April 2026 Energy Security Outlook

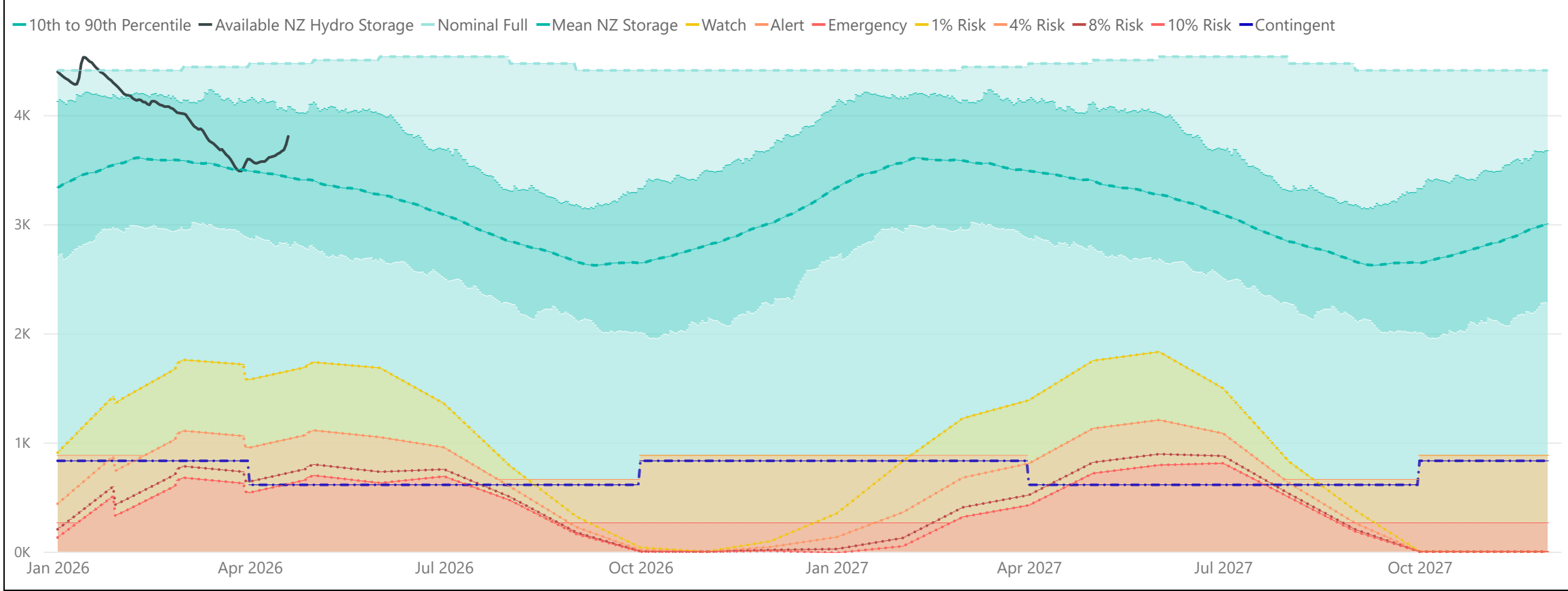
Tuesday, 28 April 2026

- Since our last update the national controlled hydro storage position has increased to 108% of the historic mean at 19 April, with South Island storage at 101%.
- There have been small increases to the risk curves in 2026 and 2027 due to a combination of lower coal and gas availability, scheduled thermal outages later in 2026 and early 2027, and later commissioning of new generation. The lower coal and gas availability is a result of a small decrease in storage levels and reduced gas production forecasts. These are unrelated to the global fuel shortage issue.
- No Simulated Storage Trajectories (SSTs) cross the Watch curve in 2026 or in 2027. This assumes the market supplements the existing coal stockpile at its maximum import capability to maintain increased thermal generation during any extended periods of low hydro inflows.
- Despite the recent above average inflows, particularly in the North Island, the current outlook for the next 35 days from Earth Sciences NZ (formerly NIWA) is for drier than average conditions for the west of the South Island which includes key hydro catchments. As we approach winter 2026, an ongoing focus on hydro storage management and ensuring sufficient backup thermal fuels and capacity remains necessary to mitigate the potential for very high prices.
- Current levels of thermal storage (gas and coal) remain close to their maximum levels. We are engaging with thermal generators to ensure we receive timely information should there be a need to modify our assumptions as a result of the global fuel supply situation.

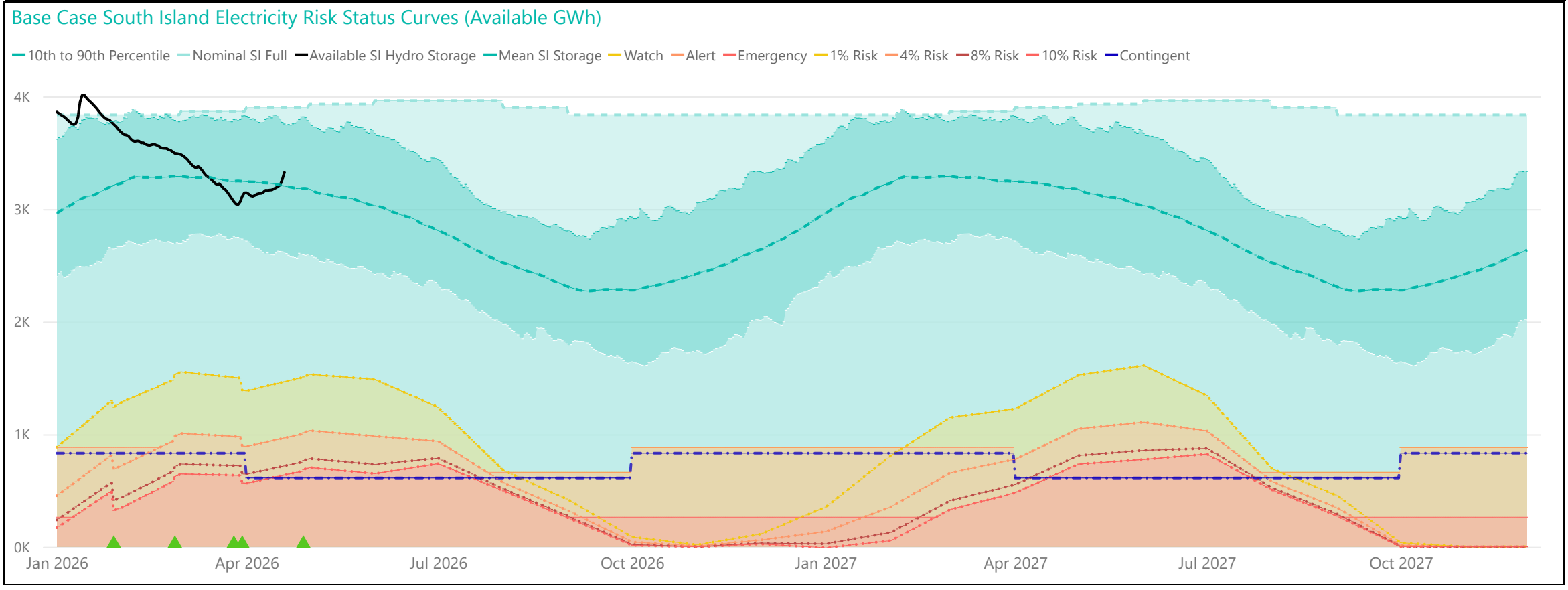
Base Case - Electricity Risk Curves (ERCs) Updates and Assumptions

- An increase in Ahuroa gas storage.
- Contracted gas reallocation from industrial users to power generation.
- Huntly availability in 2026 is reduced by scheduled Rankine, Unit 5, and Unit 6 outages, with an extended Unit 4 outage commencing in November 2026 and continuing into early 2027.
- TCC is no longer modelled following its announced exit at the end of 2025.
- Updates to planned generator outages and upcoming commissioning dates.
- Input data was prepared as of 17 April. The current hydro storage level is as of 19 April.
- Next month's Energy Security Outlook update (May 2026) will include the implementation of the SOSFIP amendment.

Base Case New Zealand Electricity Risk Status Curves (Available GWh)



Base Case South Island Electricity Risk Status Curves (Available GWh)



Energy Security Outlook Explanation:
Energy Security Outlook 101

Watch Curve - The one percent risk curve.
Alert Curve - The maximum of the four percent risk curve and the floor.
Emergency Curve - The maximum of the 10 percent risk curve and the floor.
Official Conservation Campaign Start - See cl. 9.23 of the code.
Official Conservation Campaign Stop - See cl. 9.23A of the code.
Triggers and actions of Watch/Alert/Emergency status are set only by the official base case curves (not scenario curves).

Note: The floor is equal to the amount of contingent hydro storage that is linked to the specific electricity risk curve, plus any contingent hydro storage linked to electricity risk curves representing higher levels of risk of future shortage, and the buffer. The default buffer is 50 GWh.

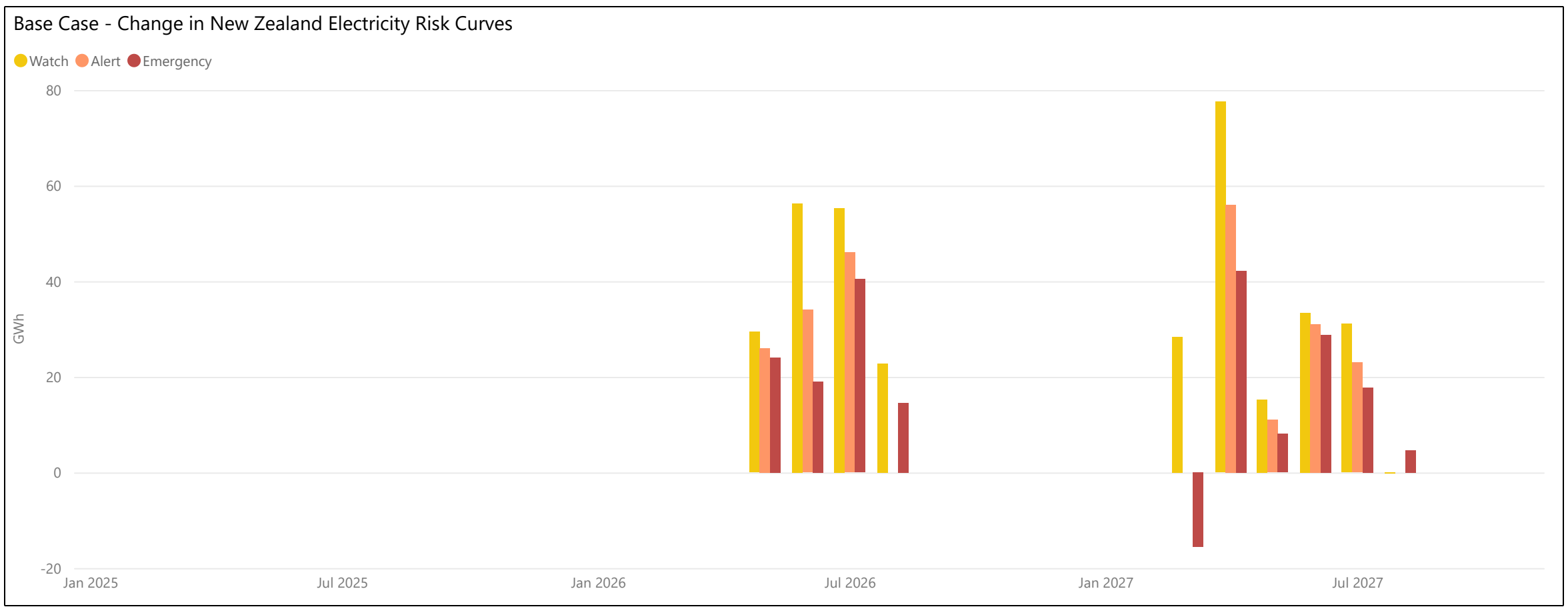
Base Case - Changes in the Electricity Risk Curves From Previous Update

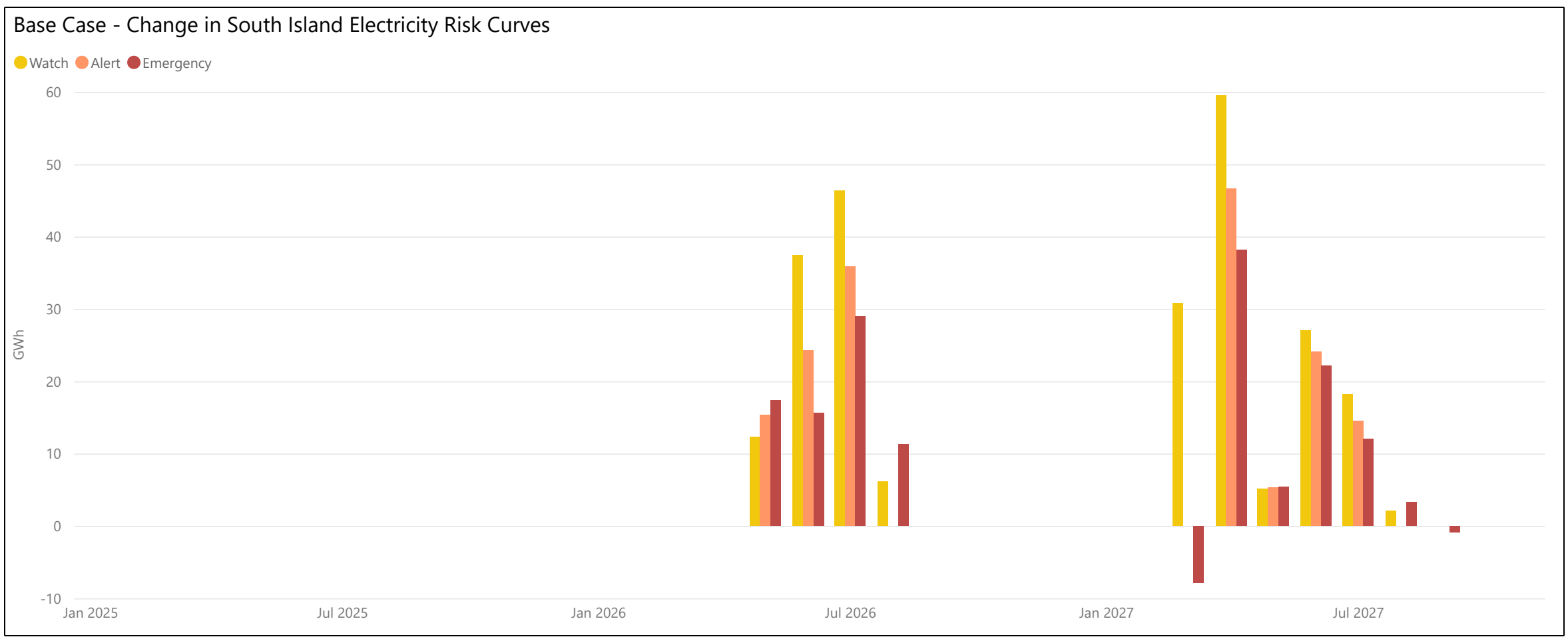
Tuesday, 28 April 2026

The changes to the Watch/Alert/Emergency curves compared to the last update are shown below.

Increases in the 2026 curves (New Zealand Watch curve by up to 56 GWh, South Island by up to 46 GWh) reflect scheduled Huntly Rankine outages and a slightly lower starting coal stockpile.
In 2027, increases in the curves (New Zealand Watch curve by up to 78 GWh, South Island by up to 60 GWh) reflect months with lower gas production forecasts.

Across both 2026 and 2027, changes are also influenced by shifts in commissioning project timing. In most cases projects have been pushed out slightly, however the slight decrease in the Emergency curve in 2027 reflects a commissioning project being brought forward.





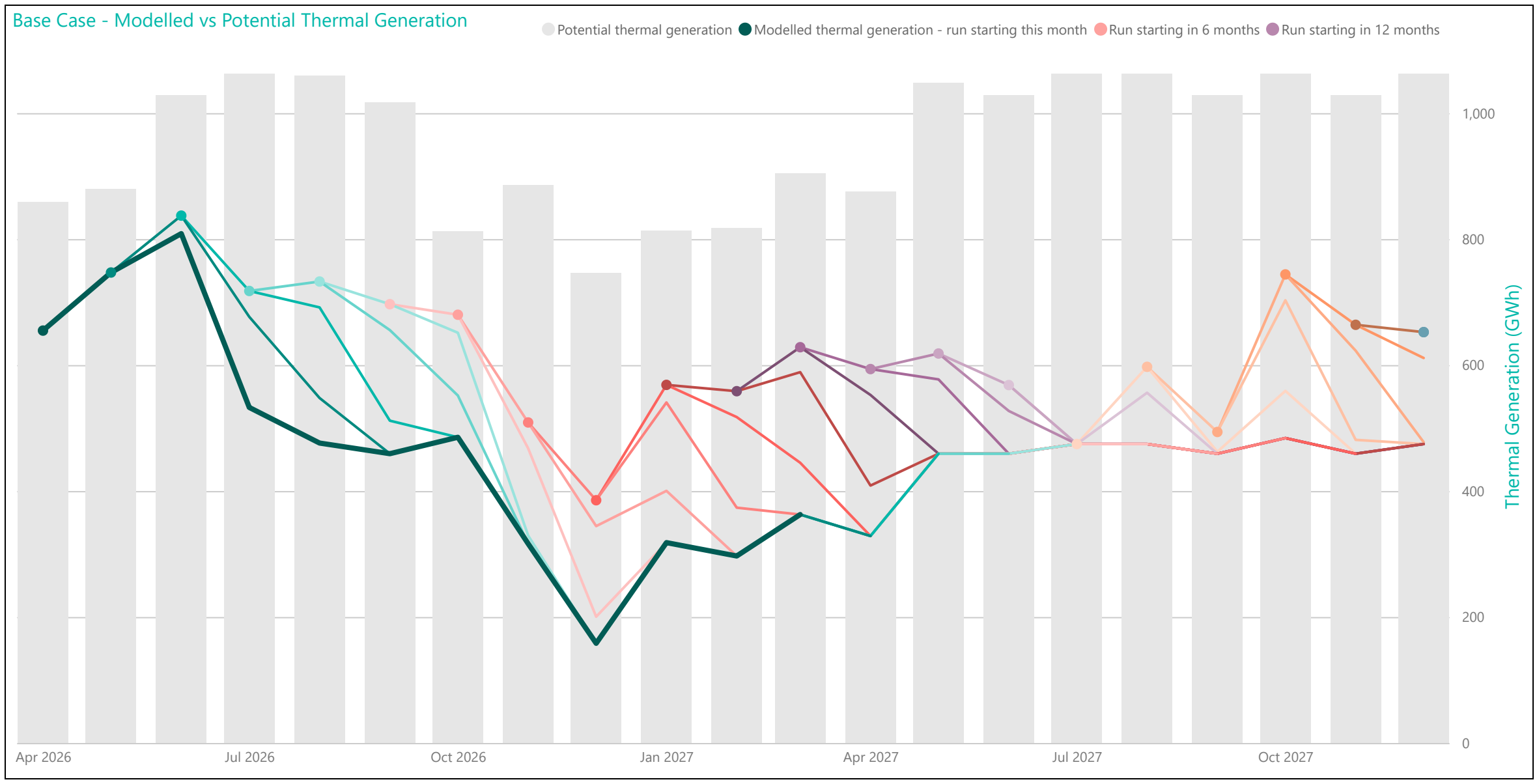
Base Case - Thermal Deratings

Tuesday, 28 April 2026

The thermal deratings and key considerations for the April 2026 ERCs update are below:

- The effect of contracted gas reallocation from the industrial sector to power generation is modelled in May and June 2026.
- Otherwise, thermal generation capability is similar to last month's update but with a lower starting coal stockpile.
- Note that the deratings on thermal generation would decrease if more coal or gas is made available for electricity generation than what has been modelled.
- Gas storage levels at AGS have increased to 6.8 PJ as of the beginning of April and could fuel a large combined cycle gas plant at full output for ~3 months (ignoring
- draw down rates) or a peaker for ~11 months.
- The current coal stockpile can fuel three Rankines at full output for ~4 months, or one Rankine for ~13 months without further imports.

On the chart below, potential thermal generation is the total capacity of available units. Modelled thermal generation (shown by the lines) is what those units could generate using the gas and coal available for electricity generation. There is a separate model run starting each month, with the start of each run shown by a dot. In the table, each row corresponds to a separate run. Each run starts with a stockpile of stored coal and gas, and modelled generation tends to decline initially as this stockpile is consumed. Whirinaki is a diesel generator and is not included in the charts below, however it is still included in the model where it is limited to 60 GWh generation over a 6 month period.



Modelled Thermal Generation (GWh) by Run Month

Run Month	2026-04	2026-05	2026-06	2026-07	2026-08	2026-09	2026-10	2026-11	2026-12	2027-01	2027-02	2027-03	2027-04	2027-05	2027-06	2027-07	2027-08	2027-09	2027-10	2027-11	2027-12	2028-02	2028-03
2026-04	655	747	809	533	476	459	485	316	158	318	297	363											
2026-05		747	837	677	548	459	485	316	158	318	297	363	329										
2026-06			837	718	692	512	485	316	158	318	297	363	329	459									
2026-07				718	733	656	552	316	158	318	297	363	329	459	459								
2026-08					733	697	651	329	158	318	297	363	329	459	459	475							
2026-09						697	680	468	200	318	297	363	329	459	459	475	475						
2026-10							680	509	344	400	297	363	329	459	459	475	475	459					
2026-11								509	385	541	374	363	329	459	459	475	475	459	484				
2026-12									385	569	517	445	329	459	459	475	475	459	484	459			
2027-01										569	559	589	409	459	459	475	475	459	484	459	475		
2027-02											559	628	553	459	459	475	475	459	484	459	475		
2027-03												628	594	577	459	475	475	459	484	459	475	444	
2027-04													594	618	527	475	475	459	484	459	475	444	335
2027-05														618	568	475	475	459	484	459	475	444	354
2027-06															568	475	556	459	484	459	475	444	450
2027-07																475	597	462	559	459	475	444	475
2027-08																	597	494	703	481	475	444	475
2027-09																		494	744	623	478	444	475
2027-10																			744	664	611	444	475
2027-11																				664	652	465	475
2027-12																					652	606	511
2028-02																						647	696
2028-03																							696

Base Case - Simulated Storage Trajectories (SSTs)

Tuesday, 28 April 2026

The April SST update is shown below which have a hydro storage starting date of 17 April.

No SSTs cross any risk curves during the outlook horizon (to the end of 2027).