

Trading conduct report

26 October – 1 November 2025

Market monitoring weekly report

Trading conduct report 26 October – 1 November 2025

1. Overview

- 1.1. This week the average spot price increased by \$4/MWh to \$11/MWh. The low spot prices were likely due to increased hydro storage, and high wind generation. A few price spikes on Tuesday occurred during the low residual situation¹.
- 1.2. A high proportion of hydro generation and low thermal generation persisted, with no thermal baseload this week. Solar generation was twice the proportion of thermal generation this week.
- 1.3. National hydro storage remained stable at 90% nominally full and around 141% of the historical average. However, this includes storage at Manapōuri and Te Anau, which is expected to spill.

2. Spot prices

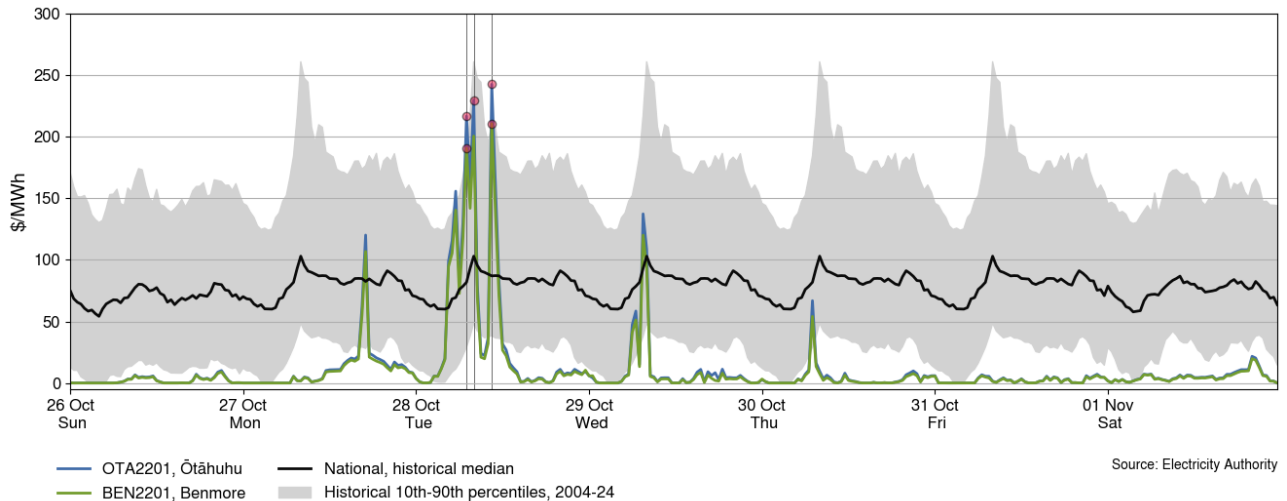
- 2.1. This report monitors underlying wholesale price drivers to assess whether trading periods require further analysis to identify potential non-compliance with the trading conduct rule. In addition to general monitoring, it also singles out unusually high-priced individual trading periods for further analysis by identifying when wholesale electricity spot prices are outliers compared to historic prices for the same time of year.
- 2.2. Between 26 October – 1 November 2025:
 - (a) The average spot price for the week was \$11/MWh, an increase of around \$4/MWh compared to the previous week.
 - (b) 95% of prices fell between \$0.01/MWh and \$116/MWh.
- 2.3. Spot prices remained low, generally under \$20/MWh throughout the week, except during a few trading periods where prices spiked due to a low residual situation, and wind or demand forecast errors.
- 2.4. A price spike occurred on Monday at 5.00pm, with prices rising above \$100/MWh. At that time, demand was 127MW higher than forecast.
- 2.5. Transpower issued a Customer Advice Notice (CAN¹) for a low residual situation on Tuesday between 7.30am and 9.30am followed by a Grid Emergency Report (GEN²). The tripping of the Whirinaki, Wairakei and Harapaki Tauhara circuits, caused by a lightning strike, resulted in a loss of supply to the Hawkes Bay and a loss of connection for Harapaki, Whirinaki and Waikaremoana generation. Residual levels declined and reached around 325MW at 7.00am, when a first price spike was observed. At 8.00am, when the national residual reached its lowest point of the week (255MW), prices spiked to \$230/MWh at Ōtāhuhu and \$200/MWh at Benmore.
- 2.6. The highest price of the week was observed at 10.30am on Tuesday, reaching \$243/MWh at Ōtāhuhu and \$211/MWh at Benmore. During this period, wind generation was 100 MW below forecast.

¹ [CAN Potential Short Fall or Low Residual Situation 6771989177.pdf](#)

² [GEN RPT for Unplanned outage Hawkes Bay 6771988705.pdf](#)

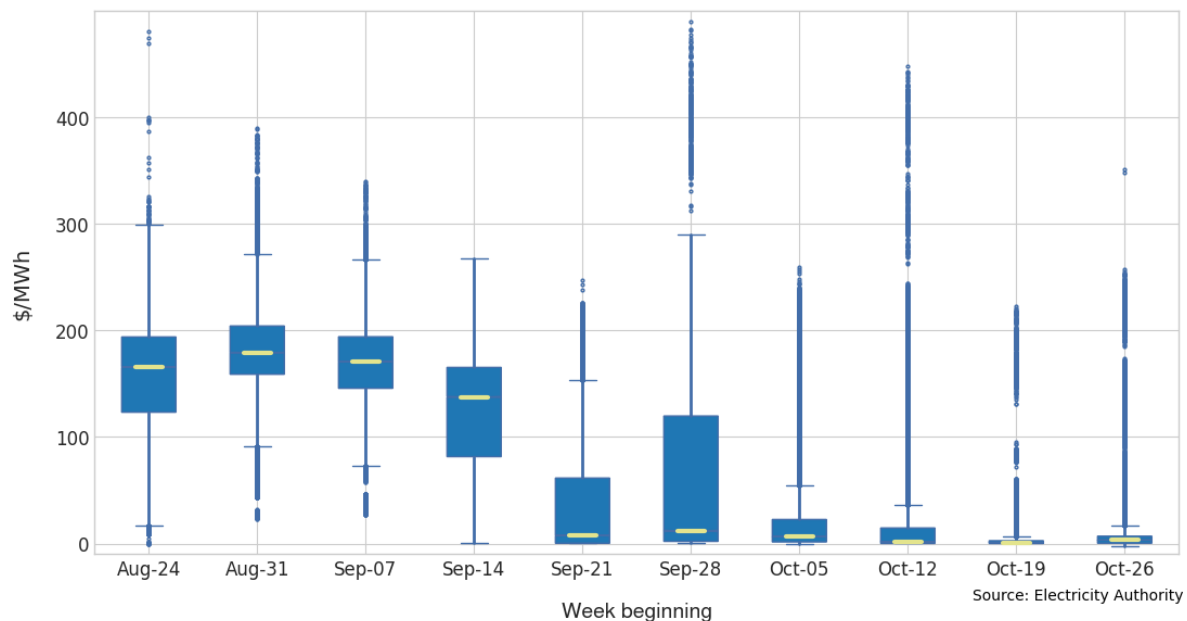
- 2.7. Figure 1 shows the wholesale spot prices at Benmore and Ōtāhuhu alongside the national historic median and historic 10-90th percentiles adjusted for inflation. Prices greater than quartile 3 (75th percentile) plus 1.5 times the inter-quartile range of historic prices, plus the difference between this week's median and the historic median, are highlighted with a vertical black line.

Figure 1: Wholesale spot prices at Benmore and Ōtāhuhu, 26 October – 1 November 2025



- 2.8. 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.
- 2.9. The distribution of spot prices this week was similar to last week. The median price was \$3/MWh and most prices (middle 50%) fell between \$0.25/MWh and \$7/MWh.

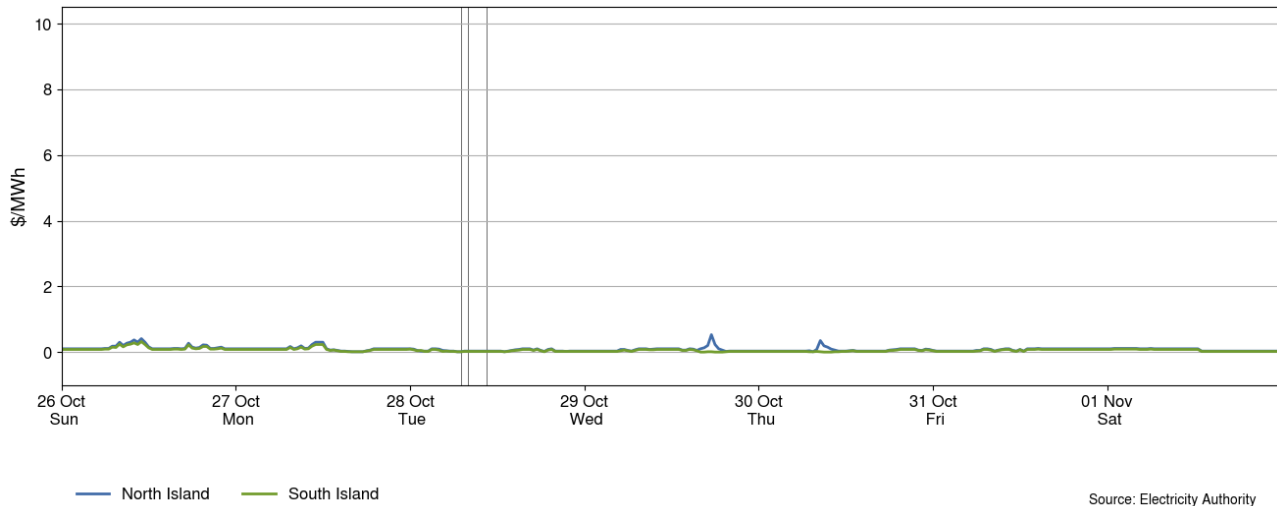
Figure 2: Box plot showing the distribution of spot prices this week and the previous nine weeks



3. Reserve prices

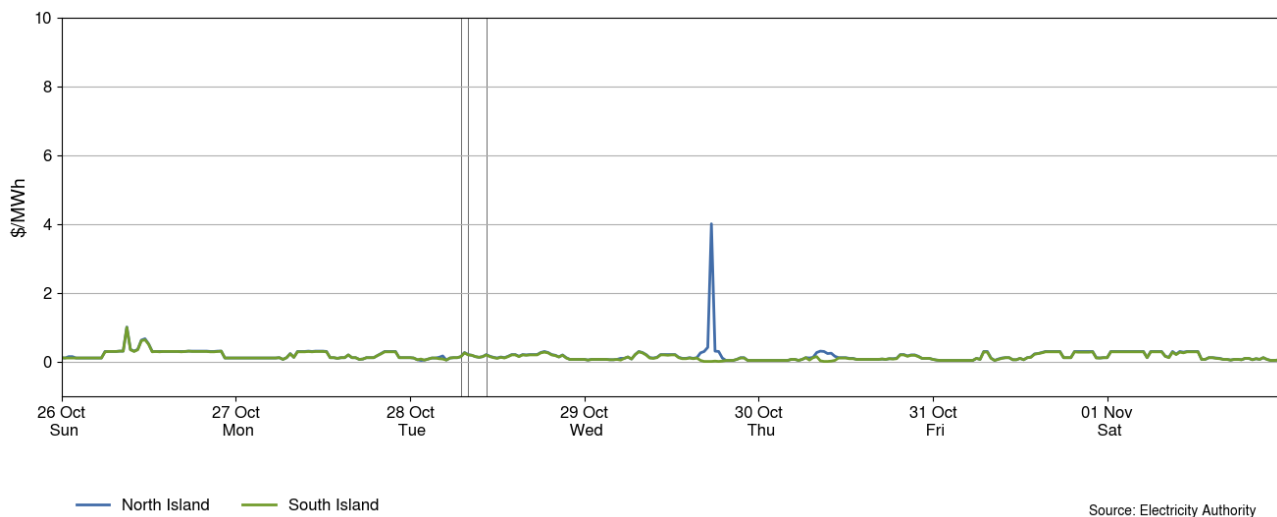
- 3.1. Fast instantaneous reserve (FIR) prices for the North and South Islands are shown below in Figure 3. This week, FIR prices across both the North and South Island were below \$1/MWh.

Figure 3: Fast instantaneous reserve price by trading period and island, 26 October – 1 November 2025



- 3.2. Sustained instantaneous reserve (SIR) prices for the North and South Islands are shown in Figure 4. SIR prices were mostly below \$1/MWh and did not reach above \$5/MWh.

Figure 4: Sustained instantaneous reserve by trading period and island, 26 October – 1 November 2025



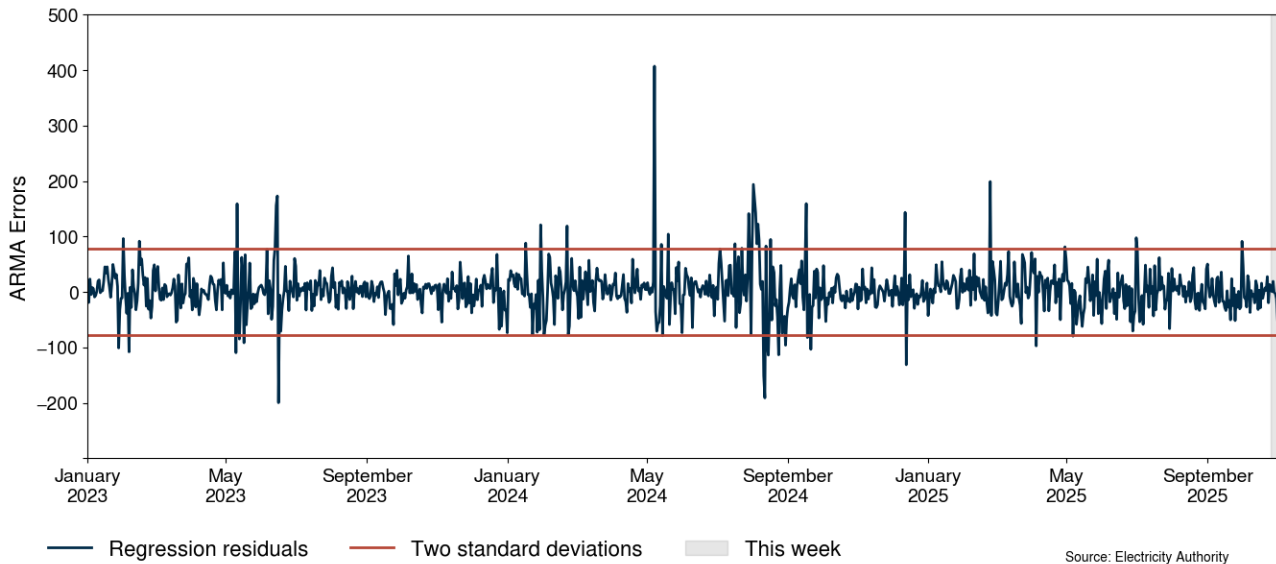
4. Regression residuals

- 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.

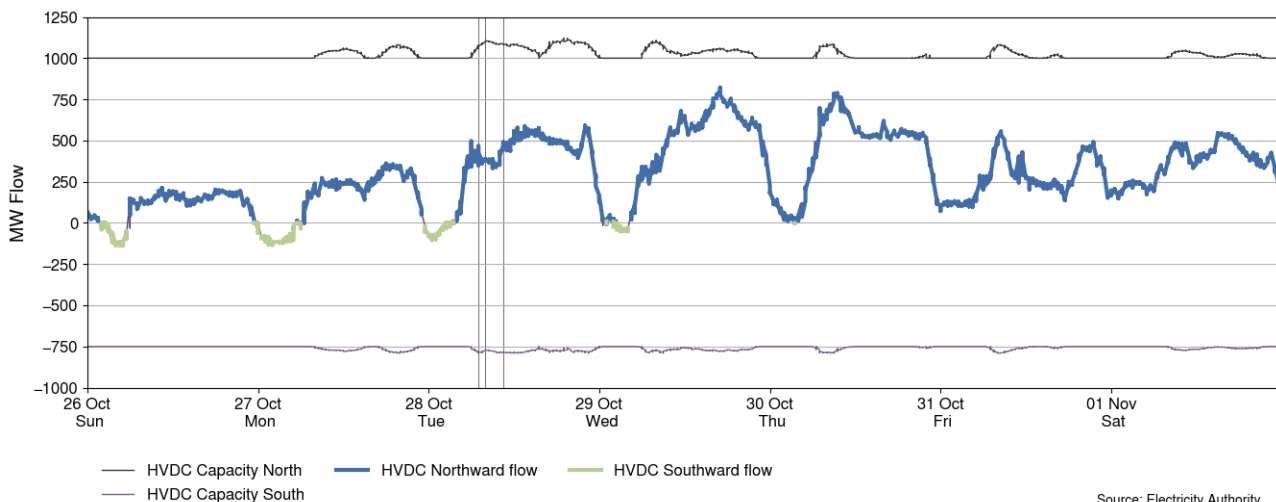
Figure 5: Residual plot of estimated daily average spot prices, 1 January 2023 - 1 November 2025



5. HVDC

- 5.1. Figure 6 shows the HVDC flow between 26 October – 1 November 2025. HVDC flows were mostly Northward due to high hydro and low thermal generation. Northward HVDC flow was highest at 5.00pm on Wednesday with a flow of 822MW.

Figure 6: HVDC flow and capacity, 26 October – 1 November 2025

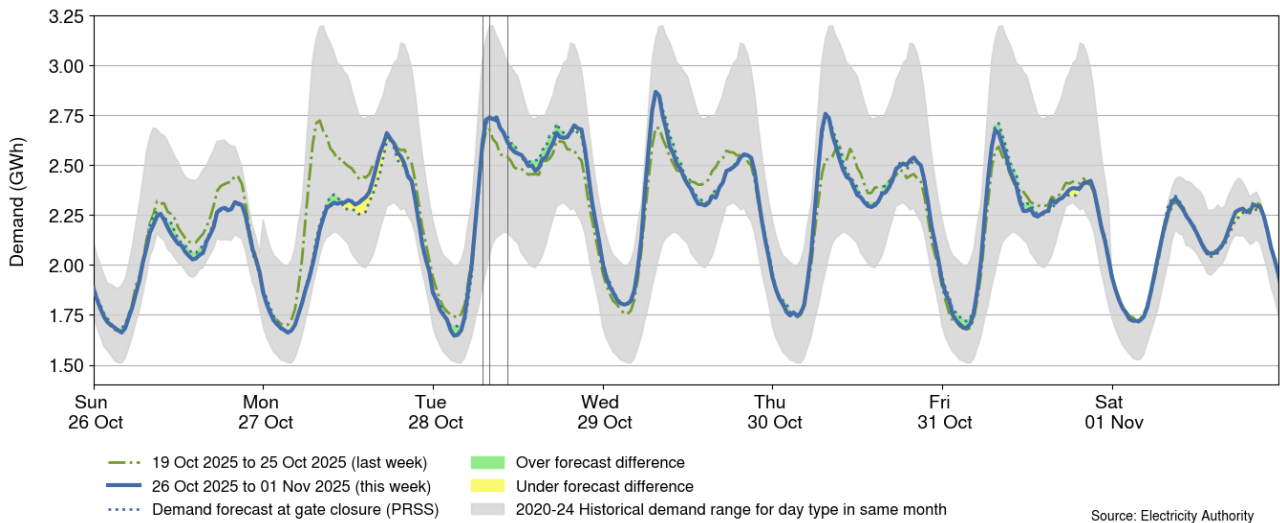


6. Demand

- 6.1. Figure 7 shows national demand between 26 October – 1 November 2025, compared to the historic range and the demand of the previous week. On Monday, demand was low due to

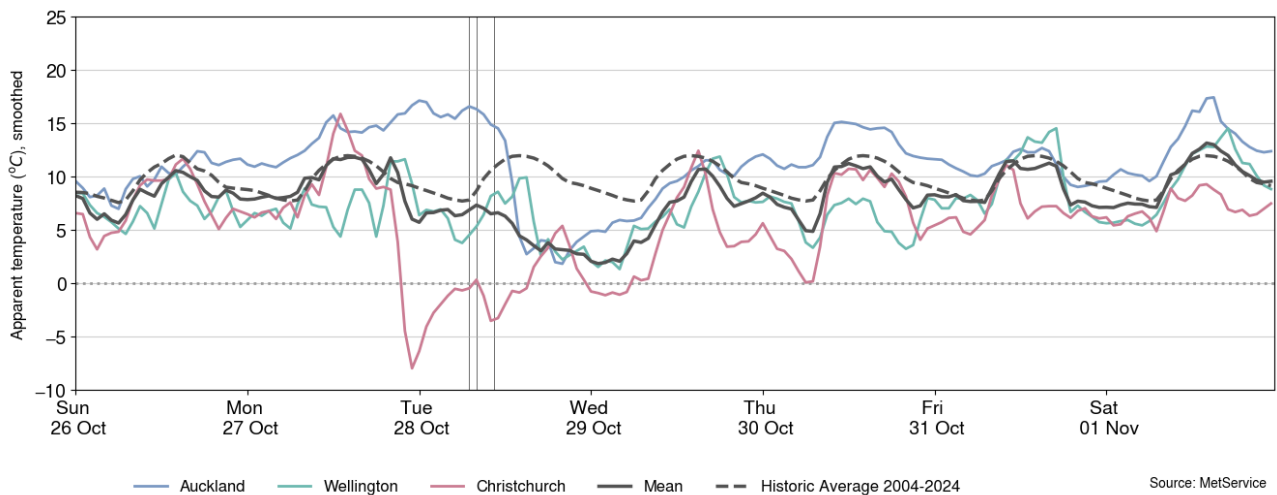
the public holiday. Morning peak demand consistently exceeded the evening peak demand. The highest demand of the week was around 2.87 GWh at 7.30am on Wednesday during the morning peak.

Figure 7: National demand, 26 October – 1 November 2025 compared to the previous week



- 6.2. Figure 8 shows the hourly apparent temperature at main population centres from 26 October – 1 November 2025. 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 1°C to 19°C in Auckland, 1°C to 15°C in Wellington, and -8°C to 17°C in Christchurch.

Figure 8: Temperatures across main centres, 26 October – 1 November 2025

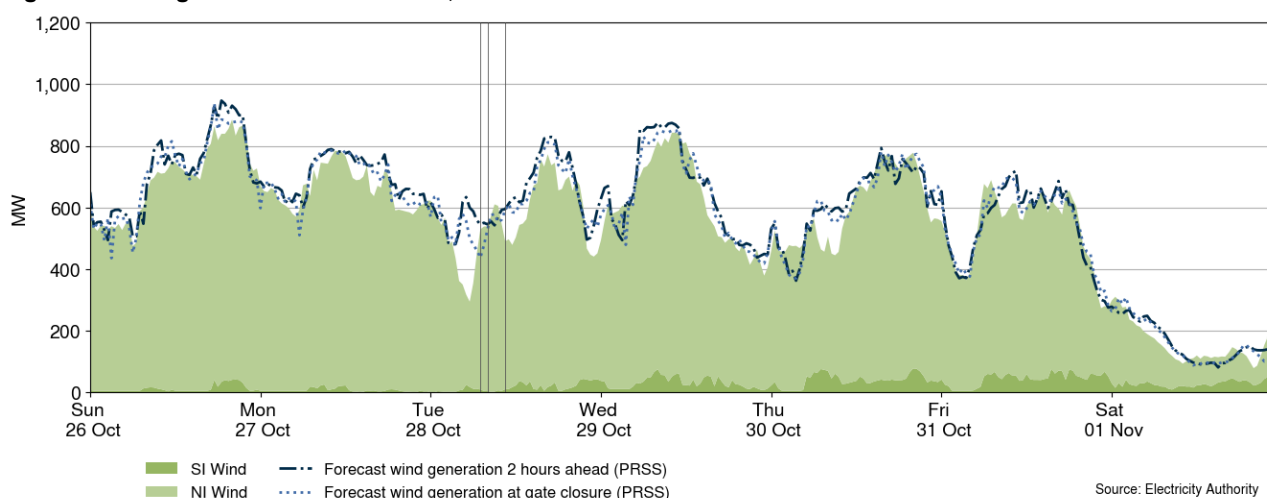


7. Generation

- 7.1. Figure 9 shows wind generation and forecast from 26 October – 1 November 2025. This week wind generation varied between 79MW and 885MW, with a weekly average of 546MW.

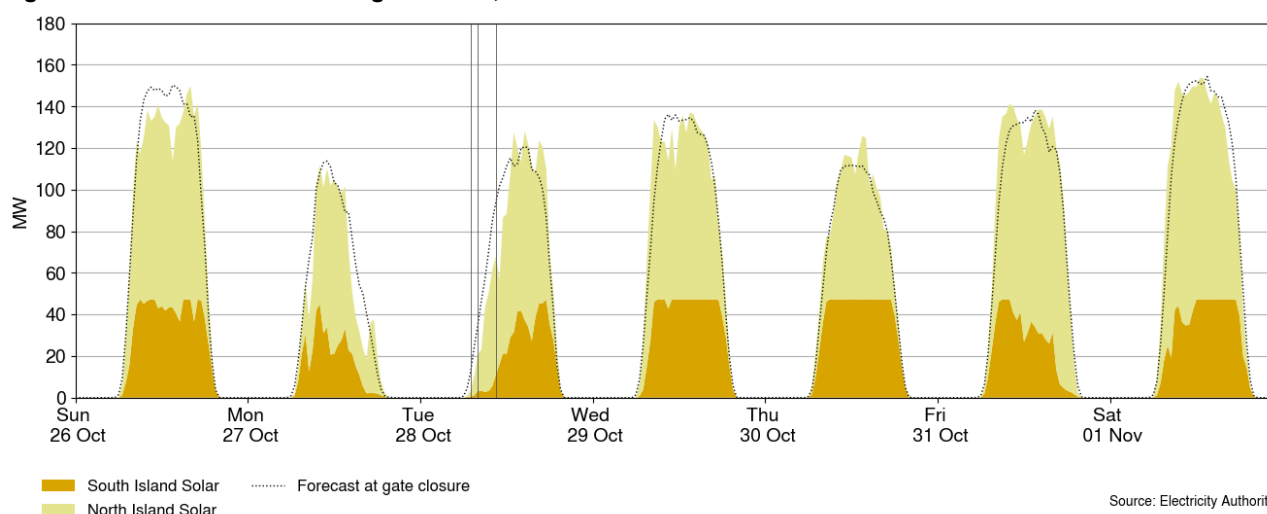
- 7.2. Wind generation remained mostly high through Sunday and Monday. It began to decline gradually from Tuesday and stayed mostly above 400 MW until Friday. Wind generation dropped on Friday night and was low throughout Saturday.

Figure 9: Wind generation and forecast, 26 October – 1 November 2025



- 7.3. Figure 10 shows grid connected solar generation from 26 October – 1 November 2025. Solar generation peaked above 100MW daily, with a maximum of around 154MW on Saturday at 12.30pm.

Figure 10: Grid connected solar generation, 26 October – 1 November 2025



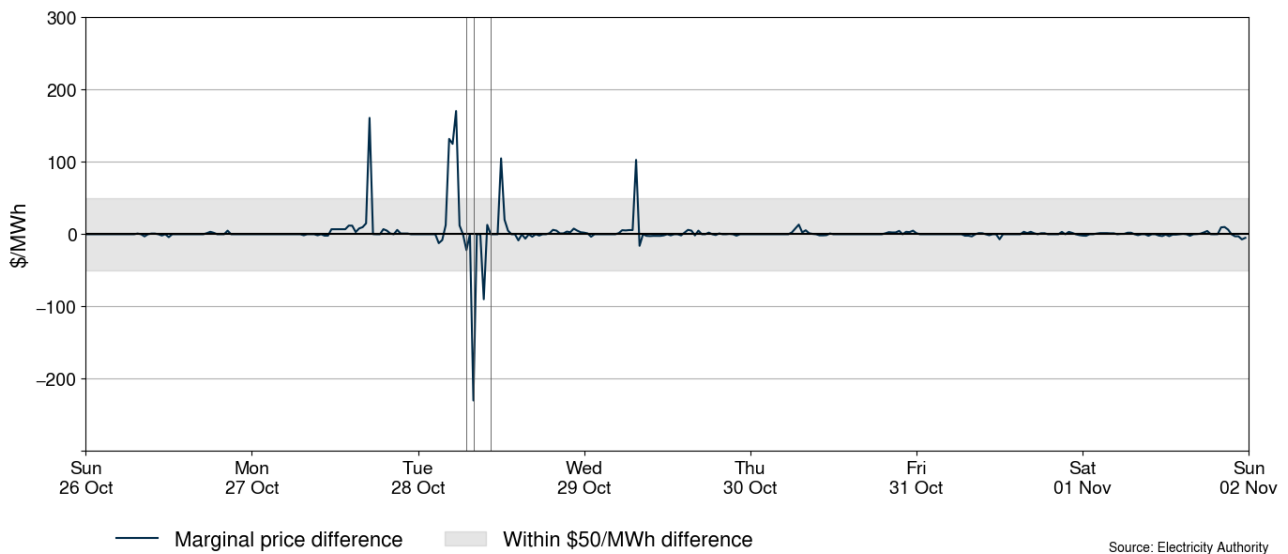
- 7.4. Figure 11 shows the difference between the national real-time dispatch (RTD) marginal price and a simulated marginal price where the real-time wind and demand matched the 1-hour ahead forecast (PRSS³) projections. The figure highlights when forecasting inaccuracies are causing large differences 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 wind is over forecast. When the difference is negative, the opposite is true. Because of the nature of demand and wind forecasting, the 1-hour ahead and the RTD wind and demand forecasts will rarely be the same. Trading periods where this difference is exceptionally large can

³ Price responsive schedule short – short schedules are produced every 30 minutes and produce forecasts for the next 4 hours.

signal that forecasting inaccuracies had a large impact on the final price for that trading period.

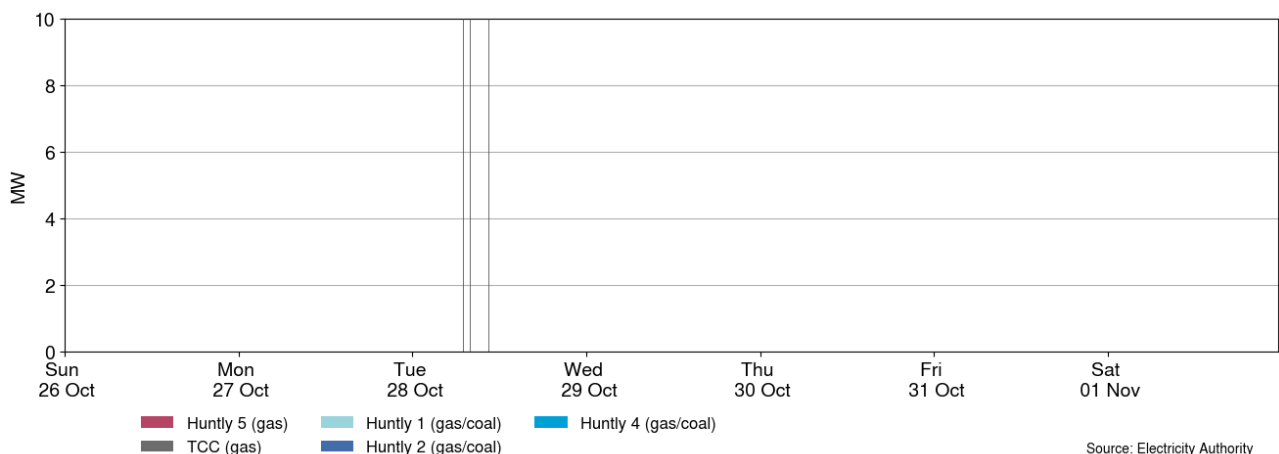
- 7.5. A few trading periods this week had positive marginal price differences above \$50/MWh which were driven by wind and demand forecasting errors. The largest positive price difference of +\$170/MWh occurred at 5.30pm on Tuesday during, when demand was 94MW higher than forecast and wind was 205MW lower than forecast.
- 7.6. The largest negative price difference of -\$230/MWh occurred at 8.00am on Tuesday, when demand was 15MW lower than forecast, and wind was 10MW higher than forecast. If demand and wind had matched the forecast, prices at that time would likely have been much higher as it was the period when the national residual was lowest of the week.

Figure 11: Difference between national marginal RTD price and simulated RTD price, with the difference due to one-hour ahead wind and demand forecast inaccuracies, 26 October – 1 November 2025



- 7.7. Figure 12 shows the generation of thermal baseload between 26 October – 1 November 2025. There was no thermal baseload generation throughout the week.

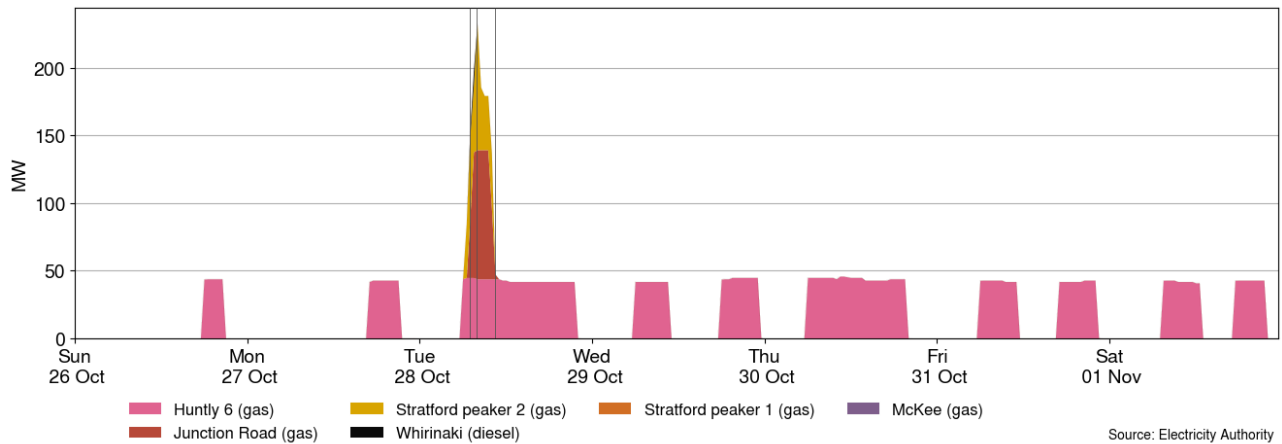
Figure 12: Thermal baseload generation, 26 October – 1 November 2025



- 7.8. Figure 13 shows the generation of thermal peaker plants between 26 October – 1 November 2025.

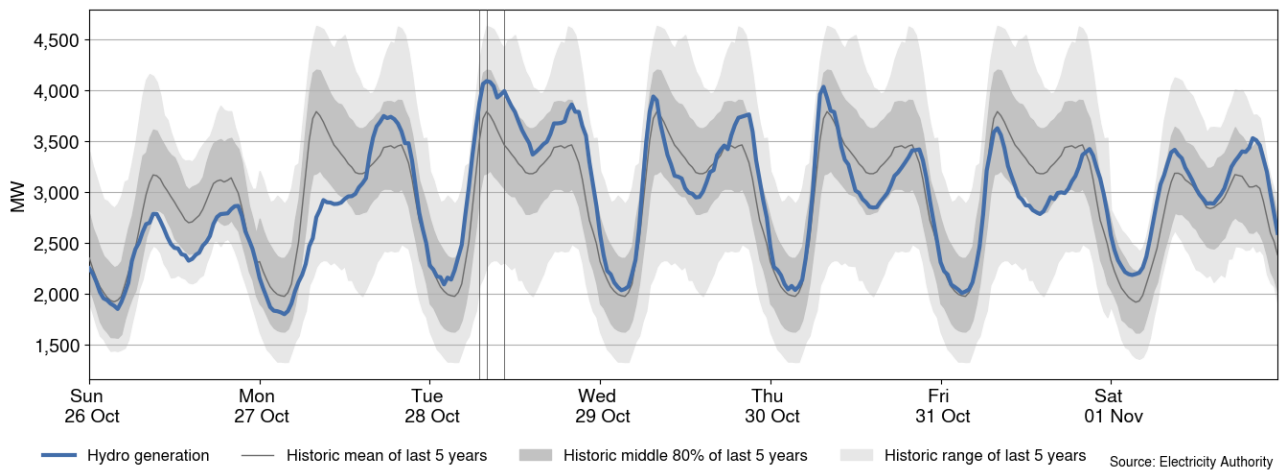
- 7.9. Huntly 6 ran daily this week – during the evening peak on Sunday and Monday, continuously between the morning and evening peaks on Tuesday and Thursday, and during both morning and evening peaks on Wednesday, Friday, and Saturday.
- 7.10. During the low residual periods and price spikes on Tuesday, Junction Road and Stratford peaker 2 were dispatched to meet demand. Whirinaki also ran at 7.30am.

Figure 13: Thermal peaker generation, 26 October – 1 November 2025



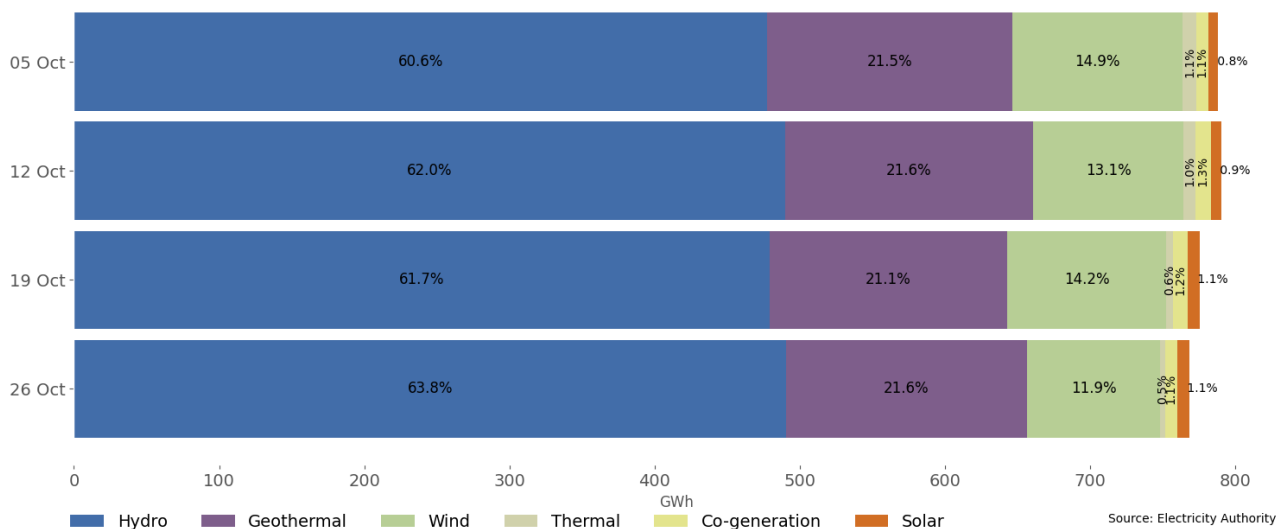
- 7.11. Figure 14 shows hydro generation between 26 October – 1 November 2025. Hydro generation remained mostly within the middle 80% of historic generation. Hydro generation was low on Sunday, likely due to high wind generation and low demand. On Monday morning, demand remained low due to the public holiday, resulting in reduced hydro generation.

Figure 14: Hydro generation, 26 October – 1 November 2025



- 7.12. As a percentage of total generation, between 26 October – 1 November 2025, total weekly hydro generation was 63.8%, geothermal 21.6%, wind 11.9%, thermal 0.5%, co-generation 1.1%, and solar (grid connected) 1.1%, as shown in Figure 15.

Figure 15: Total generation by type as a percentage each week, between 5 October and 1 November 2025



8. Outages

8.1. Figure 16 shows generation capacity on outage. Total capacity on outage between 26 October – 1 November 2025 ranged between ~1,970MW and ~2,995MW. Figure 17 shows the thermal generation capacity outages.

8.2. Notable outages include:

- (a) Huntly 5 is on outage between 28 October and 24 November 2025.
- (b) Huntly 1 was on extended outage until 3 November 2025.
- (c) Huntly 4 is on extended partial outage until 7 November 2025.
- (d) Stratford peaker 1 is on outage until 7 November 2025.
- (e) Kawerau geothermal was on outage until 28 October 2025.
- (f) Ruakākā battery was on outage between 26-27 October, and 31 October – 1 November 2025.
- (g) Benmore unit 6 is on outage until 10 November 2025.
- (h) Manapōuri unit 5 was on outage between 27-29 October 2025.

8.3. Some long-term outages include:

- (a) Ōhau A is on partial outage until 4 February 2026.
- (b) Ōhau C is on partial outage until 16 January 2026.
- (c) Roxburgh unit 5 is on outage until 25 February 2026.
- (d) Rangipo unit 6 is on outage until 29 March 2026.
- (e) Manapōuri unit 4 is on outage until 12 June 2026.

Figure 16: Total MW loss from generation outages, 26 October – 1 November 2025

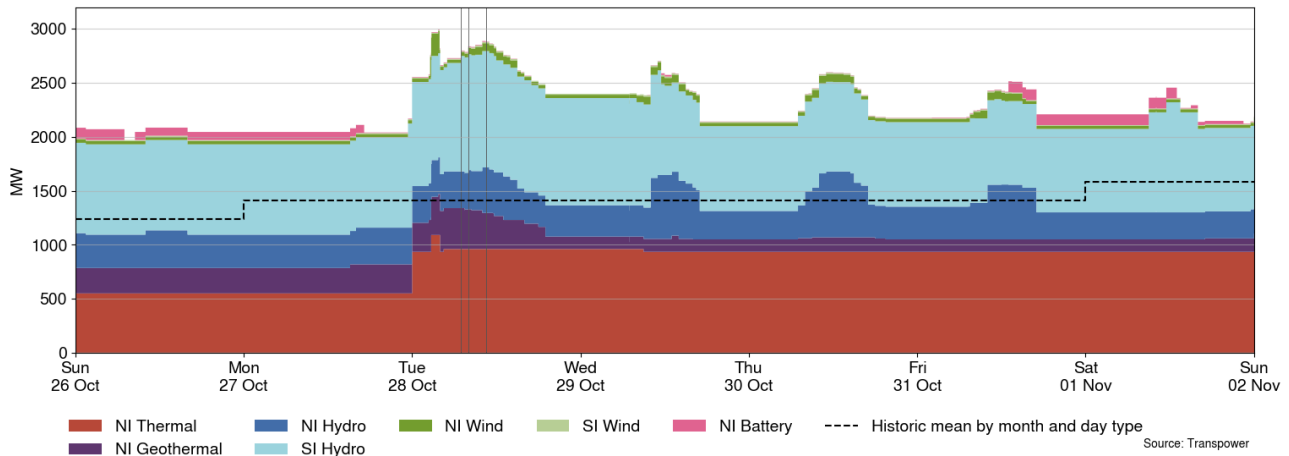
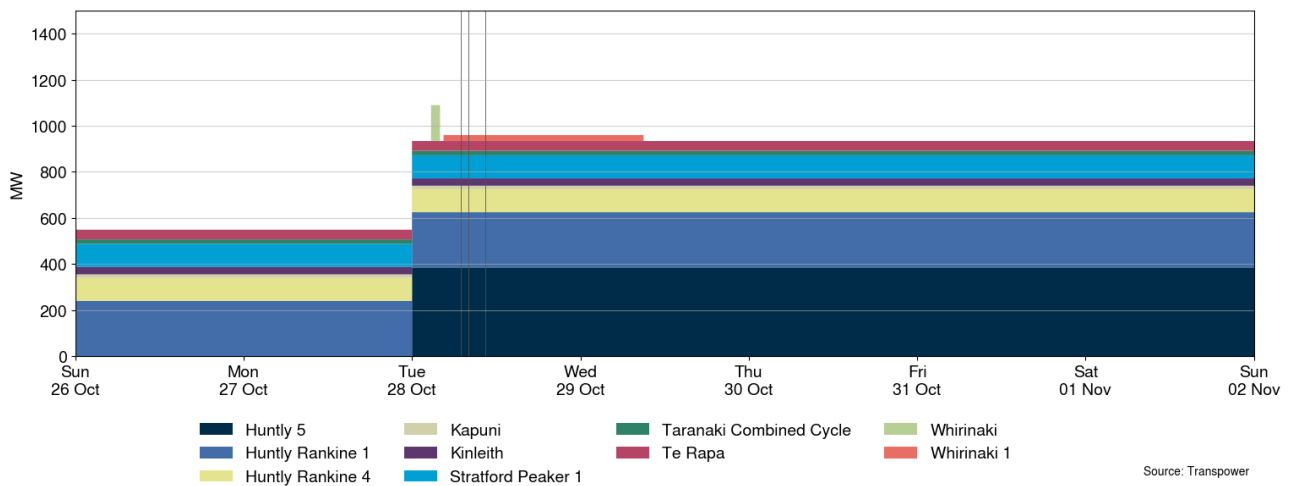


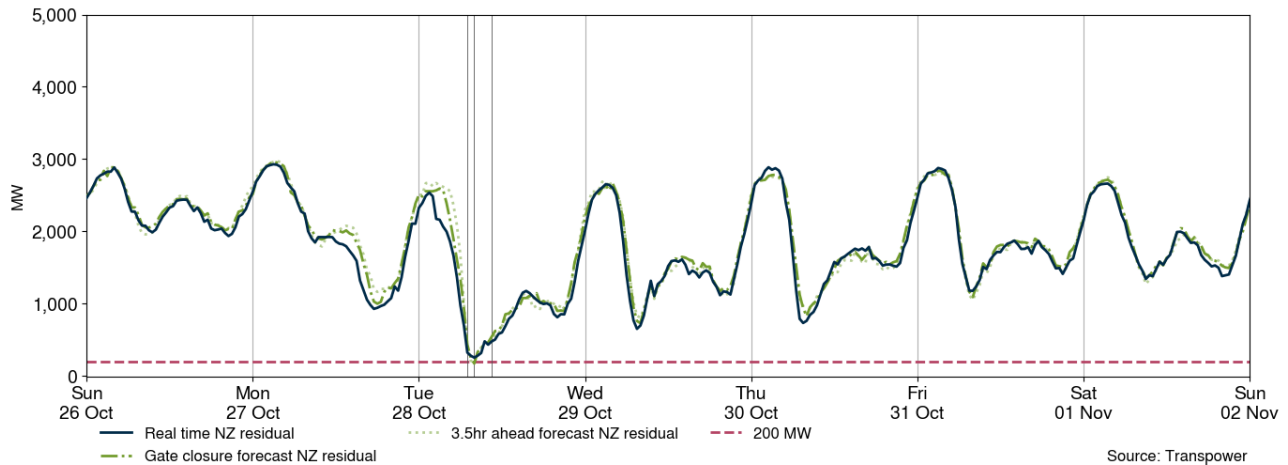
Figure 17: Total MW loss from thermal outages, 26 October – 1 November 2025



9. Generation balance residuals

- 9.1. Figure 18 shows the national generation balance residuals between 26 October – 1 November 2025. 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 CAN for a 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, Transpower issued a CAN for low residual situation expected between 7.30am-9.30am on Tuesday. The lowest national residual was 255MW at 8.00am on Tuesday. Residual levels for the rest of the week were healthy.

Figure 18: National generation balance residuals, 26 October – 1 November 2025



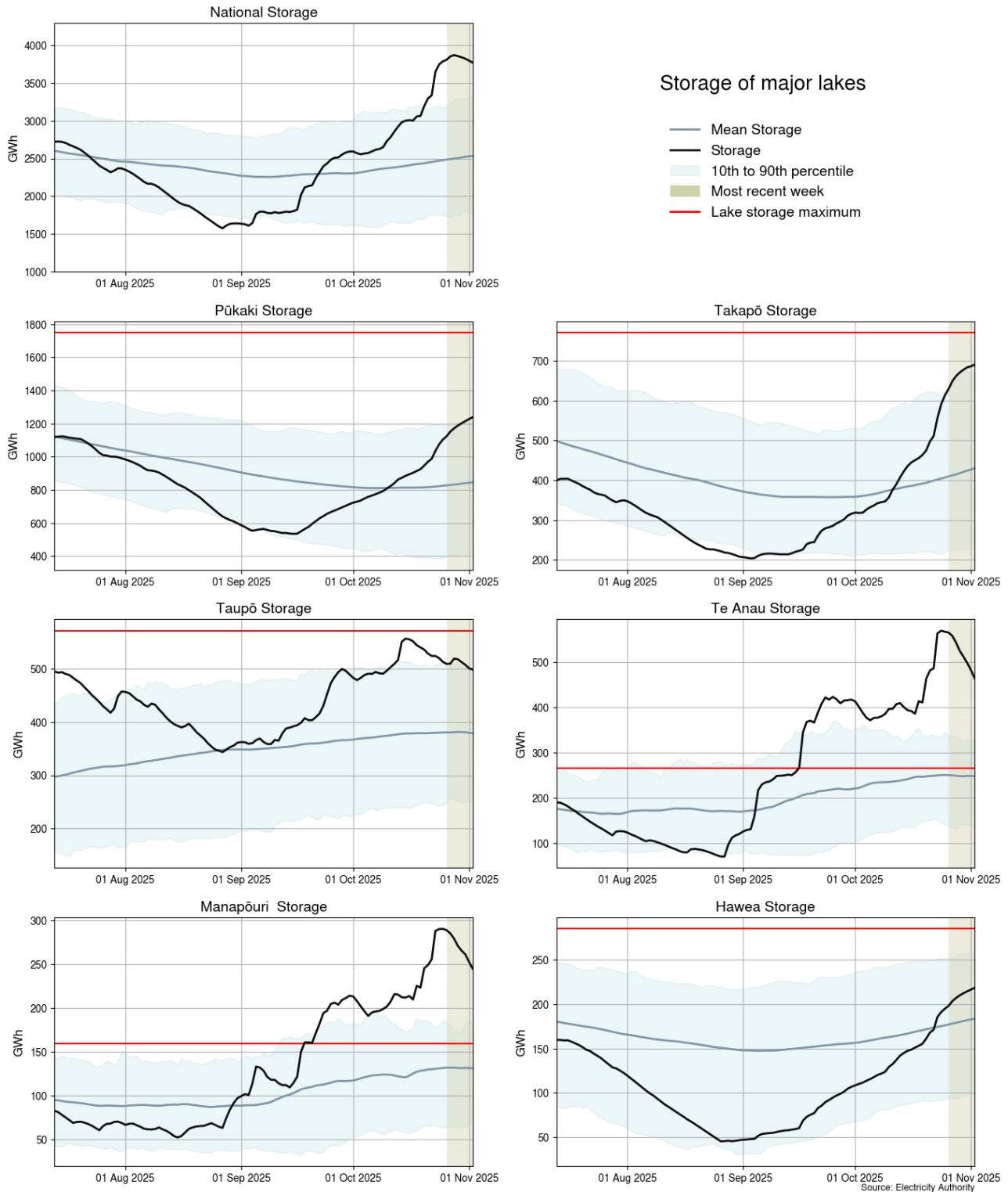
10. Storage/fuel supply

- 10.1. Figure 19 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 1 November 2025, national controlled hydro storage remained stable to 90% of nominal full and ~141% of the historical average for this time of the year.
- 10.3. Storage at Lake Pūkaki (71% full⁴) and Lake Takapō (89% full) are close to their respective 90th percentile.
- 10.4. Storage at Lake Te Anau (174% full) and Lake Manapōuri (156% full) is above their respective historic 90th percentile. Both lakes have exceeded their respective storage capacities. Spill continues down the lower Waiau river⁵.
- 10.5. Storage at Lake Taupō (87% full) is touching its historic 90th percentile for this time of year.
- 10.6. Storage at Lake Hawea (76% full) is above its historic mean. The uncontrolled lakes Wanaka and Wakatipu were above their respective maximums until 30 October.

⁴ Percentage full values sourced from NZX hydrological summary 2 November 2025.

⁵ [Lake levels - renewable energy generation | Meridian Energy](#)

Figure 19: Hydro storage

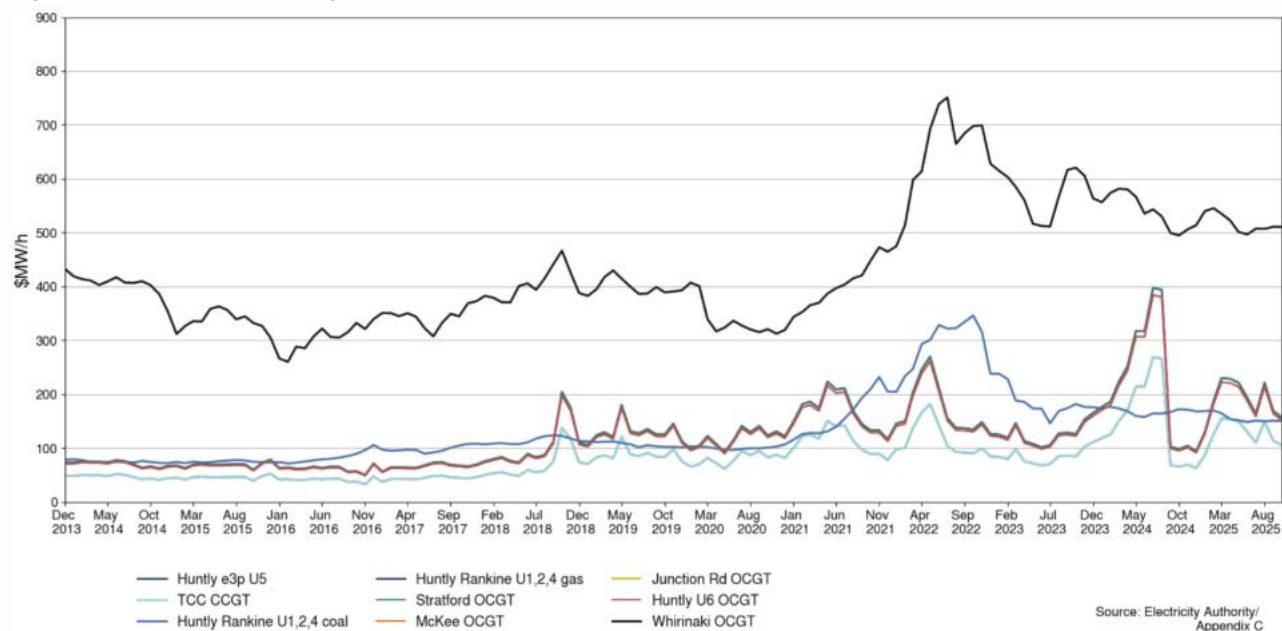


11. Prices versus estimated costs

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 20 shows an estimate of thermal SRMCs as a monthly average up to 1 October 2025. Coal was last updated on 1 August, so the previous prices were carried forward. The SRMCs for gas powered generation have decreased, while the SRMC for diesel fuelled generation has remained stable.
- 11.4. The latest SRMC of coal-fuelled Rankine generation is ~\$150/MWh. The cost of running the Rankines on gas is ~\$157/MWh.
- 11.5. The SRMCs of gas fuelled thermal plants are currently between \$105/MWh and \$157/MWh.
- 11.6. The SRMC of Whirinaki is ~\$510/MWh.
- 11.7. More information on how the SRMC of thermal plants is calculated can be found in [Appendix C](#).

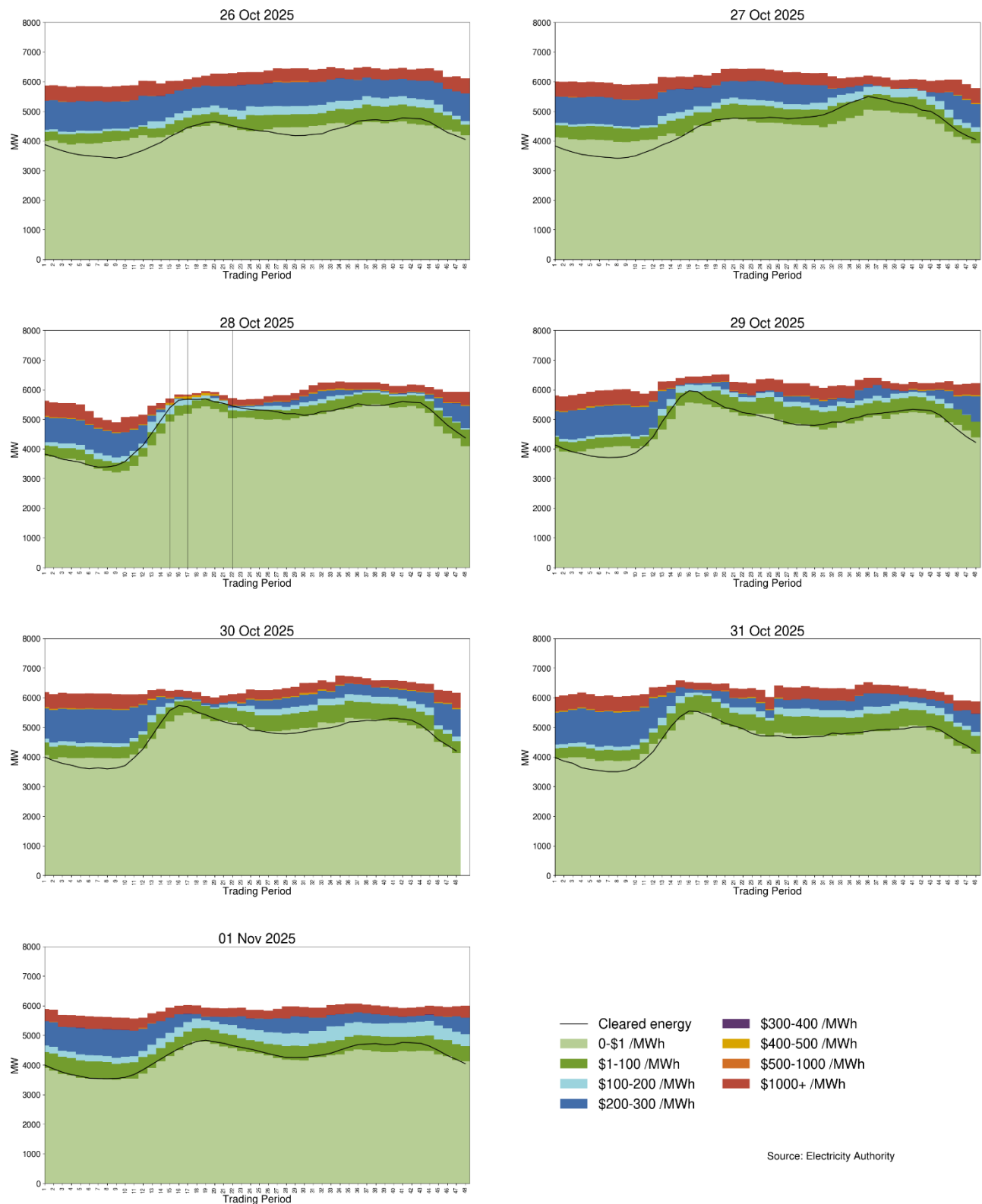
Figure 20: Estimated monthly SRMC for thermal fuels



12. Offer behaviour

- 12.1. Figure 21 shows this week's national daily offer stacks. The black line shows cleared energy, indicating the range of the average final price.
- 12.2. Most energy cleared below \$100/MWh this week. However, due to the low residual situation on Tuesday, some energy cleared into the higher pricing bands within the \$0–\$200/MWh range. Additionally, due to wind and/or demand forecast errors, some energy cleared into the next pricing band.

Figure 21: Daily offer stacks⁶

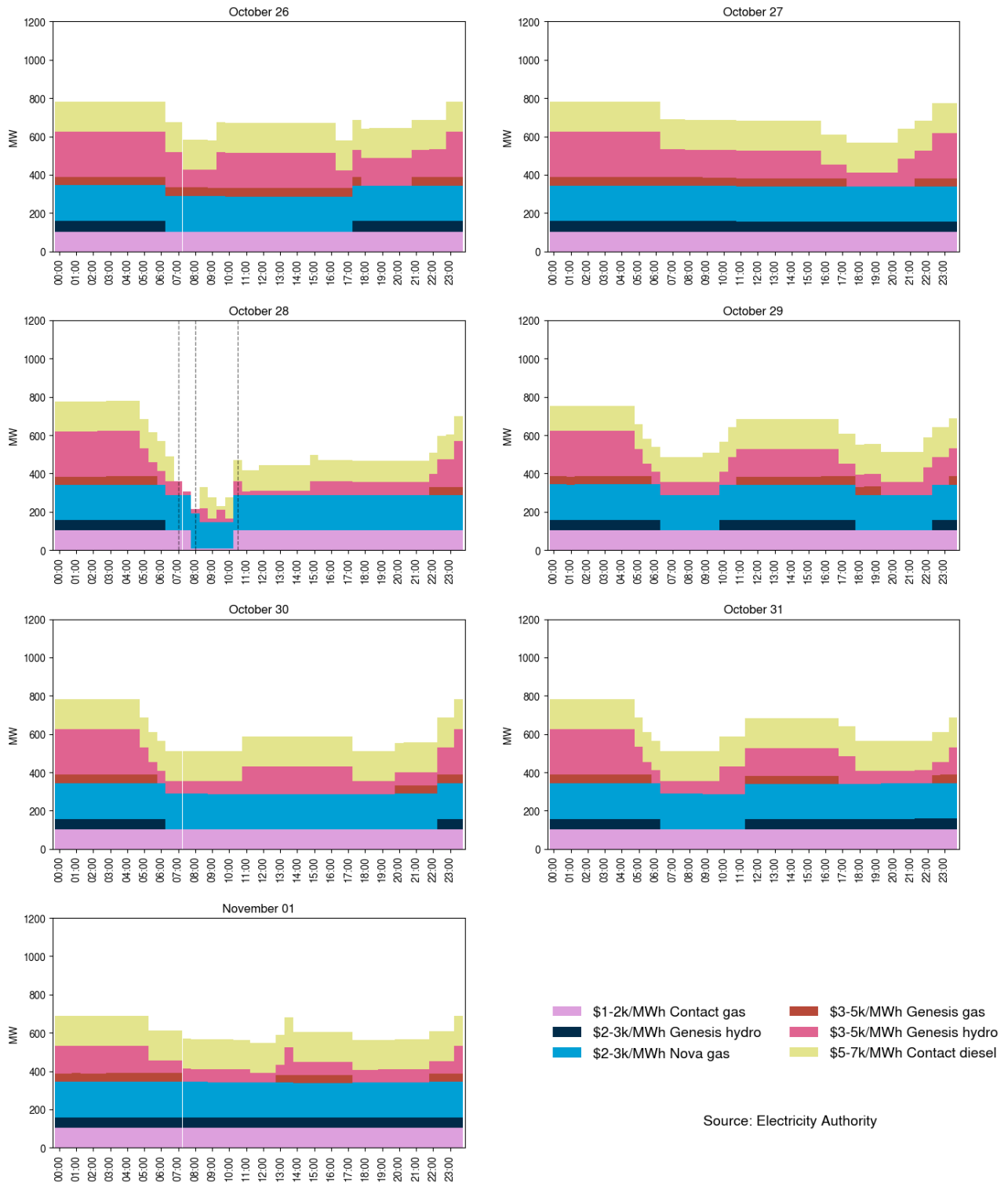


12.3. Figure 22 shows offers above \$1,000/MWh in each trading period this week. The largest proportion of these offers are fast start thermal operators.

⁶ Trading period 24 RTD data was missing on Thursday.

- 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, wind 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 629MW per trading period was priced above \$1,000/MWh this week, which is roughly 13% of the total energy available.

Figure 22: High priced offers



13. Ongoing work in trading conduct

13.1. This week prices generally appeared to be consistent with supply and demand conditions.

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
8/05/2025-9/05/2025	Several	Further analysis	Genesis	Waikaremoana	Offers
23/10/2025-26/10/2025	Several	Further analysis	Meridian	Ruakākā	Offers
24/10/2025-26/10/2025	Several	Further analysis	Meridian	Ōhau chain	Offers
21/10/2025-23/10/2025	Several	Further analysis	Meridian	West Wind	Offers
20/10/2025-01/11/2025	Several	Further analysis	Mercury	Kaiwera downs and Turitea	Wind generation
21/10/2025-1/11/2025	Several	Further analysis	Contact	Clyde	Offers
26/10/2025-1/11/2025	Several	Further analysis	Genesis	Takapō	Offers
28/10/2025	Several	Further analysis	Meridian	Harapaki	Wind generation