TRANSPOWER

System Operator Industry Forum

10 June 2025

Today's agenda

- Key messages
- Market update
- NZGB update
- Operational update
- Generation commissioning update
- Consultations, publications and events
- Questions / Patai

Key Messages

- Recent rain and thermal fuel supply contracting activity has helped reduce energy risk.
- Temperatures are dropping and Winter load is picking up, there will be times we are relying on slow start thermal units to meet high peak demand.
- Continued focus on asset availability is needed to reduce energy and capacity risk this winter.

Market update

Energy: National hydro storage

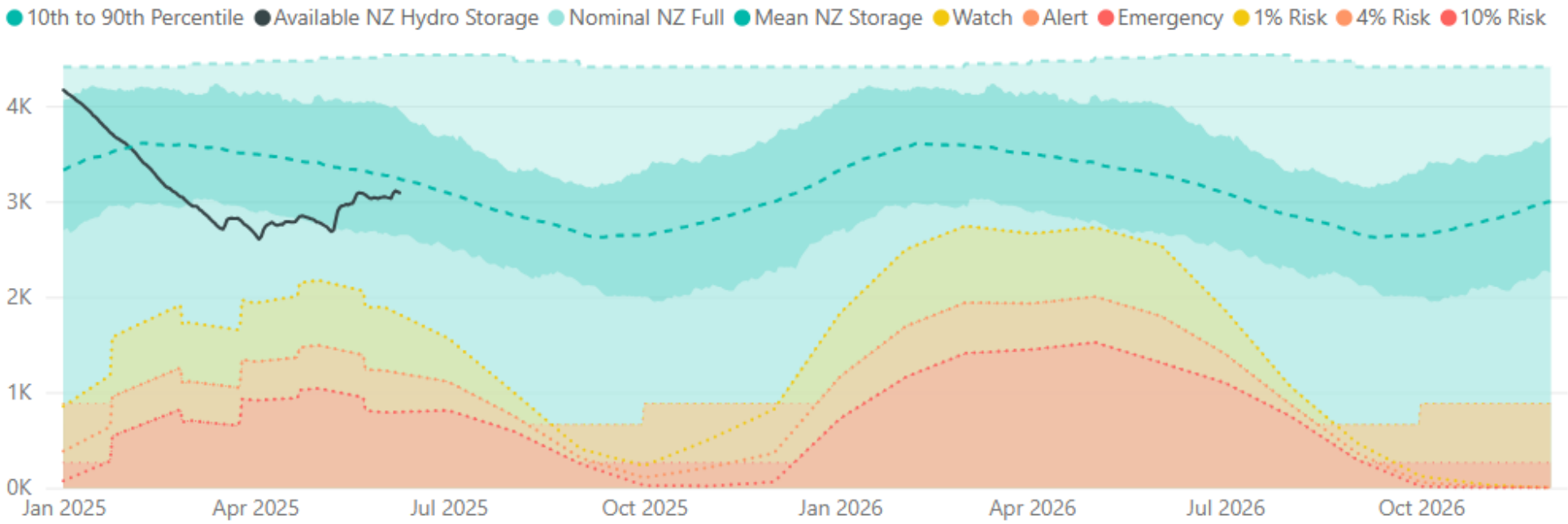
- National storage increased to 95% of the historic mean with recent inflows.
- Recent inflow events have pushed hydro storage closer to the historic mean.
- May ERCs were released on 28 May.

	Hydro storage level (% of mean ▲/▼)		
	New Zealand	South Island	North Island
Last forum	92%	91%	102%
Now	95% ▲	91%	145% ▲

New Zealand Energy Risk

South Island Energy Risk

New Zealand Electricity Risk Status Curves (Available GWh)



May ERCs & SSTs

Major changes this update:

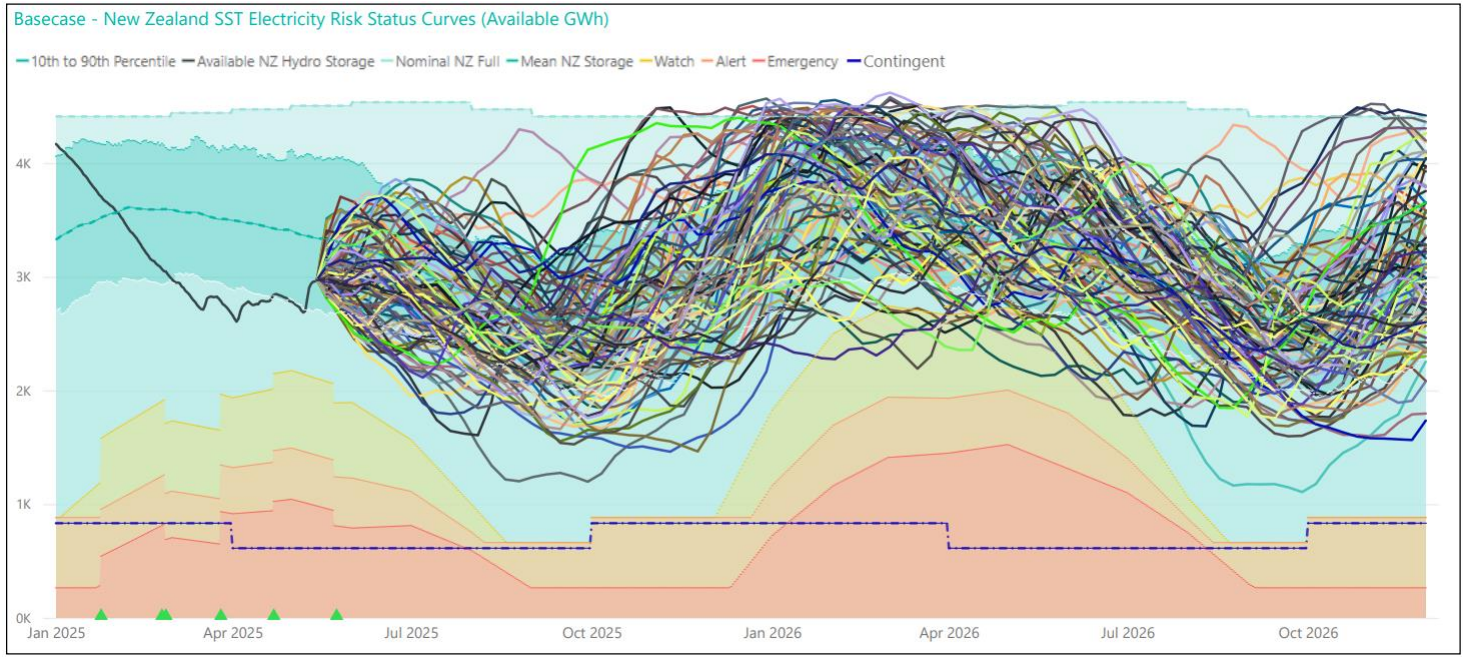
- Decrease in 2025 due to Methanex/Contact deal
- Decreased forecast gas production and storage
- Increase in firm coal imports
- Updated outages and commissioning dates
- Announced closure of Huntly Rankine unit in January 2026

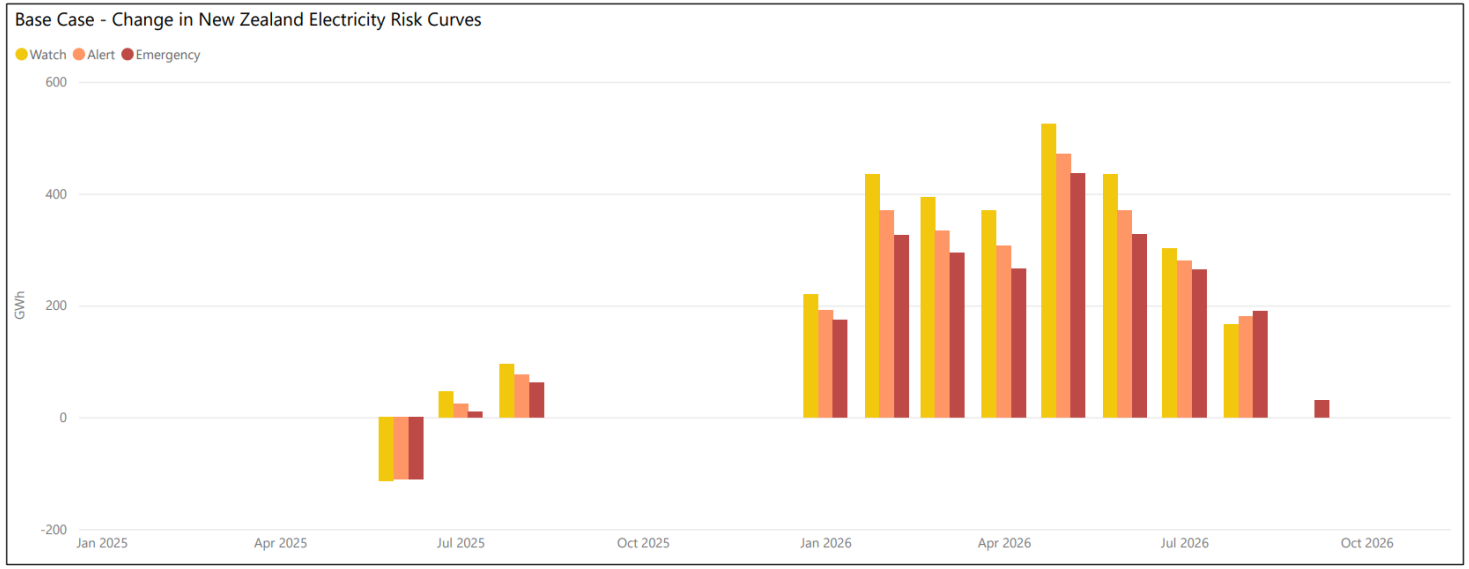
SSTs (93 total) crossing NZ:

	Watch	Alert	Emergency
2025	0	0	0
2026	17	0	0

Increases of up to:

- ~530 GWh Watch (May)
- ~440 GWh Emergency (May)





May ERCs & SSTs

Scenario – Rankine remains 2026

- 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):

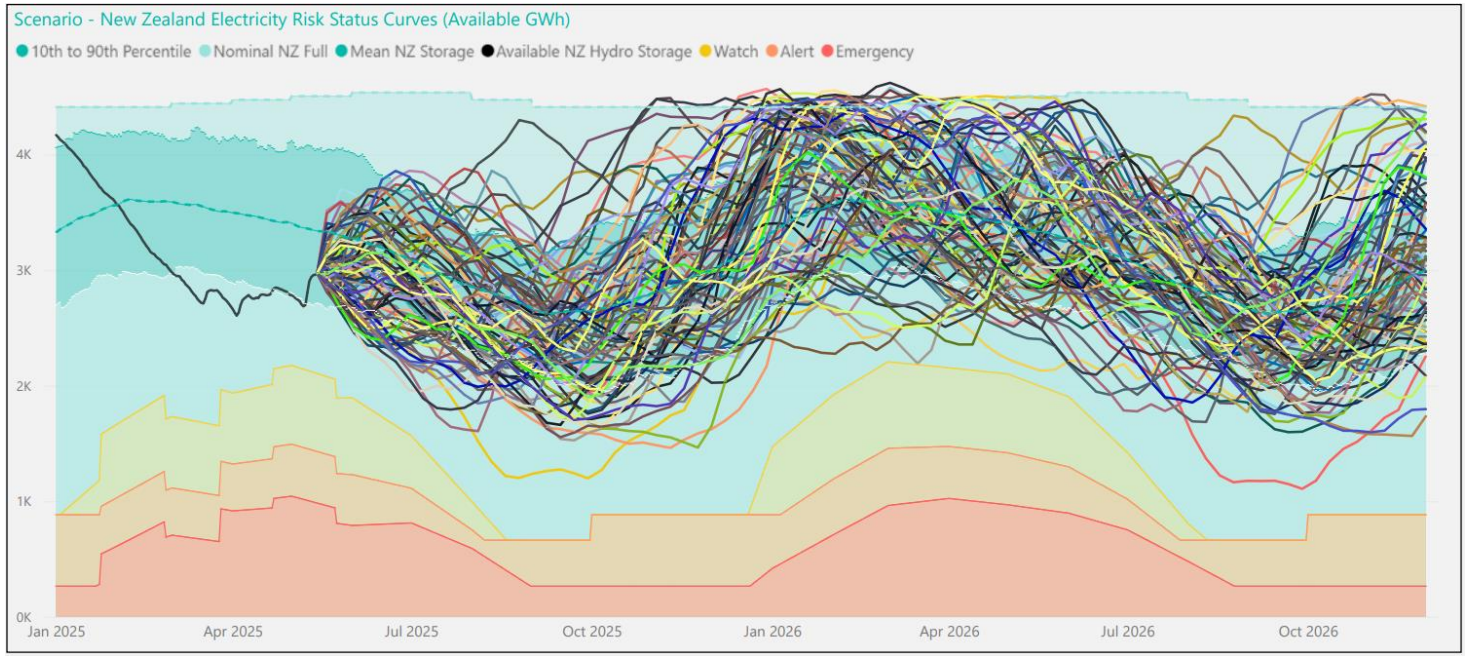
- Decreased Watch, Alert and Emergency curves in 2026
- No SSTs cross into any status curves

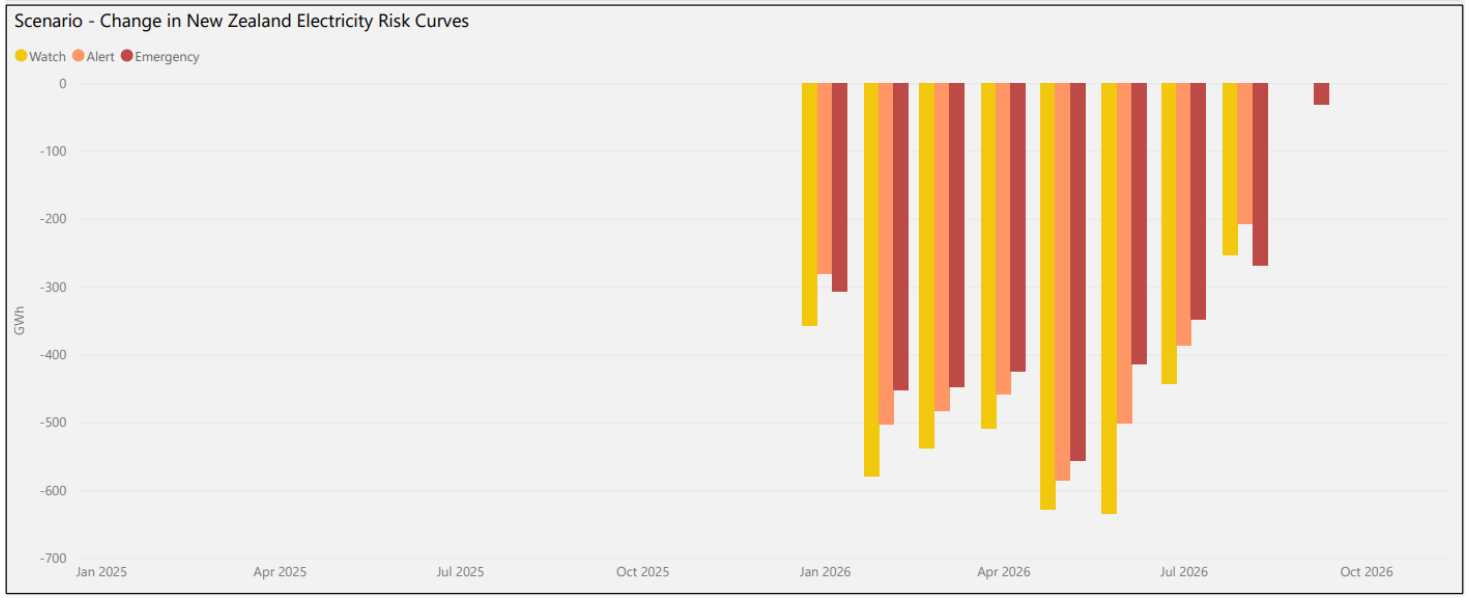
SSTs (93 total) crossing NZ:

	Watch	Alert	Emergency
2025	0	0	0
2026	0	0	0

Decreases of up to:

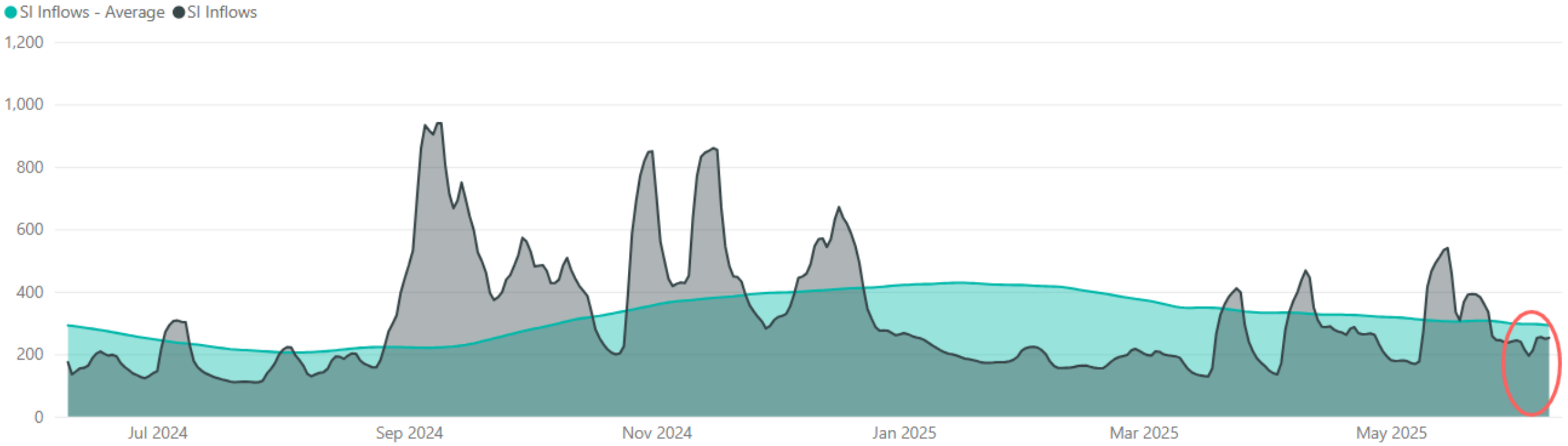
- ~630 GWh Watch (June)
- ~560 GWh Emergency (May)



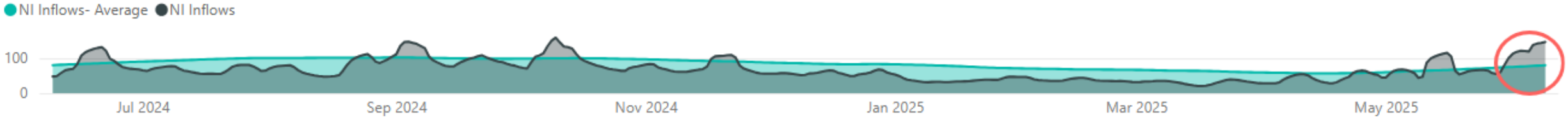


Hydro inflows

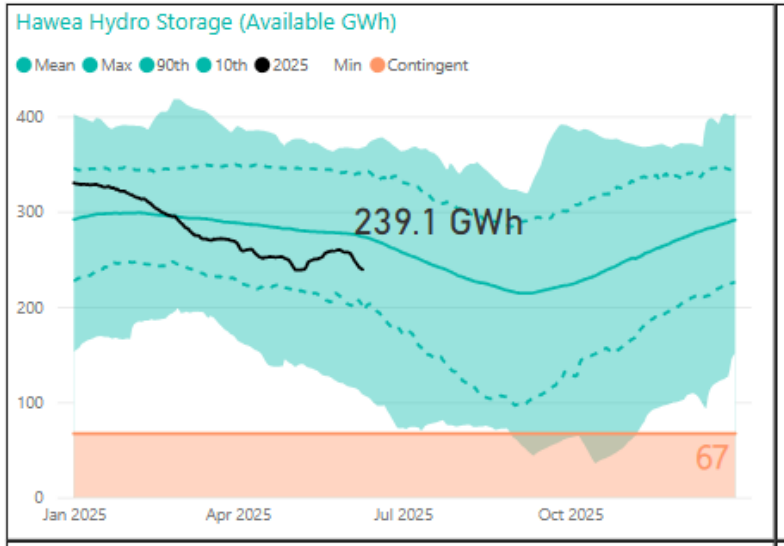
South Island Mean 7 Day Inflows (Available GWh)

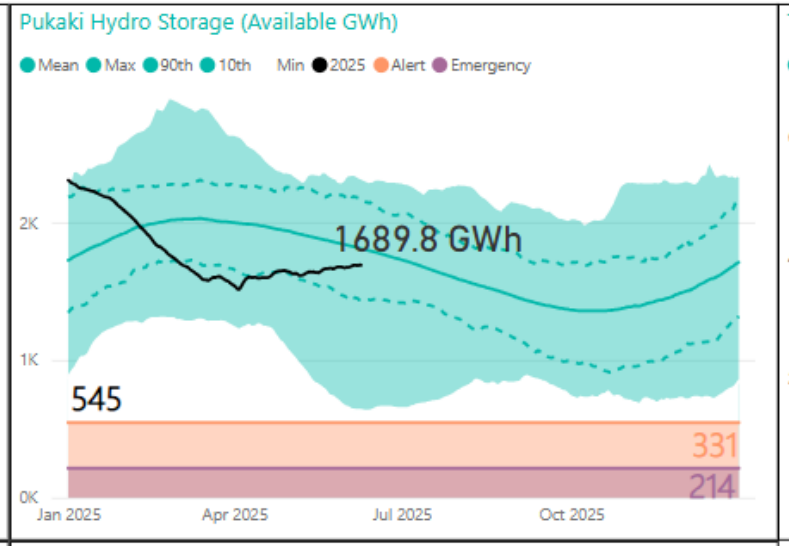


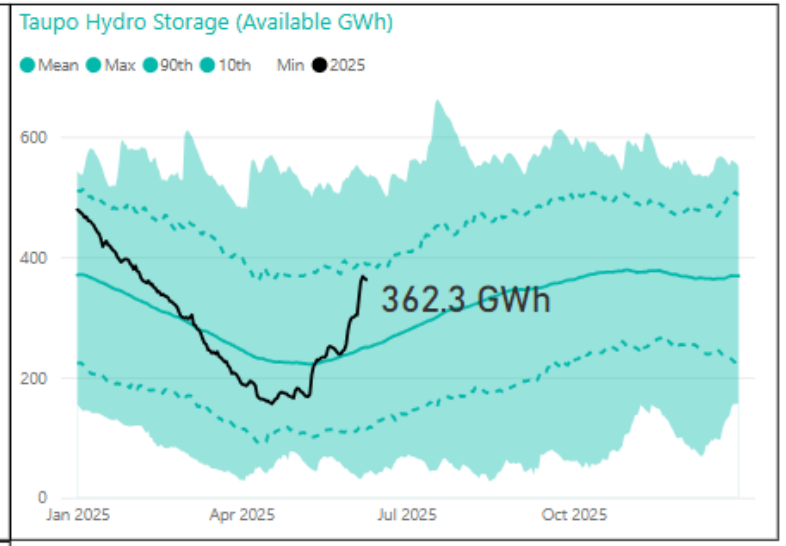
North Island Mean 7 Day Inflows (Available GWh)

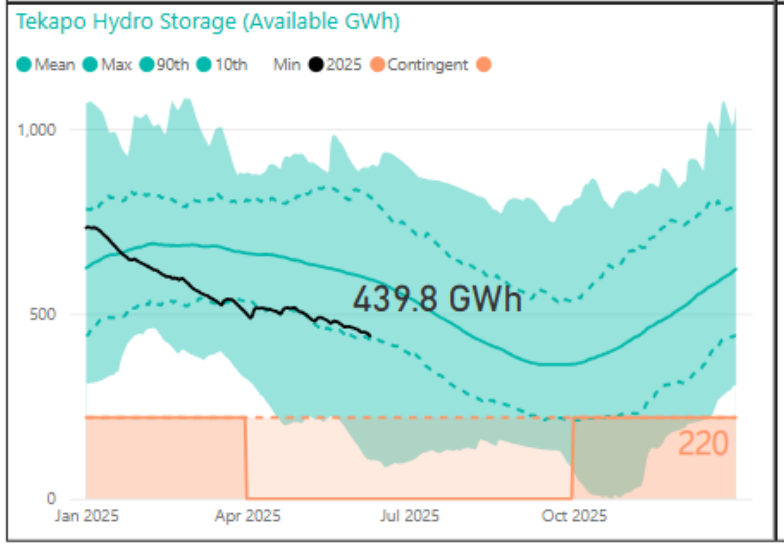


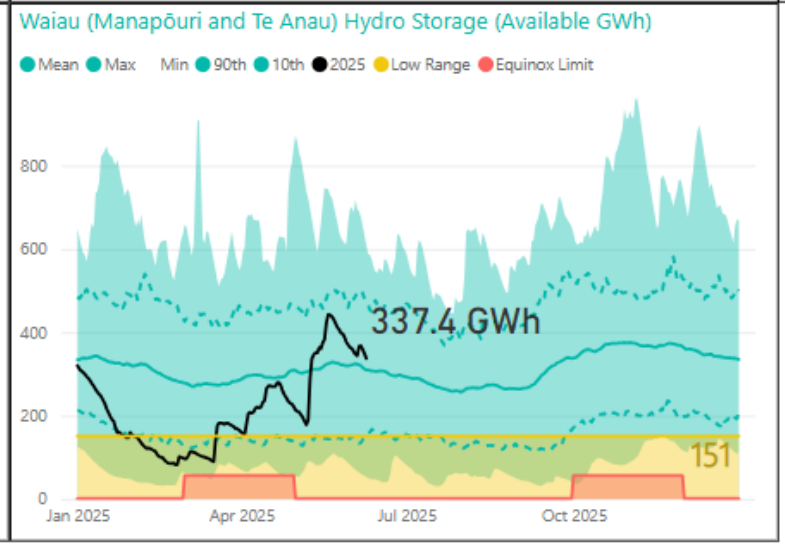
Hydro storage by catchment







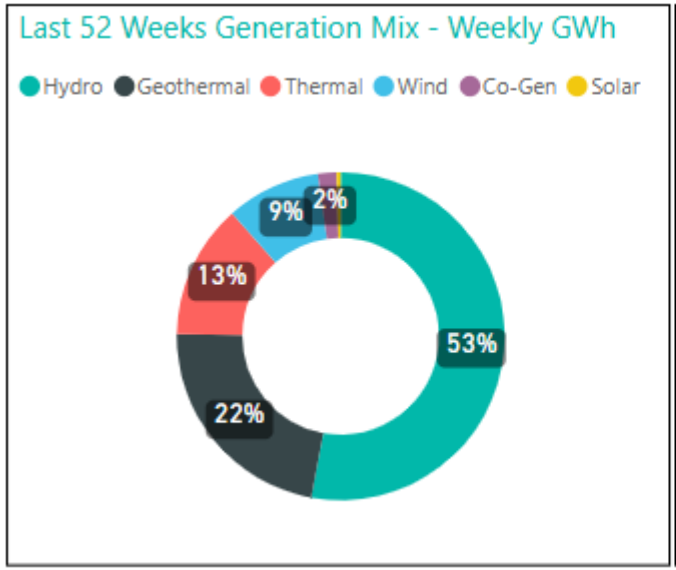


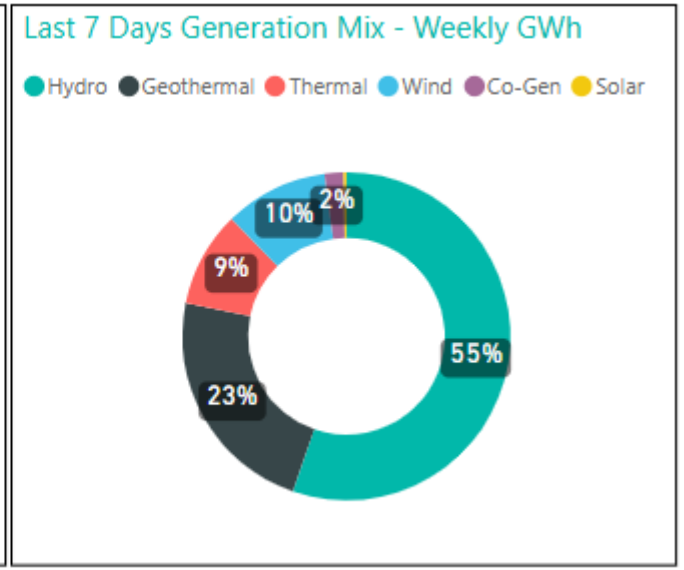


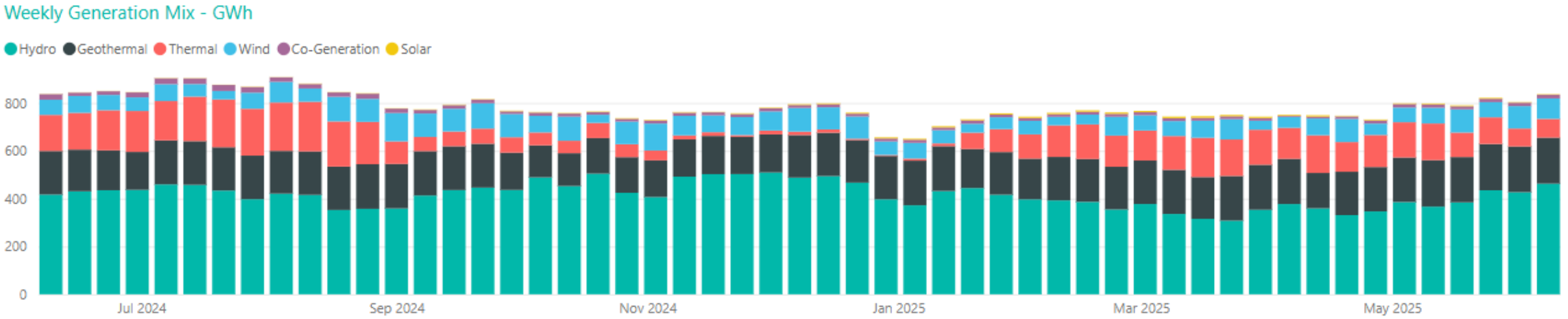
Lake	Current (%) avg
nz_controlled	95
si_controlled	91
hawea	87
pukaki	94
manapouri	103
te_anau	112
tekapo	74
taupo	145

Generation mix

- Hydro generation increased from 53% to 55%
- Thermal decreased from 14% to 9%
- Wind generation was slightly above average last week at 10%
- Geothermal was slightly above average at 23%

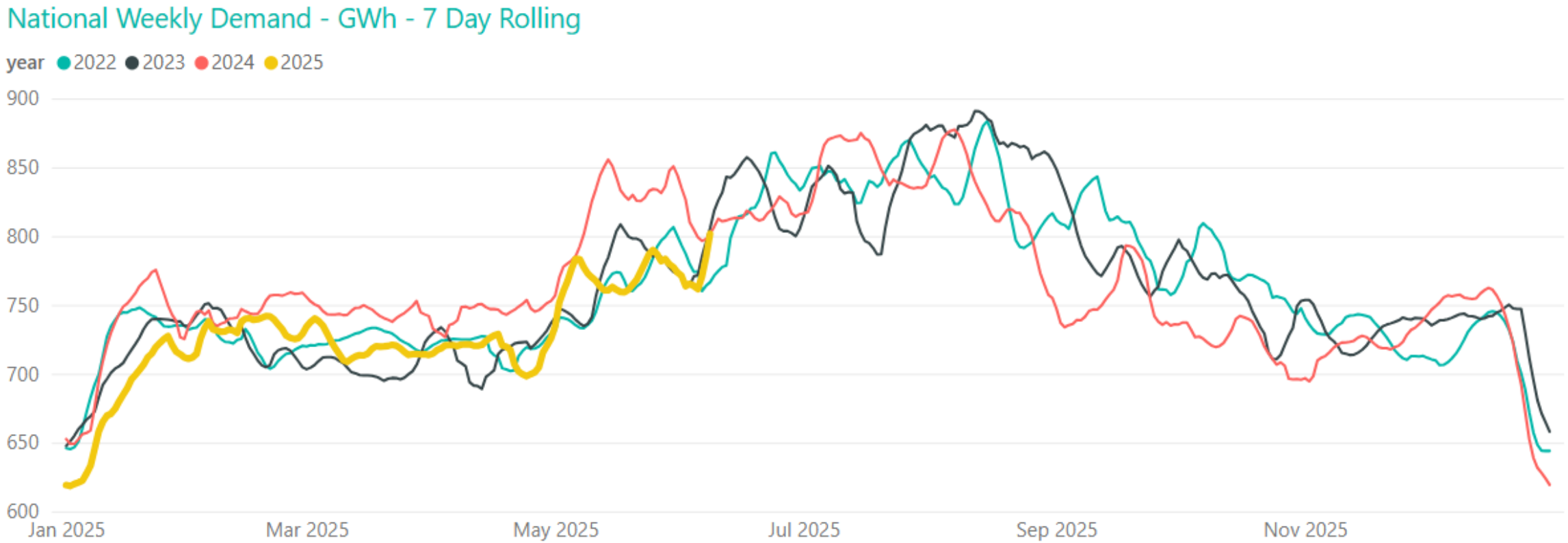






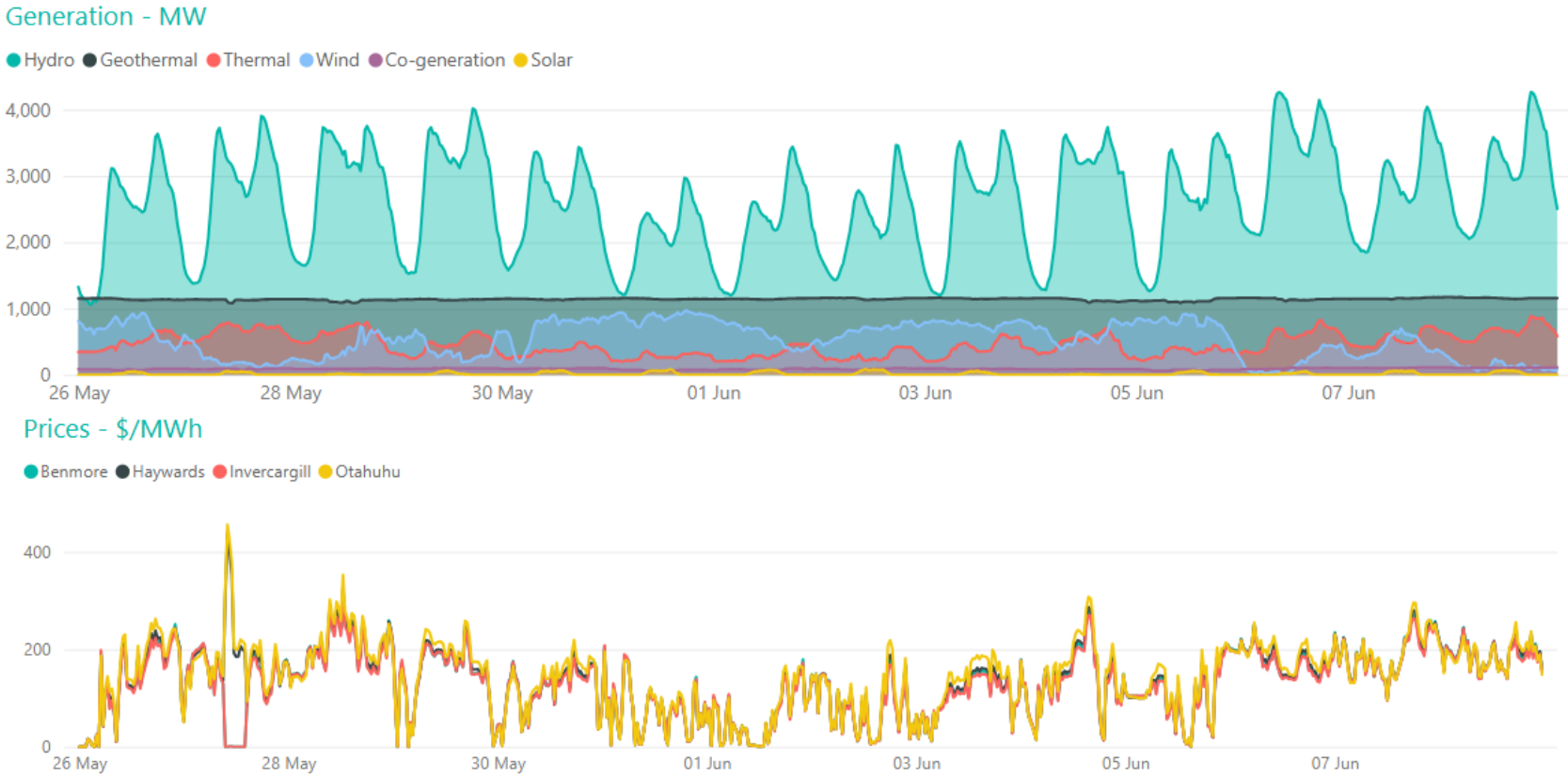
Demand

- Demand increased last week with much colder weather.
- Currently sitting at similar demand levels to this time in 2023 and 2024.
- 1,573 GWh in the last fortnight



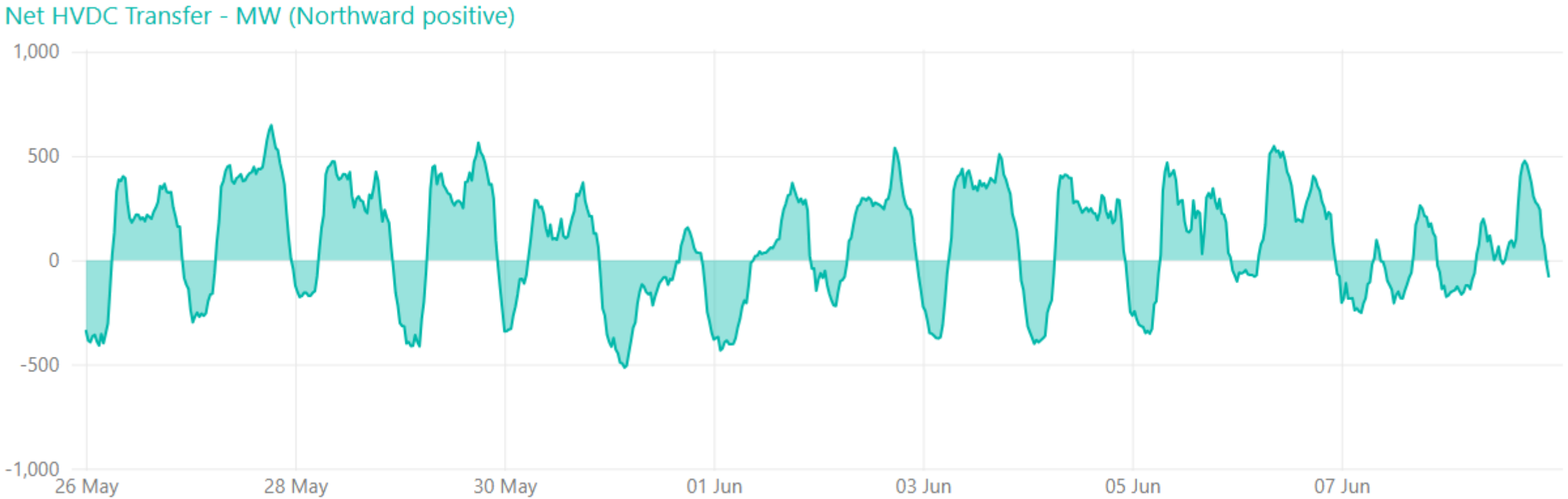
Pricing

- Average Ōtāhuhu price was $150/MWh last week, and $138/MWh the week prior.
    - In line with improving hydrology situation relative to the historic mean
- Price peaked at $456/MWh at Ōtāhuhu on 27 May at 10:00am during a planned HVDC pole 3 outage.
    - Price separation occurred over the period of this outage.
    - North Island Fast Instantaneous Reserve (FIR) prices peaked at $433/MWh during the outage.



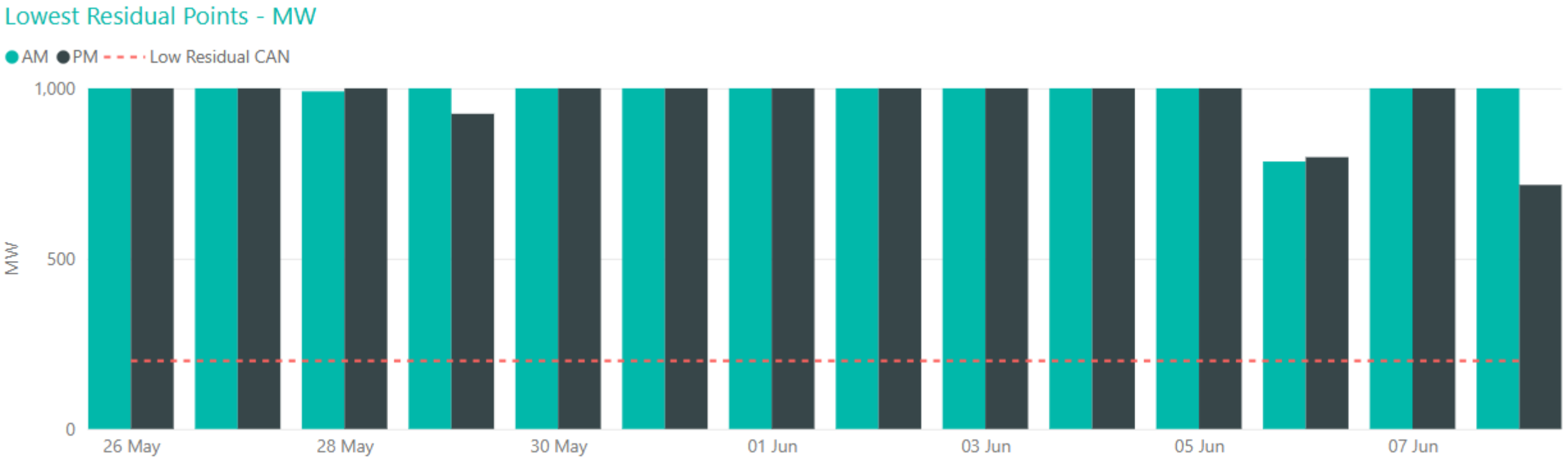
HVDC flow

- HVDC transfer continues to be northward since the last SO forum with hydro generation remaining at its average level and only slight increases in wind and geothermal generation
- Fortnightly total 56 GWh northward, 26 GWh southward



Capacity residual margins

- Residuals healthy over the last two weeks with over 700 MW of residual during all peaks.
- Lowest residual on Sunday 8 June due to the colder temperatures and very low wind generation.

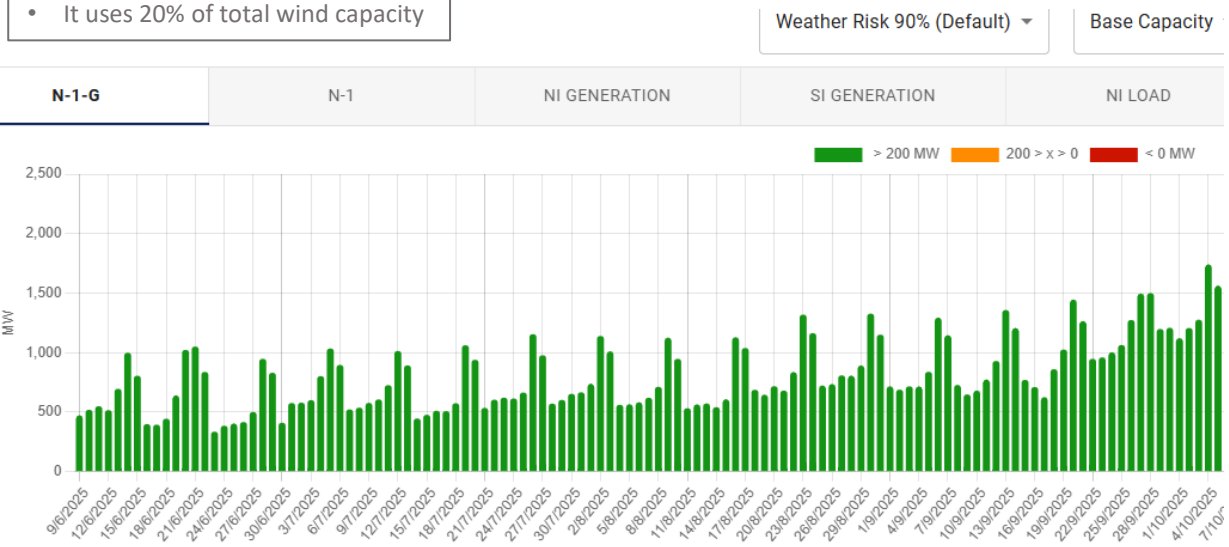


NZGB update

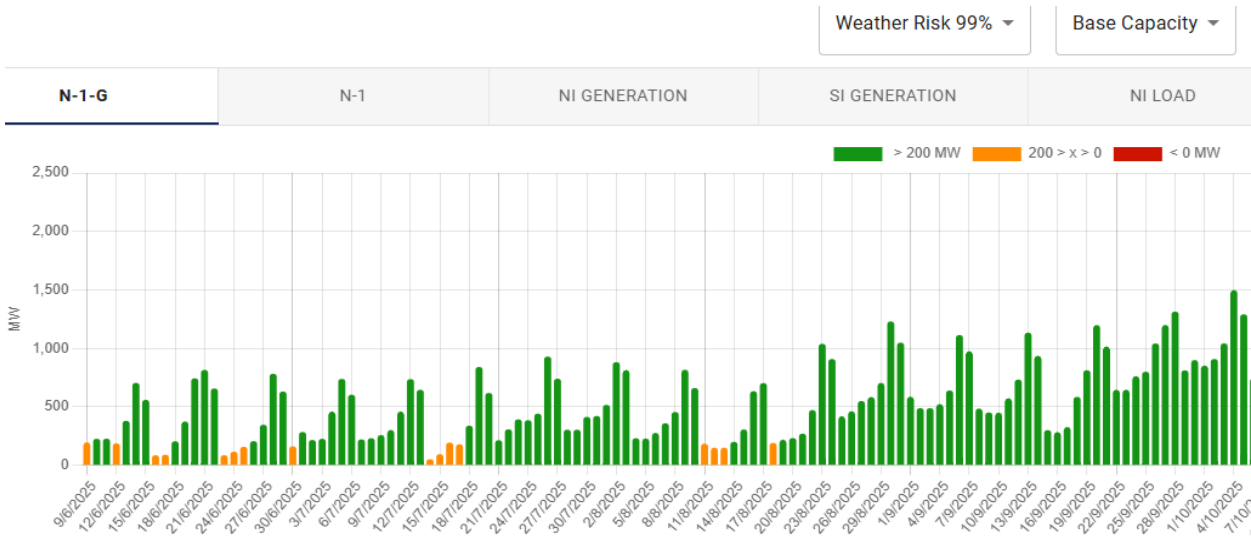
NZGB update: base capacity N-1-G

- N-1-G margins are currently looking healthy for Winter 2025
- Unit commitment has reduced slightly with thermal unit commitment averaging down

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

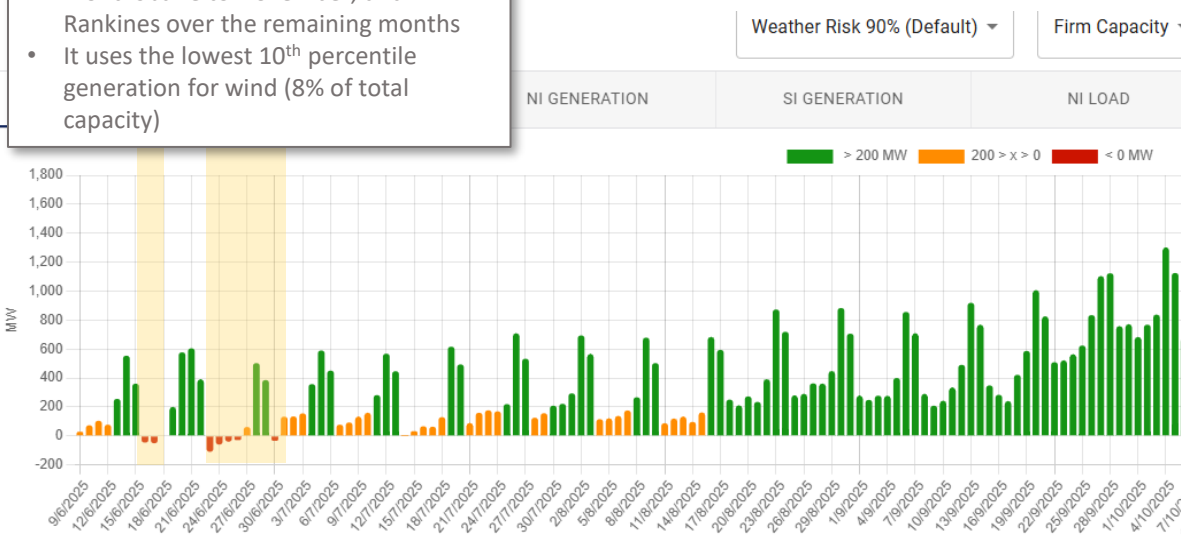


99th percentile load

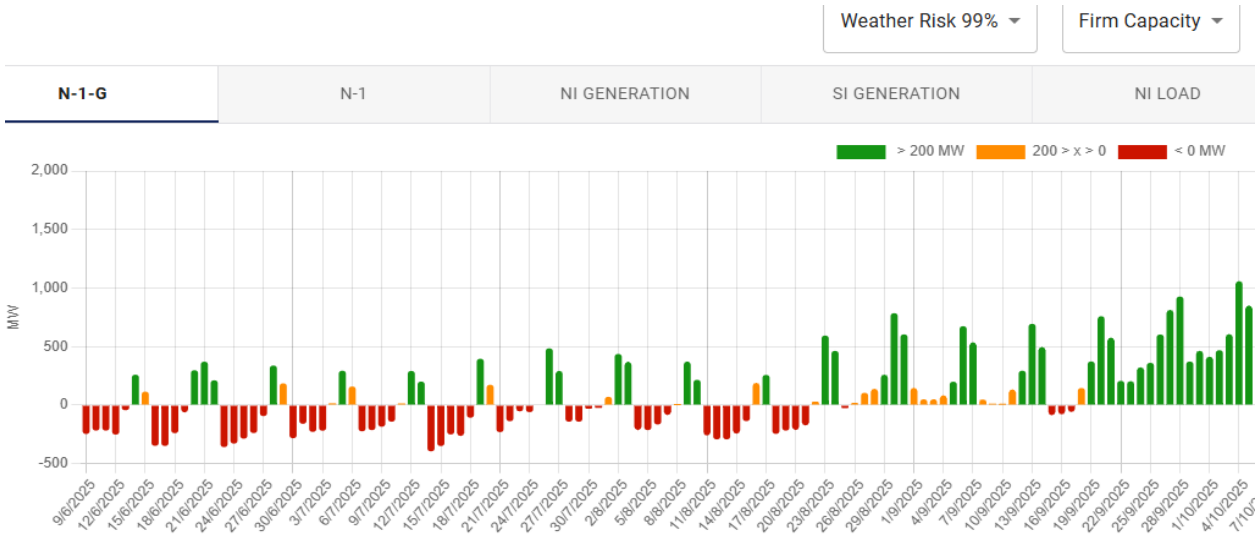
NZGB update: firm capacity only N-1-G

- Firm capacity scenario reflects units that historically operate for at least 90% of AM & PM peaks
- The 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 peak load periods

Firm capacity removes
- TCC (-360MW) all months,
- 1 HLY Rankine over winter months June to November, and 2 Rankines over the remaining months
- It uses the lowest 10th percentile generation for wind (8% of total capacity)



90th percentile load



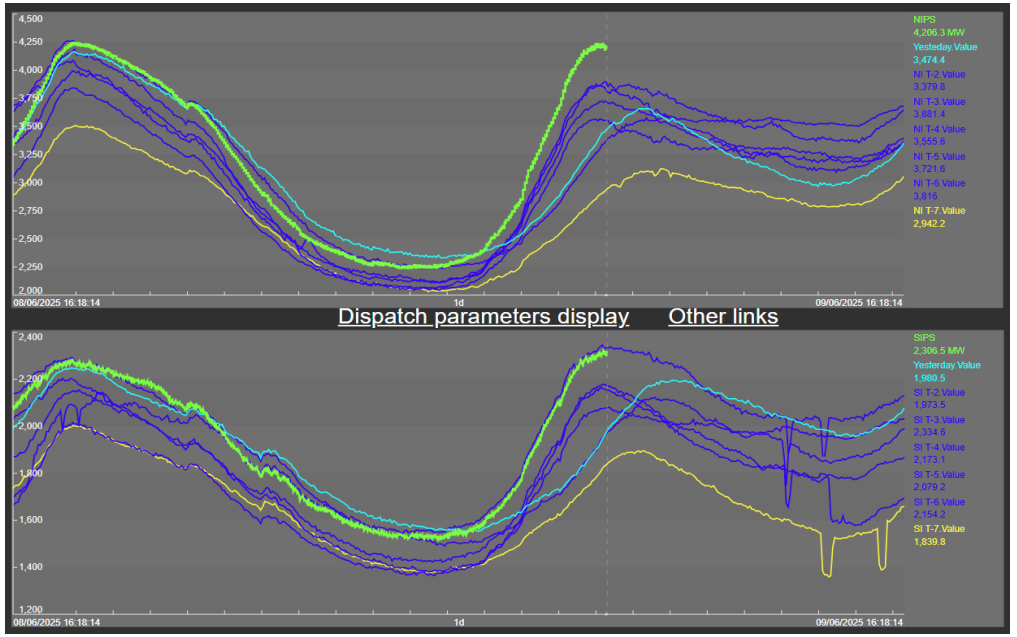
99th percentile load

Operational update

NCC Control Room Happenings...

- **Preparing for the first real ‘cold snap’ of Winter**
  - Closely monitoring schedules / forecasts
  - MetService briefings
  - No low residual / shortfall issues

- **Maintaining and building capabilities & networks**
  - Completing Round 1 of Team Training for 2025
  - Energy Coordinator -> Security Coordinator training
  - Onboarding new start
  - Southern NI Asset Tour (thanks!)
  - Hosting external visitors in control rooms

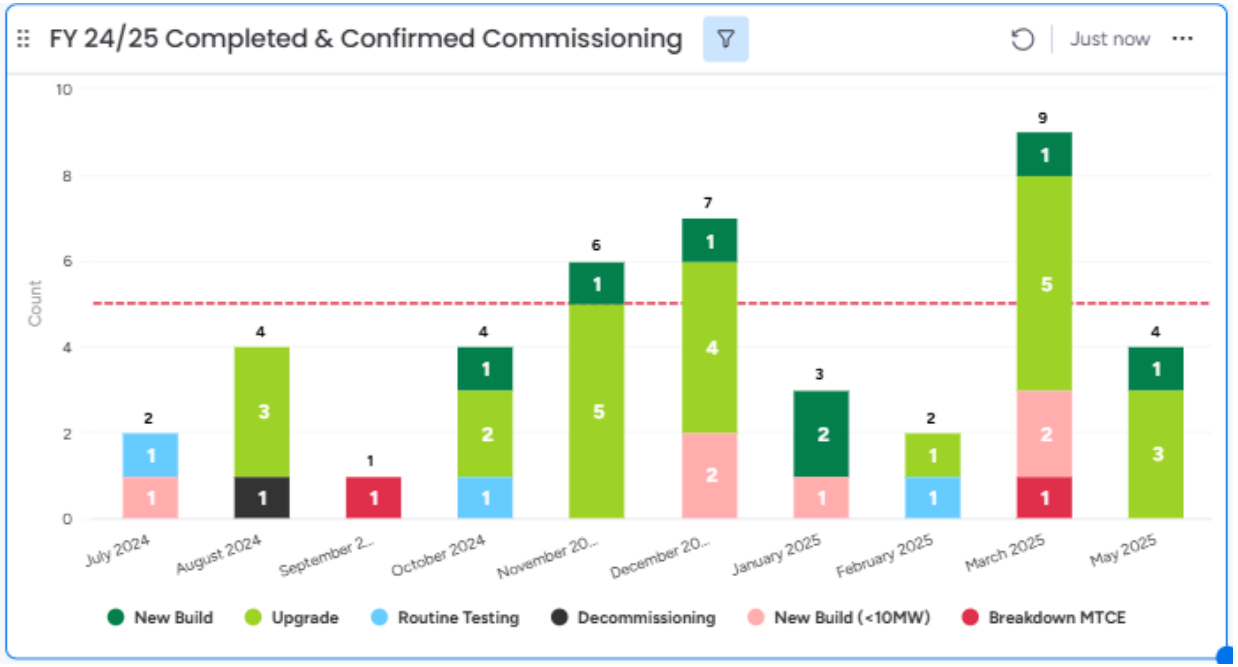


SO Generation Commissioning & Testing update

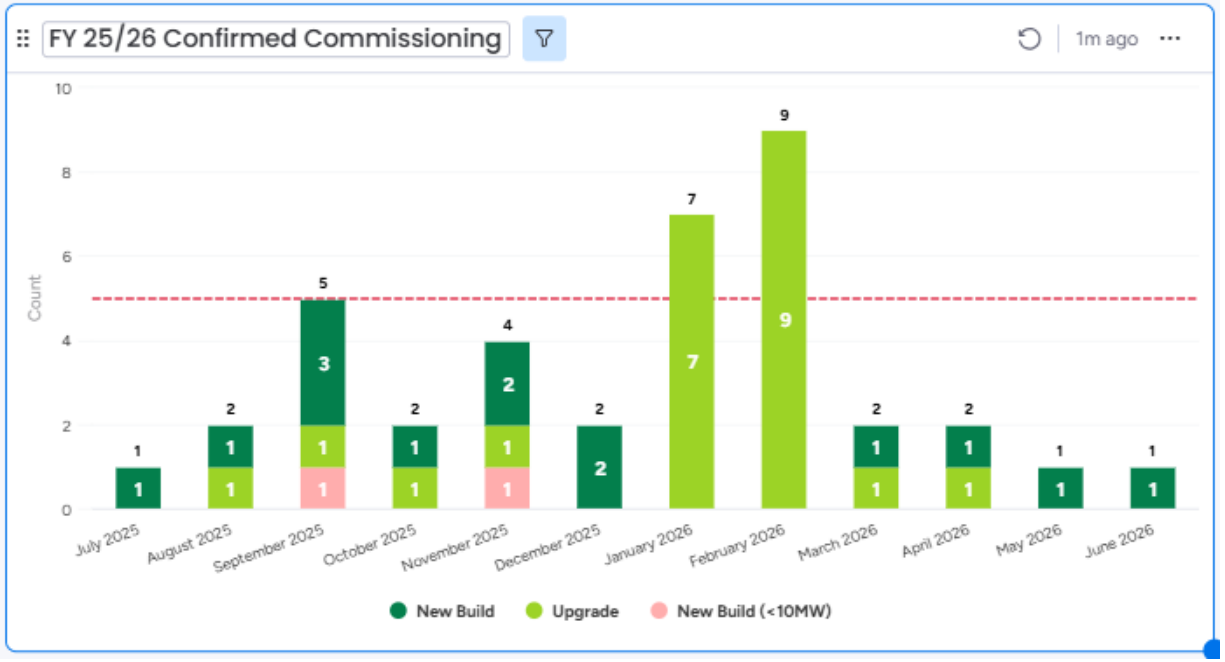
In-flight commissioning, routine testing & upgrade projects

Commissioning

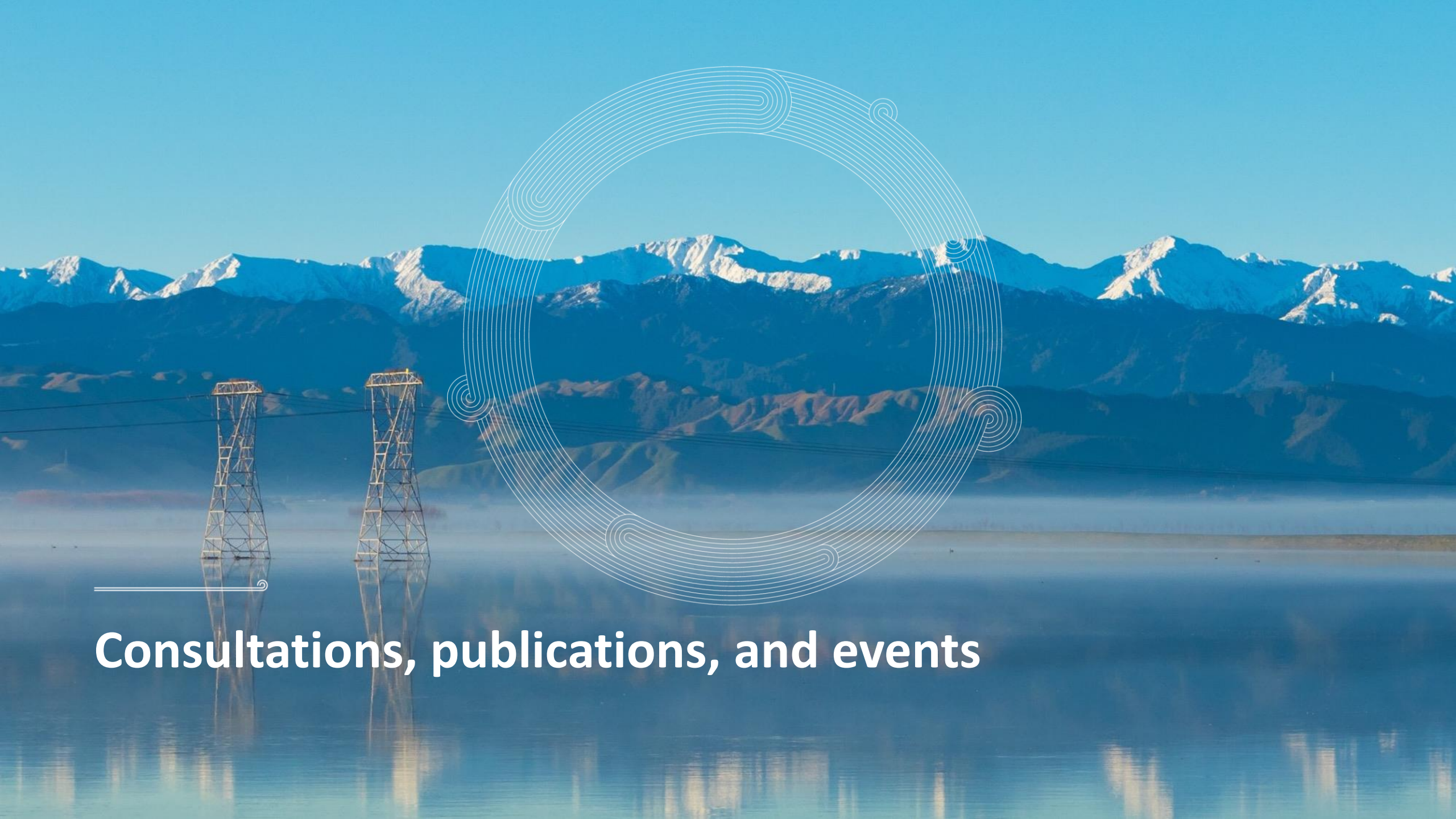
Project	Project Type	Project Description	Stage	Net New Capac...	Connection	Asset Owner	Energy Type
PSF - Pukenui Solar Farm	New Build	New Solar Farm connecting to Top Energy network	Commissioning	17.16	Top Energy	FNSF/Aquila	Solar
OHB - Unit Capability Increase	Upgrade	Allow units to operate higher in the capability curve	Commissioning	4	Transpower	Meridian	Hydro
OHC - Unit Capability Increase	Upgrade	Allow units to operate higher in the capability curve	Commissioning	8	Transpower	Meridian	Hydro



Total Projects: 42
Total New MW: 299



Total Projects: 38
Total New MW: 932



Consultations, publications, and events

Consultations, publications, and events

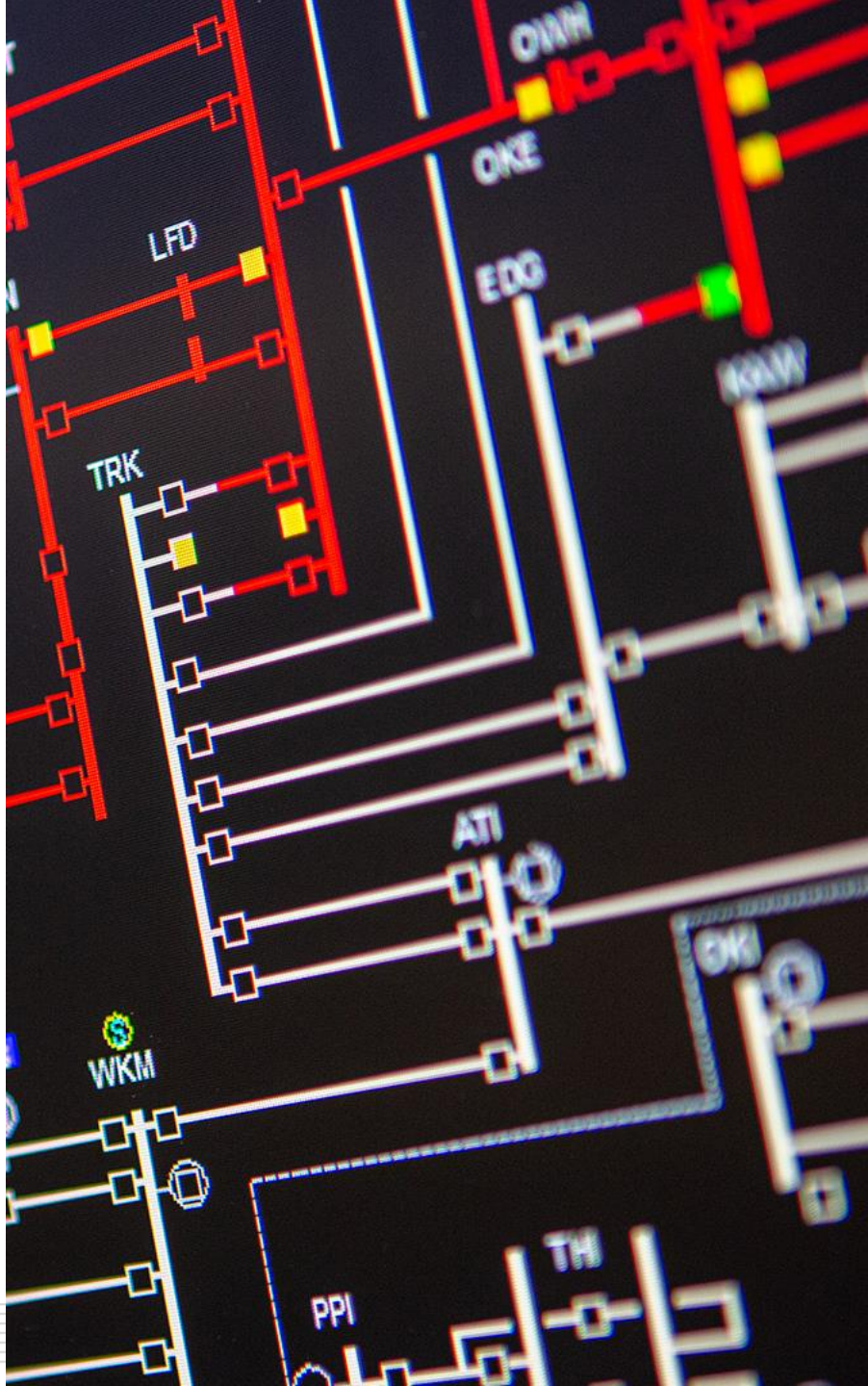
Consultation on our latest **Credible Event Review** into groups of generating units closes tomorrow. Submissions are due by 5pm Wednesday 11 June.

We have submitted our draft **Ancillary Services Procurement Plan** and amendment proposal to the EA for consideration. The updated draft Procurement Plan and proposal documents will be published on our website today.

Thanks to those who contributed to our draft **2025 Security of Supply Assessment** consultation, the five submissions received are available on our website. The final SOSA will be published by 30 June.

The **May Energy Security Outlook** is available on our website.

The 24 June forum will be extended so we can provide an update on the recently publish **Energy Security Outlook 101** document and the role the ESO plays in the security of supply forecasting and information framework.



Any questions
Please raise your hand