

2 June 2026

Trading conduct report

24-30 May 2026

Market monitoring weekly report

Trading conduct report 24-30 May 2026

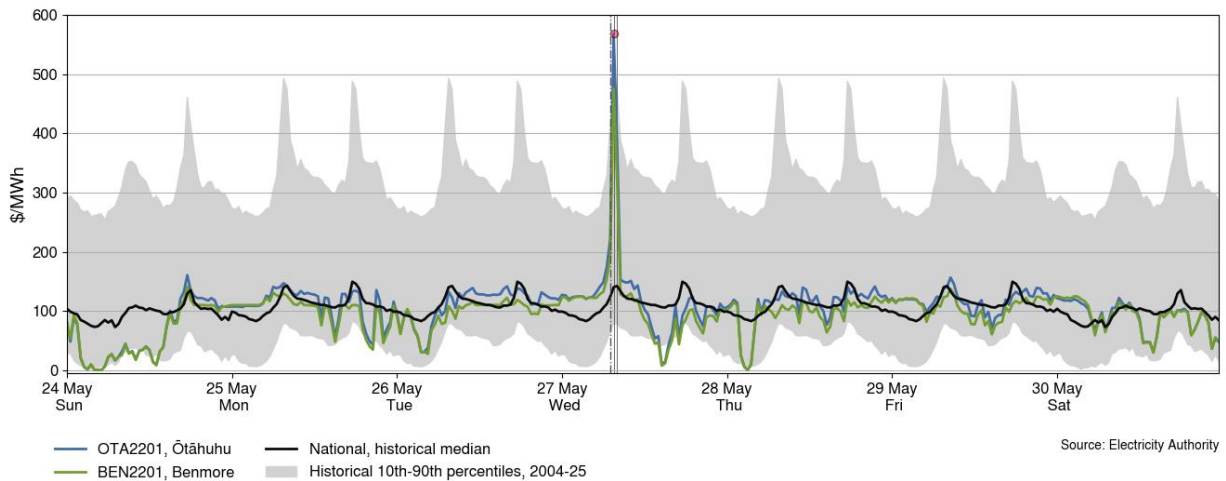
1. Overview

- 1.1. This week the average spot price has decreased from \$105/MWh to \$99/MWh. Prices have remained stable this week despite times of high demand and low wind generation. National controlled storage has decreased to 76% nominally full and 105% of the historical average for this time of year.

2. Spot prices

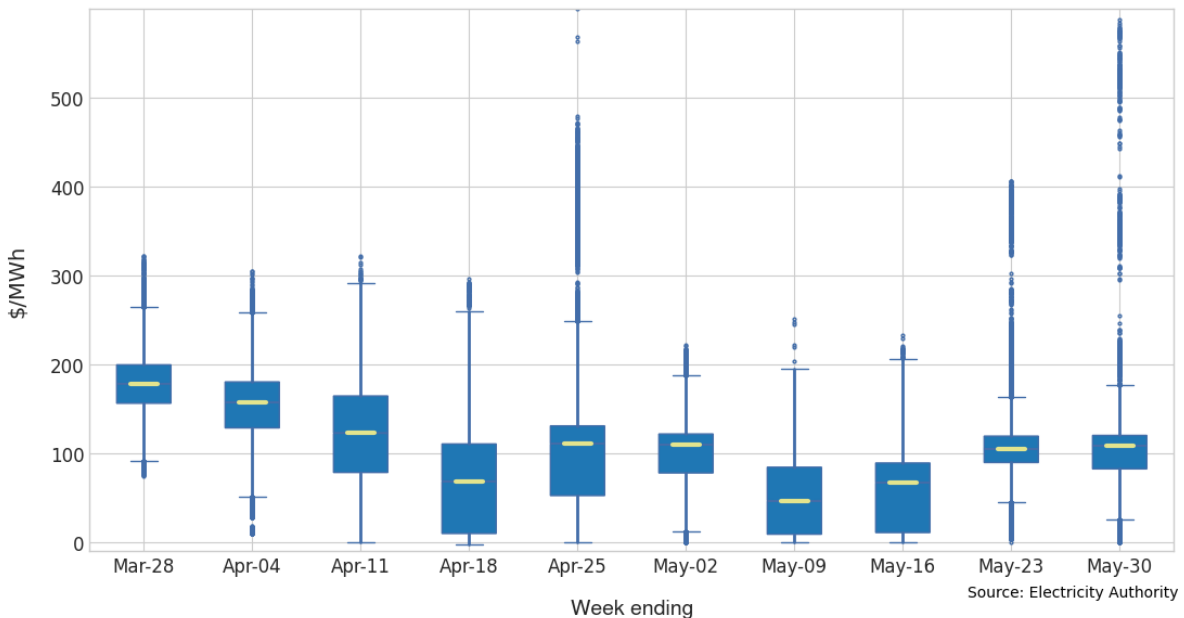
- 2.1. This report monitors underlying wholesale price drivers to assess whether trading periods require further analysis to identify potential non-compliance with the trading conduct rule. In addition to general monitoring, it also singles out unusually high-priced individual trading periods for further analysis by identifying when wholesale electricity spot prices are outliers compared to historic prices for the same time of year.
- 2.2. Between 24-30 May:
 - (a) The average spot price for the week was \$99/MWh, a decrease of around \$6/MWh compared to the previous week.
 - (b) 95% of prices fell between \$6/MWh and \$144/MWh.
- 2.3. Prices have remained relatively stable this week despite times of high demand and low wind generation.
- 2.4. From 7.30am to 8.00am on Wednesday, prices spiked above \$300/MWh, reaching \$475/MWh at Benmore and \$568/MWh at Ōtāhuhu. The highest 5-minute prices occurred at 7.40am and 7.45am, where the spot price reached \$749/MWh at Benmore and \$895/MWh at Ōtāhuhu. At these times, demand was at its weekly peak of 6,160MW, and between 30 and 44 MW above forecast. In these times, Stratford Peaker 1 attempted to run and tripped off in the 7:00am trading period, while Stratford Peaker 2 ran to offer reserve in the 7:30am trading period.
- 2.5. Figure 1 shows the wholesale spot prices at Benmore and Ōtāhuhu alongside the national historic median and historic 10-90th percentiles adjusted for inflation. Prices greater than quartile 3 (75th percentile) plus 1.5 times the inter-quartile range of historic prices, plus the difference between this week's median and the historic median, are highlighted with a vertical black line. Other notable prices are marked with black dashed lines.

Figure 1: Wholesale spot prices at Benmore and Ōtāhuhu, 24-30 May



- 2.6. Figure 2 shows a box plot with the distribution of spot prices during this week and the previous nine weeks. The yellow line shows each week’s median price, while the blue box shows the lower and upper quartiles (where 50% of prices fell). The ‘whiskers’ extend to points that lie within 1.5 times of the interquartile range (IQR) of the lower and upper quartile. Observations that fall outside this range are displayed independently.
- 2.7. The distribution of spot prices this week was similar to last week, with higher maximum prices. The median price was \$109/MWh and most prices (middle 50%) fell between \$82/MWh and \$121/MWh.

Figure 2: Box plot showing the distribution of spot prices this week and the previous nine weeks

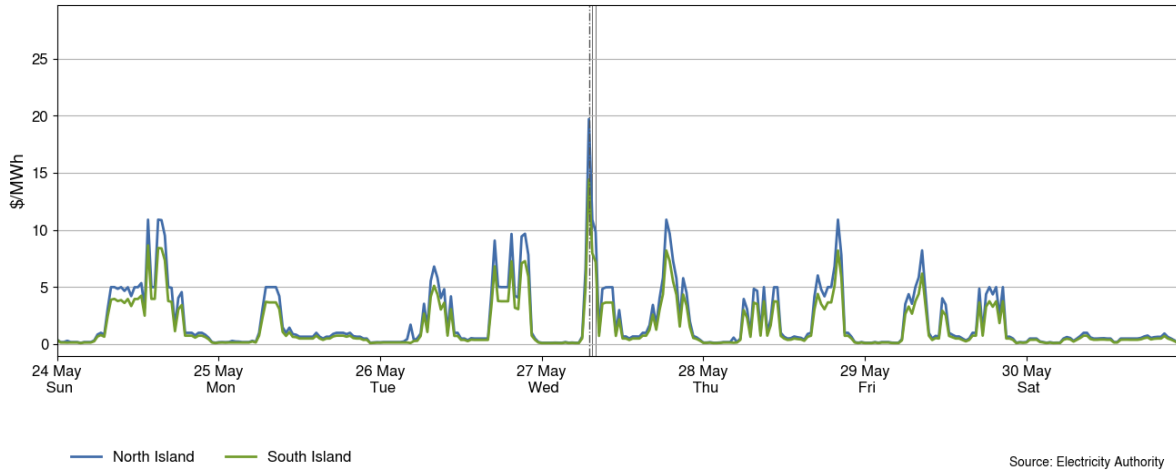


3. Reserve prices

- 3.1. Fast instantaneous reserve (FIR) prices for the North and South Islands are shown below in Figure 3. FIR prices remained mostly below \$3/MWh with prices spiking above \$5/MWh throughout the week.

- 3.2. On Wednesday 27 May at 7.00am, FIR prices peaked at \$20/MWh in the North Island and \$14 in the South Island. At this time, Huntly 5 was the risk setter for both islands.

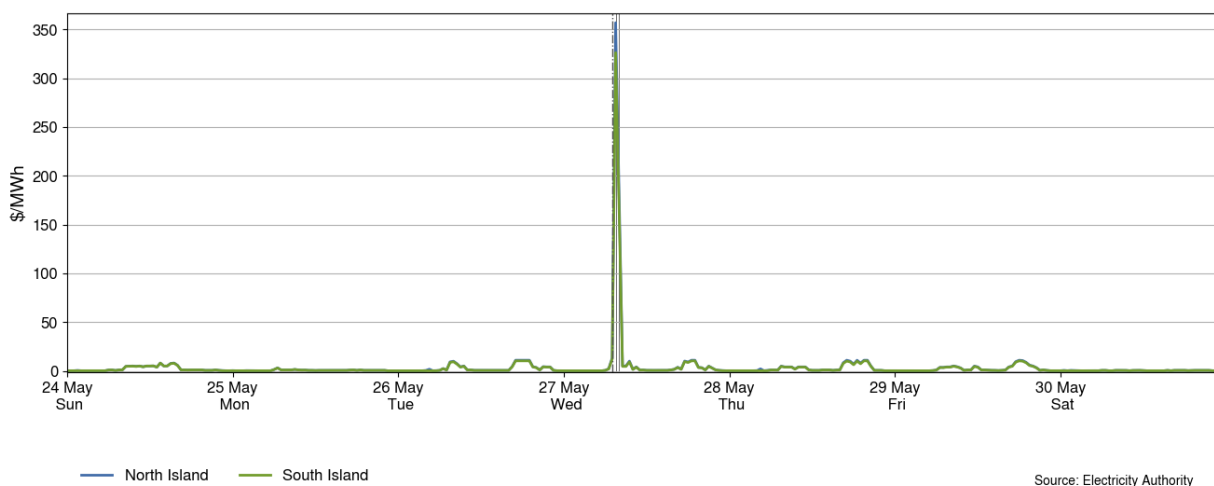
Figure 3: Fast instantaneous reserve price by trading period and island, 24-30 May



- 3.3. Sustained instantaneous reserve (SIR) prices for the North and South Islands are shown in Figure 4. SIR prices remained mostly below \$2/MWh with prices reaching above \$10/MWh throughout the week.

- 3.4. On Wednesday 27th May at 7.30am and 8.00am, SIR prices spiked to \$360/MWh and \$182/MWh respectively in the North Island, and to \$326/MWh and \$167/MWh respectively in the South Island. The highest 5-minute reserve prices occurred at 7.40am and 7.45am, where the SIR price reached \$607/MWh at Benmore and \$664/MWh at Ōtāhuhu. At this time, Huntly 5 was the risk setter for both islands. Also, the South Island cleared reserve megawatts reduced, and less reserve was able to be transferred to the North Island, meaning more North Island reserve was required to cover Huntly 5.

Figure 4: Sustained instantaneous reserve by trading period and island, 24-30 May



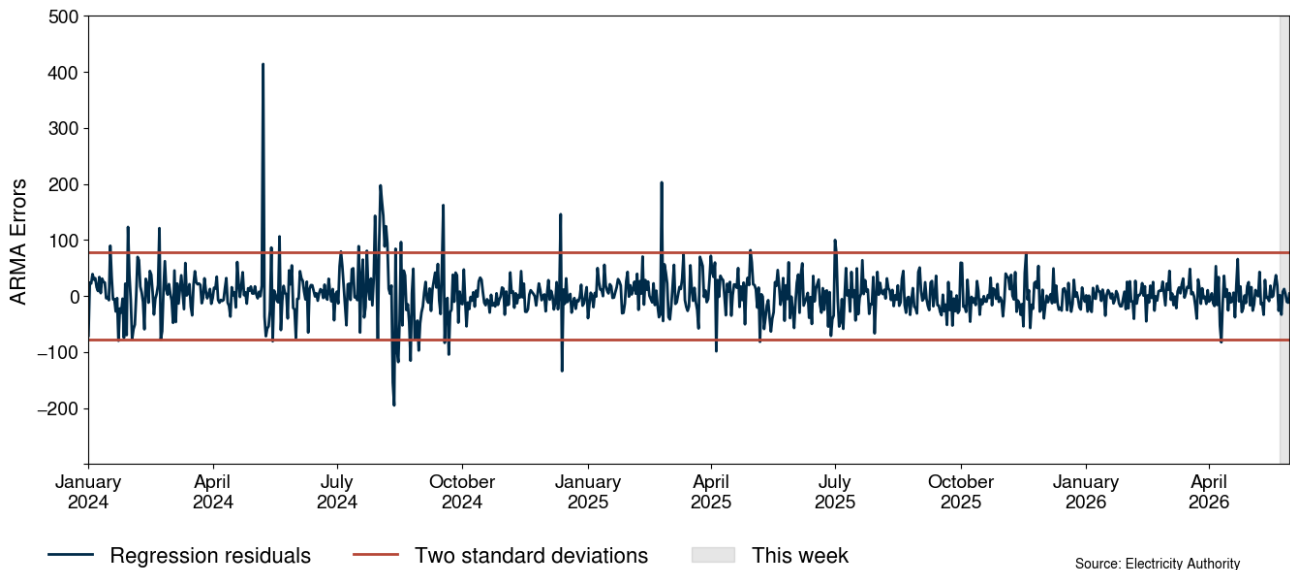
4. Regression residuals

- 4.1. The Authority's monitoring team uses a regression model to model electricity spot prices. The residuals show how close predicted spot prices were to actual prices. Large residuals

may indicate that prices do not reflect underlying supply and demand conditions. Details on the regression model and residuals can be found in [Appendix A](#).

- 4.2. Figure 5 shows the residuals of autoregressive moving average (ARMA) errors from the daily model. Positive residuals indicate that the modelled daily price is lower than the actual average daily price and vice versa. When residuals are small this indicates that average daily prices are likely largely aligned with market conditions. These small deviations reflect market variations that may not be controlled in the regression analysis.
- 4.3. This week, there were no residuals above or below two standard deviations, indicating that prices were similar to those predicted by the model.

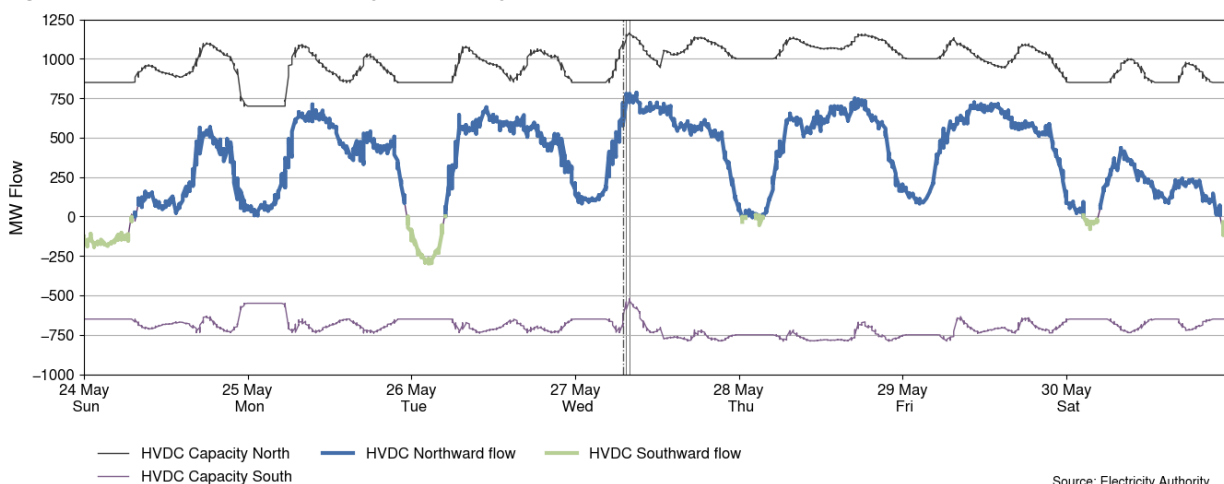
Figure 5: Residual plot of estimated daily average spot prices, 1 January 2024 - 30 May 2026



5. HVDC

- 5.1. Figure 6 shows the HVDC flow between 24-30 May. HVDC flows were mostly northward, with some southward flow occurring overnight.
- 5.2. The highest northward flow of 785 MW occurred on Wednesday morning at 9.00am. The highest southward flow of 299MW occurred on Tuesday at 2.30am.

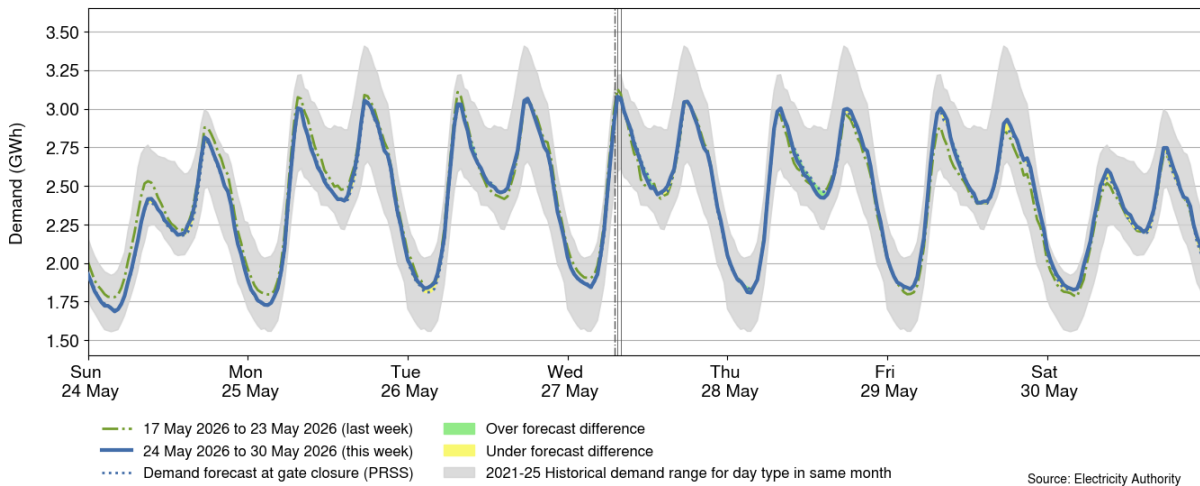
Figure 6: HVDC flow and capacity, 24-30 May



6. Demand

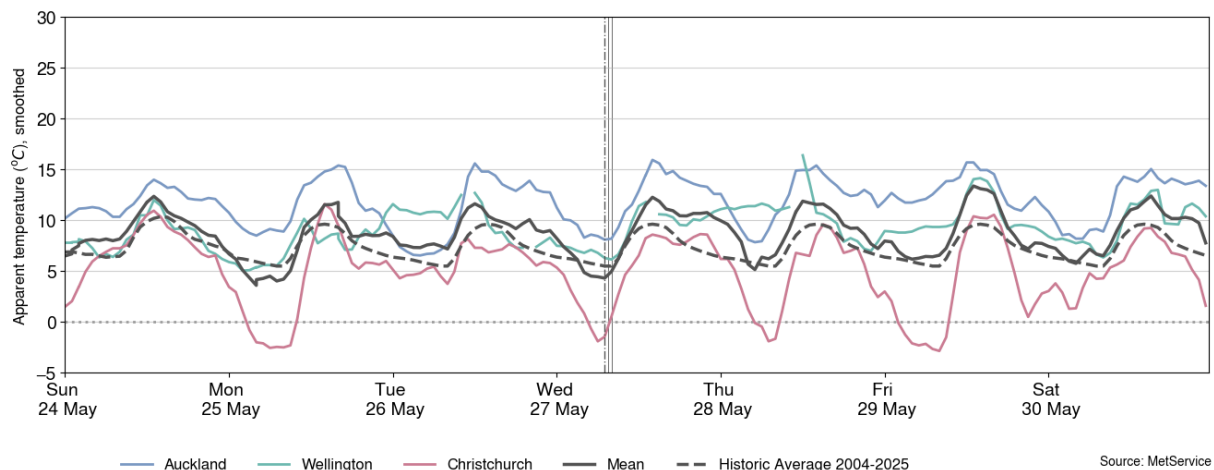
- 6.1. Figure 7 shows national demand between 24-30 May, compared to the historic range and the demand of the previous week. Demand was about the same as last week, being slightly lower on Sunday, Monday, Tuesday.

Figure 7: National demand, 24-30 May compared to the previous week



- 6.2. Figure 8 shows the hourly apparent temperature at main population centres from 24-30 May. The apparent temperature is an adjustment of the recorded temperature that accounts for factors like wind speed and humidity to estimate how cold it feels. Also included for reference is the mean temperature of the main population centres, and the mean historical apparent temperature of similar weeks, from previous years, averaged across the three main population centres.
- 6.3. Apparent temperatures ranged from 6°C to 17°C in Auckland, 5°C to 16°C in Wellington, and -3°C to 12°C in Christchurch. Note some temperature data is missing for Wellington.

Figure 8: Temperatures across main centres, 24-30 May

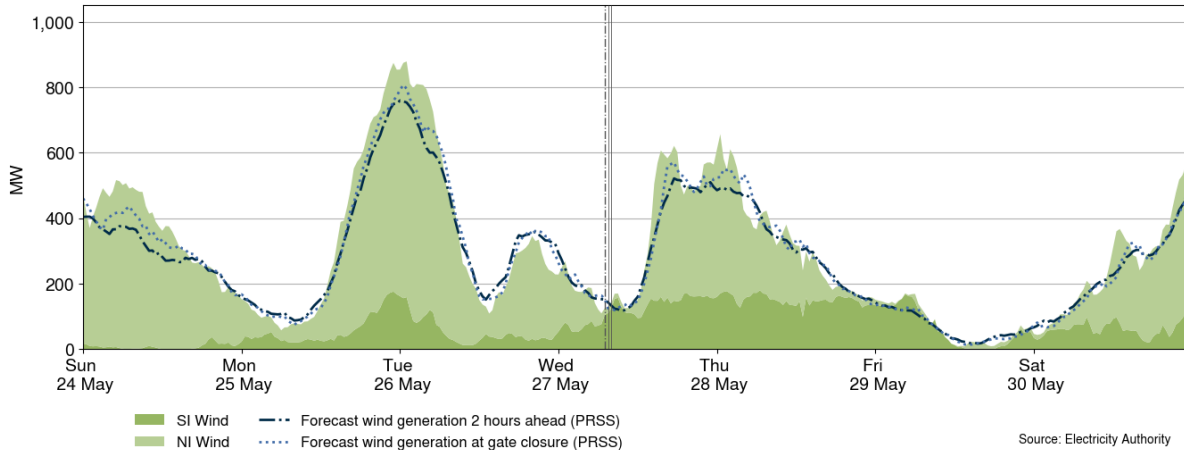


7. Generation

- 7.1. Figure 9 shows wind generation and forecast from 24-30 May. This week wind generation varied between 8MW and 878MW, with a weekly average of 295MW. Wind generation was high over Monday evening and Tuesday morning, otherwise it was relatively low.

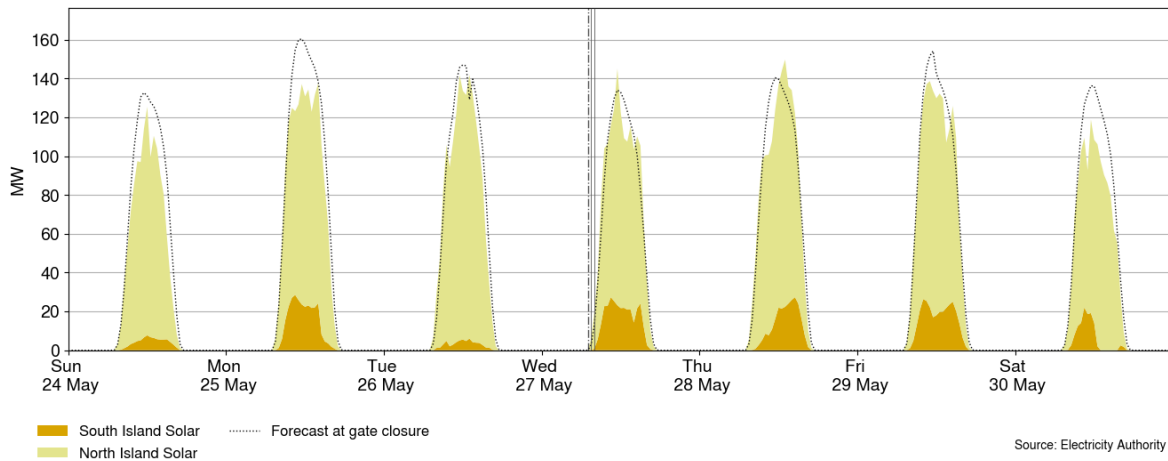
- 7.2. Throughout the week there were consistent occurrences of under forecasting wind generation, and several instances of over forecasting wind generation. These forecasting errors occurred from an amalgamation of farms, with larger under forecasting errors occurring at Harapaki and Te Āpiti.
- 7.3. The maximum under forecast error of 89MW occurred on Tuesday at 10.30pm. The maximum over forecast error of 188MW occurred on Wednesday at 3.00pm.

Figure 9: Wind generation and forecast, 24-30 May



- 7.4. Figure 10 shows grid connected solar generation from 24-30 May. Solar generation was relatively high throughout the week.
- 7.5. Solar generation peaked at 150 MW on Thursday at 1.00pm.

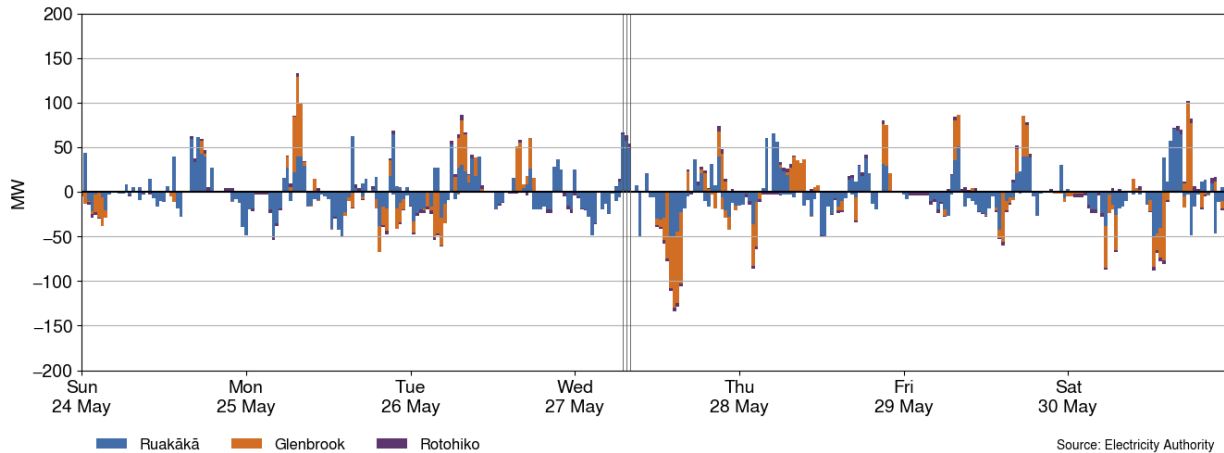
Figure 10: Grid connected solar generation, 24-30 May



- 7.6. Figure 11 shows when the grid scale batteries Rotohiko (35MW/35MWh), Ruakākā (100MW/200MWh) and Glenbrook (100MW/200MWh) charged (negative values) and discharged (positive values). Typically, a grid scale battery charges when prices are low and discharges energy back into the grid when prices are higher.
- 7.7. This week, the batteries generally charged while prices were lower, at below \$120/MWh, and discharged while prices were higher, at above \$120/MWh.
- 7.8. From Monday to Wednesday morning, Glenbrook only offered to charge for less than \$50/MWh. Because of this, it was unable to charge overnight on Tuesday, and so did not

have energy to discharge during the price spike on Wednesday. The monitoring team is looking further into Glenbrook charging and discharging offers.

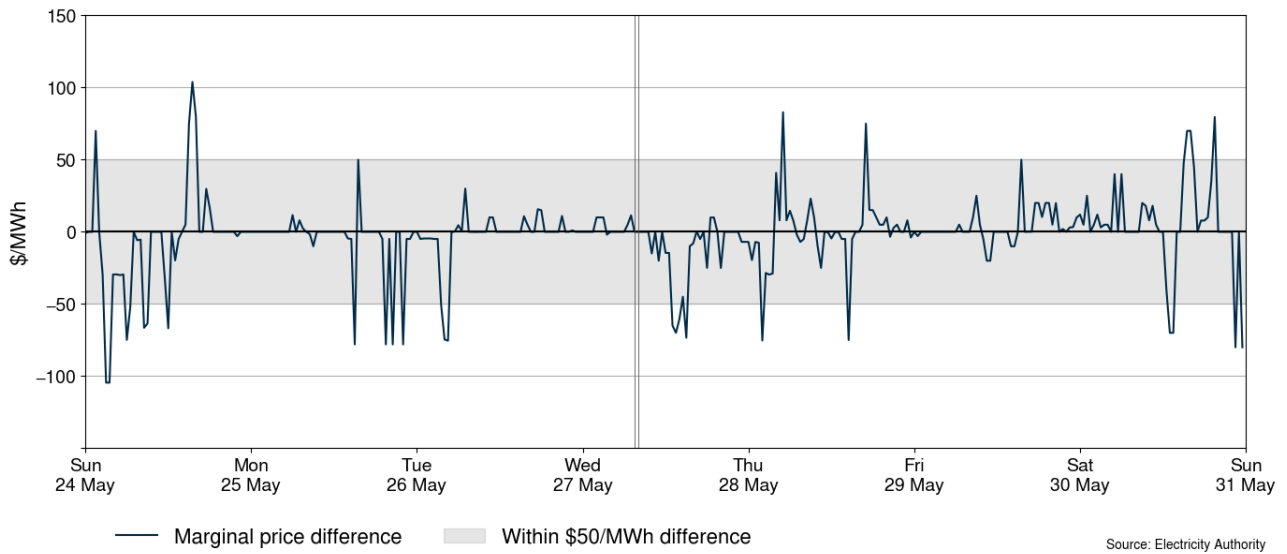
Figure 11: Grid scale battery charge and discharge, 24-30 May



- 7.9. Figure 12 shows the difference between the national real-time dispatch (RTD) marginal price and a simulated marginal price where the real-time intermittent generation and demand matched the 1-hour ahead forecast (PRSS¹) projections. The figure highlights when forecasting inaccuracies are causing large differences to final prices. When the difference is positive this means that the 1-hour ahead forecasting inaccuracies resulted in the spot price being higher than anticipated - usually here demand is under forecast and/or intermittent generation is over forecast. When the difference is negative, the opposite is true. Because of the nature of demand and intermittent generation forecasting, the 1-hour ahead and the RTD intermittent generation and demand forecasts will rarely be the same. Trading periods where this difference is exceptionally large can signal that forecasting inaccuracies had a large impact on the final price for that trading period.
- 7.10. Some trading periods this week had a marginal price difference over \$50/MWh.
- 7.11. The maximum negative difference of \$105/MWh occurred on Sunday at 3.00am and 3.30am. At these times, wind generation was respectively 125MW and 118MW more than forecast.
- 7.12. The maximum positive difference of \$104/MWh occurred on Sunday at 3.30pm. At this time, wind generation was 20MW more than forecast and demand was 30MW more than forecast.
- 7.13. On Monday at 3.00pm, 7.30pm, 9.30pm and 11.00pm, the marginal price difference repeatedly suddenly dipped to negative \$78/MWh. At these times, wind generation was respectively 96MW, 102MW, 196MW, and 125MW more than forecast. At 3.00pm, demand was 26MW and at other times it was about the same as forecast.

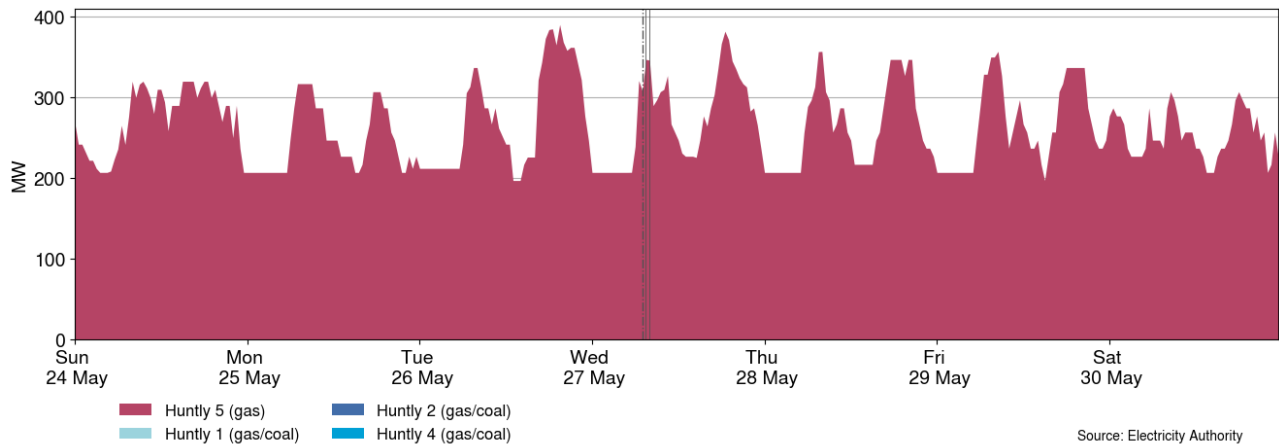
¹ Price responsive schedule short – short schedules are produced every 30 minutes and produce forecasts for the next 4 hours.

Figure 12: Difference between national marginal RTD price and simulated RTD price, with the difference due to one-hour ahead intermittent generation and demand forecast inaccuracies, 24-30 May



7.14. Figure 13 shows the generation of thermal baseload between 24-30 May. Huntly 5 ran continuously this week. Huntly 1 is on outage this week.

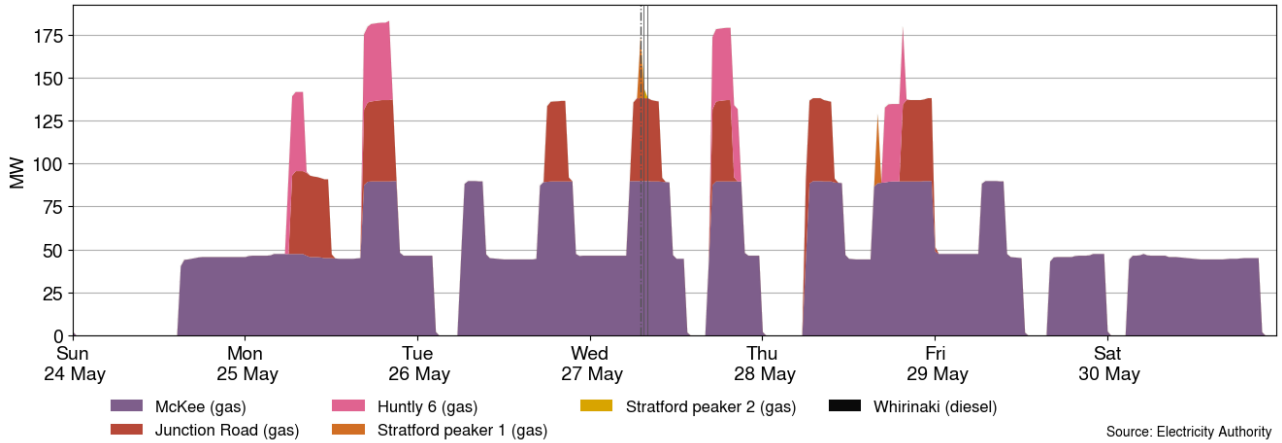
Figure 13: Thermal baseload generation, 24-30 May



7.15. Figure 14 shows the generation of thermal peaker plants between 24-30 May. Mckee ran at times every day this week. Junction Road ran at times every day except for Sunday, Friday and Saturday. Huntly 6 ran at times on Monday, Wednesday and Thursday. Stratford Peaker 1 ran for short amounts of time on Wednesday and Thursday.

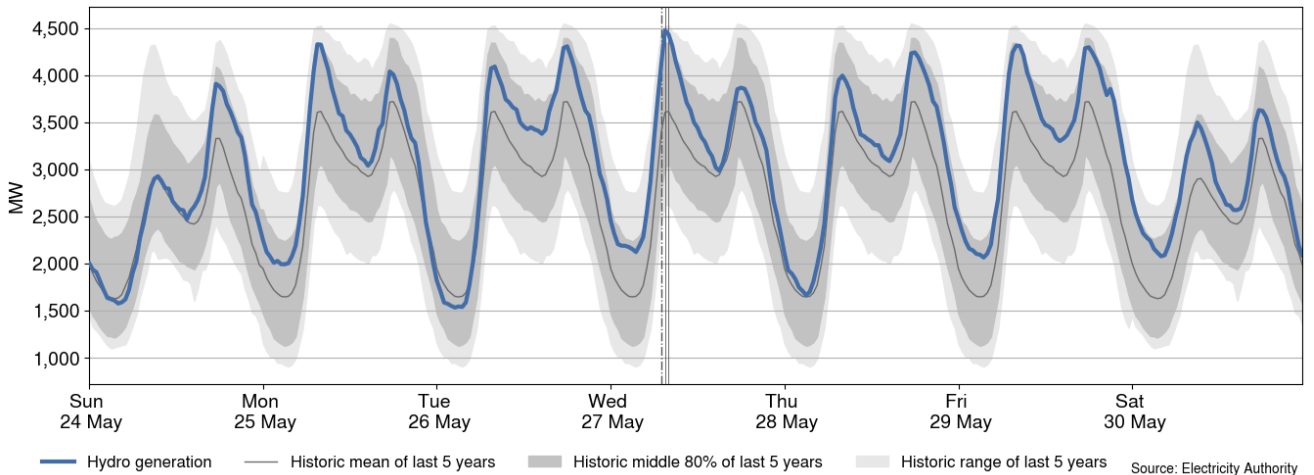
7.16. On Wednesday, Stratford peaker 1 turned on from 7.00am and tripped off at 7.15am. At 7.30am, Stratford peaker 2 ran briefly to provide reserves.

Figure 14: Thermal peaker generation, 24-30 May



7.17. Figure 15 shows hydro generation between 24-30 May. Hydro generation has been above the historic mean this week, due to relatively low wind generation and higher storage levels than usual for this time of year.

Figure 15: Hydro generation, 24-30 May

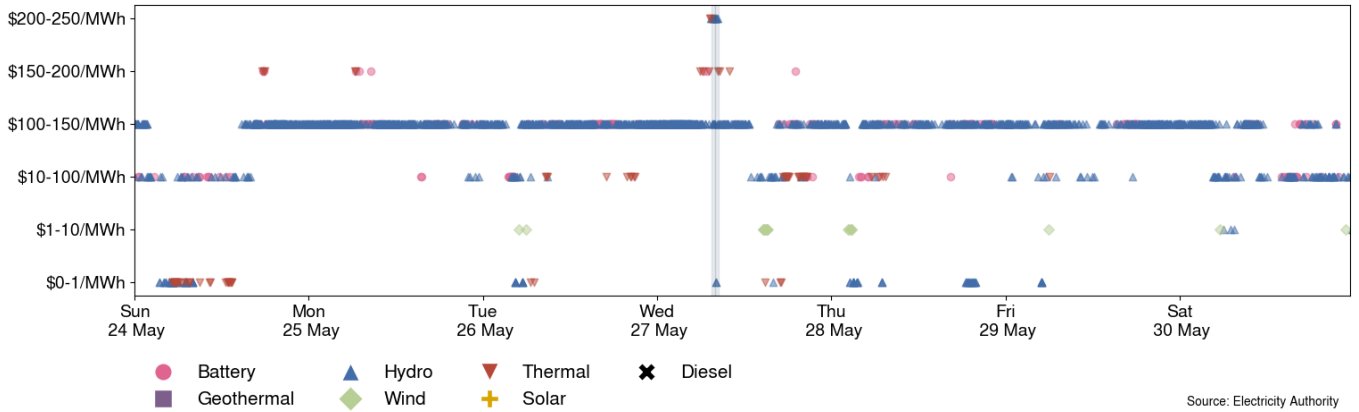


7.18. Figure 16 shows the distribution of marginal prices this week and what generation technology produced each marginal price. Note there can be multiple marginal plants for each 5-minute period.

7.19. The highest prices this week were set by Meridian hydro. The most common technology setting prices was hydro, with batteries the second most common. Most marginal prices were between \$100-150/MWh.

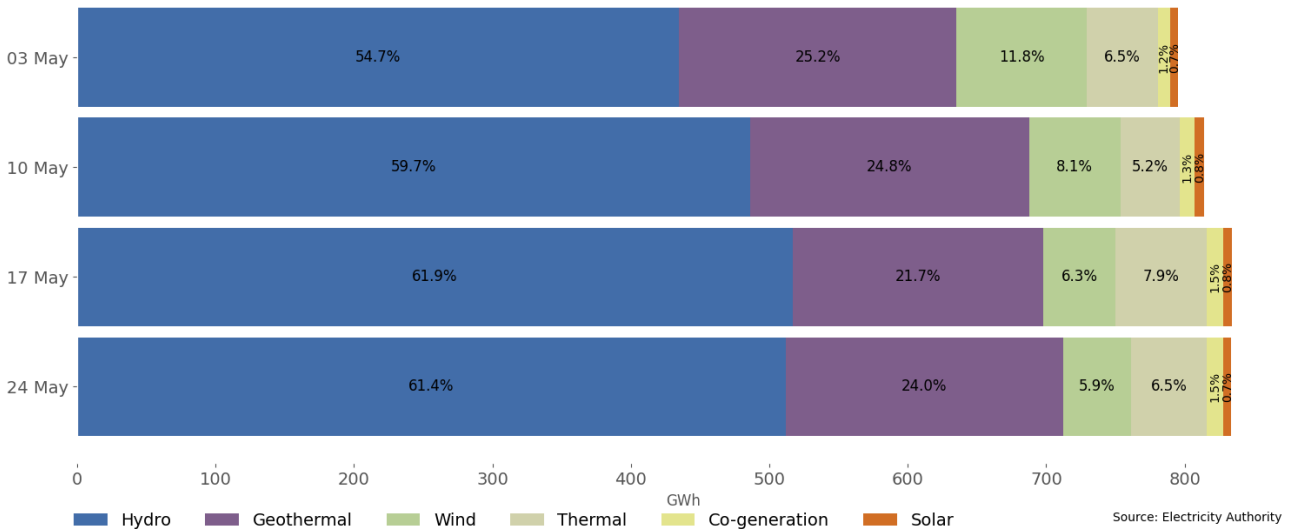
7.20. On Wednesday at 8.05am and 8.10am, marginal generation at Aviemore was priced between \$0-1/MWh where all other marginal generations were priced at least above \$100/MWh. At all other times, marginal generation at Aviemore was priced in the \$100-150/MWh bracket.

Figure 16: Prices of marginal generation, 24-30 May



7.21. As a percentage of total generation, between 24-30 May, total weekly hydro generation was 61.4%, geothermal 24.0%, wind 5.9%, thermal 6.5%, co-generation 1.5%, and solar (grid connected) 0.7%, as shown in Figure 17.

Figure 17: Total generation by type as a percentage each week, between 3 May and 30 May



8. Outages

8.1. Figure 18 shows generation capacity on outage. Total capacity on outage between 24-30 May ranged between ~785MW and ~1,681MW. Figure 19 shows the thermal generation capacity outages.

Figure 18: Total MW loss from generation outages, 24-30 May

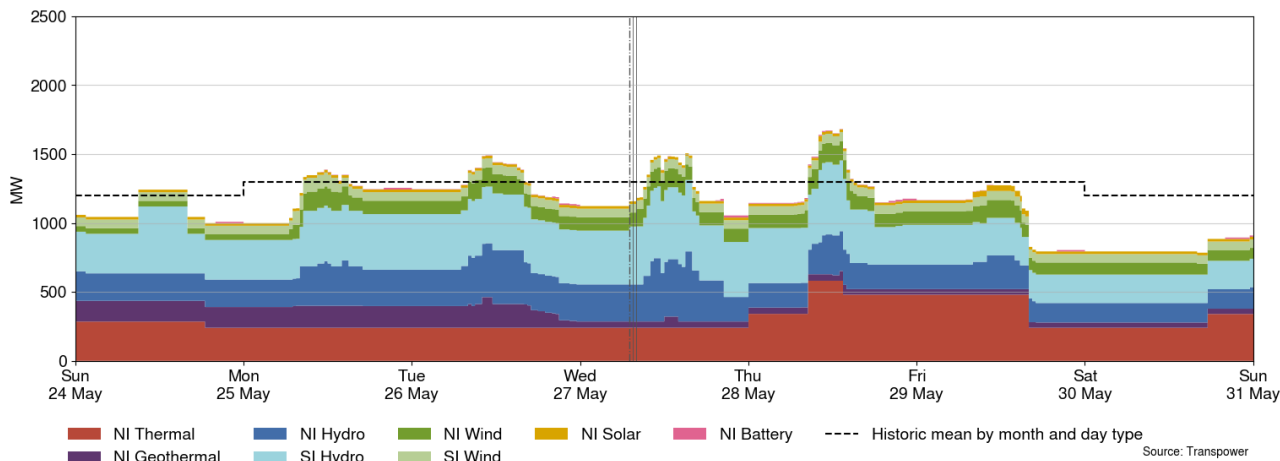
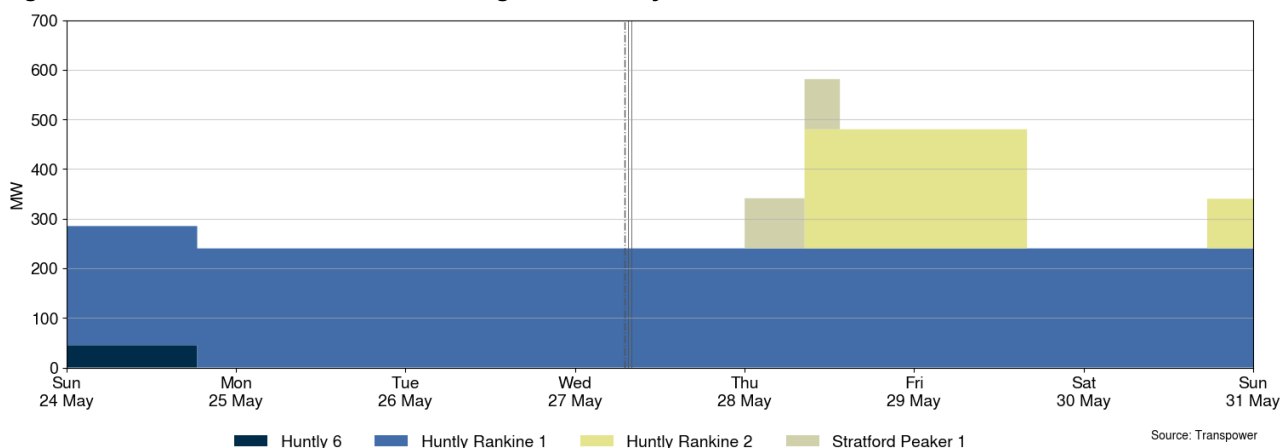


Figure 19: Total MW loss from thermal outages, 24-30 May



8.2. Notable outages include:

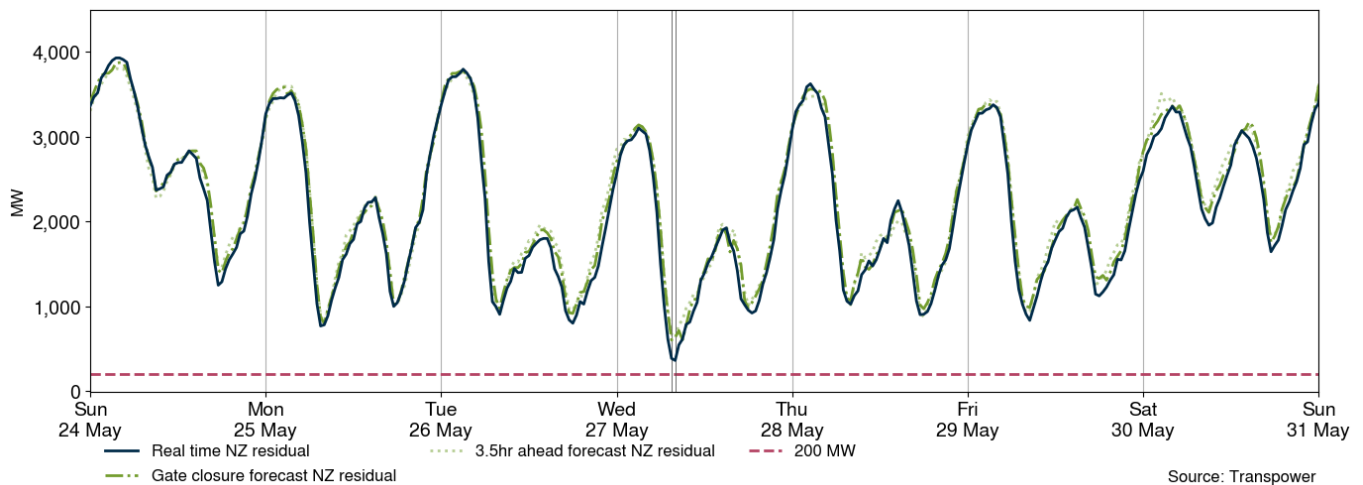
Plant	Partial or Full	End Date
Ōhau Station	Full	24 May 2026
Clyde unit 4	Full	28 May 2026
Ōhau unit 5	Full	29 May 2026
Huntly 2	Full	2 June 2026
Huntly 1	Full	4 June 2026
Kaiwera Downs	Partial	23 June 2026
Manapōuri unit 4	Full	21 July 2026
Roxburgh unit 8	Full	2 September 2026

9. Generation balance residuals

9.1. Figure 20 shows the national generation balance residuals between 24-30 May. A residual is the difference between total energy supply and total energy demand for each trading period. The red dashed line represents the 200MW residual mark which is the threshold at which Transpower issues a customer advice notice (CAN) for a forecast low residual situation. The green dashed line represents the forecast residuals and the blue line represents the real-time dispatch (RTD) residuals.

9.2. This week, the national residual has neared the 200MW mark. The lowest national residual was 364MW on Wednesday at 8.00am. The national residual was below 500MW on Wednesday from 7:30am to 8.00am.

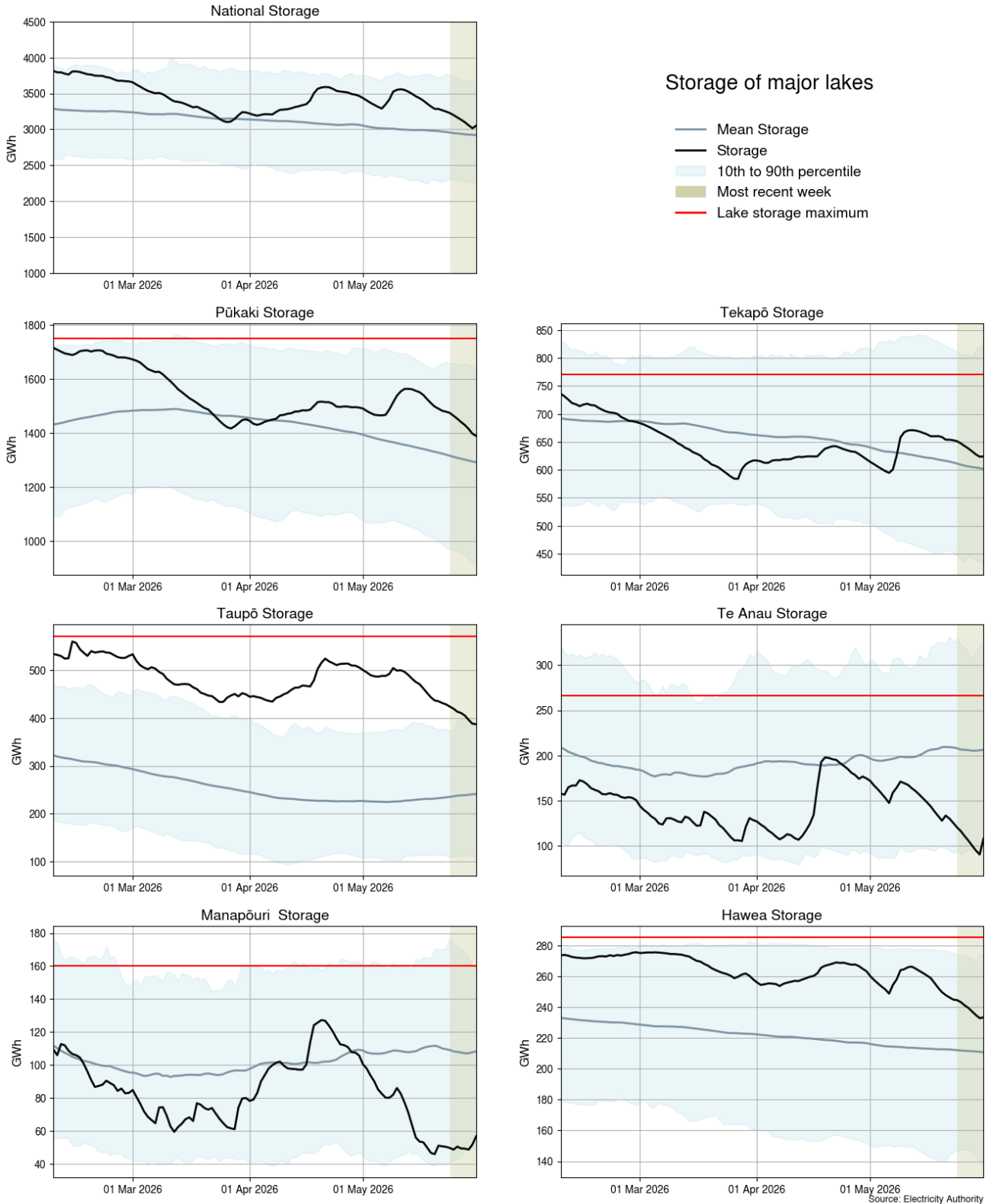
Figure 20: National generation balance residuals, 24-30 May



10. Storage/fuel supply

- 10.1. Figure 21 shows the total controlled national hydro storage as well as the storage of major catchment lakes including their historical mean and 10th to 90th percentiles.
- 10.2. As of 30 May, national controlled storage was 76% nominally full and ~105% of the historical average for this time of the year.
- 10.3. Storage at Lake Pūkaki (78% full) and Lake Tekapō (73% full) remain above their historic mean.
- 10.4. Storage at Lake Te Anau (53% full) and Lake Manapōuri (47% full) remain below their historic mean but above their 10th percentiles.
- 10.5. Storage at Lake Taupō (67% full) remains just above its historic 90th percentile for this time of year.
- 10.6. Storage at Lake Hawea (84% full) is below its historic 90th percentile but remains above its historic mean.

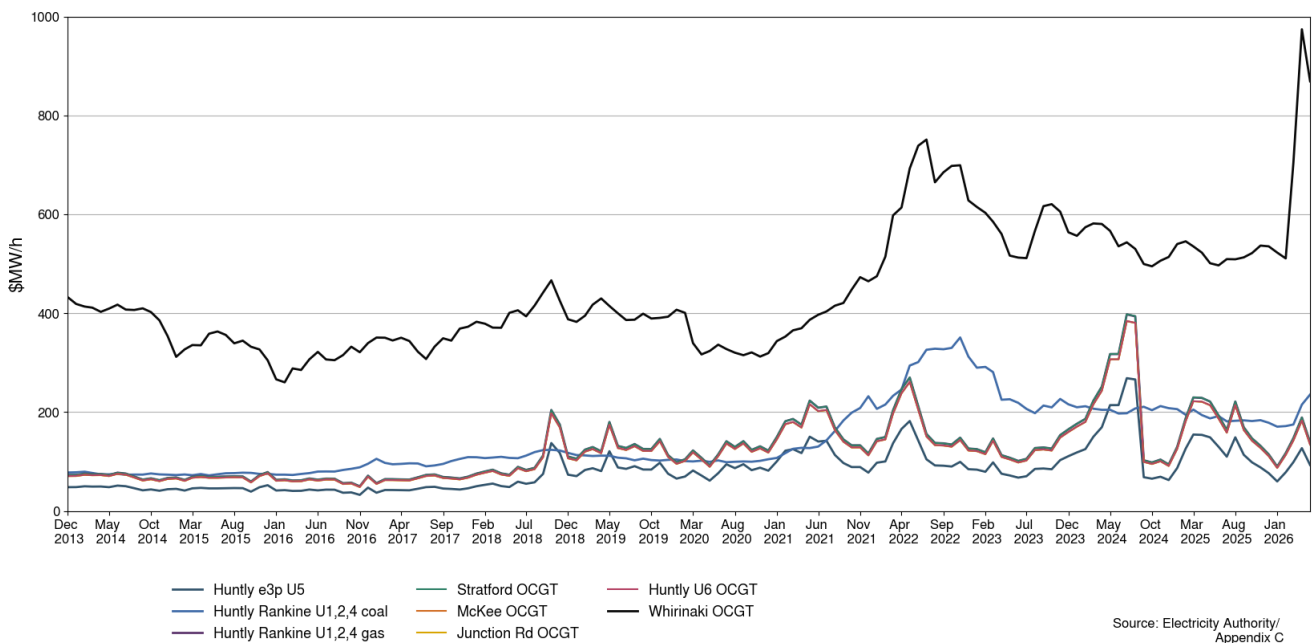
Figure 21: Hydro storage



11. Prices versus estimated costs

- 11.1. In a competitive market, prices should be close to (but not necessarily at) the short-run marginal cost (SRMC) of the marginal generator (where SRMC includes opportunity cost).
- 11.2. The SRMC (excluding opportunity cost of storage) for thermal fuels is estimated using gas and coal prices, and the average heat rates for each thermal unit. Note that the SRMC calculations include the carbon price, an estimate of operational and maintenance costs, and transport for coal.
- 11.3. Figure 22 shows an estimate of thermal SRMCs as a monthly average up to 1 May 2026. The SRMCs for most thermal generation has decreased, aside from coal fuelled generation.
- 11.4. The latest SRMC of coal-fuelled Rankine generation is ~\$235/MWh, while the cost of running the Rankines on gas is ~\$139/MWh.
- 11.5. The SRMC of gas fuelled thermal plants is currently between \$93/MWh and \$139/MWh.
- 11.6. The SRMC of Whirinaki is ~\$869/MWh.
- 11.7. More information on how the SRMC of thermal plants is calculated can be found in [Appendix C](#).

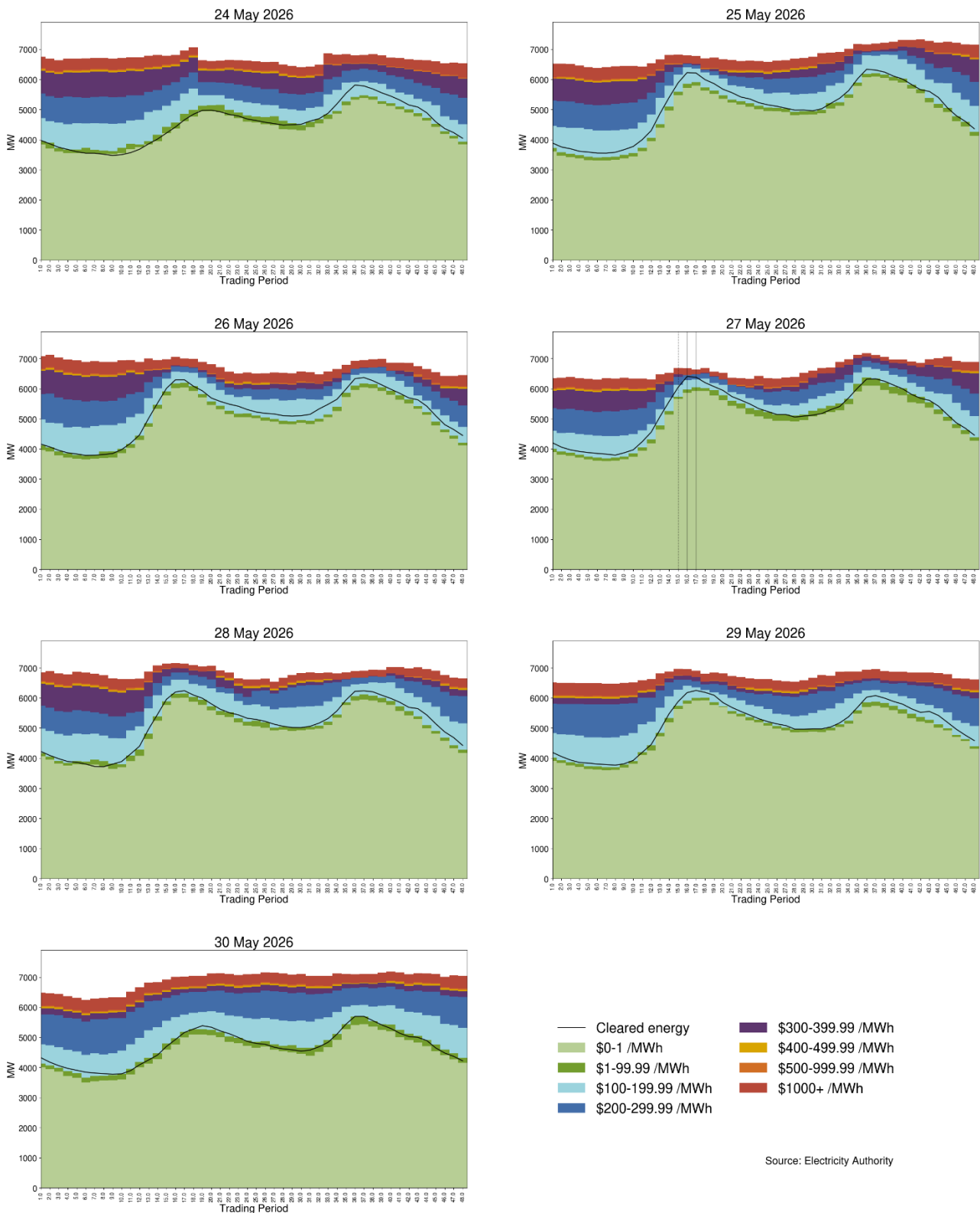
Figure 22: Estimated monthly SRMC for thermal fuels



12. Offer behaviour

- 12.1. Figure 23 shows this week's national daily offer stacks. The black line shows cleared energy, indicating the range of the average final price.
- 12.2. On Monday from 9am to 4pm, Ōhau A was on outage, and much of Ōhau B and C were dispatched on reserve. Mercury priced down their hydro generation from Thursday onwards.

Figure 23: Daily offer stacks



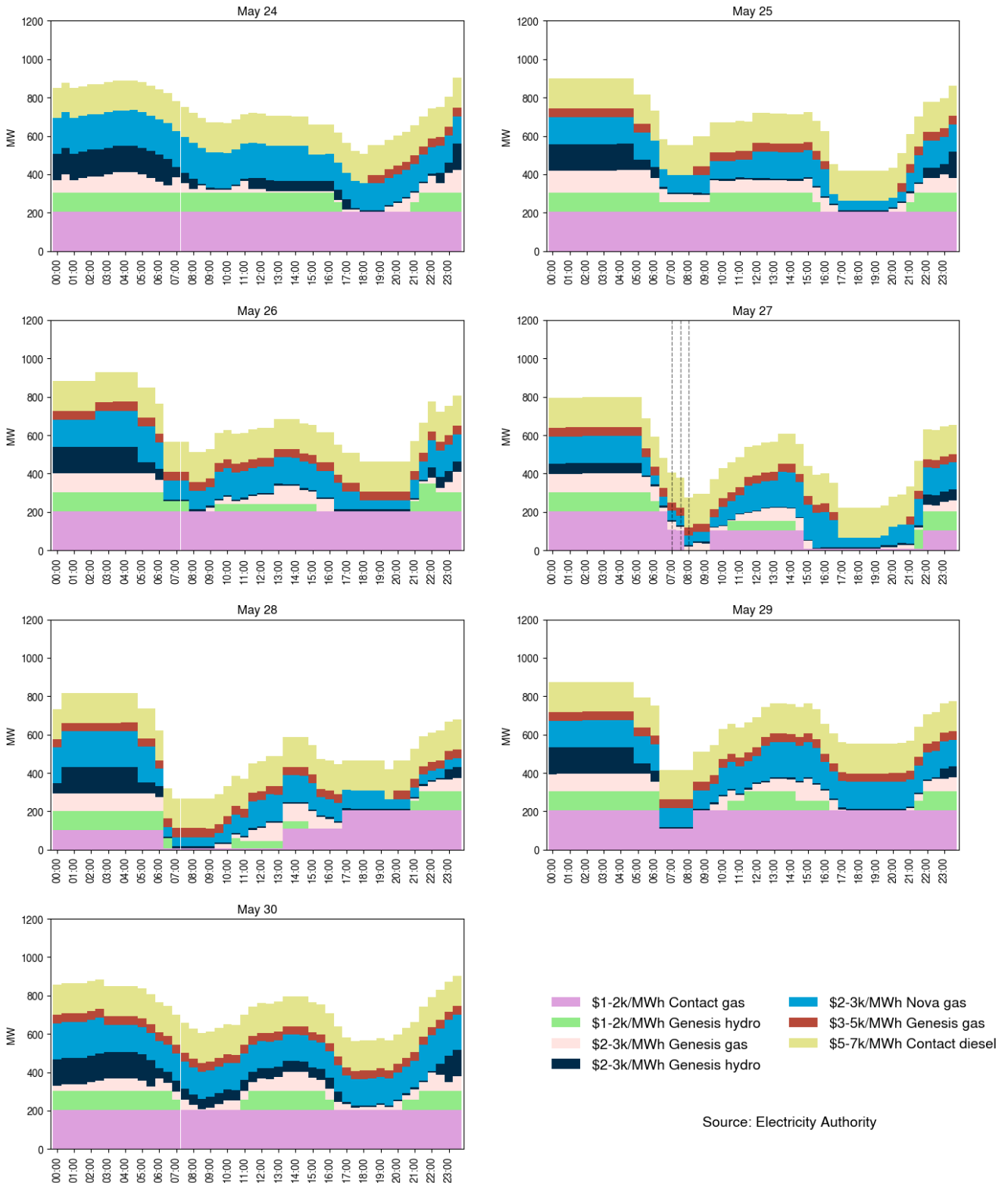
12.3. Figure 24 shows offers above \$1,000/MWh in each trading period this week. The largest proportion of these offers are fast start thermal operators.

12.4. If forecast prices are lower than thermal operating costs, this signals some generators may not be needed in that half-hourly trading period. Thermal generators may then price their units high, as they aren't expecting to run. These high prices reflect increased operating

costs of running for only a short time. So, if demand is unexpectedly high, intermittent generation dips, or other generation fails, these high-priced thermal generators may get dispatched, sometimes resulting in a high spot price.

12.5. On average 653MW per trading period was priced above \$1,000/MWh this week, which is roughly 11.5% of the total energy available.

Figure 24: High priced offers



13. Ongoing work in trading conduct

13.1. This week prices generally appeared to be consistent with supply and demand conditions. The monitoring team is looking into Huntly offers and Glenbrook charging offers further this week.

13.2. Further analysis is being done on the trading periods in Table 1 as indicated.

Table 1: Trading periods identified for further analysis

Date	Trading period	Status	Participant	Location	Enquiry topic
8/12/2025-11/12/2025	Several	Further analysis	Contact/Manawa	Coleridge, Cobb, and Matahina	Offers
22/04/2026-24/04/2026	Several	Further analysis	Genesis	Tokaanu	Offers
26/04/2026-02/05/2026	Several	Further analysis	Contact	Roxburgh	Offers
02/05/2026	Several	Further analysis	Genesis	Tokaanu	Offers
07/05/2026-08/05/2026	Several	Further analysis	Genesis	Tekapō	Offers
20/05/2026	Several	Further analysis	Contact	Glenbrook	Offers
20/05/2026	35-38	Further analysis	Genesis	Tekapō	Offers
26/05/2026-27/05/2026	Several	Further analysis	Contact	Glenbrook	Charging offers
27/05/2026	Several	Further analysis	Genesis	Huntly 5	Offers