generation Mix

Last 52 Weeks Generation Mix - Weekly GWh



Last 7 Days Generation Mix - Weekly GWh



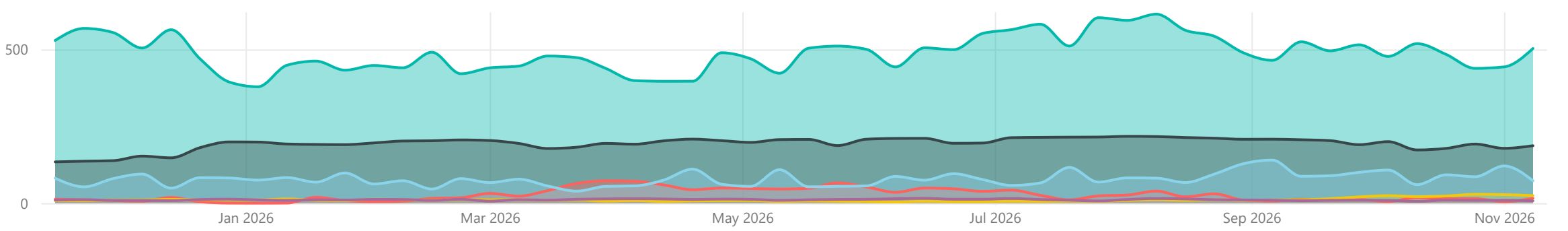
Average Metrics Last 7 Days

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
97%	28,904	34.9

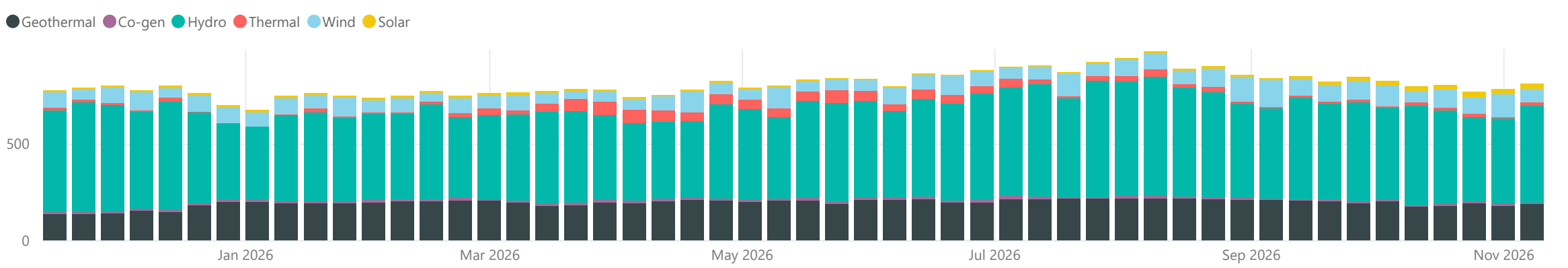
Average Metrics Last 52 Weeks

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
95%	34,159	41.7

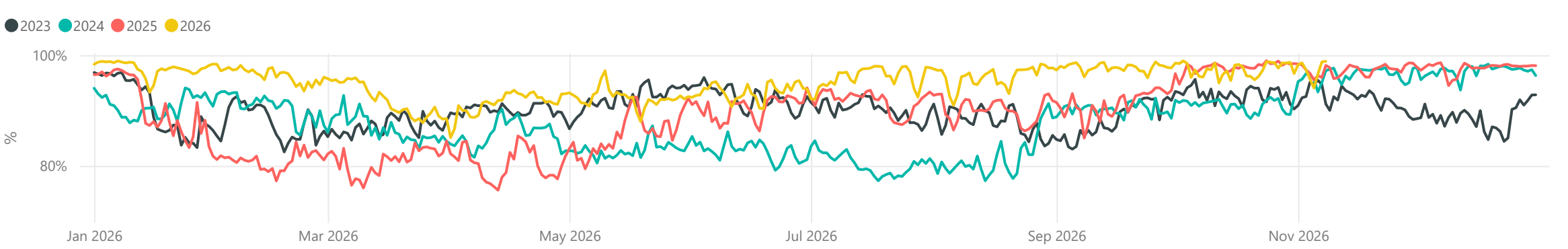
Weekly Generation Mix - GWh



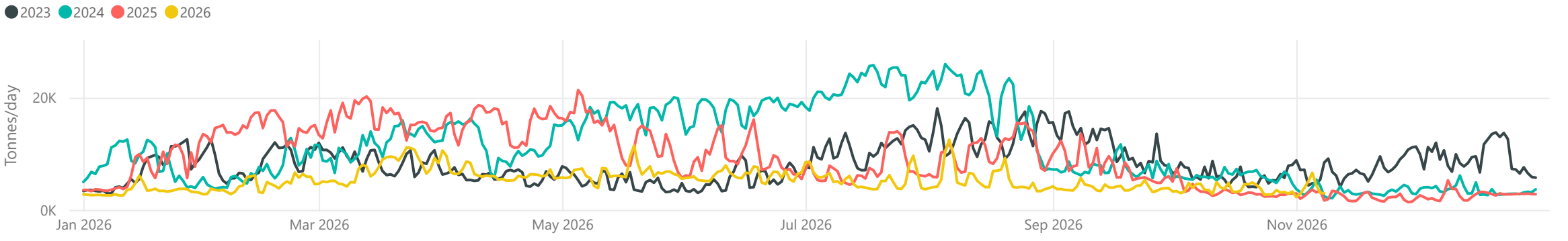
Weekly Generation Mix - GWh



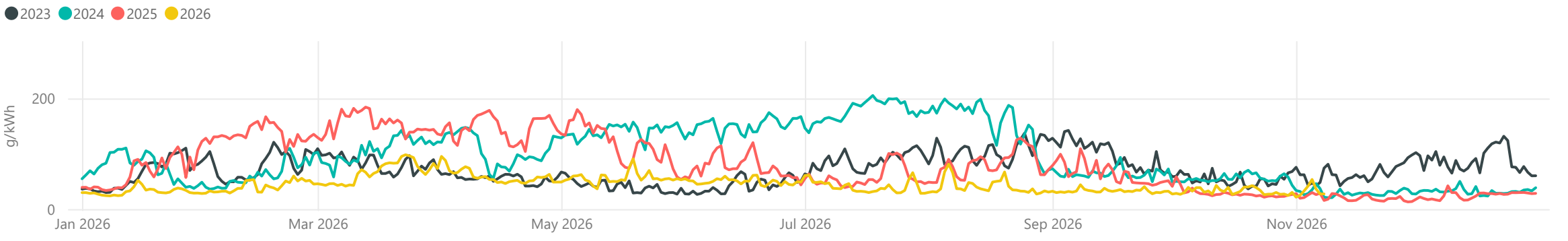
NZ Renewable Percentage



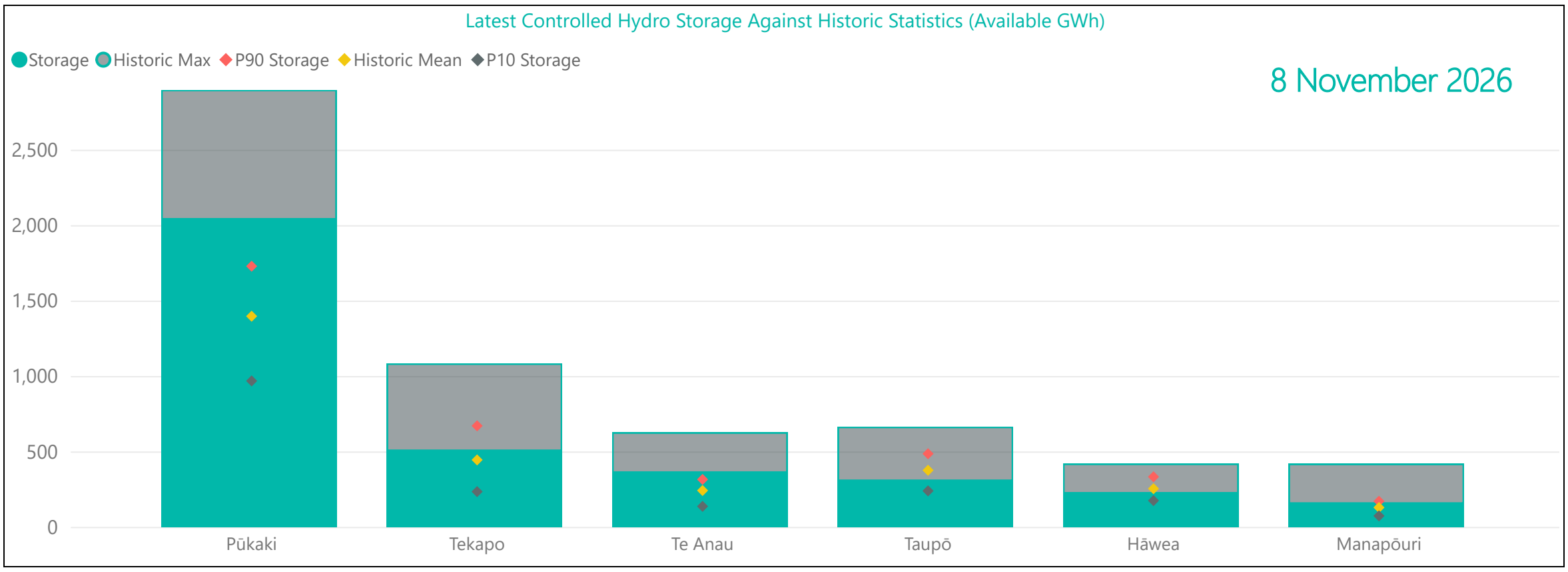
CO2 Tonnes/Day

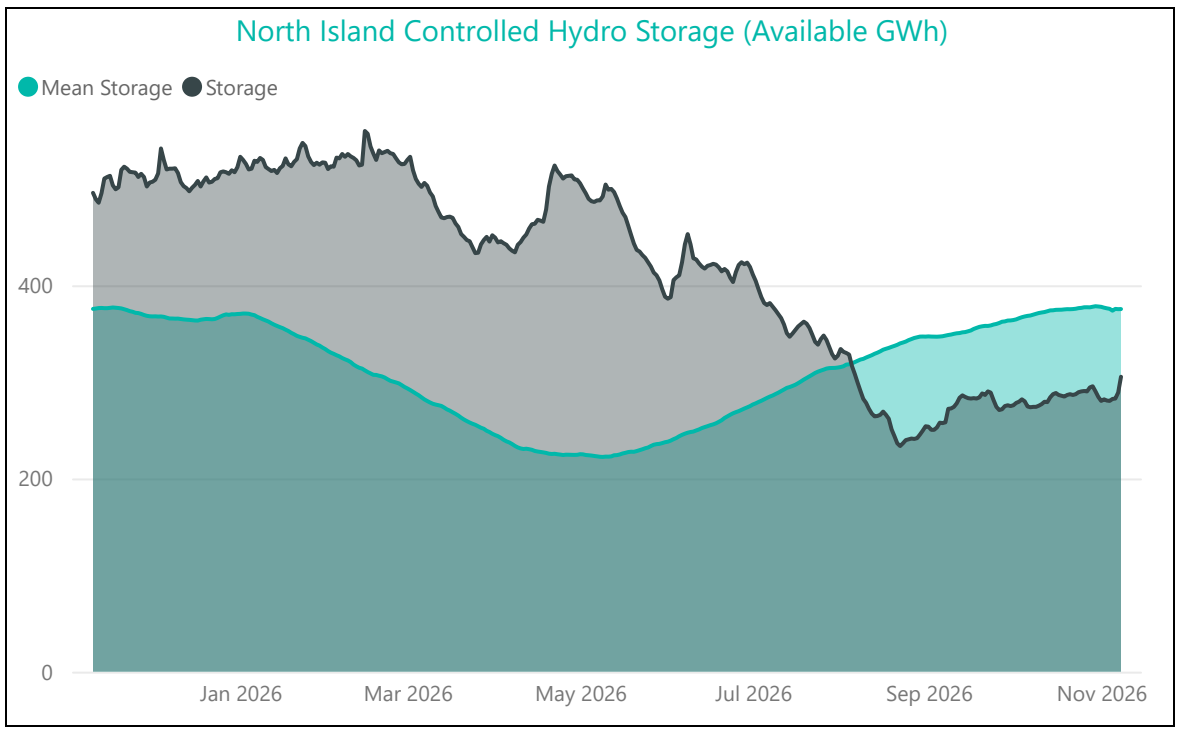


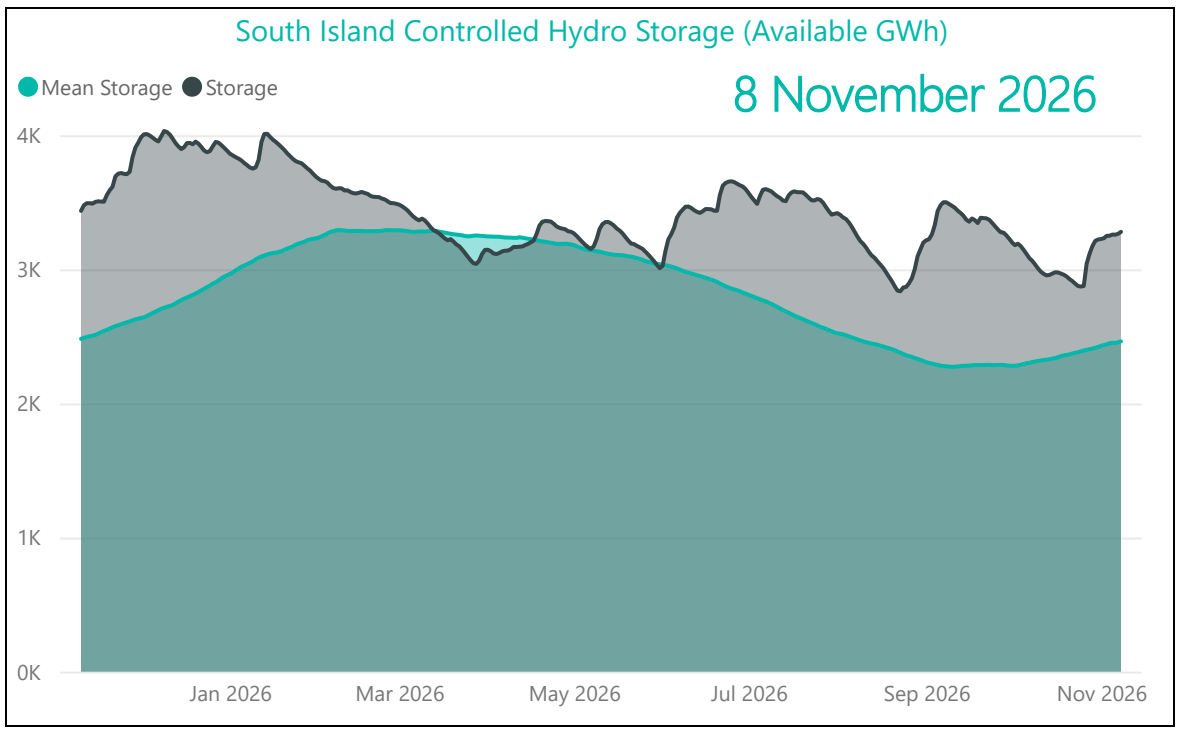
Average CO2 g/kWh

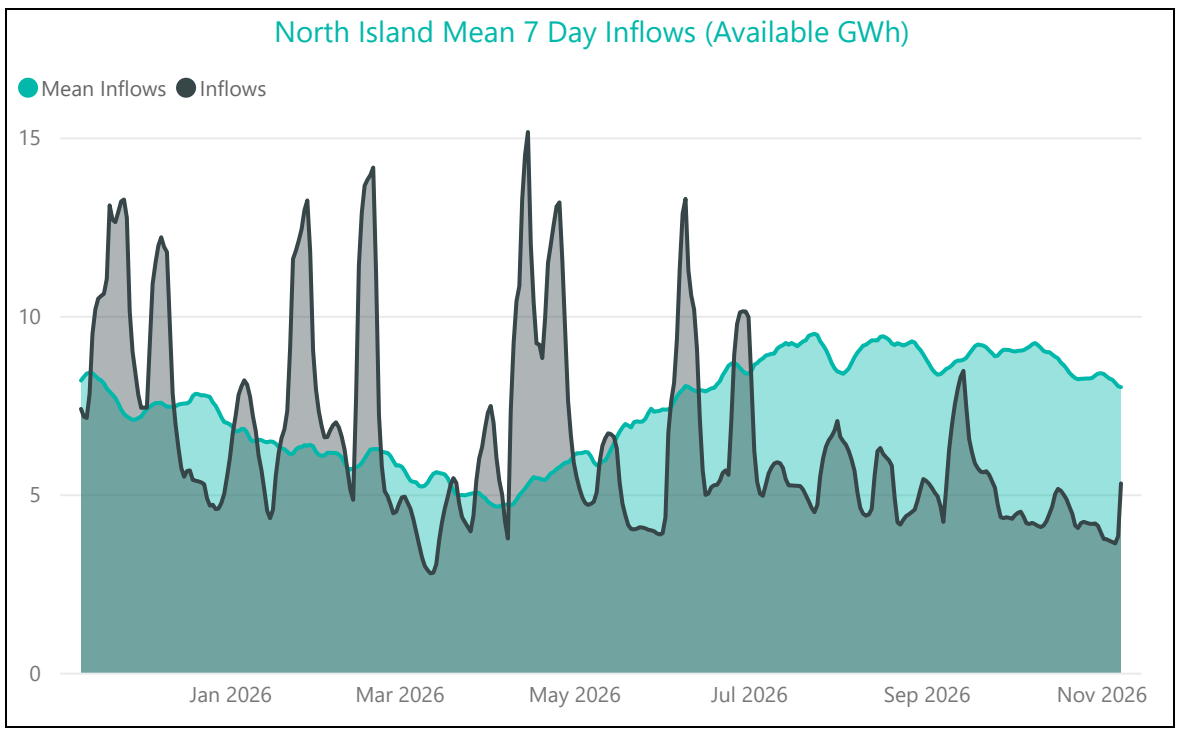


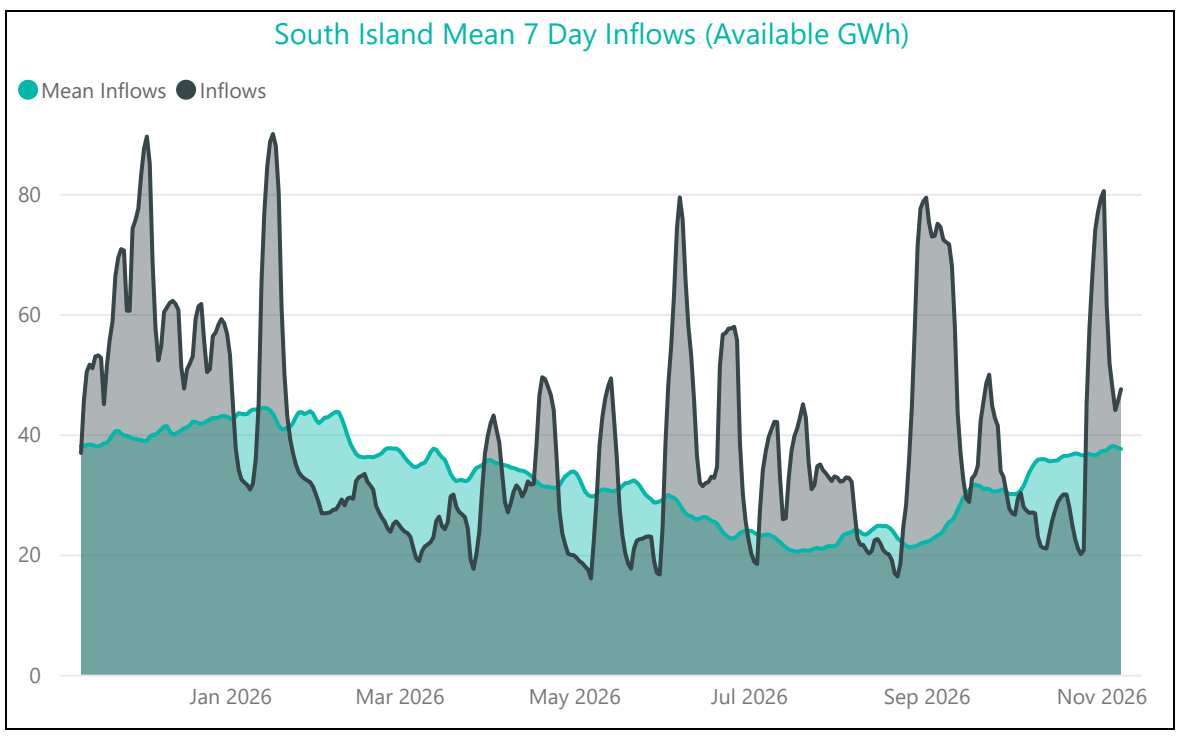
Hydro Storage











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

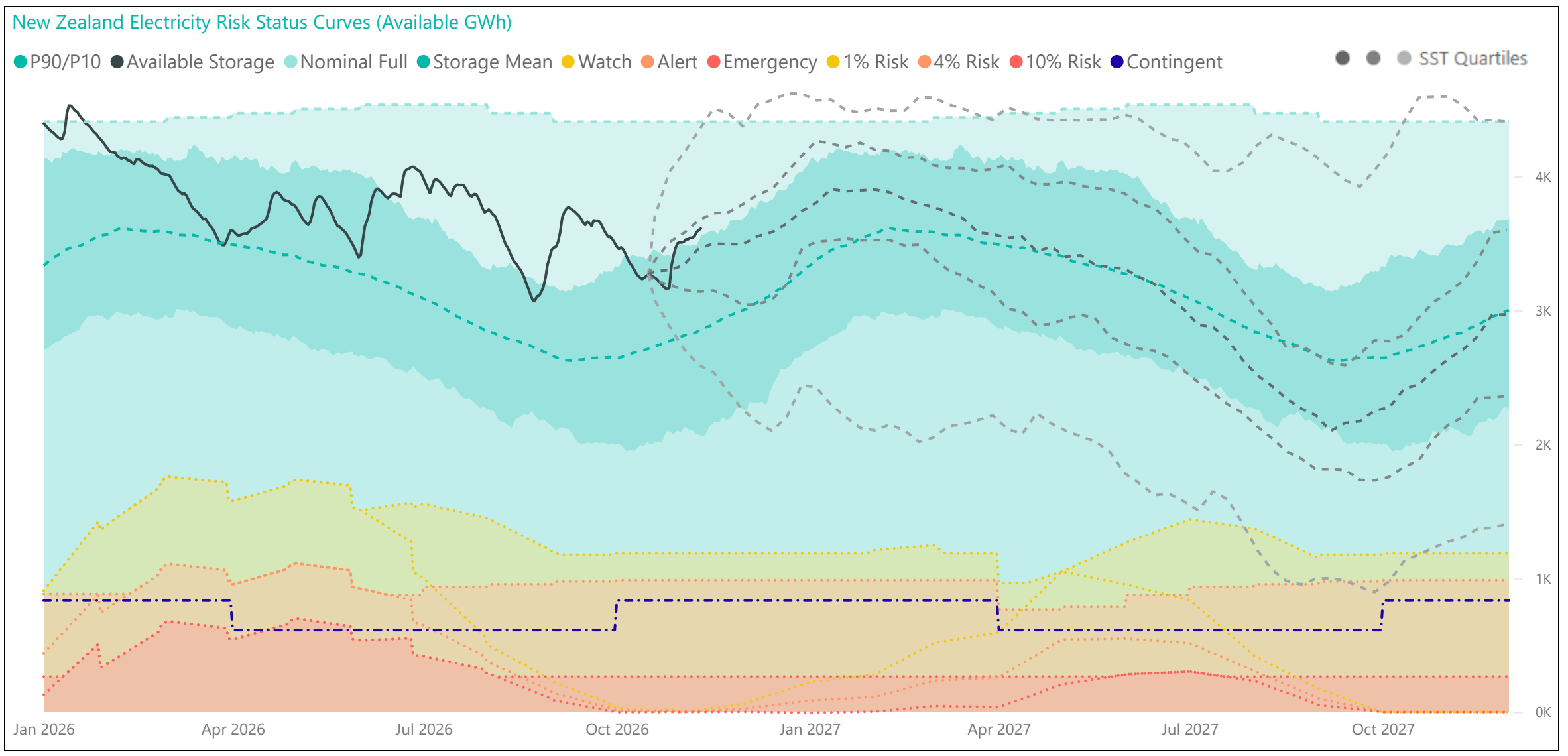
For any inquiries related to security of supply contact market.operations@transpower.co.nz

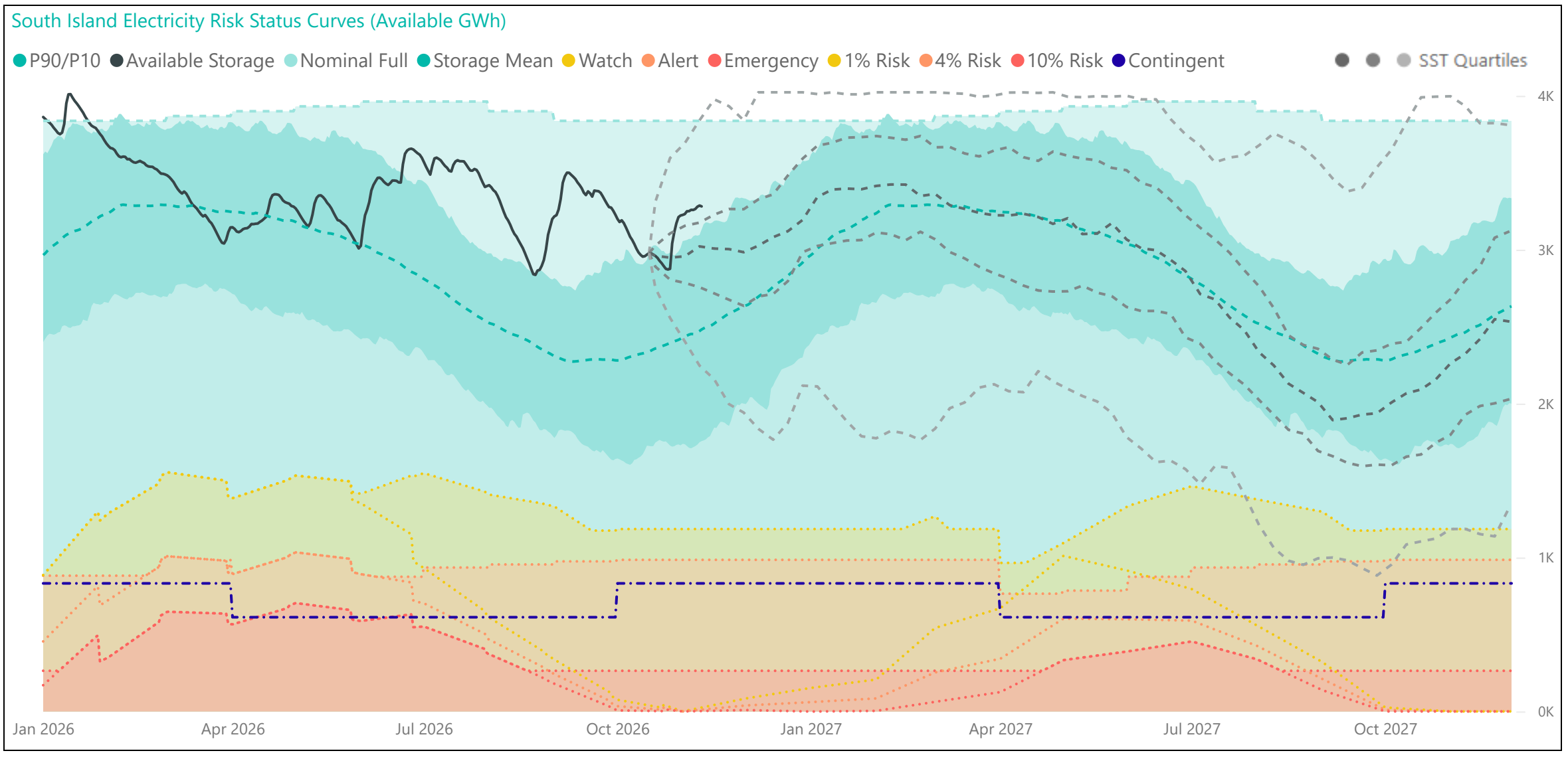
Hydro data used in this report is sourced from *NZX Hydro*.

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





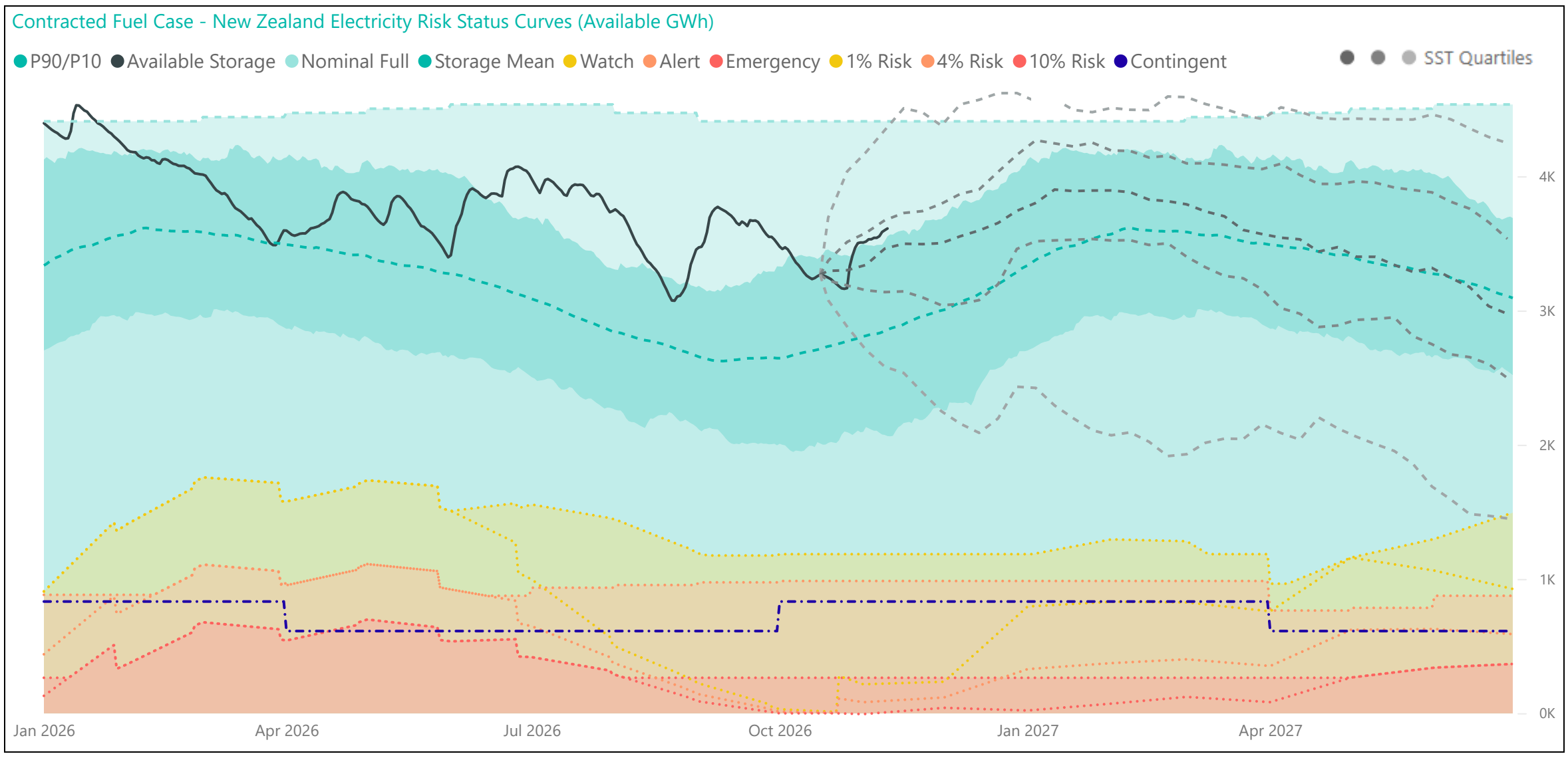
Electricity Risk Curve Explanation:

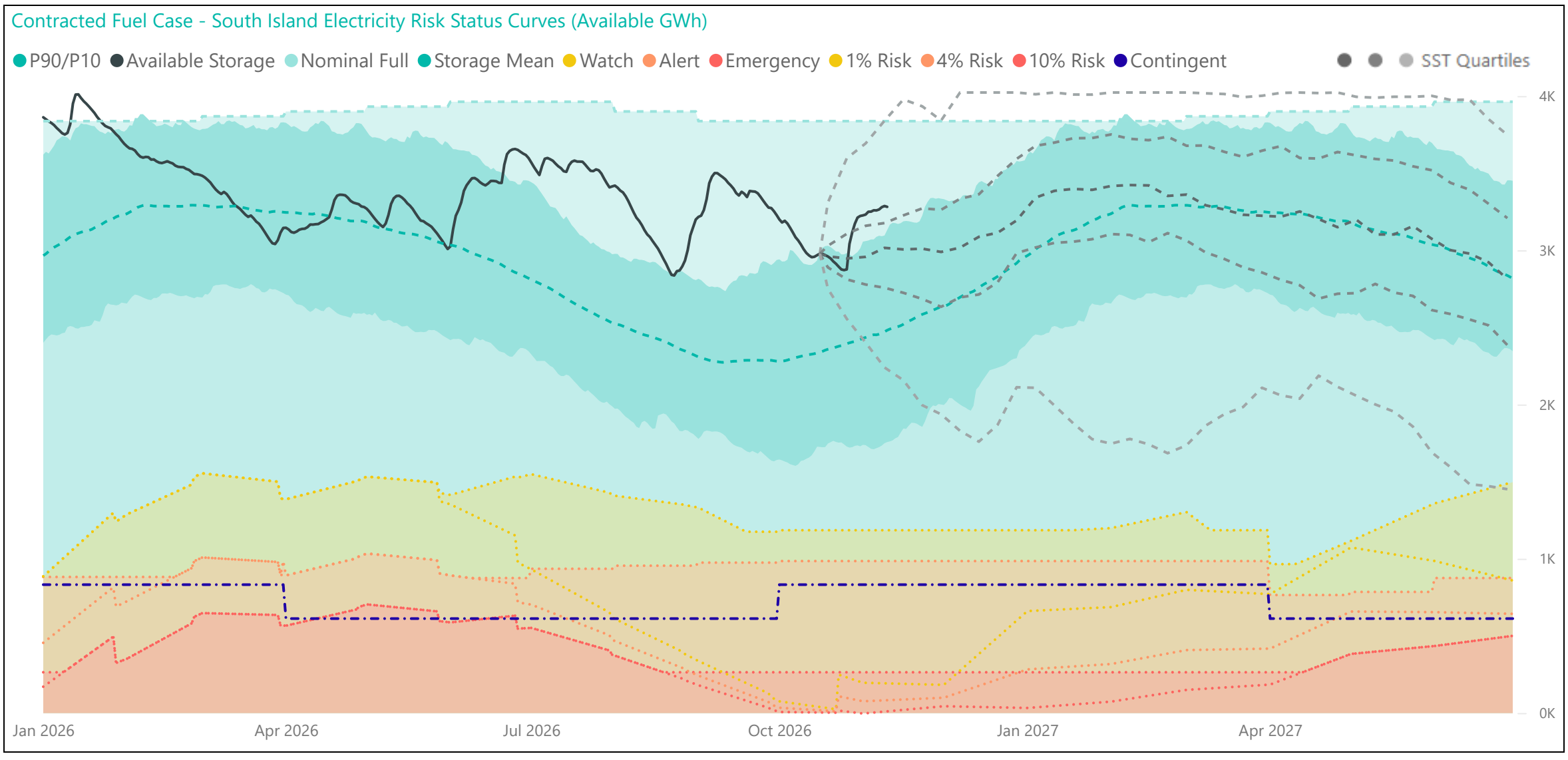
Watch Curve - The maximum of the one percent risk curve or the Alert curve plus the greater of the Watch adder or the worst-case simulated storage drop
Alert Curve - The maximum of the four percent risk curve and the floor and buffer
Emergency Curve - The maximum of the 10 percent risk curve and the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