



TRANSPower

Monthly System Operator performance report

For the Electricity Authority
Report period: July 2026

Report Purpose

This report is Transpower's review of its performance as System Operator in accordance with clauses 3.13 and 3.14 of the Electricity Industry Participation Code 2010 (the Code):

3.13 Self-review must be carried out by market operation service providers

- (1) Each **market operation service provider** must conduct, on a monthly basis, a self-review of its performance.
- (2) The review must concentrate on the **market operation service provider's** compliance with—
 - (a) its obligations under this Code and Part 2 and Subpart 1 of Part 4 of the **Act**; and
 - (b) the operation of this Code and Part 2 and Subpart 1 of Part 4 of the **Act**; and
 - (c) any performance standards agreed between the **market operation service provider** and the **Authority**; and
 - (d) the provisions of the **market operation service provider agreement**.

3.14 Market operation service providers must report to Authority

- (1) Each **market operation service provider** must prepare a written report for the **Authority** on the results of the review carried out under clause 3.13.
- (1A) A **market operation service provider** must provide the report prepared under subclause (1) to the **Authority**—
 - (a) within 10 **business days** after the end of each calendar month except after the month of December;
 - (b) within 20 **business days** after the end of the month of December.
- (2) The report must contain details of—
 - (a) any circumstances identified by the **market operation service provider** in which it has failed, or may have failed, to comply with its obligations under this Code and Part 2 and Subpart 1 of Part 4 of the **Act**; and
 - (b) any event or series of events that, in the **market operation service provider's** view, highlight an area where a change to this Code may need to be considered; and
 - (c) any other matters that the **Authority**, in its reasonable discretion, considers appropriate and asks the **market operation service provider**, in writing within a reasonable time before the report is provided, to report on.



By agreement with the Authority, this report also provides monthly (rather than quarterly) reporting in accordance with clause 12.3 of the 2025 System Operator Service Provider Agreement (SOSPA):

- 12.2 **Monthly reports:** The **Provider** must provide to the **Authority**, with each self-review report under clause 3.14 of the **Code**:
- (a) a report on the progress of any **service enhancement capex project** or **market design capex project** that has commenced and has either not been completed or was completed during the month to which the report relates, including:
 - (i) to any actual or expected variance from the **capex roadmap** in relation to that **capex project**; and
 - (ii) the reasons for the variance;
 - (b) a report on **the technical advisory** services in accordance with the **TAS guideline**;
 - (c) the actions taken by the **Provider** during the previous month:
 - (i) to give effect to the **system operator business plan**, including to comply with the **statutory objective work plan**;
 - (ii) in response to participant responses to any participant survey; and
 - (iii) to comply with any remedial plan agreed by the parties under clause 14.1(i);
 - (d) the **technical advisory hours** for the previous quarter and a summary of **technical advisory services** to which those **technical advisory hours** related; and
 - (e) in the report relating to the last month of each quarter, the **Provider's** performance against the **performance metrics** for the **financial year** during the previous quarter.

System Operator performance reports are published on the [Electricity Authority](#) website in accordance with clause 7.12 of the Electricity Industry Participation Code 2010 (the Code):

7.12 Authority must publish system operator reports

- (1) The **Authority** must publish all self-review reports that are received from the **system operator** and that are required to be provided by the system operator to the **Authority** under this Code.
- (2) The **Authority** must **publish** each report within 5 **business days** after receiving the report.

Following the end of each Quarter, a system performance report is published on the [Transpower website](#)



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1 Key points this month

Operating the power system

- On 11 July, Waitaki T22 tripped following the cooling pumps tripping. This caused a loss of connection of approximately 45 MW of Meridian generation and a loss of supply of approximately 1.4 MW to Network Waitaki, the supply was restored within minutes and generation connection was restored by 15:36.
- On 21 July we issued a CAN to advise industry that the residual generation forecast for the morning peak on 22 July was close to 200MW. Industry response and better-than-forecast wind resulted in no shortfall, loss of supply, or consumer impact being recorded.
- Between 26 and 27 July, CAN's were issued advising industry of low residual generation periods during several peaks on 27, 28 and 29 July. The risk was driven by tight forecast residuals, with sensitivity to wind generation, demand, temperature and thermal unit availability. An industry briefing was held on 27 July to outline the forecast risk, required participant actions and potential escalation pathway. Participant responses improved the residual position, and the situation was managed through normal System Operator processes with no real-time shortfall, loss of supply or consumer impact recorded.

Security of supply

- *Energy Security Outlook (ESO)*: The July Energy Security Outlook shows energy security risk has reduced for both 2026 and 2027, mainly due to higher expected gas storage, stronger coal and gas inventories, and above-average hydro storage. Winter 2026 remains healthy, with national hydro storage at 134% of the historic mean and contracted fuel positions strong relative to base-case assumptions. Meridian's contingent storage approval may affect future modelling, and Transpower is engaging with Meridian and Genesis to understand timing, consent conditions, and any implications.
- *New Zealand Generation Balance (NZGB)*: NZGB margins remain positive through winter, but meeting demand above the 90th percentile depends on strong slow-start commitment, intermittent generation, and unit availability, with small shortfalls possible on 10 winter days.

Investigations

- *Under-frequency event*: On 31 July 2026, the Authority released its draft determination of the 23 October 2025 UFE, naming the System Operator as the causer. The System Operator is reviewing this draft determination.
- *Significant Event 12 April 2026*: We submitted our moderate event report on 7 July covering the Waioatahe loss of supply and Te Herenga o Te Rā Solar Farm loss of connection on 12–13 April, including the incident description, cause and key findings. No System Operator actions are required, but the report notes Grid Owner mitigation steps identified in its Commerce Commission interruption report.

Supporting asset-owner activity

- *Outage coordination*: Through July the System Operator has been working with the Grid Owner to reduce market impacts from outage activity by encouraging longer lead times, smoothing outage volumes, and bundling more work into each outage. Short-notice outage requests are increasing on a rolling-average basis, but most relate to low-impact secondary systems, customer

requests, or minor outage refinements. July outage bundling remained effective, with work crews per outage 3% higher than July 2025, while weekly outage volumes stayed within the 80-outage guideline manageable by normal control room resourcing.

- *Generation commissioning and testing:* Through July we continued supporting the commissioning of Harmony Energy's Tauhei solar farm in the Waikato (150MW) and Mercury Energy's Kaiwera Downs 2 wind farm (150 MW). BrightFern Energy's Dannevirke solar farm (19 MW) completed commissioning in July and Mercury Energy's Kaiwaikawe wind farm at Maungatapere (77MW), Genesis Energy's BESS at Huntly (100MW) and Lodestone Energy's Clandeboyne solar farm at Temuka (24MW) commenced commissioning in July. Lightsource Energy & Contact Energy's Kowhai Park solar farm in Christchurch (150MW) is due to begin commissioning in August 2026. Decommissioning of Contact Energy's Taranaki Combined Cycle (TCC) Power Station, by removing the asset from System Operator models & tools, also continued internally in July.
- *Large loads commissioning and testing:* We continue to support NZ Steel with the commissioning of their Arc Furnace at Glenbrook as it nears its go live date, and Fonterra/Simply Energy on Whareroa load and generation changes in preparation for Fonterra to become a Transpower direct connect customer in August, including updates to the market system.
- *Ancillary Services activity:* Work progressed through July, including onboarding a new provider, one contract variation, developing draft Emergency Reserve scheme (ERS) procurement plan amendments, and preparing the FIR/SIR and deferred 2025 procurement plan amendment proposal for submission to the Authority in August. ASCAS remains on track for August go-live, with NZX reporting expected by end September and IR Cost Allocation tooling planned for 1 October 2026.

Commitment to evolving industry needs

- *System Operator strategy development:* The System Operator Strategy phase 2 consultation closed at the end of July, with 13 submissions received on the proposed strategic priorities, outcomes, and initiatives. The revised strategy is being finalised before the final draft is provided to the Authority in August.
- *Policy Statement review:* Our Policy Statement amendment proposal has been approved by the Authority in July. We have already commenced our next Policy Statement review which will incorporate changes required to support ERS.
- *Industry Exercise 2026:* We have provided feedback on the draft report and working with the Authority to finalise the report for publication.
- *Multiple Frequency Keeping (MFK) trial:* The System Operator progressed preparation for a targeted three-month MFK trial starting in September to assess whether a wider MFK band can improve frequency quality and support reliable operation of the evolving power system. The draft trial report was shared with the Authority, with industry engagement and publication in August.

Technical advisory services (TAS):

- *TAS overview:* In July work on BESS Enhancements commenced and the FSR programme progressed, with the two projects forecast to use 92% of the FY27 annual TAS baseline. This and other identified investigation may create pressure on expert availability alongside core System Operator commitments. Close coordination through team planning and the JWPT is needed to help manage this risk. Q1 demand is forecast to sit materially above baseline in August and September due to BESS delivery timing.

- *TAS 120 – Multiple Frequency Keeping review:* This investigation closed in July where final work included defining scope and order of magnitude costing for the Authority for MFK national selection and changes for BESS participation in the MFK market.
- *TAS 123 - FSR Part 8 of the Code – common quality requirements:* FSR workstream progressed technical work to identify frequency reserve needs for managing low-inertia system conditions, support reactive power management policy development, and assess methods for managing converter-driven instability. Work also continued on emerging large-load challenges through engagement with the Authority and AEMO, with draft technical requirements expected by the end of September.
- *TAS 124 – BESS Enhancements:* The investigation phase received formal Authority approval on 30 July, with scope covering bidirectional offers, state of charge in scheduling, and BESS participation in the frequency keeping market. Requirements work and stakeholder workshops are progressing, though late approval has put the mid-October Initial Business Case timeline at risk.

Risk & assurance

- *Risk management:* The System Operator Risk Dashboard has been updated to link System Operator risks with wider industry risks and will be presented to Transpower's SOC in August before submission to the Authority MOC in September.
- *Business assurance audits:* We commenced work on the first two Business Assurance Audits in the 2026/27 Audit Plan - Build and Maintain Reactive profiles, Operational Procedures and Acknowledgement.

2 Operating the power system

2.1 System events

Event Date	Event Name	Event Activity
11 July 2026	Loss of Connection/Supply at Waitaki (WTK)	At approximately 14:12 on 11 July, Waitaki T22 tripped following sequential trips on cooling pumps 1 and 2, resulting in loss of cooling and oil flow. This caused a loss of connection of approximately 45 MW of Meridian generation, and a loss of supply of approximately 1.4 MW to Network Waitaki. Network Waitaki supply was restored at 14:16 and the generation connection at approximately 15:36. The event was managed promptly in real time, with no wider system impact recorded.
21 July 2026	Low Residual Situation	At approximately 15:30 on 21 July a CAN was issued advising industry that national residual generation was forecast to be close to 200 MW for the morning peak on 22 July. The risk was driven by tight forecast residuals, including sensitivity to lower wind and colder temperatures. Industry response and better-than-forecast wind improved the real-time position. The situation was managed appropriately, with no shortfall, loss of supply or consumer impact recorded. The minimum residual in real-time was around 442MW.
26–27 July 2026	Low and Potential Low Residual Situations	Between 26 and 27 July, CANs were issued advising industry of low residual generation periods for the morning and evening peaks on 27 July, the morning peak on 28 July, and a potential low residual situation for the morning peak on 29 July. The risk was driven by tight forecast residuals, with sensitivity to wind generation, demand, temperature and thermal unit availability. An industry briefing was held on 27 July to outline the forecast risk, required participant actions and potential escalation pathway. Participant responses improved the residual position, and the situation was managed through normal System Operator processes with no real-time shortfall, loss of supply or consumer impact recorded. The minimum residuals in real-time were: 27 July AM 218MW, 27 July PM 58 MW, 28 July AM 192 MW, and 29 July AM 452 MW.

2.2 Market operations

Application of discretion

During July the System Operator coordinators applied discretion in 22 instances, primarily associated with inflexible generation minimum run limitations and to ensure generation would be operating in time (given unit start up time and ramp rate limits) to be able to supply peak demand during low residual situations. Each instance of discretion is set out in Appendix A.

Forecast v real-time residual variability:

The graph in Appendix B presents, for the last 24 months, the proportion of time within each month that a 200 MW residual was sufficient to cover the variation in load and intermittent generation between forecast (30 minutes ahead of real-time) and real-time.¹ In July more than 96% of the variability was covered by the 200 MW residual threshold. This indicates that entering a trading period with at least 200 MW of residual provided a high chance of having sufficient market resources to meet the variability within the period.

3 Security of supply

Energy Security Outlook:

We published our [July Energy Security Outlook](#) on 31 July. This update incorporates higher coal and gas storage levels, scheduled Huntly Rankine outages, and delays to the expected commissioning of new generation. Compared with the June update, the electricity risk curves decreased across both 2026 and 2027. The reduction is primarily driven by a higher estimated gas storage position in early to mid-2027. This is largely due to the planned shutdown of Huntly Unit 5 from 1 July to 31 December 2026, which reduces gas demand for electricity generation and allows more gas to be stored ahead of 2027. Higher-than-expected hydro storage levels also contribute to a lower forecast requirement for thermal generation.

The outlook for winter 2026 remains healthy, supported by above-average hydro storage and strong coal and gas inventories. The contracted fuel case continues to show a strong fuel position in 2026 relative to the physical capability to source thermal fuels represented by the base case. A wider gap emerges in 2027, reflecting participants' tendency to contract thermal fuel supplies closer to delivery. The contracted fuel case risk curves increased slightly in late 2026 and early 2027 due to lower estimated starting coal stockpiles, as the Huntly Unit 5 shutdown is expected to increase the reliance on coal-fired generation. Offsetting this, the contracted fuel case risk curves for May and June 2027 decreased owing to higher contracted gas volumes since the June update and the higher expected gas storage levels resulting from the Unit 5 shutdown.

National hydro storage now sits at 134% of the historic mean (on 26 July), following higher than average inflows for South Island. Our latest weekly market update is available here: [Market Operations latest update](#).

On 3 July, Meridian received final approval to access its contingent storage via the fast-track panel. This gives them access until the end of 2028, but there are conditions precedent that Meridian need to work through with Genesis within 1 year before the water can be accessed. We are engaging with

¹ We monitor the variations between forecast and real-time dispatch conditions to determine if the 200 MW residual continues to provide sufficient coverage to cater for within trading period variations in demand and supply.

both parties to understand the expected timing and any implications for our modelling assumptions. We are assessing how the approval and associated consent conditions should be reflected in future modelling and reporting outputs.

Reliability obligation to manage dry-year risk

MBIE published a consultation on a new winter reliability obligation in early June.

The System Operator supports the policy intent behind the reliability obligation. Strengthening incentives including for fuel management is important to ensure an efficient level of reliability for the transition. Our other key point was that regulatory measures should be based on existing security of supply information products such as Security of Supply Assessments (SOSA) and the Energy Security Outlook to reduce complexity, maintain continuity, and avoid separate or inconsistent risk signals. Our submission is published [here](#).

New Zealand Generation Balance (NZGB) potential shortfalls:

NZGB margins in the base case remain positive through winter. The base case assumes a 90th percentile demand, 20% of wind capacity, all thermal plant is operating, and that the largest generation unit has been removed from service. However, our sensitivities and scenarios show that if demand is higher than the 90th percentile we will be relying on a mix of high levels of slow start unit commitment, high levels of intermittent generation, and units to remain in service. Assuming all the of these things are true, meeting a 100th percentile demand like that seen in the start of August is achievable on all but 10 days in winter, where small negative margins are present from middle of July to until the end of August.

4 Investigations

4.1 Under-frequency event (UFE) investigations

On 31 July 2026, the Authority released its draft determination, naming the System Operator as the causer. The System Operator is reviewing this draft determination.

4.2 Significant incident investigations

Significant event: On 12 April 2026, high winds associated with Cyclone Vaianu caused an Edgumbe-Waiotaha line fault and an associated loss of supply. On 7 July, we submitted a moderate event report on the Waiotaha Loss of Supply and Te Herenga o Te Rā Solar Farm Loss of Connection, 12-13 April 2026. The report provides a description of the incident, identification of the cause of the incident, and key findings.

There are no System Operator actions required, but for completeness we have included the steps that the Grid Owner proposes to take to mitigate the risk of future unplanned interruptions of this type, which were identified the Grid Owner's interruption report to the Commerce Commission.

5 Supporting asset-owner activity

5.1 Outage coordination

We continue to work with the Grid Owner to minimise the impact of its work programme by encouraging longer outage lead times, more work per outage, smoother outage volumes, and strong market engagement for high-impact outages. Longer lead times and smoother outage volumes allow the market to coordinate effectively. Bundling more work into each outage reduces the total number of outages needed, reducing the market impact of the Grid Owner's growing RCP4 work programme.

- The 12-month rolling average number of Short Notice Outage Requests (SNORs) has been increasing. However this is mostly driven by high volume of secondary system outages which have little impact on the grid, customer outage requests, or minor refinements to outages. Short notice outage outages on primary asset amounted to 7% of all SNORs or 8 in total.

Short Notice Outage Requests (SNORs)	Aug-25	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26
12 Monthly Rolling Average (%)	10.5	10.8	13	8	11	11	10	20	11	12	3	8

- The 12-month rolling average shows the effectiveness of outage bundling and the benefit of incorporating multiple work orders and work crews into each outage. Work orders per outage continued to increase. The number of work crews per outage was maintained, with July 2026 3% higher than July 2025.
- Weekly outage volumes during July were managed within the System Operator's guideline of 80 outages per week provided to the Grid Owner. This means outage-driven workload can be managed within typical System Operator control room resourcing levels.

5.2 Generator and large loads commissioning and testing

Generation commissioning and testing

The Power Systems and Markets teams are working with the following participants who are commissioning or expecting to connect in the next 6 months:

- Mercury Energy's Kaiwera Downs 2 wind farm (150 MW connecting to the Transpower grid at KIW) commenced commissioning 1 April 2026, due to complete in October 2026.
- BrightFern Energy's Dannevirke solar farm (19 MW directly connecting to the Transpower grid at DVK) completed commissioning in July 2026.
- Harmony Energy's Tauhei at Waihou solar farm (150 MW connected to the Transpower grid at WHU) commenced commissioning in June 2026, due to complete in August 2026.
- Lodestone's Clandeboye Solar Farm (24 MW connecting to Alpine Energy) commenced commissioning in July 2026.
- Mercury's Kaiwaikawe Wind Farm (77 MW connected to Northpower) commenced commissioning in July 2026.

- Genesis Energy's Huntly BESS (100 MW connecting to the Transpower Grid at HLY) commenced commissioning in July 2026.
- Contact Energy & Lightsource's Kōwhai Park Solar Farm at Christchurch Airport (150 MW connecting to Orion) is due to begin commissioning in August 2026.
- Fonterra has taken dispatch for their Whareroa co-generation plant directly from Transpower, rather than via Nova. Changes were completed in July 2026.
- Meridian's Ruakākā Solar Farm (130 MW directly connecting to the Transpower grid at BRB) is due to begin commissioning in October 2026.
- Northpower's new solar farm at Maungatapere (24 MW connecting to Northpower) is due to begin commissioning in November 2026.
- Contact's new geothermal unit (2A G6) at Te Mihi (51 MW directly connecting to Transpower grid at THI) is due to begin commissioning in December 2026.

We are also working with existing generators to commission maintenance and upgrade projects, and with Contact Energy to decommission the Taranaki Combined Cycle (TCC) generator.

Large loads commissioning and testing

Fonterra's Whareroa dairy factory at Hāwera will become a direct connect transmission customer in August. The Authority's determination of HWA1101 and HWA1102 as non-conforming nodes comes into effect from 1 August. Changes to move dispatch signalling for Whareroa from Todd Energy to Fonterra took place in July. We have continued to work with Fonterra and Simply Energy (who will be bidding the load) to ensure they are set up to operate in the market from 1 August, including changes to our market tools.

We continue to support NZ Steel with the commissioning of their arc furnace at Glenbrook which is to commence steel production from August.

Early discussions underway with asset owners of two large-scale data centres. Internal project teams have been established to support this work.

Glenbrook co-generation ownership change

There will be a change in ownership of the Glenbrook co-generation plant in early September 2026. The System Operator continues to assist NZ Steel as the new asset owner and trader in their obligations and changing the market system to accommodate the required trading and dispatch changes.

5.3 Ancillary Services activity

Setup continues with a new ancillary services provider. There was one ancillary service contract variation within the reporting period, to update the provider's reserve market participation arrangements.

The Procurement Plan review is underway for the ERS market design project and will include System Operator consultation, planned to start in September. In parallel we have finalised the amendments to carry forward from the those deferred during the 2025 Ancillary services procurement plan review. Items that can be progressed without further industry consultation will progress through full internal and legal review in preparation for submission to the Authority for approval by 28 August. The Authority is also progressing decisions in relation to definitions in the Code for Fast and Sustained Instantaneous Reserves (FIR and SIR), the resulting minor amendments to the procurement plan will be incorporated with the deferred items that are anticipated to not require consultation.

The Ancillary Services Cost Allocation System (ASCAS) project remains on schedule for final release and go-live planned for August. The new ASCAS tool is expected to deliver NZX reports by the end of September. The tooling change portion of the IR Cost Allocation solution will be delivered as part of this project with a go-live date of 1 October 2026.

Interruptible Load (IL):

The following table provides an overview of IL testing activity by the number of sites tested and associated additional quantities for those sites. Work is ongoing to review the performance of reserves service providers against contractual requirements during recent UFE's.

	Number of sites	Additional quantities in MW	
Annual testing	0 sites	N/A	
Additional resource	1 site	87.10 MW FIR	87.10 MW SIR
Removal of resources	0 sites	0 MW FIR	0 MW SIR

Generation Reserve (GR):

There is one unit with overdue testing for both Partly Loaded Spinning Reserve (PLSR) and Tail Water Depressed Reserve (TWDR). The asset owner has confirmed that they have scheduled testing for August.

One resource was removed from the generation reserve market this month, due to decommissioning of the asset. One new resource was added to the generation reserve market.

	Number of units overdue
Testing	1

Over-Frequency Reserve (OFR):

The following table provides an overview of OFR testing activity. We have been actively working with participants and our internal teams to address overdue testing requirements and have reduced this number notably. We intend to continue this work and expect these figures to reduce further.

	Number of units overdue
Four yearly end-to-end relay testing	0
Two yearly control and indication testing	3
Circuit breaker testing	10

6 Commitment to evolving industry needs

System Operator Strategy development:

The System Operator Strategy phase 2 consultation paper was released in June and outlined five proposed strategic priorities: operating a secure, highly variable power system; efficient market operations and information provision; evolving operational capability; leveraging data and distributed energy resource integration; and strengthening industry resilience. The consultation was supported by

industry communications, stakeholder engagement activities and a public webinar. The paper also presented initiatives to achieve the outcomes in the priorities.

The consultation closed at the end of July. 13 submissions have been received and the revised Strategy is being circulated internally prior to the final draft strategy being provided to the Authority in August.

Policy Statement review:

Having completed our review of the Policy Statement, we have proposed amendments for the Authority's review and approval. The Authority has now approved the amendment in July and has since published its decision.

Pan-industry exercise:

The lessons learned report for the exercise is being reviewed by the Authority. We have provided our feedback and will respond to any questions from the Authority review.

Evolving markets resource co-ordination – Dynamic Market Node constraints:

Dynamic Market Node Constraint: this initiative is designed to address the problem associated with (and similar to the) Wairakei Ring transmission outages when there are multiple geothermal generators needing to remain at their minimum feasible levels of operation. The change to deploy market node constraint is going into the Market System on the 27 August and this will be communicated closer to the time.

Authority Market Operations Service Provider 10-year roadmap submission

The System Operator contributed to [Transpower's 28 July submission](#) on the Authority's market Operation Service Provider 10-year roadmap consultation. The System Operator drew attention to the high level of synergies between the WITS and System Operator roles, and the benefits to future operations of increased data sharing arrangements enabled by potential changes to the market operation service provider roles.

Authority DSO Roadmap feedback

The System Operator provided [feedback to the Authority on 31 July](#) on the DSO Roadmap. Our feedback focussed on the consideration of our (T)SO role within the work programmes listed in the Authority's DSO Roadmap. We noted some specific areas where the TSO needed to be included in either the description of a work programme or as an involved organisation to better reflect the role the TSO will play in the evolution of, and ongoing operationalisation of, DSO capability in NZ. At the core of our feedback is the need to maintain system security in the evolving TSO/DSO landscape, and the timing of activities the Authority has signalled.

Electricity Networks Aotearoa (ENA) Future Networks Forum (FNF):

The Authority's DSO Roadmap was published on 30 June. During July the System Operator met with and corresponded with members of the ENA FNF to share views on and discuss responses to the Authority's DSO Roadmap. Those discussions indicate ENA may re-liven its FNF DSO working group to assist with industry DSO progress. In any event given the importance of the TSO:DSO relationship the System Operator will work with ENA to inform and assist with progress on DSO capability.

MFK Trial:

The System Operator progressed preparations for a targeted three-month MFK trial to commence in September. The trial will help assess whether a wider MFK band can improve frequency quality and support the reliable operation of New Zealand's evolving power system. The draft MFK trial report was shared with the Authority for comment. The System Operator will commence industry engagement and publish the MFK trial report in August.

6.1 Connecting with the industry

System Operator industry forums:

We ran two standard industry forums in July. In the first forum we provided a comprehensive security of supply update, including detailed information on the final SOSA 2026. The second forum shared insights on managing the challenge of the cold snap with emphasis on the importance of ongoing attention here, and also discussed the Low Residual Situations that occurred that week

System Operator Engineering Forum 2026:

On 1 July, we hosted the annual Engineering Forum across Wellington, Hamilton, and Christchurch, bringing together more than 80 industry participants, including asset owners, consultants, distribution companies, Transpower, and the Electricity Authority. The forum supported implementation of the Electricity Authority's Part 8 Code Amendments and the Connected Asset Commissioning, Testing and Information Standard (CACTIS), both of which came into effect that day. Supporting material was subsequently published to help industry participants understand and apply the new requirements.

Market Operations weekly reports:

Our [Market Operations Weekly Report](#) provides information to assist interested parties' understanding of the current security of supply situation² and other market events. These reports also include a Market Insight each week covering a topic of interest to the industry. The reports we published this month, and the Market Insight in each, are as follows³:

- 5 July - Off-peak load surges
- 12 July - Generation mix during top demand peaks in recent years
- 19 July - Installed MW versus peak-period MW of Intermittent Generation
- 26 July - Low Residual Customer Advice Notice (Low Residual CAN)

6.2 Supporting the Authority

Intermittent generation central forecasting project:

We continue to support the Authority and participants by highlighting the importance of accurate Forecast of Generation Potential (FOGP) in real-time operations, while working with the Authority to strengthen dispatch compliance and IG dispatch.

2 As required by the Security of Supply Forecasting and Information Policy section 11, incorporated by reference into the Electricity Industry Participation Code 2010

3 Past Market Operations Weekly Reports including our weekly insights can be viewed on our website.

6.3 International engagements

The Association of Power Exchanges (APEx) is running an exchange program for employees to exchange with an overseas counterpart. The System Operator is privileged to host two staff members from Indian Energy Exchange late August this year, and in return, two of our staff will be travelling to India later in the year.

We continue to engage with OEMs to understand the development of new inverter technology and control system. This month, we met with Power Electronics to discuss CACTIS requirements. Power Electronics also demonstrated their BESS products designed to support Data Centres operations.

6.4 Media interactions

Newsroom sought comment on the release of the Security and Reliability Council Annual Review. Several media outlets asked about the impact of the proposed DataGrid data centre in Southland on the power system from a security of supply perspective. Questions about Datagrid intensified when we issued low residual CANs for the cold snap in late July. There was also extensive coverage of our management of the low residual situations resulting from that cold snap and low wind generation. The New Zealand Herald asked about the impact of the El Niño weather pattern on security of supply.

7 Project updates

Progress against high value, in-flight market design, service enhancement and service maintenance projects are included below along with details of any variances from the current CAPEX plan.

7.1 Market design and service enhancement project updates

Emergency Reserve scheme (ERS):

The capital phase of the ERS Project commenced as a market design project on 1 July, as confirmed through the contract letter developed jointly with the Authority. The operational workstream has progressed the procurement plan review and the draft procurement plan amendment is progressing for internal review and preliminary Authority feedback, before the Authority considers consent to consult. Consultation is planned to start in September.

The tooling workstreams have continued to progress. The Market System workstream focus has been on finalising high-level requirements which will be shared with the Authority and progressing detailed requirements to support solution design development activities. The test strategy was developed and is undergoing approval processes. The FlexPoint workstream undertook internal security assessment activities and initiated contract discussions with the platform provider. The ASCAS workstream for the ERS enhancements, whilst not due to commence until September, confirmed resource availability from the ASCAS project team.

The Project governance has been established with July meetings conducted for both the internal Project Governance Board (PGB) and the external System Operator/Authority Joint Governance Committee (JGC).

Instantaneous Reserve Cost Allocation (IRCA):

This Market Design commenced as a capital project on 1 July, as confirmed through the contract letter developed jointly with the Authority. The project results in a small extension of scope for the Ancillary Services Cost Allocation System (ASCAS) project, and business change initiatives in the Operations division. The IRCA project is progressing well, with SMEs from the relevant business groups agreeing on the criteria for identifying existing and additional generators liable for reserve costs and initiating the drafting of the at-risk generation list of generators that meet those criteria.

The Project governance is being established for September, with a dedicated internal PGB and inclusion incorporation with the already-established ERS JGC, to ensure consolidated dependency management of active market policy initiatives.

7.2 Other Projects

Ancillary Services Cost Allocation System (ASCAS):

The ASCAS project remains on track for final release and August go-live, with NZX reporting expected by the end of September. Final user acceptance testing is nearing completion, and the tool has already been used successfully to resolve a June processing issue in the existing GSS AS tool. The related IR Cost Allocation tooling change will be delivered through ASCAS, with go-live planned for 1 October 2026. Work to support ERS implementation is also to be planned.

Control room of the future (CRoF):

Transpower's IST department is working through the use case documentation provided by the project team to estimate both the cost and timeline for establishing the foundational technology required for CRoF as well as configuring this technology to implement the prioritised use cases. Planning for a Proof of Concept is also underway. This, along with the preparatory business design/planning work for data governance, knowledge management, and process documentation, are the primary elements of an updated Roadmap for CRoF. The Roadmap will then inform funding options and Investment Case development.

Market Operator Interface (MOI) foundations:

The project remains on track, with Release 1 scheduled for September 2026 go-live and Release 2 progressing to plan. One Release 2 display has been re-baselined to maintain overall delivery alignment, supported by AI-assisted development tools to improve efficiency. Risk Reserve funding has been approved for the additional effort, with no impact to key milestones or the approved budget.

7.3 Joint Work Planning Team (JWPT)

The next quarterly JWPT meeting with the Authority is scheduled for August. Preparation of materials for this session commenced in July particularly incorporating feedback into the Capex Roadmap update and work that will support the discussion on SME and system capacity to support the programme of delivery. We also completed updates to the Joint Development Programme (JDP) timeline which have now been shared with the Authority as we jointly work to finalise the revised JDP by the end of August.

8 Technical advisory hours and services

During July TAS work started on the BESS Enhancements investigation ahead of the TAS SOW approval on 30 July. Work also progressed on the FSR programme in parallel with preparation of the TAS SOW for which final approval is anticipated early August. These two TAS projects are forecast to utilise 92% of the FY27 TAS annual baseline (excluding contingency). [REDACTED]

[REDACTED] This and other already identified investigations [REDACTED] may place pressure on the annual baseline and the System Operator's ability to allocate the necessary experts around other commitments including its own core services work programme.

Ongoing close engagement on planning between the teams and via the JWPT will help to mitigate this risk. Utilisation is expected to be weighted towards the first half of the year, with Q1 demand materially above baseline in August and September due to the timing of BESS Enhancements delivery.

TAS Statement of Work (SOW)	Status	Hours worked during month
TAS 120 – Multiple Frequency Keeping (MFK) Review	Closed	22.5 (SME)
		9.0 (PM)
TAS 123 – Future Security and Resilience	In progress	152.0 (SME)
		28.0 (PM)
TAS 124 – BESS Enhancements	In progress	33.0 (SME)
		14.0 (PM)

TAS 120 Multiple Frequency Keeping review

This investigation was closed in July. The final work included defining the scope and providing a Rough Order of Magnitude cost to deliver MFK changes (MFK national selection) alongside changes to enable BESS to fully participate in the MFK market as part of BESS Enhancements.

TAS 123 FSR Workstream - Part 8 of the Code - common quality requirements:

In the month of July we started the work to identify the type of frequency reserve we need to manage low inertia system. This piece of work includes technical requirements for the new frequency reserve product. We continued our support of the Authority to draft the reactive power management paper, and started the work to identify the right matrix and assessment method to manage converter driven instability. We have also been working with Powertech to tap in their experience in small signal analysis to analyse converter-driven instability, which can potentially be a solution for real-time operation. In response to emerging large load challenges, we continued engagement with the Authority and collaborated with AEMO to better understand the associated operational, power quality, and policy impacts that we need to consider. The first draft of the technical requirements should be completed by the end of September.

TAS 124 BESS Enhancements:

The BESS enhancement project investigation phase commenced in July ahead of formal approval of the scope of work (SOW) by the Authority, which was received on 30 July. The project will deliver defined scope, including bidirectional offers, incorporating state of charge in the scheduling process, and changes to facilitate BESS participation in the frequency keeping market. Business requirements gathering is currently under way.

In July, early stakeholder workshops progressed well, with requirements due for Authority review in late August. Late SOW approval continues to put the mid-October Initial Business Case timeline at risk, despite early workshop mitigation.

9 Risk and assurance

9.1 Risk management

The System Operator Risk Dashboard has been reviewed internally, incorporating feedback from the February System Operator Committee (SOC) and Authority Market Operations Committee (MOC) meetings. The main change is explicitly providing a clear link between System Operator risks and the wider industry risks. The updated dashboard and accompanying paper will be presented to SOC in August, with any SOC feedback incorporated before submission to the rescheduled Authority MOC meeting in September.

9.2 Business assurance audits

We are drafting the Consultancy Services Order for the first two Business Assurance Audits in the 2026-27 Audit Plan - Build and Maintain Reactive profiles, and Operational Procedures and Acknowledgement - which will be completed over the first two quarters of the financial year.

10 Compliance

The Compliance actions for this month are set out below:

Notification of Code Breaches	
1.	
2.	

3.	
4.	
5.	
6.	
Advice to Authority under clause 15.10 of the SOSPA	
3.	

11 Conflicts of interest

We have two open items in the Conflict of Interest Register (below). These are being actively managed in accordance with our Conflict of Interest procedure.

ID	Title	Managed by
40	General System Operator/Grid Owner dual roles: This is a general item that will remain permanently open to cover all employees with a dual System Operator/Grid Owner role. This item documents the actions necessary to ensure impartiality in these circumstances; these items will be monitored to ensure their continue effectiveness.	Corporate Counsel, Compliance and Impartiality
41	General relationship situation: This is a general item that will remain permanently open to cover all potential conflicts of interest arising under a relationship situation. This item documents the actions necessary to prevent an actual conflict arising and will be monitored by the System Operator Compliance & Impartiality Manager to ensure their continued effectiveness.	Corporate Counsel, Compliance and Impartiality

12 Impartiality of System Operator

This section covers specific activity this month that involved internal information barriers in place, the separation of key roles and functions, and oversight by Corporate Counsel, Compliance and Impartiality.

- The System Operator's view and responses have been reflected in a joint submission with the Grid Owner on the Authority's consultation on Transpower sharing common quality information between System Operator and network owner. The System Operator's subject matter experts and its Corporate Compliance Counsel reviewed and advised on the consultation paper independently from the Grid Owner to ensure that the System Operator's interests were separately assessed, and impartiality was maintained throughout the process.
- As previously advised, the System Operator is involved with the Grid Owner's HVDC Cable replacement and Control Systems MCP planning. We identified no immediate (actual or perceived) conflicts of interest that would prevent us from working with the Grid Owner as they procured assets and designed the control system that have a high level of national importance. In our role as System Operator, we are particularly interested in a Grid Owner solution that works from both a market efficiency and operability aspect. The Grid Owner is procuring an asset that will impact us operationally and we have the expertise to inform their process for a better outcome for the power system and New Zealand. That is the only benefit to both parties of this collaboration. We will continue to monitor for any future risks as the project proceeds through its stages.

13 Performance & monitoring

Our System Operator performance against the performance metrics for the financial year, as required by SOSPA 12.2 (e), will be provided in the final monthly report each quarter.

14 Actions taken

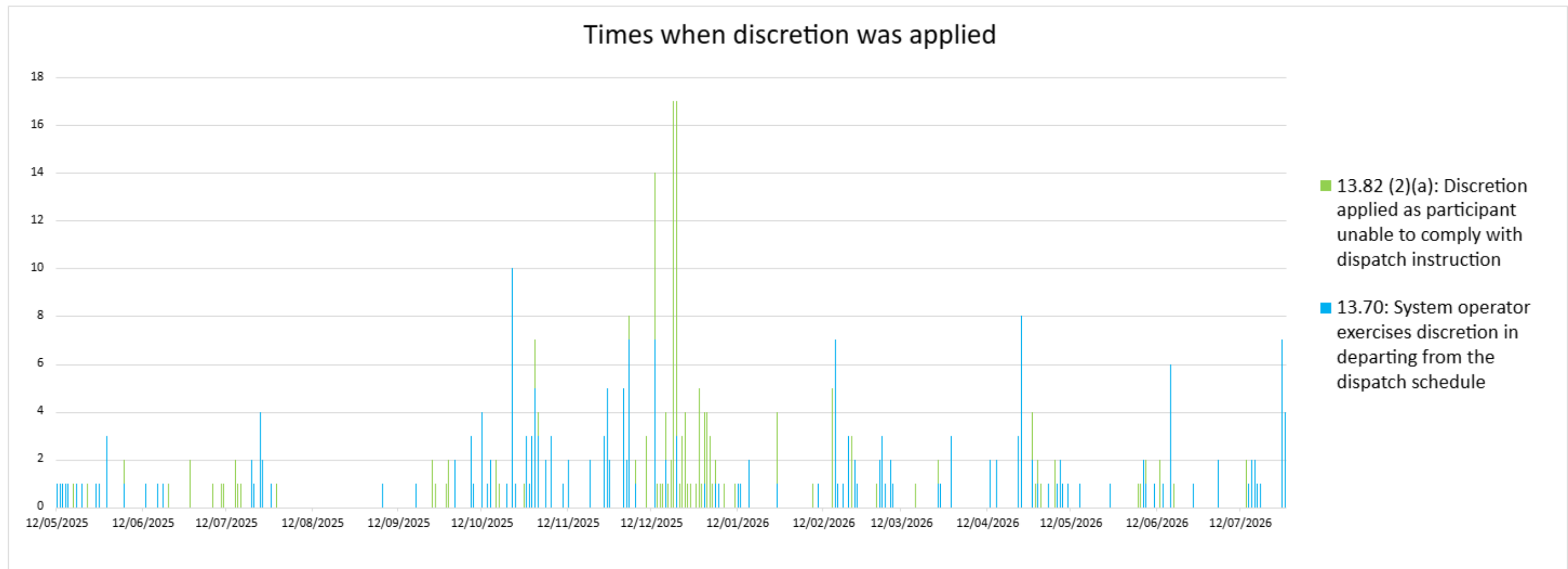
The following table contains a full list of actions taken this month regarding the 2026-27 System Operator business plan, statutory objective work plan, participant survey responses and any remedial plan, as required by SOSPA 12.2 (c).

Items of interest	Actions taken
To give effect to the System Operator business plan strategic initiative	Finalise and implement the new System Operator Strategy and deliver against the strategic initiatives: The System Operator Strategy Phase 2 consultation closed on 31 July. 13 submitters gave feedback on the strategic priorities, outcomes, and initiatives. We are on track to deliver the draft strategy to the Authority later in August. Support development of the wholesale market design. Deliver key enhancements to the market design and market system for BESS, frequency keeping, ERS, Hybrid arrangements: On 21 July a valuable workshop was held with representatives from the Authority (Operations Policy and FSR teams) and System Operator (Markets, OPTI, real-time, and power system engineering teams). This workshop was focussed on supporting Authority planning for its Market Operations Policy work programme. During the workshop the System Operator covered operational issues which are being observed now and those we expect to arise soon which relate to the existing market design, expected future market design needs, or could be mitigate by changes to the market design. The purpose of these workshops is to socialise a common understanding of these issues and priorities across both organisations. Improve System Stability and Power System health with the delivery of a clear needs assessment of inertia and frequency to drive timely mitigations. Trial new system and software for monitoring power system health: The Investigation approval is ready for the next phase of the power system health project. The project will enable the System Operator to monitor and track system health, allowing sufficient time to assess risks and implement effective mitigation measures.

Items of interest	Actions taken
	Embed internal processes to support generator and ancillary services commissioning and onboarding operations, and provide quality external communications to deliver on the CACTIS requirements, along with improvements to streamline processes for customers. Work progressed on the technical requirements for 'large loads'. This will help define interim connection requirements to improve the connection process for large loads to the power system. We also continued work on amending our own guidelines to align with CACTIS. Deliver the Control Room of the Future (CRoF) roadmap by implementing the Operational Intelligence, training environment enhancements, and knowledge management initiatives: Work continues to understand the new/enhanced foundational technology capabilities required for CRoF to develop a robust timeline and cost estimate for these. Increase focus on Security of Supply and Forecasting (SOSF) with the establishment of a dedicated SOSF team. Embed the new structure to meet our SOSF obligations: The dedicated Security of Supply and Forecasting team within the Operations Division formally came into existence from 1 July. Establish a clear process for SOSPA4 development working closely with the EA We have commenced our internal planning for the SOSPA4 reset, including some initial discussions with the Authority in preparation for closely aligned joint processes and governance as the planning and proposal stages ramp up from Q3 2026-27.
To comply with the statutory objective work plan:	Ancillary Services Procurement Plan – Emergency Reserve: In progress refer to update in section 7.1. Ancillary Services Procurement Plan (non-consultation) – FIR/SIR & 2025 deferred updates: In progress refer to update in section 5.3. Policy Statement review: Staff have begun work on the next Policy Statement review which is intended to include the ERS project requirements. Finalise System Operator Strategy: Refer to update in business plan section above.

Items of interest	Actions taken
In response to participant responses to any participant survey	We have finalised our 2026 Participant Survey report and shared this with the Authority for their information and to also support the assessment of two related performance metrics in the 2025-26 PMI Agreement. We are considering several actions that we will look to progress.
To comply with any remedial plan agreed by the parties under SOSPA 14.1	No remedial plan in place.

Appendix A: DISCRETION



System Operator applied discretion in 22 instances:

- 2 instances at Coleridge (COL):
 - 4 Jul, 2 instances, claimed cl 13.70 as output reduced to remove instability.
- 2 instances at Manual North Island CE risk:
 - 14 Jul, 2 instances, claimed cl 13.82.2(a) Nga Awa Purua (NAP), Ngatamariki (NTM) and Ohaaki (OKI) were dispatched below minimum tranche offer due setting risk during an outage.
- 7 instances at Tauhara (TAB):
 - 15 Jul, 1 instance, claimed cl 13.70 due to non-flexible generation (geothermal) unable to come off and then back on again for morning peak load.
 - 16 Jul, 2 instances, claimed cl 13.70 due to non-flexible generation (geothermal) unable to come off and then back on again for morning and evening peak loads.
 - 17 Jul, 2 instances, claimed cl 13.70 due to non-flexible generation (geothermal) unable to come off and then back on again for evening peak load.
 - 18 Jul, 1 instance, claimed cl 13.70 due to non-flexible generation (geothermal) unable to come off and then back on again for evening peak load.
 - 19 Jul, 1 instance, due to non-flexible generation (geothermal) unable to come off and then back on again for morning peak load.
- 10 instances at Whirinaki (WHI):
 - 27 Jul, 6 instances claimed cl 13.70 due to low residual situation.
 - 28 Jul, 4 instances claimed cl 13.70 due to dispatching in advance of morning peak load requirements.
- 1 instance at Waitaki River (WTR):
 - 27 Jul, 1 instance, claimed cl 13.70 due to low residual situation.

Appendix B: RESIDUAL VARIABILITY

The below figure highlights the variability of the differences between 30-minute forecast values from the Non-response Schedule Short (NRSS) and 5-minute dispatch values from Real Time Dispatch (RTD). This variability is measured as the difference between the forecast requirements on non-intermittent generation (30 minutes ahead of time) versus the requirements on non-intermittent generation during real-time dispatch. Therefore, in addition to load and intermittent generation forecast errors, the variations also capture the intra-trading period variability i.e. the difference between half-hour average quantities (as used in the forecast schedules) vs 5-minute quantities (as used in RTD).

We monitor the percentage of the time where the error between what has been dispatched and what is forecasted to dispatched is less than 200 MW. Last month, this error was less than 200 MW 96.65% of the time. This indicates that entering a trading period with ~200 MW of residual provides a high chance of having sufficient dispatchable market resources to meet variability between the 30-minute ahead forecast and the requirements within the trading period. We monitor this variability and how it compares to the residual threshold to understand trends and inform any future updates of this threshold.

