Market Operations Weekly Report - Week Ended 22 February 2026

Overview

New Zealand hydro storage has decreased from 115% to 113% of the historic mean for this time of year. Although the hydro generation mix is less than the yearly average, other sources of renewable generation have allowed New Zealand to maintain a high renewable streak.

This week's insight looks at the effects on the power system caused by the recent storm.

Security of Supply

Energy

National hydro storage has decreased to 113% of the seasonal mean at the end of last week. South Island hydro storage decreased from 109% to 107% of the historic mean, and North Island storage increased from 175% to 178%.

Capacity

Residuals were healthy with the lowest residual of 860 MW occurring during the morning of Wednesday 18 February.

The N-1-G margins in the NZGB forecast are healthy through to mid 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 decreased from 736 GWh to 714 GWh the week, and is in line with average demand at this time of year over the past three years. The highest demand peak of 5,115 MW occurred at 08:00 am on Tuesday 17 February.

Weekly Prices

The average wholesale electricity spot price at Ōtāhuhu last week was $48/MWh, decreasing from $60/MWh the week prior. Multiple periods of price separation between the North and South Islands were observed throughout the week. The greatest period of price separation occurred on 12:30 pm on Monday 16 February where the wholesale price peaked at $327/MWh at Ōtāhuhu during an unplanned HVDC pole 3 outage caused by the storm. Price separation was also observed on 21 and 22 February which coincides with the planned HVDC outages, as discussed in last weeks insight.

Generation Mix

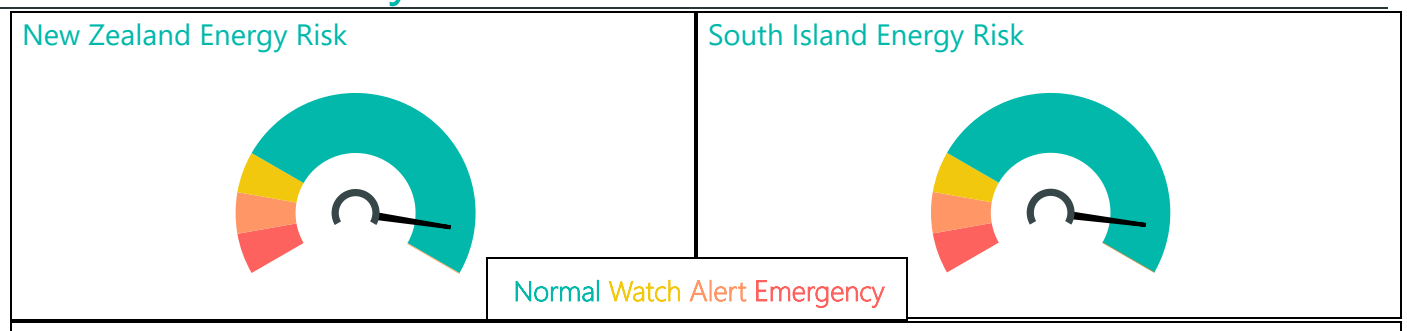
Despite hydro generation being at 56% of the mix which is below its yearly average of 57%, we've managed to maintain a total renewable contribution of at least 96% for the 20th consecutive week. This is in part due to lower loads and the increased renewable generation coming into the system including the geothermal generators (TOPP2 and Ngā Tamariki). In total, geothermal generation contributed 28% of the mix, above its average contribution of 23%. Wind generation contributed 11%, also above its yearly average and solar contributed 2% of the mix. Thermal contributed only 2% of the mix.

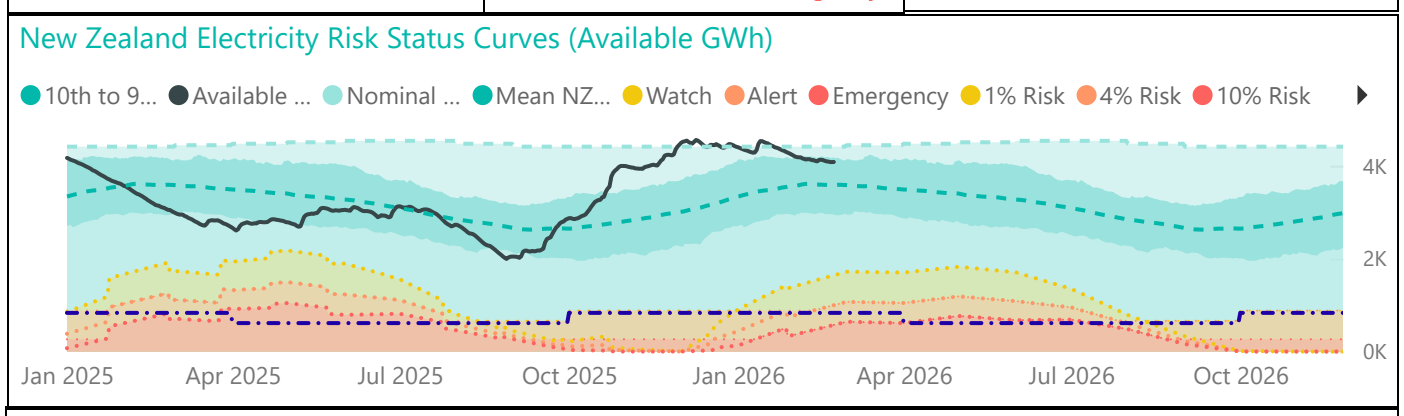
HVDC

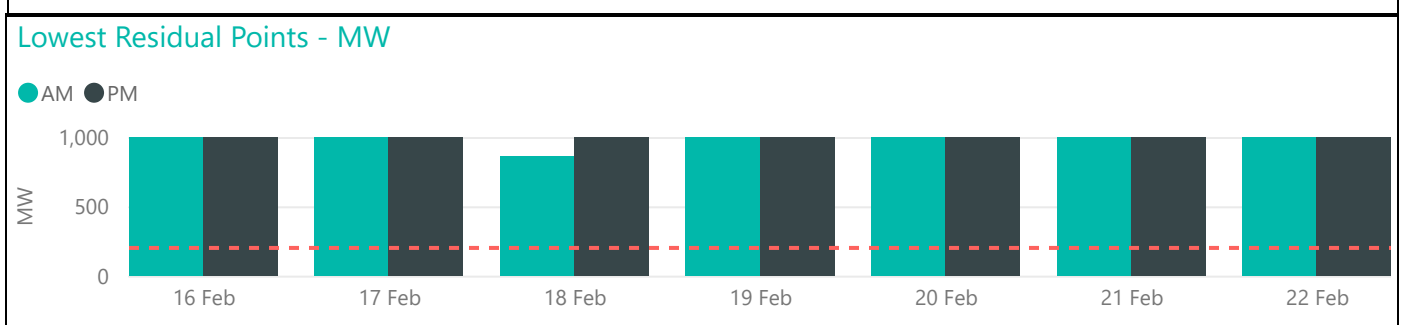
HVDC outages have occurred throughout the last week which have contributed to lower HVDC transfer. This included no HVDC transfer during the planned Bi-Pole outage on the 21 and 22 February. In total, 21 GWh was transferred northward and 4 GWh was transferred southward.

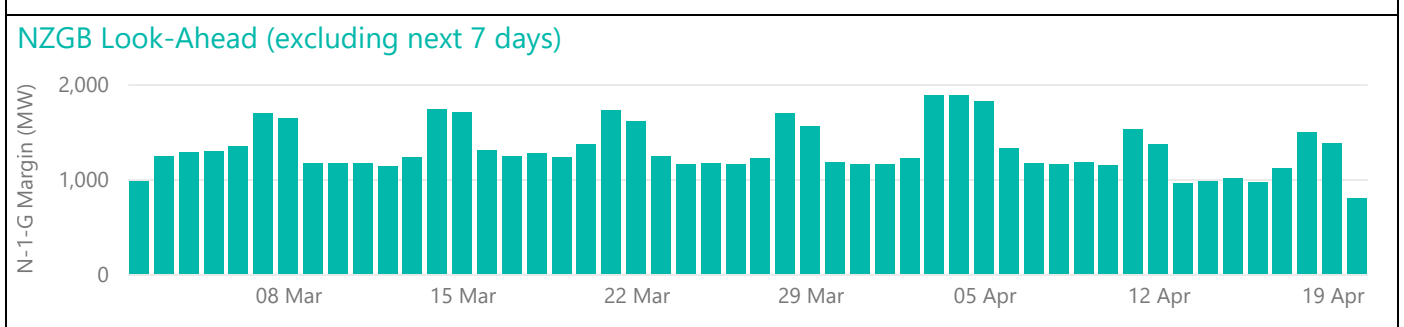
Consultations

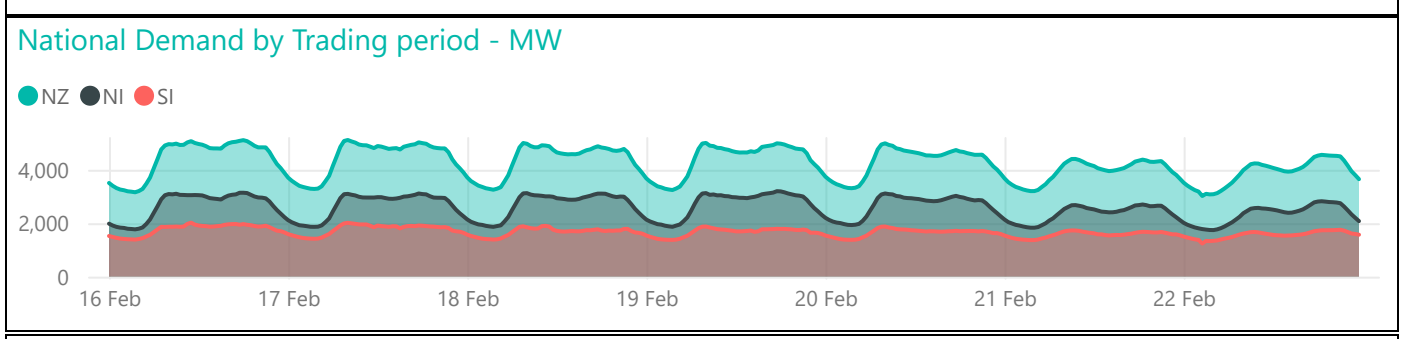
We have released our initial engagement paper as part of the development of a System Operator strategy. This outlines why a refreshed strategy is needed now and describes our approach to shaping the future of system operations. Responses are due by Friday 27 February.

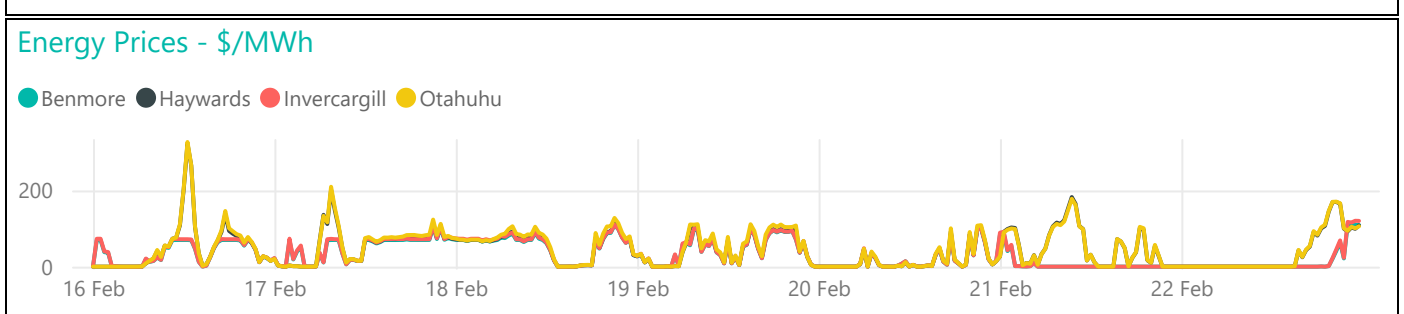


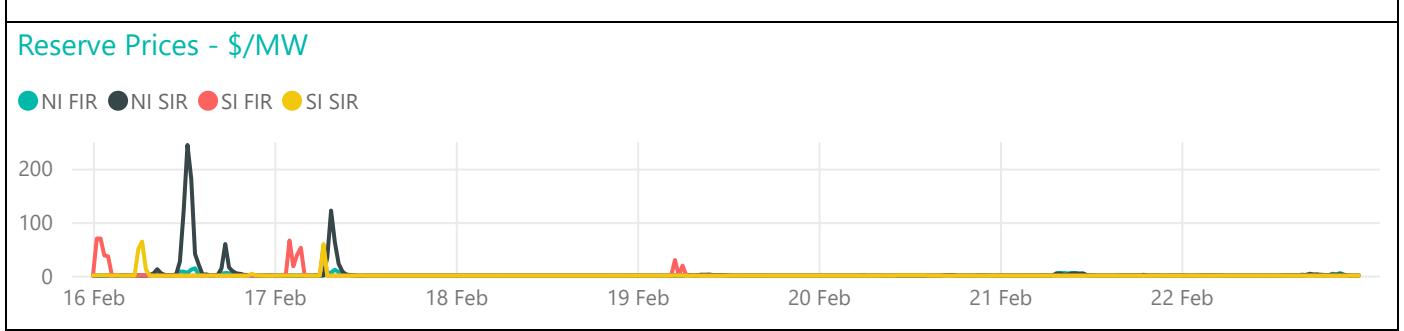


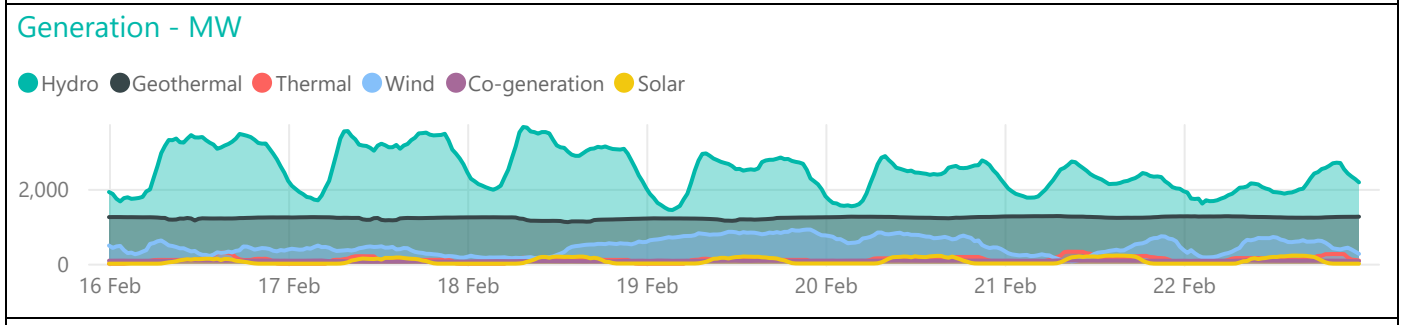


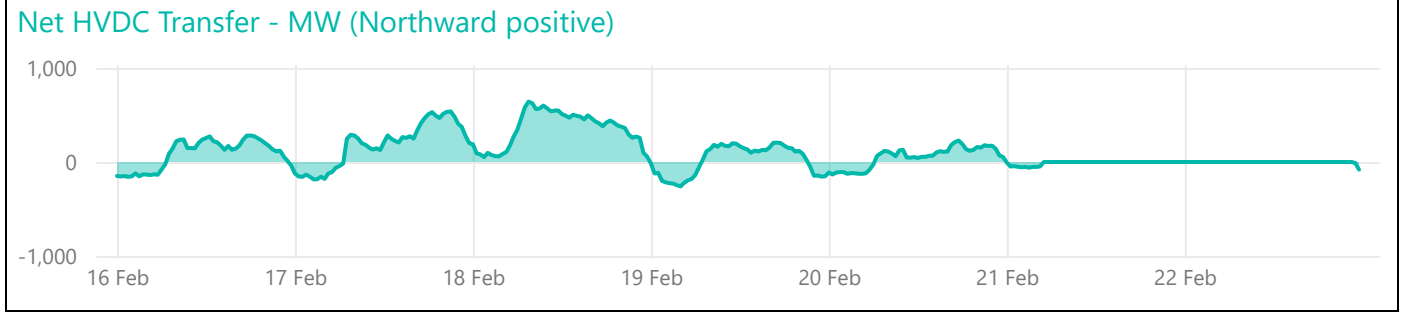












Weekly Insight - Disruptions to the grid during the recent weather events

In this week's insight we provide an overview of the recent severe weather, its effect on the national grid, and the consequences of this on not only the prices but the power system as a whole.

The effect of the storm reinforces the importance and requirements of operating under N-1 security conditions. N-1 security ensures the system can continue to operate securely following the loss of any major asset. Severe winds caused several trippings on the national grid which increased system risk and loss of supply. Though no loss of supply occurred as a result of faults on Transpower equipment, there were power outages across the North Island due to faults in distribution networks. We also observed a reduction in wind generation during the high wind periods of the 15th and 16th, including West Wind wind farm temporarily shutting down due to security and operational concerns. Below, we show a chart of the Wellington wind farm generation and average Wellington wind, noting wind gusts exceeded 140 km/h during this time.

While challenging, it is useful to analyse these events as these can provide a demonstration of how the market operates. Unplanned outages across the North Island affects the market in several ways. Firstly, power outages reduce load which should have a reduced effect on prices. However, this is also counterbalanced by outages on transmission which restrict access to cheaper forms of generation. Circuit outages across the North Island mean that more expensive generation needs to be procured to maintain system security which can inflate the wholesale price at a node. An example of this can be seen during the HVDC outages - generation must be procured from more expensive North Island generators due to the reduced HVDC transfer capacity restricting supply from the cheaper South Island generators, as observed during the day of the 16th.

Below is a summary of some of the notable circuit events that occurred during the storm.

CST_SFD_2
- 15/02/2026 2:17:00 pm - Tripped - and unsuccessfully auto-reclosed

The Carrington Street-Stratford-2 circuit was the initial tripping of the weather events. This marked the beginning of the high winds occurring throughout the lower North Island.

HAY_POLE_3
- 15/02/2026 9:07:00 pm - Tripped - Differential trip on Converter Transformer

Pole 3 of the HVDC at the Haywards substation tripped due to high winds dislodging flashing from a firewall which was then pulled into contact with a converter transformer. Weather conditions meant that repairs could only be under taken once it was safe to do so. This meant that the HVDC was operating at reduced capacity until late Tuesday morning and caused price separation between the north and the south island on the Monday morning.

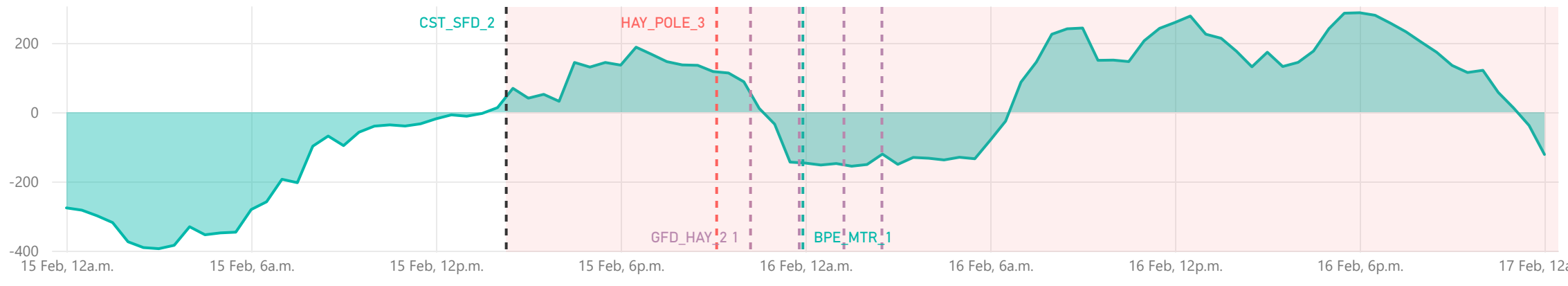
GFD_HAY_2
- 15/02/2026 10:13:00 pm - Tripped - and successfully auto-reclosed
- 15/02/2026 11:48:00 pm - Tripped - and successfully auto-reclosed
- 16/02/2026 1:15:00 am - Tripped - and successfully auto-reclosed
- 16/02/2026 2:29:00 am - Tripped - and successfully auto-reclosed

The Gracefield-Haywards-2 circuit experienced multiple trippings over several hours. These trips occurred due to high winds in the region causing conductor clashing.

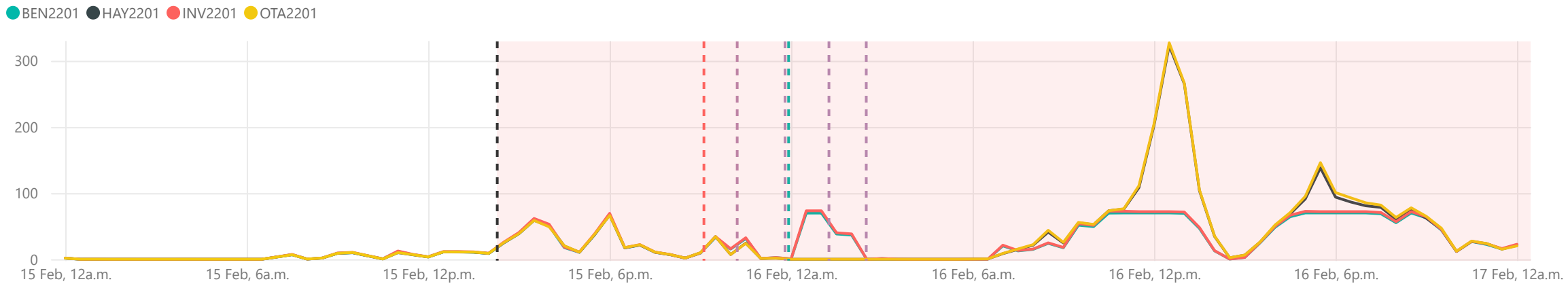
BPE_MTR_1
- 15/02/2026 11:55:00 pm - Tripped - Protection flags. SDTF Towers 61-161

The Bunnythorpe-Mataroa circuit tripped due to trees falling onto the line corridor driven by the severe weather conditions.

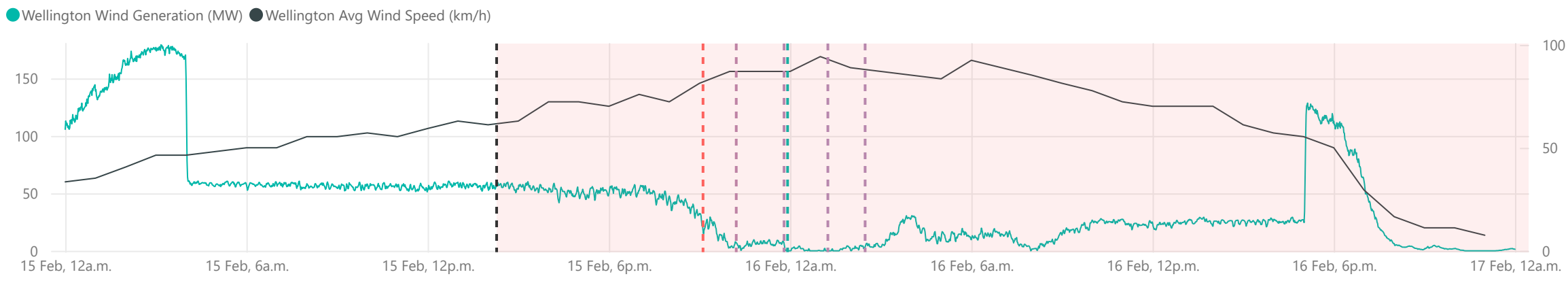
Net HVDC Transfer - MW



Energy Prices - $/MWh



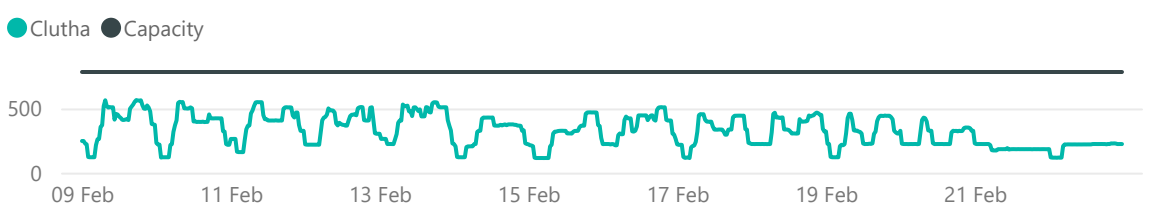
Wellington Wind Generation (MW average/min)



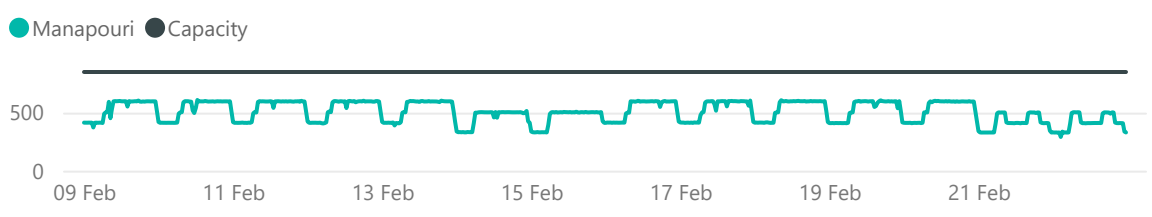
Generation Breakdown - Last Two Weeks

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

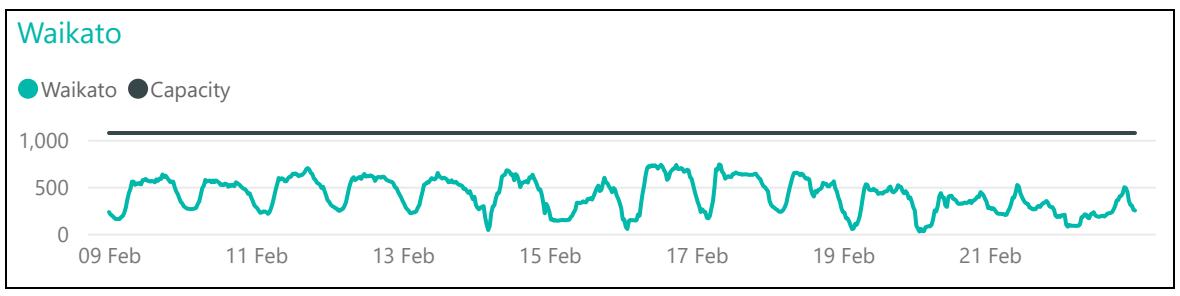
Clutha



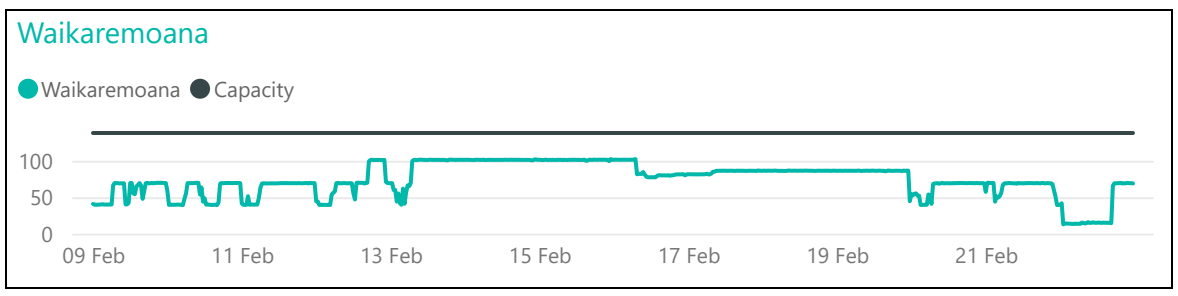
Manapouri



Waikato

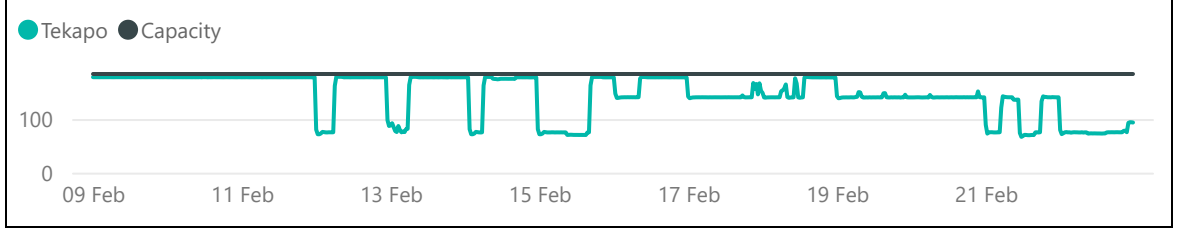


Waikaremoana

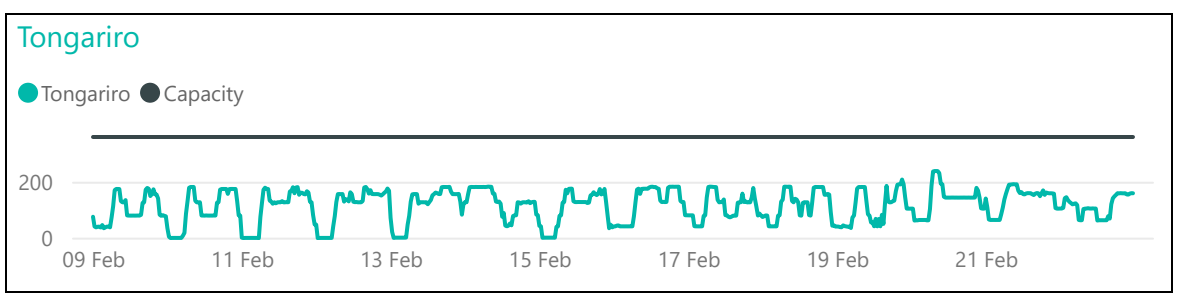


Waitaki

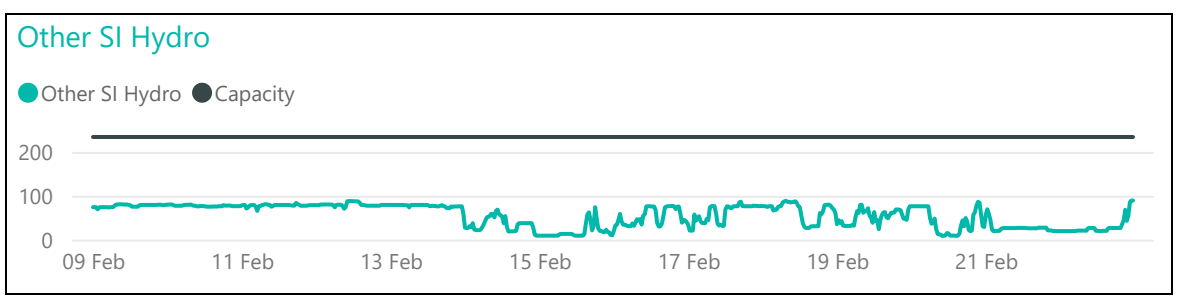
Tekapo



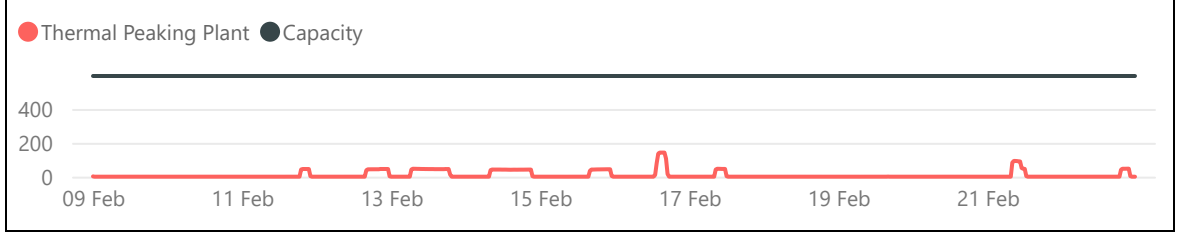
Tongariro



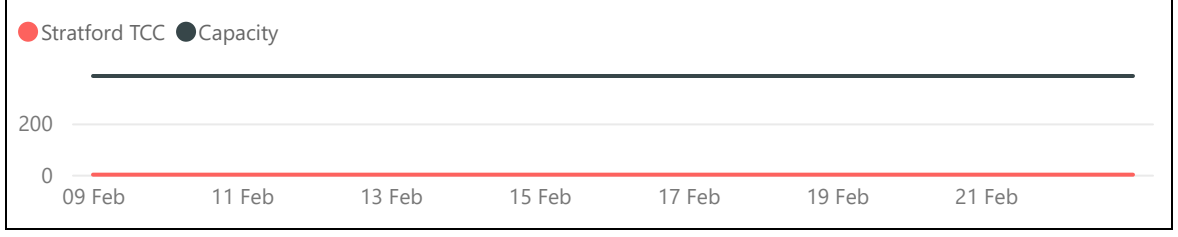
Other SI Hydro



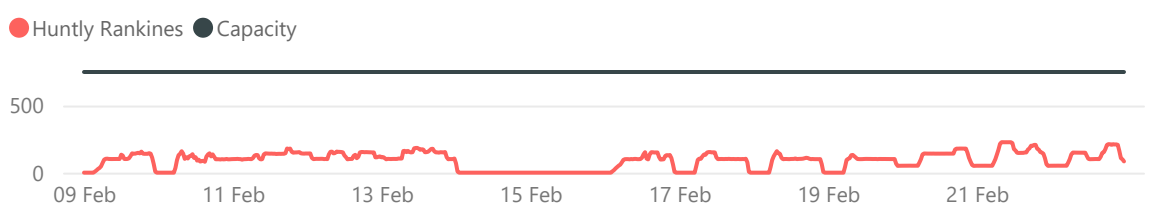
Thermal Peaking Plant



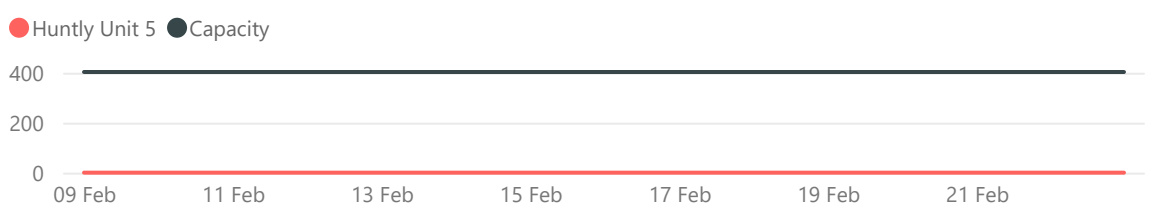
Stratford TCC



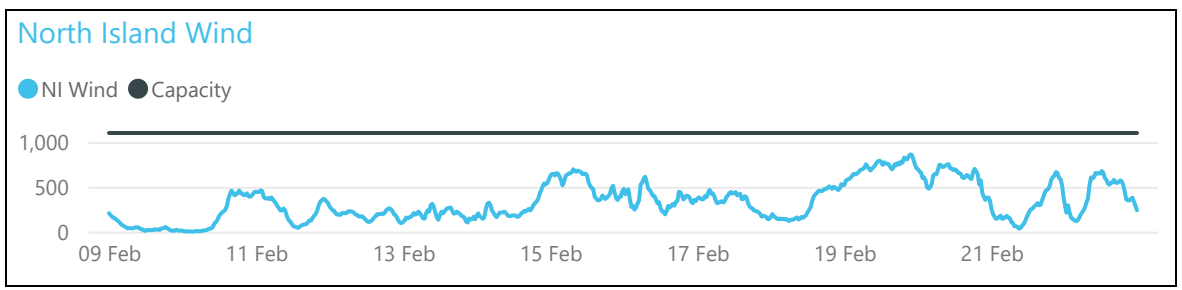
Huntly Rankines



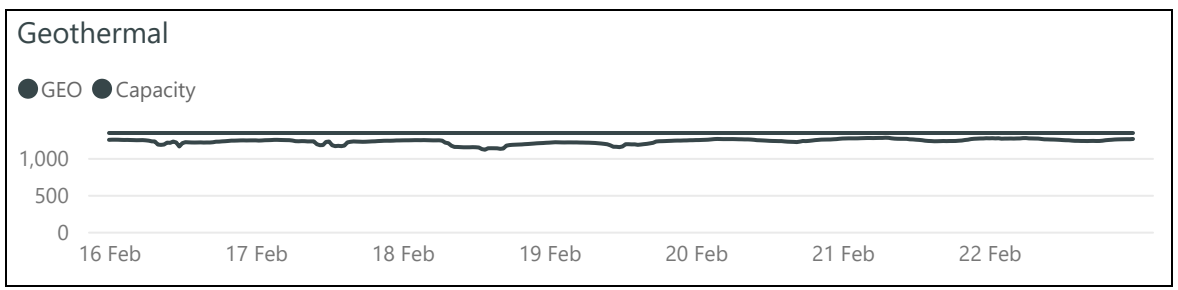
Huntly U5



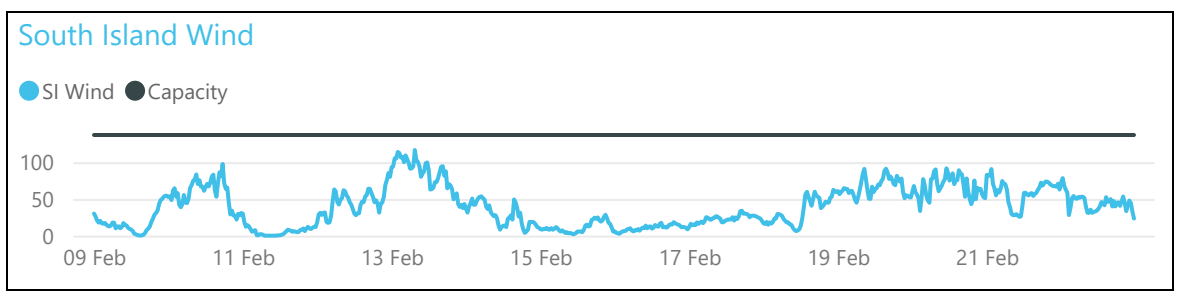
North Island Wind



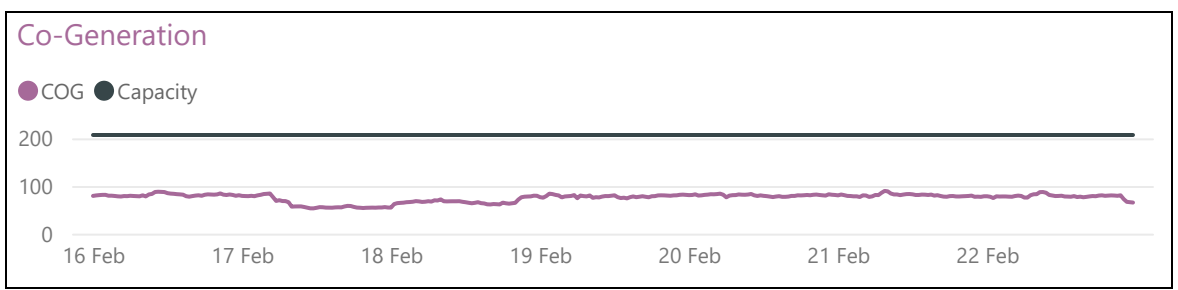
Geothermal



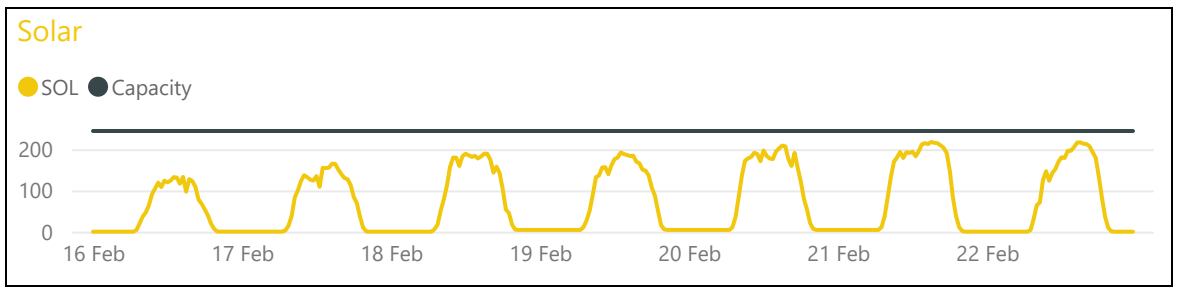
South Island Wind



Co-Generation

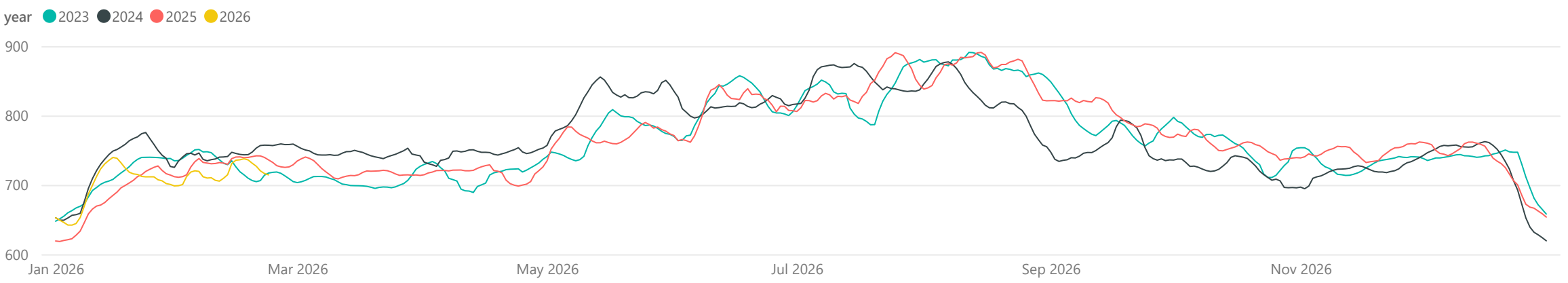


Solar

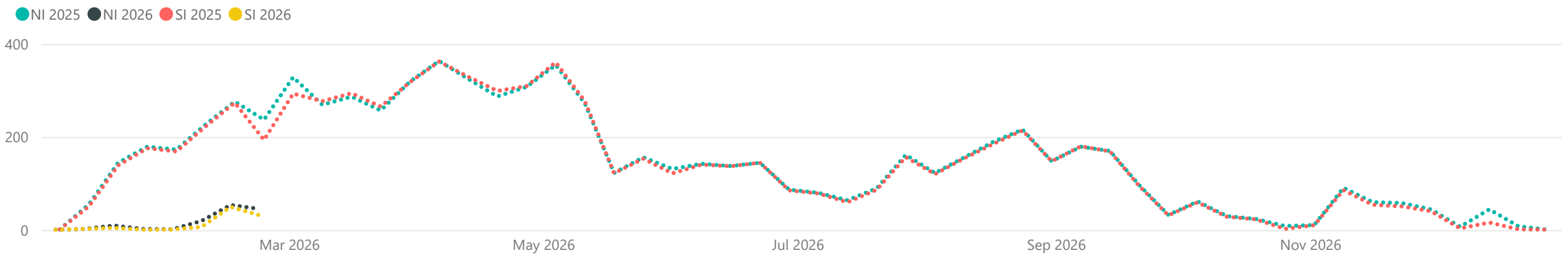


Weekly Profiles

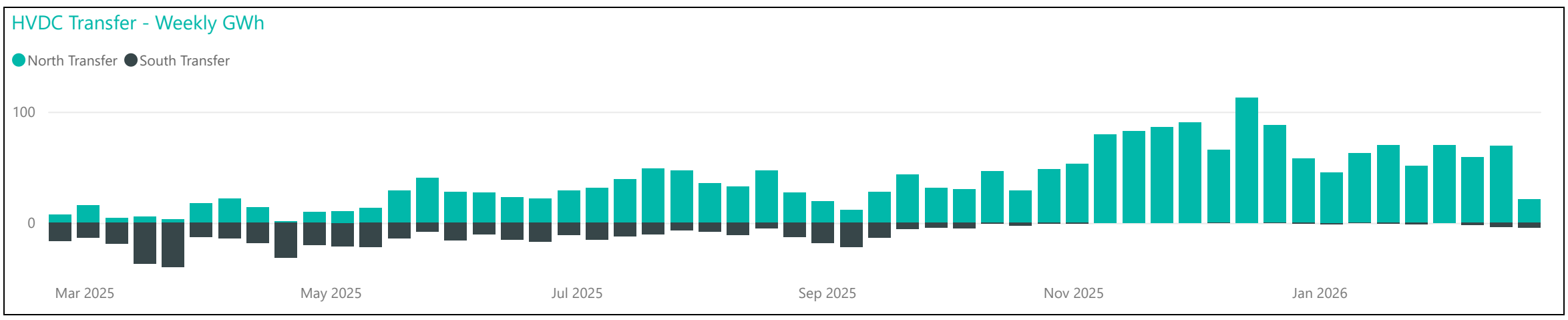
National Weekly Demand - GWh - 7 Day Rolling



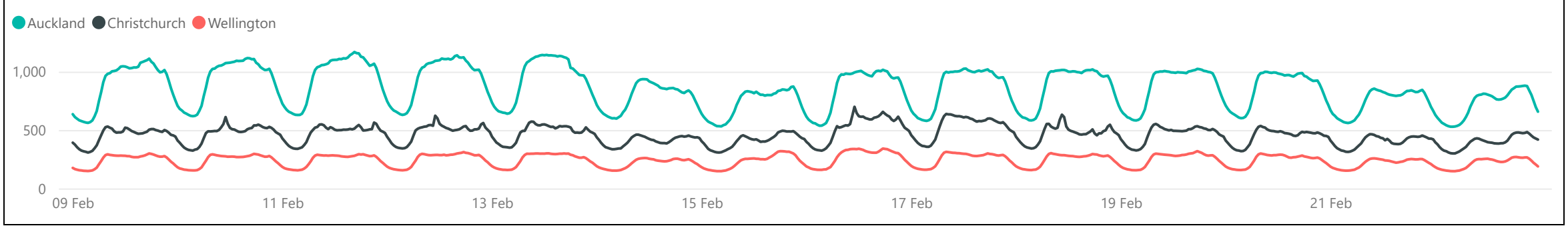
Weekly Spot Price - $/MWh



HVDC Transfer - Weekly GWh

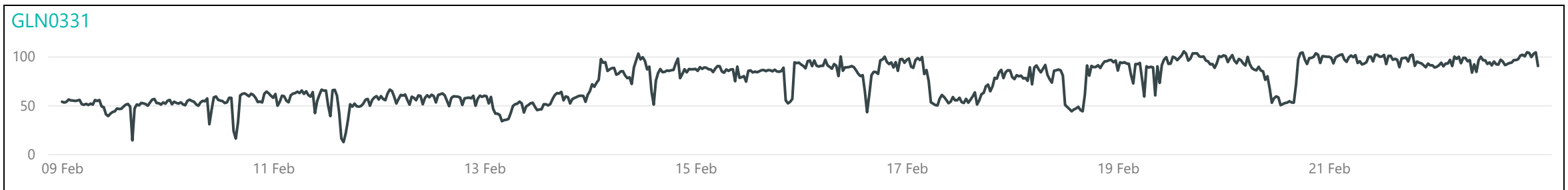


Conforming Load Profiles - Last Two Weeks *Measured in MW shown by region*



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

GLN0331



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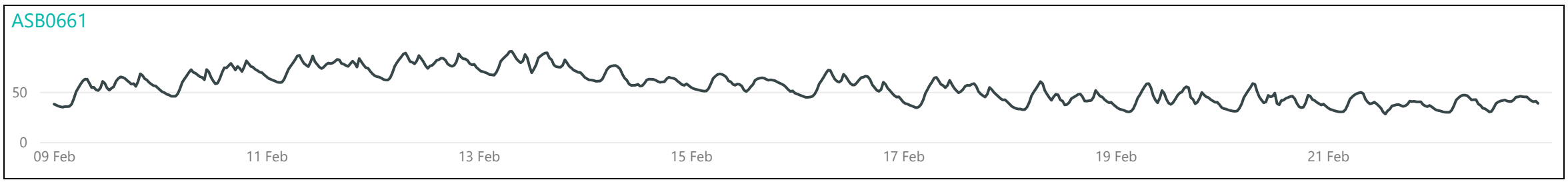

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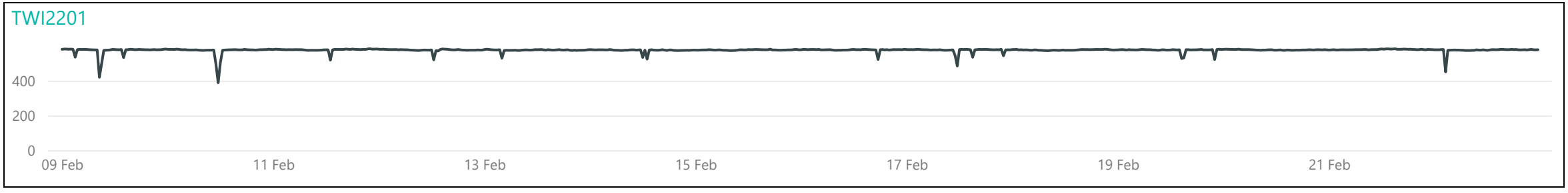
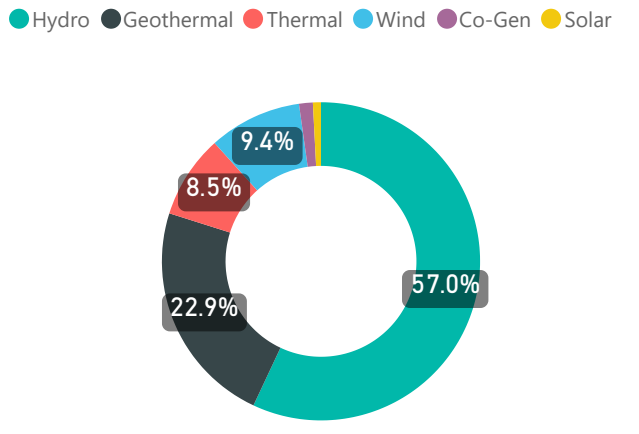


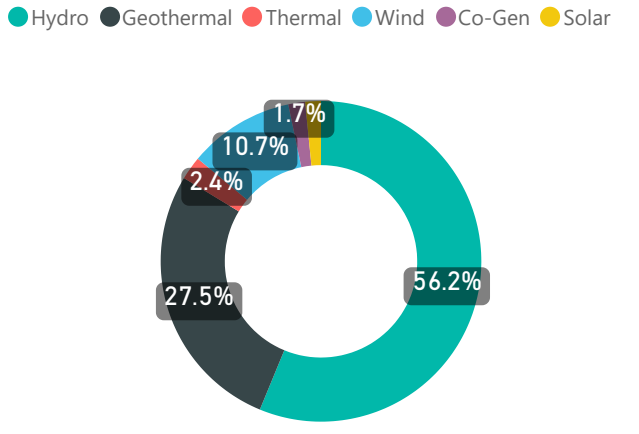
TRANSPOWER

Generation Mix

Last 52 Weeks Generation Mix - Weekly GWh



Last 7 Days Generation Mix - Weekly GWh



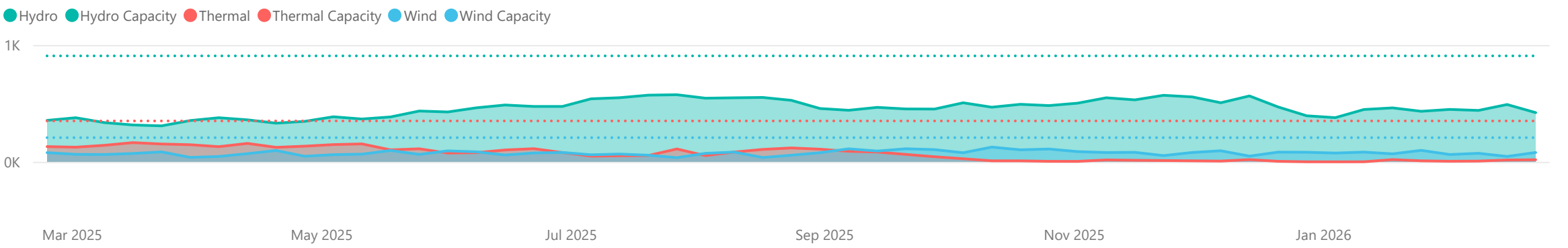
Average Metrics Last 7 Days

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
96%	32,011	42.5

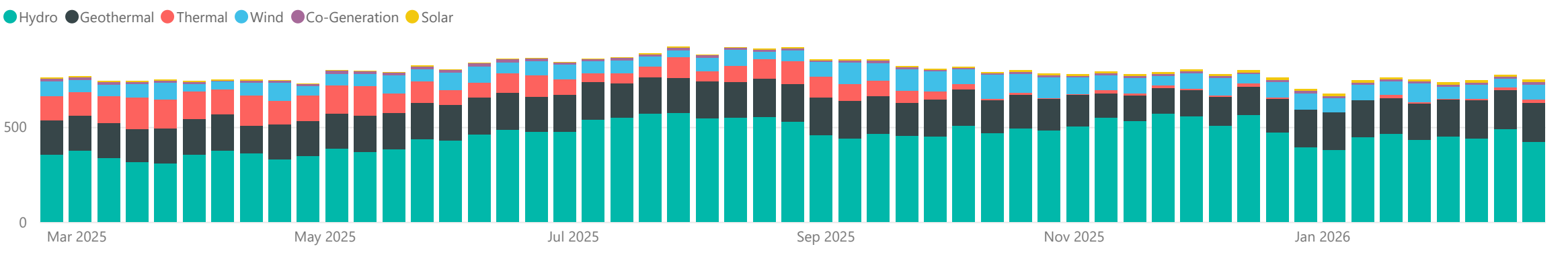
Average Metrics Last 52 Weeks

Renewable Percentage	CO2e Tonnes/Week	CO2e g/kWh
90%	57,658	72.0

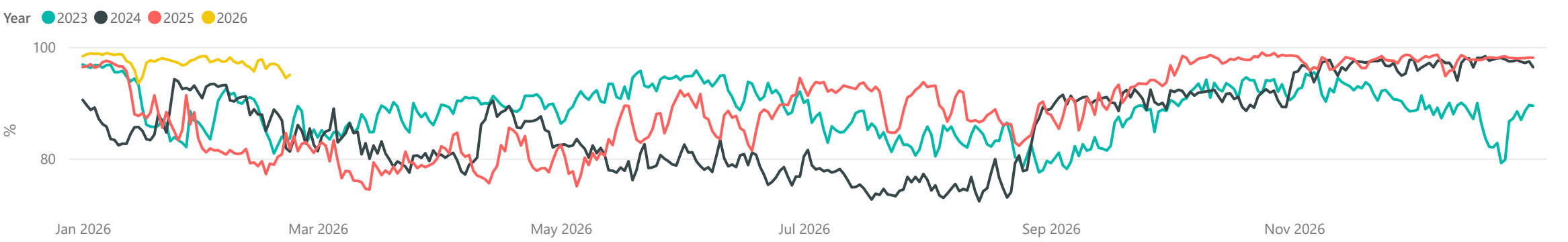
Weekly Generation Mix vs Capacity - GWh



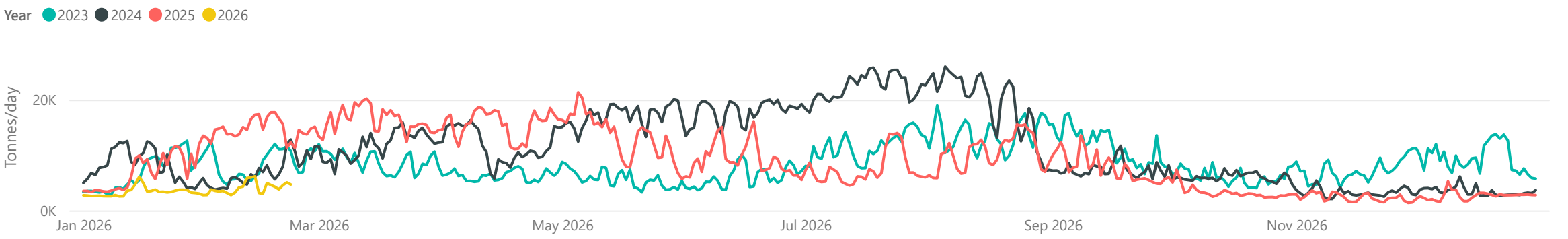
Weekly Generation Mix - GWh



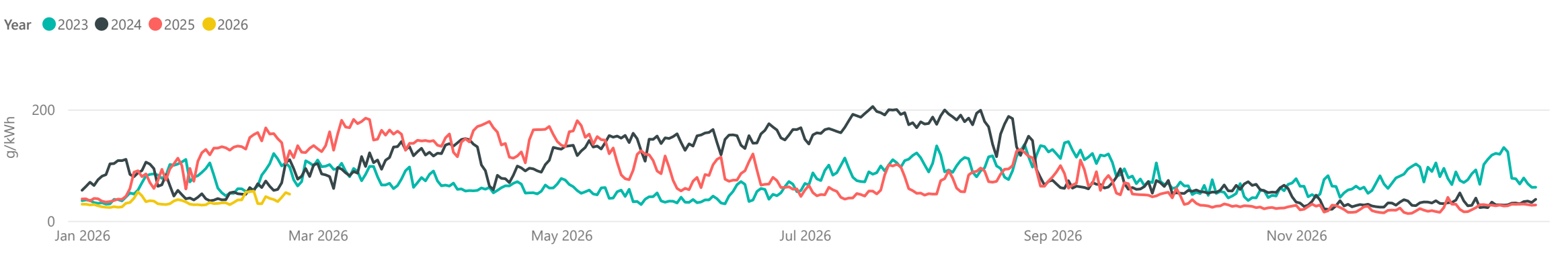
NZ Renewable Percentage



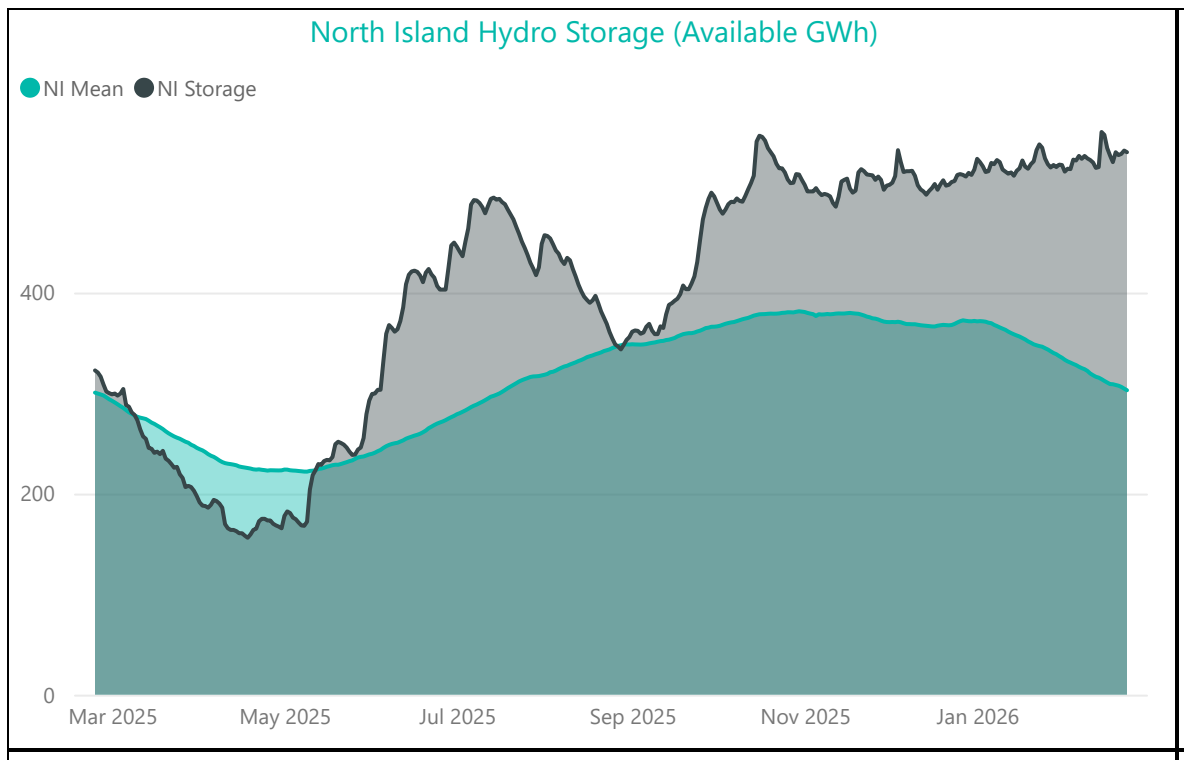
CO2 Tonnes/Day

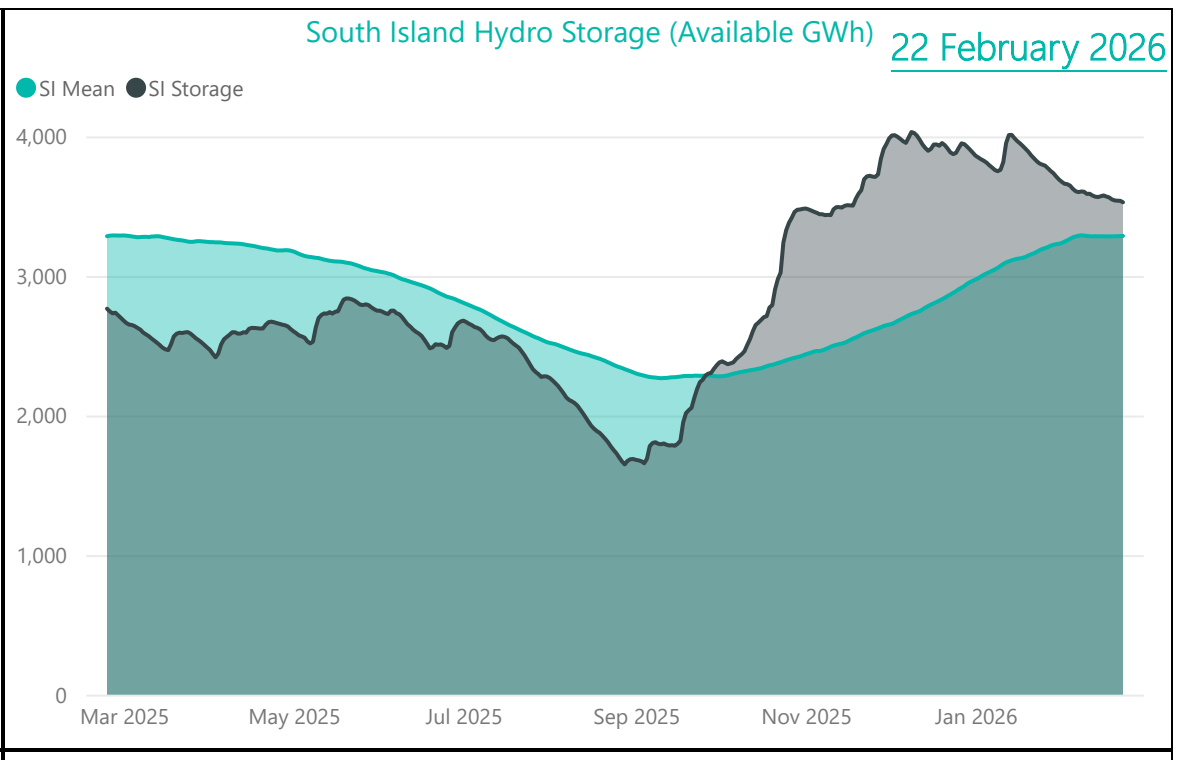


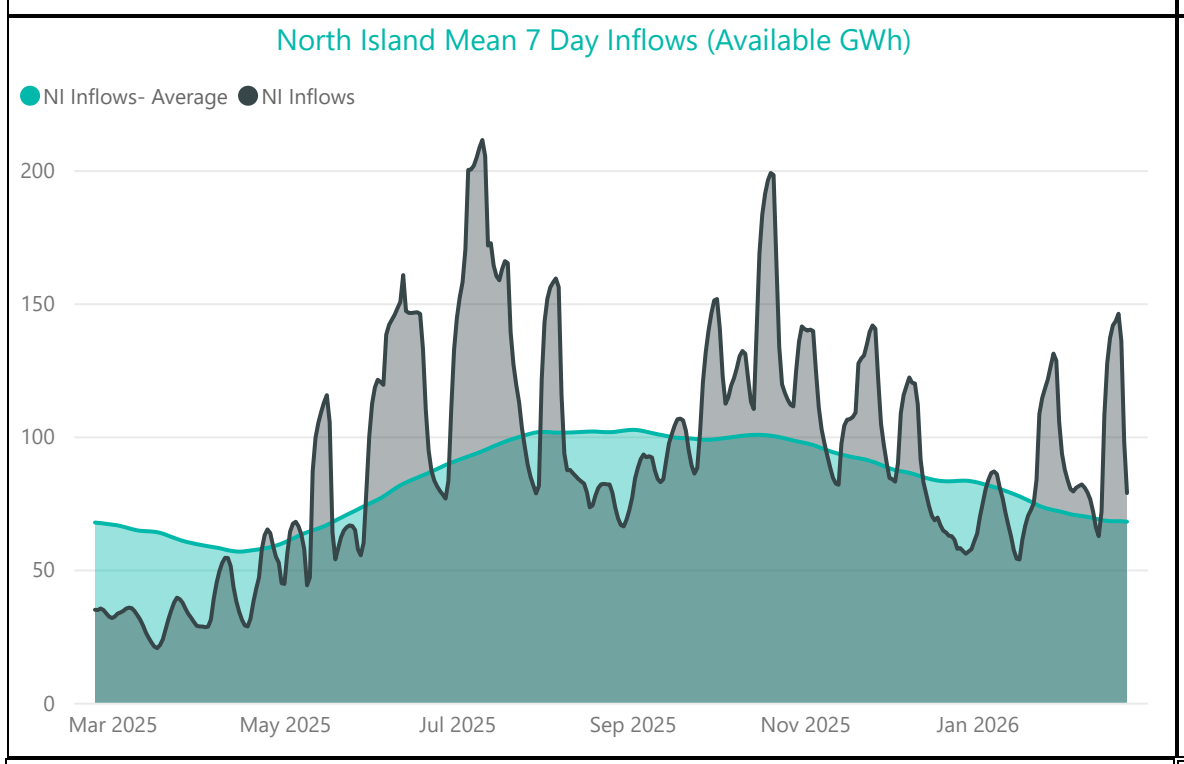
CO2 g/kWh

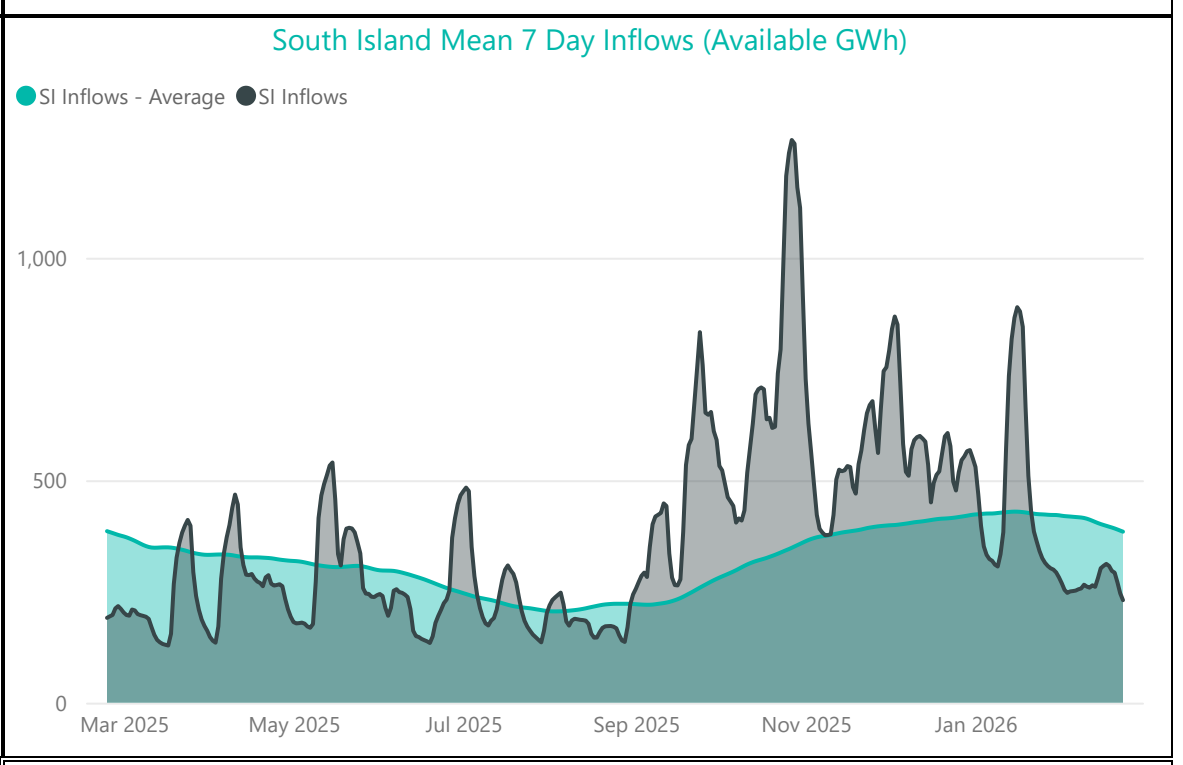


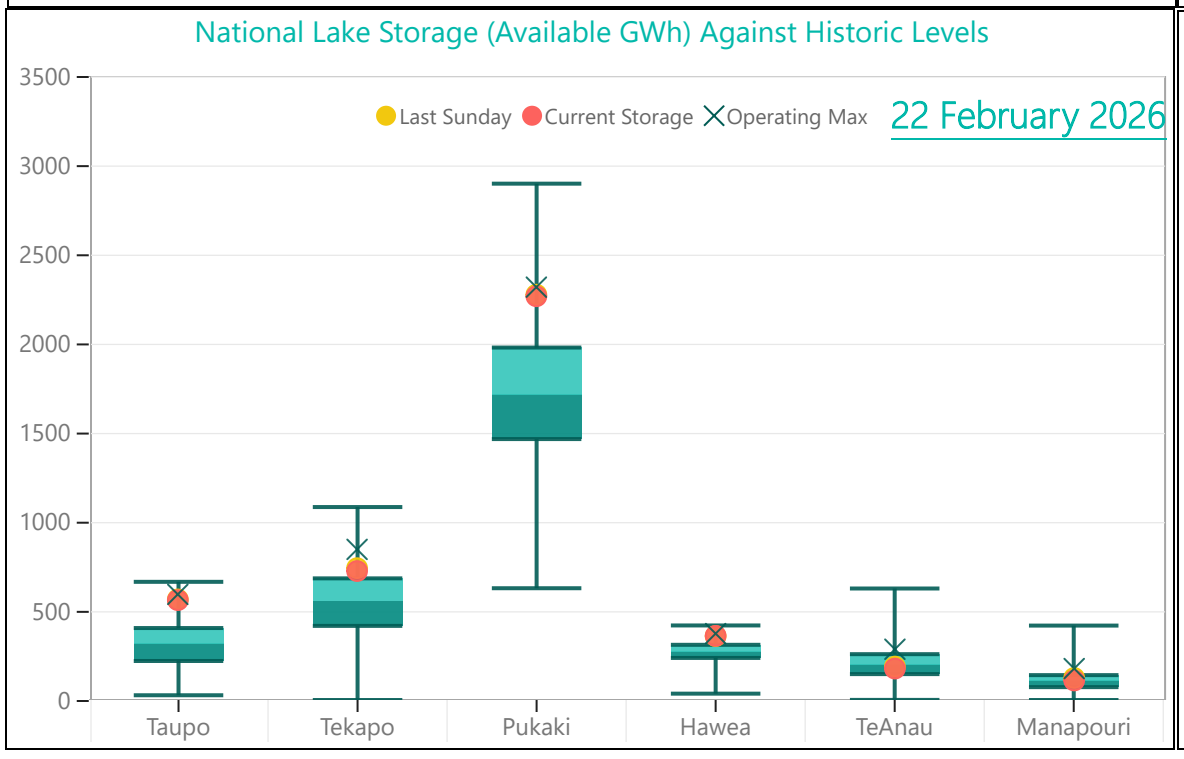
Hydro Storage

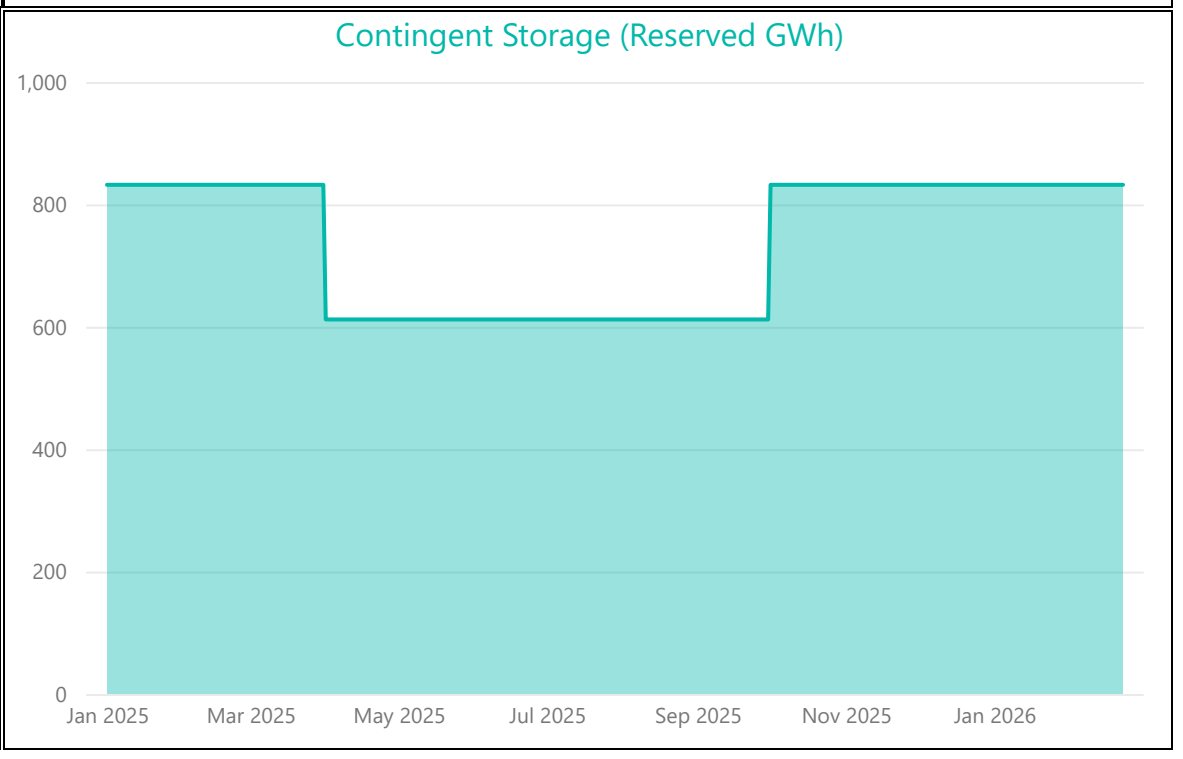












For further information on security of supply and Transpower's responsibilities as the System Operator, refer to our webpage here: https://www.transpower.co.nz/system-operator/security-supply

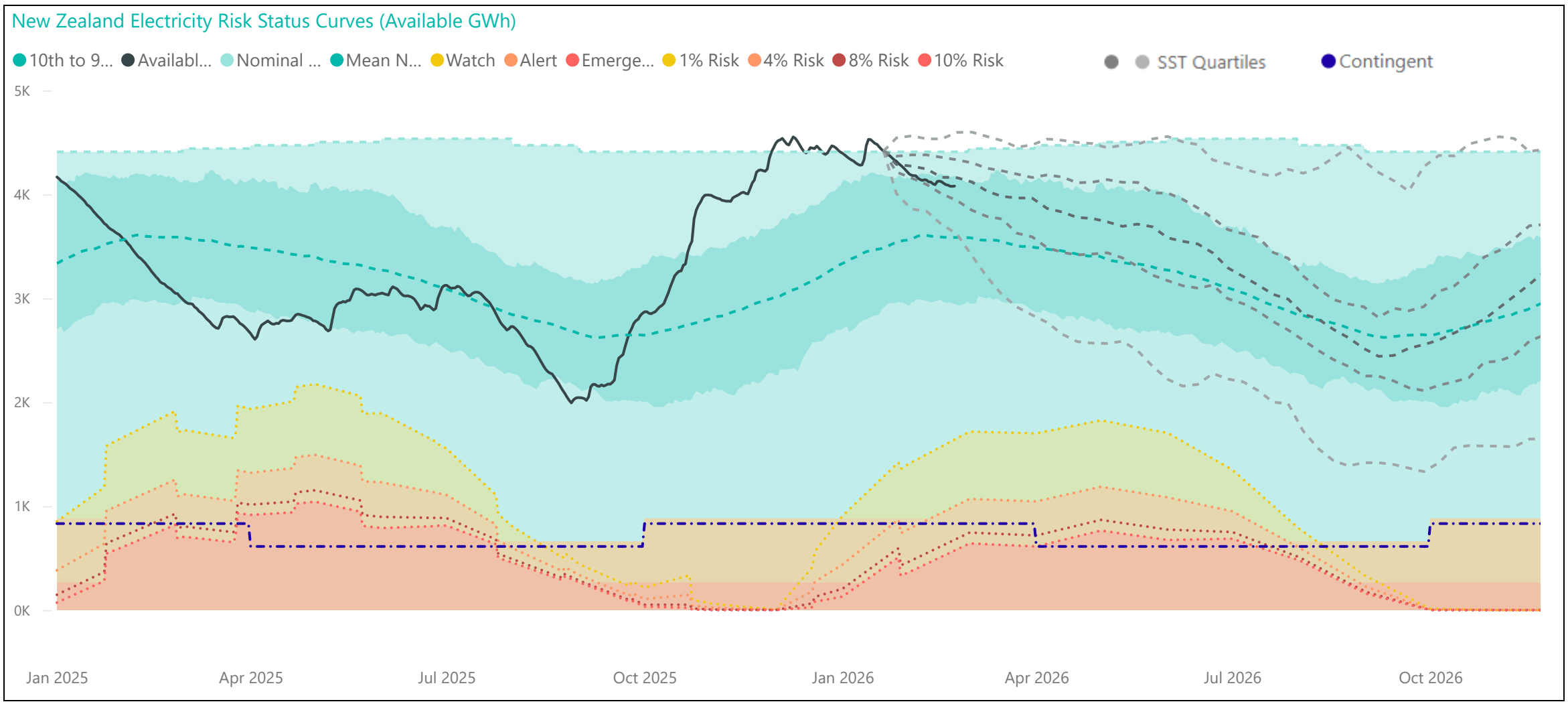
For any inquiries related to security of supply contact market.operations@transpower.co.nz

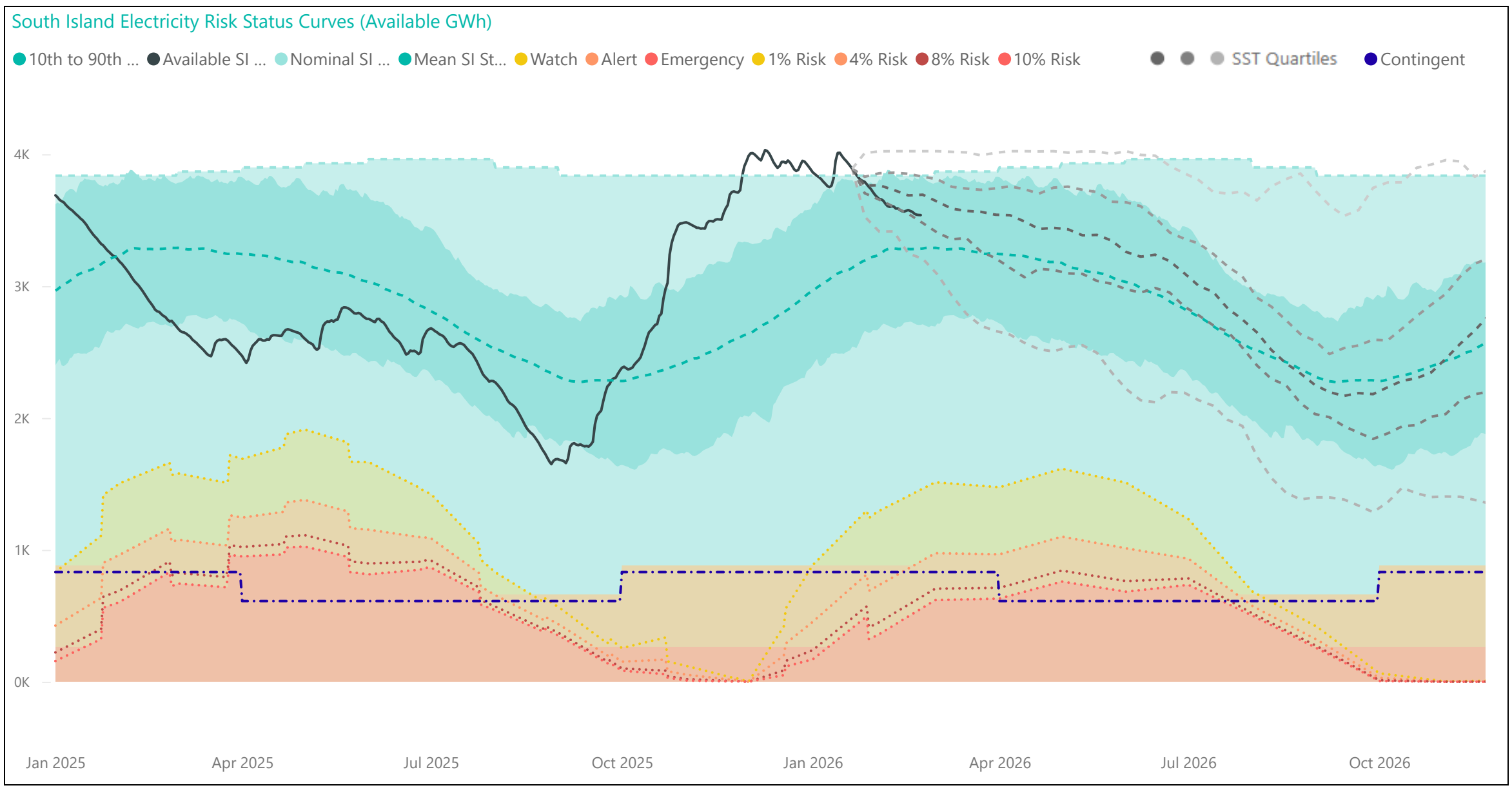
Hydro data used in this report is sourced from *NZX Hydro*.

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).