TRANSPOWER

Monthly System Operator performance report

For the Electricity Authority
Date: January 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

Contents

1 Key points this month

Operating the power system

- On 11 January at 05:38 transformers tripped at Frankton, resulting in a loss of supply to Aurora and PowerNet of 18.8MW. Supply was restored 15 minutes later.
- On 15-16 January severe lightning activity across the North Island caused a number of disturbances on the system including the trip of Stratford generation, and a number of computational failures of the HVDC. At 18:18 on 15 January the System Operator issued a customer advice notice (CAN) as it managed the loss of circuits in the Huapai – Marsden – Bream Bay area, and system splits were also put in place at Maungatapere.
- On 20 January at 01:10 NOAA issued a WATCH notice for a category G4 or greater geomagnetic storm. Geomagnetic induced currents activity started to increase around the country from 08:00 and peaked at G4 around 11:00 and then continued for the next 24 hours. Tigger levels where not met to implement any mitigations or wider industry response.
- On 21 January MetService issued multiple severe weather warnings across New Zealand, including Red Heavy Rain warnings in Northland, Coromandel Peninsula, Bay of Plenty and northern Gisborne. A response channel was set up to coordinate if required. Fortunately there was no direct impact on the system and so no event response was required.
- On 24 January at approximately 19:39 the Opunake-Kapuni-Stratford 2 circuit tripped resulting in a loss of connection to Nova Energy generation at Kapuni due to a car vs pole incident. Kapuni was able to run islanded to supply connected industrial load.

Security of supply

- *Security of Supply Forecasting and Information Policy (SOSFIP) review*: We await the Authority's decision on our SOSFIP amendment proposal. Pending approval, we are prepared for implementation of the amendments before Winter 2026.
- *Energy Security Outlook (ESO):* The January ESO update incorporated a slightly increased demand forecast for 2026. However, this was largely offset by higher gas storage, resulting in a broadly neutral net impact on overall security of supply risk. Gas, hydro and coal storage levels were near full, providing a strong starting position heading into the year.
- *New Zealand Generation Balance (NZGB):* The scenarios show that during winter we are relying on the market to co-ordinate unit commitment to meet high winter demands should a large generating unit trip or wind generation be very low.
- *Security of Supply Assessment (SOSA) 2026:* We prepared our response to submissions to the 2026 SOSA reference case assumptions and sensitivities consultation, for release in February. We also processed input data in preparation to produce our 2026 draft report for consultation.

Investigations

- *Under-frequency event investigations*: We provided our independent review of relevant procedural areas relating to the 11 July UFE. We continue to investigate the event which occurred on the afternoon of 23 October. We have sent request for information for the 21 December UFE, related to at least one loss of generation in the North Island.

Supporting Asset-owner activity

- *Outage coordination:* Average weekly outages remained at 60-80 per week outside of the holiday period (December-January), as is usual for this time of year. We continue to monitor the Grid Owner's outage optimisation performance, which shows improved packaging of project and maintenance work by up to 9% or approximately 200 less outages per year, short notice outage requests (SNORs) have reduced by 30% in 2025 compared to 2024, and outage congestion managed within the guideline limits the System Operator has provided the Grid Owner.
- *Generator commissioning and testing:* Through January we supported new generation commissioning including the final stage of Twin Rivers Solar Farm near Kaitaia (25 MW), stage 2 preparation for 'Golden Stairs' Solar Farm at Maungaturoto (17.6 MW), and Mercury Energy's Ngatamariki geothermal expansion near Taupo (54 MW). Contact Energy's Glenbrook BESS (100 MW) is now scheduled to commence commissioning in February 2026.
- *Ancillary Services activity:* Our focus in January has been on contract compliance and progressing analysis of performance to meet the increasing number of UFE's. We have also commenced the delivery of an internal process improvement and optimisation initiative.

Commitment to evolving industry needs

- *System Operator Strategy refresh*: Our consultation on the key trends and issues paper remained open through January, seeking feedback by 27 February to inform development of the draft strategy.
- *Policy Statement Review:* We have continued to progress our draft Policy Statement amendment proposal, including proposed updates to the Security (Risk and Emergency Management), Dispatch, and Compliance policies. Consultation is planned for February/March 2026.
- *Industry Exercise:* The scenario for the Industry Exercise 2026 has been confirmed as an extreme geomagnetic storm. Working with the Authority, we expect to communicate more details around the exercise to industry in February.
- *Evolving markets resource co-ordination - Tie-breaker provisions*: We are on track to implement the tie-breaker solution by June 2026.

Risk & Assurance

- *Risk management:* All five critical controls assessed for this Control Self Assessment round maintain their fully effective scores of 75% and above. 16 improvement actions were identified to further lift sub-control components. We are preparing a full System Operator risk dashboard for presentation to the Market Operations Committee (MOC) of the Authority Board in February.
- *Business assurance audits*: The 'Black start test planning' audit is completed. There were three recommendations to address identified opportunities for continuous improvements. The draft report for the 'Preparedness for space weather events' is in review. 'Interviews for the 'Managing rolling outages during a security of supply event' audit were completed. The terms of reference for the final audit, 'Simultaneous Feasibility Test (SFT) application testing component of the SCADA EMS environment refresh' has been drafted.

2 Operating the power system

2.1 System events

Event Date	Event Name	Event Activity
11 January 2026	Loss of supply to Frankton (FKN)	At approximately 05:38 there was a successful auto reclose of CML-FKN-1 and 2 circuits, however FKN T1 and T3 transformers tripped resulting in a loss of supply to Aurora and PowerNet of 18.8 MW. FKN T1 was returned to service and load restored by 05:53, with FKN T3 then returned to service at 05:56 restoring full security to the area. Transpower is still investigating the cause of the transformer trippings.
15 – 16 January 2026	Lightning storm	Severe lightning activity occurred across the North Island from midafternoon on 15 January through until early morning of 16 January. During this time twelve circuits successfully auto reclosed, and Stratford generation tripped. These disturbances also resulted in numerous computational failures of the HVDC, which is to be expected. At approximately 18:18 the System Operator issued a customer advice notice (CAN) informing industry that it was managing the loss of Huapai - Marsden 1 and Bream Bay – Huapai 1, and Huapai - Marsden 1 and Bream Bay - Marsden 1 as single events. System splits were also put in place at Maungatapere. This classification remained in place from 18:15 through to 22:00.
20 – 21 January 2026	G4 Geomagnetic Storm	On 20 January at 01:10 NOAA issued a "WATCH: Geomagnetic Storm Category G4 or Greater Predicted", which is the most severe WATCH NOAA can issue for a storm. The forecast earth impact time was around 11:00. System Operator carried out studies to confirm the impact of switching and was ready to implement to reduce geomagnetic induced currents (GIC) if trigger thresholds were met. GIC activity started to increase around the country from 08:00 and peaked around 11:00 as expected at G4, and then continued for the next 24 hours. Trigger levels were not met to implement any mitigations or wider industry response. Data from the event has been shared with the University of Otago for analysis.
21 January 2026	Severe weather event – North Island	MetService issued multiple severe weather warnings across New Zealand, including Red Heavy Rain Warnings in Northland, Coromandel Peninsula, Bay of Plenty and northern Gisborne. A response channel was set up to capture intelligence and coordinate a response if required. However,

Event Date	Event Name	Event Activity
		the system rode through the weather event without any direct impact or incident response being required.
24 January 2026	Loss of connection to Kapuni (KPI)	At approximately 19:39 the Opunake-Kapuni-Stratford 2 (OPK-KPI-SFD 2) circuit tripped resulting in a loss of connection to Nova Energy generation at Kapuni. PowerCo advised NGOC of a car vs pole with conductor down on the KPI tee section of the circuit (owned by Nova Energy). While the damage was being repaired, KPI was able to run islanded to supply connected industrial load. The damaged pole was replaced on 26 January and the circuit returned to service at approximately 19:14.

2.2 Market operations

Forecast v real-time residual variability:

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. 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.

In January more than 99% of the variability is covered by the 200 MW residual. 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

Security of supply forecasting and information policy (SOSFIP) review:

We submitted our SOSFIP amendment proposal to the Authority at the end of December. The proposed changes aim to address evolving market conditions as the electricity system accelerates its transition towards increasing dependence on intermittent renewable generation, and risks to the availability of natural gas supplies to substitute for hydro generation during extended dry periods have increased. Key amendments include improved forecasting tools, enhanced risk communication, updated contingent storage buffer settings, and expanded system risk considerations. Stakeholders broadly supported the changes, emphasising the importance of clarity, transparency, and timely information. The amendments, pending approval by the Authority, are set to be implemented before Winter 2026.

Energy Security Outlook (ESO):

Our January Energy Security Outlook (ESO) was published on 28 January following assurance and review processes. The January update incorporated a slightly increased demand forecast for 2026. However, this was largely offset by higher gas storage, resulting in a broadly neutral net impact on

overall security of supply risk. Risk levels slightly decreased from now until April 2026 and increased slightly in July and August 2026. Gas, hydro, and coal storage levels are currently near full, providing a strong starting position heading into the year.

Contact's Taranaki Combined Cycle (TCC) has begun decommissioning and is no longer included in the calculation of the Electricity Risk Curves. The base case for January also accounts for all three Rankine units being available in 2026.

National hydro storage remained high throughout January and was at 117% of the historic mean for this time of year as of 2 February, due to continued high inflows in all catchments. This was despite a high proportion of hydro generation in the supply mix. Capacity margins remained healthy for all peaks across January, in line with high hydro storage, high proportions of renewable generation, and low summer demand. By the end of January the power system had operated at >96% renewables for 17 consecutive weeks.

New Zealand Generation Balance (NZGB) potential shortfalls:

The latest NZGB update is available through our Customer Portal. The base case reflects the total installed capacity not on outage, and the firm scenario indicates generation levels seen 90% of the time.

The scenarios show that during winter we are relying on the market to co-ordinate unit commitment to meet high winter demands (90th percentile or above) should a large generating unit trip or wind generation be very low.

The base case shows negative margins under a 99th percentile load scenario if a large generator was to go on unplanned outage or very little variable resources are contributing to generation.

Security of Supply Assessment (SOSA) 2026:

We prepared our response to feedback on our 2026 SOSA reference case assumptions and sensitivities consultation, which will be published in February. We also processed the input data, in preparation for completing our analysis and writing the draft report. We expect to consult on the draft from April, and the final SOSA 2026 report and supporting information will be published by the end of June.

4 Investigations

4.1 Under-frequency event investigations

11 July 2025 Under Frequency Event:

We provided our submission on the Authority's draft determination on the 11 July 2025 UFE.

Separately, we have had ongoing discussions with the Authority's policy team around our concerns with the Authority's 2025 Code amendment which extended potential causers of UFE's to include the System Operator.

The System Operator remains of the view that this extension has no link to the problem definition in the Authority's consultation paper that proposed the change and is inconsistent with the intent of the UFE regime.

The System Operator began raising several policy and operational concerns in early October last year around its inclusion as a potential causer of a UFE and will now need to submit a Code amendment request.

23 October 2025 Under Frequency Event (afternoon event):

This UFE followed trippings which removed both Tauhara B and Te Huka generators from the system. We have received initial responses from three asset owners and some additional information in response to a further request. None of these three asset owners believe they are the causer. We continue to investigate this UFE and draft a causer report.

21 December 2025 Under Frequency Event:

We have sent requests for information for this UFE related to at least one loss of generation in the North Island.

4.2 Significant incident investigations

No new significant events in January.

5 Supporting Asset-owner activity

5.1 Outage Coordination

Outside of the holiday period December - January outage numbers continued at 60-80 a week, which is typical for Spring, Summer and Autumn. During the summer break there were no outages due to an IST change freeze, office shutdown, and service provider resource breaks affecting all asset owners.

Outages on the Wairakei ring took place over the last week of November and the first week of December. This saw 700 MW of generation constrained in the central North Island and required generation from Huntly in the upper North Island to manage post-contingent events under some generation and load scenarios.

The Grid Owner has published its Draft Annual Outage Plan and consultation with stakeholders will take place over the next 2 months. Then the System Operator will provide input. The final plan is to be published in mid-May. This consultation is a key part of outage co-ordination helping align grid, generator and EDB outages to reduce market and security impacts. The draft plan currently includes 2144 outages, including 100% of all known maintenance and 40% of all known projects planned outages over FY26/27. We expect more maintenance outages to be needed as more defects are found throughout the year and as projects reach a sufficient level of certainty that outages can be planned.

The System Operator has supported the Grid Owner to complete its identified target state. This is to increase the amount of work taking place per outage, reducing the overall number of outages taken on the grid limiting market impact and power system risks. We expect the Grid Owner to have completed its implementation by February.

We are tracking the Grid Owner's performance in three ways: reducing Short Notice Outage Requests, bundling as much work as possible per outage by co-ordinating work crews and maximising work orders completed each outage. Since the initiative started in July last year:

- Short notice outages have dropped by a third and continue a declining trend. This allows the System Operator and Grid Owner more time to manage risks, and more time for the market to manage costs associated with outages.
- Bundling of work has increased approximately 9%. We estimate this has removed the need for 200 outages, reducing the risks and cost they would have imposed to all asset owners

- Outage congestion has been managed, within the guidelines limits the System Operator has provided the Grid Owner. This ensure workloads are maintained within the capacity of the control rooms, reducing error.

We continue to engage industry via our System Operator Industry Forums to highlight the top 10 market impacting outages over the coming 4 weeks.

5.2 Generator commissioning and testing

This period we are seeing a large number of new generators and BESS commissioning. The Power Systems and Markets teams are working with the following participants who are commissioning or expecting to connect in the next 6 months:

- Rānui's Twin Rivers Solar Farm near Kaitaia (25 MW connected to Top Energy) completed stage 1 commissioning in September 2025, stage 2 in December 2025, and stage 3 (final stage) in January 2026.
- Solar Bay and Maungaturoto Solar Farm Project's 'Golden Stairs' Solar Farm at Maungaturoto (17.6 MW connected to Northpower) completed stage 1 commissioning in December, and is due to complete stage 2 in February 2026.
- Mercury Energy's Nga Tamariki expansion near Taupō (addition of a new 54 MW geothermal unit) began commissioning in January 2026, due to complete in February 2026.
- Contact's Glenbrook BESS (100 MW at GLN) next to the NZ Steel mill is due to begin commissioning in February 2026.
- Mercury Energy's Kaiwera Downs 2 wind farm (150 MW connecting at a new PowerNet substation) is due to begin commissioning in March 2026.
- BrightFern Energy's Dannevirke solar farm (19 MW directly connecting to the Transpower grid at DVK) is due to begin commissioning in April 2026.
- Harmony Energy's Tauhei at Waihou solar farm (150 MW connected to Powerco) is due to begin commissioning in April 2026.
- Genesis Energy's Huntly BESS (100 MW connecting to WEL Networks) is due to begin commissioning in May 2026.
- Aquila Clean Energy Asia Pacific's Omeheu Solar Farm in Edgecumbe (27 MW connecting to Horizon) is due to begin commissioning in May 2026.
- Contact Energy & Lightsource's Kōwhai Park Solar Farm at Christchurch Airport (170 MW connecting to Orion) is due to begin commissioning in July 2026.
- We are also working with existing generators to commission maintenance and upgrade projects.

NZ Steel and Fonterra Whareroa

In addition, we are working with NZ Steel on the commissioning of their STATCOM and Arc Furnace at Glenbrook and with Fonterra/Simply Energy on Whareroa load.

In mid-2026, Fonterra will become a direct connect transmission customer at Hāwera with their Whareroa dairy factory. We expect the majority of embedded generation at this site to cease (10 MW may remain). Process driven demand of up to 80 MW will come online with the electric boilers. We continue to work with relevant stakeholders and the Authority to collate supporting information before we formally request that HWA1101 and HWA1102 be classified as non-conforming,

5.3 Ancillary Services activity

We have recently completed an investigation phase into potential System Operator process improvement and optimisation opportunities and have commenced a series of initiatives to address these opportunities to create resource capacity over the coming months, including in response to the ongoing uplift in ancillary services activity.

Dispatch testing was completed successfully for a new interruptible load provider. Once all testing has been completed and test results assessed, a new contract will be issued to the provider.

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	0 sites	0 MW FIR	0 MW SIR
Removal of resources	0 sites	0 MW FIR	0 MW SIR

Generation Reserve (GR):

The following table provides an overview of GR testing activity.

	Number of sites overdue
Testing	1

Over-Frequency Reserve (OFR):

The following table provides an overview of OFR testing activity.

	Number of sites overdue
Four yearly end-to-end relay testing	2
Two yearly control and indication testing	8
Circuit breaker testing	19

We are actively working with service providers to address overdue testing requirements.

Frequency Keeping:

One station in the South Island successfully re-tested their frequency keeping capability and will again be offering frequency keeping into the market.

6 Commitment to evolving industry needs

System Operator Strategy development:

We have developed a key trends and issues paper for our initial engagement with industry and our consultation on this opened in December. The consultation will remain open until 27 February, with the feedback used to help inform our strategy development. These key trends and issues were also discussed and tested with the Board during January. We are planning for wider consultation on the resulting draft strategy, in coordination with the Te Kanapu consultation programme, later in the year.

Policy Statement review:

We are continuing to progress our internal review and have received some initial comments from the Authority. We have begun incorporating both sets of feedback ahead of the formal legal review. We expect to consult on the draft amendment proposal from February.

Industry Exercise:

Work continues on addressing the recommendations from the 2025 exercise. We are on track to complete these as per the timeline communicated to the Authority. We have confirmed with the Authority that the scenario for Industry Exercise 2026 will be an extreme geomagnetic storm, and planning has commenced on that basis. This will include an educational webinar on space weather and our industry response on 5 March, a pre-exercise briefing on the 12 May, and the exercise itself on the 20/21 May. Save the date communications have been sent out to industry by both Transpower and the Authority in late January

Evolving markets resource co-ordination - Tie-breaker provisions:

We remain on track to implement the tie-breaker solution by June 2026. We have started preparing responses to the Authority's Code amendment omnibus #6 consultation which included our proposed Code change amendment to create a floor of $0.01/MWh for intermittent generation offers; a change which will 'automate' the current manual outcomes when inflexible generation (e.g. geothermal) and intermittent generation are in a tie-break situation. Note this change is in addition to the tie-break solution and both are needed to manage situations occurring on the power system.

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

The Future Networks Forum (FNF) working group (in which the System Operator is represented) and the Authority met twice in January. The substance of the meetings was an opportunity for the group to discuss, and provide constructive feedback to the Authority, on their draft DSO Roadmap materials.

6.1 Connecting with the industry

System Operator Industry Forums:

We ran our first industry forum for 2026 on 27 January. This forum included information on the impact of the solar storm on 20-21 January 2026. Recent slide packs and recordings for forums within the last month are available on our System Operator Industry Forum webpage.

Market Operations Weekly Reports:

Our Market Operations Weekly Report provides information to assist interested parties' understanding of the current security of supply situation[1] 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 follows[2]:

- 11 January – The demand over the holiday period and it compares to previous years.
- 18 January – The record high renewable share in recent weeks.
- 25 January – The outages causing inter-island price separation over the last few months.

6.2 Supporting the Authority

Emergency Reserve Scheme (ERS):

Now that the Authority has published their decision to implement an ERS and gazetted the Code changes to create an ERS, updates on the ERS will be included in Section 7.1 Market design and service enhancement project updates.

Intermittent generation central forecasting project:

Intermittent generation curtailment data has been provided to DNV, and DNV has confirmed that the curtailment persistence switching logic was successfully implemented on 23 January. We will continue to monitor forecast performance and work closely with the Authority and DNV to provide operational feedback and insights, supporting ongoing improvements to forecasting accuracy. We also continue to engage with the Authority on extending the central solar and wind forecast contract with DNV to include 10th and 90th percentile forecasts, while maintaining the arrangement that provides the System Operator with a second forecast for system security assessments.

SOSPA transition update:

Both parties have completed drafting edits to the JWPT Terms of reference, minor items for resolution have been finalised with the final document to be signed off in February.

6.3 International Engagement

Global Power System Transformation (G-PST) Consortium:

The Head of Power Systems attended a workshop hosted by CSIRO Australia focusing on power system stability and market modelling – research areas under the Global Power Systems Transformation (G-PST) programme. This was an opportunity to engage with AEMO, CSIRO and international research programmes. Key presentations and discussions covered AEMO's Future System Security approach, overviews of system strength and IBR control developments and research.

AEMO:

We have engaged with AEMO to gain insights from their experience with the 1-second frequency reserve. We covered the aspects of inertia and the importance of specifying the Rate of Change of Frequency (RoCoF) to address low inertia challenges. Additionally, we explored the effectiveness of

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

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

the 1-second frequency reserve provided by Battery Energy Storage Systems and the impact of the narrow deadband implemented for frequency regulation. These measures have led to significant improvements in frequency quality in Australia. Overall, our engagement with AEMO was productive and confirmed our belief that a very fast instantaneous reserves product will be necessary in the future to tackle low inertia challenges.

6.4 Media interactions

Media interactions in January were entirely reactive and centred on the topic of space weather.

Head of Grid and Systems Operations Matt Copland was interviewed by Newsroom reporter Fox Meyer to explain the details of our response to geomagnetic storms. The published story focused on insurance and how they asses the risk of solar storms.

We received media enquiries from RNZ and Guardian Australia following NOAA's alert of a severe solar storm impacting earth on 20 January. Our responses were limited to a 'Transpower spokesperson' and expressed that we were monitoring the storm but that "mitigation actions are not needed".

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):

In January the Authority published their decision to implement an ERS and gazetted the Code changes. The Authority's decision paper indicates a expectation that this new ancillary service will be established in late 2026. Implementation of an ERS will include a co-design process with industry, update to the Ancillary Service Procurement Plan, procurement process, and implementation in the System Operator's operational tools and processes. In addition, NZX will need to make changes to their clearing and settlement tools to allocate ERS costs and to pay ERS providers. The Authority has acknowledged the System Operator may make pragmatic design decisions to implement an ERS in the timeframe sought by the Authority. We continue to work closely with the Authority ERS team due to the compressed delivery timeframes on this project.

7.2 Other projects and initiatives

Ancillary Services Cost Allocation System (ASCAS):

This project will deliver new software (ASCAS) to replace previous end-of-life technology which is vital to accurate information sharing with the Authority and NZX. The project remains on schedule. The release of Milestone 2 features into the production environment is planned for February. UAT of Milestone 3 features is also planned to start in February. A planning exercise was undertaken for the remaining 3 major releases.

The IR Cost Allocation solution will be delivered as part of this project with a go-live date of 1 October 2026. Separate Market Design funding for this solution is with the Authority to progress and it is essential that contractual agreement is finalised before March 2026.

SCADA Habitat and EMP Refresh:

This project is to upgrade critical components of the SCADA system and Market Solvers, to ensure operational integrity of the System Operator's market system tools into the future. The project team is now fully focused on go-live readiness, with key milestones tracking well. Two cutover rehearsal cycles have been completed successfully, Real-Time Front-End Processor connectivity testing has been finalised without issues, and Parallel Operations are progressing as planned. Preparations for Operations Training are also well advanced, with delivery scheduled throughout February.

Demand Allocation Tool:

This solution will provide an automated mechanism for the control room to calculate demand limits accurately and equitably for all participants whenever a grid emergency is forecast in the forward schedules. Functional testing for Schedule Management is on track to finish by 27 February, ahead of User Acceptance Testing commencing on 9 March. DAT successfully deployed to the TTSE Development environment, and preparations for training environments underway. Data Warehousing requirements have been reviewed and incorporated into the project plan. The go/no-go meeting for merging the Minor Enhancements and MOI Enhancements projects has agreed to proceed, subject to resolution of outstanding defects raised by testers, after which final confirmation will be provided. Change management activities continue to track well.

Operations Comms System Enhancements (OCSE):

This project will replace the operational notices system used by the control room to communicate with connected parties and the broader community. Planning for training and user acceptance testing is progressing, alongside the commencement of data migration and integration activities. Overall build activities remain on track, with Sprint 4 scheduled to complete by mid-February.

Control room of the future (CRoF):

We continued working with OPTI to plan of how we successfully continue to develop CRoF and integrate into our forward capability and capital planning. We introduced CRoF to industry as part of the first System Operator engagement on SO Strategy key trends and issues. An internal workshop with key stakeholders from across Transpower was held to prioritise the eight strategic shifts and associated outcomes, considering both impact and urgency given our changing operating environment. There was good alignment across the business on priorities.

8 Technical advisory hours and services

TAS Statement of Work (SOW)	Status	Hours worked during month
TAS 120 – Multiple Frequency Keeping (MFK) Review	In progress	75.5 (SME)
		20.0 (PM)
TAS 121 – Future Security and Resilience	In progress	47.0 (SME)
		24.0 (PM)
TAS 122 – Investigation into implementation options for an MVP Emergency Reserve Scheme	In progress	34.5 (SME)
		10.0 (PM)

8.1 Project Progress:

TAS 120 - Multiple Frequency Keeping (MFK) Review:

During January, the team continued progressing the data analysis for Study 1 while also advancing preparations for Study 2 and commencing the associated system studies, with initial results expected in February. In parallel, we have developed the report structure and begun drafting, with content to be further refined as Study 2 progresses.

TAS 121 FSR Workstream - Part 8 of the Code - Common Quality Requirements:

In January, the System Operator's primary focus was progressing the CACTIS DIBR and the BESS Hybrid AOPOs investigation. Outstanding comments on the CACTIS DIBR were resolved and the updated document was submitted to the Authority for final legal review and consideration, while the BESS Hybrid AOPOs investigation report was finalised for CQTG consideration in February. The team also continued to support the completion of the CAPs consultation and the voltage management decision papers.

TAS 122 – Investigation into implementation options for an MVP Emergency Reserve Scheme:

Following completion of the initial ERS Minimal Viable Product (MVP) design, the System Operator delivered Change Request #1 to undertake targeted pre-work on the preferred MVP option, supporting the potential deployment of an ERS MVP in 2026. The Authority received the associated TAS report on 22 December 2025, which outlined an initial market scan of potential providers and the enhancements required to FlexPoint to enable ERS capability. The System Operator's current priority is to progress Change Request #2, seeking funding to develop an initial business case covering tooling, processes, policy, procurement, and ongoing costs, to enable the Authority to seek formal funding approval for ERS development targeted for Q4 2026.

9 Risk and assurance

9.1 Risk Management

Control Self-Assessment (CSA) Round 16: All five critical controls assessed for this CSA round maintain their fully effective scores of 75% and above. 16 improvement actions were identified to further lift sub-control components. Progress on these we be reported to the Authority as part of the KPIs. The actions include recruitment activity, continued development of initiatives already underway such as improvements in the generator commissioning process, as well as investigations into new tooling and refining processes.

System Operator (SO) Risk dashboard: The first full version of the SO risk dashboard will be presented to the Authority's Market Operations Committee on 19 February. The dashboard focuses on the risks identified in our risk register which we updated last year. For each type of risk, the dashboard shows the key mitigating actions and controls in place, and links to the risk bowtie controls the System Operator uses to evaluate risk in our six-monthly control self-assessments.

9.2 Business assurance audits

The black start test planning audit is completed. There were three recommendations to address identified opportunities for continuous improvements related to the content of the black start register and communication with asset owners. The draft report for the second audit, preparedness for space weather events, has been received and is undergoing internal review. The interviews for the third audit, managing rolling outages during a security of supply event were completed. The terms of reference for the final audit, Simultaneous Feasibility Test (SFT) application testing component of the SCADA EMS environment refresh, has been drafted internally in preparation for engaging an auditor.

10 Compliance

10.1 Breach Allegations:

There were no Code breach allegations notified to the Authority in January.

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.

- Internal Audit Plan FY26 Q2: The System Operator Impartiality Review is a review of the framework used for managing the impartiality of the System Operator function. We continued to work with Deloitte and provide the information requested to support this audit. Performance and 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.

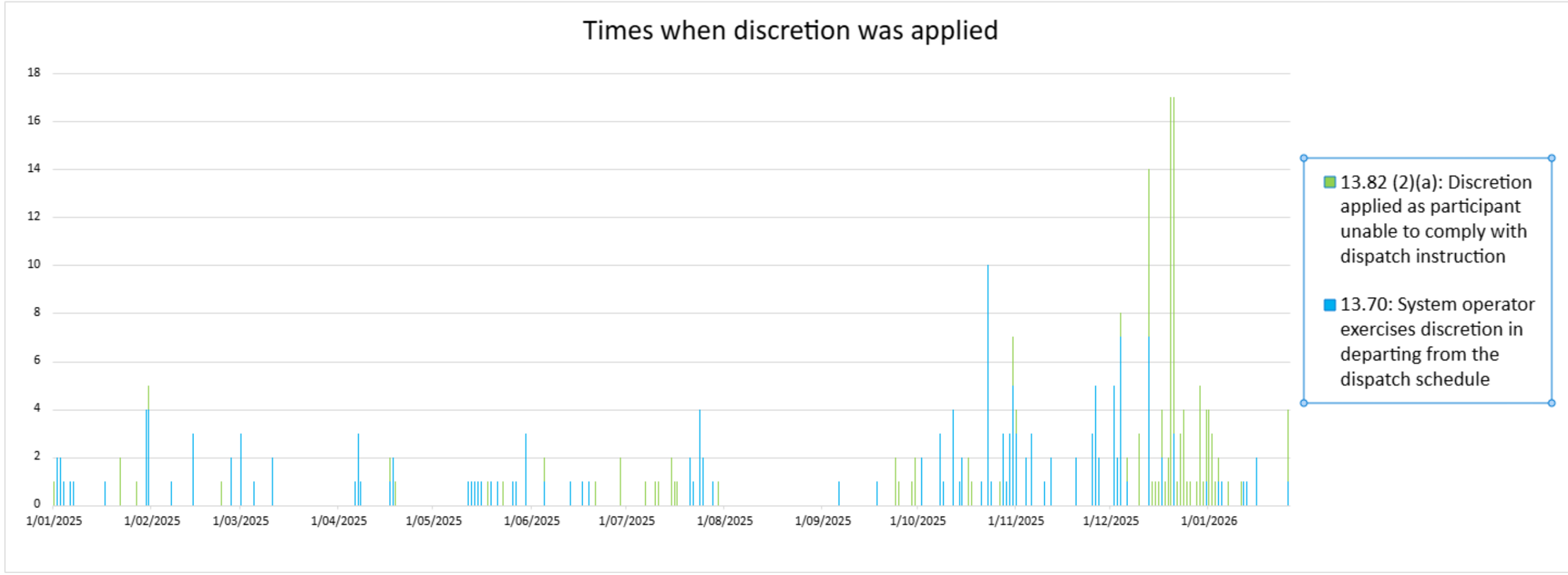
13 Actions taken

The following table contains a full list of actions taken this month regarding the 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	**Undertake a full review of the System Operator strategy informed by stakeholder consultation.** We are currently consulting industry on our key trends and issue engagement document which closes at the end of February, and have progressed our first round of targeted direct industry engagement. **Support security of supply for the future power system by delivering the SOSFIP review.** We have completed our SOSFIP amendment proposal and submitted this to the Authority in December for consideration. Pending approval we will commence implementation in time for Witner 2026. **Support future-focused market developments through white papers, consultation processes and cross-industry forums** In January the work continued on a DSO/TSO paper we plan to publish in coming months. We completed work on our response to submissions on the 2026 SOSA Reference Case Assumptions & Sensitivities consultation, this has been published in February. We have commenced initial engagement with participants on Industry Exercise 2026 scheduled for May. **Develop and begin implementation of system health, tool and modelling roadmap.** We continued our investigation of our power system health monitoring requirements. **Continue to deliver modelling process improvements and build maturity of modelling assurance and monitoring.** As an extension of the quality assurance initiative, an end-to-end asset modelling process optimisation is now underway. The goal is to embed the foundational quality assurance tools, including the new framework, peer-review checklists, and a reporting dashboard to help monitor the health of the process. **Ensure our service keeps pace in an ever increasingly complex world by implementing Control Room of the Future (CRoF) roadmap.** We continued working with OPTI to plan of how we successfully continue to develop CRoF and integrate it into our forward capability and capital planning. We introduced CRoF to industry as part of the first System Operator engagement on SO Strategy key trends and

Items of interest	Actions taken
	issues. An internal workshop with key stakeholders from across Transpower was held to prioritise the eight strategic shifts and associated outcomes, considering both impact and urgency given our changing operating environment. There was good alignment across the business on priorities.
To comply with the statutory objective work plan:	**System Operator Forecasting and Information Policy (SOSFIP)** Refer to update in business plan section above. **Policy Statement review** We are in the final stages of internal review of our revised Policy Statement, including proposed updates to the Security (Risk and Emergency Management), Dispatch, and Compliance policies. We expect to request approval to consult in February. **Reset System Operator Strategy** Refer to update in business plan section above.
In response to participant responses to any participant survey	We have commenced planning for our 2026 Participant Survey.
To comply with any remedial plan agreed by the parties under SOSPA 14.1	N/A – No remedial plan in place.

Appendix A: Discretion



System Operator applied discretion under cl 13.70 in 21 instances:

- 7 instances at Matahina (MAT):
    - 1 January, 4 instances claimed 13.82(2)(a) due to rough running range
    - 2 January, 1 instance claimed as 13.82(2)(a) due to dispatch below minimum run
    - 3 January, 1 instance claimed as 13.82(2)(a) due to dispatch below minimum run
    - 4 January, 1 instance claimed as 13.82(2)(a) due to SS DIS to 0 MW overnight
- 4 instances at Te Ahi O Maui (TAM):
    - 2 January, 2 instances claimed as 13.82(2)(a) due to plant safety
    - 7 January, 1 instance claimed as 13.82(2)(a) due to plant safety
    - 11 January, 1 instance claimed as 13.82(2)(a) due to plant safety
- 1 instance at Kawerau (KAW):
    - 4 January, 1 instance due to KAW0 tripping
- 1 instance at Arapuni (ARI):
    - 13 January, 1 instance due to managing Kinleith (KIN) – Tarukenga (TRK) violations less than 10 minutes.

- 1 instance at Manapouri (MAN):
    - 16 January, 1 instance due to potline restoration
- 1 instance at Stratford (SFD):
    - 16 January, 1 instance due to unit tripping.
- 3 instances at Clyde (CYD):
    - 26 January, 3 instances claimed as 13.82(2)(a) due to plant safety.
- 1 instance at Nga Awa Purua (NAP):
    - 26 January, 1 instance due to Ngatamariki (NTM) G1, G2, G3 and G4 ran back to 0 MW.
- 2 instances at Manual North Island CE:
    - 5 January, to prevent Tauhara B (TAB) being dispatched below min run due to ongoing low prices.
    - 12 January, to prevent TAB being dispatched below min run due to ongoing low prices.

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 99.02% 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.