



TRANSPower

System Operator Industry Forum

6 October 2026



Today's agenda

- Key messages
- Market update
- Security of supply update
- NZGB update
- Outage update – next four weeks
- Operational update
- Manapouri stability constraint
- Whakamaru 220kV Bus outage constraint
- Consultations, publications, and events
- Questions / Pātai





Key Messages

- National hydro storage continues to sit above average for this time of year. With two large solar farms (Tauhei and Kowhai Park) now reaching full capacity we saw record solar generation last week at 3% of the mix.
- With seasonal plant outages now progressing, lower residual generation margins are occurring during colder and low wind periods.
- Upcoming Wairakei Ring outages in November need industry focus on unit commitment, plant availability, and flexibility.
- Maintaining frequency has at times required flows across the inter-island link to be constrained.
- Save the date: in-person forum planned for 12 November.



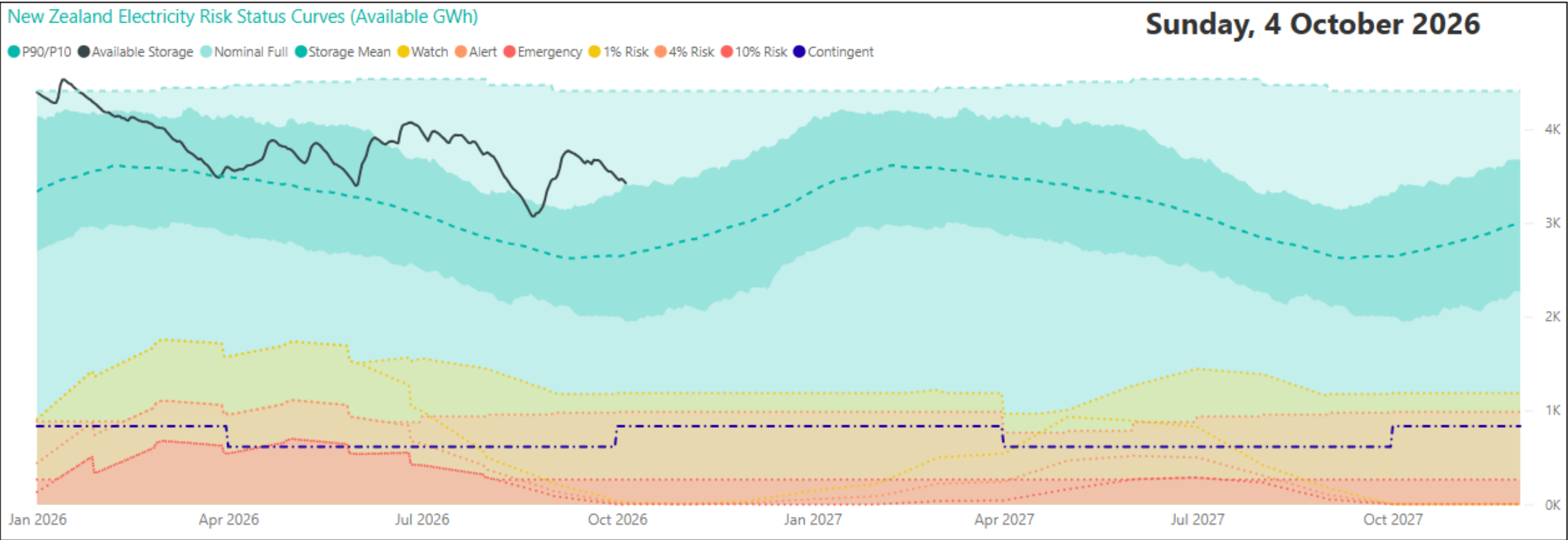
Market update

Energy: National hydro storage

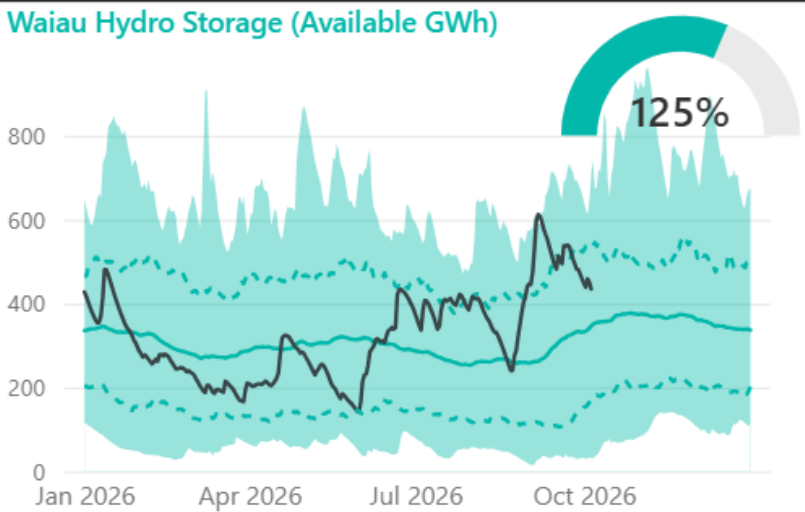
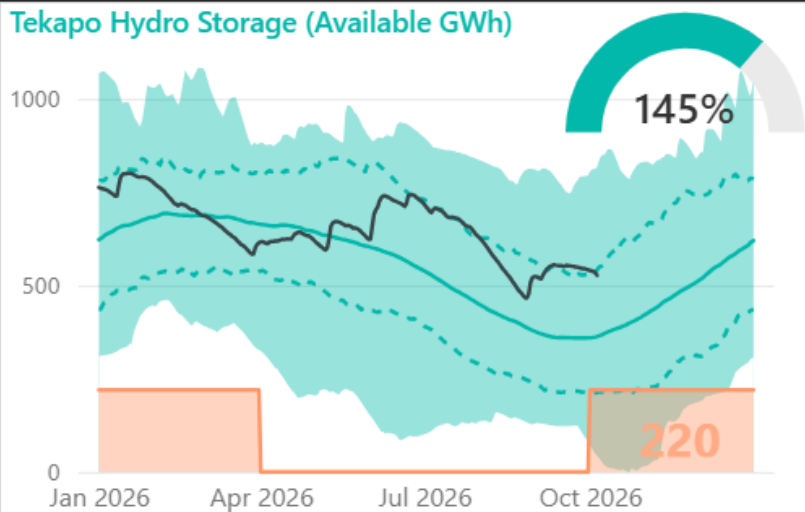
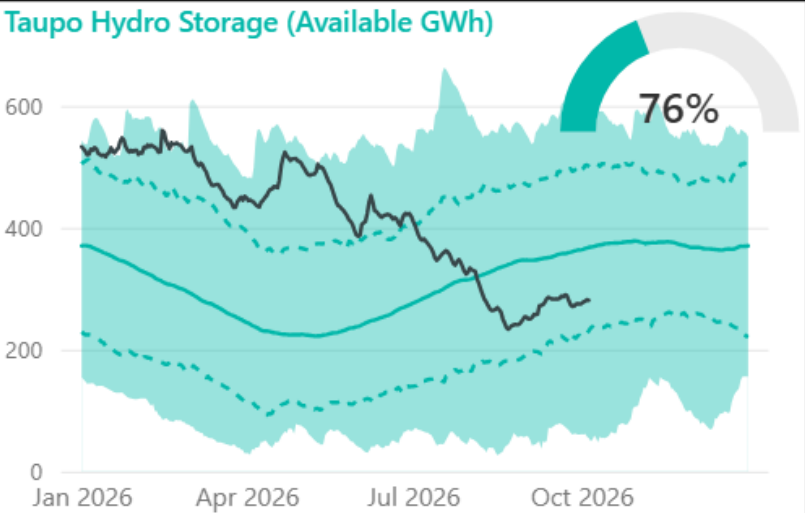
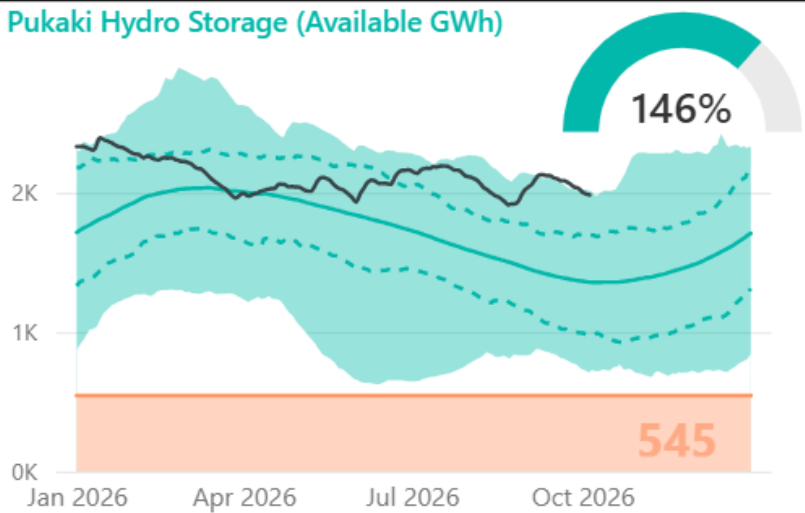
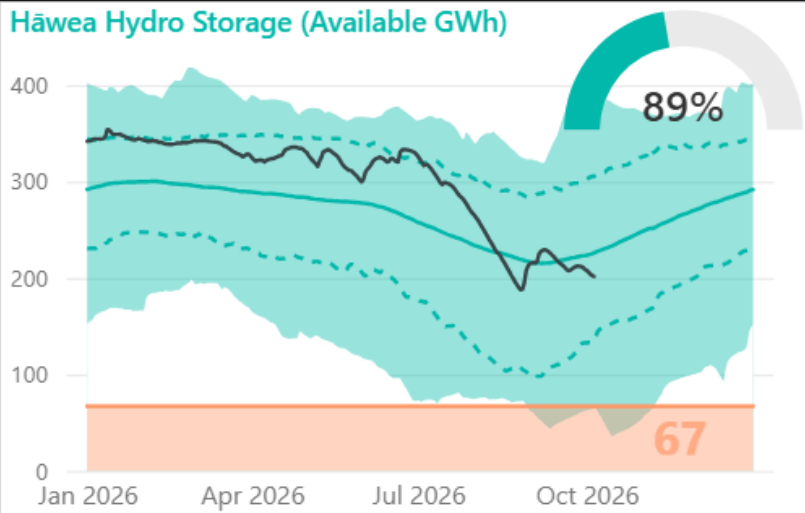
National hydro storage remains very healthy and above average. No significant changes since last forum

	Hydro storage level (% of mean ▲ / ▼)		
	New Zealand	South Island	North Island
Last forum	139%	148%	80%
Now	130% ▼	139% ▼	77% ▼

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



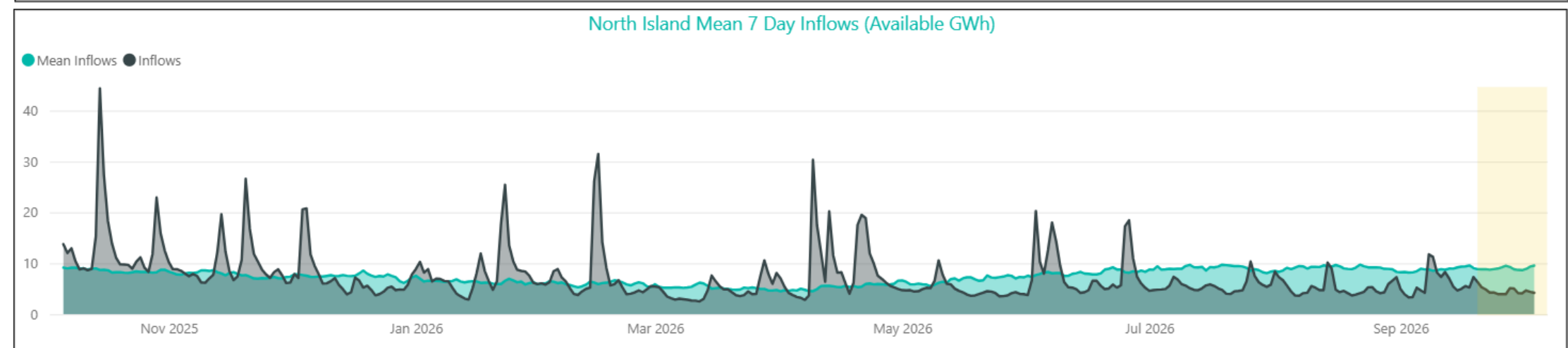
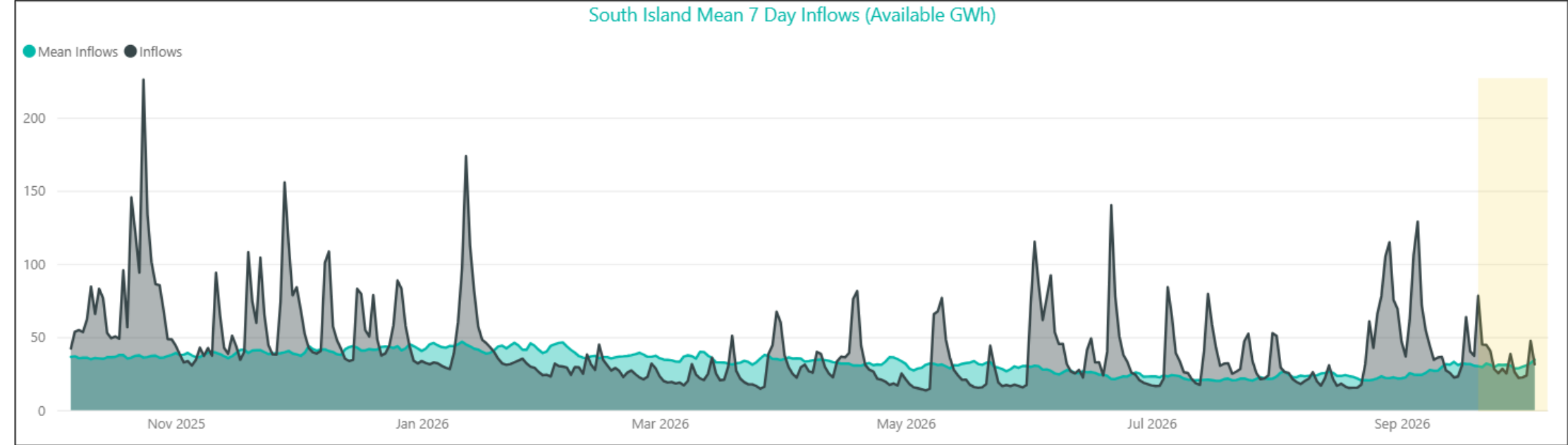
Hydro storage by catchment



Lake	Percent	GWh	Mean
Hāwea	89%	202	226
Manapōuri	142%	171	120
New Zealand	129%	3428	2662
Pūkaki	146%	1983	1358
South Island	137%	3146	2294
Taupō	76%	281	368
Te Anau	117%	264	226
Tekapo	145%	527	363

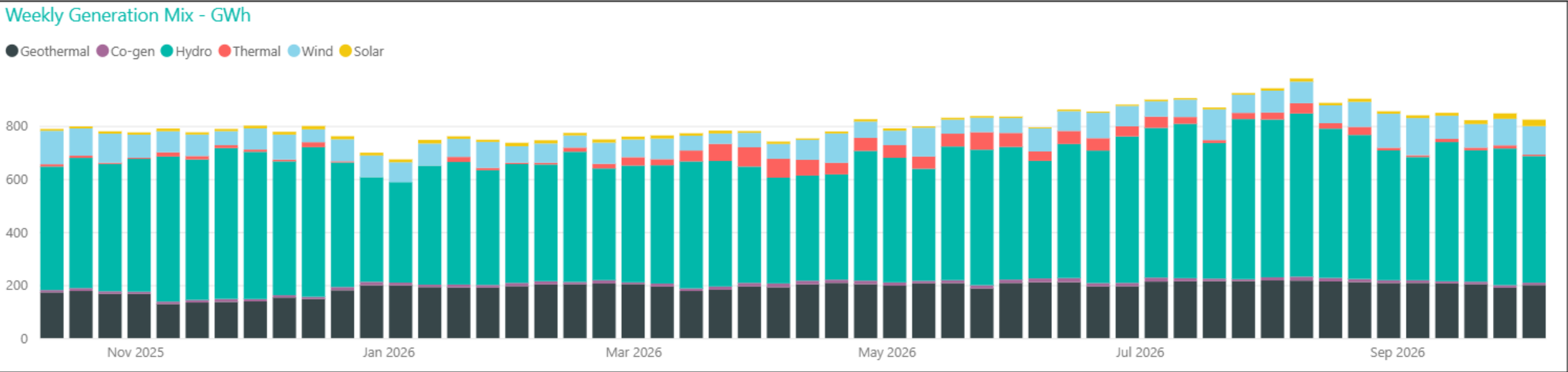
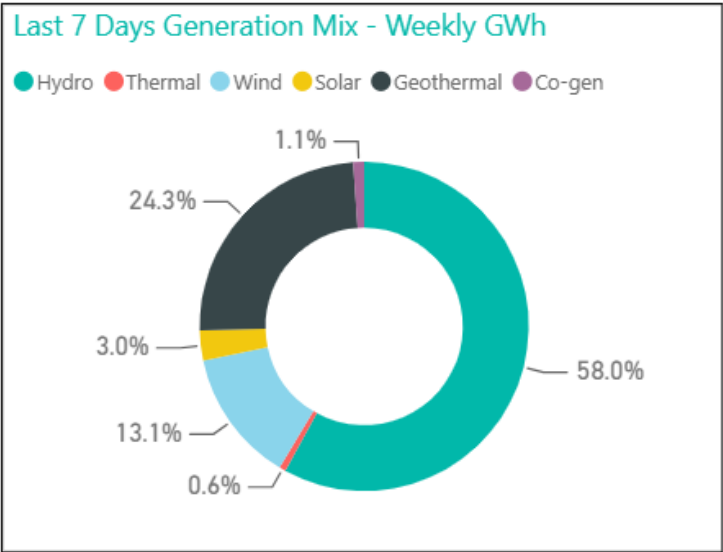
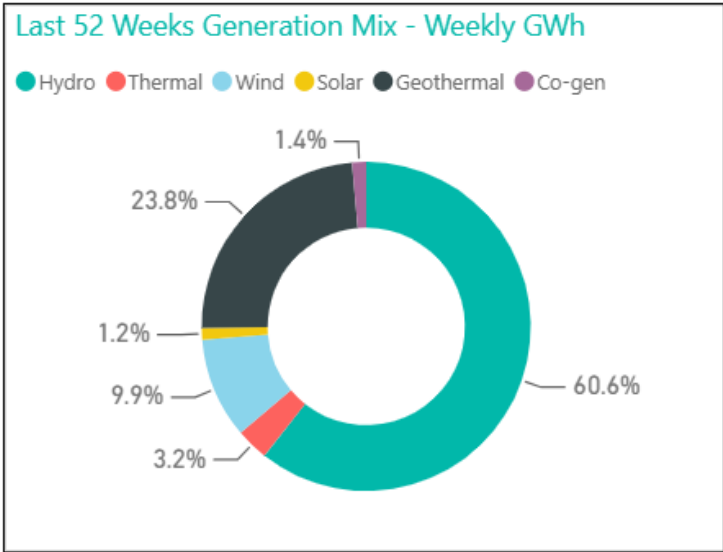


Hydro inflows



Generation mix

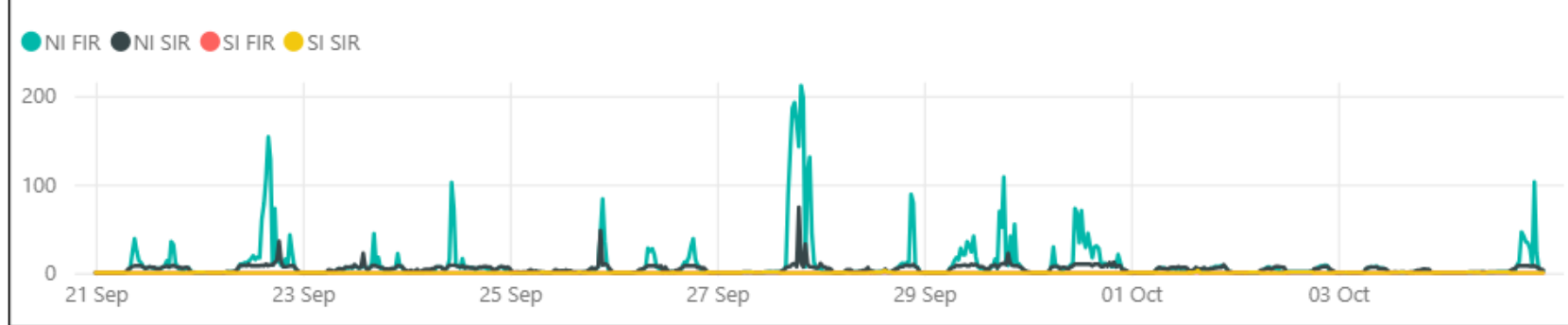
- Hydro below average at 58%
- Thermal below average at < 1%
- Geothermal close to average ~24%
- Wind above average at 13%
- Record solar reaching 3%
- Cogen at 1%



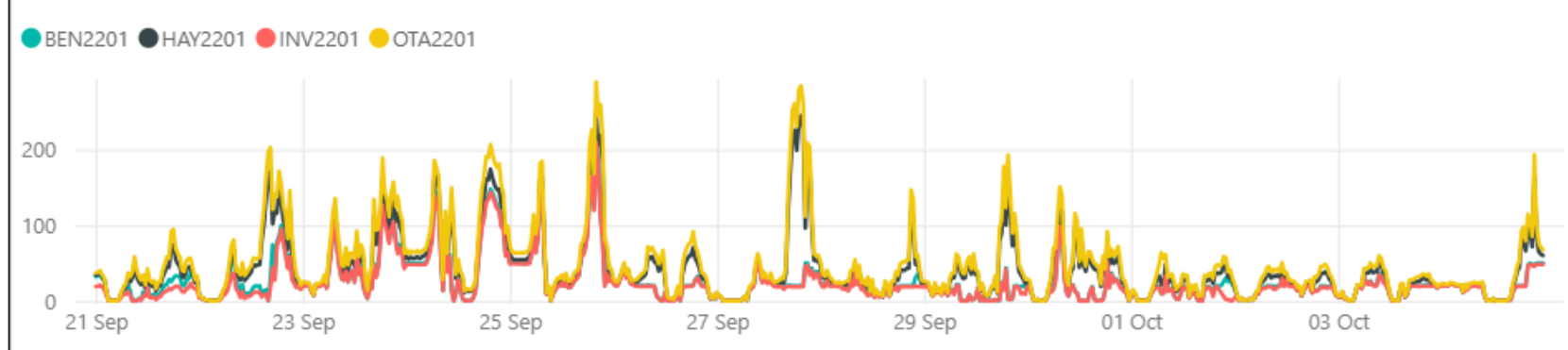
Pricing

- Fair amounts of price separation over the last fortnight due to the high amounts of hydro generation and sudden low wind periods
- Price separation between Benmore and Invercargill on the 1st Oct.
- Price at Ōtāhuhu averaged \$35/MWh last week and \$67/MWh the week before
- Prices peaked at \$290/MWh at Ōtāhuhu on Friday 25 September during a low wind evening peak

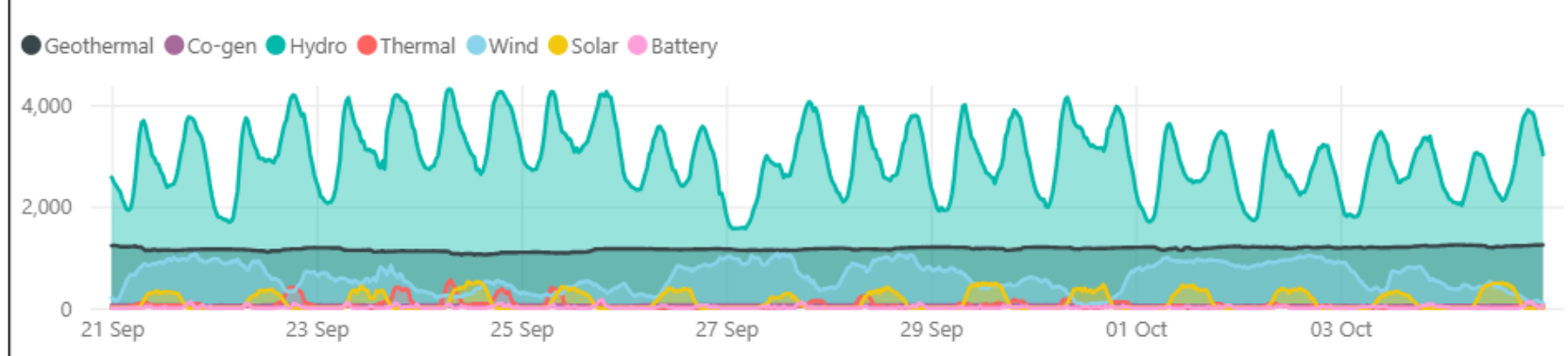
Reserve Prices - \$/MW



Energy Prices - \$/MWh

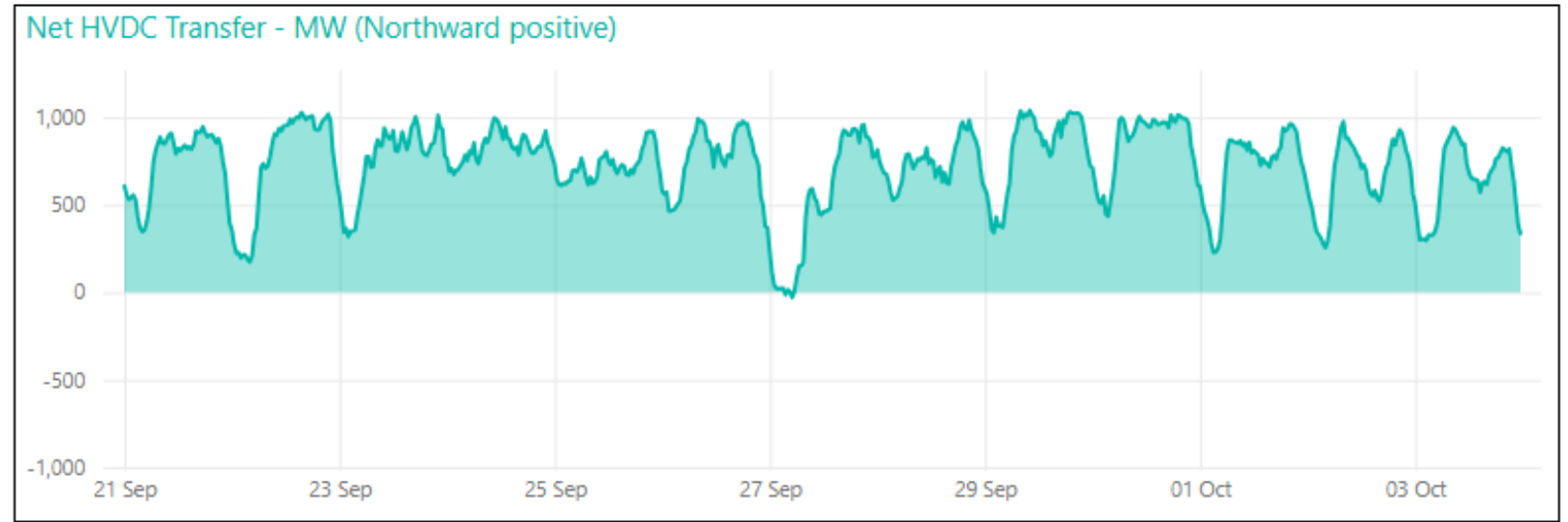
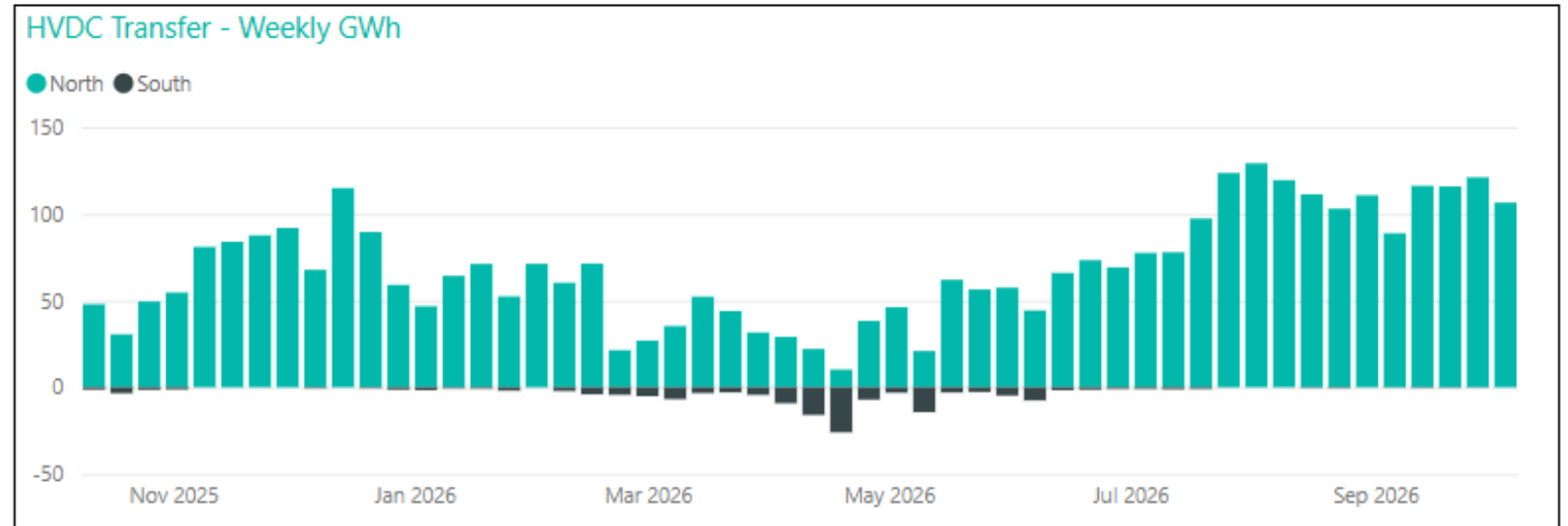


Generation - MW



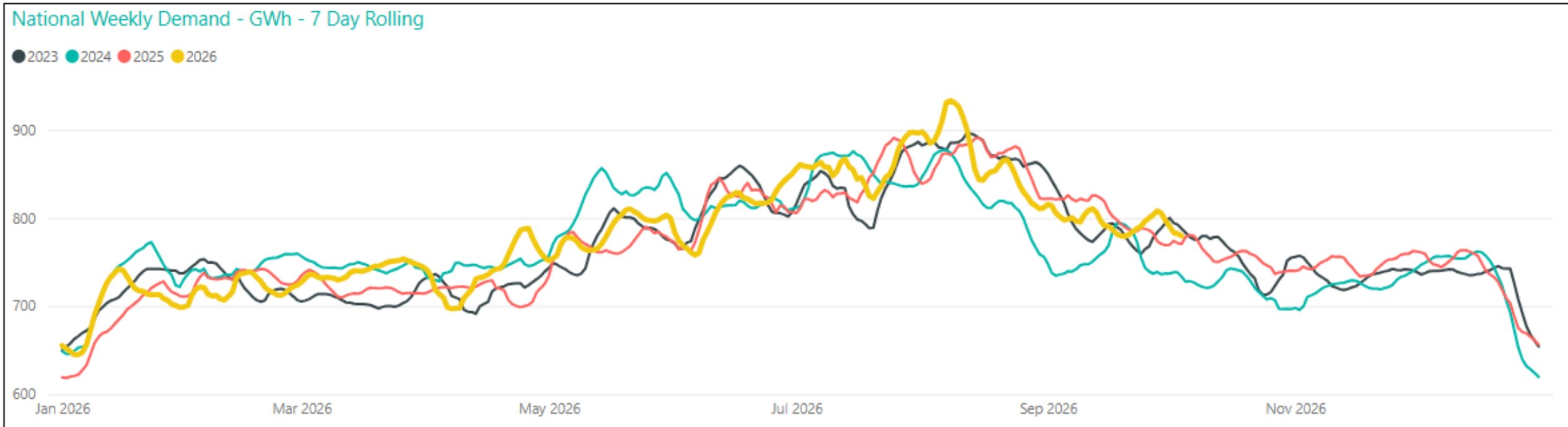
HVDC transfer

- HVDC transfer was almost entirely northward during the last fortnight.
- Northward transfer was 121 GWh during the first week and 106 GWh in the second



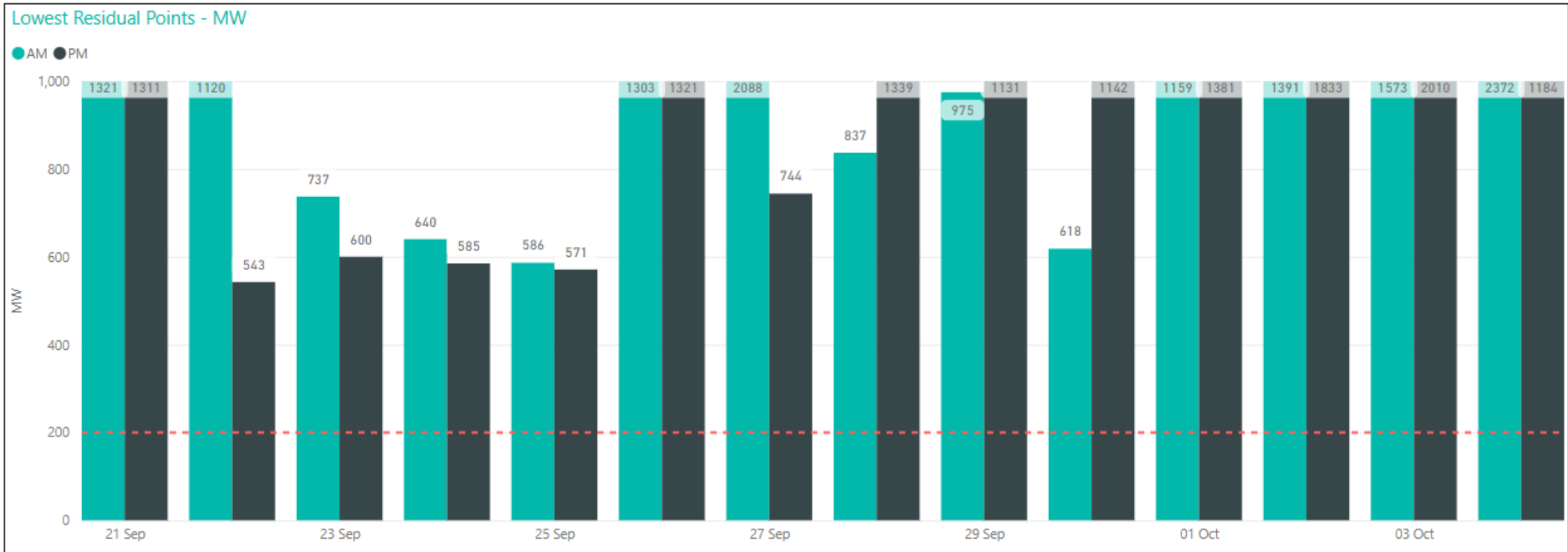
Demand

- Peak demand reached 6,217 MW on the morning of Thursday 24 September
- In total, demand was 780 GWh last week and 804 GWh the week prior



Capacity residual margins

- Healthy residuals overall
- The lowest residual occurred on Tuesday 22 September during a low wind generation period





Security of Supply update

Energy Security Outlook

Fuel Capability Case

Changes in September'26:

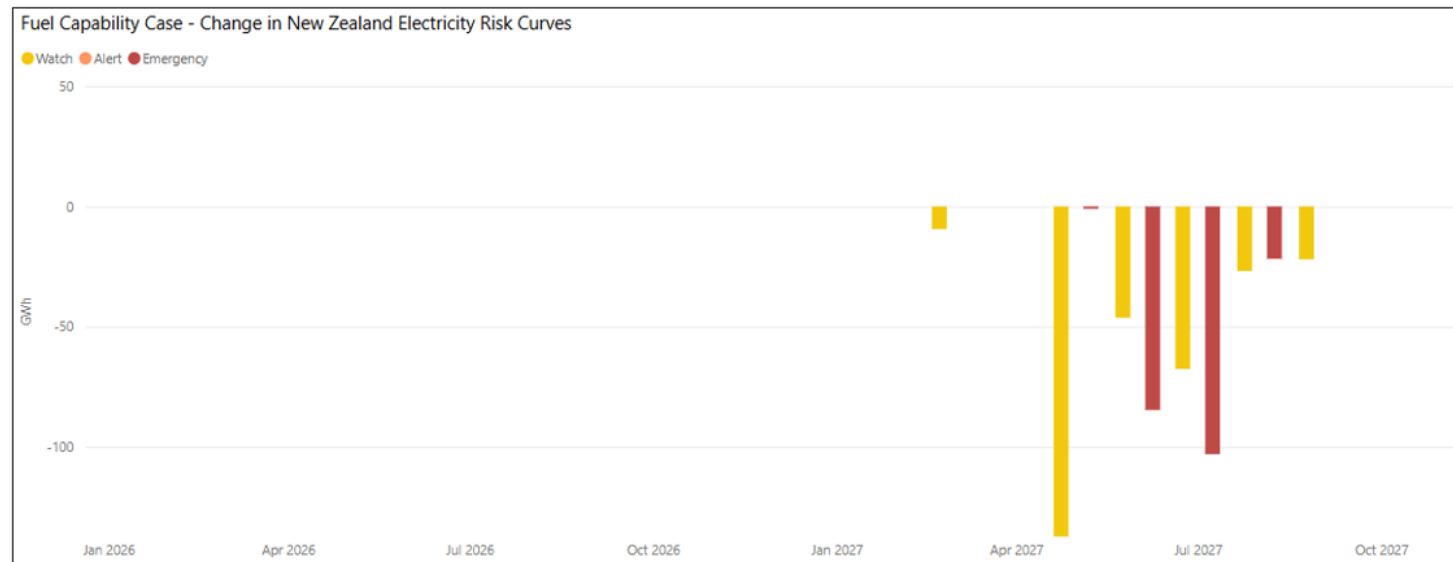
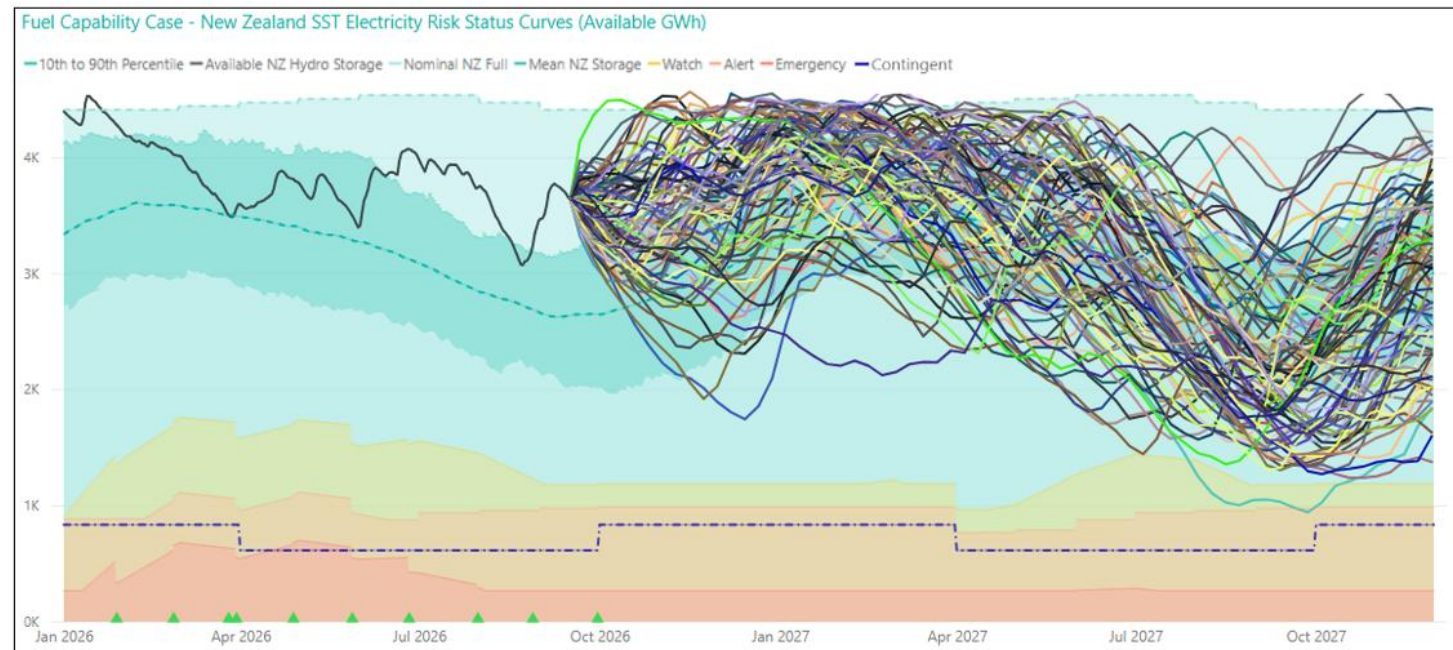
- Coal stockpile near maximum, AGS at (~75%) at start of September
- Increased gas availability for electricity generation from Methanex planning to idle its NZ production in 2027
- Additional commissioning project in 2027

Decreases of up to:

- 137 GWh Watch (May 2027)
- 103 GWh Emergency (July 2027)

SSTs (Simulated Storage Trajectories) crossing NZ:

	Watch	Alert	Emergency
2026	0	0	0
2027	1	1	0



Energy Security Outlook

Contracted Fuel Case

Available thermal energy restricted to currently secured (firm) contracts by generators

Changes in September'26:

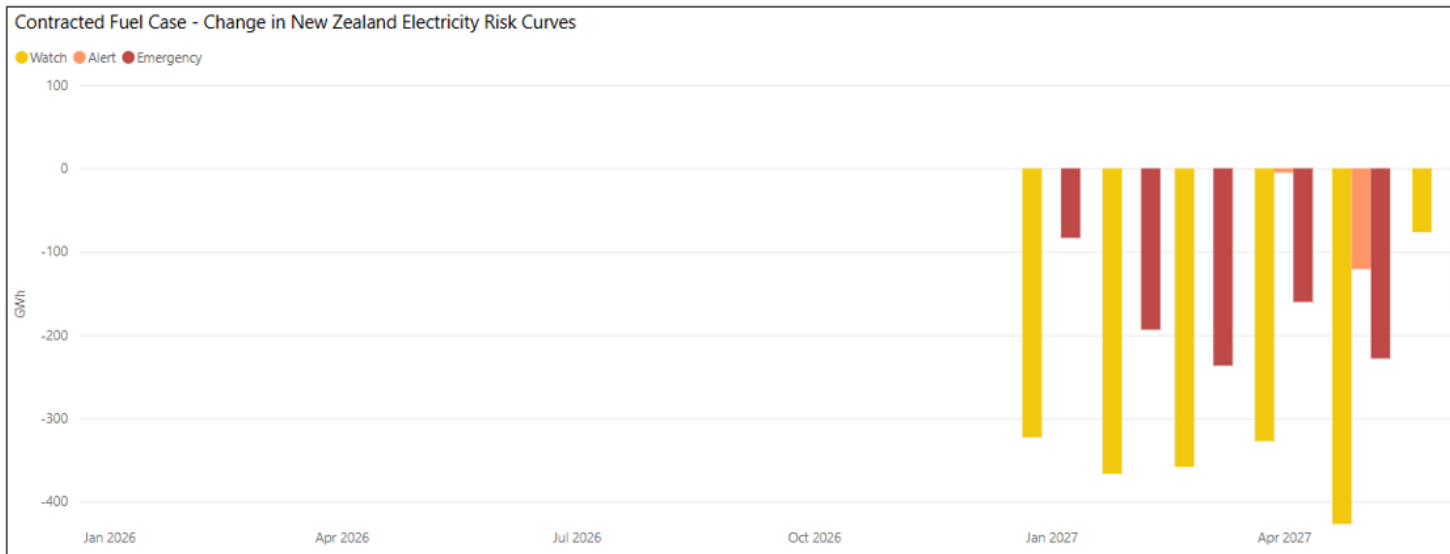
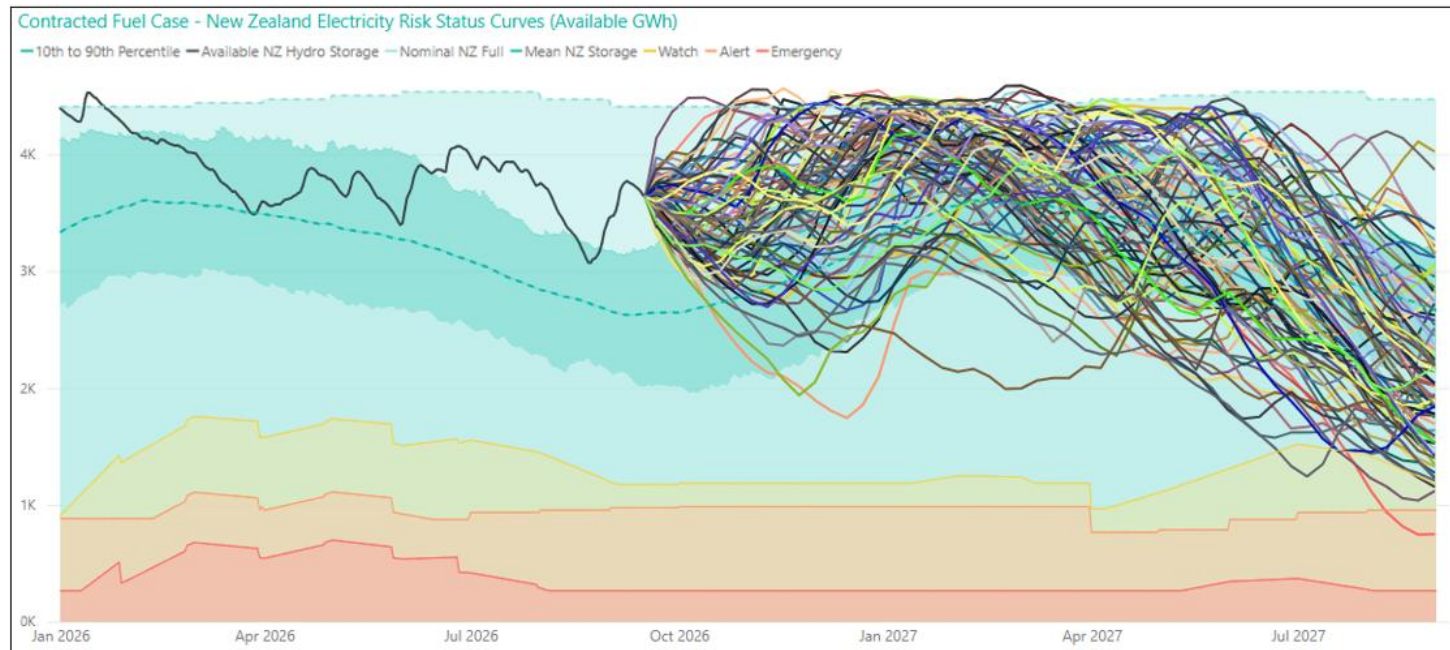
Increased contracted gas volumes from generators securing Methanex gas in 2027

Decreases of up to:

- 427 GWh Watch (May 2027)
- 237 GWh Emergency (March 2027)

SSTs (Simulated Storage Trajectories) crossing NZ:

	Watch	Alert	Emergency
2026	0	0	0
2027	5	1	0



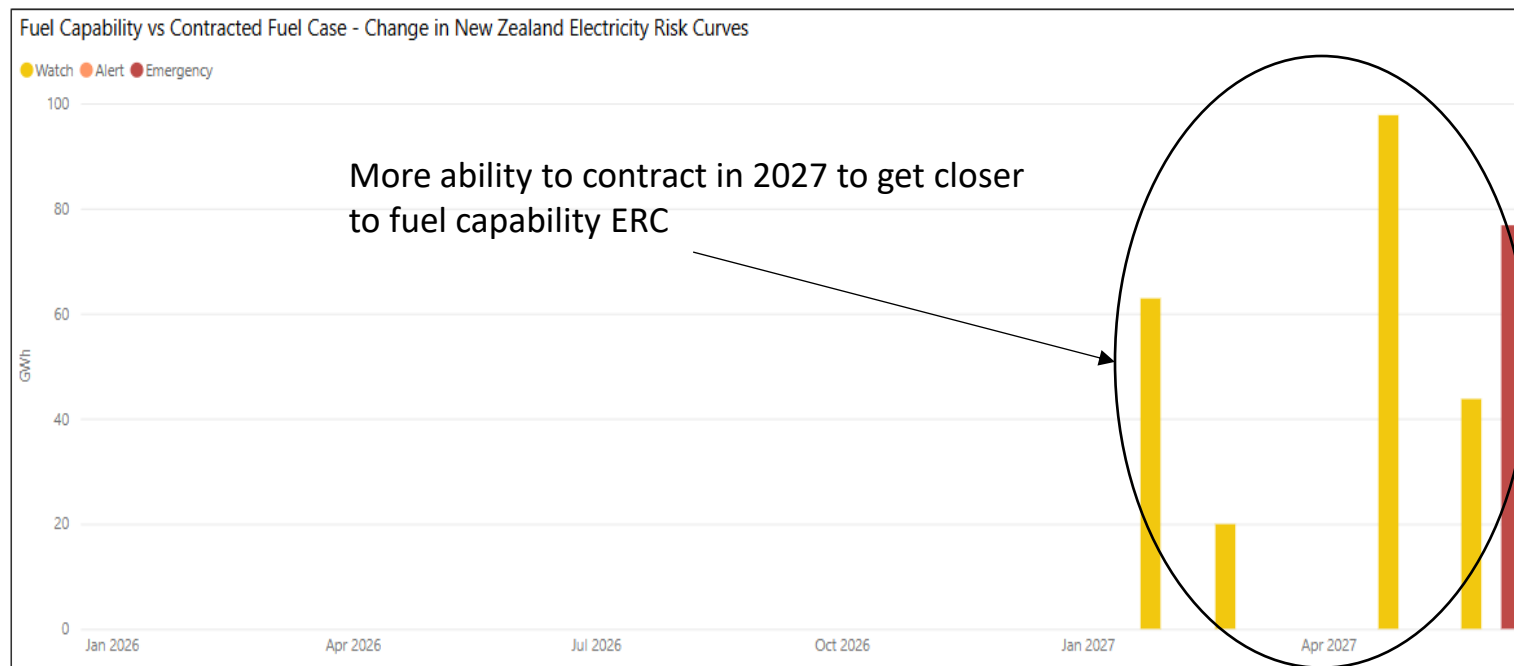
Energy Security Outlook

Fuel Capability vs Contracted Fuel Case

- All the system's thermal generation capability is currently deliverable in 2026
- The gap is present in 2027 (albeit smaller compared to last month update), reflecting the market's tendency to contract fuel closer to need

Differences of up to:

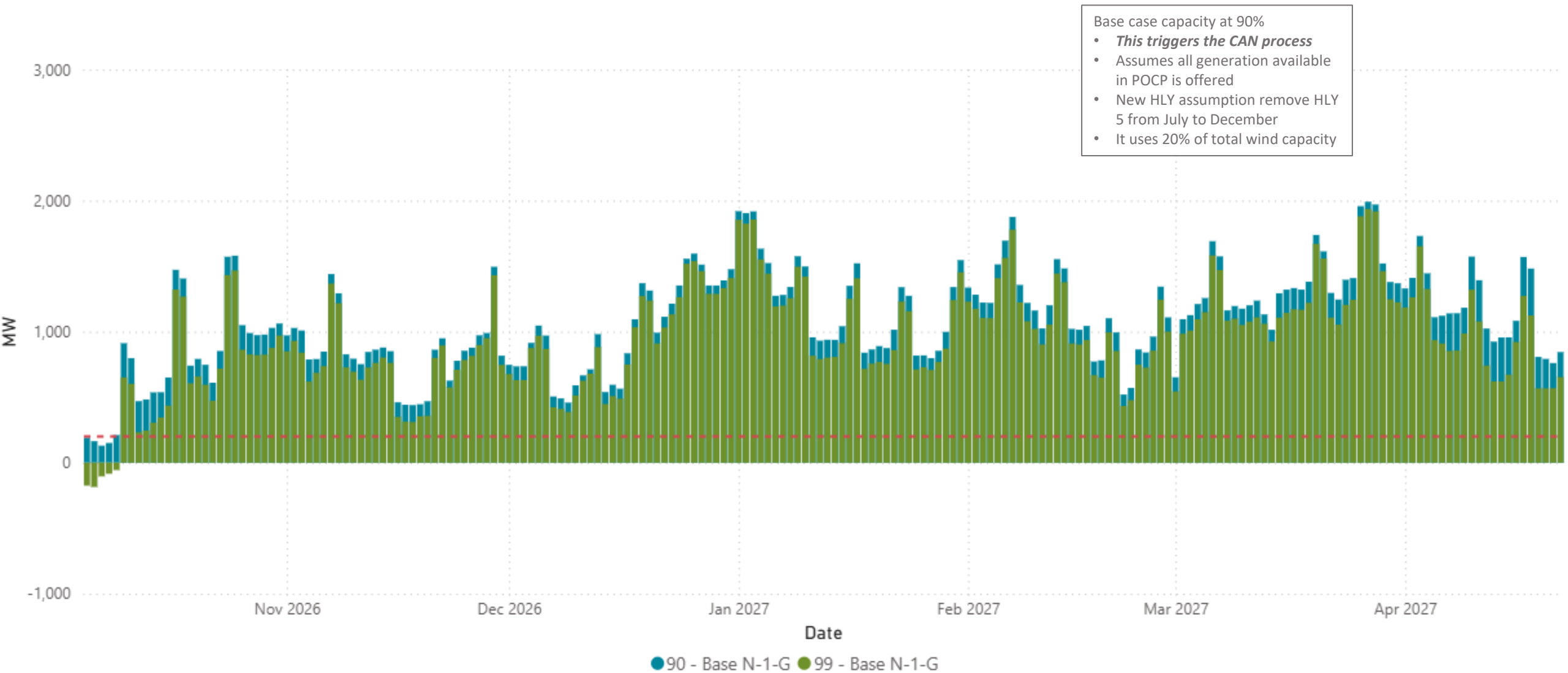
- 97 GWh Watch (May 2027)



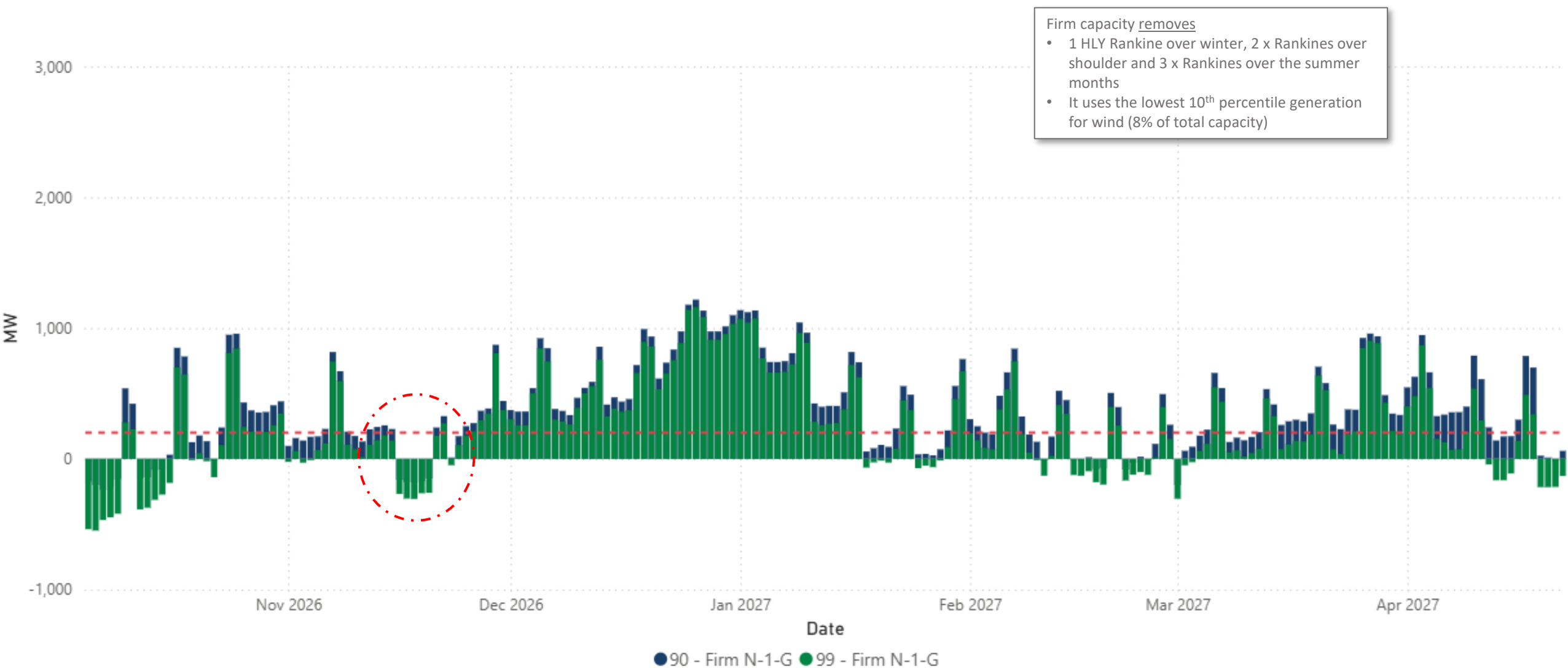


NZGB update

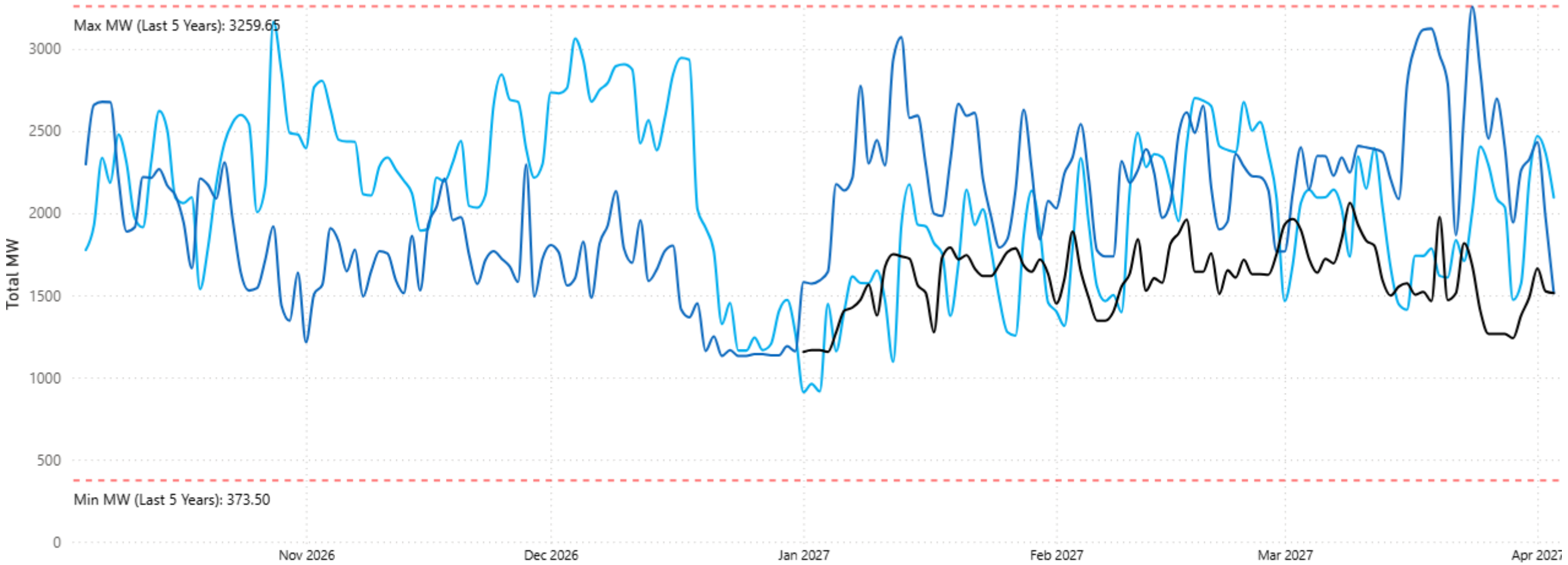
NZGB update: base capacity N-1-G



NZGB update: firm capacity only N-1-G



POCP Generation Outages



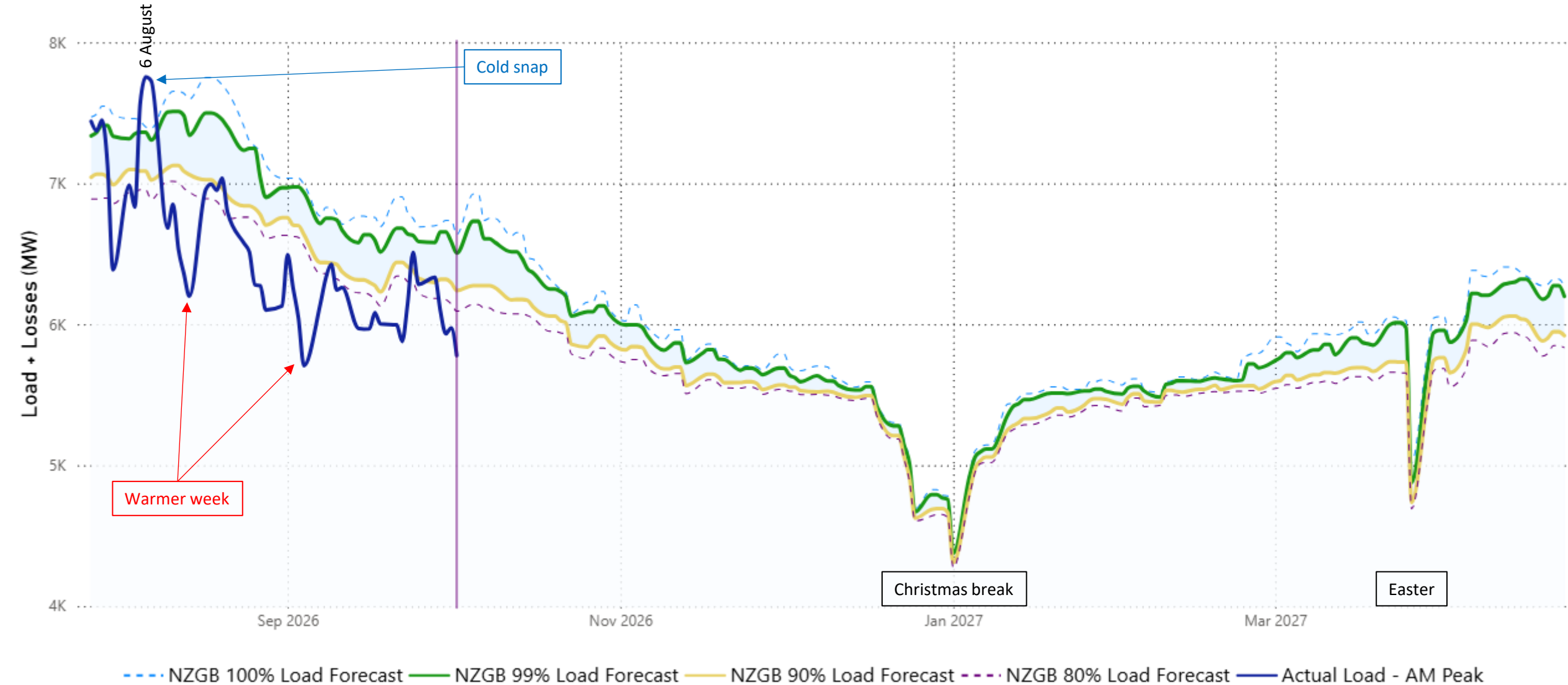
Mean YoY Difference
-612.03 MW

Mean YoY %
Difference
-24.83%

Year

- 2025
- 2026
- 2027

Peak Load vs Forecast





Outages next 4 weeks

Outages

NNI outages

SNI outages

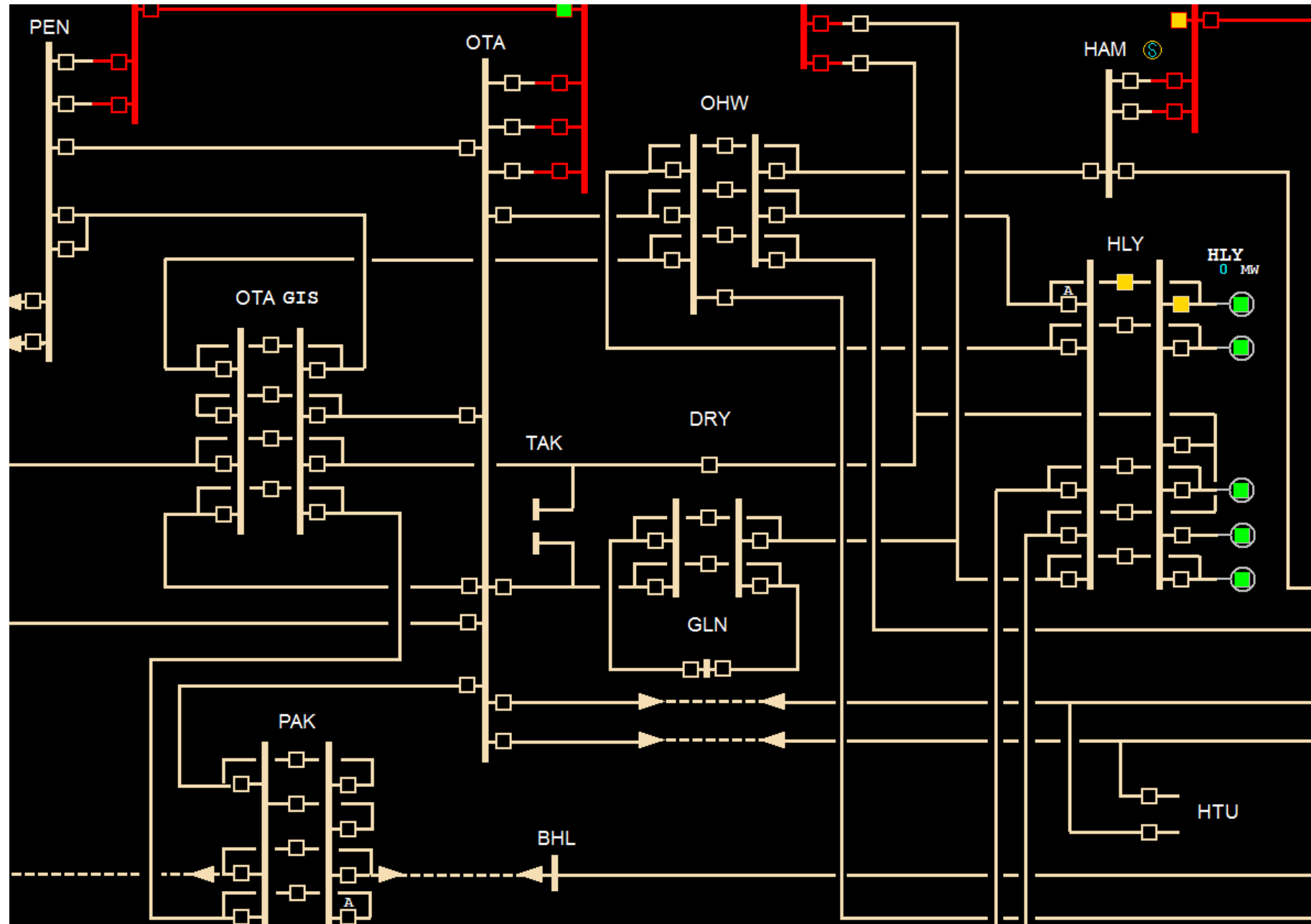
SI outages

Asset owners:

- Check in POCP for detailed dates
- Consider the impact on your own outages



- MNG_ROS_1 / MNG_OTA_1
- HEN_WEL_2
- EDG_KAW_1 / EDG_OWH_2
- OTA_PEN_5



SNI Outages

Week of 12 October

- TKU_WKM_2
- BPE_TKU_2
- HAY_WIL_LTN_2

Week of 19 October

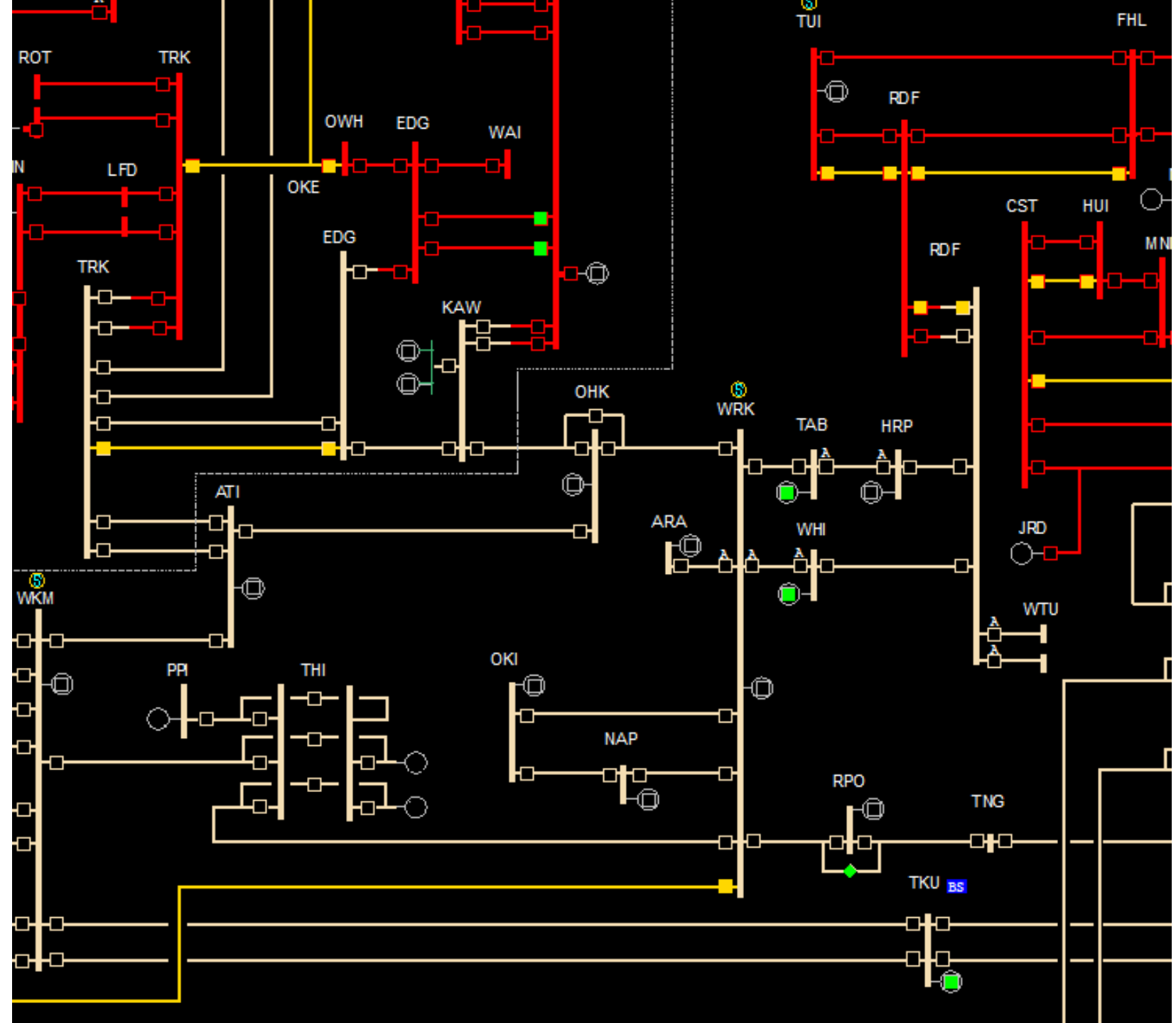
- BPE_TKU_2
- HAY_WIL_LTN_2
- CPK_WWD_WIL_2

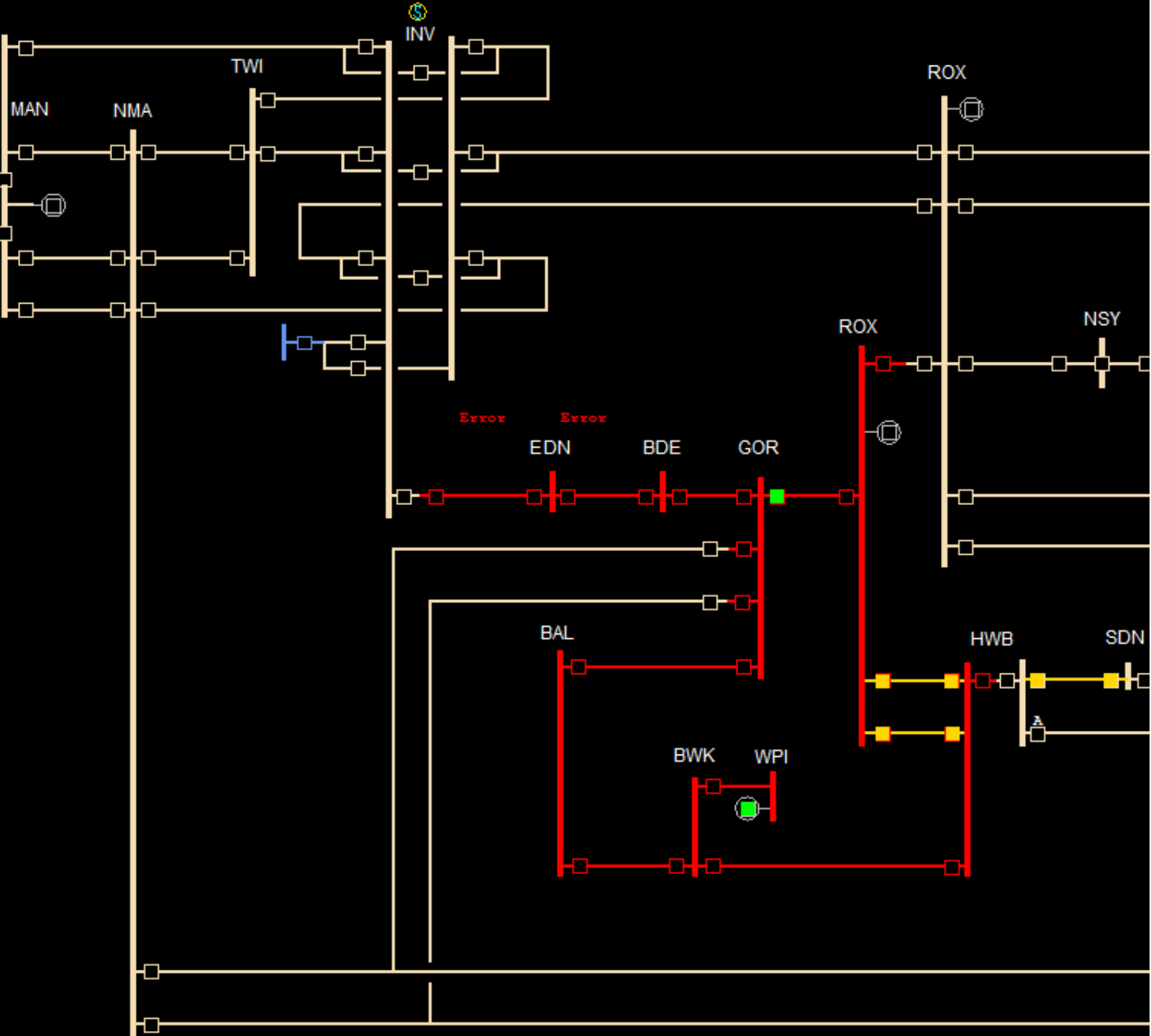
Week of 26 October

- RPO_WRK_1
- HLY_SFD_1
- WKM_WRK_1 (Weekend)

Week of 2 November

- HLY_SFD_1
- SFD_TMN_1
- HAY_WIL_LTN_1





SI Outages

Week of 12 October

- ISL_SBK_1 / ISL_SBK_2
- MAN_NMA_2
- CYD_ROX_1

Week of 19 October

- ISL_SBK_1 / ISL_SBK_2
- MAN_NMA_2
- ROX_TMH_1

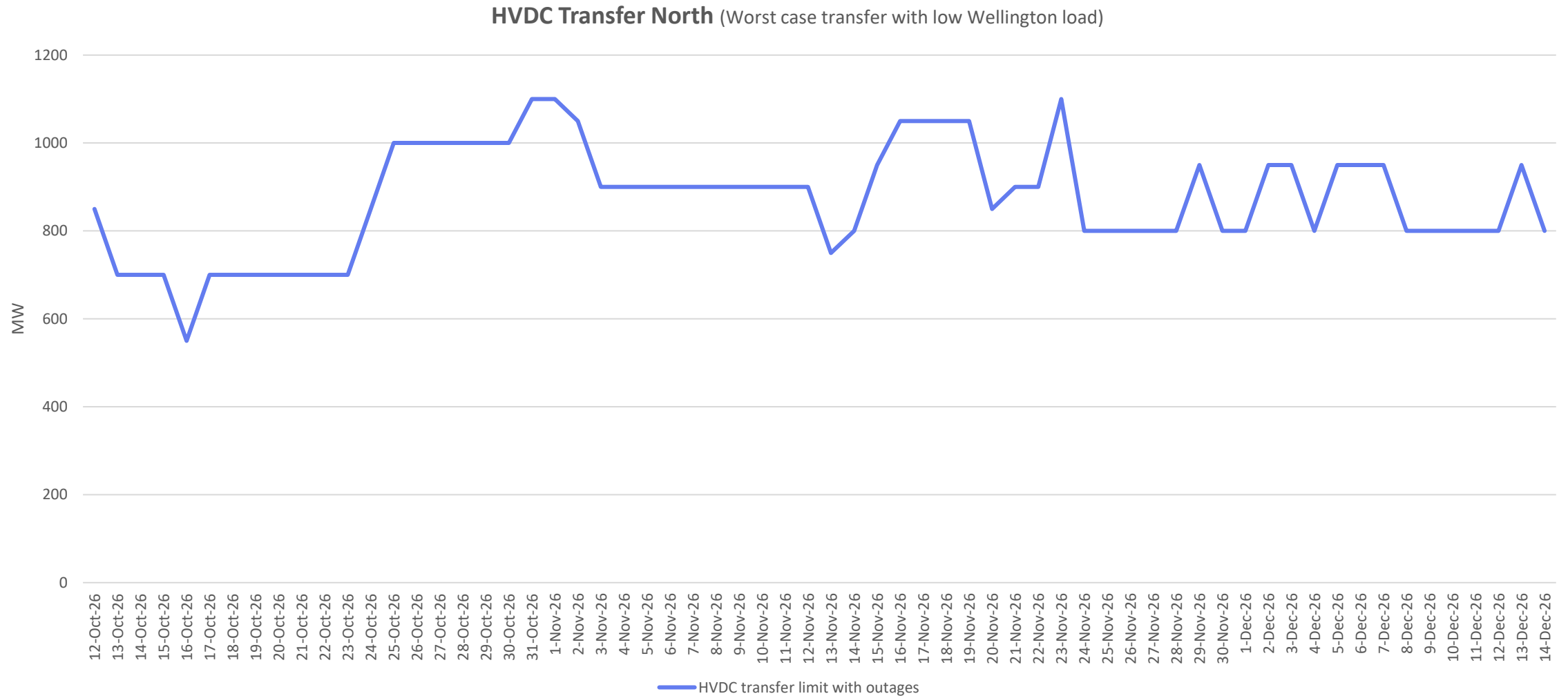
Week of 26 October

- MAN_NMA_2
- NMA_GOR_TMH_2
- ASB_ISL_1

Week of 2 November

- MAN_NMA_2
- HWB_ROX_1 / HWB_ROX_2
- ISL_SVC_3

HVDC North transfer limit





Operational update



TRANSPower

Business Continuity Communication Project Update

SO Industry Forum

6 October 2026



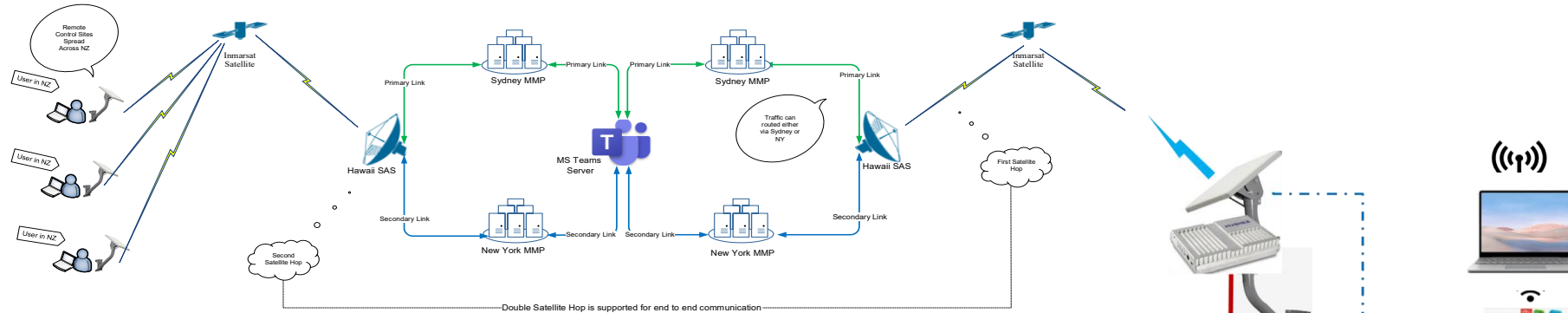
Business Continuity Communications (BCC)

Providing resilient backup control room to control room comms

- To be independent of any NZ infrastructure that needs electricity
- To enable one2one, one2many comms of all key TP/Gen/EDB's/DC parties control centres
- Minimal tech support, specialist software or hardware
- Minimal capital and ongoing cost, ideally connect existing smart device via Wi-Fi hotspot to existing satellite infrastructure located within control rooms
- Require very simple, highly reliable platforms.



Microsoft Teams over Satellite

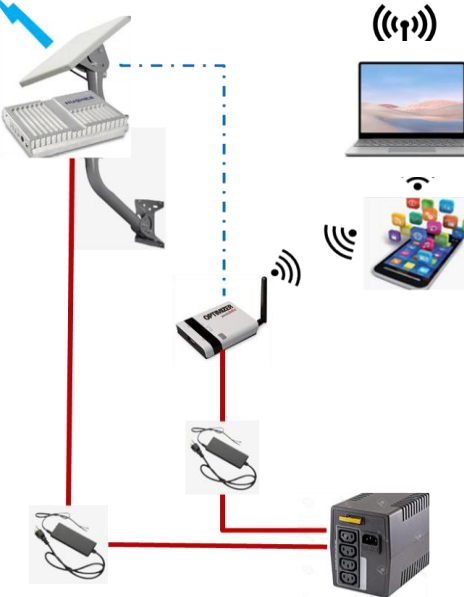


The chosen solution is MS Teams

- Transpower has a separate Microsoft M365 tenant, hosted offshore.
- Will be accessed using satellite internet connectivity - can be used immediately through an existing internet service.
- Participant control centres will be set up with generic log ins for access.

MS Teams will support

- Communication between multiple participant control centres at the same time
- Messaging as an alternative to verbal communication



Business Continuity Communication Project

What action will be needed from industry control rooms?

- Assign someone to be the contact person for the SO and lead the roll out at your organisation.
- Assign dedicated 'always on' devices to business continuity communications.
- Consider what supporting activity might be needed for your organisation e.g.
 - Purchasing new devices
 - Procuring a satellite internet service
 - Updating process and procedures
 - MS Teams training (if not an existing MS Teams org)
- Teams platform go live December 26
- Fully operationalised April 27

We'll be in contact with participant control centres to discuss more detail and share information about satellite internet service options.





Manapōuri stability constraint update

Updated Manapōuri stability constraint

From 1 July 2026, Manapōuri Power Station was limited to 700 MW export during outages of the Manapōuri transmission circuits when there are six or fewer Manapōuri units available.

This was to manage the risk of transient instability, as identified in the System Security Forecast in 2024.

The operation of the Stability constraint did not match the engineering problem and has been replaced by a Market node constraint to limit the Manapōuri output to 700MW from 5 October during circuit outages.

Further detail is available on the [Transpower website](#).

Please contact power_systems_engineering@transpower.co.nz with any questions.

Manapouri Inter-trip Enabled Stability Constraint - Revision of Notice
8000000148 Sent 26/05/2026

Transpower as System Operator has identified a transient rotor angle stability (TRAS) risk involving Manapōuri Power Station during certain faults on nearby transmission circuits under certain system conditions. The risk of instability is higher during circuit outages.

From 01/07/2026, Transpower as System Operator will manage this risk of instability, when there are six or fewer Manapōuri generating units available to meet station dispatch, during the outages of one or more of the following transmission circuits:

MAN_NMA_1

MAN_NMA_2

MAN_NMA_3

INV_MAN_2

~~Transpower as System Operator advises that when these conditions are met, the following currently applied permanent security constraint right hand side limit (RHS) will be adjusted from 880 MW to 700 MW, reducing the total export capability of Manapōuri Power Station.~~

MAN_INTERTRIP_ENABLED_STABILITY_P_1

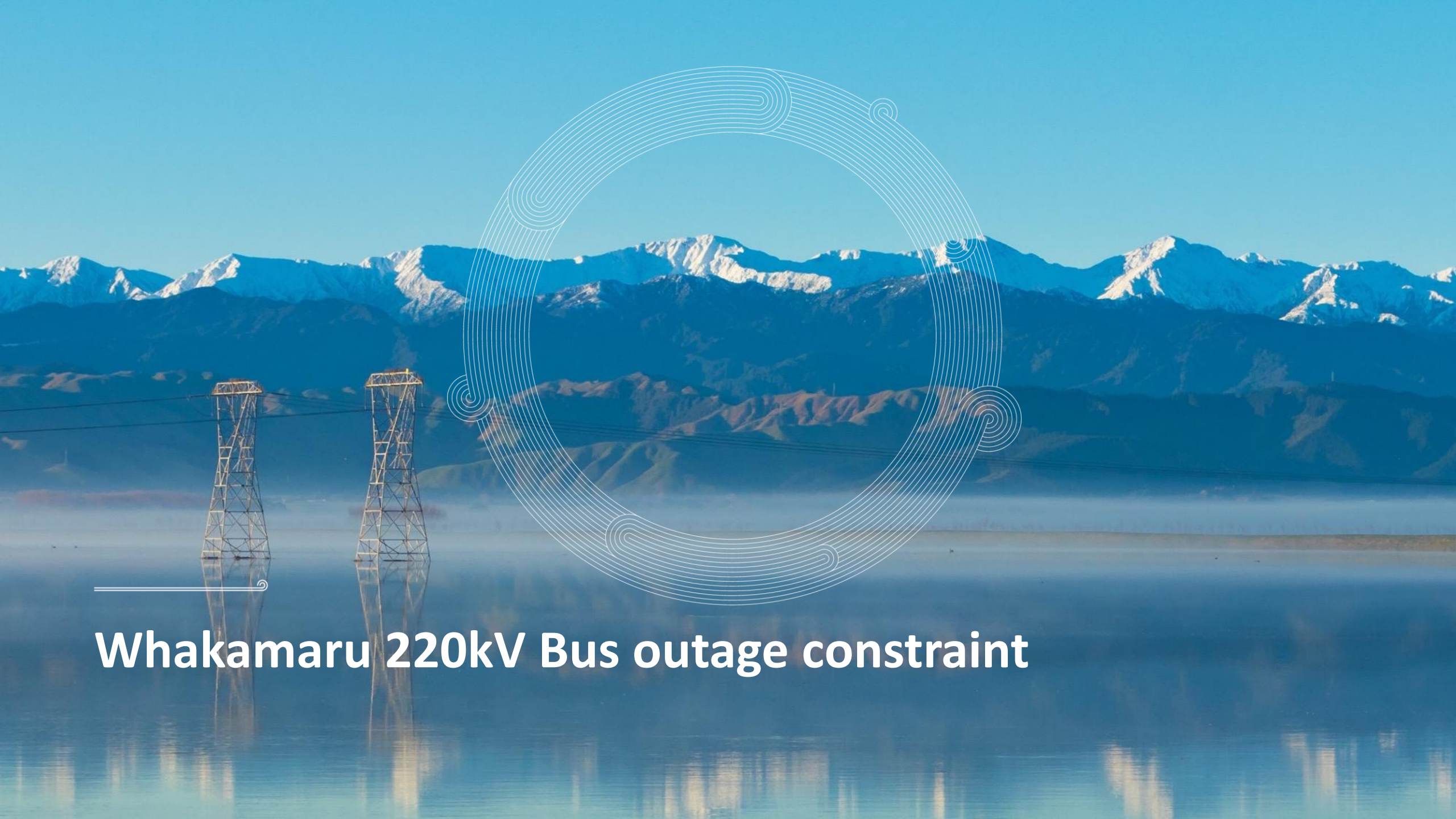
~~$1 * \text{MAN_NMA1.1} + 1 * \text{MAN_NMA2.1} + 1 * \text{MAN_NMA3.1} + 1 * \text{INV_MAN.1} \leq 880 \text{ MW}$~~

~~The effect of this constraint is to manage flows through Manapōuri – North Makarewa 1, Manapōuri – North Makarewa 2, Manapōuri – North Makarewa 3, and Invercargill – Manapōuri 2 for stability reasons when the Manapōuri intertrip scheme is Enabled.~~

Transpower as System Operator advises that from 5 October 2026, when these conditions are met, a new market node constraint will be applied to limit the output of Manapōuri station to 700 MW.

MAN2201 MAN0 MW_Max

$1 * \text{MAN2201 MAN0 ENOF} \leq 700 \text{ MW}$



Whakamaru 220kV Bus outage constraint

Whakamaru 220kV Bus outage constraint

The System Operator received a late notice change to offer from the Grid Owner advising that a section of the 220kV Bus A needs to be limited to 2300A (875MW) steady state as part of the Whakamaru Bus uprating project implementation this week while stringing Bus D from 6 October to 12 October.

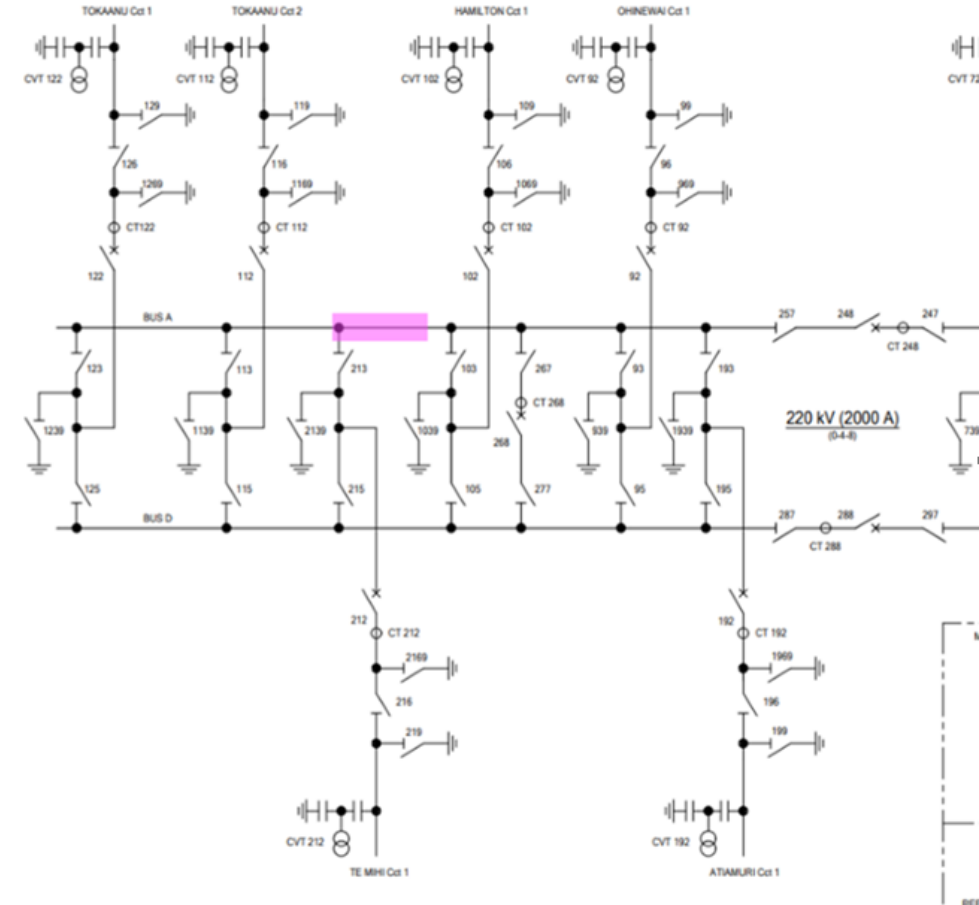
WKM_220BS_A_or_D_O_1

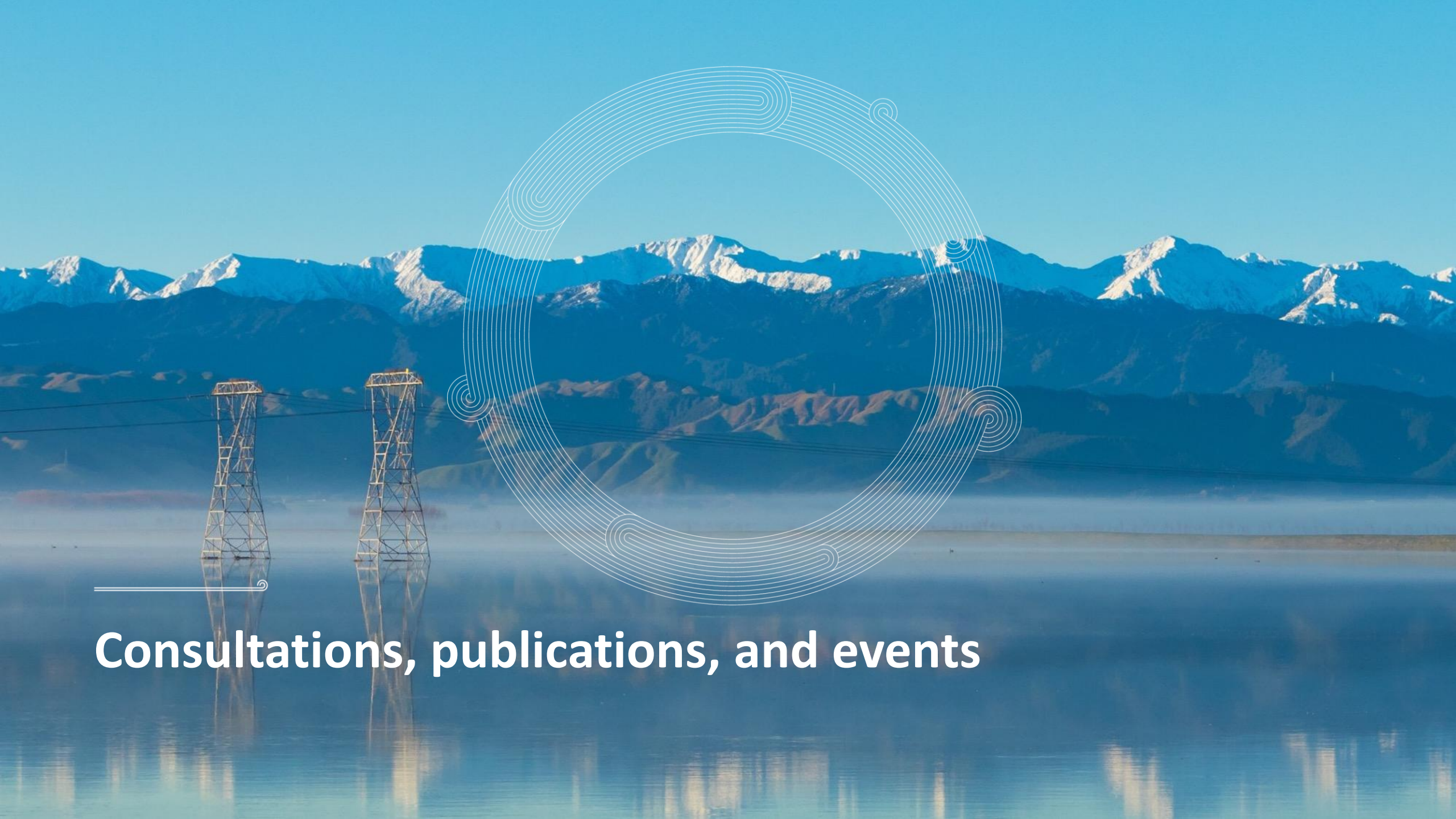
$$1 * \text{THI_WKM1.1} + 1 * \text{TKU_WKM1.1} + 1 * \text{TKU_WKM2.1} \leq 875\text{MW}$$

The effect of this constraint is to manage flows through the highlighted section of Bus by limiting the combined flow through the three circuits on the left connected to that bus section to below 875MW

Further detail is available on the [Transpower website](https://www.transpower.co.nz).

Please contact Ops.planner@transpower.co.nz with any questions.





Consultations, publications, and events

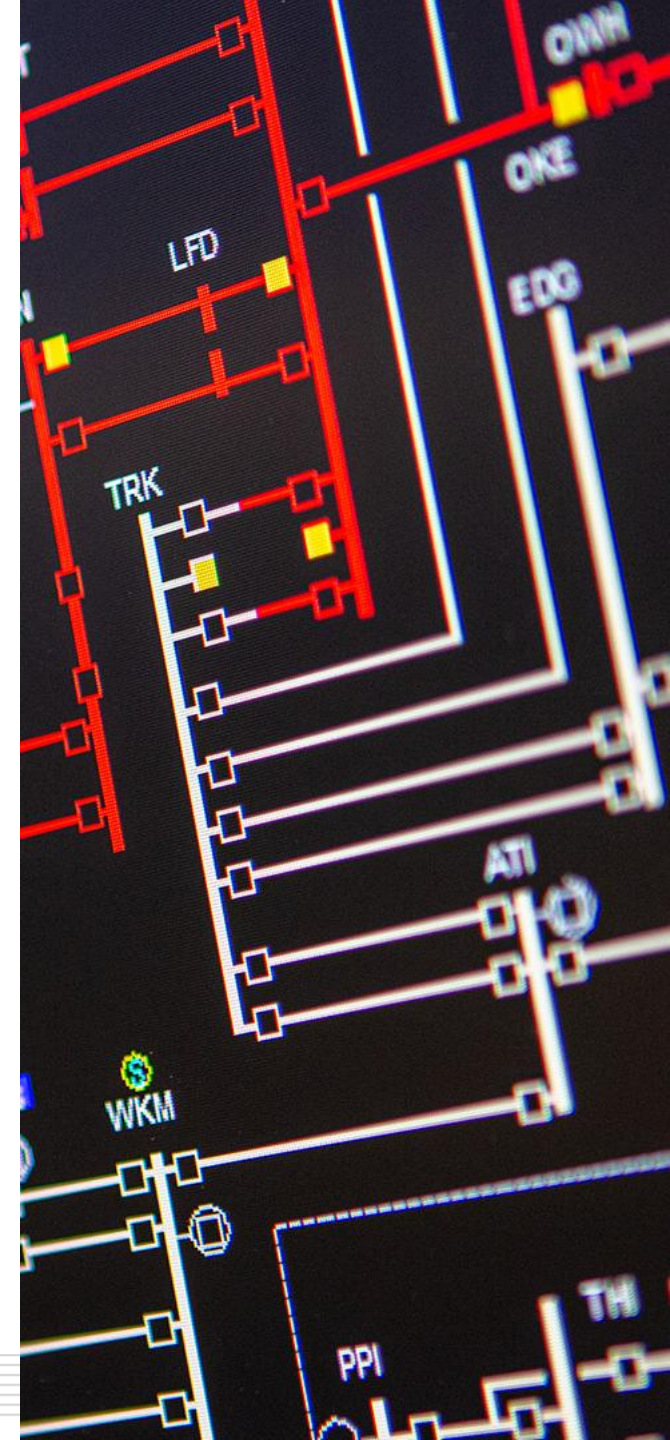
Consultations, publications, and events

Our consultation on the draft [Ancillary Services Procurement Plan to implement Emergency Reserve](#) closed last Friday, we received 8 submissions which are published on our website. Thanks to those who provided feedback. We will consider your input as we finalise our draft proposal for submission to the Authority later in October.

Last week we published our September [Energy Security Outlook](#) which is available on our website.

We have published a new version of the **Operational Test Plan Form** ([FM-EA-010](#)) which features a clearer set of instructions. It can now also be used to signal 'planned work' that isn't testing but that may affect the System Operator PPOs. Please use the new form for all testing requests from now on.

Save the date – 12 November: We are planning an in-person participants forum, here in Wellington. This will be an opportunity to workshop emerging system operations topics with you, including the TSO–DSO interface and operation of the new Emergency Reserve ancillary service. Invitations will be sent out soon.



Questions / Pātai



Please raise your hand

If you have feedback let us know via our [Feedback Form](#)

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