Market Operations Weekly Report - Week Ended 21 June 2026

Overview

National hydro storage remains well above average at 126% of the historic mean for this time of year. North Island storage continues to be high at 159% of the historic mean, while South Island storage is at 123% of the mean.

Today's insight looks at the Changes to the Electricity Risk Curve Watch and Alert definitions under the recently updated Security of Supply Forecasting and Information Policy (SOSFIP).

Security of Supply

Energy

National hydro storage has increased to 126% of historic mean at the end of last week from 120% the week prior. South Island storage has increased from 115% to 123% and North Island storage decreased from 165% to 159%.

Capacity

Residuals were lower than usual during morning and evening peaks most of the last week due to colder temperatures and low wind. The lowest residual of 596 MW occurred during the morning of Friday 19 June.

The N-1-G margins in the NZGB forecast showed 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 was steady at 816 GWh for the week due to colder than average mornings continuing from the week before. The highest demand peak of 6,378 MW occurred at 6:00pm on Tuesday 16 June.

Weekly Prices

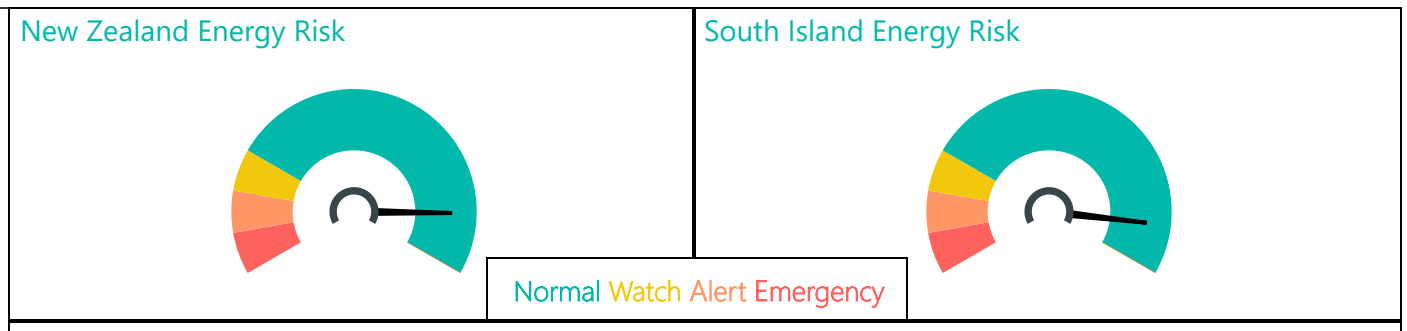
The average wholesale electricity spot price at Ōtāhuhu last week decreased to $37/MWh from $43/MWh the week prior. Wholesale prices peaked at $116/MWh at Ōtāhuhu at 6:30 pm on Tuesday 16th June, coinciding with high demand and low wind. High prices were observed at Invercargill at 4:30pm Wednesday 17th June, with low prices at North Makarewa and high prices at Tiwai. This was due to a planned outage on one of the North Makarewa to Tiwai lines.

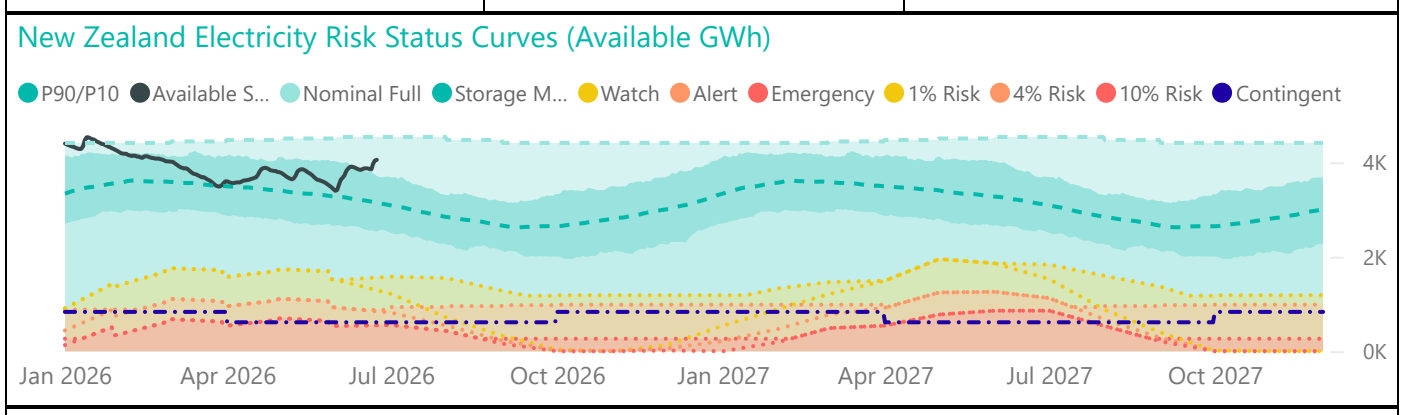
Generation Mix

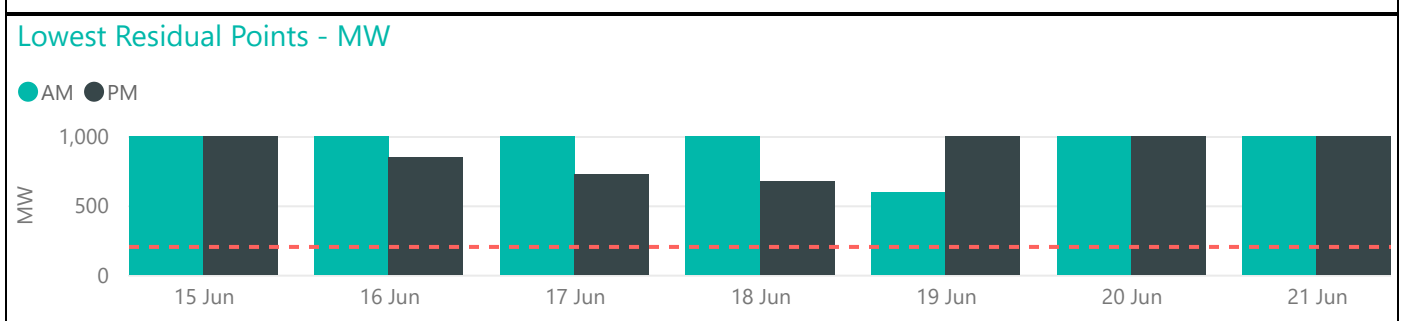
Wind generation was 11% of the generation mix last week, above its annual average of 9%. Hydro generation contributed 58%, slightly below its yearly average of 60%. Thermal generation was at its annual average of 5% of the mix last week. Geothermal generation remained at its annual average of 23%.

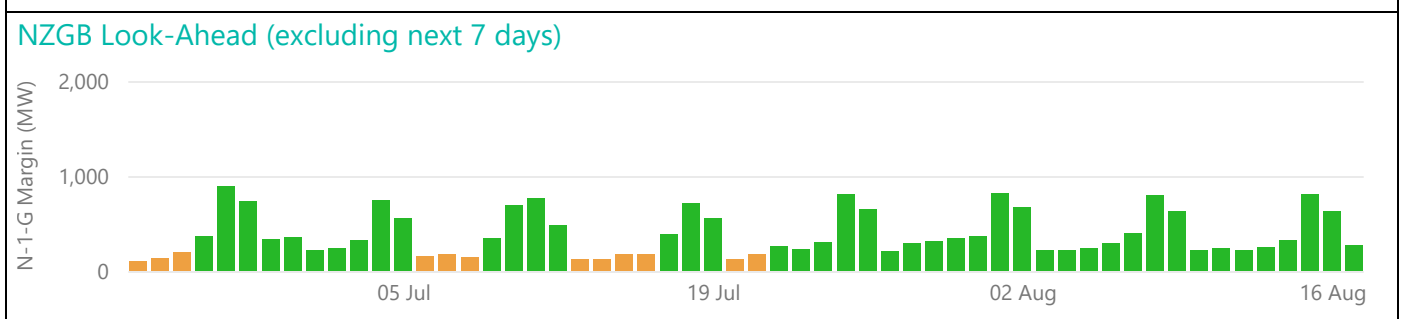
HVDC

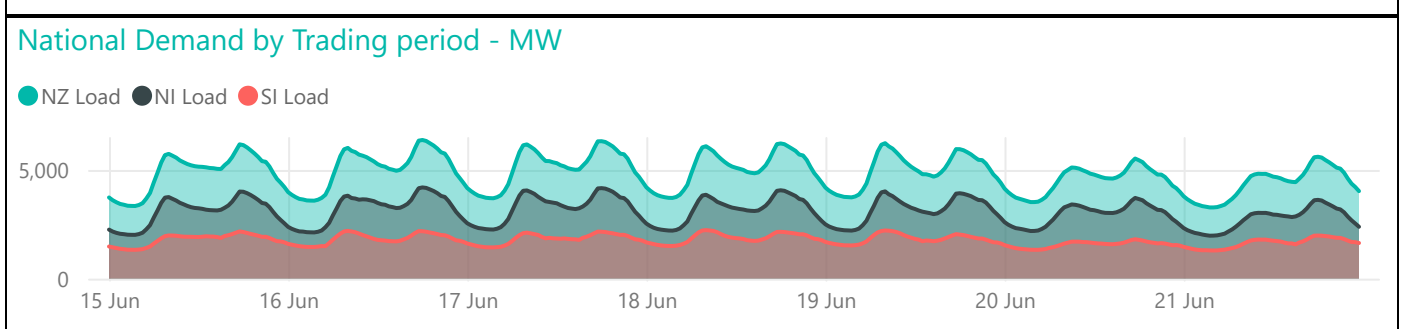
HVDC flows last week were predominantly northward with very brief periods of southward flow overnight during periods of high wind. Overall, 147 GWh was transferred north, while 3 GWh was transferred south during the week.

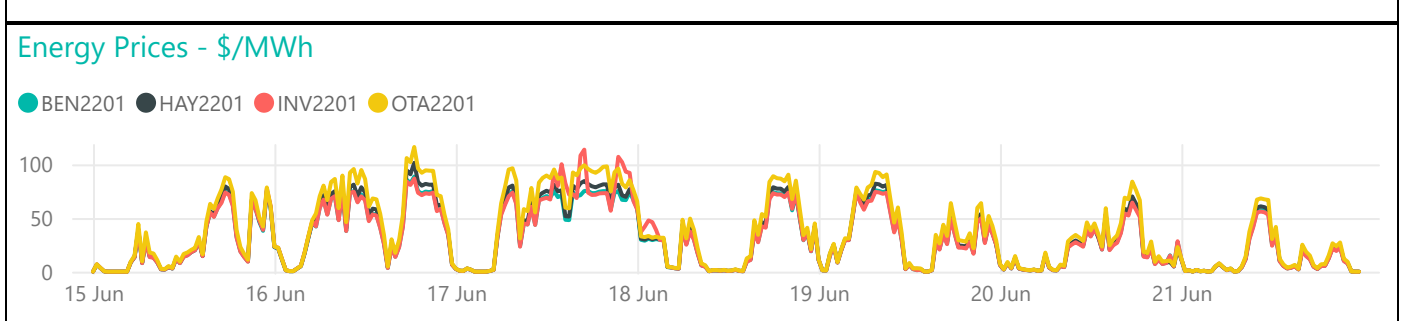


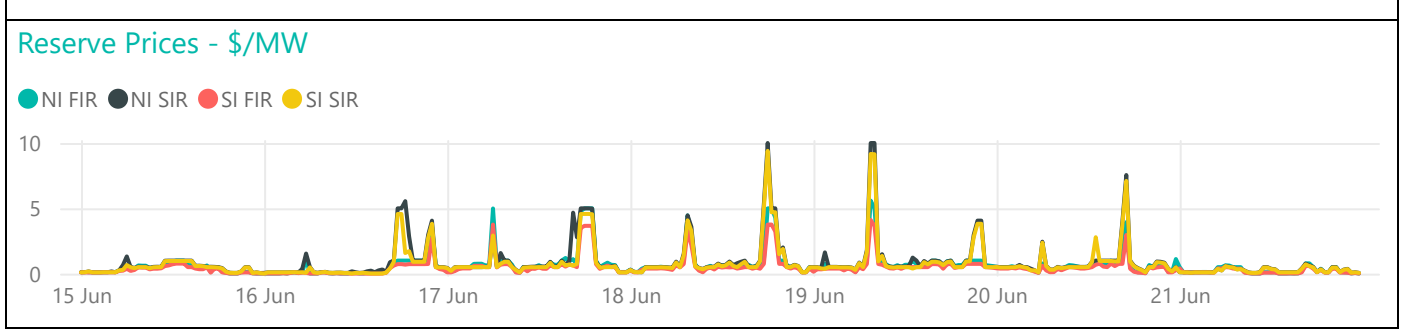


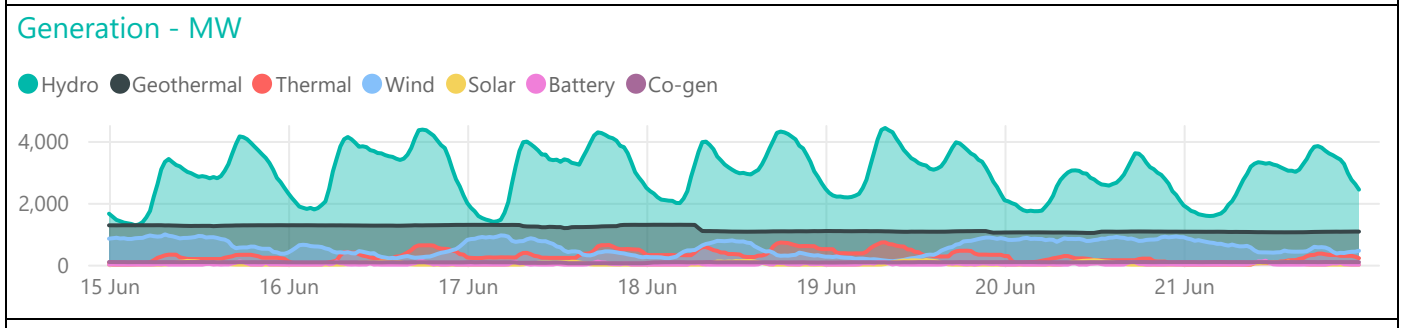


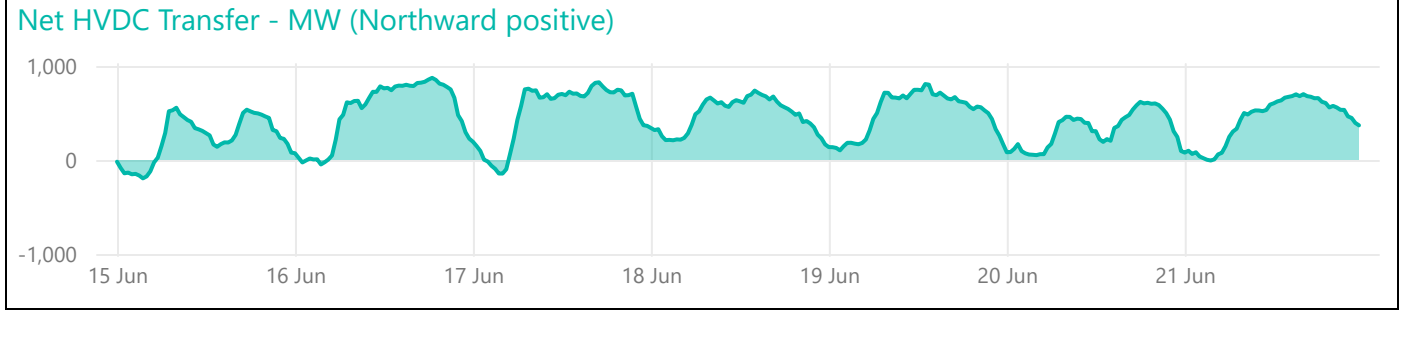












Weekly Insight - Changes to Electricity Risk Curve Watch and Alert definitions under the recently updated SOSFIP

We have recently made changes to how we calculate the Electricity Risk Curves (**ERCs**) published in our monthly Energy Security Outlook (**ESO**) updates, following changes to the Security of Supply Forecasting and Information Policy (**SOSFIP**).[1] The ERCs are used to regulate aspects of the New Zealand electricity system's response to energy supply shortages. For example:

- Resource consents for certain major hydro reservoirs make access to contingent storage dependent on reaching "Alert" or "Emergency" status as determined by the ERCs.[2]
- Triggers to commence and end an Official Conservation Campaign are based on the ERCs.

Energy Security Outlook updates also contain other information to inform the industry of energy supply risk in the electricity system. We publish Simulated Storage Trajectories (**SSTs**) which show future hydro storage based on expected market behaviour under different historical inflow sequences, and scenarios which show how the ERCs would differ with different input assumptions such as fuel supply disruptions or outages. The key changes to the ESO under the amended SOSFIP are:

- Changes to the Alert and Watch curve definitions
- Removal of restrictions on assumed industrial gas demand response
- Addition of a Contracted Fuels scenario to be published every month

We have discussed these changes in more detail in our May Energy Security Outlook, our 2 June fortnightly Industry Forum, the Energy Security Outlook 101 explainer document, and our draft SOSFIP amendment proposal consultation. This insight explains the Alert curve definition change, and the results from the initial implementation (for the May ESO) of the change to the Watch curve definition. The change to the Alert definition is to increase the buffer between the amount of contingent hydro storage and the Alert curve floor to better reflect operational restrictions on storage that could prevent triggering of contingent storage when needed. These restrictions include Waiau low range operating constraints and the need to recover Tekapo storage above 220 GWh by 1 October each year. The change to the Alert curve definition is shown in **Figure 3** below.

The new Watch curve definition is as follows, and is intended to ensure that in almost all cases at least one month will elapse between declaring a Watch status and declaring an Alert:

watch status curve means the higher of:

*(a) the **1% electricity risk curve**; and*

(b) the alert status curve plus the larger of:

*(i) the **watch adder**; and*

*(ii) the largest fall in **available hydro storage** the **System Operator** simulates for the month in which the **watch status curve** is published*

The Watch Adder is 200 GWh. Part (b)(ii) of the definition results in a significant increase to the Watch curve in the months either side of the peak risk period. This is shown in **Figure 1**, which shows which component of the watch curve definition sets the Watch curve at each point in the May ESO update.

Figure 1: Watch curve definition components (shown against NZ base case ERCs from the May ESO update)

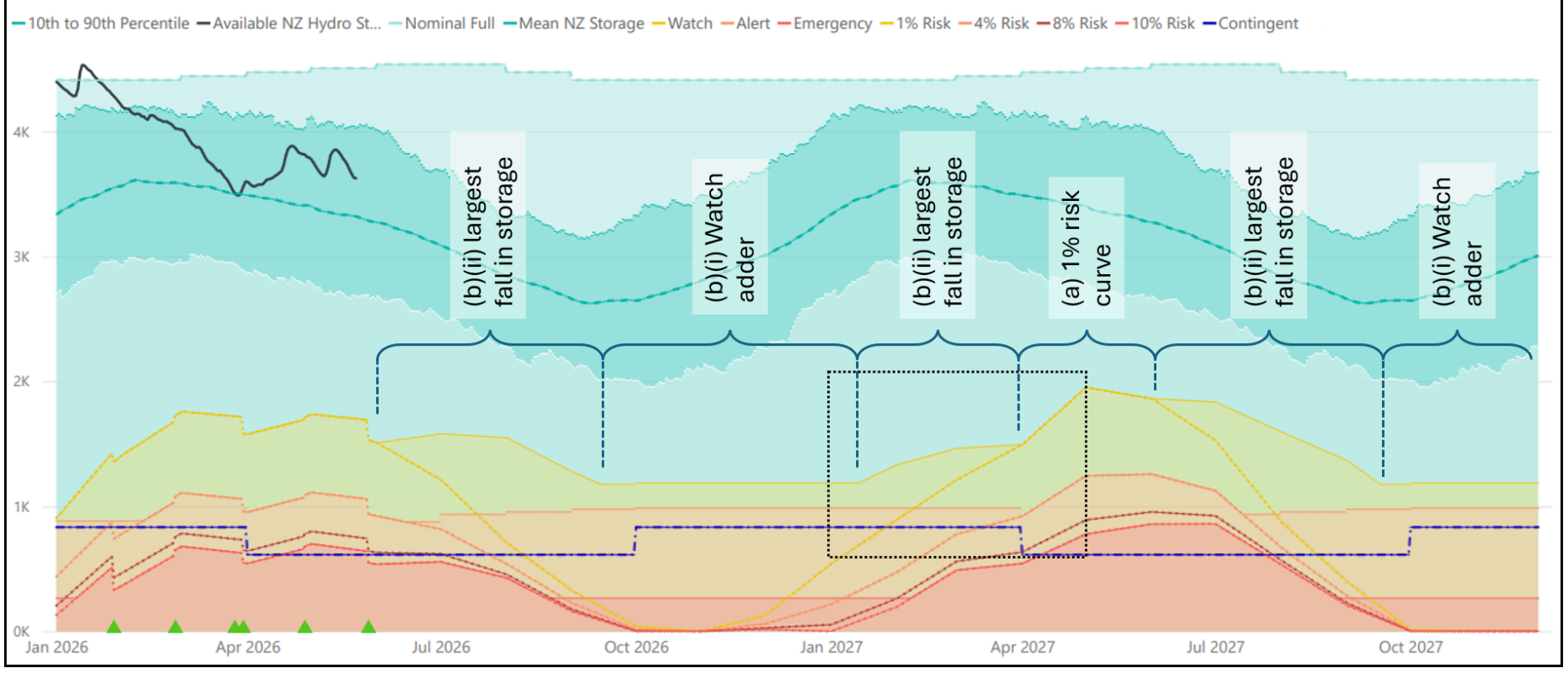


Figure 2 shows a more detailed view of how the largest fall in available hydro storage is calculated for a given month. Figure 2 zooms in on a small part of the ERC chart (the dotted black outline in Figure 1). The multicoloured lines starting from 1 March show ERC storage trajectories, one for each historical inflow year, that form part of the ERC calculation. Note that these are different from SSTs. SSTs simulate expected real-world market behaviour, while the ERC storage trajectories assume short-term market behaviour that seeks to minimise use of hydro storage. As such, in most of the ERC storage trajectories, hydro storage increases quickly as modelled thermal generation is maximised. However, the storage trajectories for some inflow years decline despite high modelled thermal generation. The largest decline, in this case set by the particularly low inflows observed in March of 2021, determines the gap between the Watch and Alert curves.

Figure 2: Largest fall in available hydro storage for March 2027 (May 2026 ESO update)

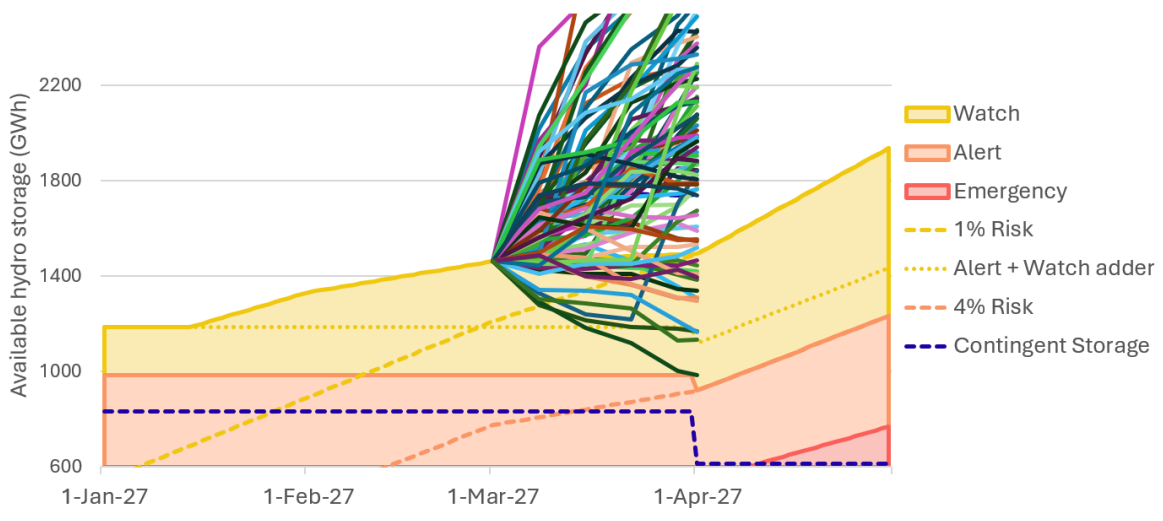
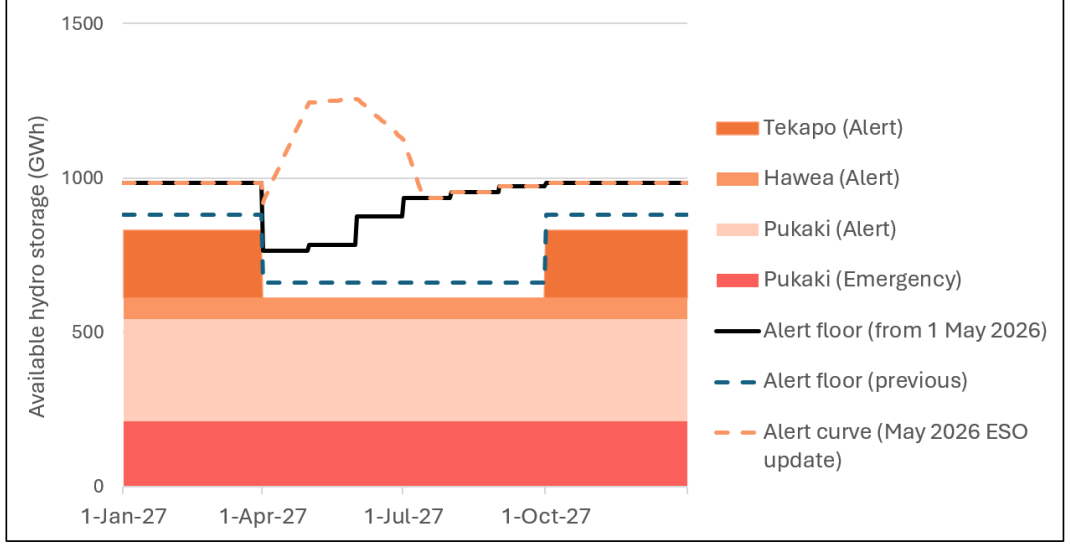


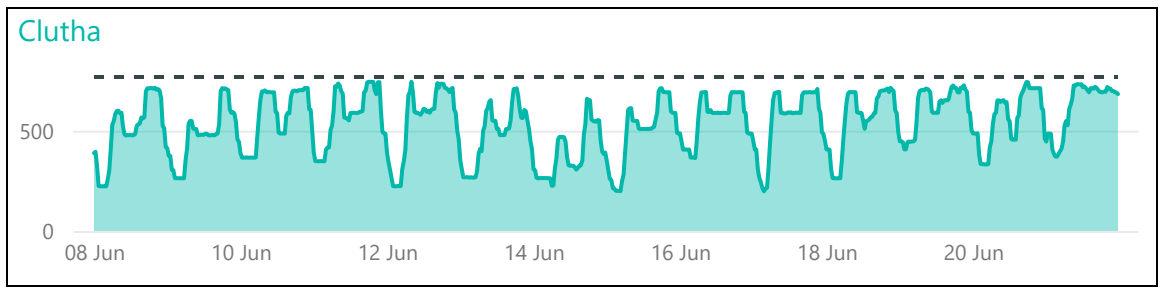
Figure 3: Contingent storage and change to Alert curve floor

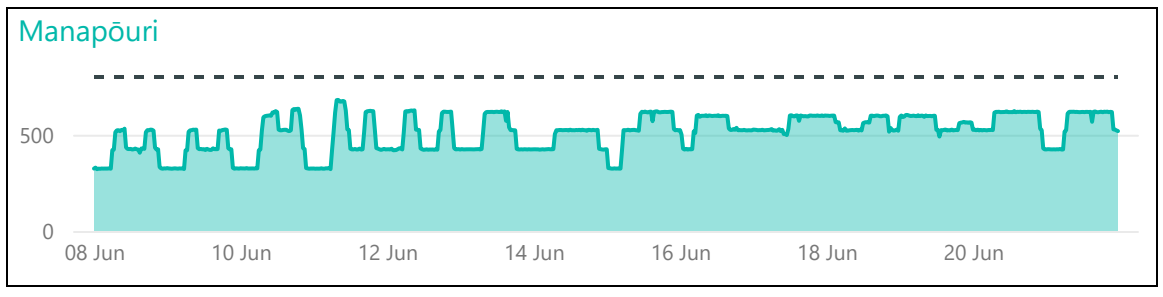


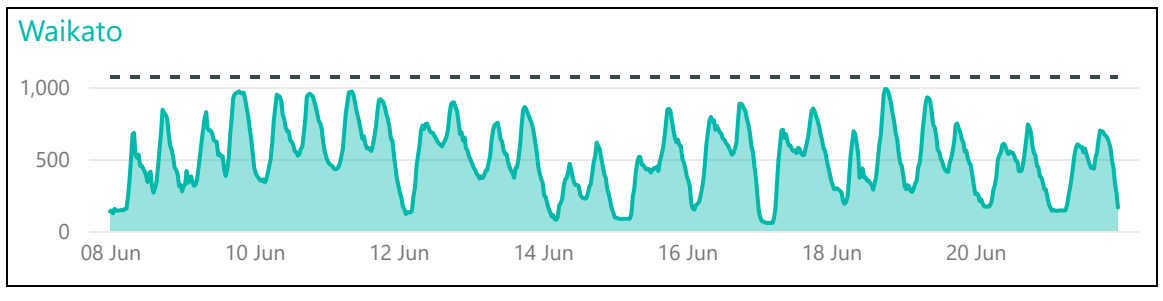
1. These changes were approved by the Electricity Authority in February after industry consultation by Transpower.
2. Meridian has made a fast track application to access contingent storage in lake Pūkaki until late 2028 regardless of risk status. The fast track panel has published a draft decision approving this application.

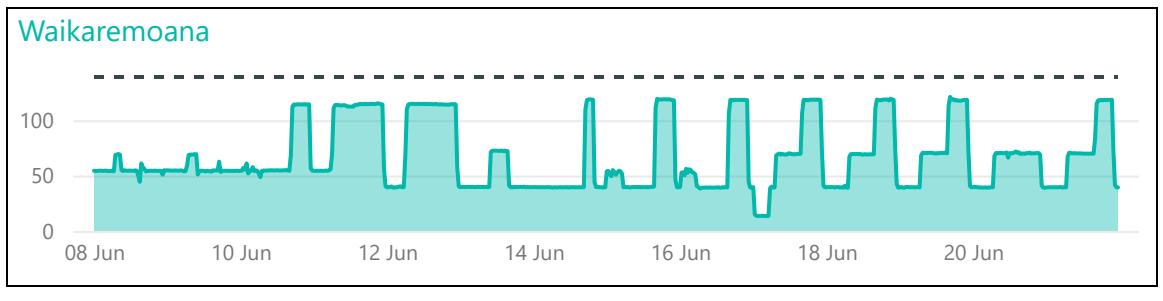
Generation Breakdown - Last Two Weeks

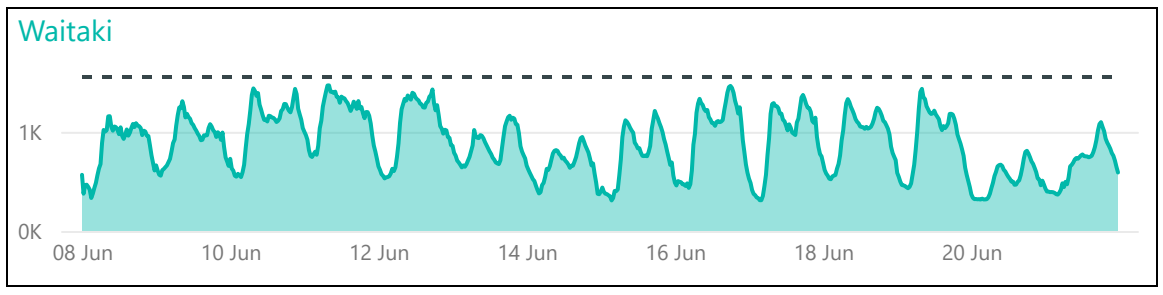
Measured in MW and displayed at trading period level for last 14 days

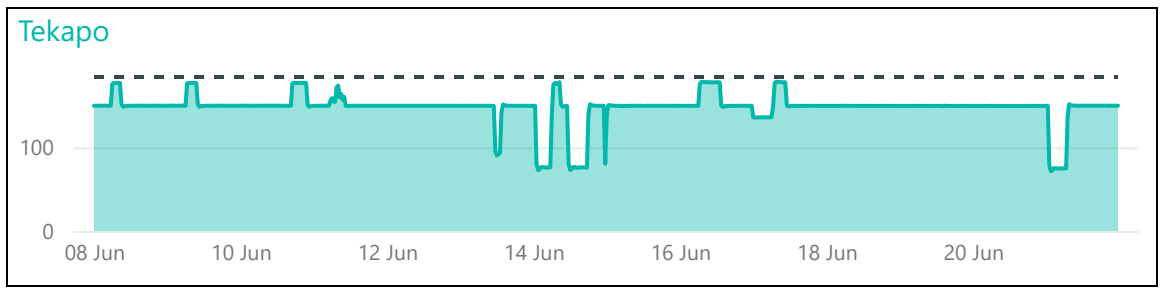


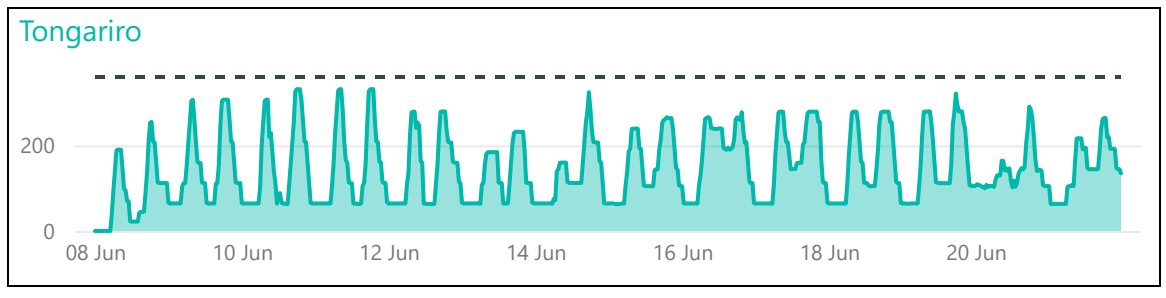


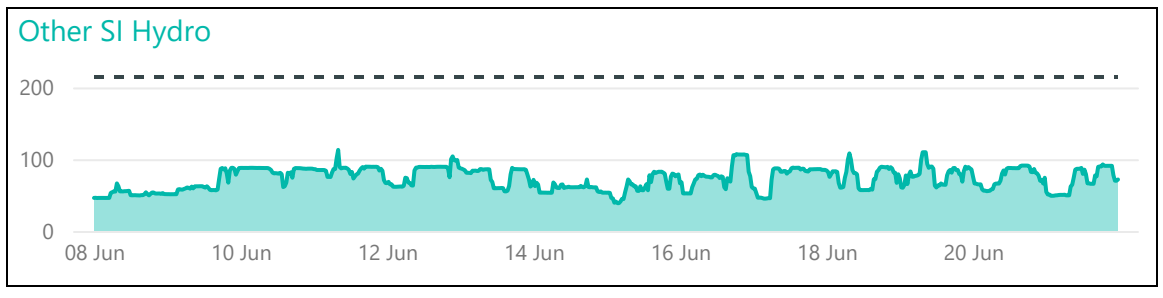


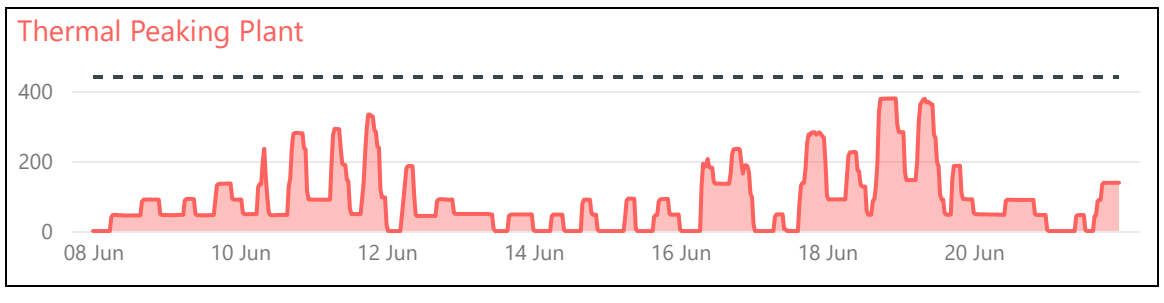


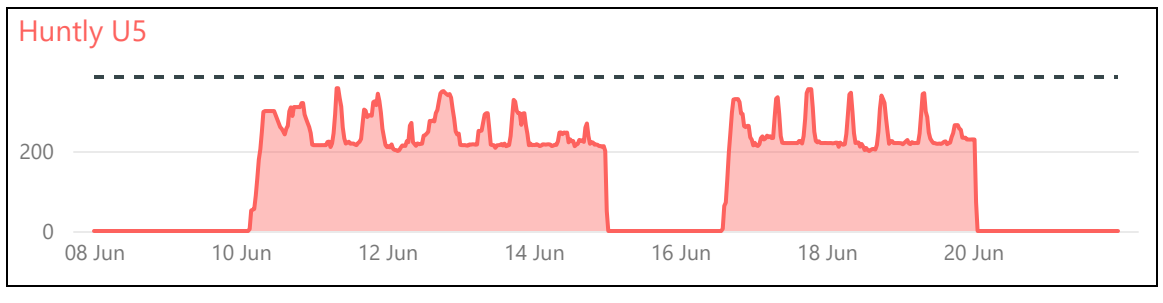


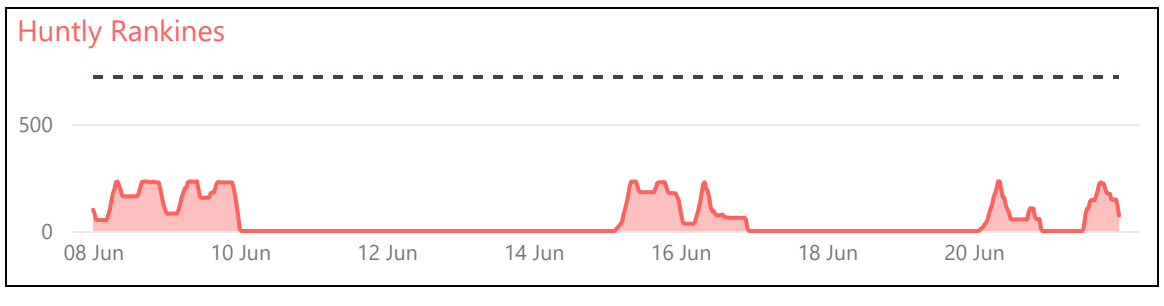


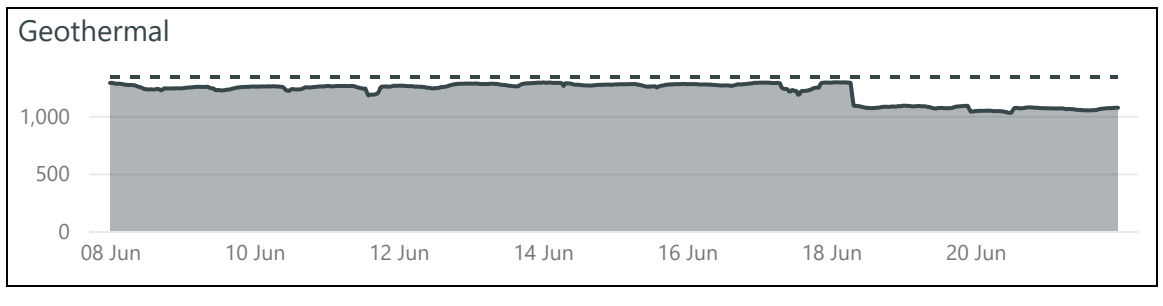


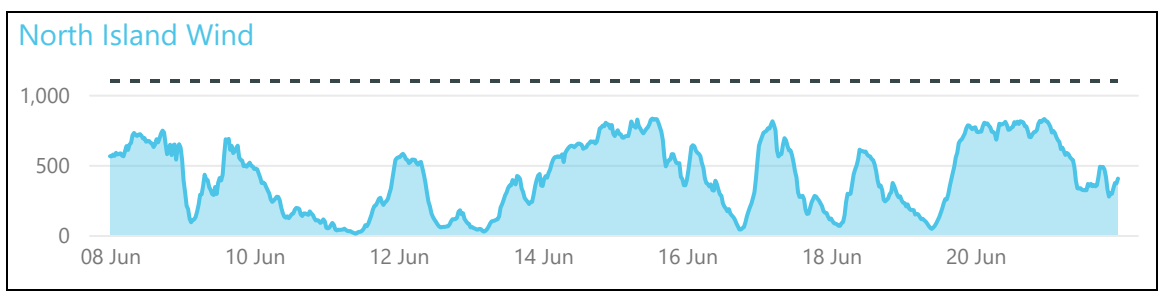


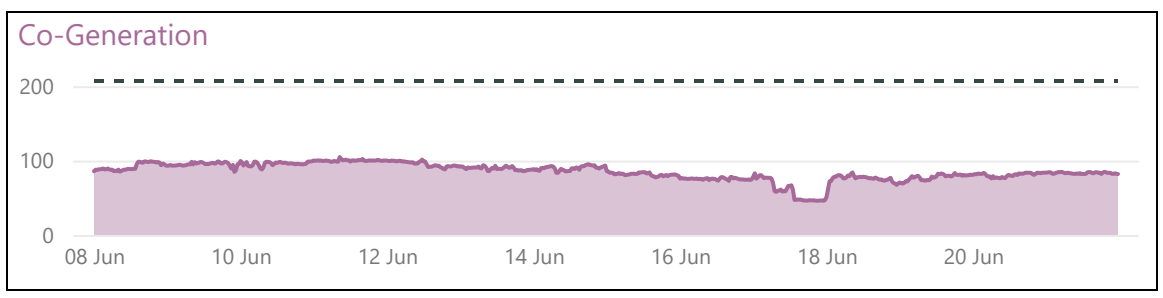


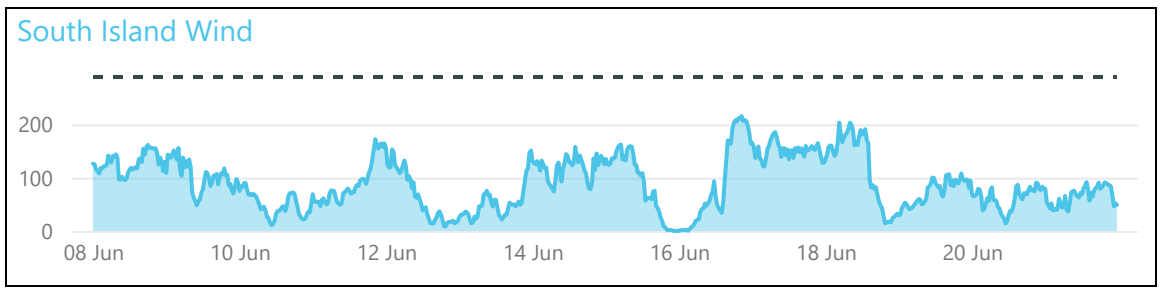


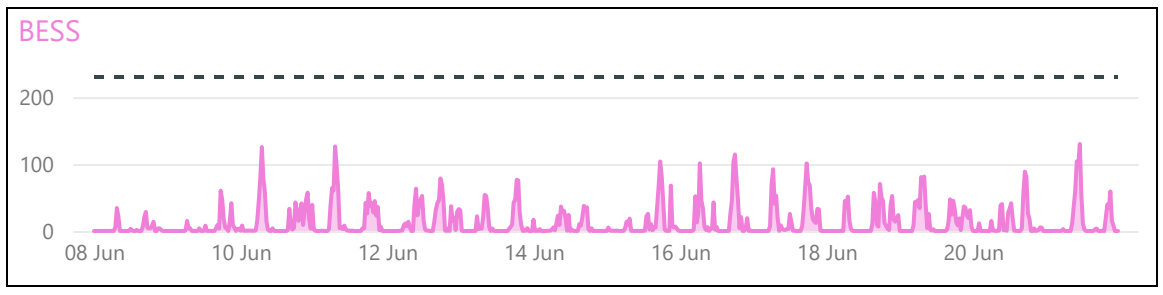


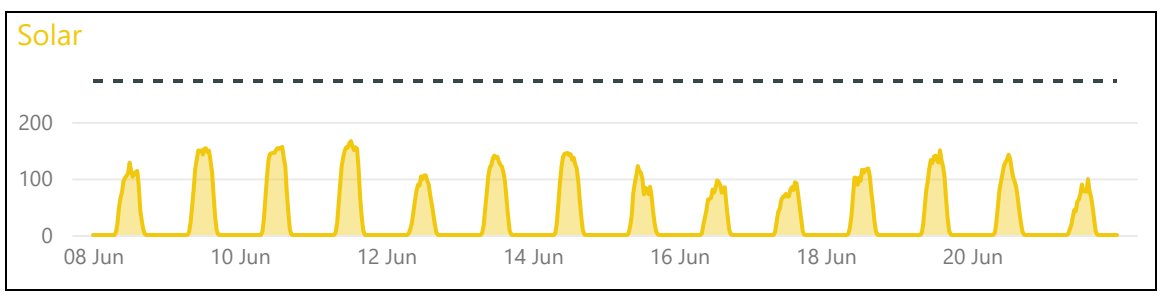






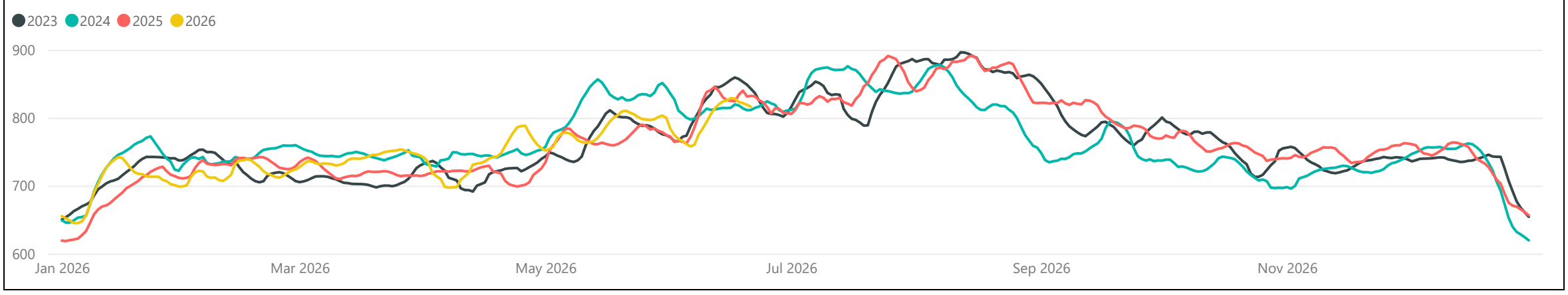




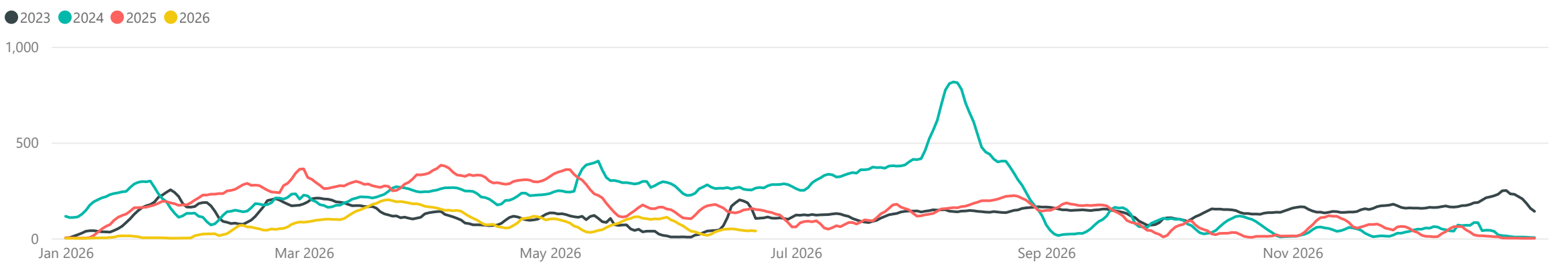


Weekly Profiles

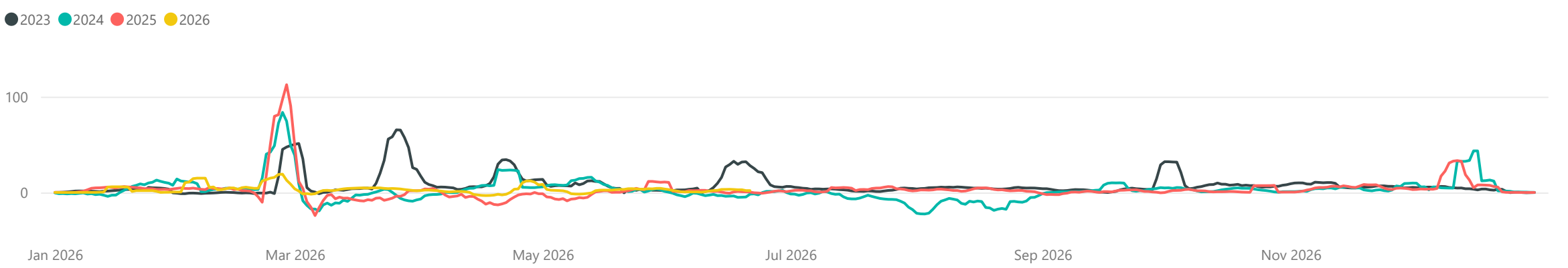
National Weekly Demand - GWh - 7 Day Rolling



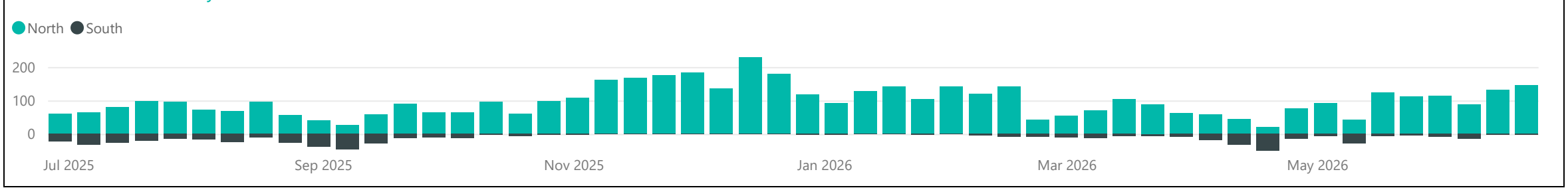
OTA2201 Weekly Rolling Average Spot Price - $/MWh



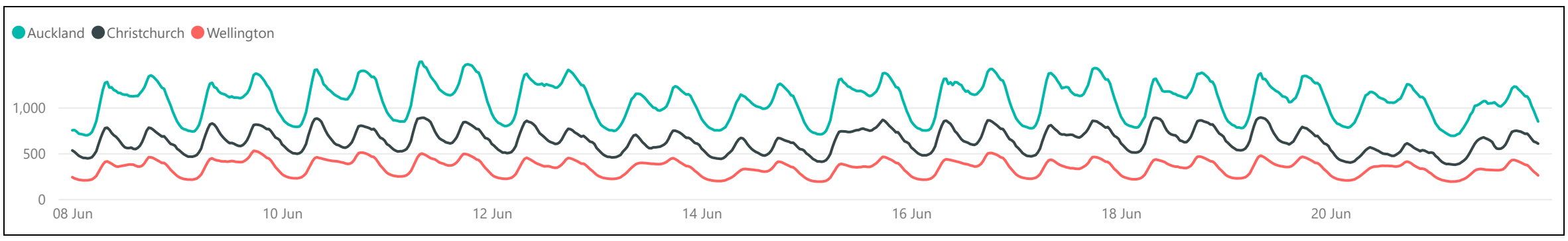
Weekly Rolling Price Separation (HAY2201 - BEN2201) - $/MWh



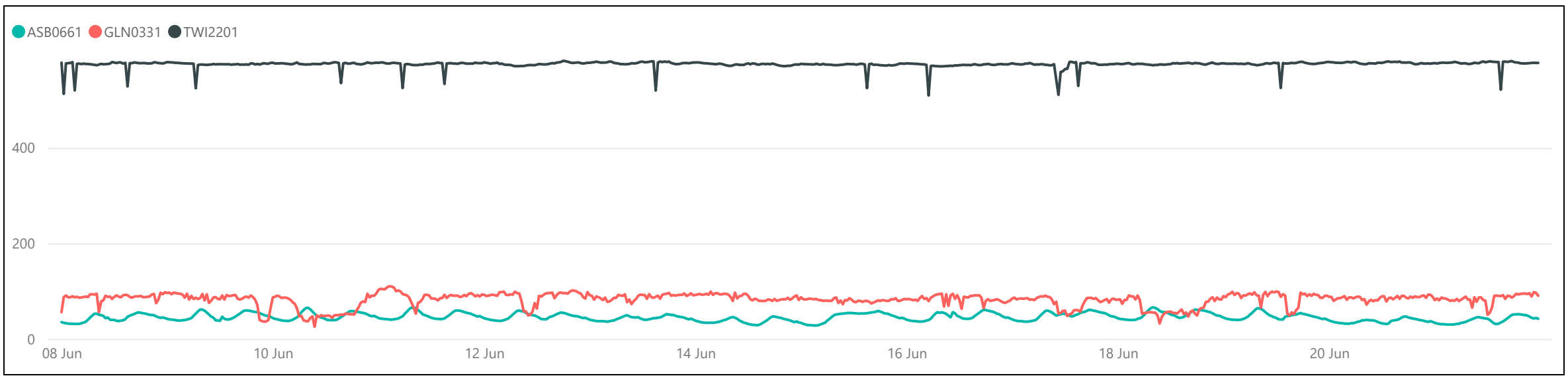
HVDC Transfer - Weekly GWh



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



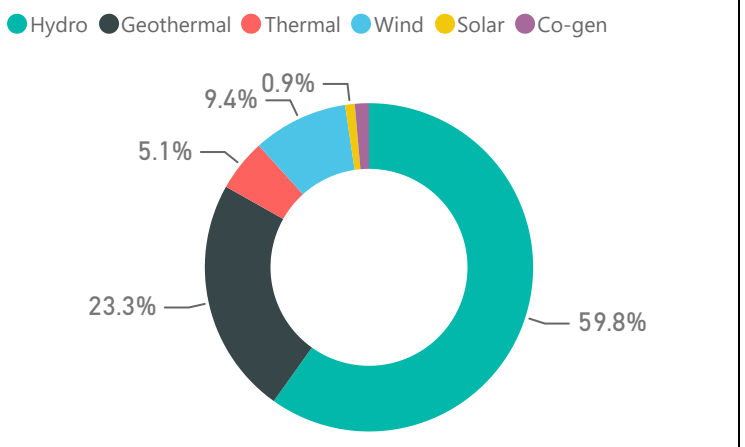
Non-Conforming Load Profiles - Last Two Weeks *Measured in MW shown by GXP*



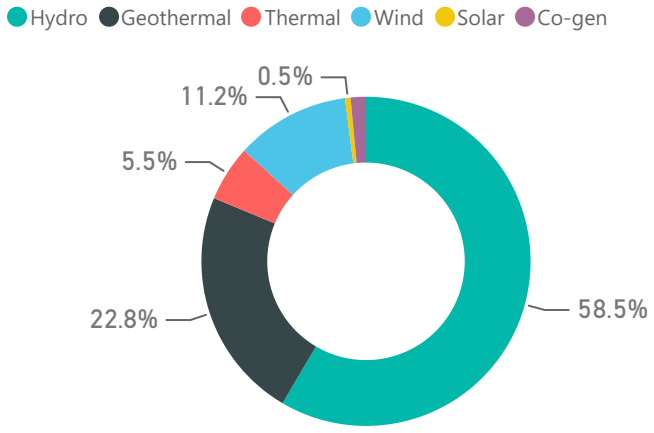
TRANSPOWER

Generation Mix

Last 52 Weeks Generation Mix - Weekly GWh



Last 7 Days Generation Mix - Weekly GWh



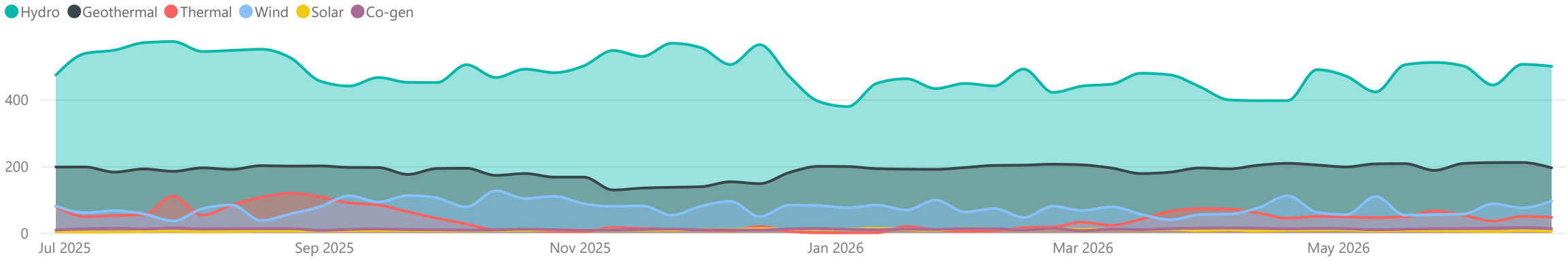
Average Metrics Last 7 Days

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
93%	43,595	50.4

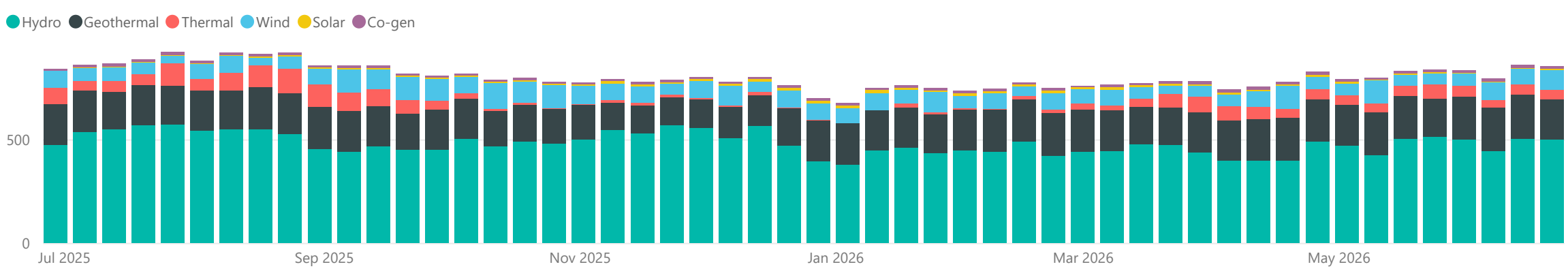
Average Metrics Last 52 Weeks

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
93%	40,272	49.0

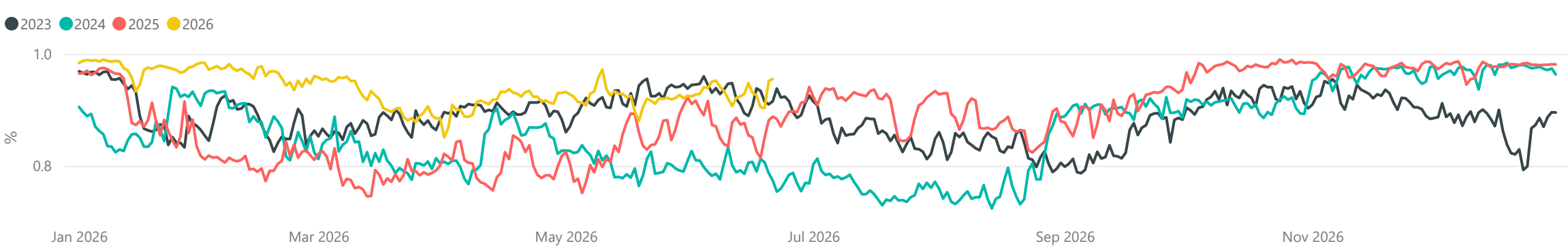
Weekly Generation Mix - GWh



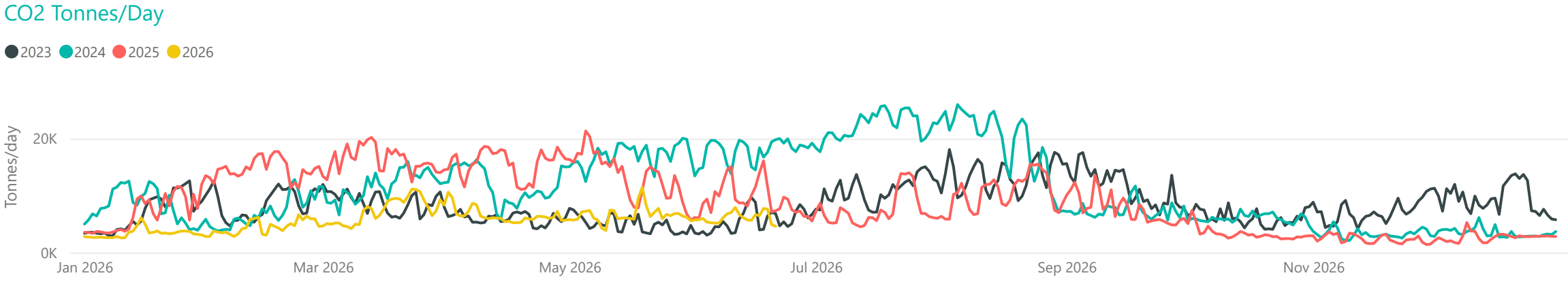
Weekly Generation Mix - GWh



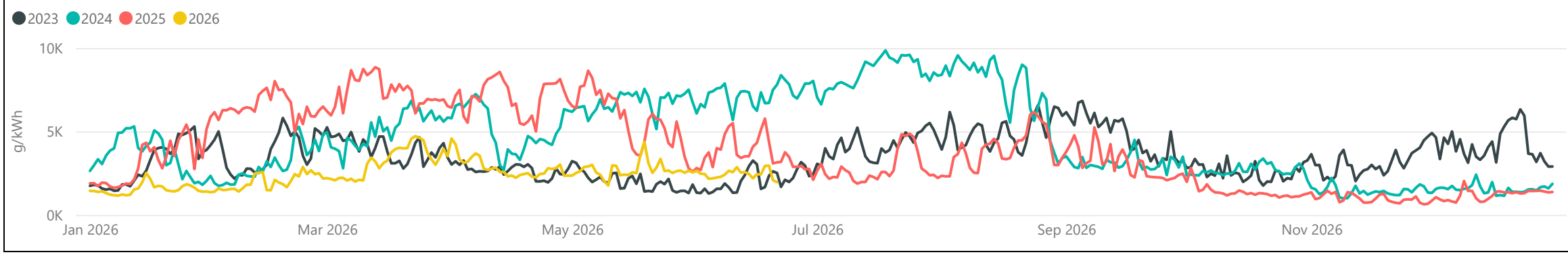
NZ Renewable Percentage



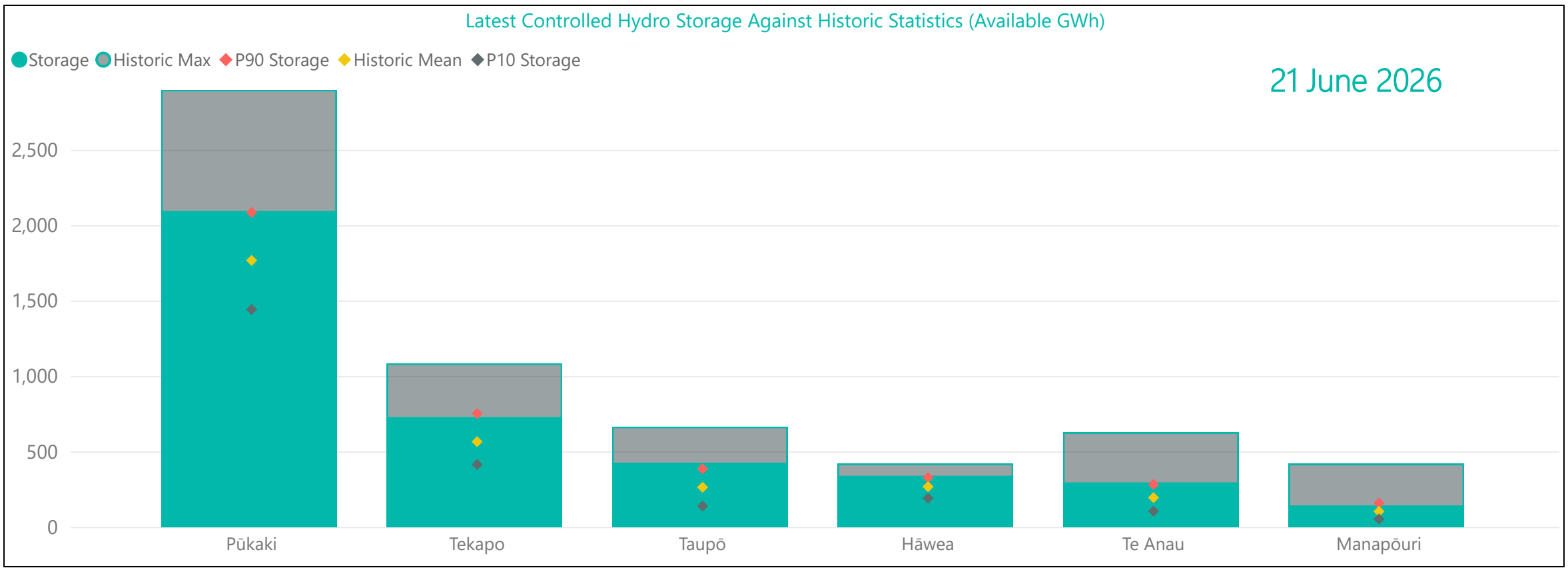
CO2 Tonnes/Day

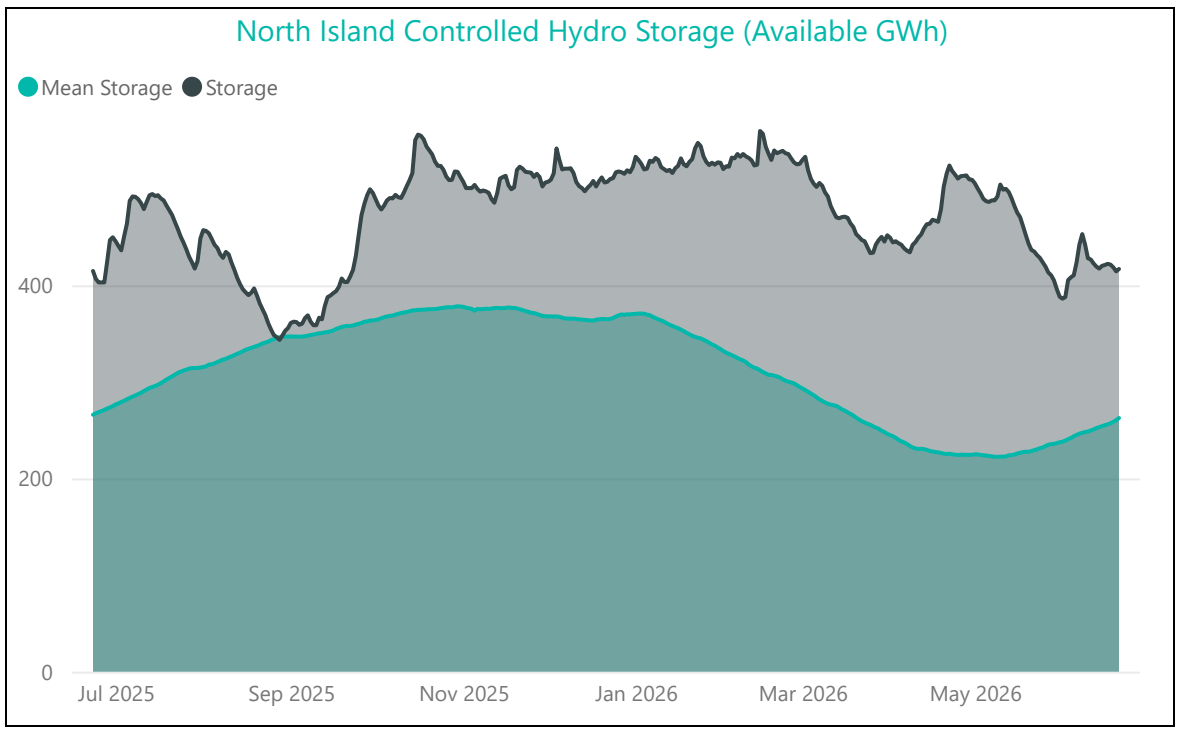


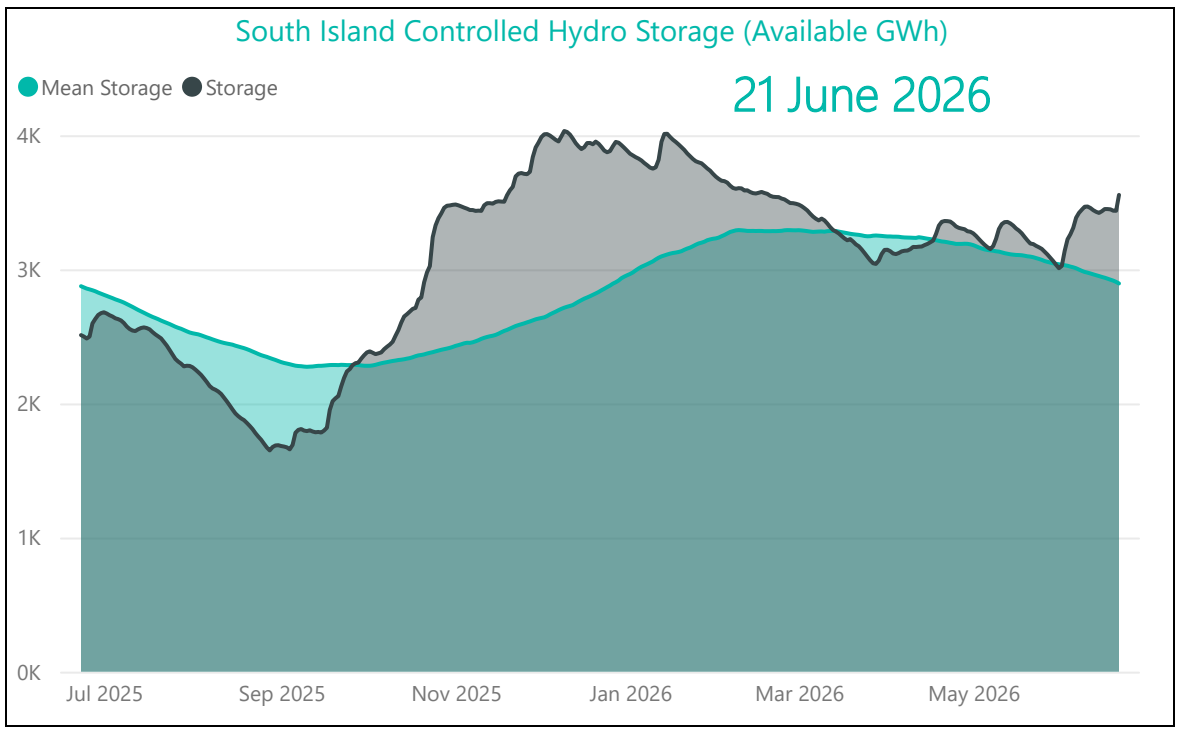
CO2 g/kWh

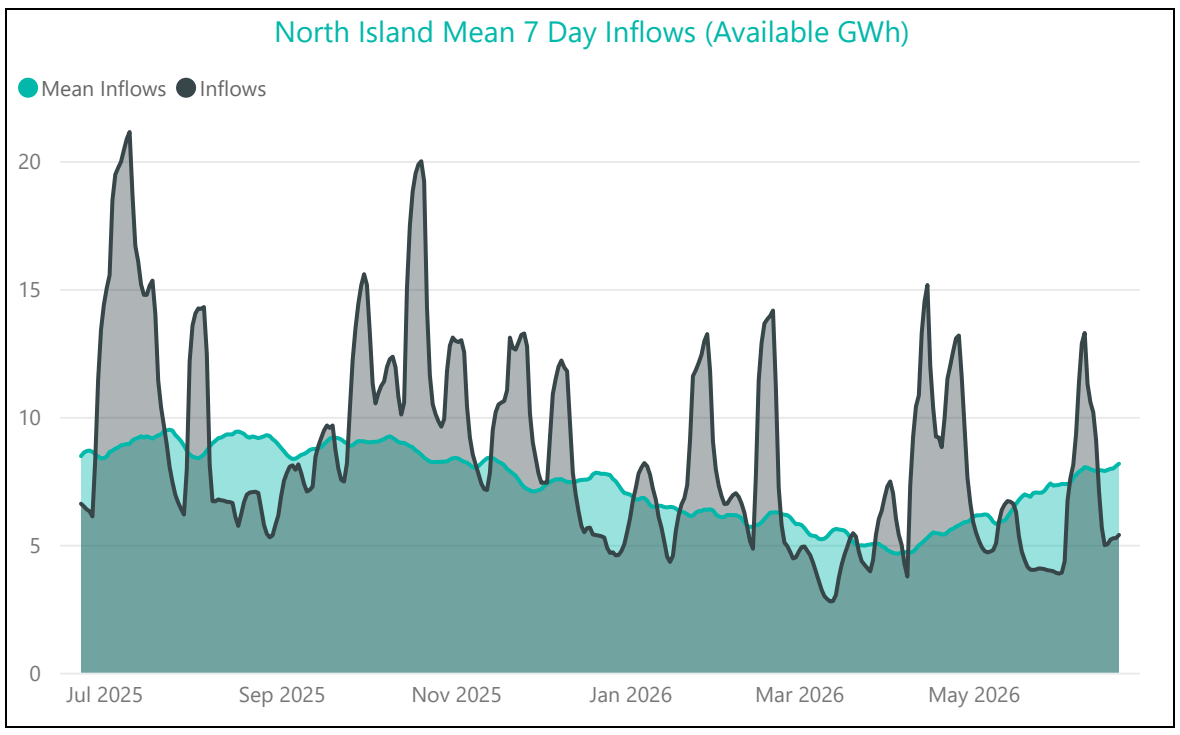


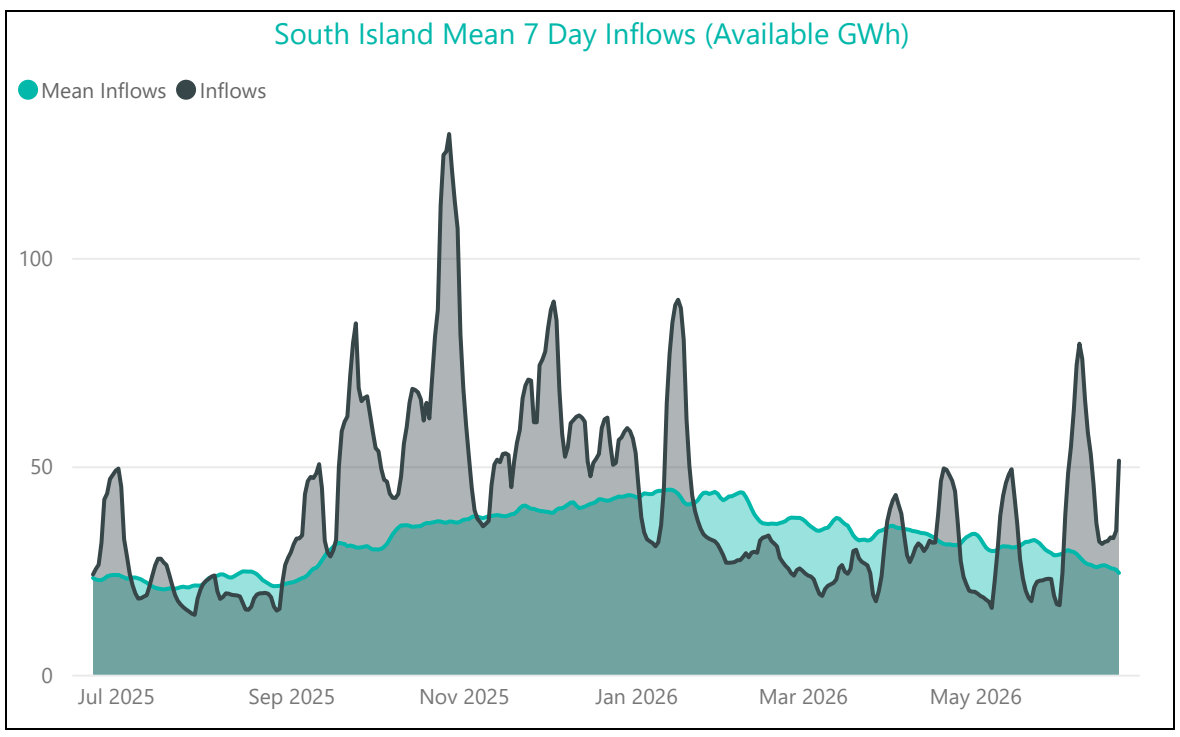
Hydro Storage











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

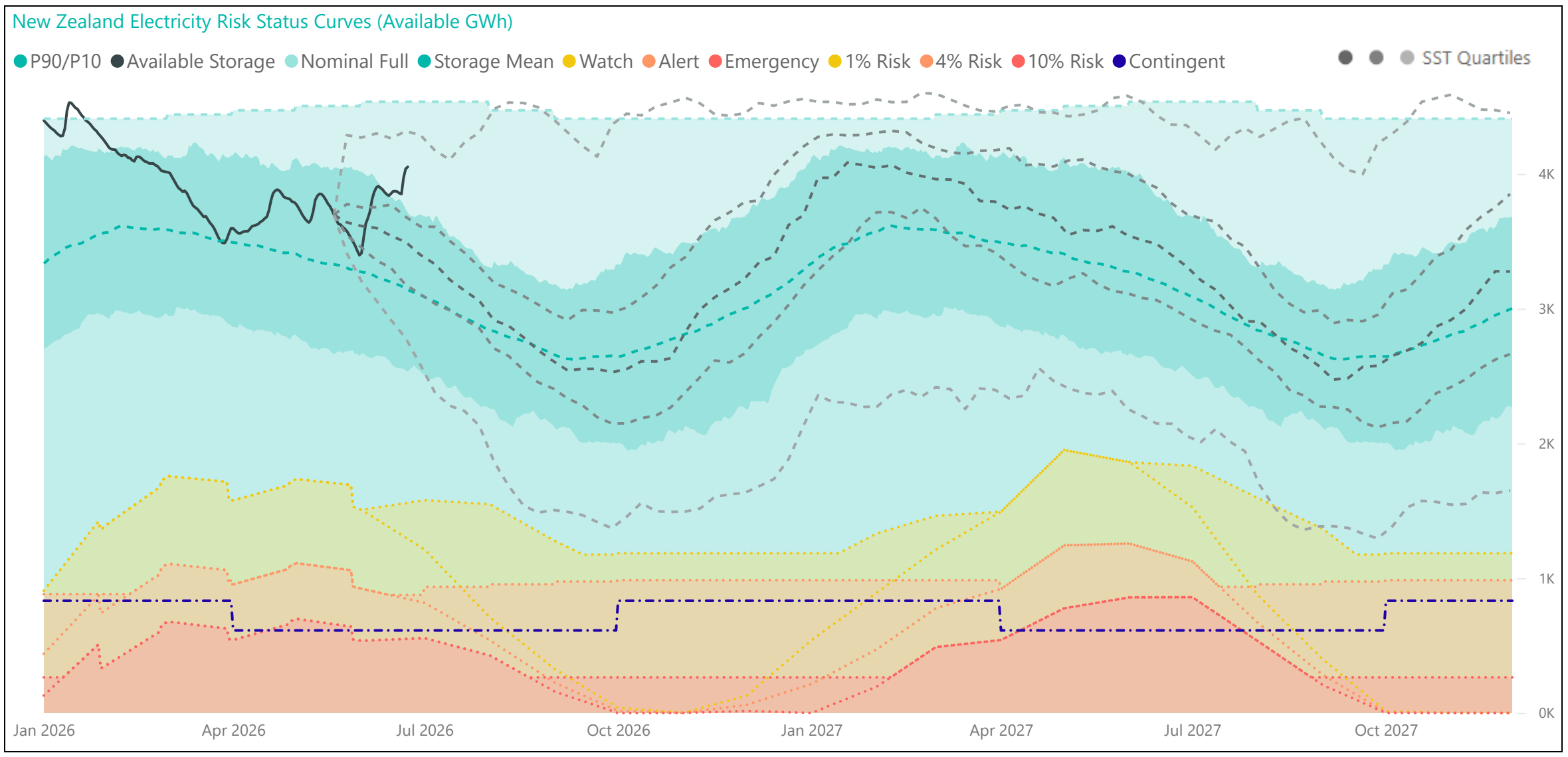
For any inquiries related to security of supply contact market.operations@transpower.co.nz

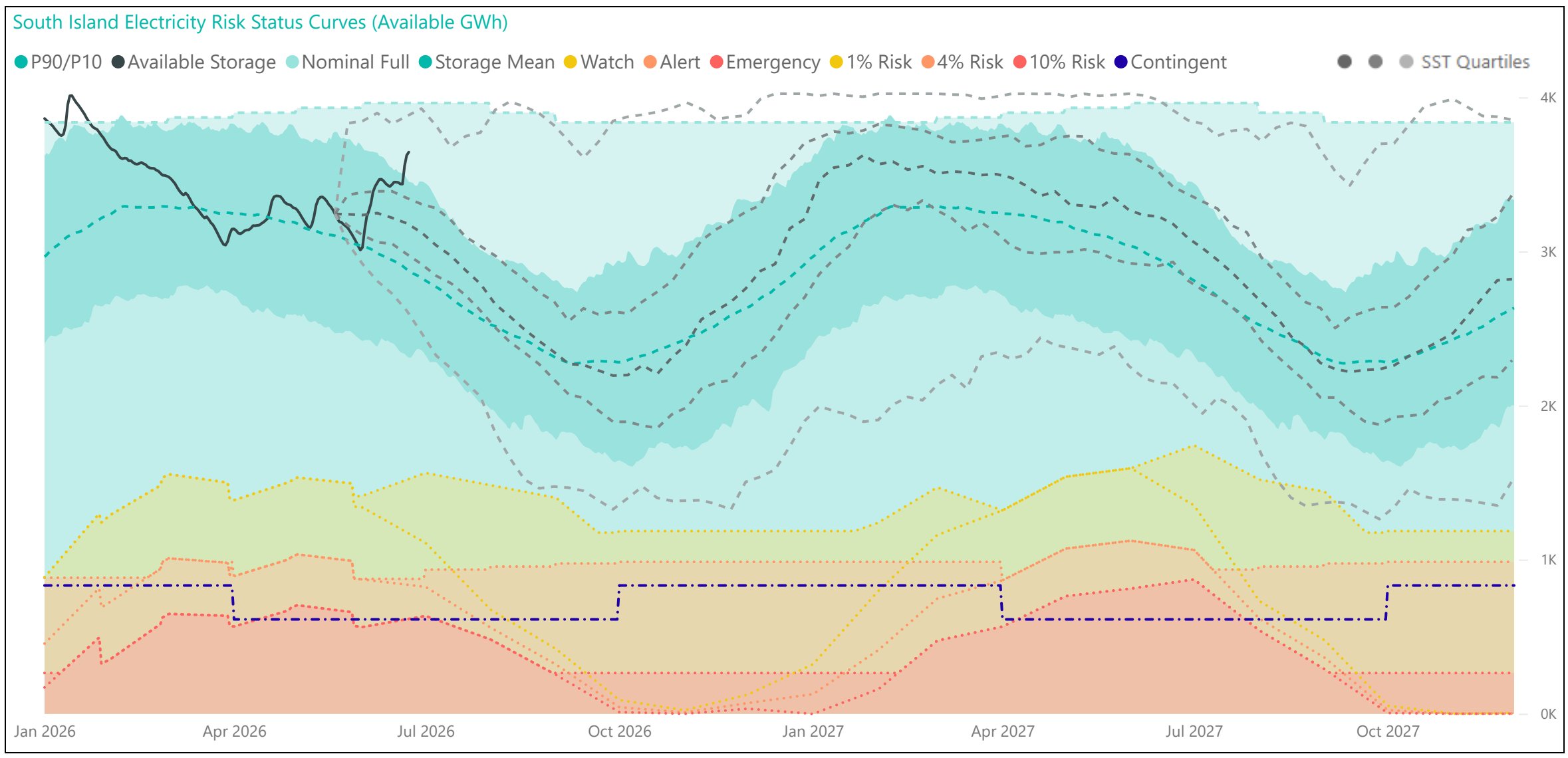
Hydro data used in this report is sourced from *NZX Hydro*.

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





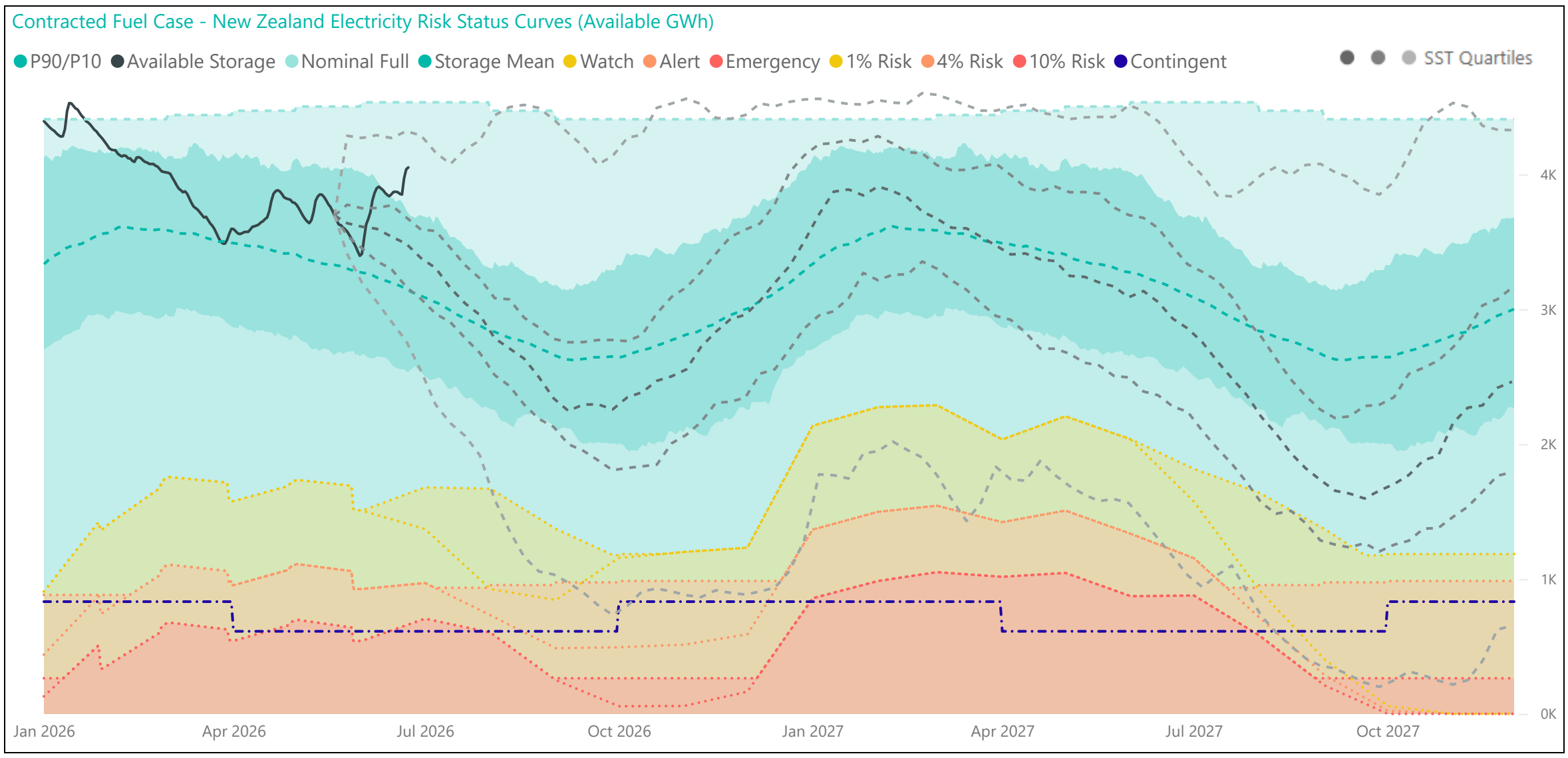
Electricity Risk Curve Explanation:

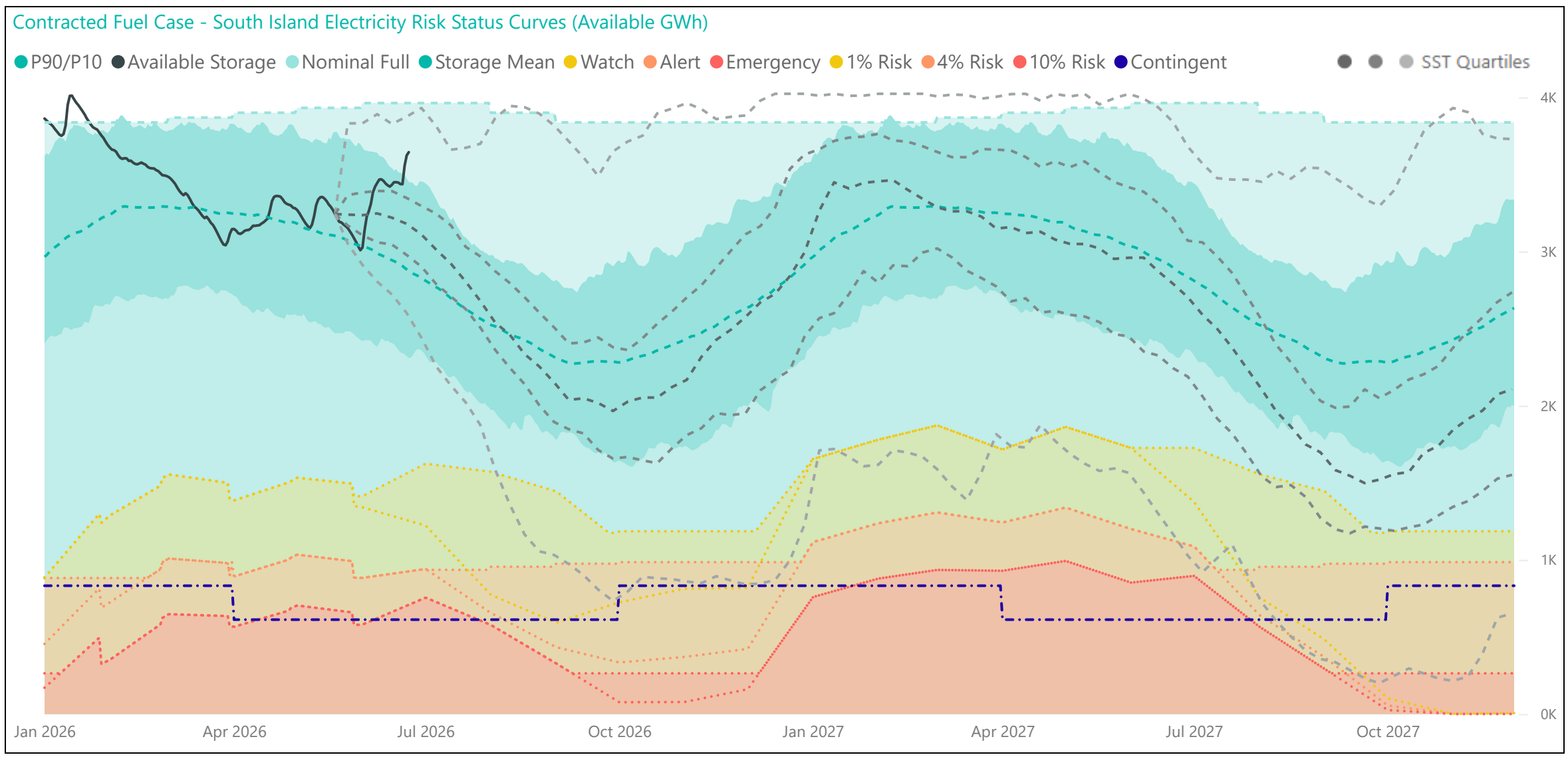
Watch Curve - The maximum of the one percent risk curve or the Alert curve plus the greater of the Watch adder or the worst-case simulated storage drop
Alert Curve - The maximum of the four percent risk curve and the floor and buffer
Emergency Curve - The maximum of the 10 percent risk curve and the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