TRANSPOWER

System Operator Industry Forum

21 April 2026

Today's agenda

- Key messages
- Market update
- NZGB update
- Outage update – next four weeks
- Commissioning & testing update
- Operational update
- Information on large loads
- Consultations, publications and events
- Questions / Pātai

Key Messages

- While hydro storage has increased, this is tilted toward the North Island and we still recommend conservative South Island management.
- Thermal fuel storage (coal and gas) remain high.
- Note NZGB potential capacity risks from July. Plant availability and flexibility remains a focus for industry during these times.
- We will be holding a special forum in preparation for Winter 2026 on Tuesday 28 April.
- Operational Notices go-live today.

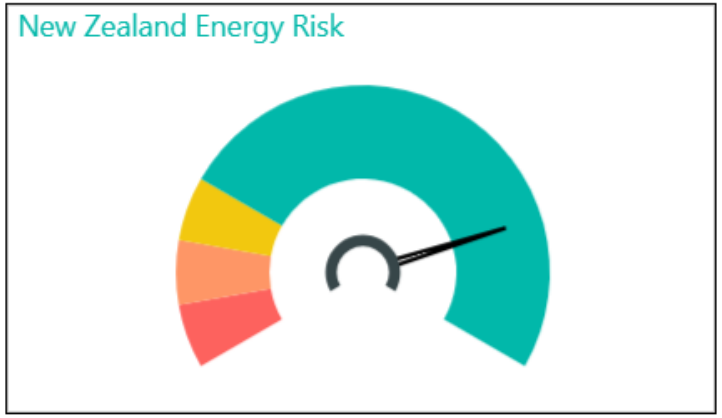
Market update

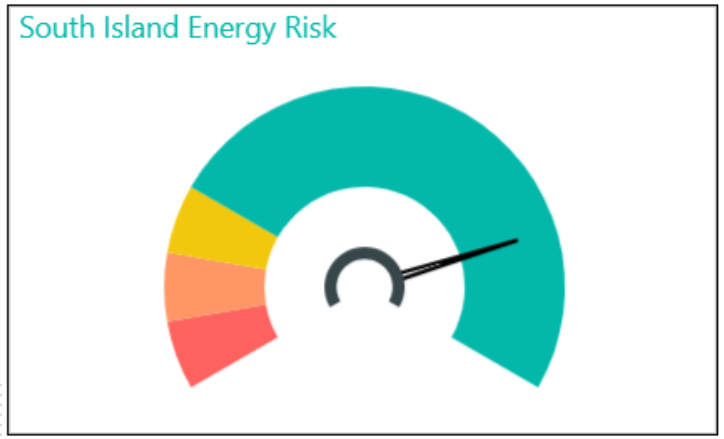
Energy: National hydro storage

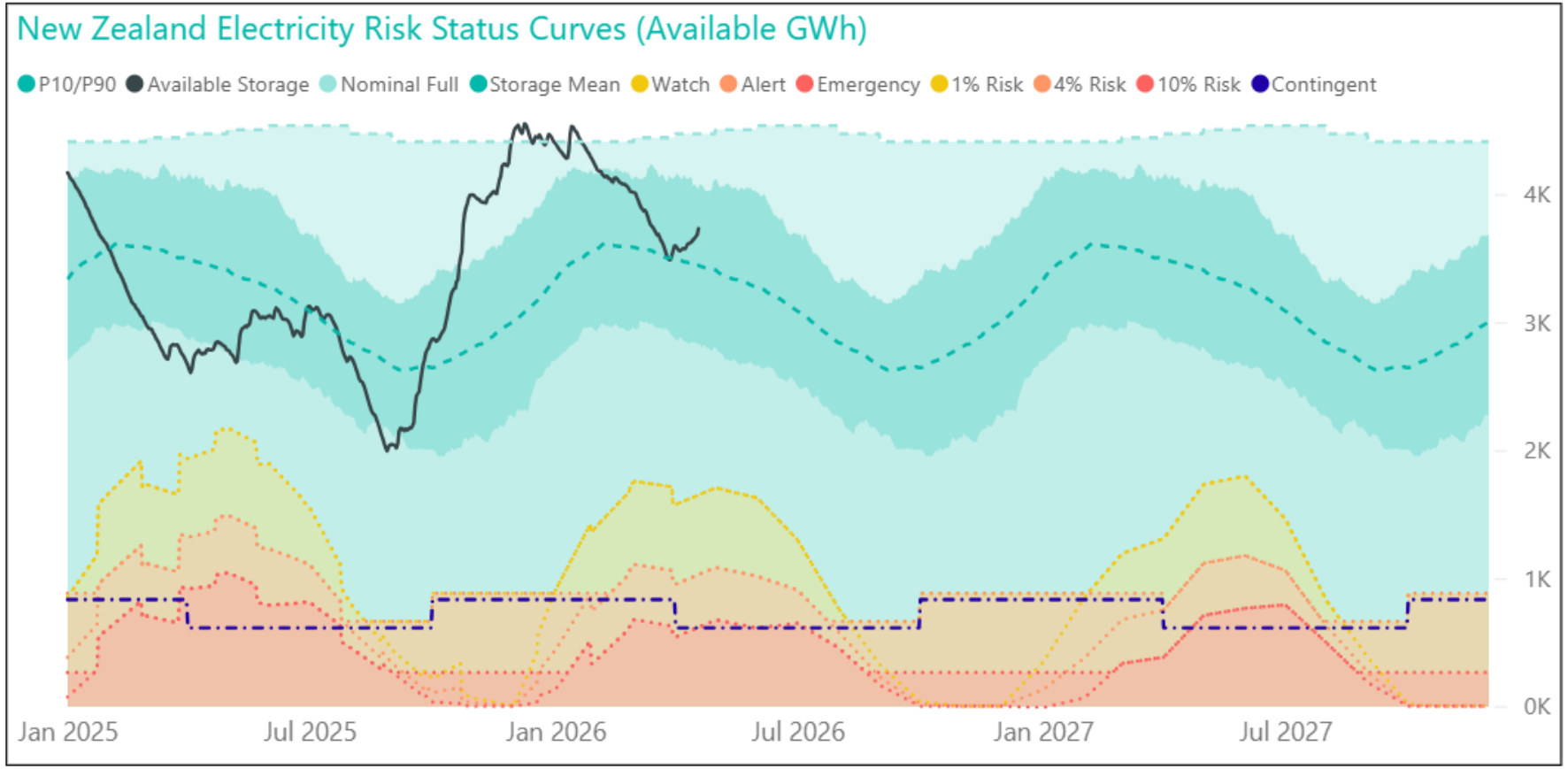
National hydro storage levels have rallied after dropping to average levels in late March, and is back above the historic average

	Hydro storage level (% of mean ▲/▼)		
	New Zealand	South Island	North Island
Last forum	102%	96%	185%
Now	108% ▲	101% ▲	206% ▲

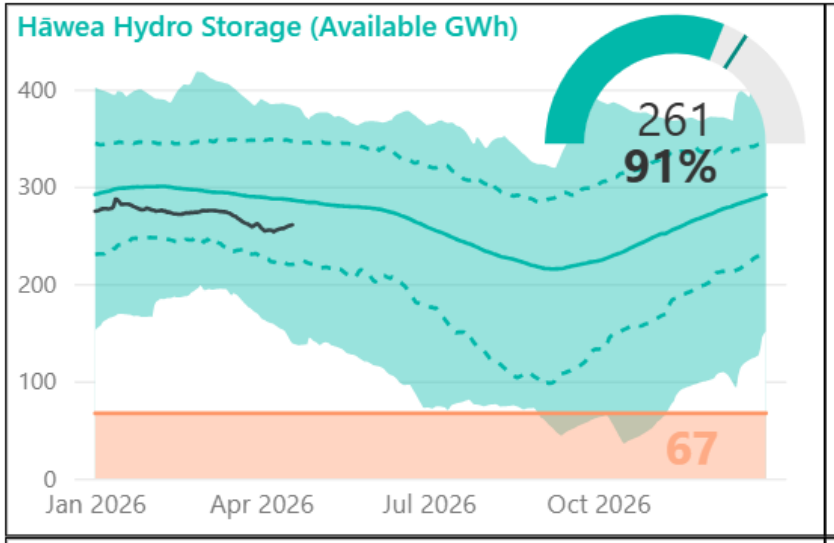
Note: these numbers include contingent storage, so they differ from those reported by NZX

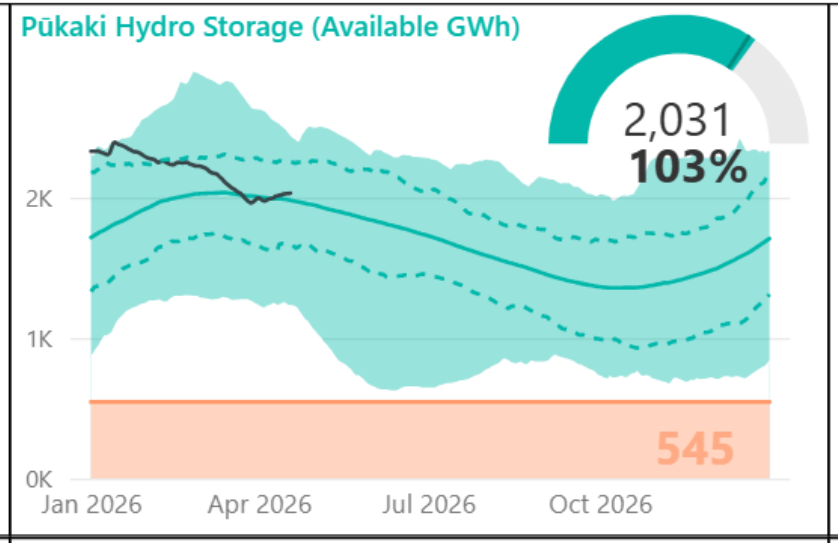


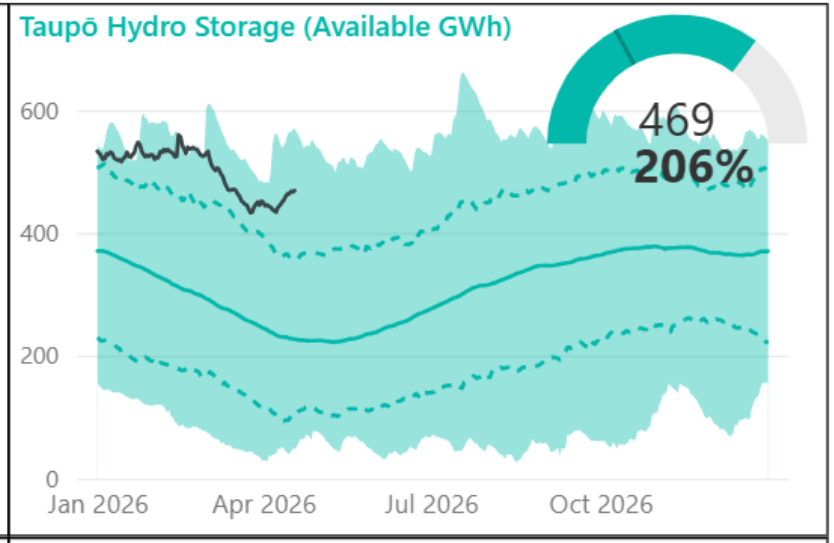


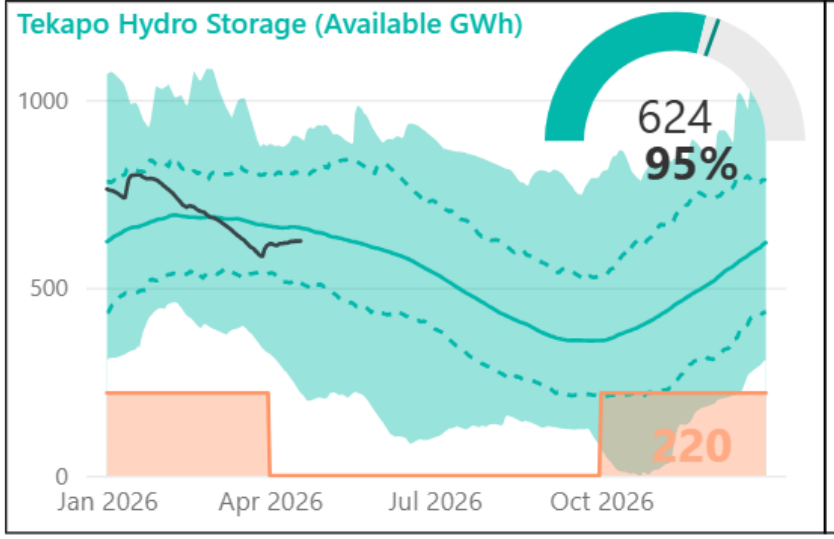


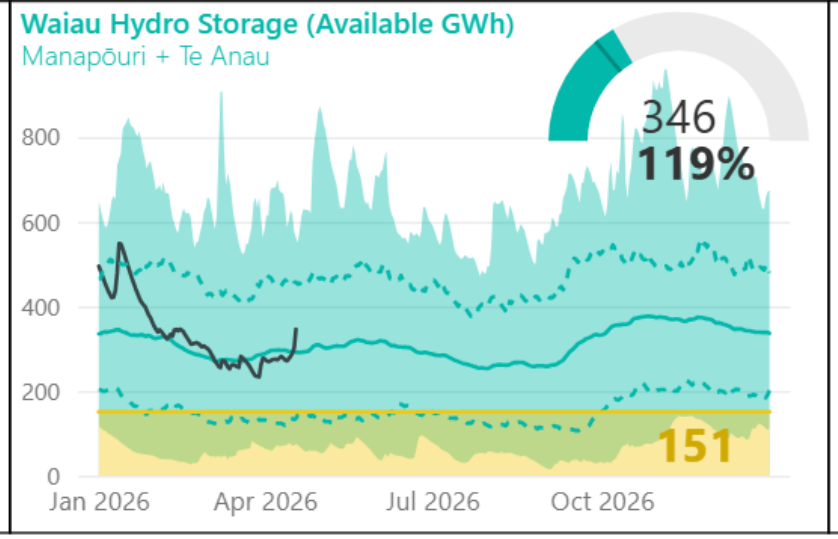
Hydro storage by catchment





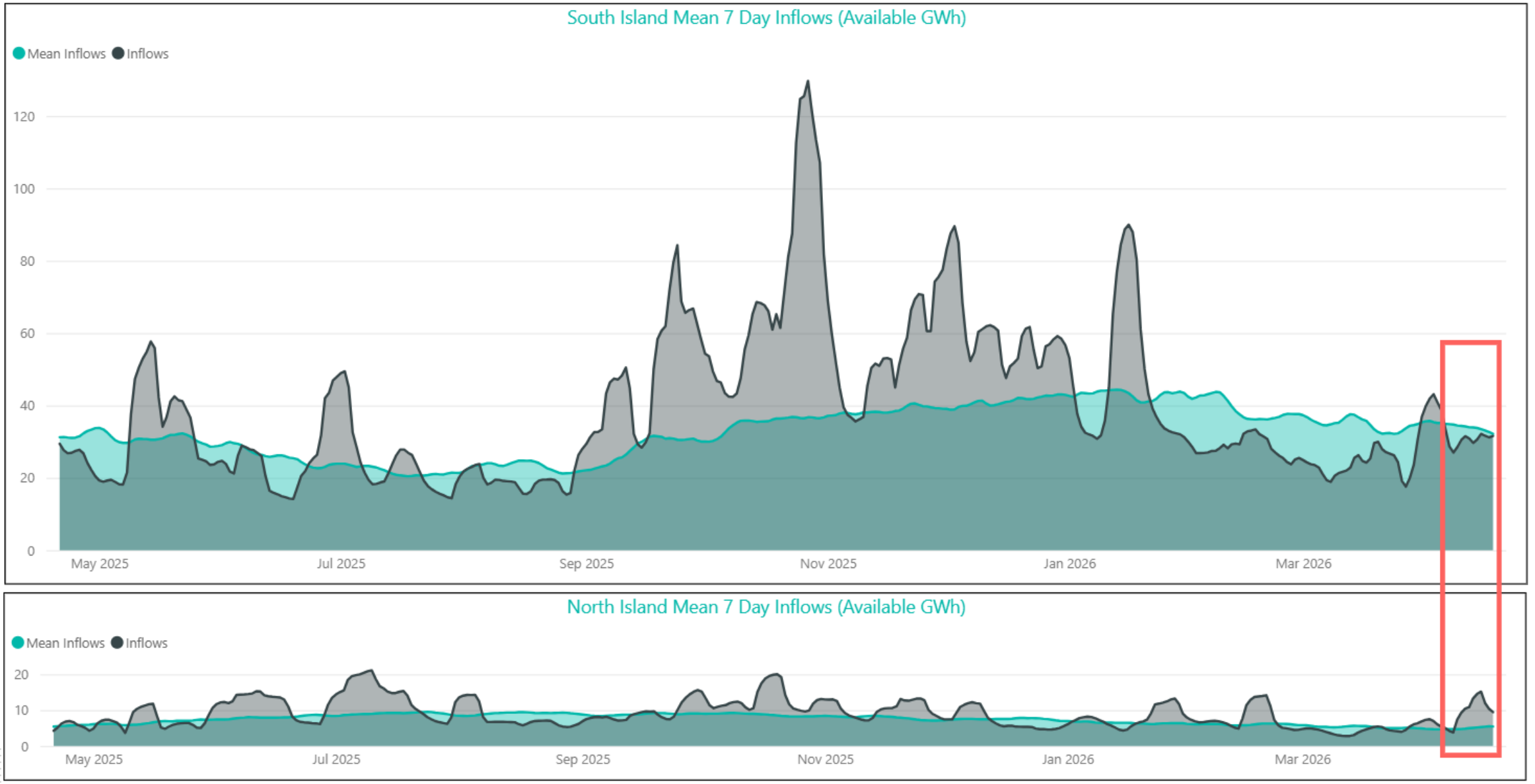






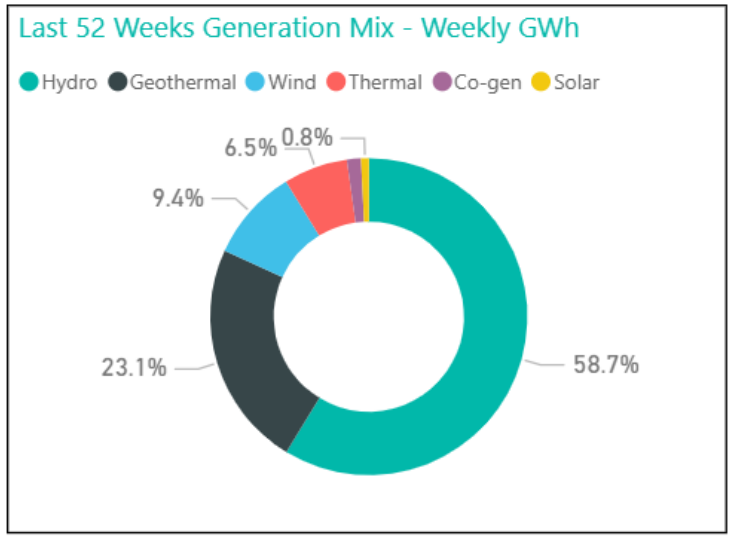
Lake	Storage (%)	Storage (GWh)	Historic Mean
Hāwea	91%	260.71	286.12
Manapōuri	177%	180.44	101.88
New Zealand	108%	3,730.85	3,444.11
Pūkaki	103%	2,031.07	1,979.86
South Island	101%	3,262.27	3,217.11
Taupō	206%	468.57	227.00
Te Anau	87%	165.80	190.20
Tekapo	95%	624.26	659.05

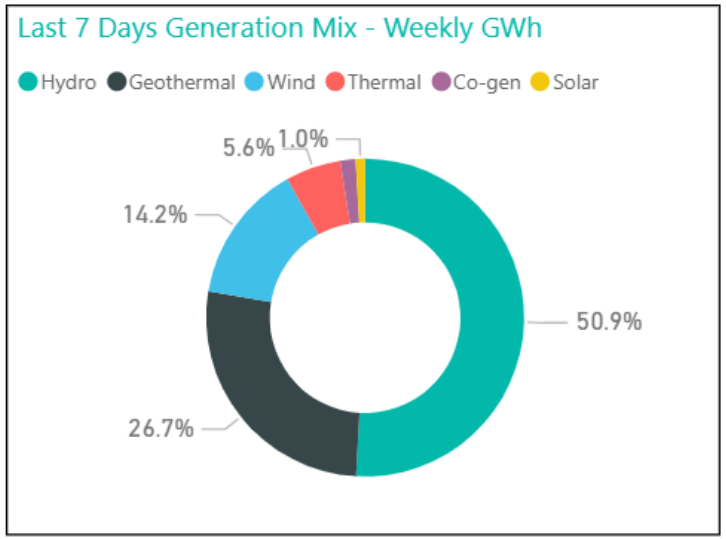
Hydro inflows

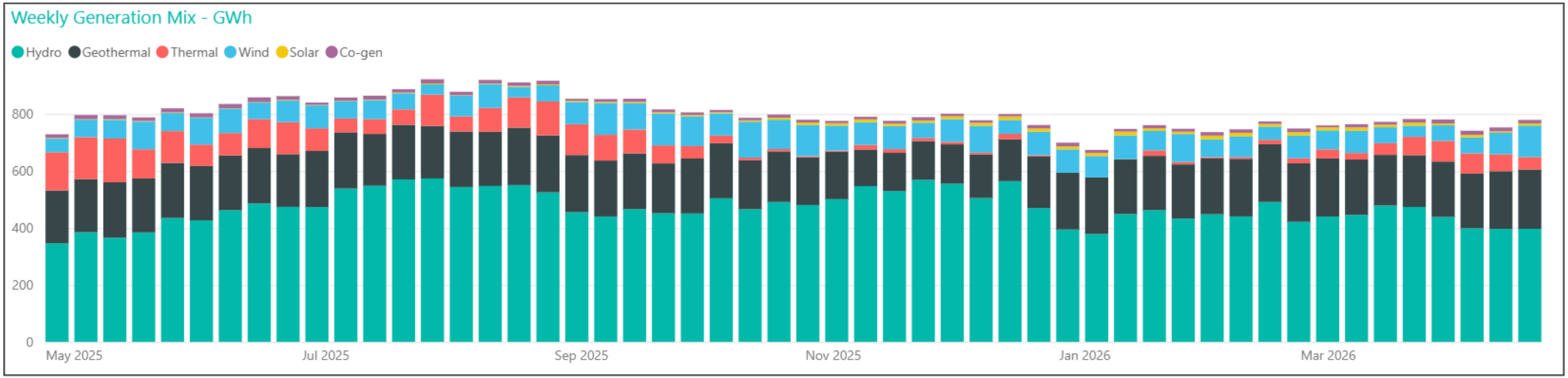


Generation mix

- Hydro generation below average at 51% over the past week
- Thermal generation was slightly below average at 5.6% of the mix
- Geothermal and wind share higher than average
- Record geothermal contribution of 208 GWh

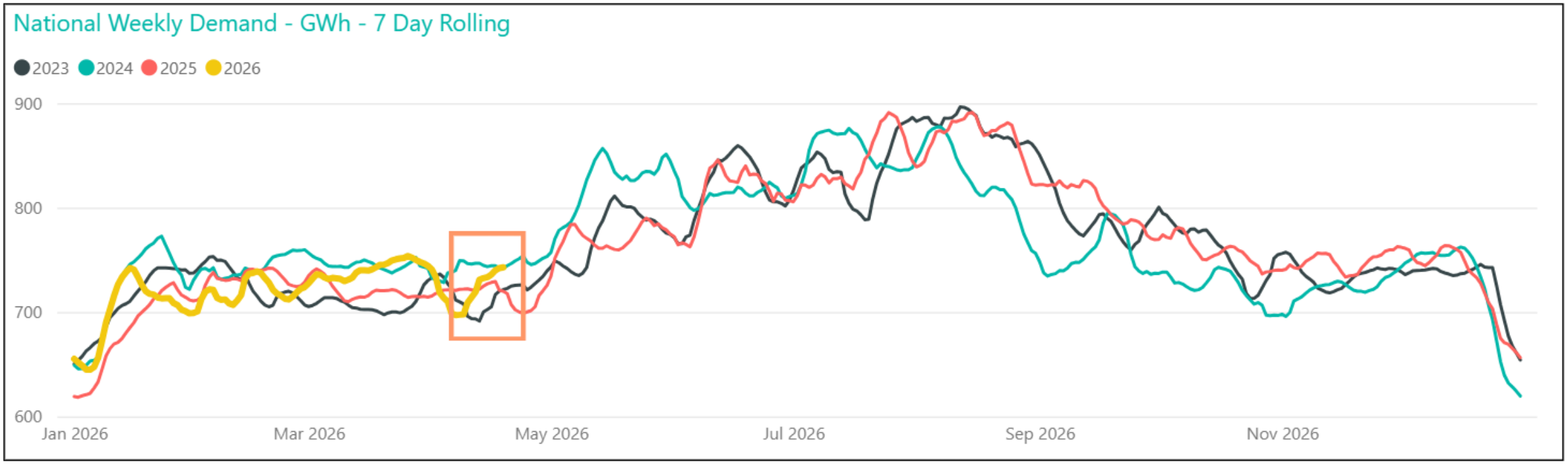






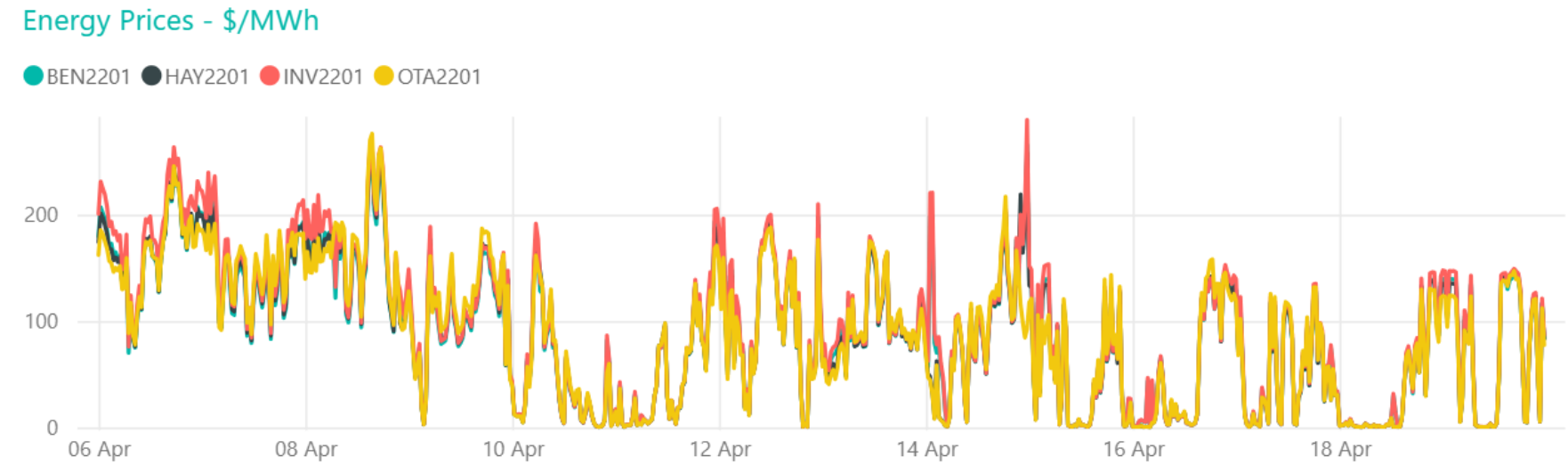
Demand

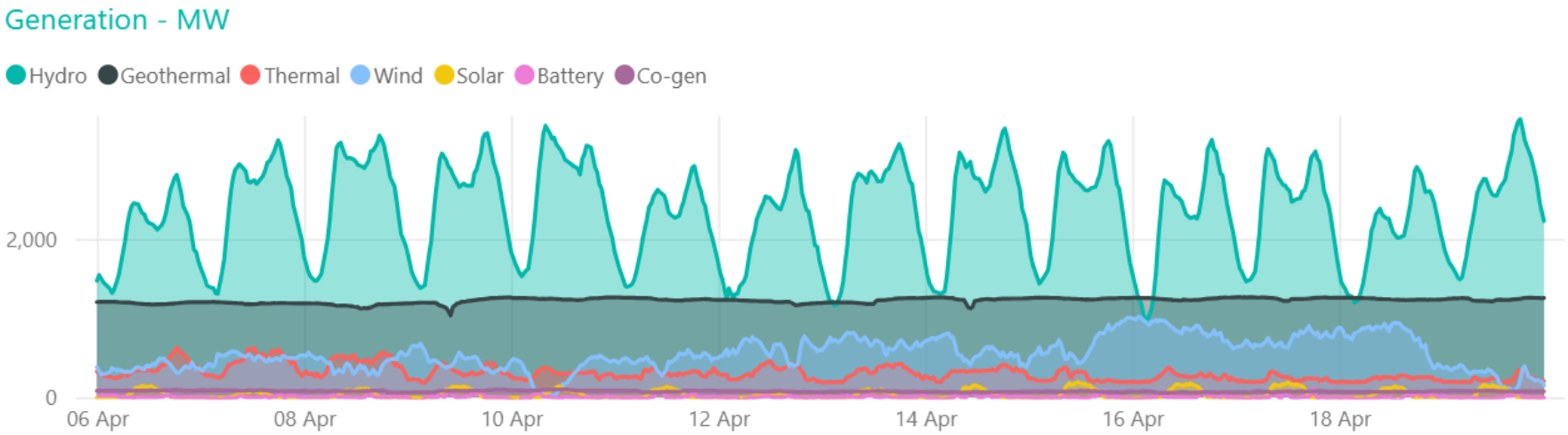
Demand dipped with the Easter public holidays, but has since increased with cooler than average weather.



Pricing

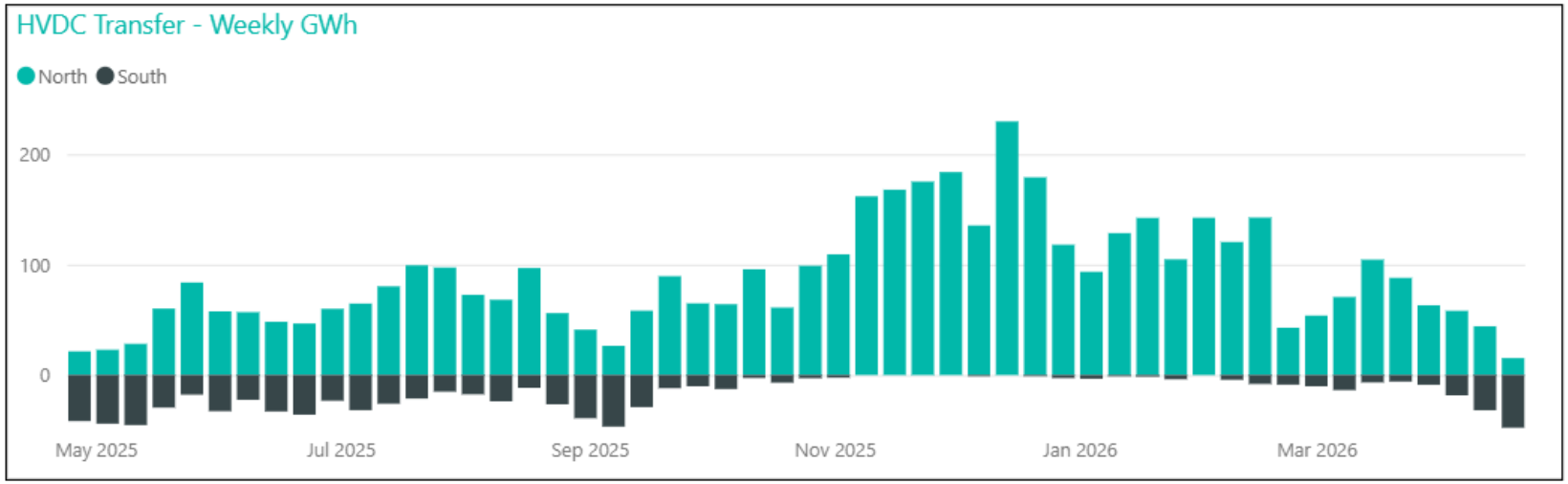
- Lower prices with Easter Monday holiday; high wind generation last week
- Average price at Ōtāhuhu last fortnight was $88/MWh, down from $163/MWh the previous fortnight
- Peak of $289/MWh at Invercargill at 11:30 pm on 14 March with North Island transmission constraints binding.
  BPE_TKU1 and BPE_TNG constrained with BPE_TKU2 out, preventing further southward transfer of lower priced NI hydro and thermal

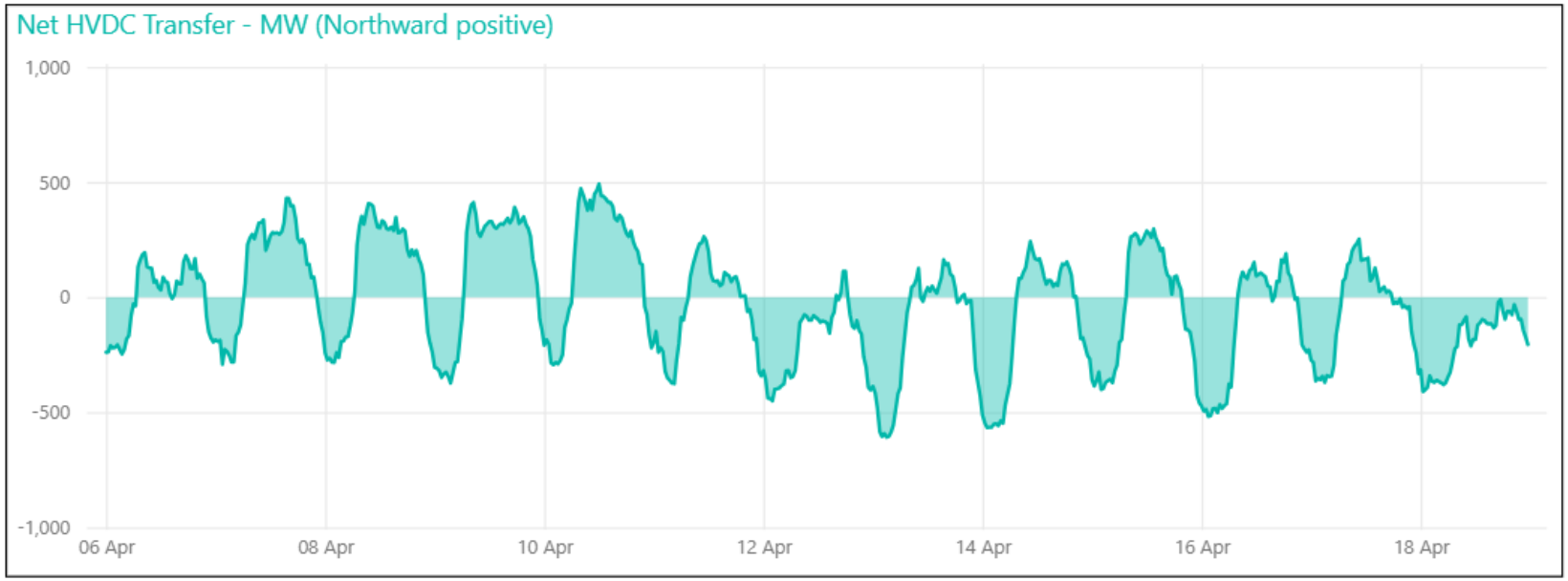




HVDC transfer

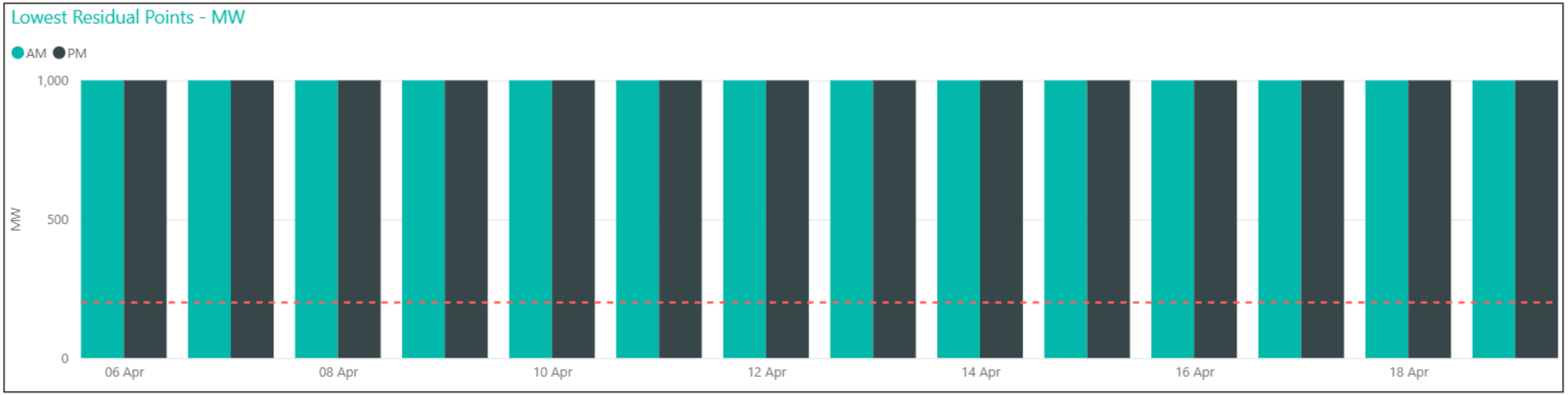
- HVDC transfer was majority southward last week, for the first time since September. (48 GWh south, 15 GWh north)
- Southward transfer peaked at 609 MW at 3:00 am on 13 April





Capacity residual margins

- All residuals for the past fortnight have been above 1000 MW
- Consistent wind generation at peaks, strong geothermal availability

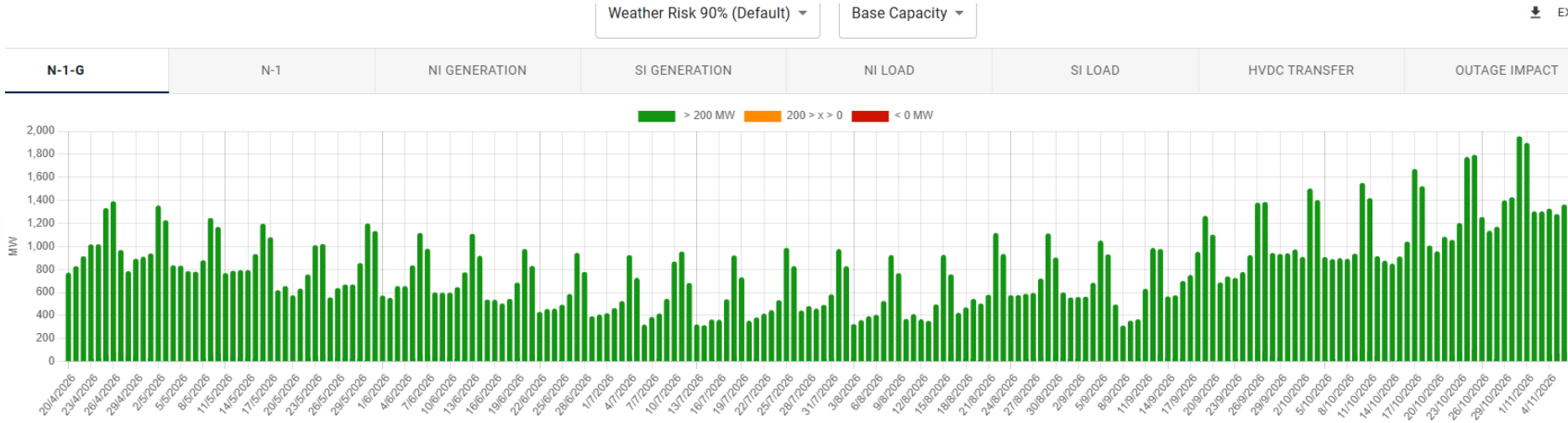


NZGB update

NZGB update: base capacity N-1-G

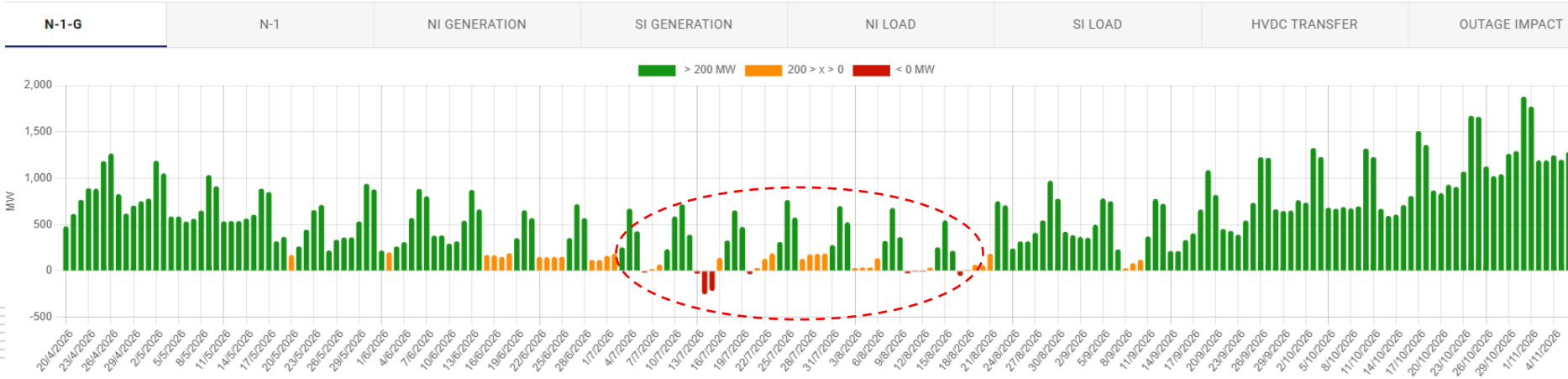
- N-1-G margins for 90th percentile load are currently showing healthy values
- Under the 99th percentile load, which we would expect under a cold snap, the margins drop substantially through the winter months and shows some shortfalls in mid July

90th percentile load



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

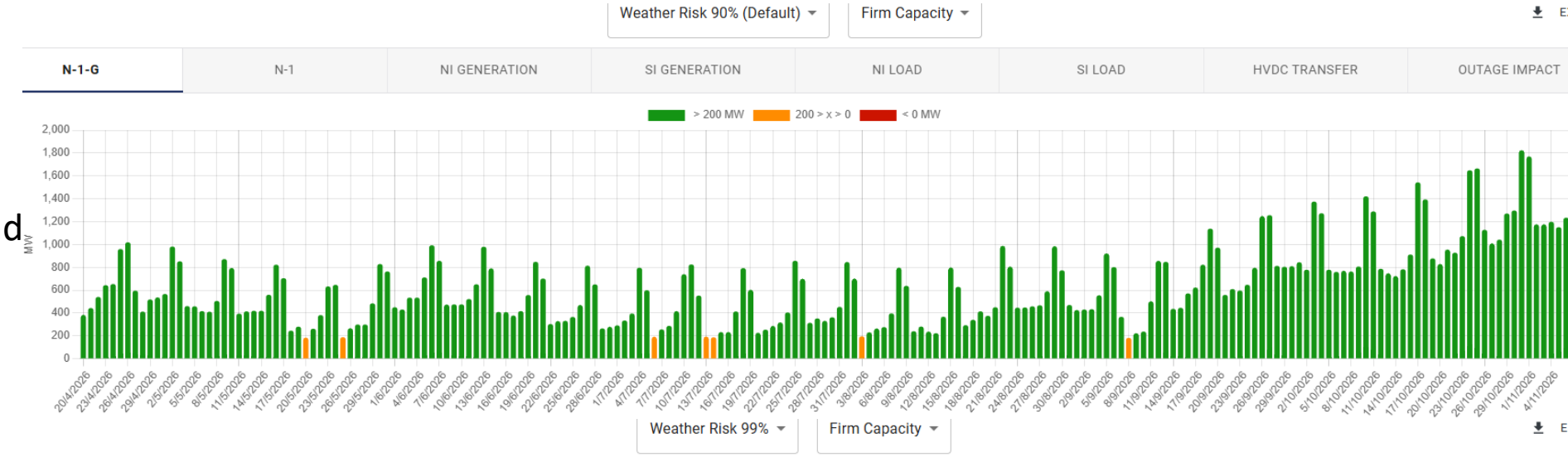
99th percentile load



NZGB update: firm capacity only N-1-G

- Firm capacity scenario reflects units that historically operate for at least 90% of AM & PM peaks.
- 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

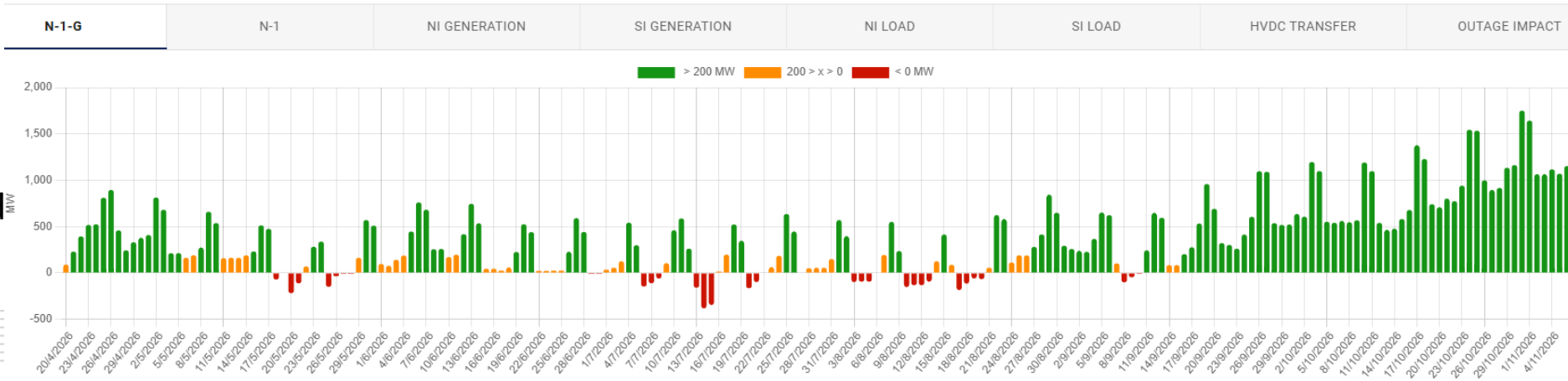
90th percentile load



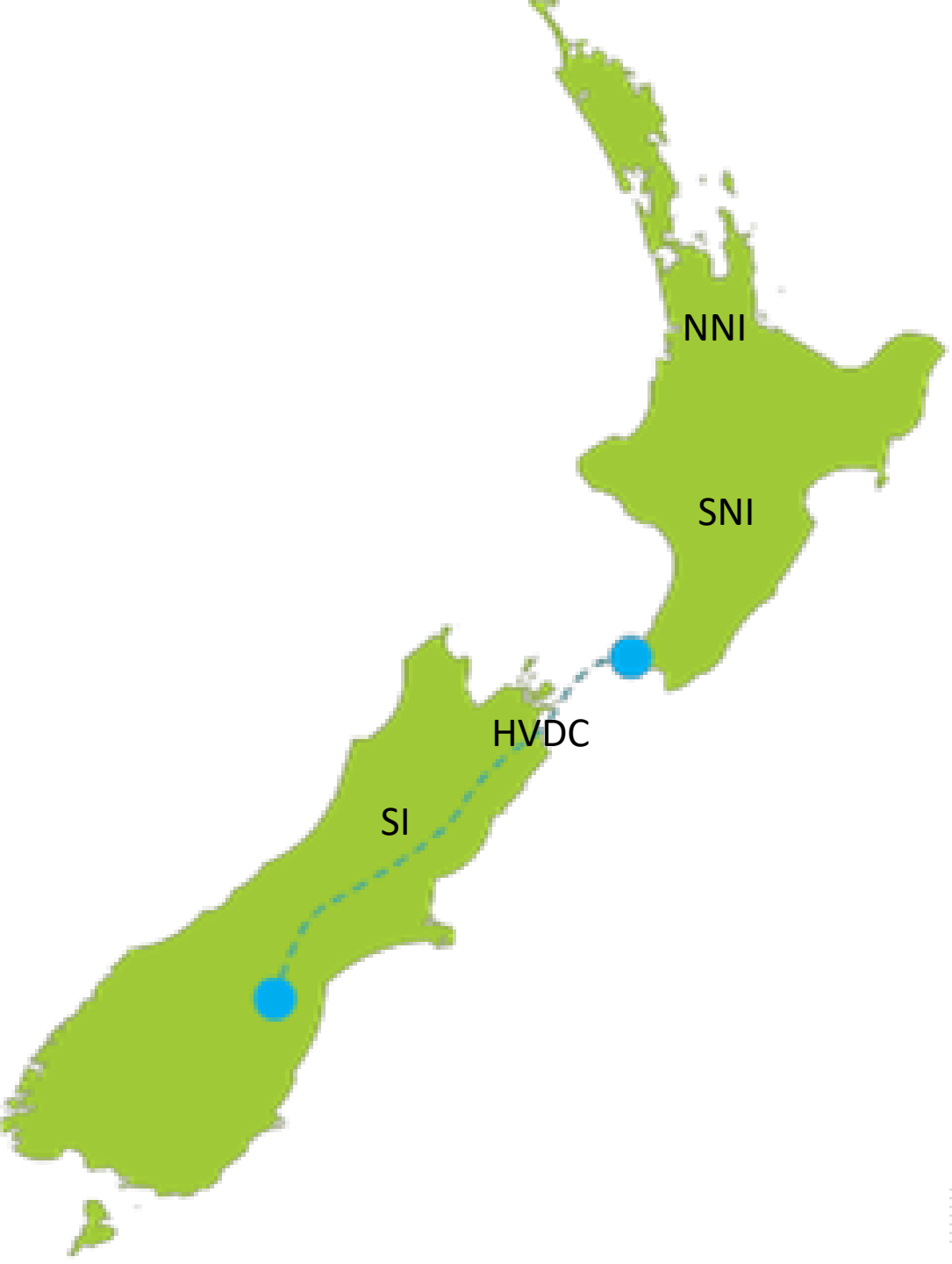
Firm capacity removes

- 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)

99th percentile load



Outages next 4 weeks



Outages

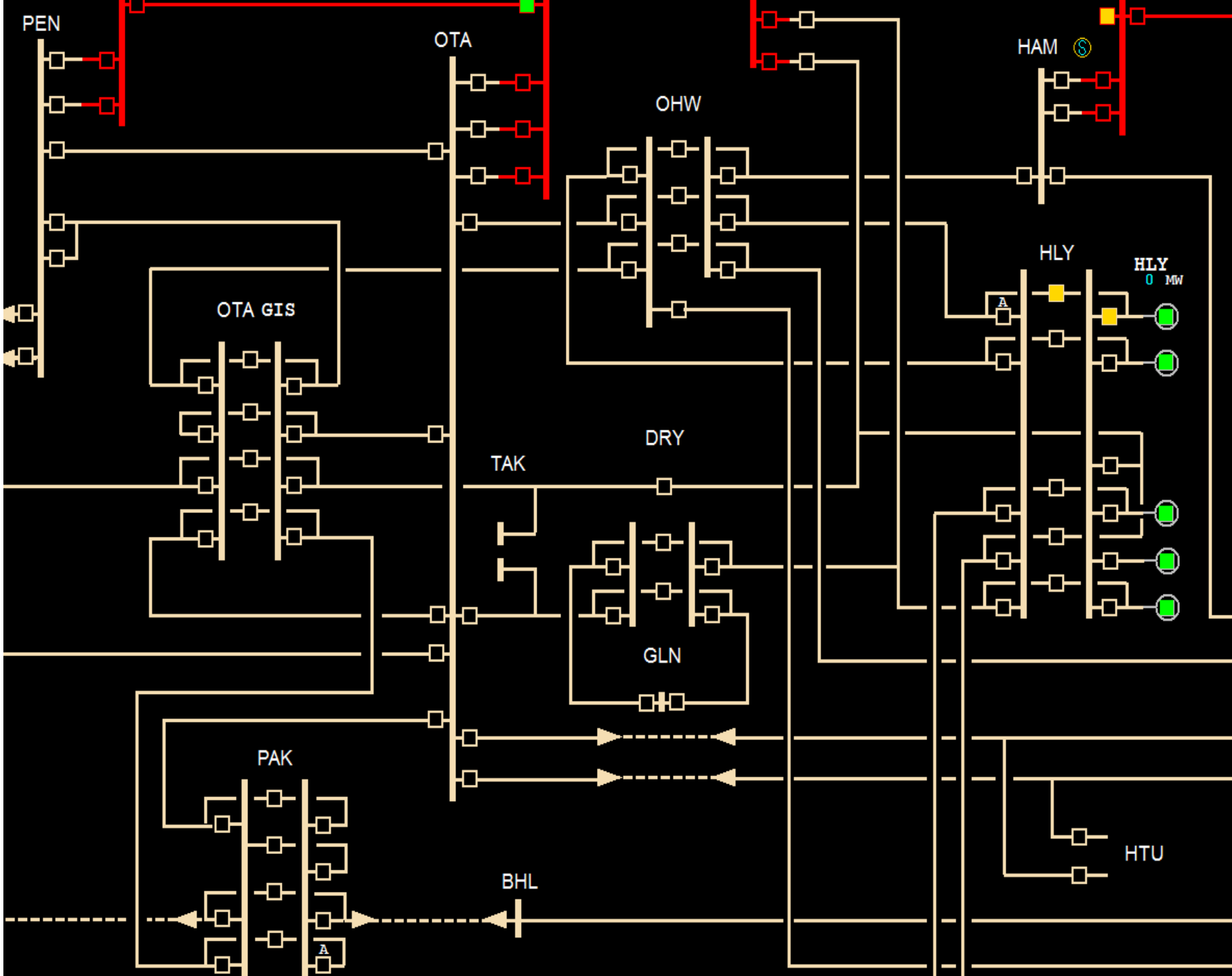
- NNI outages
- SNI outages
- SI outages

Asset owners

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

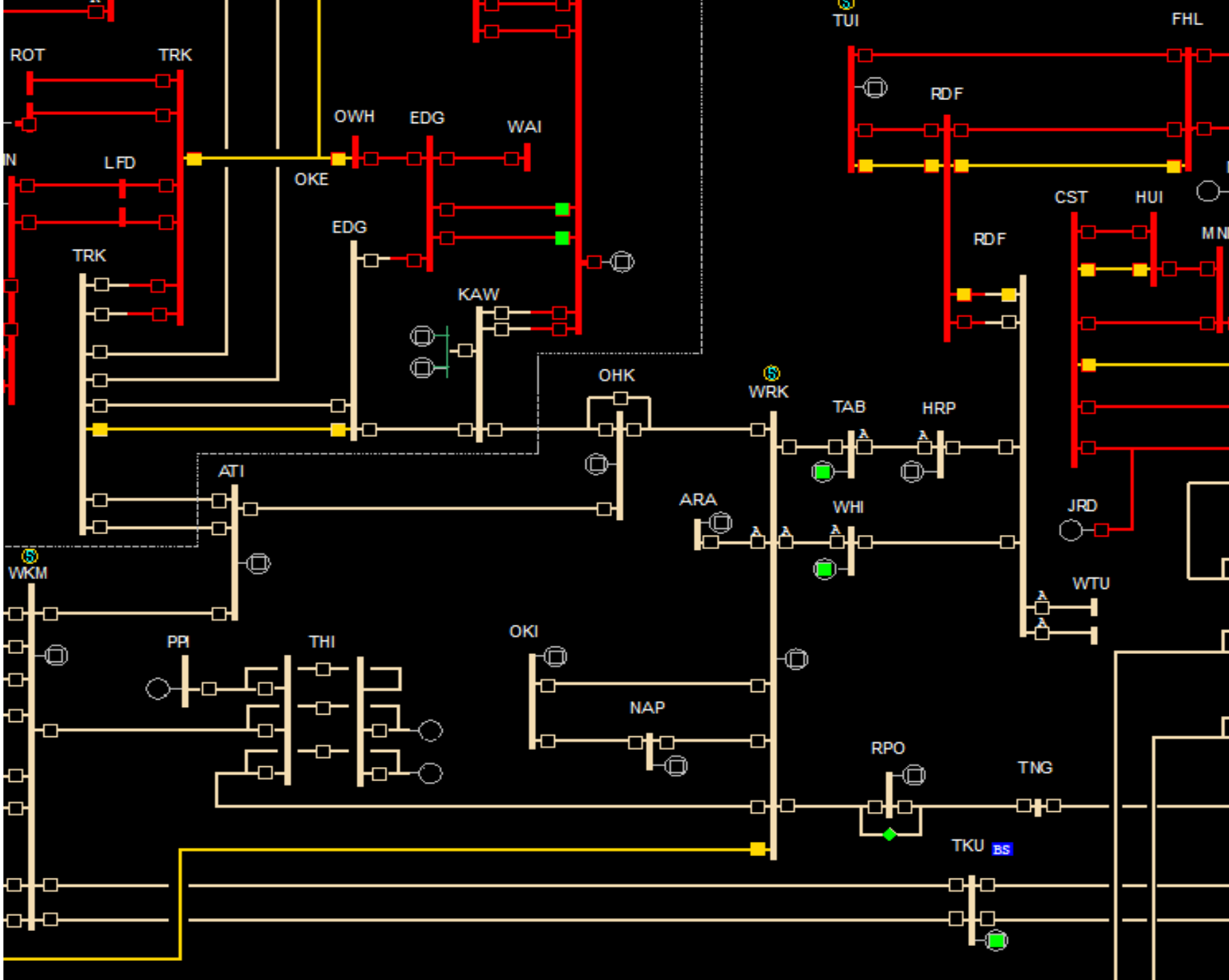
NNI Outages

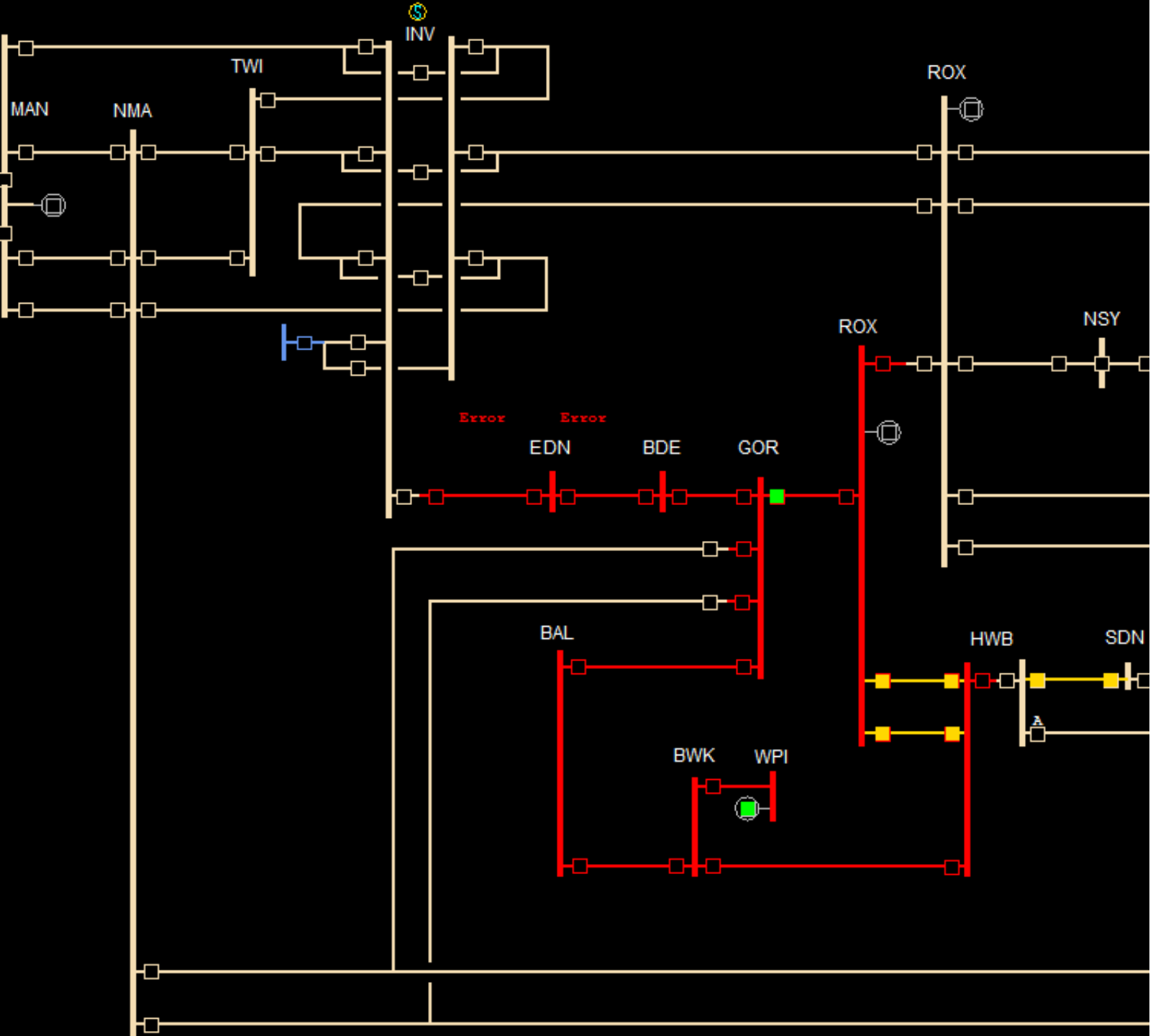
- Week of 27 Apr
  - DRY_TAK_OTA_1
  - EDG_TRK_2
  - DRY_BOB_HLY_2
  - OTA_PEN_6
- Week of 4 May
  - DRY_TAK_OTA_1
  - KAW_OHK_1
- Week of 11 May
  - EDG_T5
  - EDG_TRK_1
  - EDG_TRK_2
  - MNG_ROS_1
  - HAM Bus outages (weekend)
- Week of 18 May
  - EDG_T5
  - MNG_ROS_2
  - DRY_TAK_OTA_2
  - HAM Bus outages (weekend)



SNI Outages

- Week of 27 Apr
  - TKU_WKM_2
  - BPE_TKU_2
  - ARI_HTI_ONG_1
- Week of 4 May
  - TKU_WKM_2
  - BPE_TKU_2
  - HRP_TAB_1
- Week of 11 May
  - TKU_WKM_2
  - BPE_TKU_2
  - HAY_WIL_LTN_2
  - MGM_WDV_1
- Week of 18 May
  - TKU_WKM_1
  - BPE_TKU_1
  - RDF_TUI_1 & 2

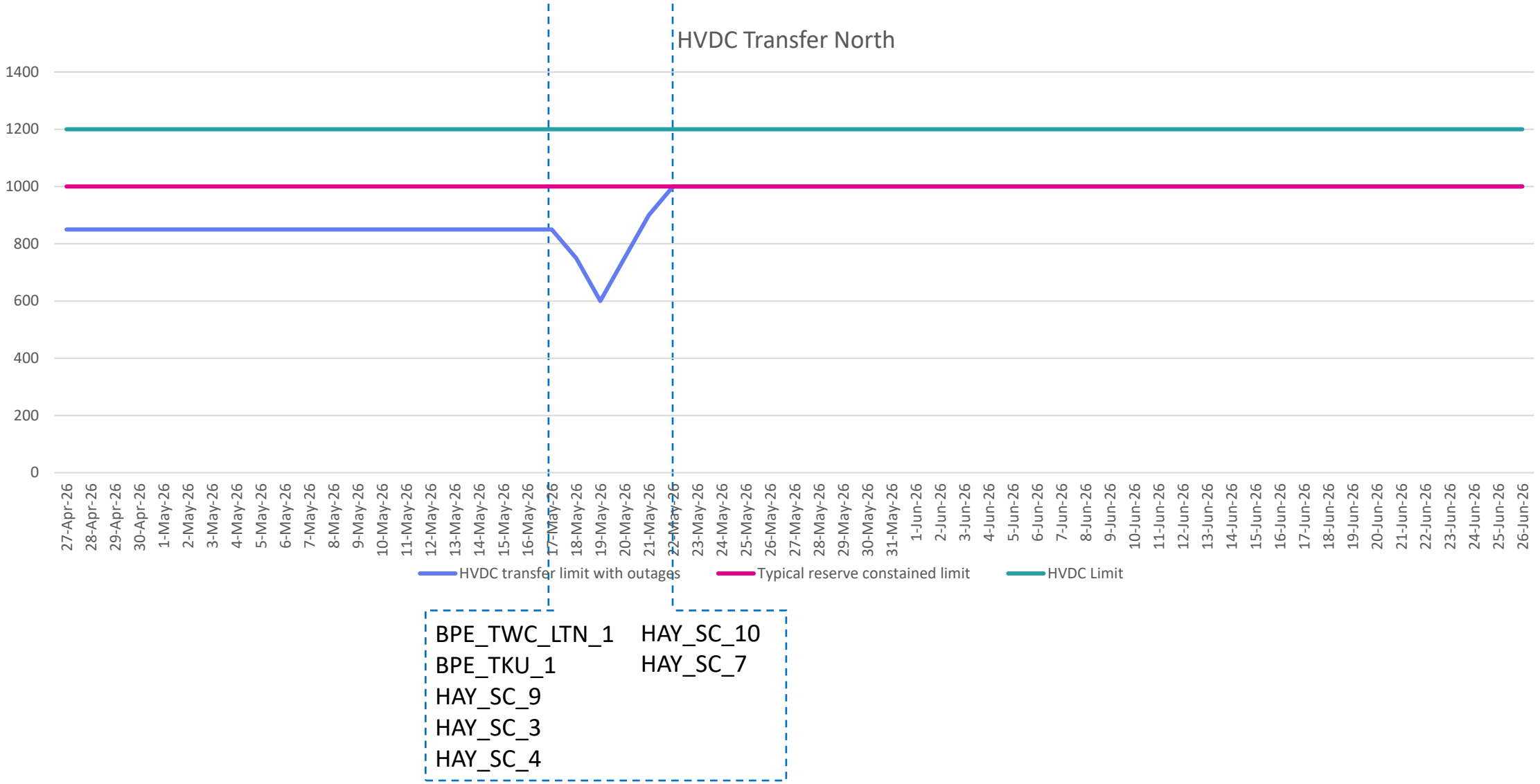




SI Outages

- Week of 27 Apr
  - ISL_NWD_1
  - KAI_SBK_1, SBK_WPR_1, ISL_SBK_2
- Week of 4 May
  - CYD_CML_TWZ_2
  - AVI_BEN_2
  - CML_FKN_2
  - INV_TWI_1
- Week of 11 May
  - AVI_BEN_2
  - INV_TWI_2
  - ISL_SBK_1, ASY_SBK_1, KAI_SBK_2
  - ISL_WPR_CUL_KIK_3
  - CML_FKN_1
- Week of 18 May
  - ISL_SBK_1, ASY_SBK_1, KAI_SBK_2
  - OAM_STU_BPD_WTK_2

HVDC North transfer limit



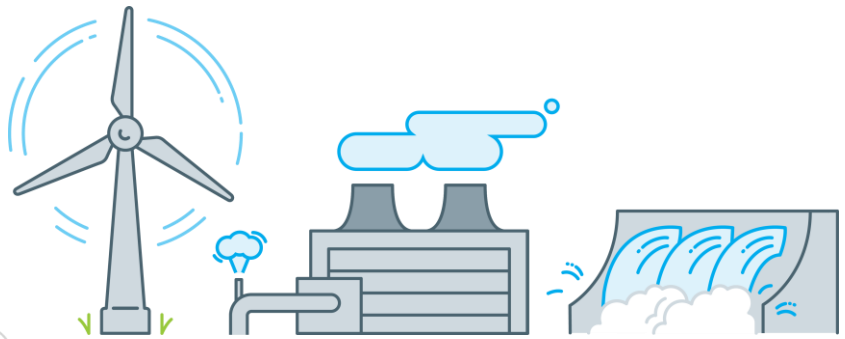
BPE_TWC_LTN_1
BPE_TKU_1
HAY_SC_9
HAY_SC_3
HAY_SC_4
HAY_SC_10
HAY_SC_7

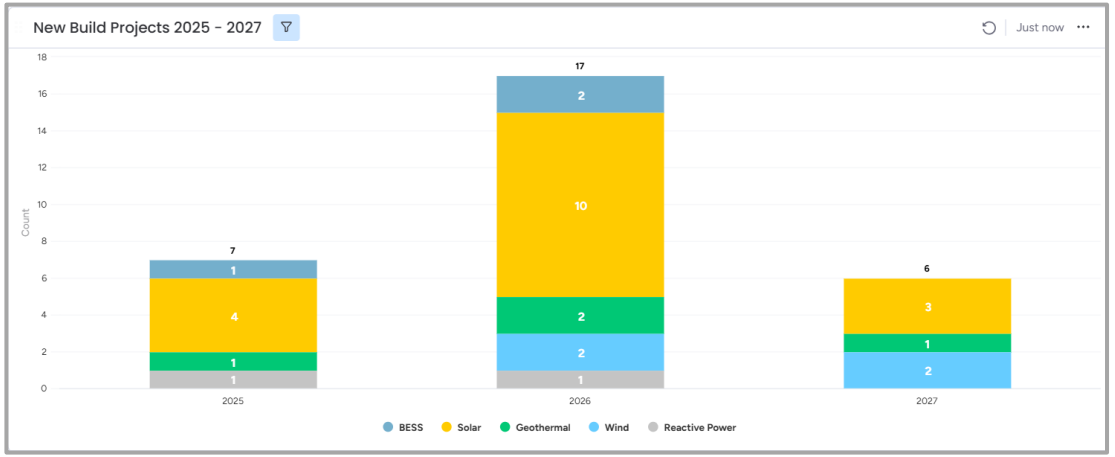
SO Generation commissioning & testing update

Commissioning, routine testing & upgrade projects

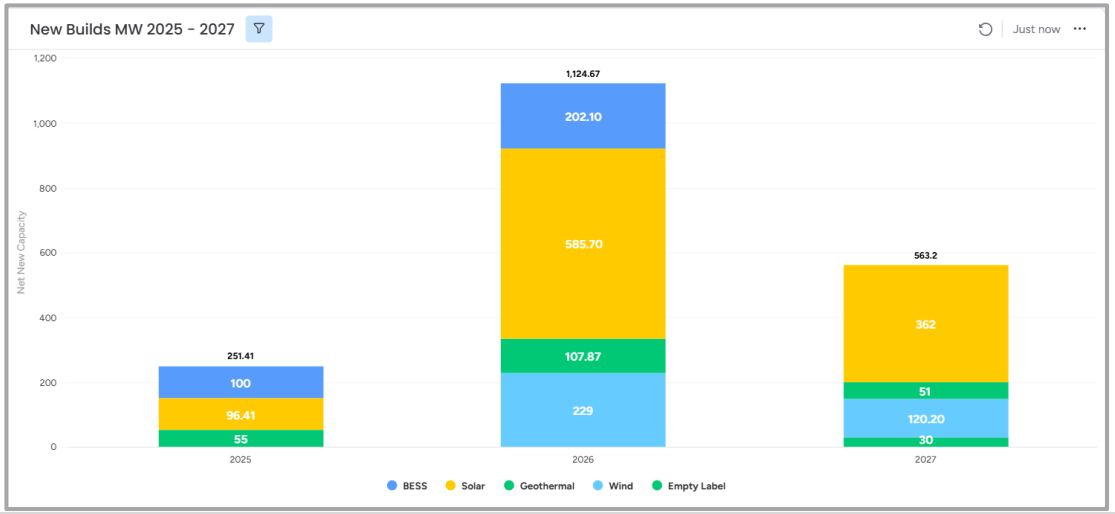
Currently Commissioning: 1
Upcoming Commissioning EOFY: 6

Project	Project Type	Stage	Net New Capaci...	Connection	Energy Type
GLB - Glenbrook Battery	New Build	Closeout	100	Transpower	BESS
KWE - Kaiwera Downs 2	New Build	Commissioning	152	Transpower	Wind
GDS - Golden Stairs Solar Farm	New Build	Delivery	17.6	Northpower	Solar
DVK - Dannevirke Solar Farm	New Build	Delivery	19.1	Transpower	Solar
EDS - Edgecumbe Solar Farm	New Build	Delivery	27	Horizon Networks	Solar
HLY - BESS	New Build	Delivery	102.1	Transpower	BESS
CLB - Clandeboye Solar Farm	New Build	Delivery	24	Alpine Energy	Solar
TAH - Tauhei Solar Farm	New Build	Delivery	150	Transpower	Solar



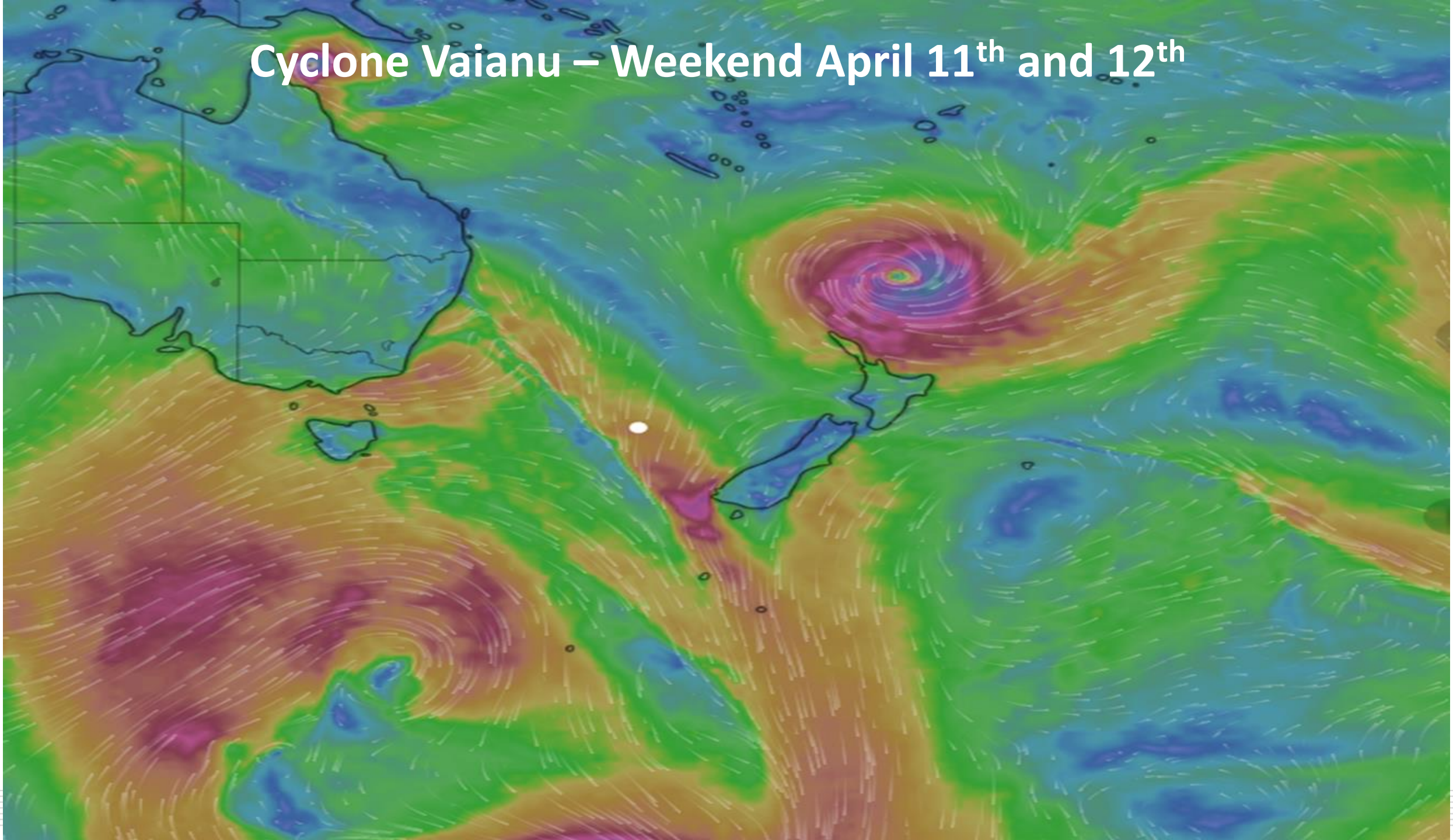


17 New Build Projects for 2026 (1125 MW)
6 New Build projects for 2027 (563 MW)



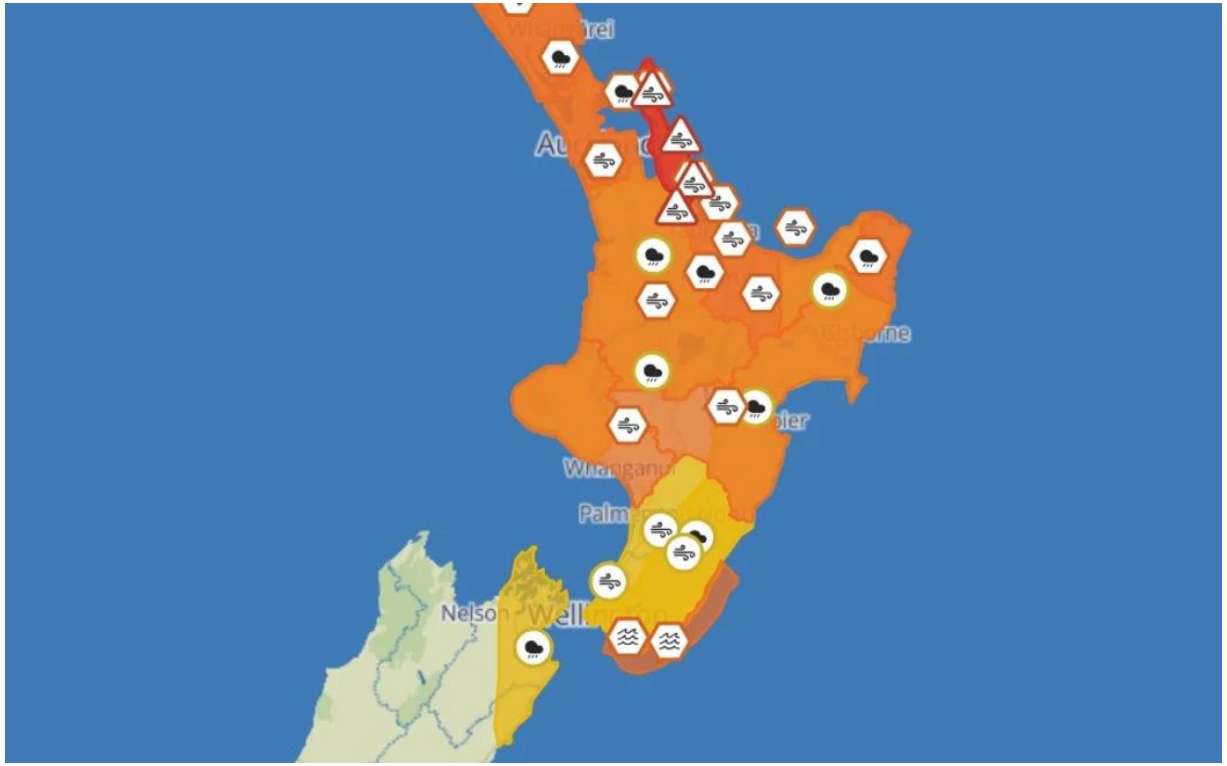
Operational update

Cyclone Vaianu – Weekend April 11th and 12th



Cyclone Vaianu – Preparation

- Control Room's fully resourced
- Contingency Plans ready
- Planned Outages assessed
- Service Provider readiness
- Incident Management Team
- MetService briefing



Cyclone Vaianu – Impact & Response

- Minimal system / market impact
- EDG_WAI tripped
- 8MW Loss of Supply, and Loss of Control
- Difficult to access terrain
- Supply restored Monday 13th April

Severe Weather – 20th April

Wellington Flooding

- Significant rainfall event in Wellington region
- State of Emergency declared
- No impact / risk to power system

Grid Emergency Edgecumbe

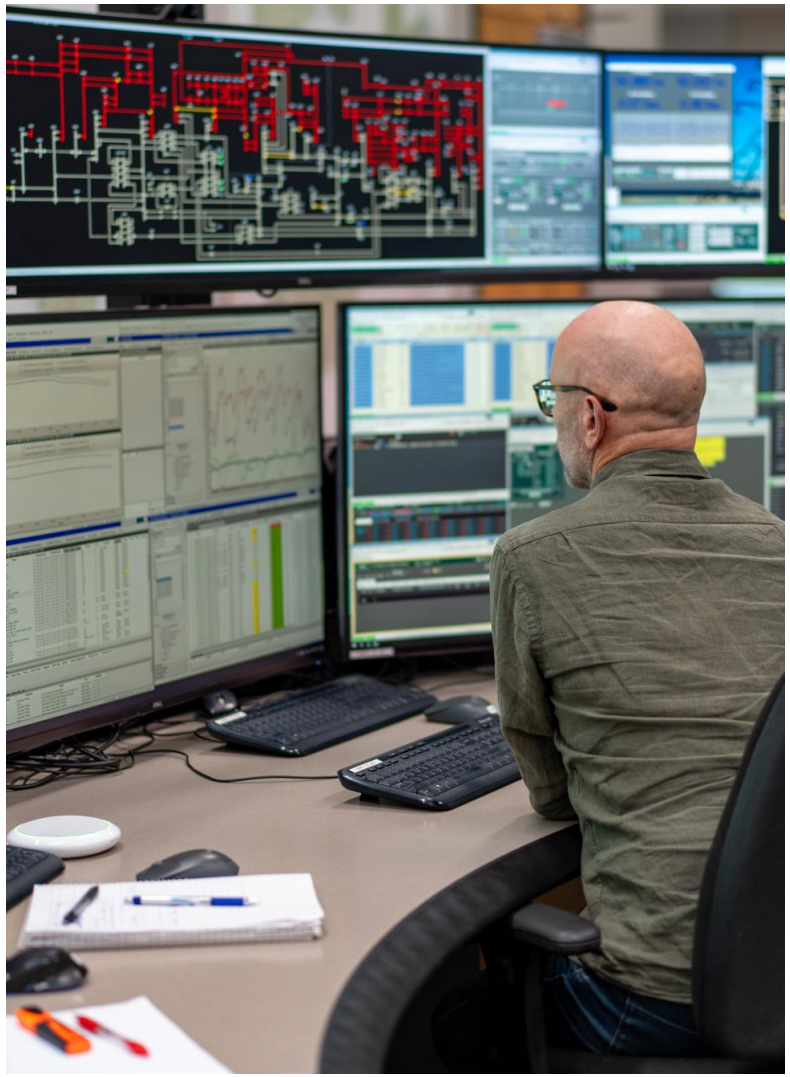
- Heavy lightning in Bay of Plenty
- Circuits treated as double-circuit risk
- System split implemented to protect GO asset

Source: Facebook

Reminder: Operational Notices Go-Live Today

Go-Live Day: Today!

- A Test Notice (GEN) will be sent at 13:00
- An email will be sent at 15:00 to confirm
- At this point, if you haven't received the 13:00 Notice, please advise



Information gathering – large loads

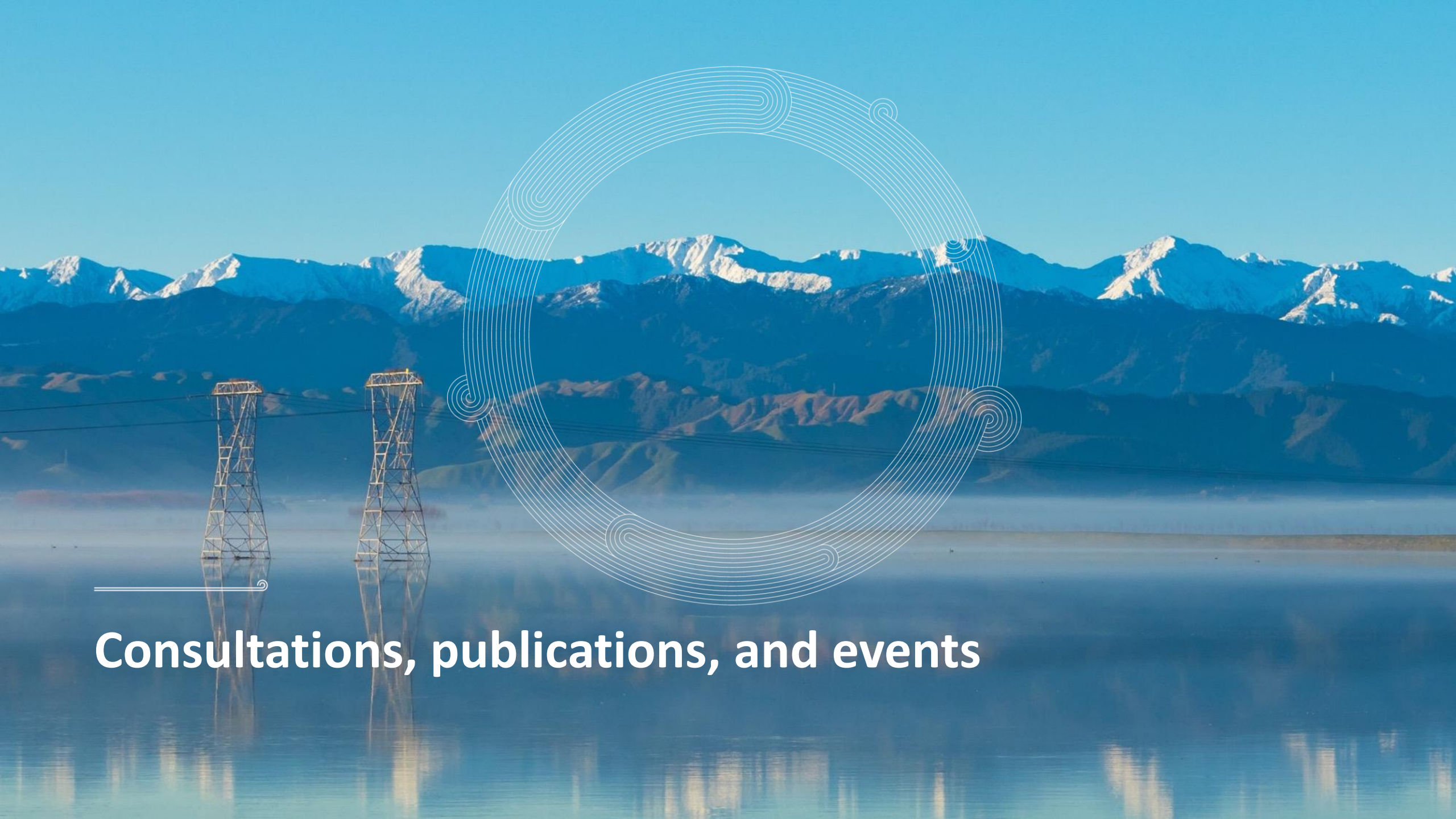
Information gathering for large loads on the power system

- Continuously improving processes and modelling capability.
- Large loads can have a significant impact on system performance.
- System Operator is looking to improve our visibility and representation in our tools of large loads on the system.
- Stage one will require direct consumers to provide asset capability information in accordance with clause 2(2) of schedule 8.3 of the EIPC.
- Stage two will address modelling and performance requirements. This will be a staged process, initially released as a guideline with opportunity for participants to provide feedback.

Information gathering for large loads on the power system

- Stage 1: Asset capability statement via excel spreadsheet, made available on System Operator website
- Intended to capture basic information:
  - Site connection point
  - Maximum MW, power factor, ramp rate
  - Load composition, e.g. amount of motor load, UPS, auxiliary systems
  - Basic modelling information for high voltage assets e.g. transformers, transmission lines, shunt capacitors, reactors, and filters
  - High level protection information to estimate trip proportions for voltage and frequency disturbances

Station - section	Field	Units	Large load site
General information	Plant or station name		
General information	Plant or station 3 letter code		
General information	Type of load	Smelter, arc furnace, data centre, Others	
General information	Island		
General information	Primary contact		
General information	Secondary contact		
General information	Network connection		
General information	Grid injection point / point of connection to the grid / grid exit point		
General information	Point of Connection to the Grid		
General information	Nominal voltage at point of connection to grid or local network	kV	
General information	ACS stage		
Additional information	Load maximum MW	MW	
Additional information	Maximum load ramp rate during startup, shutdown, and during load cycling	MW/min	
Additional information	Single Line Diagram (SLD)	attachment	
Additional information	Expected power factor at maximum MW	pf	
Additional information	How many MW of direct online start up motors are on site	MW	
Additional information	How many MW of VSD driven motors are on site	MW	
Additional information	Are energy storage systems installed?		



Consultations, publications, and events

Consultations, publications, and events

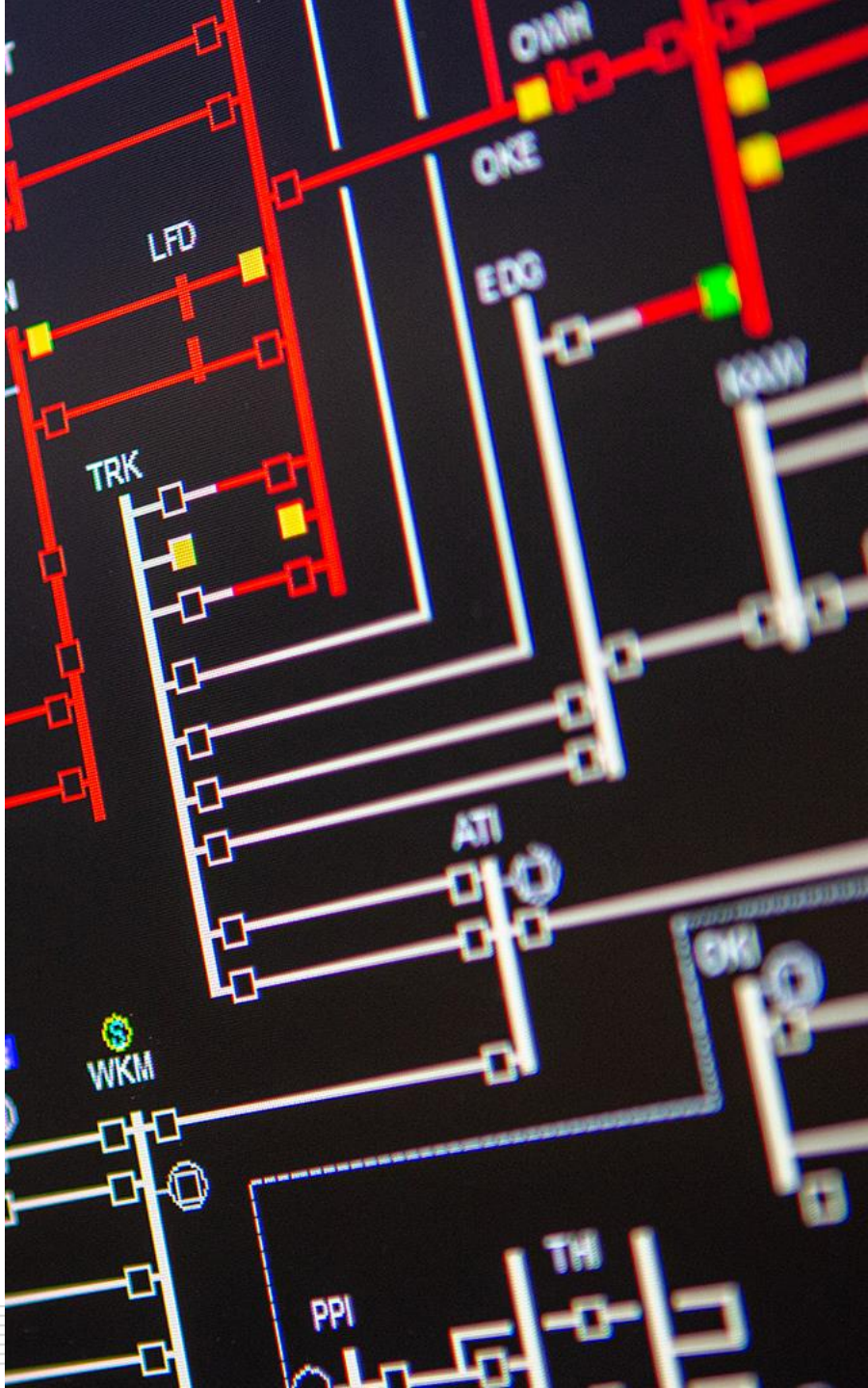
We will publish our draft **SOSA 2026** for consultation this week, documents will be available on the consultation page of our website.

This Thursday at 2pm we will hold a webinar on **Demand Allocation Tool changes** for EDB's and Direct Connect customers.

We will be holding our special industry forum in **preparation for Winter 2026** next Tuesday 28 April at 11pm. Contact system.operator@transpower.co.nz if you don't have the calendar invite.

Industry Exercise 2026 will take place in May and will simulate a significant space weather event, more information is available on our website.

We will publish the April **Energy Security Outlook** on our website by the end of the month.



2026 Annual System Operator Participant Survey

We need your feedback!

Our 2026 Annual System Operator Participant Survey is your opportunity to give us feedback on how we are performing in our role as System Operator for Aotearoa New Zealand. Your responses help us improve the quality of our services and better meet the market's needs in the future.

The survey has been extended until Thursday 30 April.

Scan here to have your say

Questions / Pātai

Please raise your hand

If you have feedback let us know via our **Feedback Form**

TRANSPOWER.CO.NZ