Market Operations Weekly Report - Week Ended 1 March 2026

Overview

New Zealand hydro storage has decreased from 113% to 112% of the historic mean for this time of year, while renewable generation remained high last week at 95% of the weekly generation mix.

This week's insight looks at Standby Residual Check notices and why some were sent to market participants last week.

Security of Supply

Energy

National hydro storage has decreased to 112% of the seasonal mean at the end of last week. South Island hydro storage decreased from 107% to 105% of the historic mean, and North Island storage increased from 177% to 180%.

Capacity

Residuals were healthy with the lowest residual of 938 MW occurring during the morning of Friday 27 February.

The N-1-G margins in the NZGB forecast are healthy through to the end of April. 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 714 GWh to 726 GWh for the week, and is in line with average demand at this time of year over the past three years. The highest demand peak of 5,170 MW occurred at 5:30pm on Thursday 26 February.

Weekly Prices

The average wholesale electricity spot price at Ōtāhuhu last week was $84/MWh, increasing from $47/MWh the week prior. Wholesale prices peaked at $226/MWh at Ōtāhuhu at 7:00am on Friday 27 February. Some periods of price separation between the North and South Islands were observed throughout the week as HVDC transfer was limited due to the annual outage. The greatest period of price separation occurred on 12:30 pm on Tuesday 24 February where the wholesale price peaked at $141.45/MWh at Ōtāhuhu.

Generation Mix

Wind generation decreased its share of the mix from 10% to 8% of the mix. Hydro generation increased to 58% of the mix, from 56% the week prior. Thermal generation increased to 4% of the mix from 2% the week prior, thereby ending the 20th consecutive week streak of 96% total renewable generation. The geothermal share remained at 26% of the mix, and solar contributed to 1% of the generation mix.

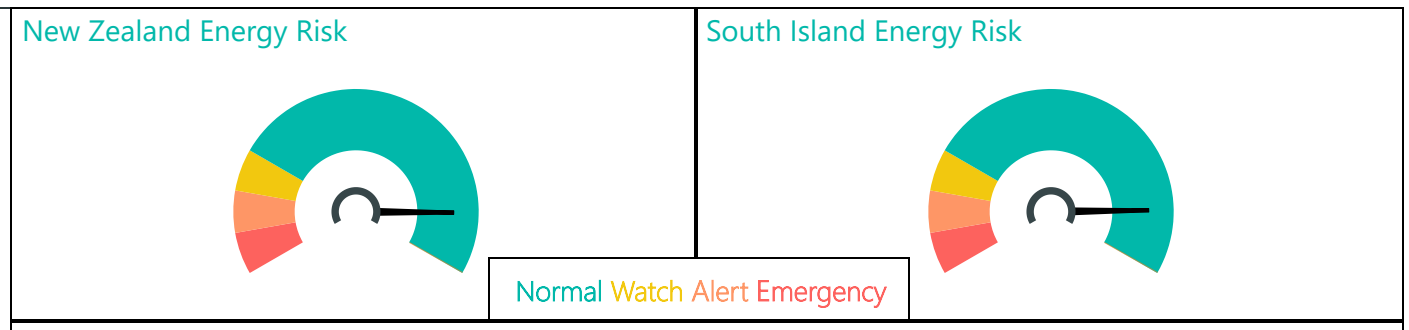
HVDC

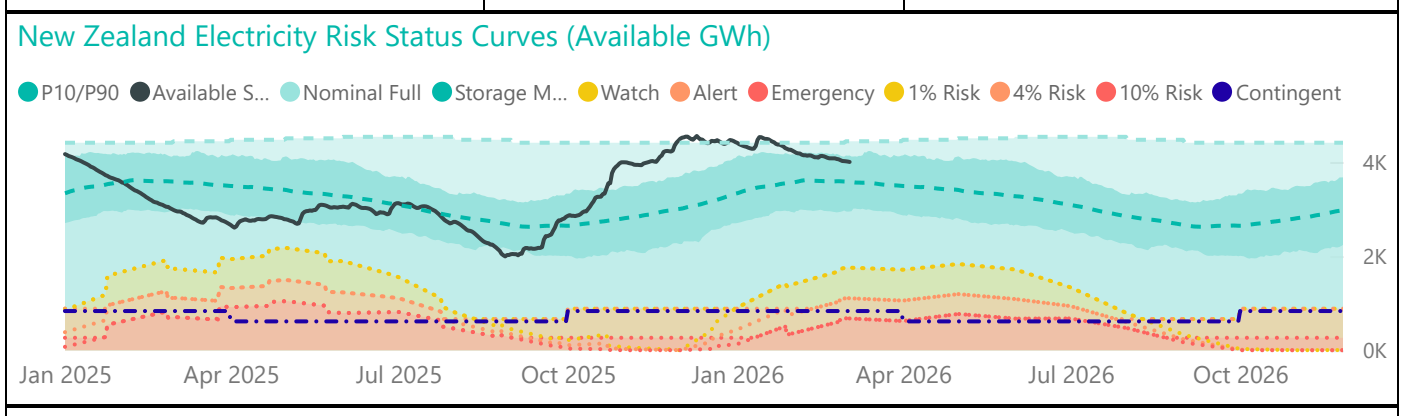
HVDC flow last week was predominantly northward with the exception of some brief periods of overnight low southward flow. These periods coincided with periods of high wind generation and lower North Island demand. In total, 26 GWh was transferred north and just 5 GWh was transferred south.

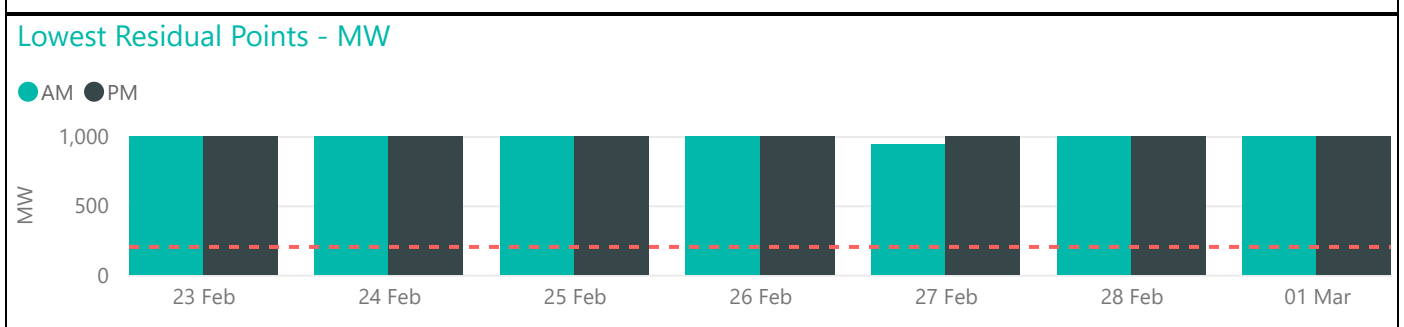
New additions to our Weekly Report

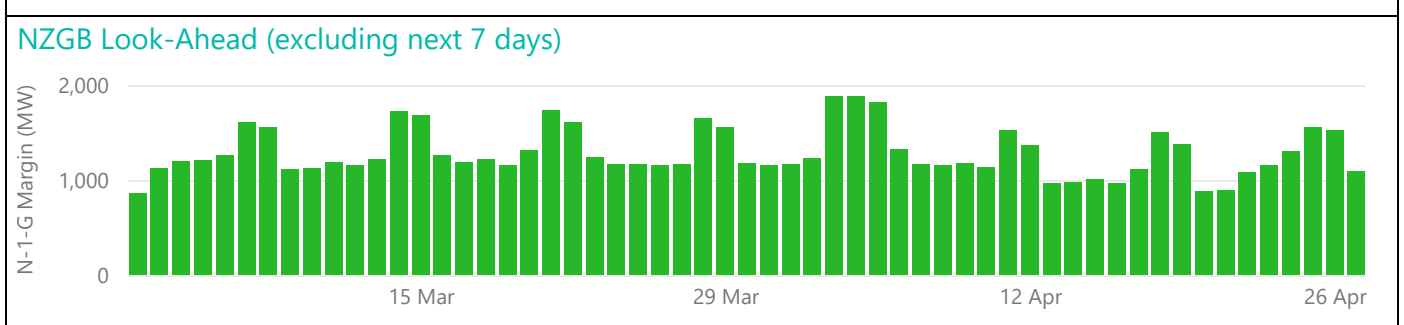
Our team has worked to add more data to our insights to now include:

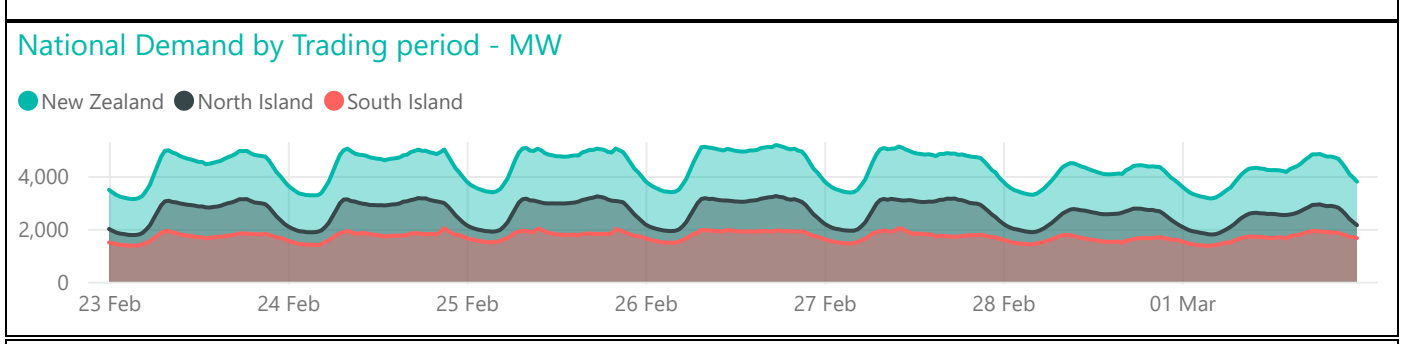
- BESS generation
- OTA2201 Rolling average price chart
- Price Separation rolling average price chart
- A different view of hydro storage statistics

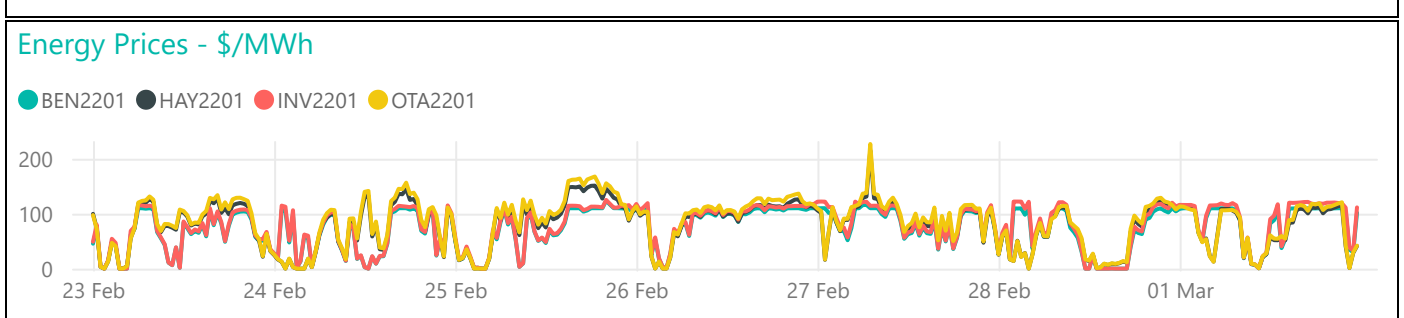


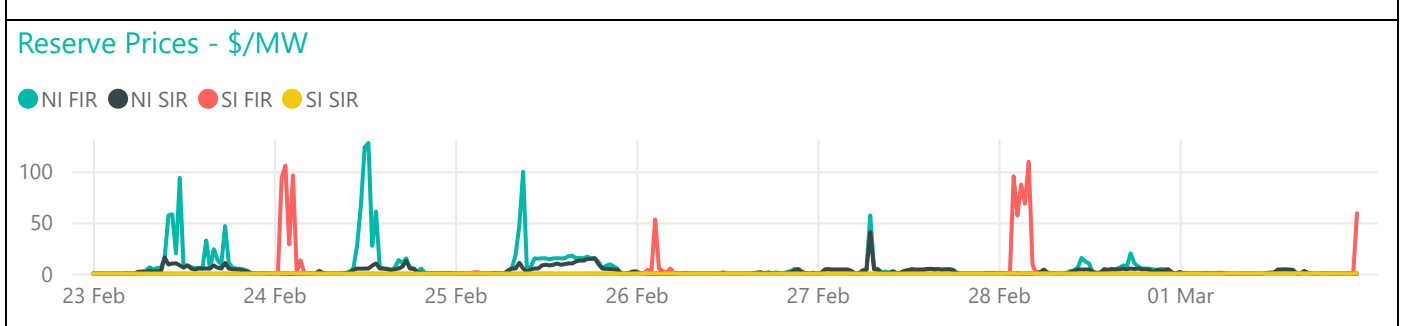


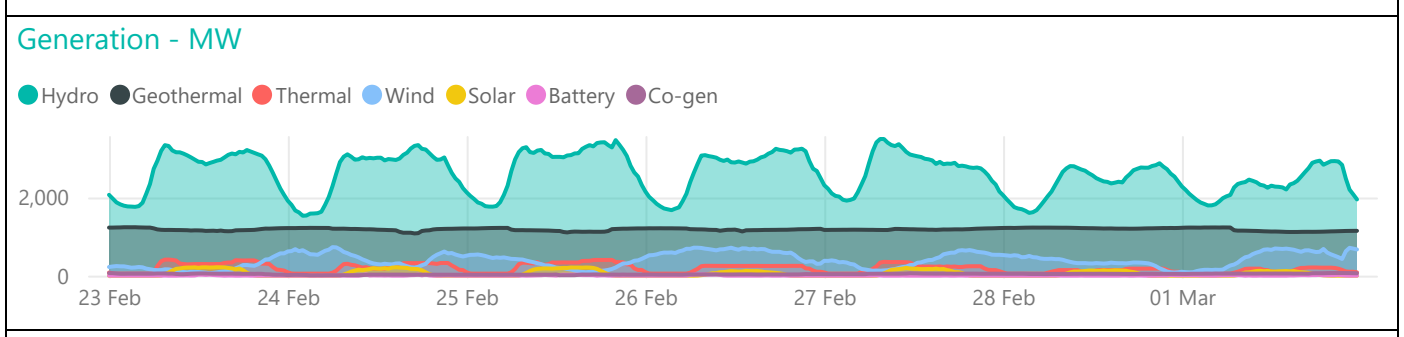


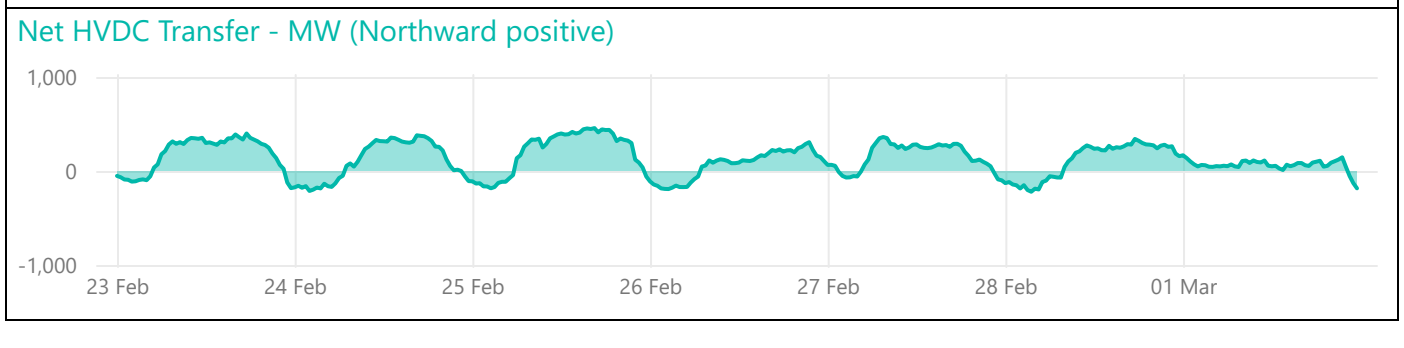












Weekly Insight - Understanding Standby Residual Checks (SRC)

Last week several forecast Standby Residual Check (SRC) shortfall notices were issued for the North Island for the evening peak of 25 February. This insight provides context on what these notices mean and outlines the system conditions that led to the forecast shortfalls last week.

The SRC is published through the Wholesale Information and Trading System (WITS), which provides forecast schedules and displays the SRC chart. This is separate to the System Operator's Low Residual CANs that are sent out when the forecast residual is expected to be below 200 MW.

The Standby Residual Check (SRC) undertakes two tests:

- whether there are enough energy offers to meet demand after the loss of the largest risk (energy shortfall)
- whether there are enough energy and reserve offers to meet demand after the loss of the largest risk and schedule reserves to cover the new risk (capacity shortfall).

On February 25, SRC energy and capacity shortfalls were calculated for trading periods TP32–TP39 (15:30–19:00). These forecast shortfalls were driven primarily by low forecast North Island wind generation and restricted HVDC transfer capability. Figure 1 shows the North Island wind forecast highlighting the forecast low-wind conditions during the evening peak of 25 February. With only Pole 3 in service due to the annual HVDC outage, the loss of Pole 3 was the largest risk and limited the ability to transfer South Island generation northward, reducing available generation in the North Island.

Shortfalls appear in the SRC dashboard on WITS whenever the model indicates insufficient standby residual. However, formal notices are only issued when the forecast standby residual shortfalls for each of the tests exceed their respective thresholds in any trading period:

- Energy shortfall ≥ 1 MW or
- Capacity (energy + reserves) shortfall ≥ 100 MW

Figure 2 shows the North Island Standby Energy and Capacity Standby Residuals last week (published on WITS), indicating where the forecast residuals fell below zero on 25 February. As we move into the cooler months and demand increases along with the increased presence of intermittent generation, SRC shortfalls may become more common particularly during periods of reduced HVDC capability or low renewable output. The benefit of the SRC notices is that they provide the System Operator and the market an early warning signal of the inability to restore the system to a secure state following a contingent event. This provides more time for the market to respond by increasing offers to help alleviate the potential risk.

Figure 1: Forecast North Island Wind Generation

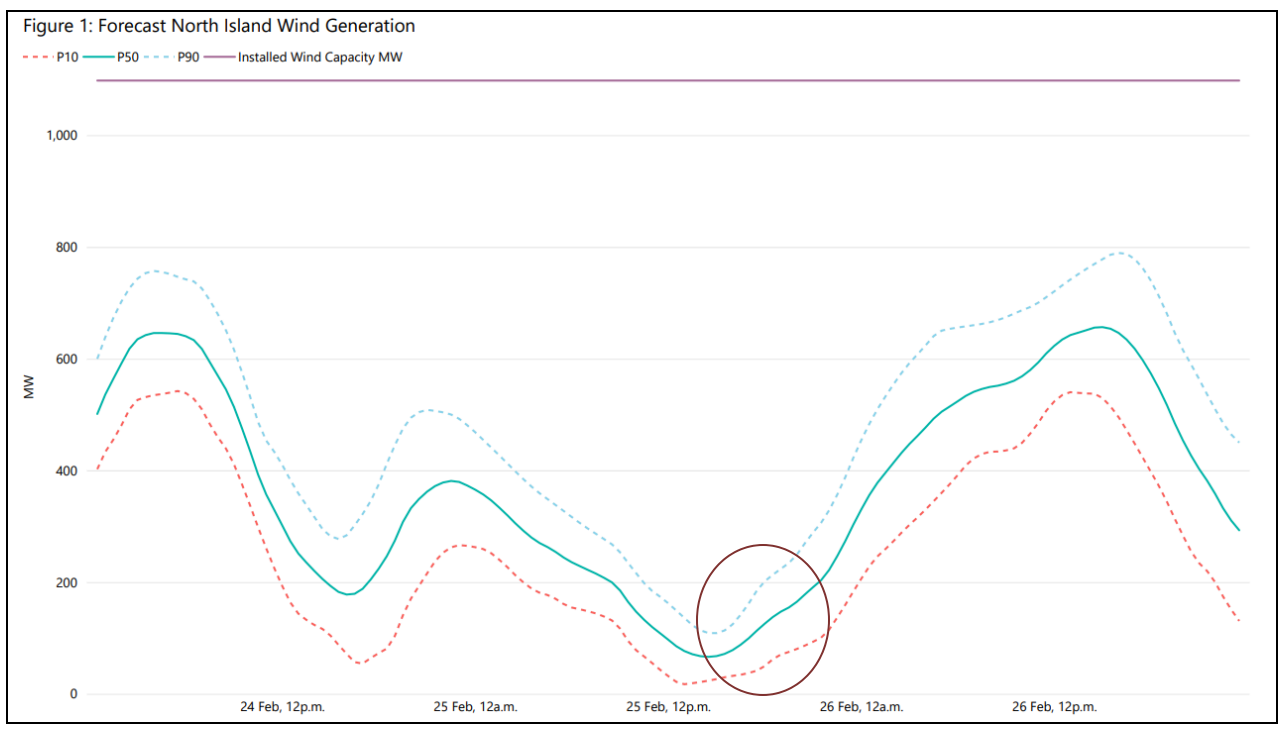
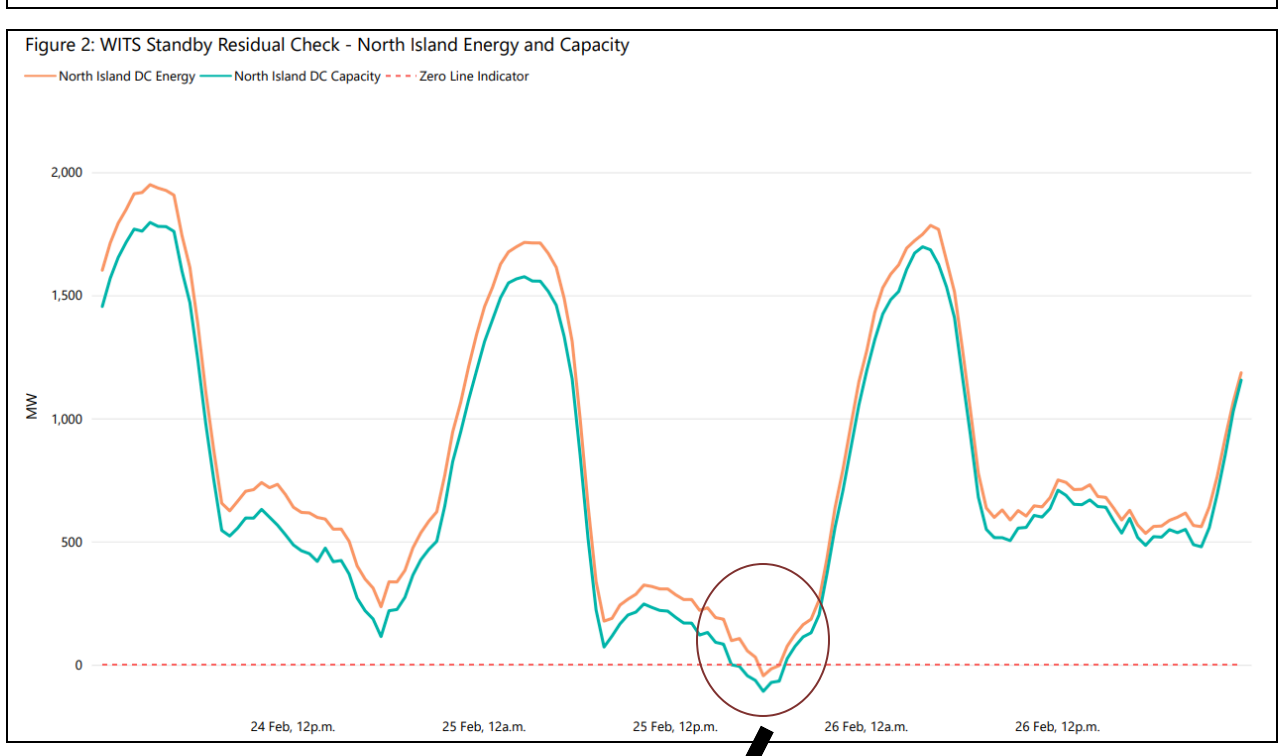


Figure 2: WITS Standby Residual Check - North Island Energy and Capacity



Forecast Standby Reserve shortfall for 25-Feb-2026

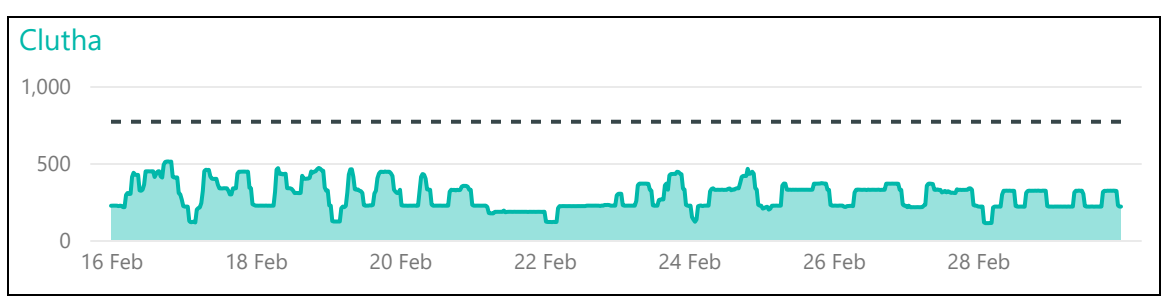
The System Operator advises participants that the Standby Residual Check (SRC) forecasts a Standby Reserve shortfall for the following trading periods:

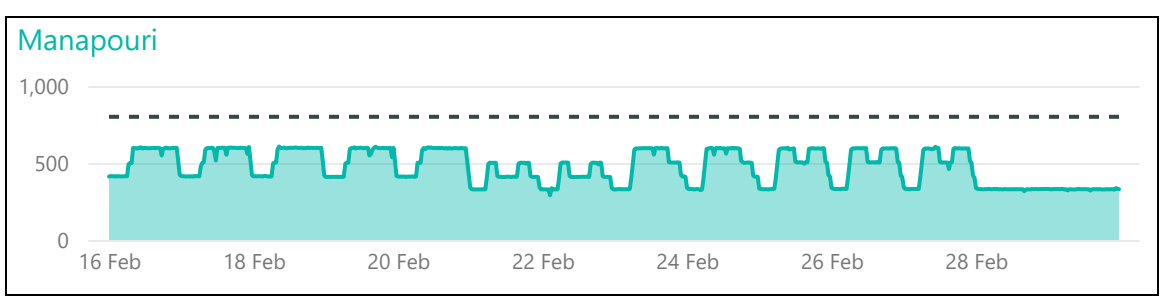
			Energy Shortfall			Capacity Shortfall		
Market Day	Time	Period	NI	SI	NZ	NI	SI	NZ
25-Feb-2026	17:30	36	45.2			108.4		

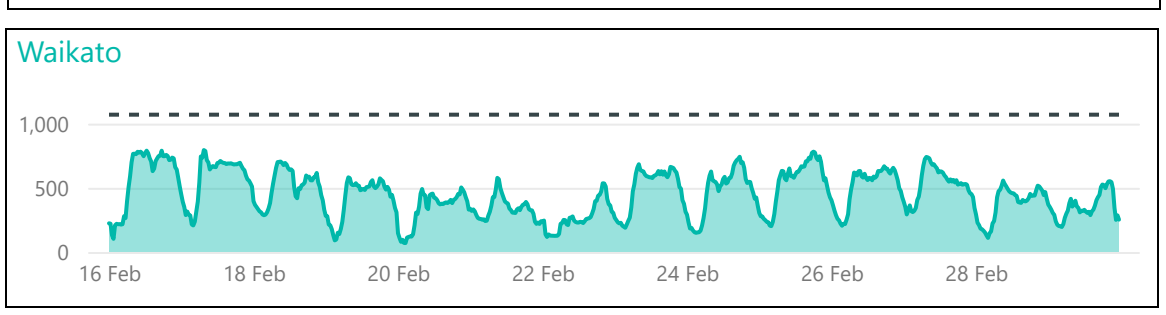
Schedule Details: NRSS 25-Feb-26 17:33:00

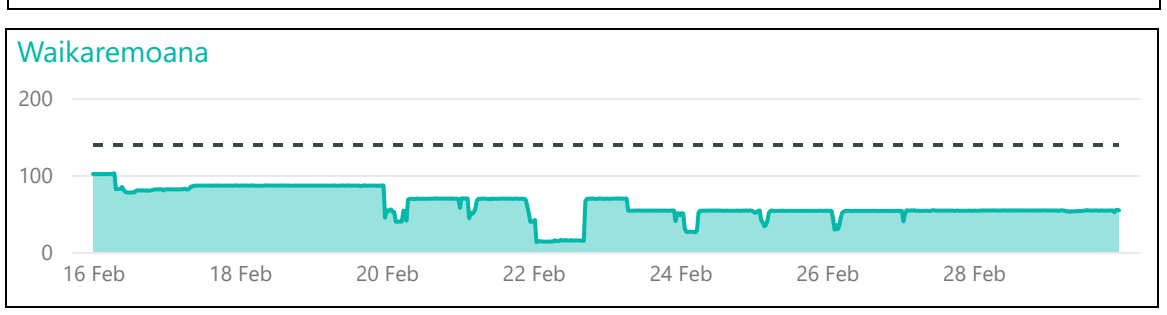
Generation Breakdown - Last Two Weeks

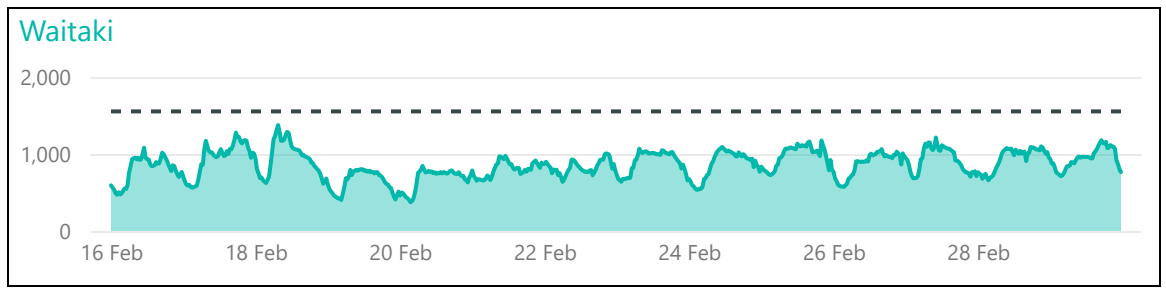
Measured in MW and displayed at trading period level for last 14 days

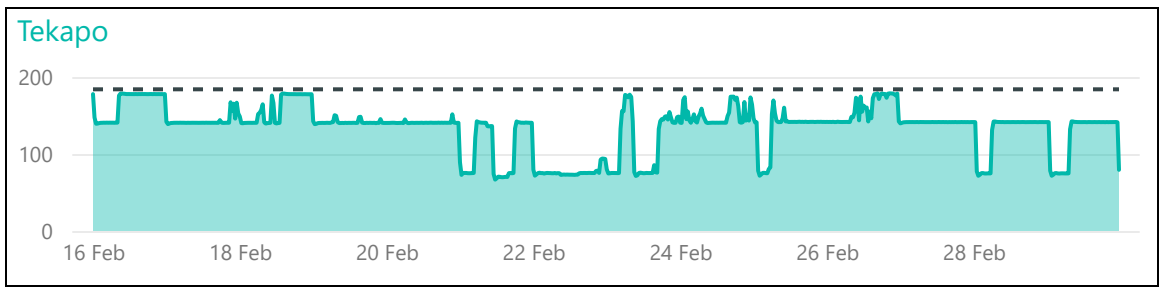


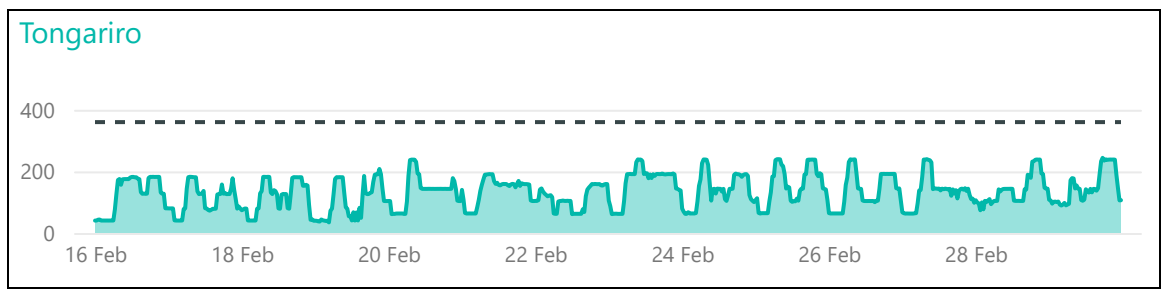


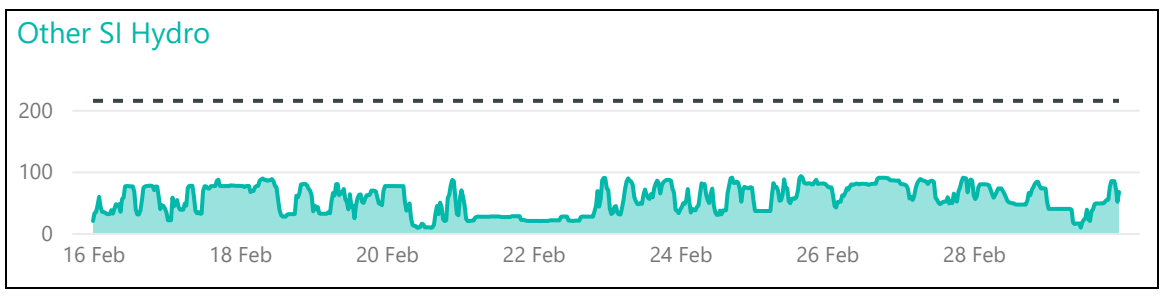


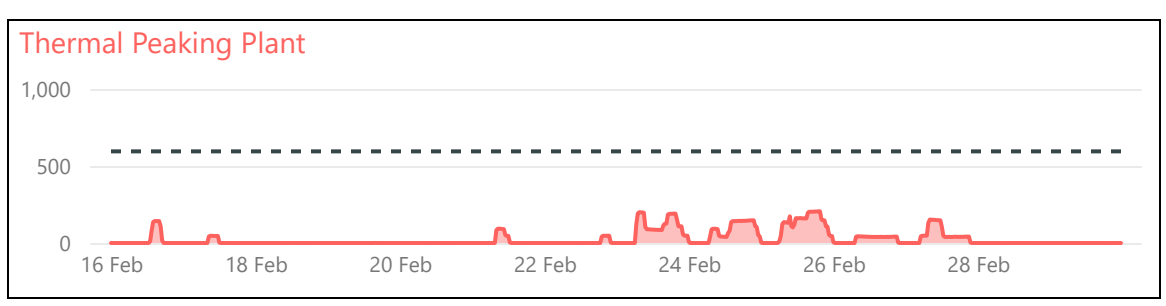


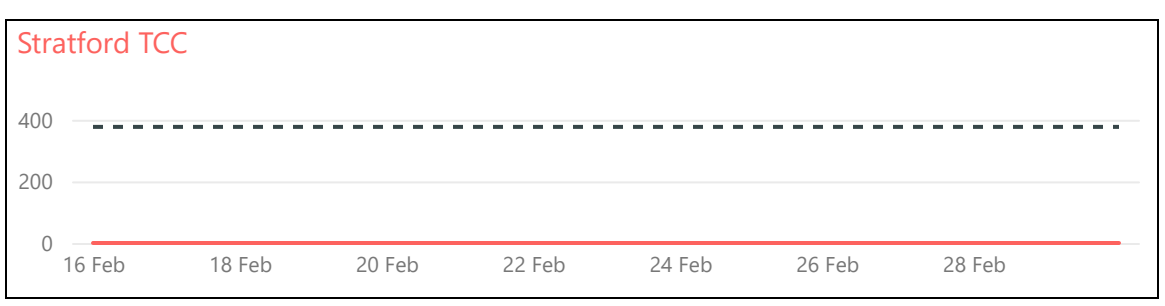


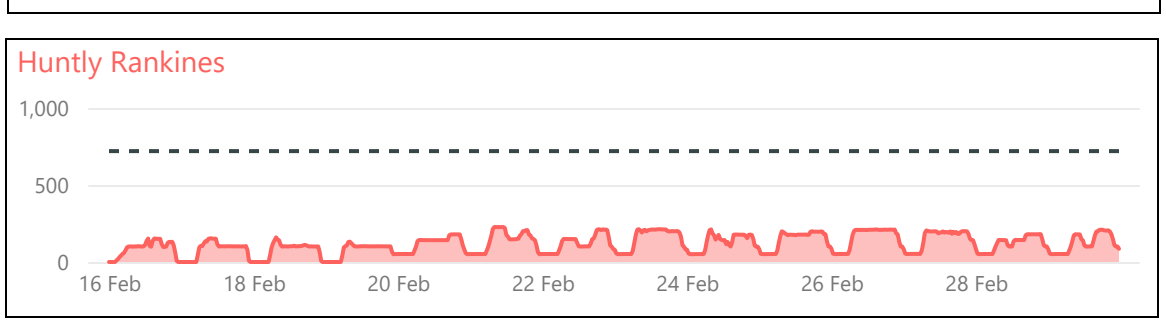


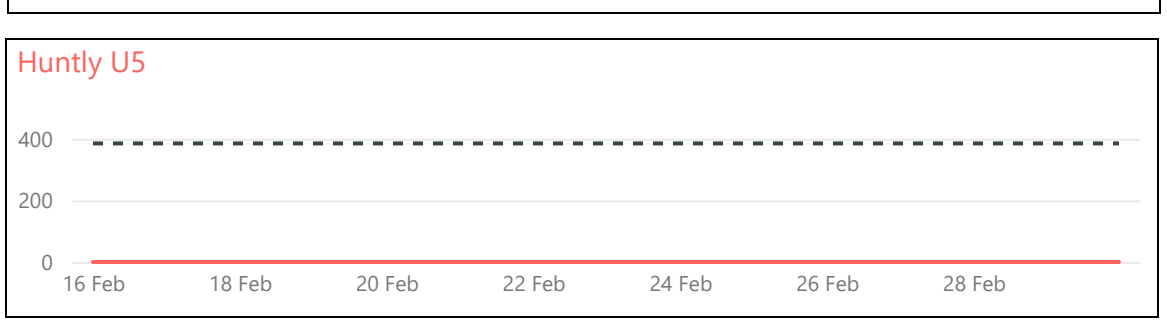


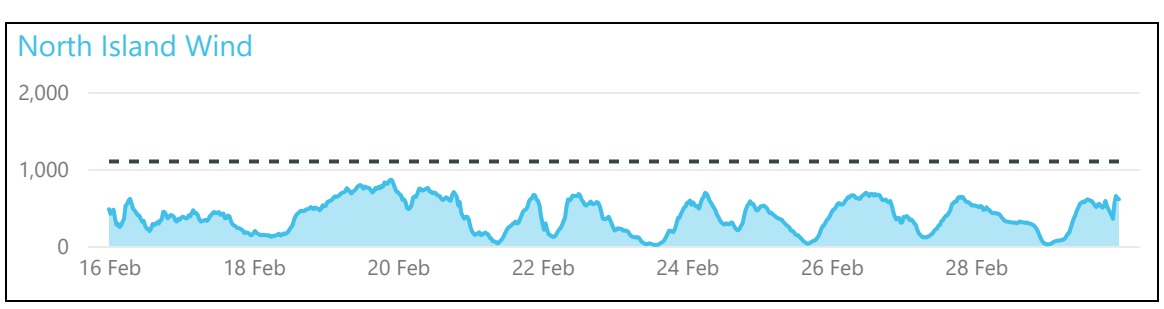


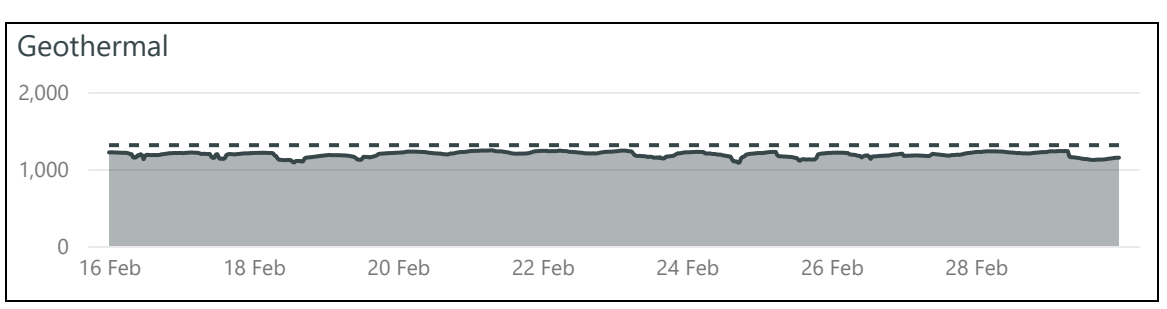


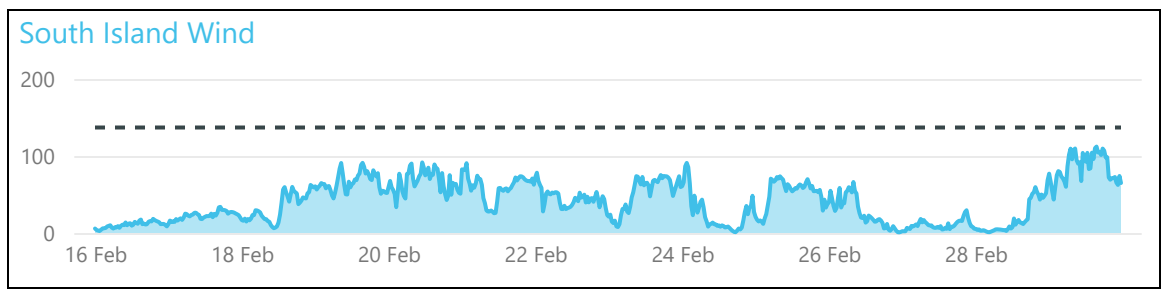


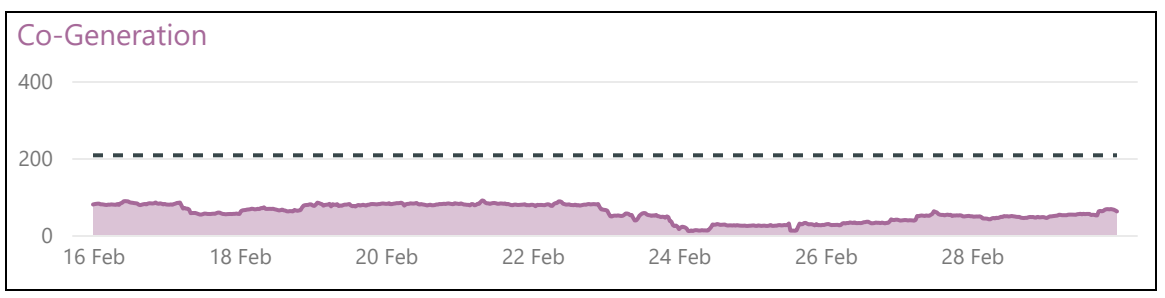


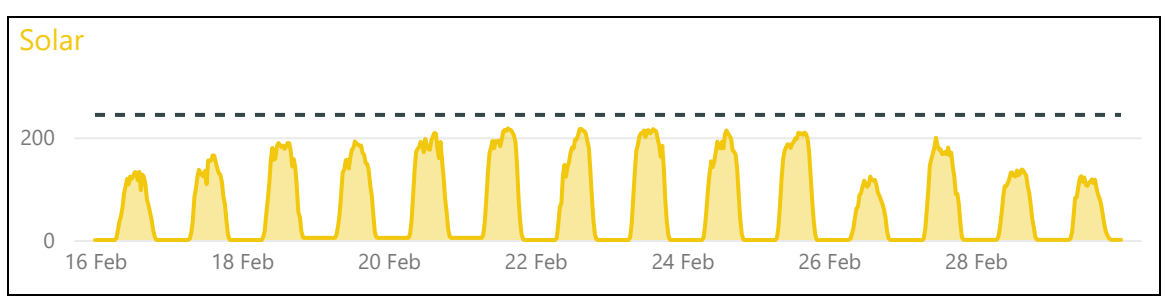


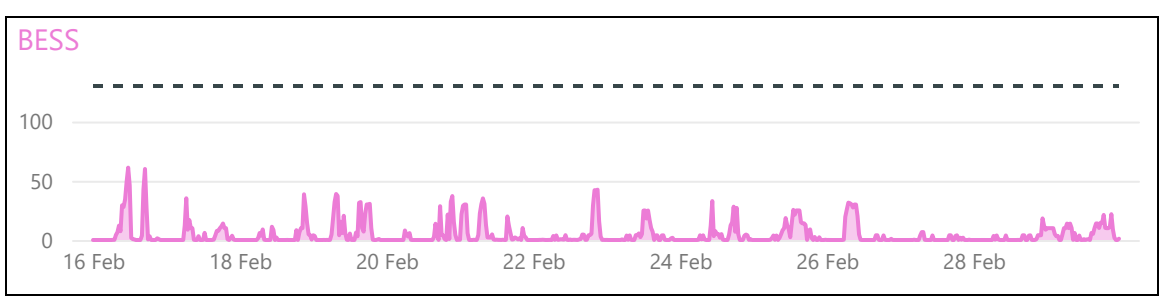






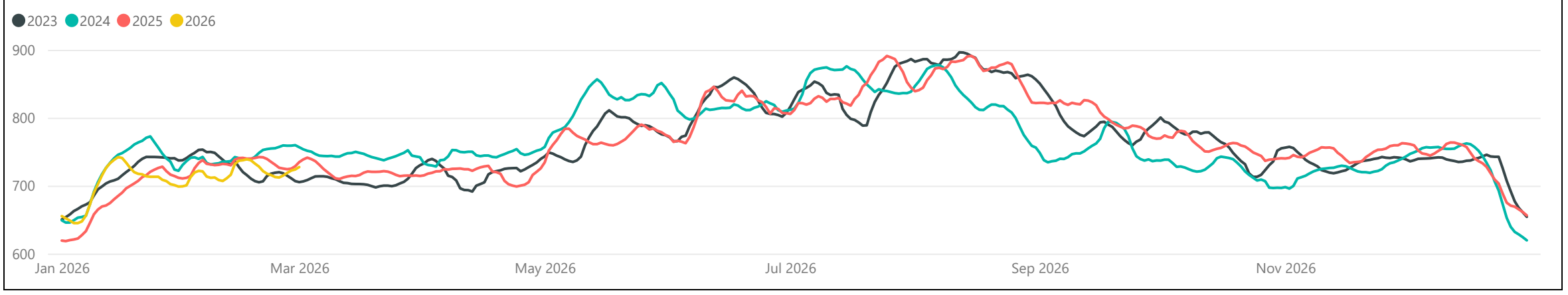




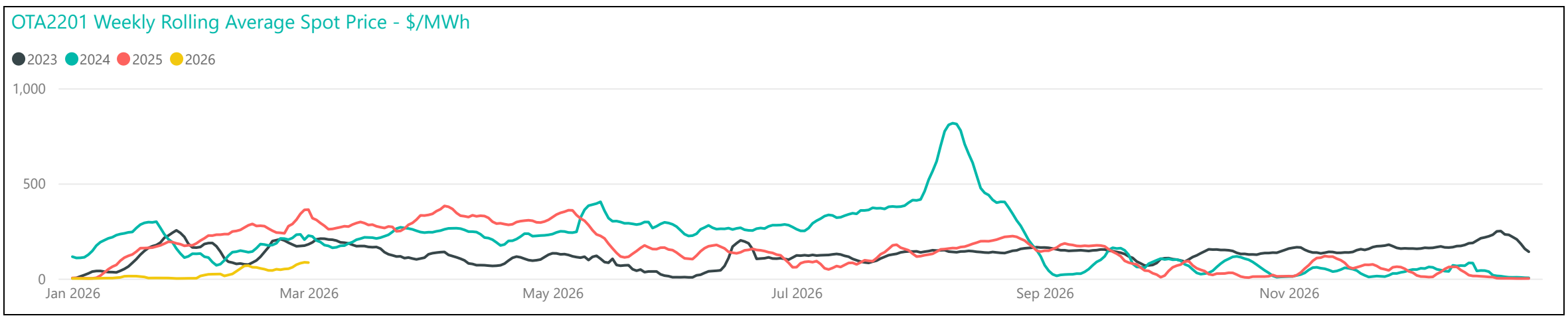


Weekly Profiles

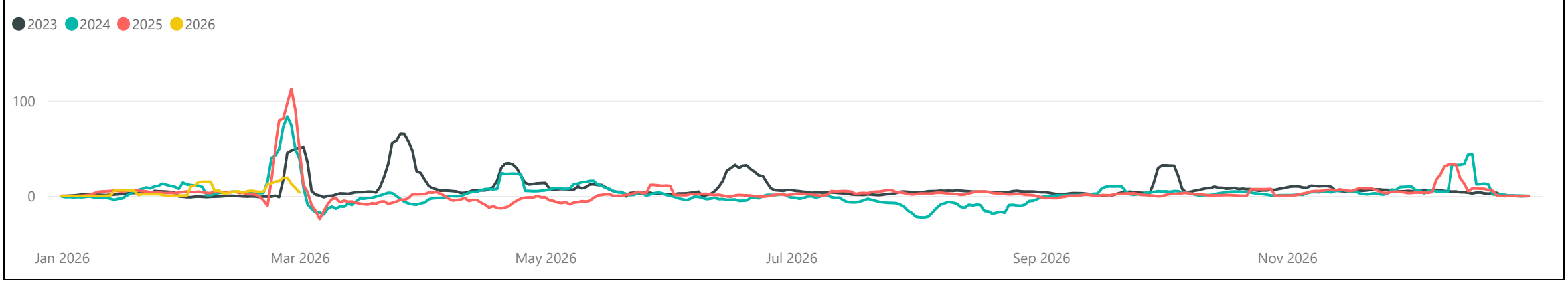
National Weekly Demand - GWh - 7 Day Rolling



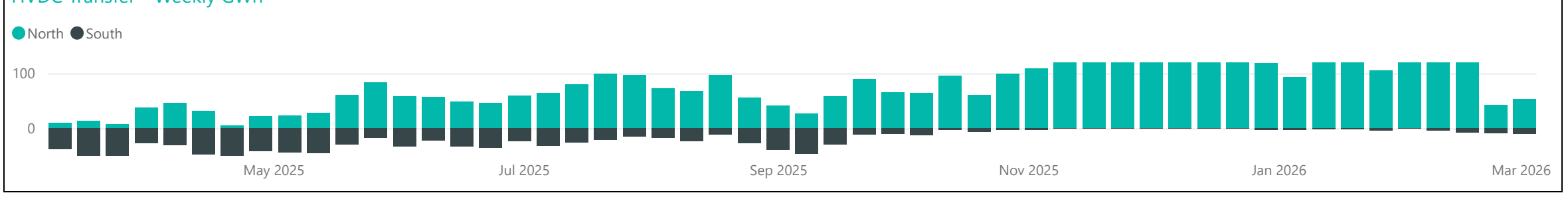
OTA2201 Weekly Rolling Average Spot Price - $/MWh



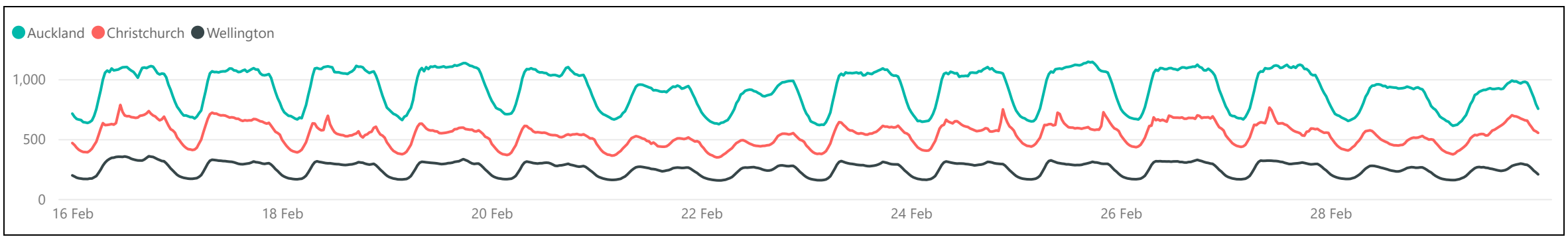
Weekly Rolling Price Separation (HAY2201 - BEN2201) - $/MWh



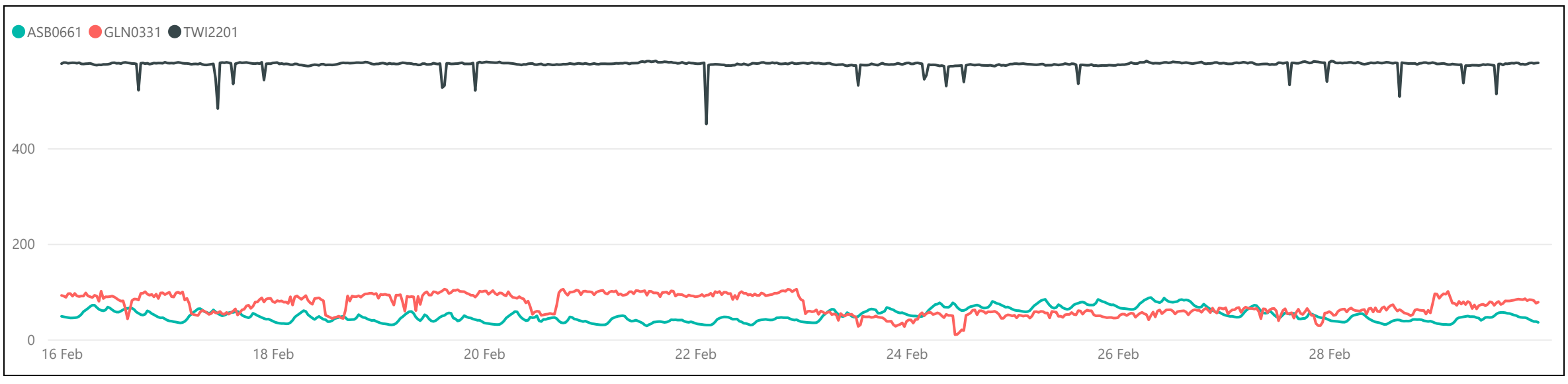
HVDC Transfer - Weekly GWh



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



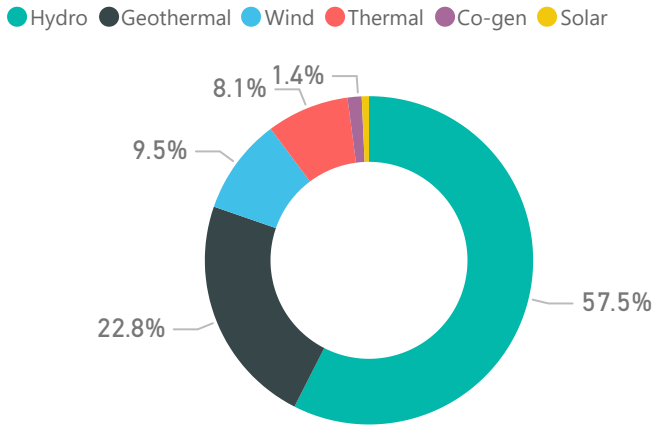
Non-Conforming Load Profiles - Last Two Weeks *Measured in MW shown by GXP*



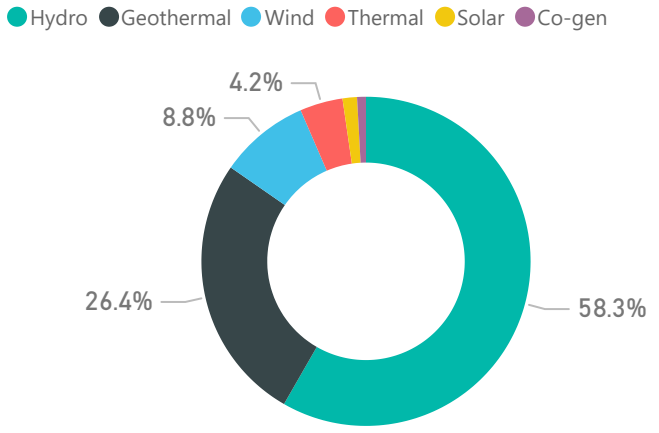
TRANSPOWER

Generation Mix

Last 52 Weeks Generation Mix - Weekly GWh



Last 7 Days Generation Mix - Weekly GWh



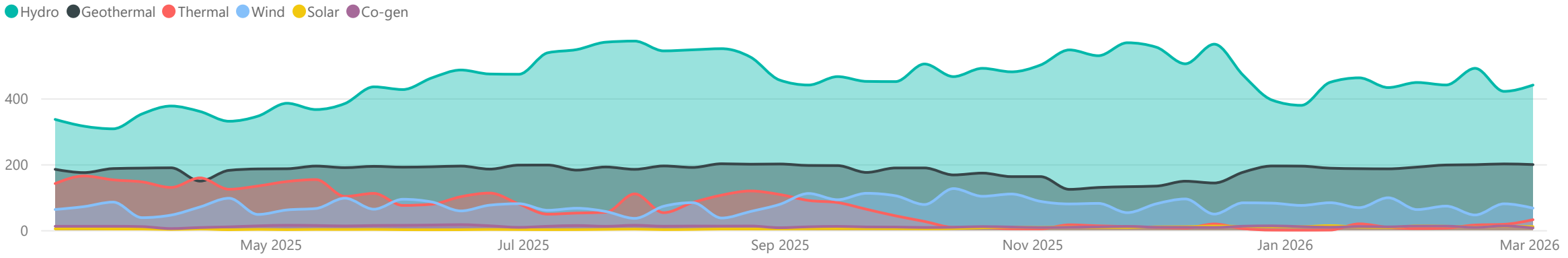
Average Metrics Last 7 Days

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
95%	39,819	36.4

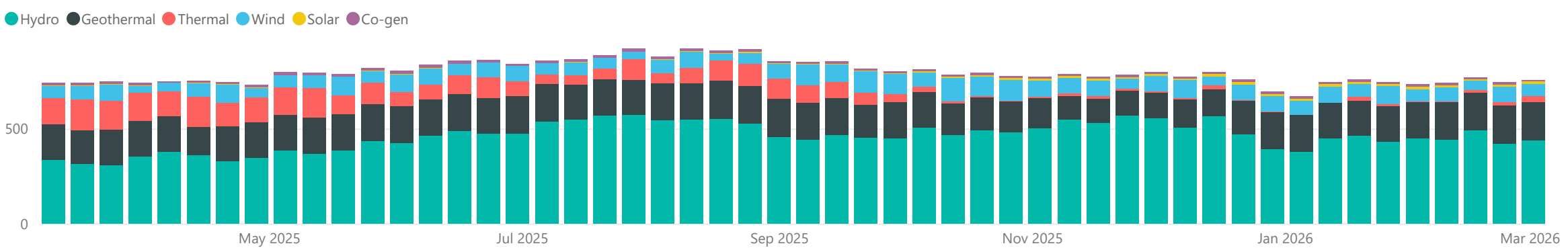
Average Metrics Last 52 Weeks

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
90%	56,317	70.4

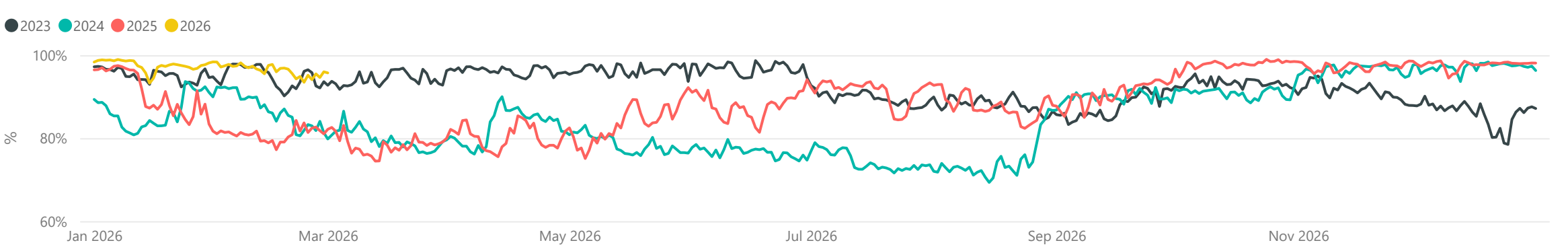
Weekly Generation Mix - GWh



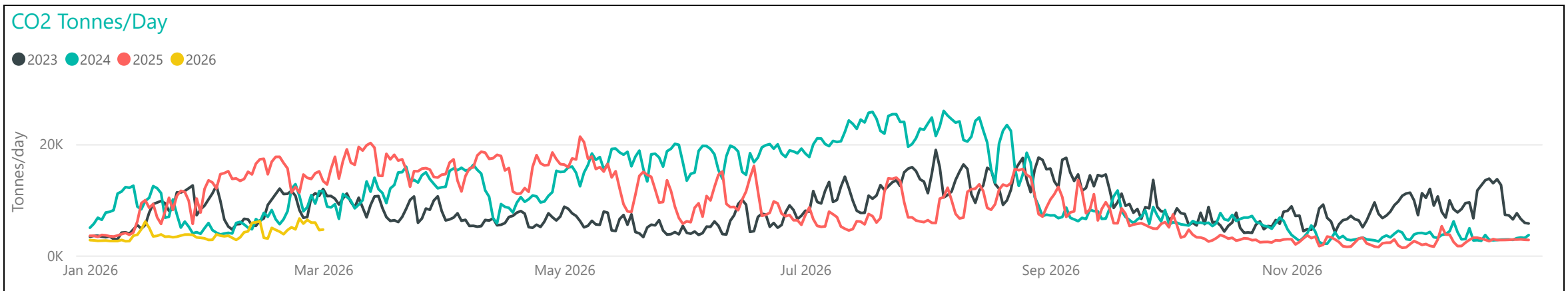
Weekly Generation Mix - GWh



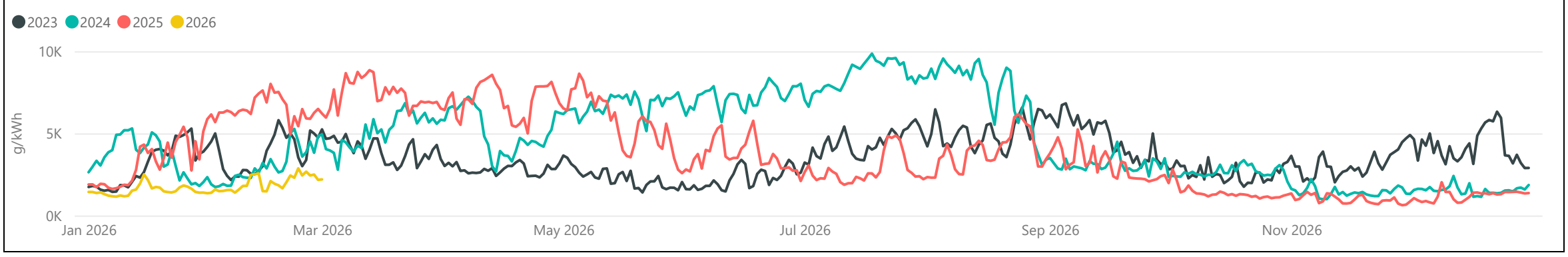
NZ Renewable Percentage



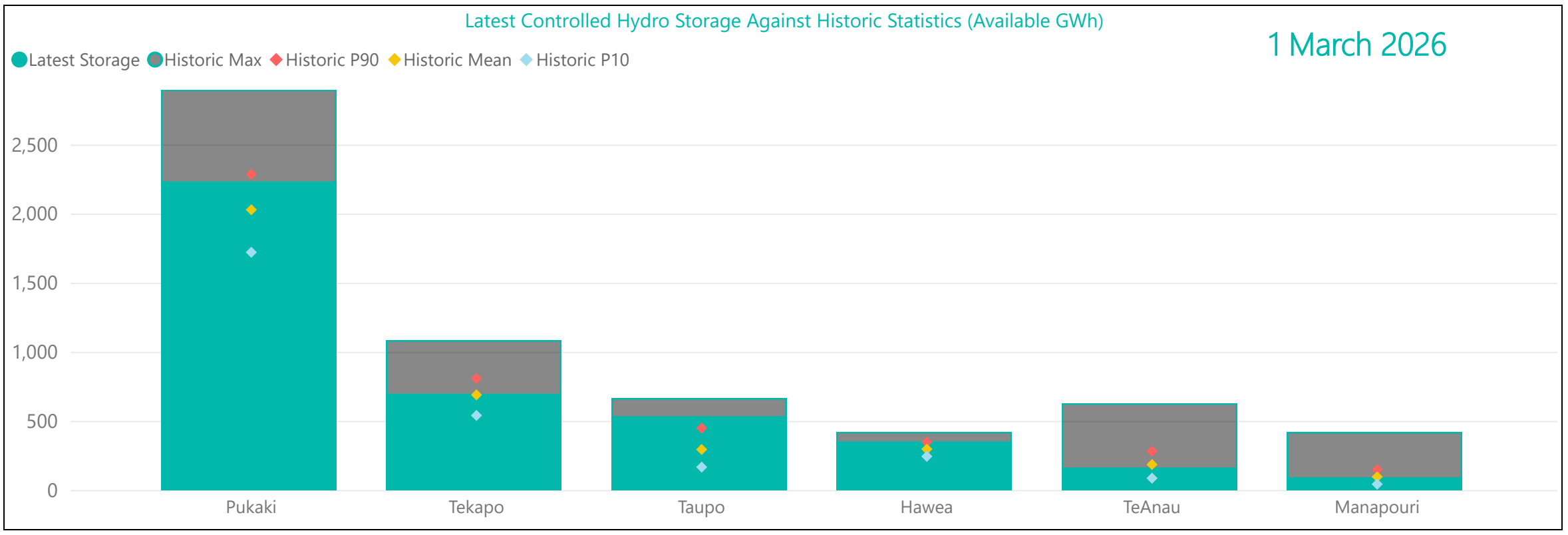
CO2 Tonnes/Day

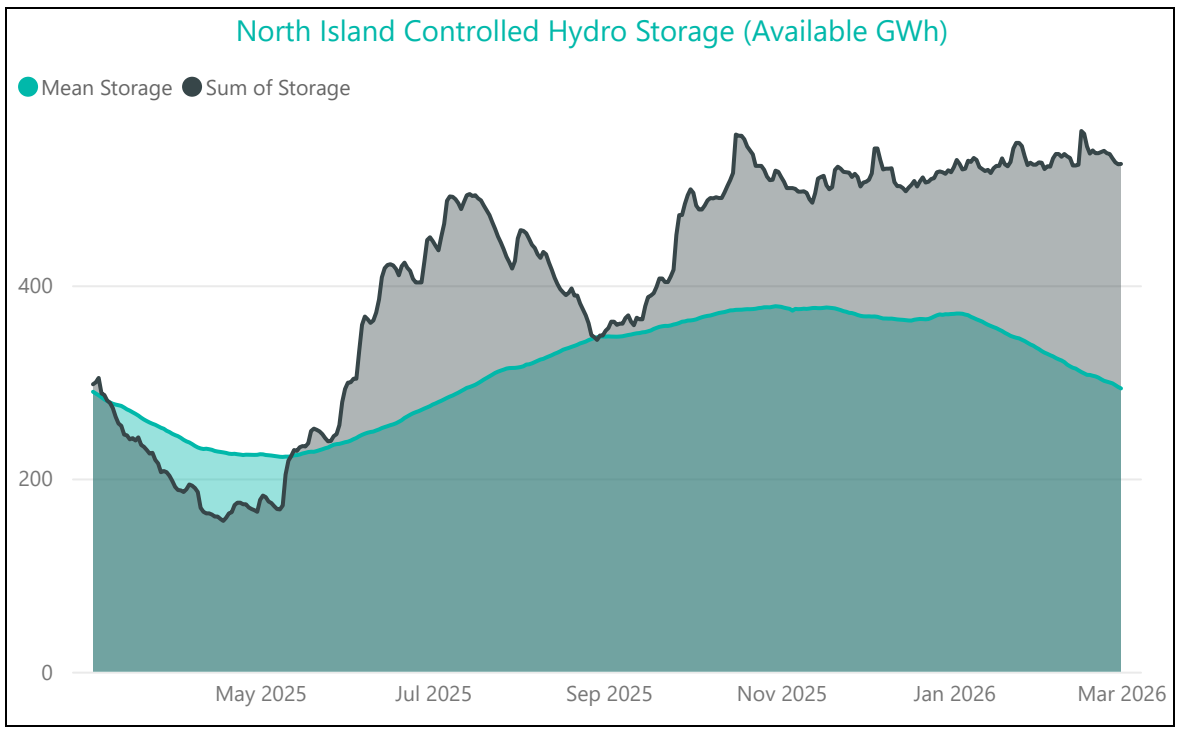


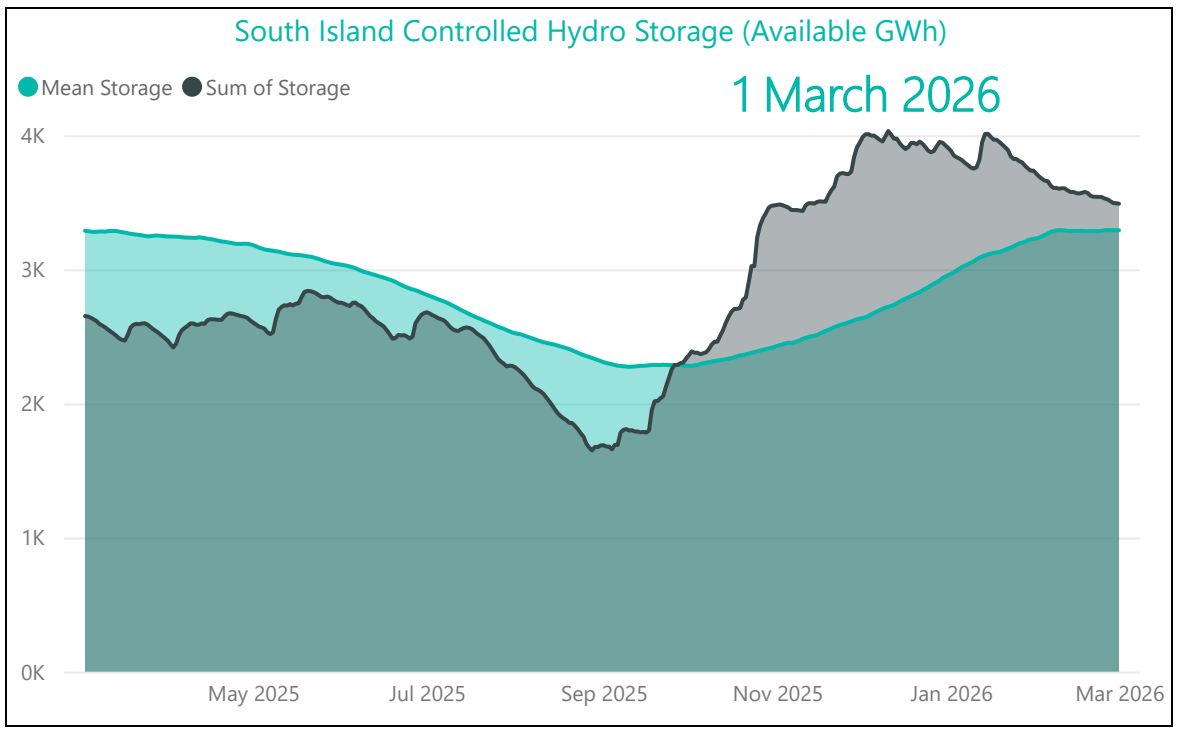
CO2 g/kWh

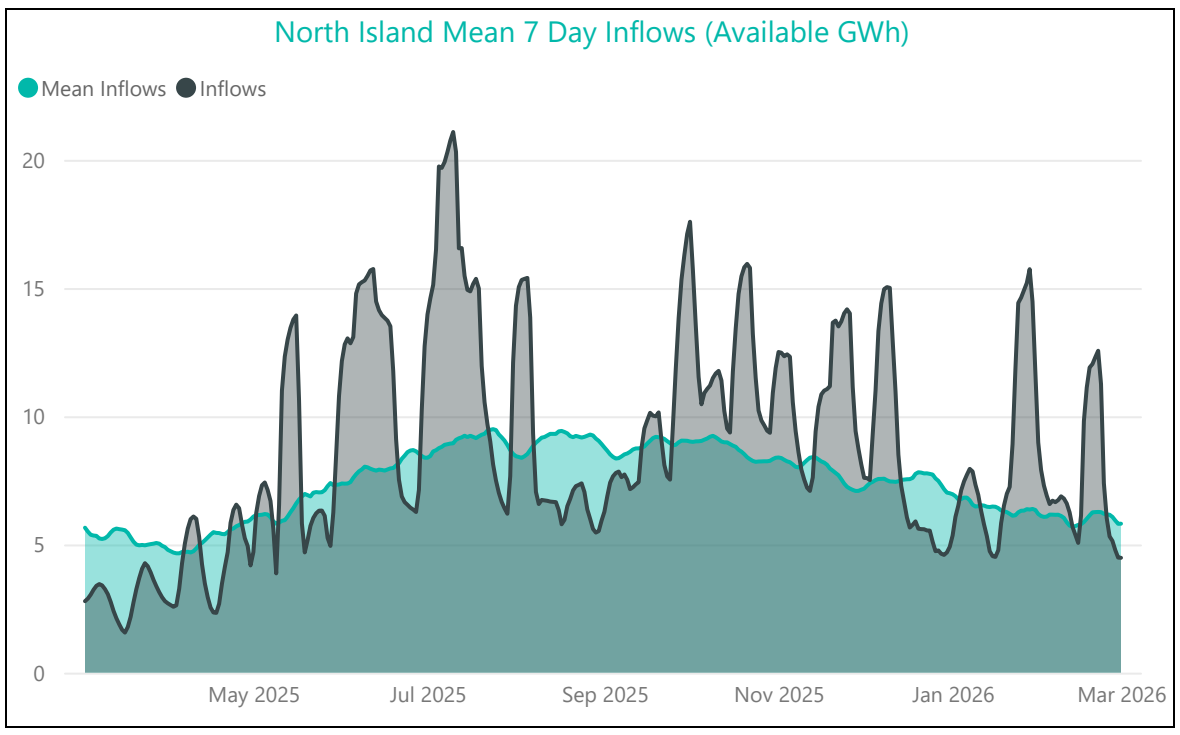


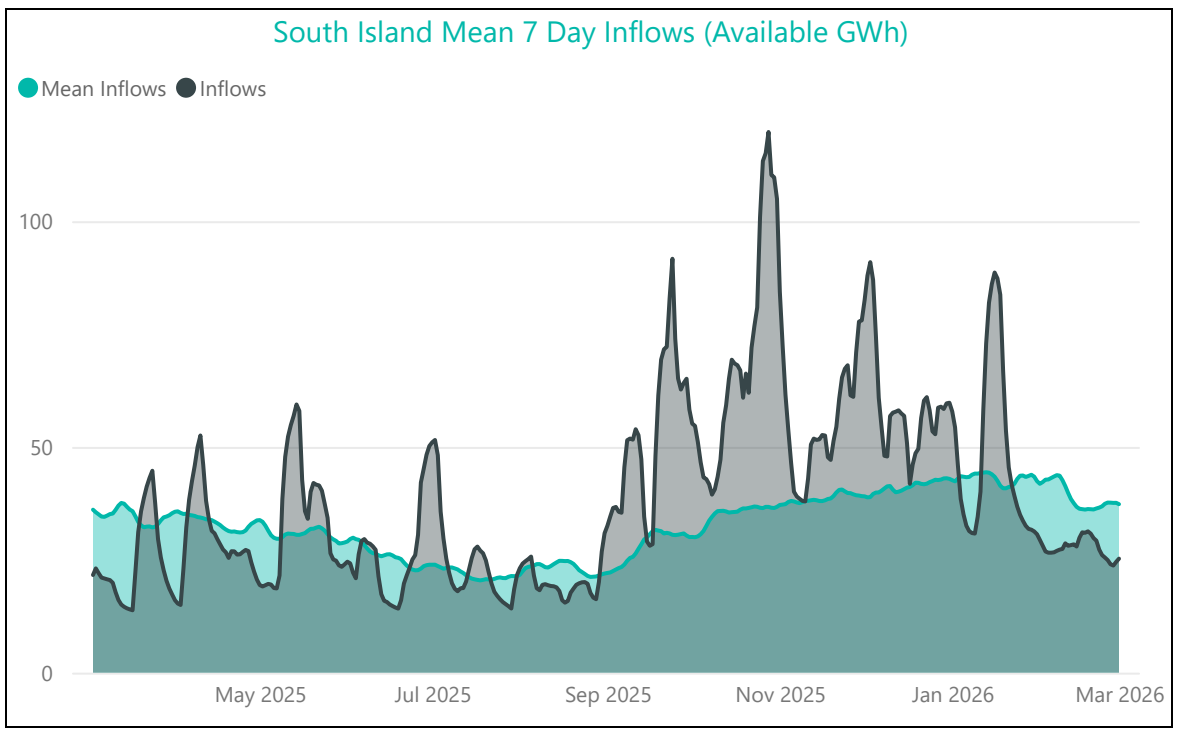
Hydro Storage











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

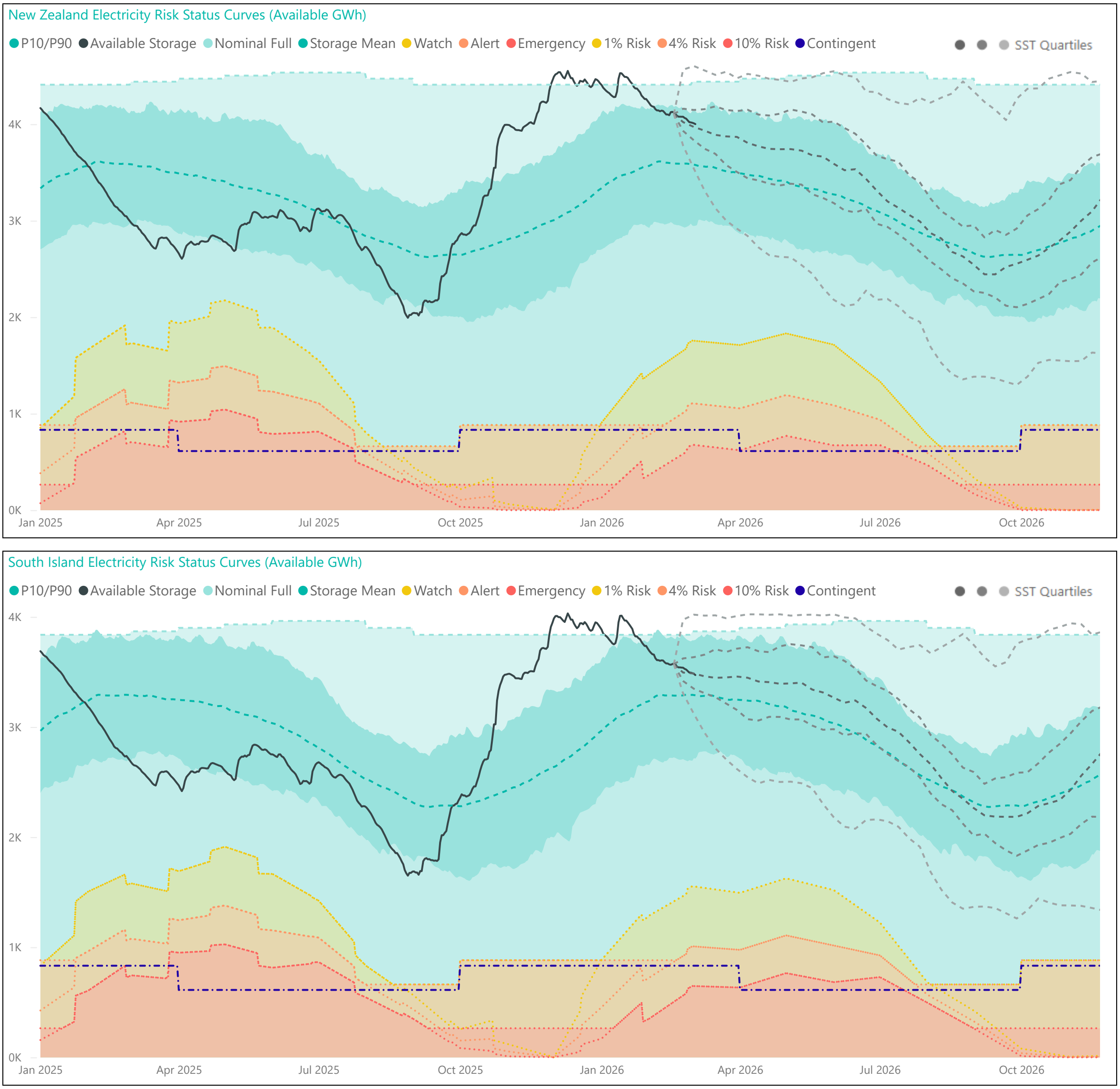
For any inquiries related to security of supply contact market.operations@transpower.co.nz

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 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).