TRANSPOWER

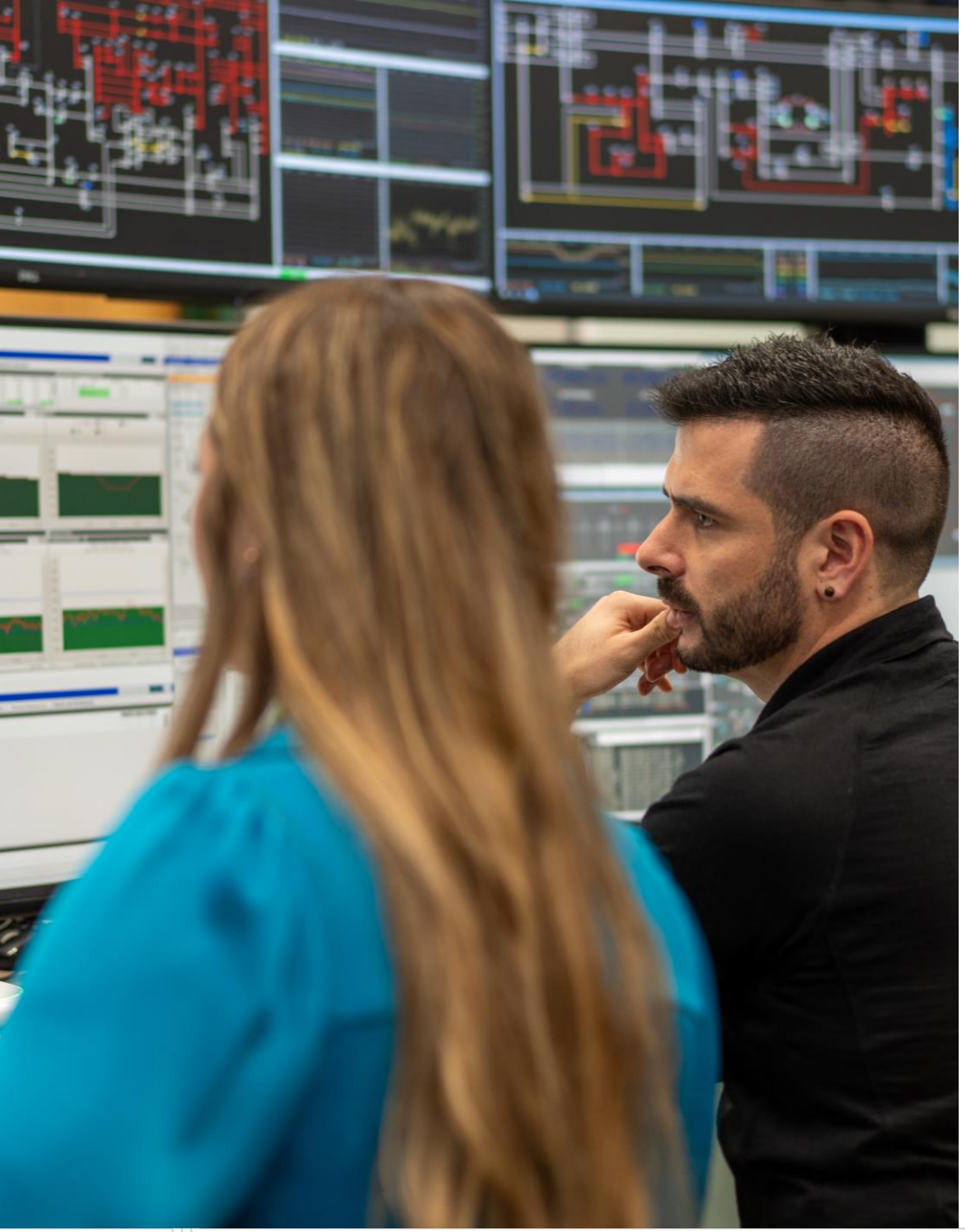
System Operator Industry Forum

30 September 2025

Today’s agenda

Market and Operational updates

- Key messages
- Market update
- NZGB update
- Operational update
- Consultations, publications and events



Key Messages

- Nationally hydro storage has lifted above the historic mean for this time of year due to increased inflows. There is also more rain in the forecast.
- Early spring we have seen demand soften due to warmer weather.
- Continued focus on fuel (both hydro and thermal) and asset availability is needed to reduce energy and capacity risks going into 2026.
- Genesis Energy's Huntly Unit 5 will be shut down from 1 October to 31 December, as gas is made available to commercial and industrial users. This has been captured in NZGB.

Market update

Energy: National hydro storage

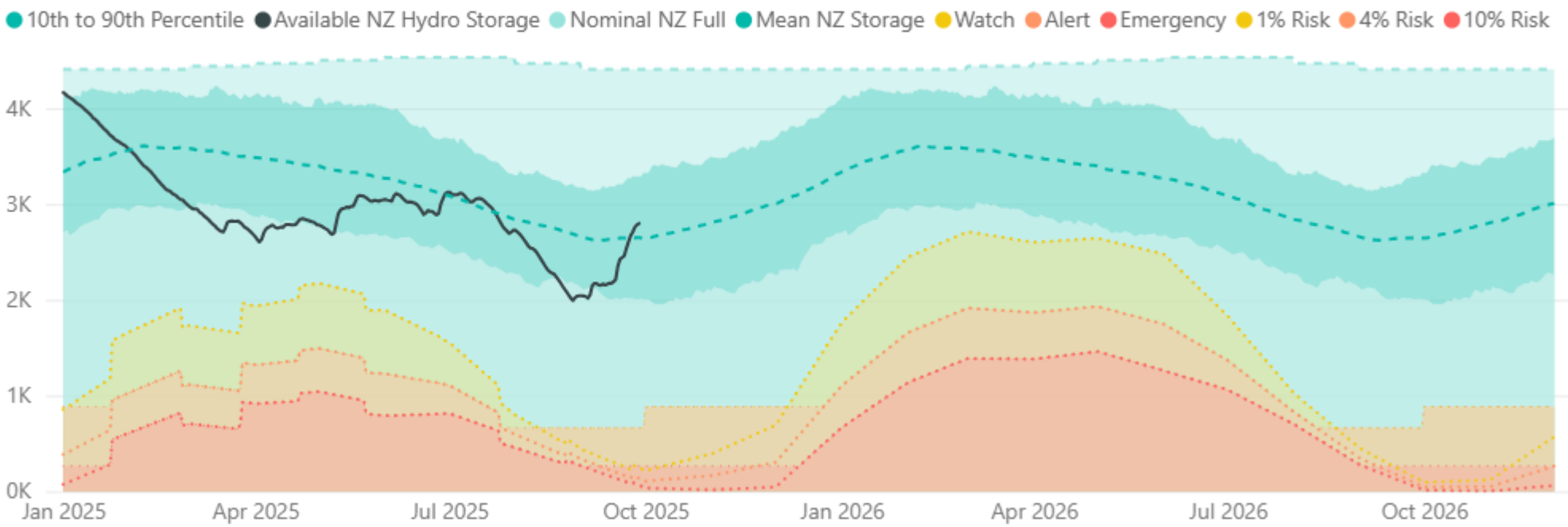
	Hydro storage level (% of mean ▲/▼)		
	New Zealand	South Island	North Island
Last forum	83%	78%	110%
Now	107% ▲	102% ▲	137% ▲

Note: these numbers include contingent storage, so they differ from those reported by NZX

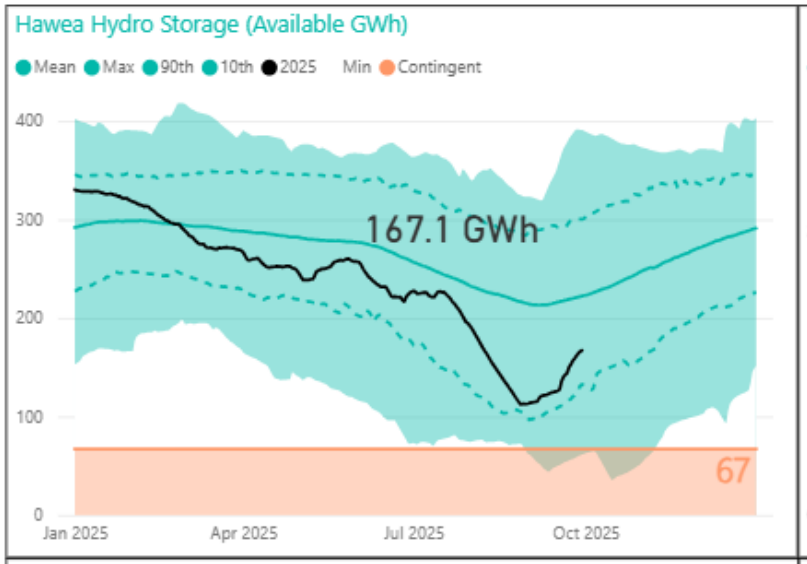
New Zealand Energy Risk

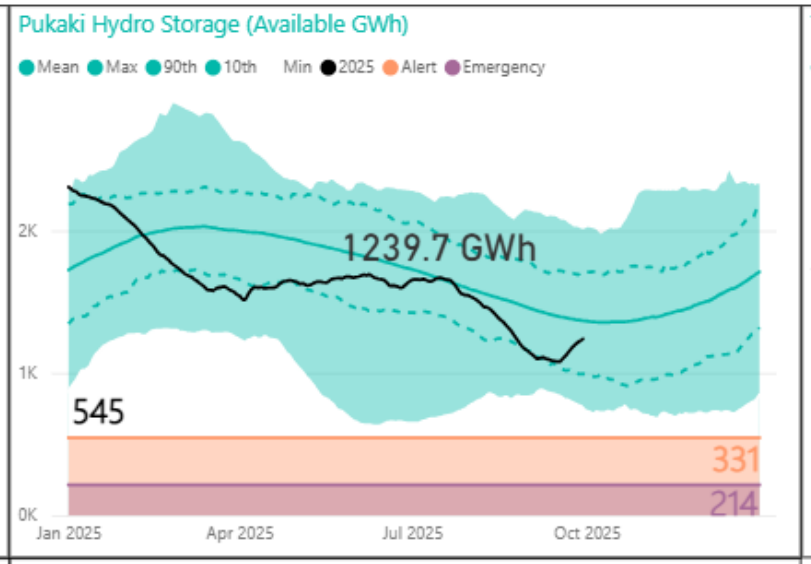
South Island Energy Risk

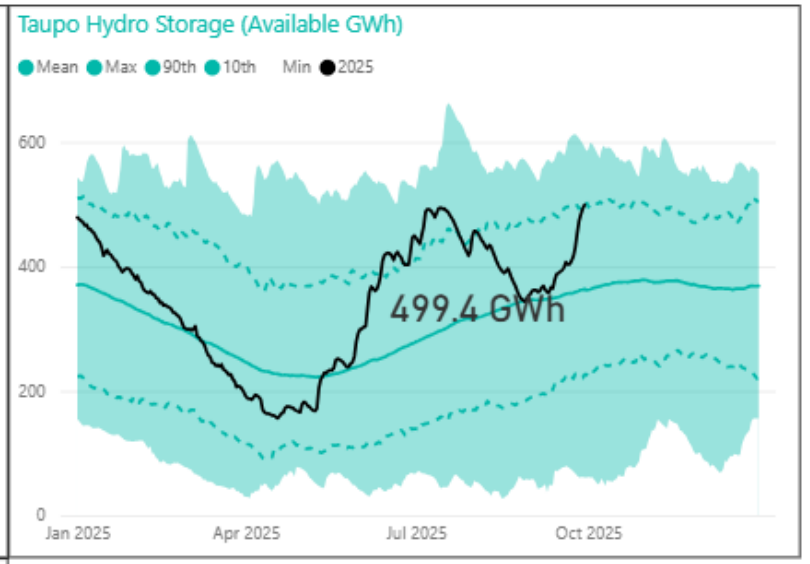
New Zealand Electricity Risk Status Curves (Available GWh)

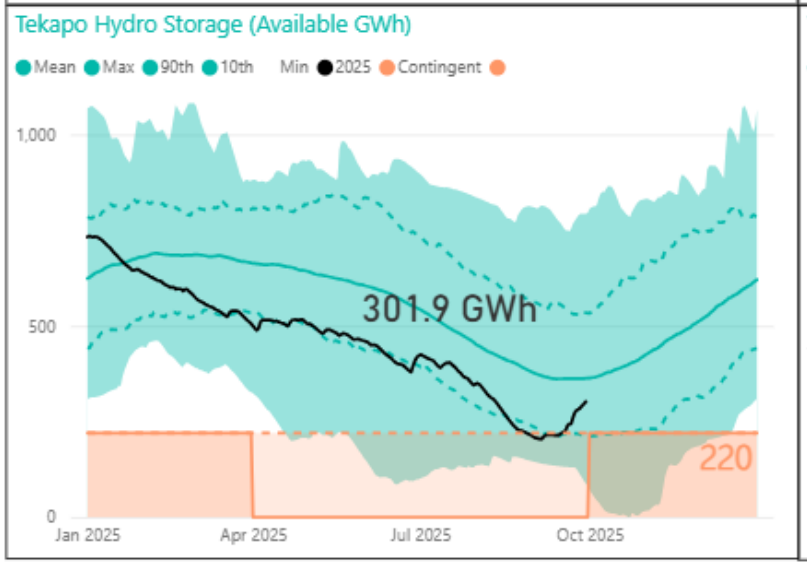


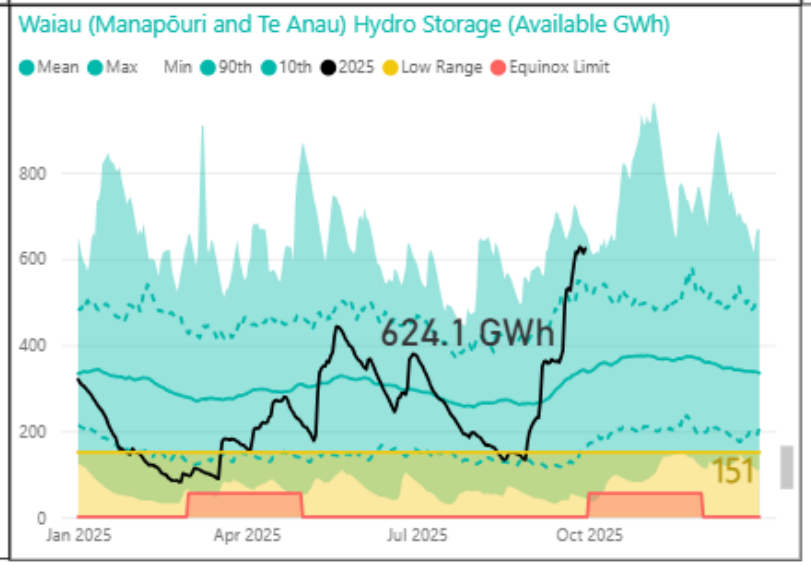
Hydro storage by catchment











Lake	Current (%) avg
nz_controlled	107
si_controlled	102
hawea	75
pukaki	91
manapouri	176
te_anau	187
tekapo	83
taupo	137

Sept ERCs & SSTs

Major changes this update:

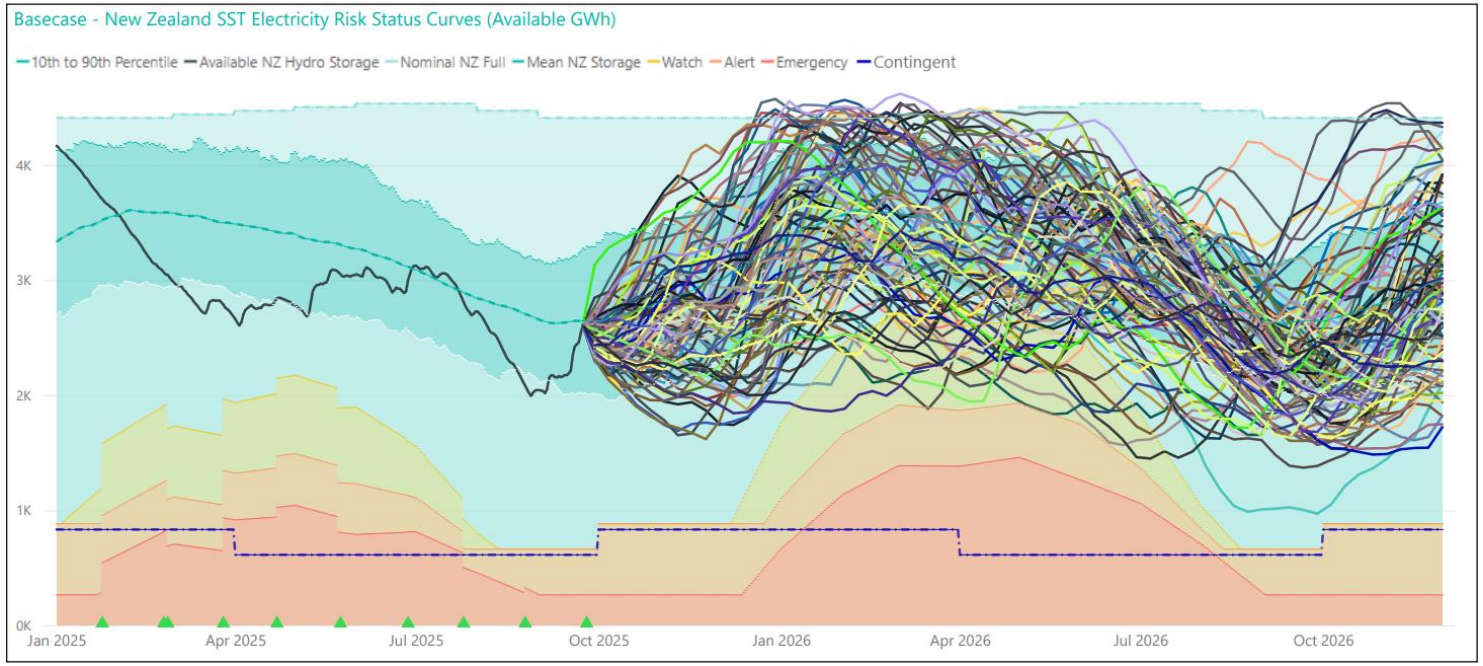
- A significant decrease in Ahuroa gas storage
- TCC is modelled to exit at the earlier of its estimated remaining operating hours being exhausted or 2026
- Updated outages and commissioning dates

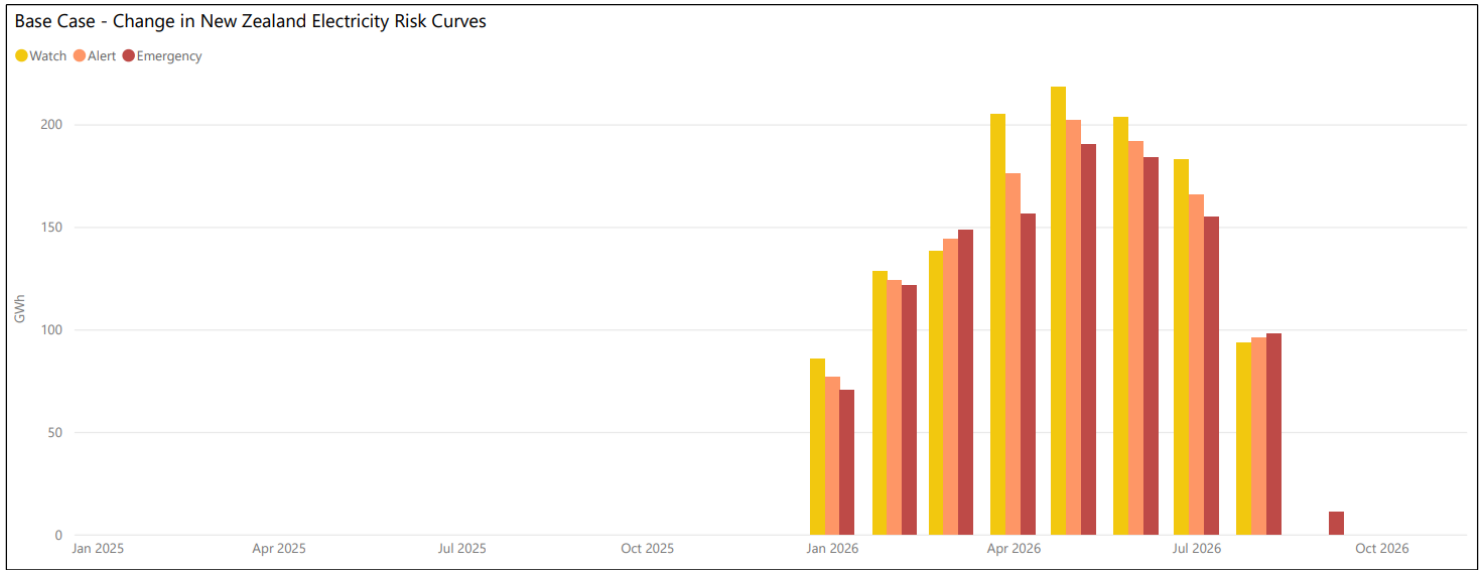
Increases of up to:

- ~219 GWh Watch (May)
- ~158 GWh Emergency (May)

SSTs (93 total) crossing NZ:

	Watch	Alert	Emergency
2025	0	0	0
2026	31	1	0





Sept ERCs & SSTs

Scenario – Rankine remains 2026

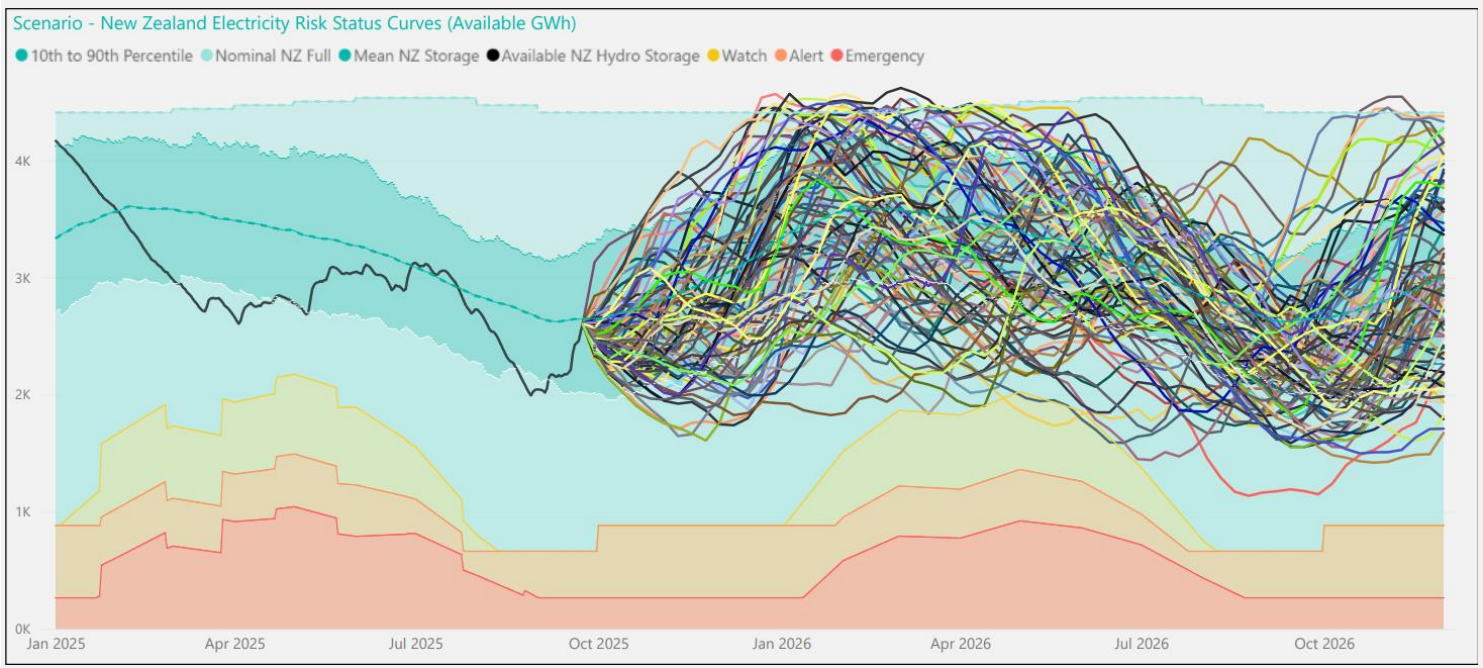
- Base case assumes that a Huntly Rankine will be retired in January
- This scenario assumes the Rankine will be available and that coal is imported at the maximum physical import capability

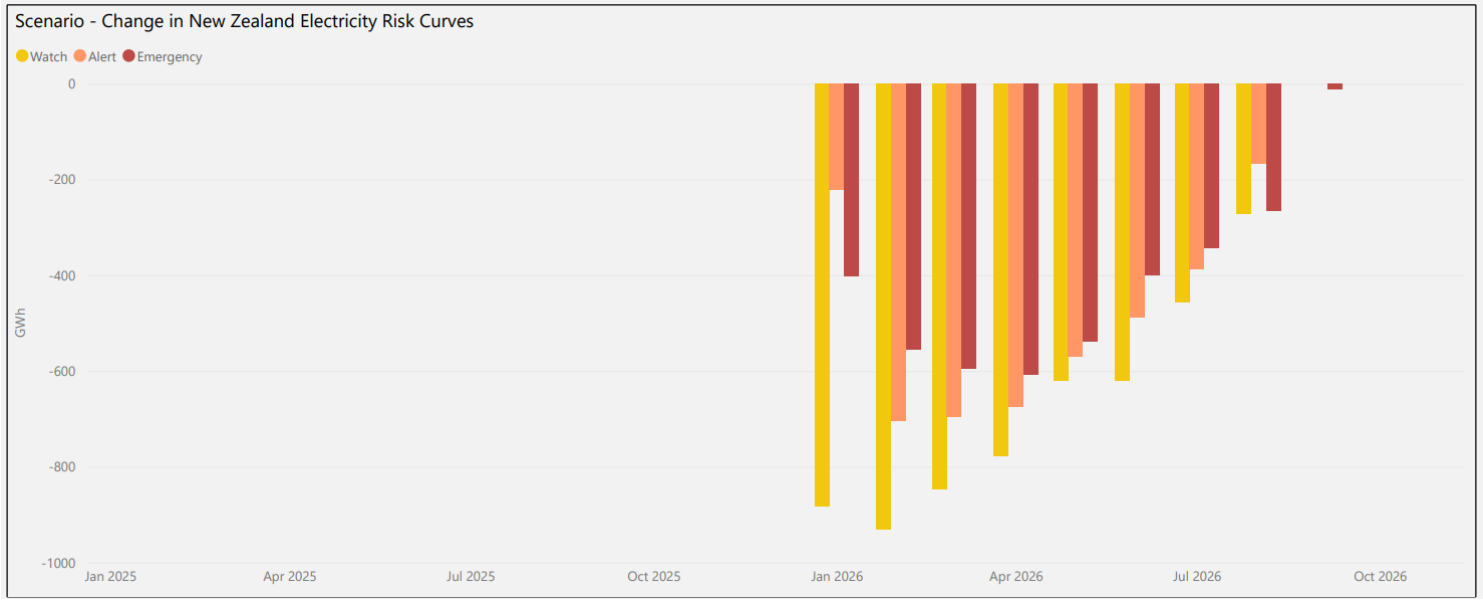
Major changes (relative to base case):

- Decreased Watch, Alert and Emergency curves in 2026
- Up to 931 GWh decrease for Watch curve
- Only four SSTs cross into Watch

SSTs (93 total) crossing NZ:

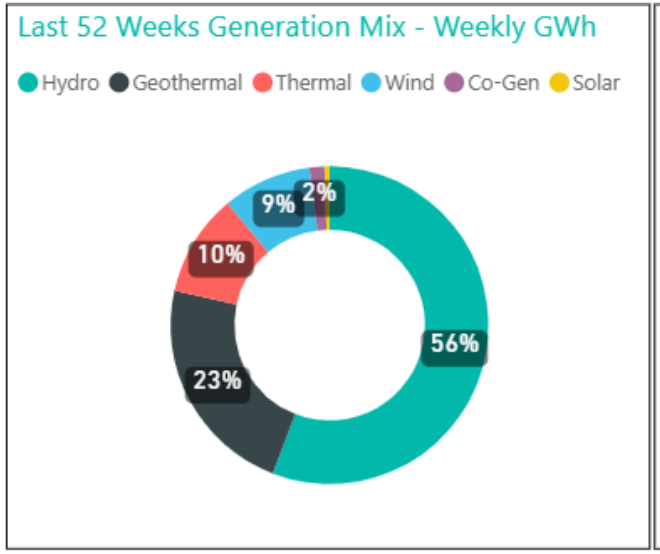
	Watch	**Alert**	**Emergency**
2025	0	0	0
2026	4	0	0

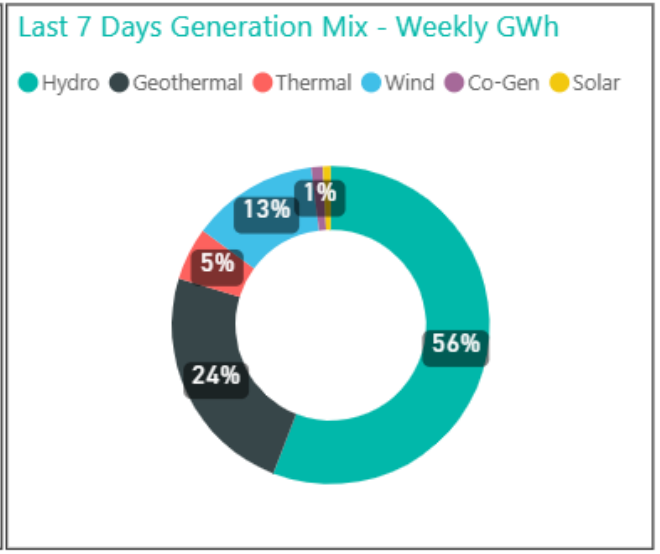


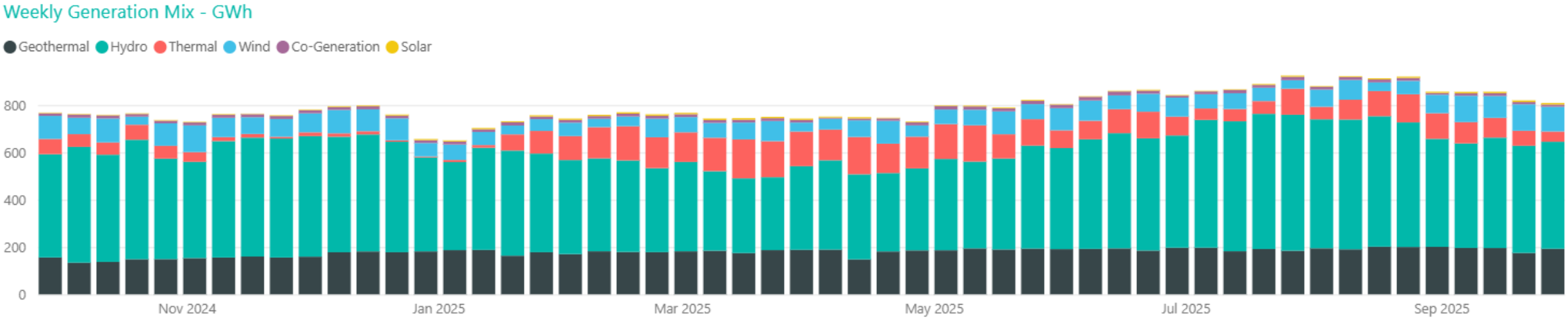


Generation mix

- The hydro generation share remained on par with the 52-week average, at 56%.
- Wind generation above average at 13%
- Thermal has declined to just 5% of the mix with recent inflows and lower demand.
- Geothermal slightly above average at 24%.

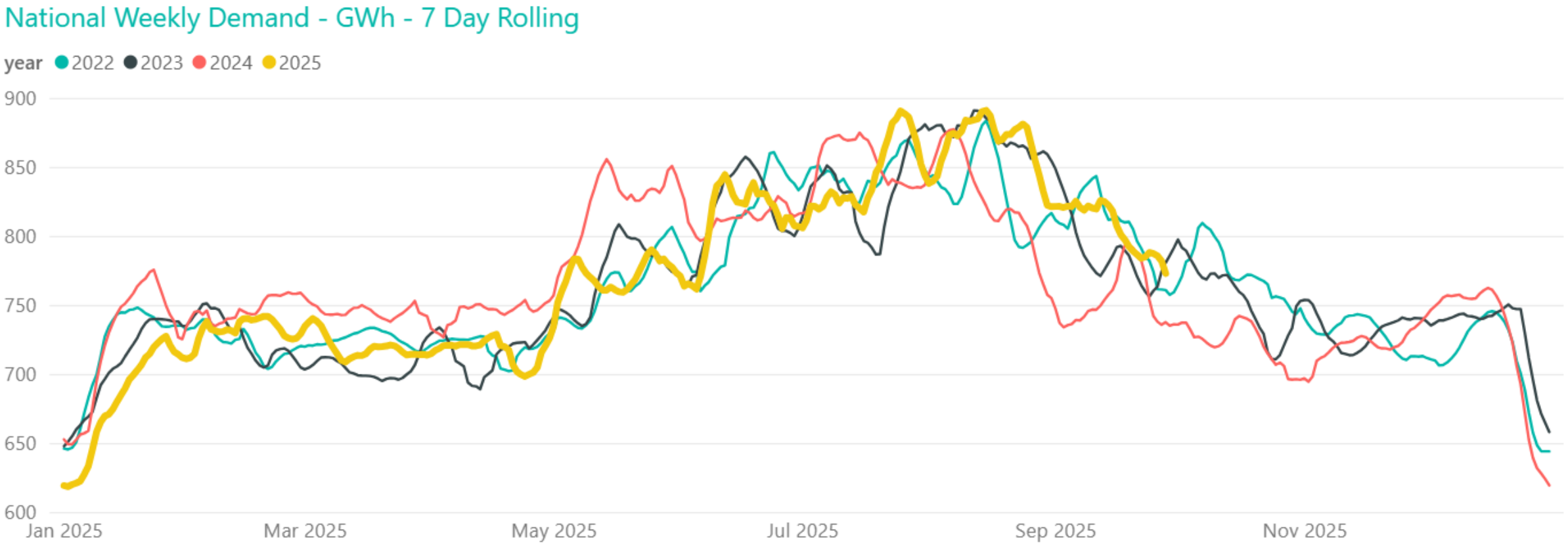






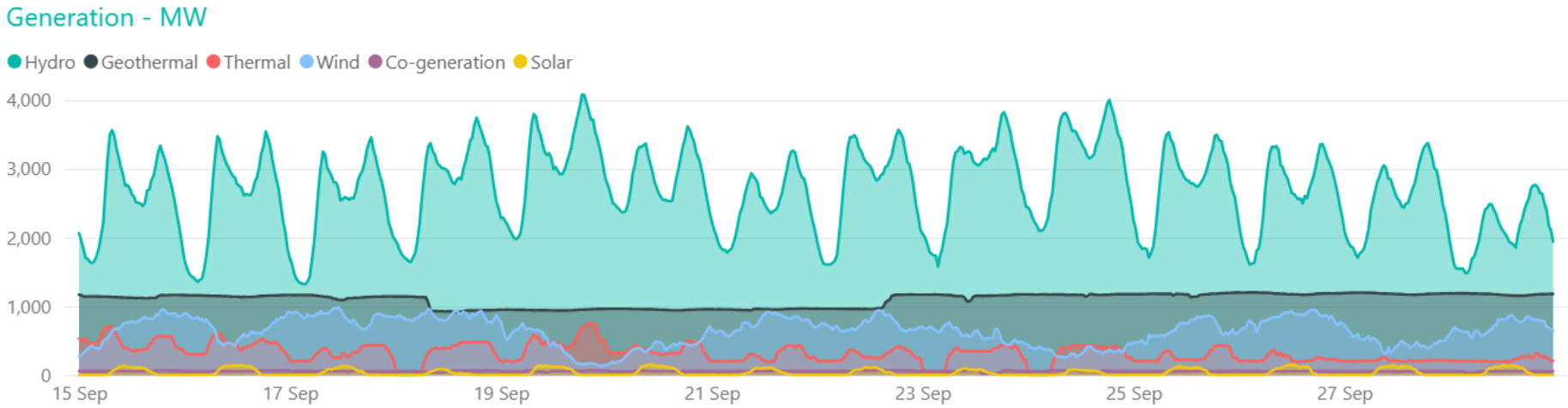
Demand

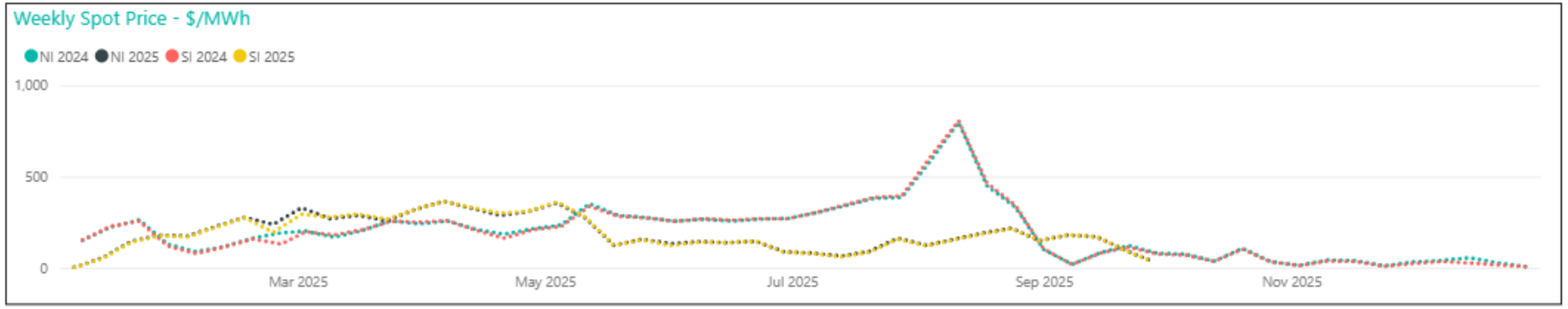
- Demand has declined since starting September as spring has brought warmer weather.
- 773 GWh last week, and 787 GWh the two weeks prior.



Pricing

- Average Ōtāhuhu price was $35/MWh last week, and $103/MWh the week prior.
- Wholesale prices peaked at $214/MWh at OTA, 9pm on Wednesday 24 September



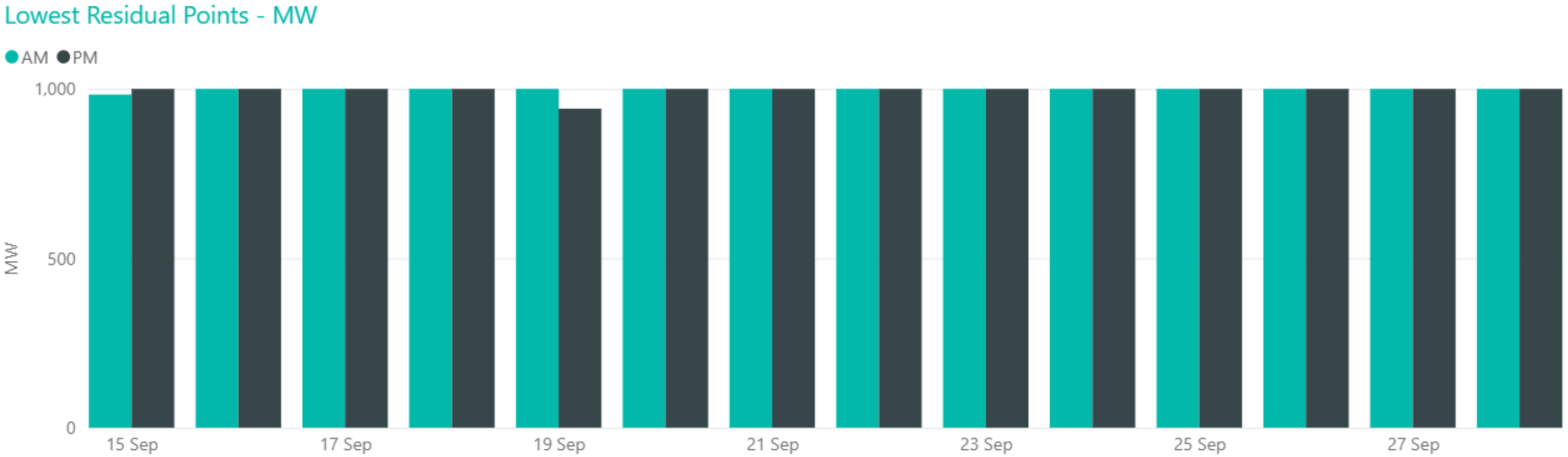


HVDC transfer

- 75 GWh sent north and 10 GWh south over past fortnight.

Capacity residual margins

- Healthy residual margins (lowest 940 MW)
- In line with low peak demand

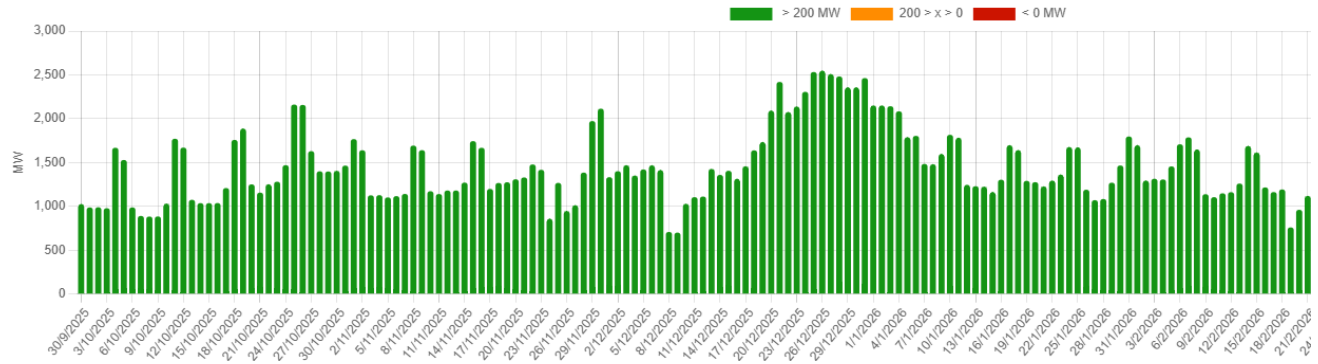


NZGB update

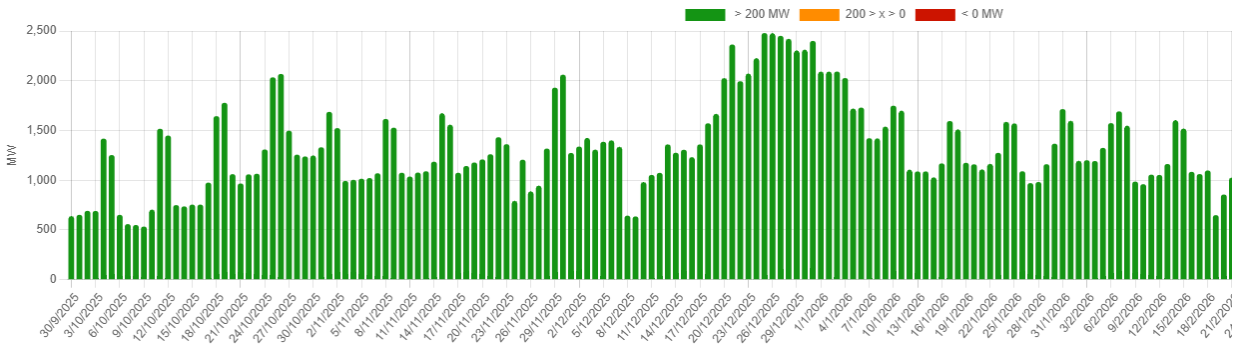
NZGB update: base capacity N-1-G

- N-1-G margins are currently showing healthy values
- Under the 99th percentile load, which we would expect under a cold snap, the margins drop but are still healthy

Base case capacity at 90%
- ***This triggers the CAN process***
- Assumes all generation available in POCP is offered
- It uses 20% of total wind capacity



90th percentile load



99th percentile load

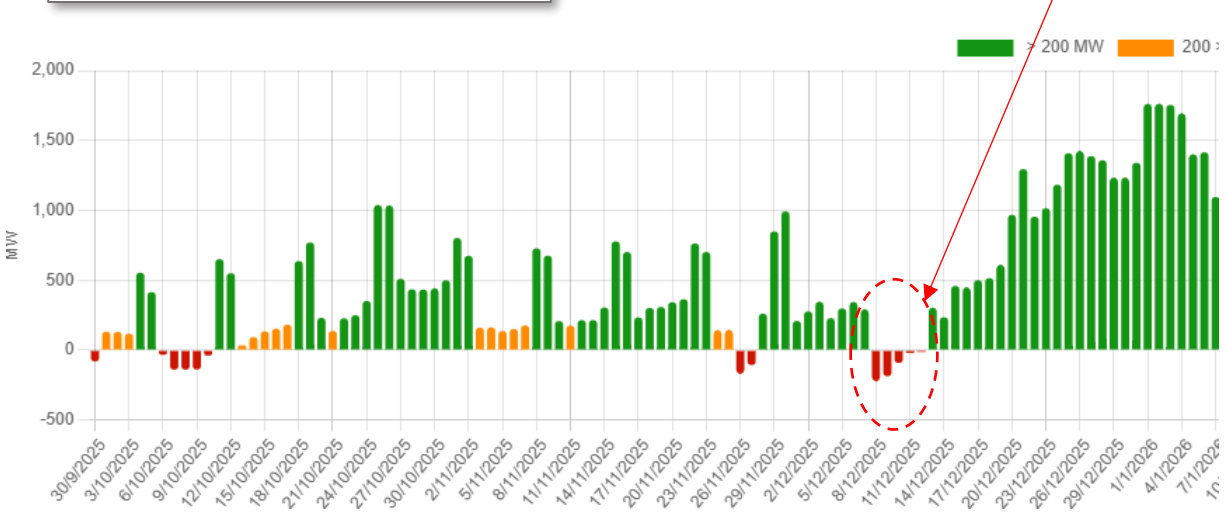
NZGB update: firm capacity only N-1-G

- Firm capacity scenario reflects units that historically operate for at least 90% of AM & PM peaks.
- The shut down of Huntly Unit 5 from 1 October to 31 December to make gas available for commercial and industrial users has been modelled in NZGB.
- Given that the Huntly Unit 5 can be available with a recall time of 3-5 days (subject to fuel availability), we have updated the Firm Capacity Only scenario to exclude Huntly Unit 5 and to include 1x Huntly Rankine unit.
- Any shortfall or low margin periods highlight the potential reliance on these units to be available to cover N-1-G
- This means we are relying on the market to coordinate especially slow starting thermal units, to get through high peak load periods

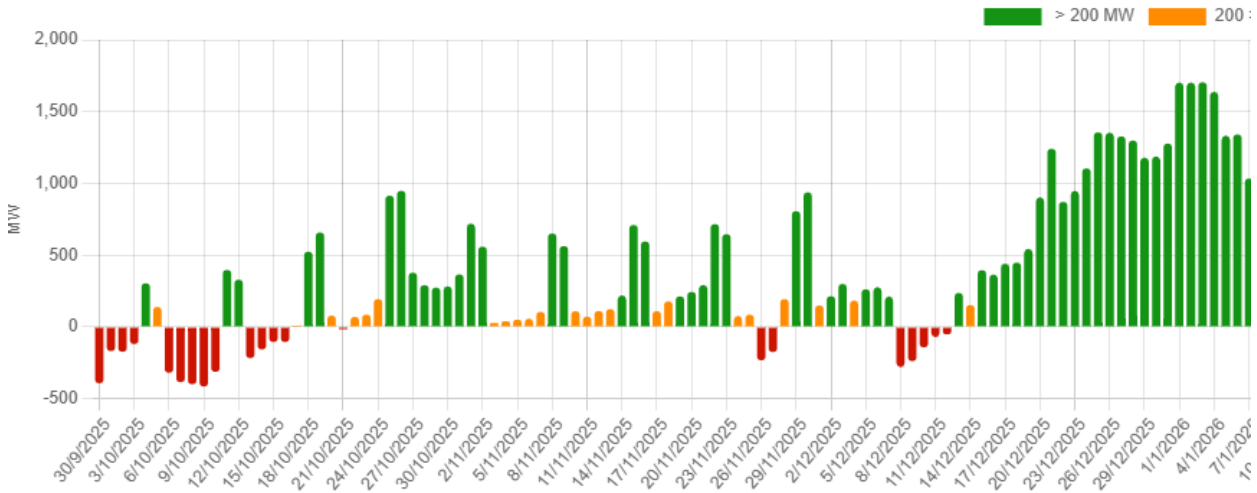
NZGB update: firm capacity only N-1-G

Firm capacity removes
- TCC (-360MW) all months
- HLY 5 (-405MW)
- 2 HLY Rankines from 1st Oct to 31 Dec 2025, and 2 Rankines over the remaining months
- It uses the lowest 10th percentile generation for wind (8% of total capacity)

WKM-WRK-1 outage



90th percentile load



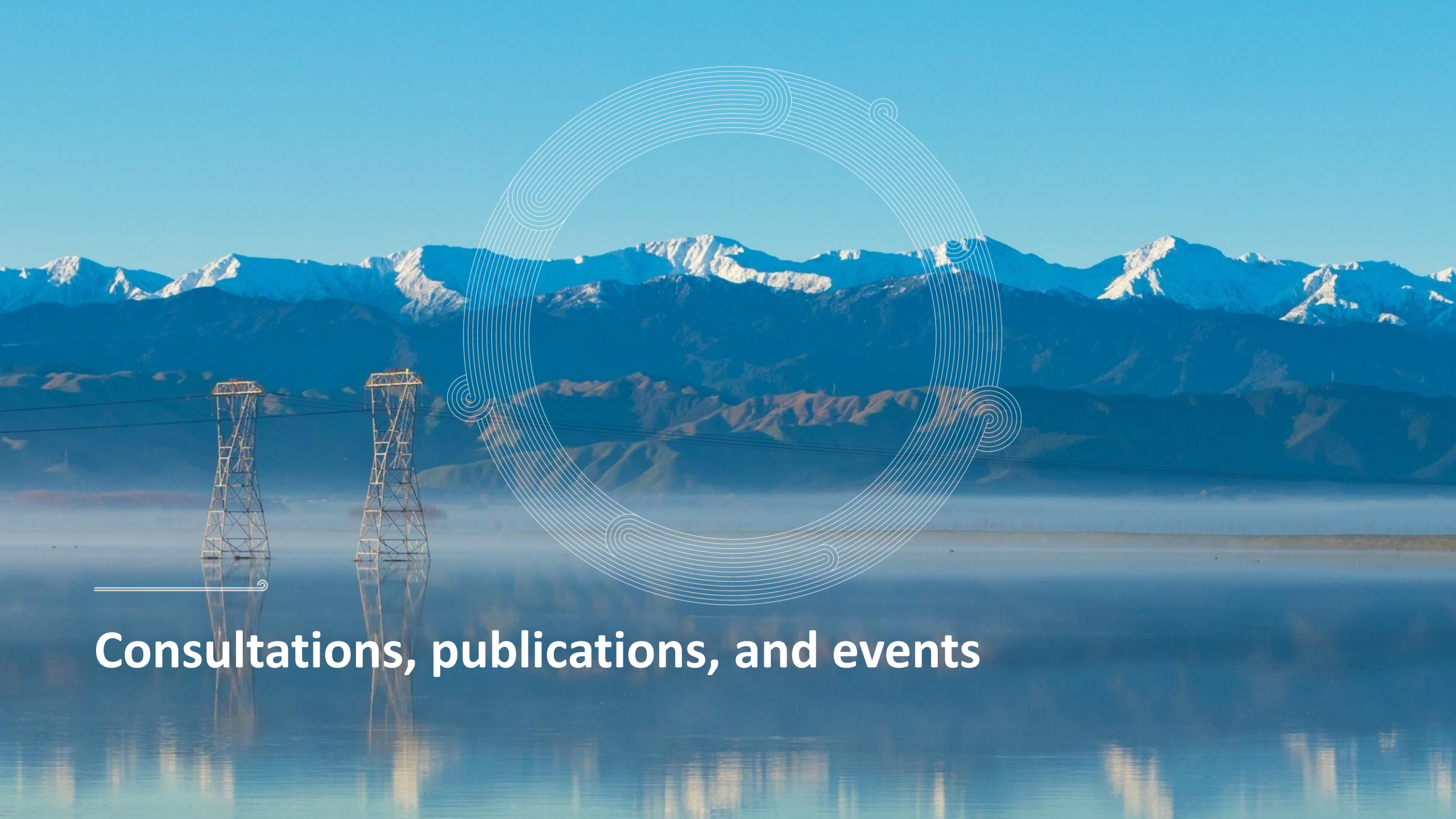
99th percentile load

NZGB update: Information

Recommendations from SO:

- Avoid further outages during periods with low margins
- Market coordination is required from industry to ensure available generation capacity remains high to cover potential cold snaps
- Keep POCP updated with scheduled or tentative outages
- Keep the WDS up to date with the latest offers
- Any other information on plant availability, please contact the SO

Operational update



Consultations, publications, and events

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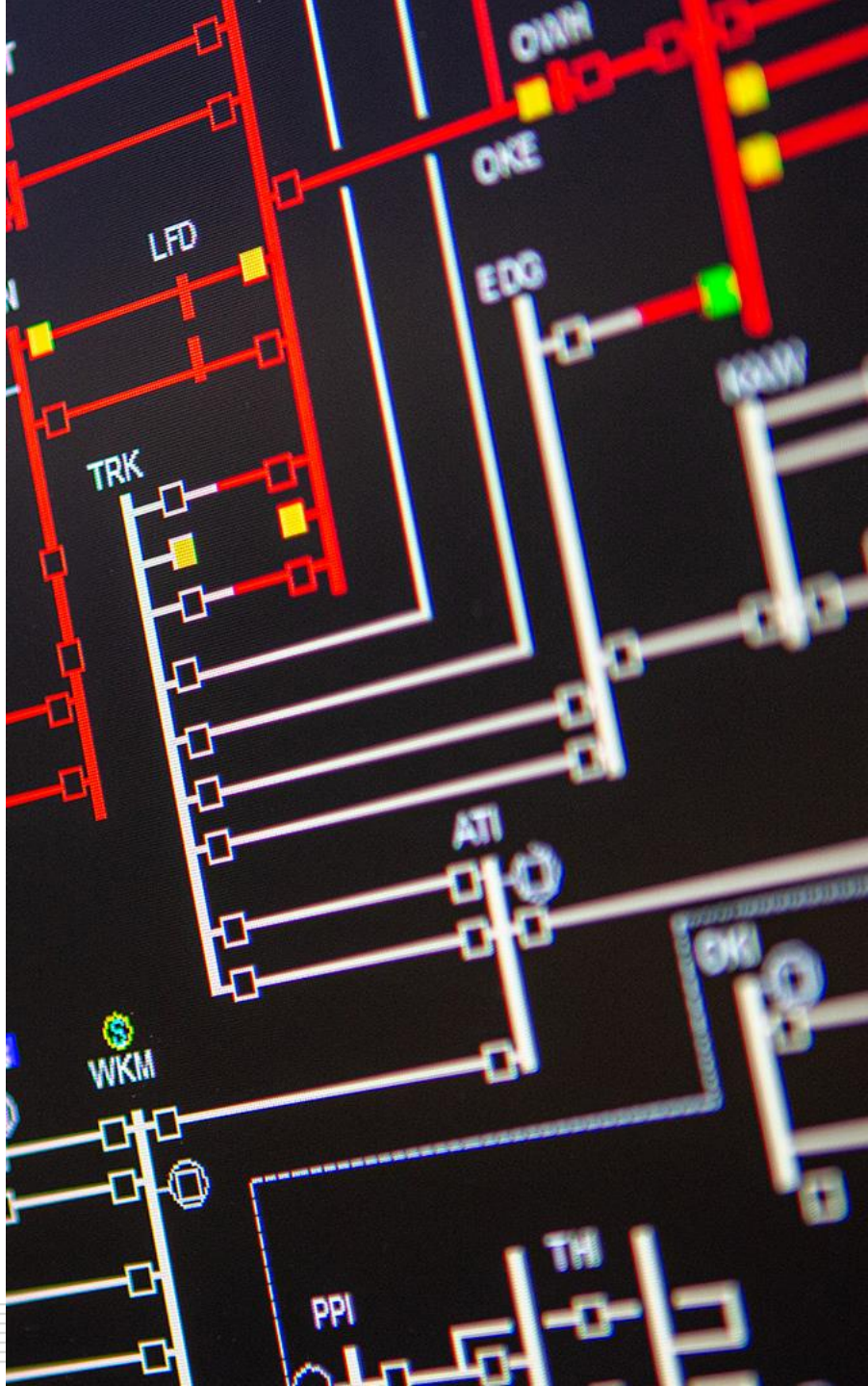
Our **CACTIS consultation** has now closed, we will publish submissions on the consultation page this week.

We published the **September Energy Security Outlook** on our website.

Soon we will open our **2025 Ancillary Services tender** for Instantaneous Reserves, Frequency Keeping (multiple and single back-up), and North Island Black Start services.

Transpower will be facilitating its fourth biennial **GridEx** in November – an exercise simulating a cyber and physical security emergency and requiring participants to work through a real-time response. If you would like more information or are interested in participating, please contact: GridEx@transpower.co.nz.

*If you have feedback or suggestions on today's forum or other System Operator publications please let as know via our **Feedback Form***



Any questions
Please raise your hand