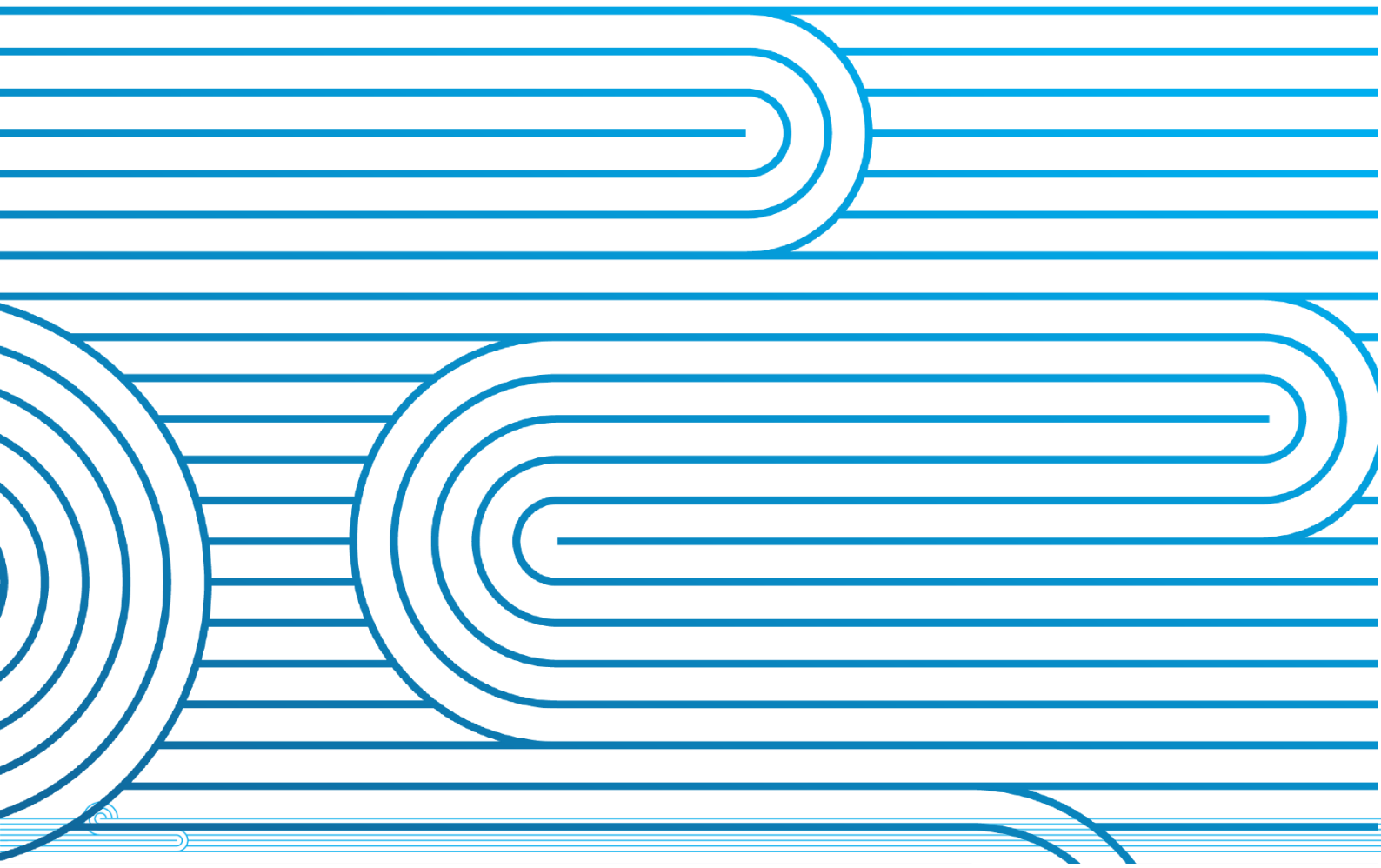


Monthly System Operator performance report

For the Electricity Authority

February 2025



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 System Operator Service Provider Agreement (SOSPA):

12.3 **Quarterly reports:** The **Provider** must provide to the **Authority**, with each third self-review report under clause 3.14 of the **Code** during a **financial year**, a report on:

- (a) the **Provider's** performance against the performance metrics for the financial year during the previous quarter;
- (b) the actions taken by the **Provider** during the previous quarter:
 - (i) to give effect to the **system operator business plan**;
 - (ii) to comply with the **statutory objective work plan**;



- (iii) in response to **participant** responses to any **participant survey**; and (iv) to comply with any remedial plan agreed by the parties under clause 14.1(i);
- (c) the progress during the previous quarter of:
 - (i) the feasibility study into **cost-of-services reporting** referred to in clause Error! Reference source not found.; and
 - (ii) if agreed in accordance with clause Error! Reference source not found., the implementation of cost-of-services reporting; and
- (d) the **technical advisory hours** for the previous quarter and a summary of **technical advisory services** to which those **technical advisory hours** related.

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.

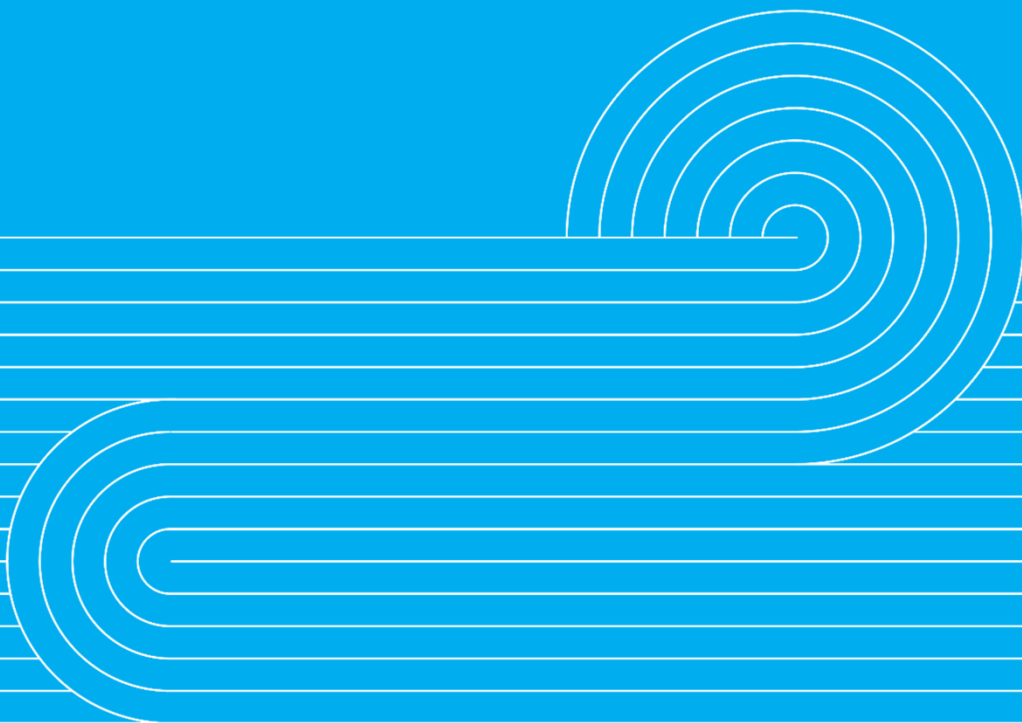
Following the end of each Quarter, a system performance report is published on the [Transpower website](#)



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Commentary



Key points this month

Operating the power system

- On 3 February, the Karapiro 110 kV bus tripped resulting in a 14 MW loss of supply at Hinuera, 37 MW loss of supply and the loss of connection of generation at Karapiro.
- On 22 February, there was an unplanned outage at Matahina. Kawerau - Matahina circuits 1 and 2 tripped resulting in the loss of 20 MW of Matahina generation.
- On 24 February, we issued a low residual CAN when North Island residual dropped to below 200 MW in the non-response schedule short and long. There were a number of contributing factors when an issue at Tauhara B resulting in the removal of 170 MW of generation coincided with very low wind; operational limitations at Huntly; and the annual planned HVDC Pole 2 outage. The industry responded to the CAN, with increased generation and controllable load offered, as a result residual was restored above 200 MW.

Security of supply

- *Security of Supply Forecasting and Information Policy (SOSFIP)*: We announced the start of our 2025 SOSFIP review and commenced drafting our issues paper in preparation for consultation in early March. The review will consider potential amendments to support security of supply as the transition to increased renewable generation continues and potential amendments associated with access to contingent storage.
- *Quarterly Security of Supply Outlook*: This was published in early February and highlights contingent storage access arrangements and the importance that participants take action to manage the ever-present risk of a dry period ahead.
- *Energy Security Outlook*: The February update shows no SSTs cross the ERCs in 2025, though highlights that hydro storage continued to drop below mean levels, a gap in potential coal supplies, and tight gas supplies for winter.
- *Industry Exercise 2025*: Preparation continued for the annual pan-industry exercise on 9 April which will focus on building the sector's capability to implement rolling outages if necessary. This year's exercise will include two webinars in March.
- *Official Conservation Campaign (OCC)*: A workshop co-hosted with the Authority, was held for industry communications and consumer leads to present our proposed approach to the OCC and communicating rolling outages if they were required.
- *2025 Annual Security of Supply Assessment (SOSA)*: In February we published our response to submissions to our reference case assumptions and sensitivities consultation.
- *System Operator coordination of Low Residual situations*: We are preparing our response to the six submissions and two cross submissions received to this consultation.
- *New Zealand Generation Balance (NZGB) potential shortfalls*: The February NZGB report is highlights one day of negative margins in April, and eight days in May. These coincide with planned outages.

Investigations

- *20 June 2024 Northland Loss of Supply*: By the end of March, we expect to complete the next two actions in response to the Ray Hardy and Authority reports.
- *21 December 2024 Hawke's Bay Loss of Supply*: Work has progressed in line with prescribed timeframes. Information has now been received from all but one asset owner. Outstanding information is expected to be received in March.

Supporting Asset-owner Activity

- *Outage coordination:* February continued to see consistently high outage volumes. The situation this month was complicated by the scheduled HVDC outage and low hydro storage at Manapouri. To mitigate the risk of low generation at Manapouri, the team has prepared for an urgent temporary grid reconfiguration. The preferred grid configuration was shared with the industry for feedback. All responses were in support of the preferred option, which is ready to be implemented if needed.
- *Generator commissioning and testing:* Genesis's Lauriston solar farm (52 MW at Ashburton) completed commissioning this month. Work continues with sites expected to commission over the next three months including: Lodestone's Te Herenga o Te Rā (38 MW at Waioatahe) and Meridian's Ruakākā BESS (100 MW at Bream Bay). Additionally, the following sites are expected to begin their commissioning process in May: Far North Solar Farm and Aquila's Pukenui Solar Farm (20 MW in Northland) and the Ryman Healthcare Solar farm (17.6 MW in Northland).
- *Ancillary services activity:* Lastmyle have submitted a proposal to offer of aggregated interruptible load. The ancillary services procurement plan review is progressing well through internal legal review and we have begun preparing consultation documents. One station in the South Island remains unavailable to provide frequency keeping as a result of failed testing. Planning is underway for Black Start testing at Tokaanu Power Station to occur later in 2025.

Commitment to evolving industry needs

- *Black Start simulation industry exercise:* Our annual South Island black start simulation exercise was successfully held on 19 February with key participants and stakeholders.
- *Very low pricing operational challenges:* We have published details of the approach to managing excess zero priced generation scenarios during the Te Mihi – Wairakei outage that took place in early February.
- *System Operator Industry Forums:* Forums were held on 4 and 18 February with a focus on current operational and market issues.

Risk & Assurance

- *Risk management:* We presented a Risk 'Deep Dive' on system security at the Authority MOC in February.
- *Business assurance audits:* Interviews for Audit 50 have concluded and we are working on the draft report. Audit 51 is expected to be completed in early Q4. We are finalising Terms of Reference for Audit 52.

1 Operating the power system

System Events

3 February 2025 – Unplanned outage of Hinuera and Karapiro: At approximately 12:57 the Karapiro 110 kV bus tripped resulting in a 14 MW loss of supply at Hinuera, 37 MW loss of supply and the loss of connection of generation at Karapiro. Karapiro bus was restored at 13:32 and Hinuera at 13:39.

22 February 2025 – Unplanned outage of Matahina (MAT): At approximately 08:29 the Kawerau - Matahina 1 and 2 circuits tripped disconnecting Matahina bus. This resulted in a loss of 20 MW of MAT generation. MAT bus was restored at 10:40.

24 February 2025 – Low residual situation: At 13:21 we issued a low residual situation customer advice notice (CAN). An issue at Tauhara B resulted in an output drop and then eventual removal of all 170 MW from the system prior to the 12:00 trading period. This coincided with a period of very low wind, and constrained output from Huntly Rankine units due to a cooling system fault and river water temperature requirements. HVDC Pole 2 was on outage as part of the Grid Owner's annual planned maintenance programme. As a result, North Island residual dropped to below 200 MW in the non-response schedule short (NRSS) and long (NRSL) up until 16:00. Industry responded to the CAN with increased generation offered and some controllable load signalled via difference bids.¹ In the 15:30 schedule the residual had increased back above the 200 MW threshold removing the risk.

Market Operations

Forecast v real-time residual variability: We monitor the variations² between forecast and real-time dispatch conditions to determine if the 200 MW residual continues to provide sufficient coverage to cater for this variability. In February more than 99% of the variability seen 30 minutes ahead of real-time is covered by 200 MW residual. This indicates that entering a trading period with 200 MW of residual provided a high chance of having sufficient market resources to meet the variability within the period.

2 Security of supply

Our [Security of supply webpage](#) collates material we produce under our statutory role³ to provide information and near to medium term forecasting on all aspects of security of supply, and manage supply emergencies. It also provides links to the regulatory framework under which we do so as set by the Authority.

Security of Supply Forecasting and Information Policy (SOSFIP): On 18 February we announced the commencement of our SOSFIP review and consultation.⁴ The review will consider potential SOSFIP amendments we think may better support security of supply as the electricity system transition towards increasing renewable generation continues. It will also consider potential amendments

¹ We are supporting the Authority's work to understand why not all lines companies provided difference bids in response to the CAN and their associated obligations in the Code.

² The variability measure is the same as outlined in Page 11 of our [Low Residual Situation Review](#) Consultation paper.

³ [Electricity Industry Act 2010](#), s8

⁴ [Invitation to Comment: Security of Supply Forecasting and Information Policy Review Issues Paper 2025 | Transpower](#)

Meridian Energy proposed to us in December that would permanently lift the aggregate hydro storage position at which generators can access contingent storage in lakes Pūkaki (Meridian Energy), Hāwea (Contact Energy) and Tekapo (Genesis Energy). We are conscious that any permanent changes to SOSFIP could alter the risk framework in the market (which informs decisions by all participants) and therefore require careful analysis and consultation with participants and other stakeholders. The preliminary consultation on an Issues Paper which will inform the SOSFIP review will commence in March. The feedback we receive from participants and other stakeholders such as the resource consenting authorities will inform the next steps of the SOSFIP review including its scope.

Quarterly Security of Supply Outlook: Our quarterly [Security of Supply Outlook](#) published in early February highlights contingent storage access arrangements and the importance of participants buying their insurance against ever-present risks of a dry period ahead of the need. The coal stockpile is currently insufficient to provide confidence this is happening, and a failure to do so exacerbates the potential for very high prices, increases the likelihood the use of contingent storage will become necessary, and disincentivises ongoing investment in maintenance of the thermal generation assets that are needed to support the transition.

Energy Security Outlook: The February update providing the ERCs and SSTs is available [here](#). No SSTs cross the ERCs in 2025. The update highlighted a 400 kt gap between firm contracted coal supplies and the physical capability to import coal over the period 1 March to 31 August 2025. Hydro storage levels have dropped to 85% of the historic mean as of 23 February and gas supply remains tight for winter 2025.

Industry exercise 2025: Through February, work continued towards the annual pan-industry exercise in April which will focus on building the sector's capability to implement rolling outages if necessary to manage an extended electricity supply shortage. Webinars will be held with participants and key stakeholders on 4 March and 18 March in preparation for the exercise to take place on 9 April 2025. Further information can be found on our Industry workshops/webinars webpage.

System Operator Rolling Outage Plan (SOROP): Education of the industry regarding rolling outages planning and preparation and also enhancing industry capability in this area remains a key focus of the industry exercise in April. We have prepared content on our SOROP for the associated industry webinars in March.

Official Conservation Campaign (OCC): Final edits to the OCC campaign materials were underway and digital assets were being prepared in February. We will prepare other assets if we get close to an OCC being needed.

OCC and rolling outages workshop: On 27 February, we co-hosted a workshop with the Authority attended by around 60 communications and consumer leads throughout industry. We presented the concepts we have developed for a potential OCC as well as our thinking about how we ensure joined-up communication if an OCC is required. The Authority presented on compensation for customers required under the Customer Compensation Scheme if an OCC is launched.

We also discussed how we as an industry can communicate with consumers and other stakeholders in the unlikely event rolling outages are needed. This included discussion of the communication challenges we will face as an industry, and how we can work together to solve them. The Authority presented on Consumer Care Obligations and consideration of the needs of medically dependent consumers if rolling outages are necessary.

2025 annual Security of Supply Assessment (SOSA): The SOSA will provide a ten-year view (2025 to 2034) of the balance between supply and demand in the New Zealand electricity system. On 20

February we published our [response to submissions](#) on our [reference case assumptions and sensitivities consultation](#). We have completed our survey of participants and will release a draft report for consultation in by May.

System Operator coordination of low residual situations: In response to our [consultation](#) on System Operator coordination of Low Residual Situations we received six submissions and 2 cross submissions, and we continue to collate the feedback and prepare our response.

New Zealand Generation Balance (NZGB) potential shortfalls: The February NZGB update is available through our [Customer Portal](#). The NZGB shows that we are resilient to the loss of the largest generator or HVDC pole tripping under a 90th percentile load, provided all available assets not on planned outage are available to the market, with wind generating at 20% of its capacity. This is the primary measure we use to inform the market and coordinate outages in a way that maintains capacity margins.

When we consider firm generation, which is generation that is offered and available in the market 90% of the time, we see one day of negative margins in April (-160 MW) due to an outage on the Wairakei ring constraining generation in the region. Additionally, there are eight days in May with negative margins (up to -200 MW) due to a range of South Island hydro generation outages.

The firm generation scenario typically results from high levels of hydrology or limited gas availability; both undermine the short-run commercial viability of slow-start thermal generation. Currently, low hydrology is leading to high levels of unit commitment, although gas availability low.

3 Investigations

Under-frequency event investigations

Under Frequency Events (UFE) causer investigations: We have had discussions with the Authority (Compliance Team) around options to reduce overall timeframes and improve timeliness around the UFE causer investigation and determination process. We will continue to work with the Authority on this initiative and have shared information on timeframes, process and operational considerations on both sides. We note that the current process is also impacted by the current Code mandated timeframes.

Significant incident investigations

20 June 2024 - Northland loss of supply: We continue to work on completing actions in response to both the Ray Hardy report and the Authority's report. We are on track to complete the next two actions (which are both related to updating the Northland Contingency Plan) by the end of March.

21 December 2024 – Hawke's Bay: Work has progressed on the moderate report for this loss of supply event within the timeframe set out in our significant event procedure and the UFE report within the timeframes required by the Code. For the UFE report, we have received information from all asset owners by our requested deadline, except the Grid Owner who has undertaken to provide the remaining information.

4 Supporting Asset-owner activity

Outage coordination

February continued to see consistently high outage volumes, tracking between 60 and 80 outages per week.

Managing high outage volumes and HVDC outages is challenging, and low hydro storage at Manapouri has further complicated the situation, putting several outages in the region at risk. We have been working closely with Meridian and the Grid Owner to coordinate outages in the region. So far, one outage has been rescheduled, and there is potential for another to be moved in March.

In response to low Manapouri generation, we completed security studies under a steady-state grid configuration (i.e. no planned outages in place). These studies highlighted the need for 2.9 GWh of generation from Manapouri to maintain system security under a worst-case load. For reference, 2.9 GWh per day is equivalent to having one out of seven units available for a day.

To mitigate this risk, the team has prepared for an urgent temporary grid reconfiguration under section 9.13B of the Code. The preferred grid configuration was shared with the industry for feedback via a CAN, email, and System Operator forum, and the feedback was all in support of the preferred option. The preferred reconfiguration is ready to be implemented if needed.

Generator commissioning and testing

The Power Systems and Markets teams are working with the following generators who are commissioning or expecting to connect in the next 3 months:

- Genesis' Lauriston solar farm (52 MW at Ashburton) completed commissioning 10 February 2025.
- Lodestone's Te Herenga o Te Rā solar farm (38 MW at Waiotape) now expects to complete commissioning 19 March 2025.
- Meridian's Ruakākā BESS (100 MW at Bream Bay) began commissioning in January 2025, due to complete end of April 2025.
- Far North Solar Farm (FNSF) and Aquila's Pukenui Solar Farm (20 MW in Northland) is due to begin commissioning in May 2025.
- The Ryman Healthcare Solar farm (17.6 MW in Northland), previously Golden Stairs and also known as Te Papa Reireia, due to begin commissioning in May 2025.

Demand commissioning and testing

Edendale load forecast: In February we re-issued our request for GXP EDN0331 to be assessed as non-conforming after monitoring the performance of the forecast against the GXP demand through January. We observed the load forecast for EDN0331 was inaccurate to the extent that on occasion security was impacted as constraints were not being created when required.

Ancillary Services activity

Simply Energy: We are in the last stages of supporting Simply Energy to establish their new dispatch system that will allow them to assume responsibility for dispatch of the interruptible load previously sent to Contact Energy.

Lastmyle: Lastmyle have submitted a proposal to offer aggregated interruptible load. We will be working with Lastmyle to enable them to offer and be dispatched for reserves.

Procurement Plan Review: We continue work on our 2-yearly review of the Ancillary Services Procurement Plan as required under the Code. This is progressing well through initial legal review. We have commenced engagement with the Authority and prepare to obtain their consent to consult the market on the proposed changes. We have started preparing consultation documents to ensure we meet required review timelines.

Interruptible Load: The following table provides an overview of interruptible load testing activity by the number of sites tested and associated additional quantities for those sites.

	Number of sites	Additional quantities in MW	
Annual testing	5 sites	N/A	
Additional resource	2 sites	0.692 MW FIR	0.584 MW SIR

Over-Frequency Reserve (OFR): One unit remains unavailable to provide OFR. We are working with the service provider to resolve this. 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	42
Circuit breaker testing	13

Frequency Keeping: One station in the South Island remains unavailable to provide frequency keeping as a result of failed testing.

Black Start: Planning is underway for Black Start testing at Tokaanu Power Station to occur later in 2025.

5 Commitment to evolving industry needs

Electrical Industry Space Weather Working Group (EISWWG): EISWWG progressed their Transformer risk assessments and is meeting with Hitachi to go through their results. Engagement has also commenced with NZAS on the potential risk space weather could pose to the Tiwai site, including looking at a potential option to mitigate. The group is working on revisions to the industry response plan based on learnings from the desktop exercise carried out late last year and findings from engineering studies.

Black Start simulation industry exercise 2025: We held our annual black start simulation exercise on 19 February. Our control room staff from across the motu worked alongside our industry partners from Contact Energy, Meridian Energy and New Zealand Aluminium Smelters to simulate how we would re-energise the national grid in the event of a blackout across one, or both, of our islands. A short video on the exercise and the process involved in getting the grid back up and running can be found [here](#). The exercise was successfully completed in 3 hours and 6 minutes (just above our 3 hour target). Some process improvement opportunities were identified and are being assessed for implementation.

Electricity Networks Aotearoa (ENA) Future Networks Forum (FNF): During February the project team including our representative engaged with Baringa, the chosen supplier of consultancy services to

evaluate the industry architecture and models for distribution system operation (DSO) to fulfil the roles and functions identified in Stage 1. Our role in the project team is to provide knowledge of delivery of the current system operator role and to provide a view of the potential impacts of DSO on our role as New Zealand's system operator. ENA FNF project team meetings are weekly, and there is also high engagement with the Authority including fortnightly check-ins with the staff drafting the Authority's next Future System Operations (FSO) issues and options paper.

Very low pricing operational challenges: In early February we monitored possible \$0/MWh prices as a result of the planned outage on THI_WKM_1 that commenced on 31 January and ran through to 2 February. The actions taken highlight the challenges when the amount of generation offered at \$0/MWh exceeds the demand or the regional transmission capacity to export generation. We have provided further detail on the insights from this particular outage in our [Market Operations Weekly Report](#) for the week ending 2 February. Work also continues to enhance real-time operations, additional updates to the market system are scheduled for delivery in March 2025.

Tie break situations: Now that we have successfully developed a tie-breaking energy constraint in SPD to allocate output proportional to generators' offers and following initial engagement with the Authority on the topic, we have been collating feedback and learnings as we consider next steps for this initiative.

Outage Optimisation: The System Operator is supporting the Grid Owner in an outage optimisation project. This project aims to reduce the risks and costs outages pose to Transpower and the market. This is to enable them to increase the work required to meet their 30% increase in RCP4 maintenance spend in a more volatile market making planning outages harder. The System Operator is engaging in the project from a security of supply perspective, our role in the process, and how Transpower can support general industry outage co-ordination.

Connecting with the industry

System Operator Industry Forums:

Our fortnightly discussion on current operational and market issues were held on the 4 and 18 February. Recent slide packs and recordings for forums within the last month are available on our [System Operator industry forum](#) webpage.

Weekly Market Movements:

- [2 February:](#) This insight covered zero price periods and market node constraints
- [9 February:](#) This insight looked at the January Security of Supply Outlook
- [16 February:](#) This insight discussed the variation in wind farm output
- [23 February:](#) This insight looked into the causes of hydro storage decline

Supporting the Authority

Intermittent Generation (IG) Forecasting project: The System Operator is part of the Intermittent Generation evaluation panel. The panel have concluded their initial evaluation and preparing their recommendation for those to proceed to trial stage. The System Operator has been involved in the intermittent generation forecasting project from a procurement/evaluation point of view, and has worked closely with the Authority to identify the key requirements and risks associated to the project. The System Operator is working with the Authority to prepare a TAS scope of work to implement the hybrid IG forecasting arrangement which is planned to come into effect on 1 July 2025.

Proposed Levy-funded appropriations 2025/26 consultation: We contributed to a Transpower [submission](#) to the Authority's consultation. We await the Authority to publish the 18 submissions they received on this consultation.

Authority review of the System Operator's performance: On 18 February the Authority published their [annual review of the System Operator's performance](#) in the 2023-24 year. The review is positive about the System Operators performance during this period with the eight key recommendations focussed more on information provision and engagement than operation of the system itself.

Update to Scarcity Pricing Settings: In November we [submitted](#) to the Authority's consultation seeking feedback on its proposal to update the values for energy and reserves scarcity prices in the Code. They have indicated that they are preparing a TAS scope of work to deliver the system updates required to support the anticipated Code change expected in April.

Media interactions

There was a small amount of media interest on 24 February when we released a low residual CAN and wholesale prices rose to more than \$2,000 in the North Island when a generator went offline and another reduced output while the annual planned HVDC outage was underway. There was no risk of impact to electricity supply to consumers and coverage was balanced and non-alarmist.

Energy News sought comment on Meridian Energy's request for the system operator to permanently change the rules for access to contingency storage. Newstalk ZB also asked for an interview or a statement. A statement was provided.

6 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.

6.1 Market design and service enhancement project updates

There are no market design or service enhancement projects in-flight.

6.2 Other projects and initiatives

Ancillary Services Cost Allocation System (ASCAS): User Acceptance Testing Tranche 1 is scheduled to begin in March. A show and tell session for Senior Leaders and the broader Business team is being organised. The Data & Analytics team has started working on Snowflake integration. We've started engagement with NZX.

D&A Modernisation – Market System Data: Project team is actively planning the remaining project tasks, which will inform the upcoming time and cost BCA. This BCA will address revised milestones and the contingency drawdown expected in the coming weeks. User acceptance testing for five reports is progressing well. Successfully released nine data products and semantic models to the business teams. These will be used to build equivalent OBIEE reports in the Cloud Data Platform.

SCADA Habitat and EMP Refresh: GE has delivered Packages 1 and 2 to Transpower, with Factory Acceptance Testing in progress. A new timeline for Packages 3 and 4 has been provided, and Transpower is assessing its impact on the project schedule. Options to minimise or avoid go-live delays will be presented to the Project Governance Board in February. The Build Phase and System Integration Testing are ongoing. Quotes for VxRail hardware and software were accepted, and delivery to data centres is expected by 21 February.

Digital Switch Management (DSM): Release 7 development is two weeks behind schedule. The go-live date has been moved from 6 March to 27 March. Despite this delay, Release 8 remains on track within the project's budget. Analysis for Release 8 is complete, and work on Release 9 has started. Progress in integrating DSM with SCADA and extending business processes into Switch Execution is

solid, reducing risks for the next two quarters. The Switch Execution Change Management Plan is under review. The project remains aligned with the DSM Investment Case.

Control room of the future (CROF): We have started working with a technical writer to finalise an internal report for CROF which will be used for engagement with the wider business to ensure alignment. EPRI has also now commenced their review of key inputs to CROF such as our capability model and assessment, and targeted strategic shifts. EGM Operations introduced the CROF work as part of the quarterly System Operator update to the Authority MOC, which was well received. During March we will be focusing on developing a comprehensive stakeholder engagement plan and finalising the internal report.

7 Technical advisory hours and services

The following table provides the technical advisory hours for the month and a summary of technical advisory services to which those hours related (SOSPA 12.3 (d) refers).

TAS Statement of Work (SOW)	Status	Hours worked during Month
TAS 108 – AUFLS Transition	In progress	61
TAS 112 – Future Security and Resilience	In progress	280
TAS 113 - BESS Wholesale Market Enhancements	In progress	68
TAS 115 - Settlement of the market following publication of final prices for 9 Aug 2021	In progress	6
TAS 116 – Implementing a hybrid forecasting arrangement – procuring a centralised forecast provider	In progress	-

Progress:

TAS 108 Extended Reserve Implementation 23/24 – Extended Implementation: Transition continued in February with a total of 1,092 feeders (72%) transitioned to the 4-block AUFLS scheme, which is 3.5% less than forecasted in the original transition plan for this month. In February, the system operator received change requests from 6 NI AUFLS providers for the March period and future months. The studies showed no security issues and the change requests for March 2025 were approved, and the system operator did not identify any non-adherence during the February transition period.

TAS 112 FSR Workstream - Part 8 of the Code - Common Quality Requirements: In February, the System Operator FSR team continued its support to the Authority team progressing work on BESS technical obligations and on GXP power factor analysis to support work on potential voltage coordination between distributors and the System Operator. We presented this work to the Common Quality Technical Group and are completing final reports following their feedback. We also

prepared and presented the structure of a document incorporated into the Code to cover commissioning and testing requirements. The work was well received by the technical group.

TAS 113 - BESS wholesale market enhancements: We presented a draft version of the report to the Authority for initial comment and received feedback requesting further detail on the apparent operational risks from shortening gate closure for BESS. We also completed the rough order-of-magnitude cost assessment for recommended systems changes to support BESS participation and improve market scheduling.

TAS 115 - 9th August 2021 UTS decision: Transpower has completed our tasks to settle ancillary services (System Operator), the FTR market (FTR Manager), and LCE (Grid Owner) in February. Settlement of ancillary services and the FTR market occurred on 20 February 2025. Transmission customers have been advised of their LCE amount which will be credited against their transmission charges on 20 March 2025.

8 Risk & Assurance

Risk Management

System Stability: We presented a Risk 'Deep Dive' on System Security at the Authority MOC on 24 February.

Deep dives for MOC: We are identifying the topics for the future deep dive papers based on the risks identified in the risk register.

Business assurance audits

Audit 50: Generation Commissioning Process Requirements (Power Systems): The interviews have concluded and we are currently working with the auditors to answer their questions prior to the draft report.

Audit 51: Manage a national SCADA EMS (Grid & System Operations): The Terms of Reference will be finalised following the introductory meeting in early March. This audit will be completed in early Q4.

Audit 52: ERC modelling (Market Services): The Terms of Reference is being finalised.

Software audits

The external auditor has been engaged to undertake the annual SPD/RMT audit and information is being collated at the request of the auditor.

9 Compliance

Other Participant Self Breaches: Nothing to report.

[REDACTED]

EA Compliance Team Information Requests: On 28 February we replied to the Authority and shared data we hold in response to the Authority's request for a copy of information provided by the

System Operator to the Clearing Manager to allocate reserve availability costs to generators and HVDC owner.

System Operator compliance activity for this period is set out in the table below:

Event number	Event date	Event Description	Update	Date sent to EA
4481	5/08/24	This event related to an incorrect conductor rating modelling in the Market System and EMS. The event occurred during a model update to revise the Variable Line Rating (VLR) for the KIN_TRK 1.2 circuit. There was no significant real-time market impact and no real time impact on the operation of the power system as a result of this because the error was discovered and corrected prior to real time	The System Operator self-reported a breach of Part 13, Clause 13.58A (1) (e) (i).	17/2/25 EA ref: BN4798

10 Impartiality of Transpower roles

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.

System Operator Open Conflict of Interest Issues		
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. The 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

Ara Ake Trial: The System Operator and Grid Owner are collaborating on the FlexPoint platform. As outlined in previous reports there are currently no actual or potential conflicts of interest identified. We will continue to monitor the trial from an impartiality perspective.

11 Performance metric and monitoring

Our System Operator performance against the performance metrics for the financial year as required by SOSPA 12.3 (a) will be provided in the final monthly report each quarter.

12 Cost of services reporting

The cost of services reporting for 2024/25 will be delivered to the Authority by the end of the financial year.

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 12.3 (b).

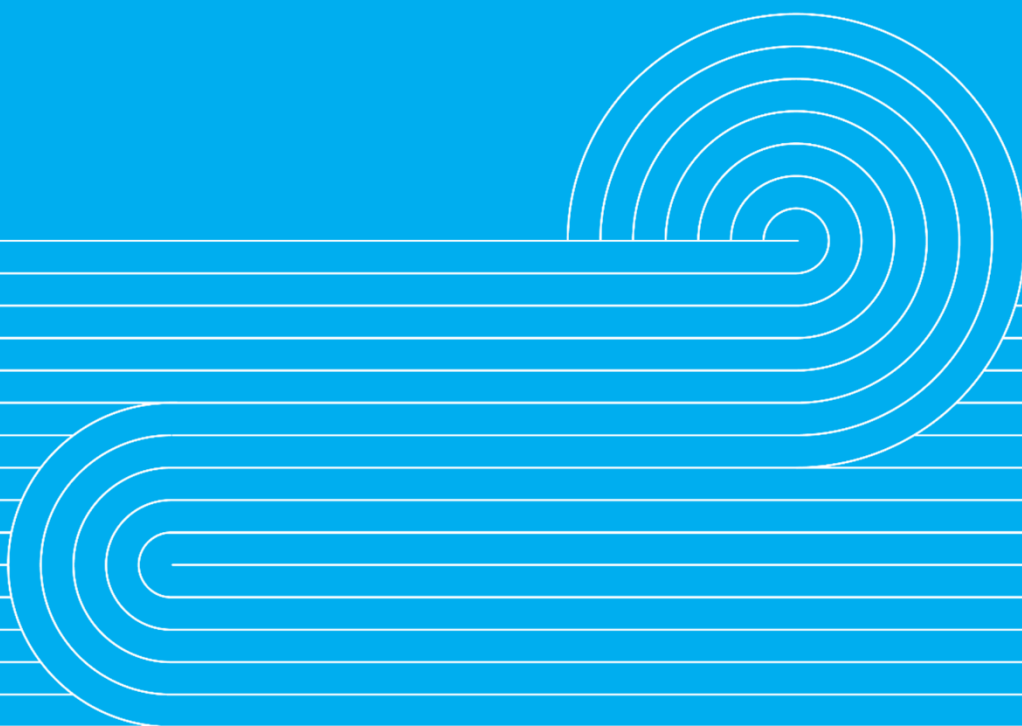
We note that re-prioritisation of our resources to support the System Operator and Authority Northland loss of supply investigations, the 2024 security of supply situation, and the SOSPA3 process has constrained our capacity to progress our work on these activities to planned timelines.

Item of interest	Actions taken
<p>(i) To give effect to the System Operator business plan strategic initiatives:</p>	<p><i>Support future-focused market developments through white papers, consultation processes and cross-industry forums</i></p> <ul style="list-style-type: none"> Continued to participate in the Electricity Networks Aotearoa Future Network Forum's <i>Roles and Functions to enable distributed flexibility</i> project team weekly meetings. This project is actively engaging with the Authority. Our 2025 Security of Supply Assessment: Our survey of generators to understand the future generation pipeline closed on 11 February. <p><i>Develop a view of the information, market and standards required to operate the future electricity system to support the FSR work program</i></p> <ul style="list-style-type: none"> Work continues to support the Authority's FSR programme, and we have predominantly focussed on completing the study work and preparations for the EA CQTG meeting in February 2025. This involved drafting reports with the outcomes and recommendations from the BESS AOPOs literature review, and assessment of the GXP power factor study results. We continued providing support to the Authority drafting the options decision consultation papers covering options addressing frequency and voltage management issues, and options regarding information sharing requirements. We provided further support and reviews on Code Amendment decision papers clarifying Common Quality information requirements and terms in the Code. We have continued work with the Authority to clarify and scope requirements to progress work, which will move large parts of the Part 8 Technical Codes into a Common Quality Information Requirements Incorporated Document by reference. <p><i>Enhance quality assurance through delivery of the Modelling Quality Assurance Framework</i></p> <ul style="list-style-type: none"> Discussion and agreement with key stakeholders for implementing a pre-failover QA process have been completed, and review of Market's pre-failover and modelling peer-review processes is underway. <p><i>Implement stage 1 of new enterprise business process management (BPM) capability for system operations</i></p> <ul style="list-style-type: none"> The process architecture review and development are still in progress. This is being conducted concurrently with identifying and developing the value streams for the business architecture model to ensure alignment.

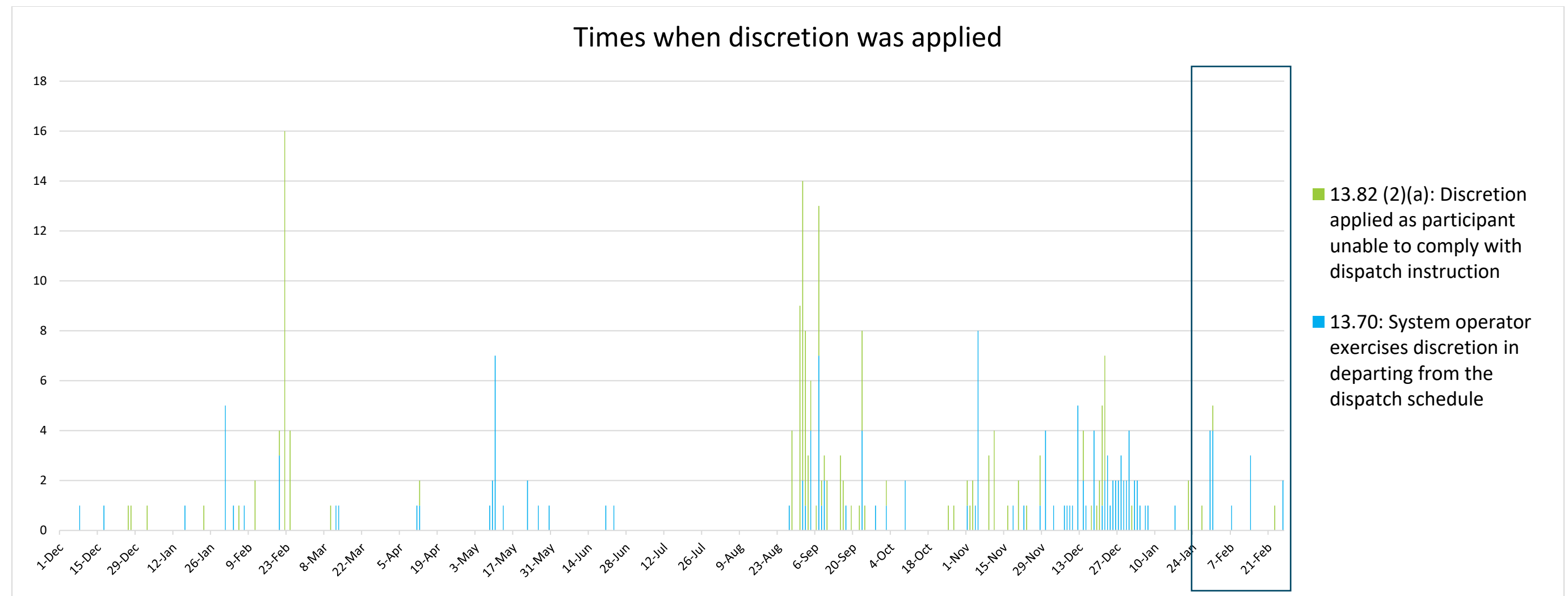
Item of interest	Actions taken
	<p><i>Leverage data and analytics developments to improve our data modelling and reporting</i></p> <ul style="list-style-type: none"> Data ingestion of market system data into the new data warehouse is ongoing. User Acceptance Testing continues with outages, events, load forecast and SCADA Data Validation (SDV) recently completed. <p><i>Deliver improvements to our generator commissioning management and assessment process</i></p> <ul style="list-style-type: none"> New and updated generation commissioning documentation and webpages were published in late January 2025 with the changes communicated to the Industry throughout February, including at the System Operator Industry Forum.
(ii) To comply with the statutory objective work plan:	<p><i>Security of Supply Forecasting and Information Policy (SOSFIP) review</i></p> <ul style="list-style-type: none"> We commenced our 2025 SOSFIP review in February with the development of the issues paper expected to be published for consultation in early March. <p><i>Policy statement review</i> (review due 1 November 2024)</p> <ul style="list-style-type: none"> We continue to await the Authority's decision on our proposed amendments submitted for approval on 30 October. <p><i>AS procurement plan review</i> (review due 8 June 2025)</p> <ul style="list-style-type: none"> Internal review process continues – all sections are currently undergoing legal review and good progress has been made with this during February. We intend to share the updated sections of the procurement plan once we have completed internal review, prior to submitting our pre-consultation documentation to the Authority. We are targeting consent to consult from the Authority in March. <p><i>Identify low residual / informational CANs</i> (due 28 March 2025)</p> <ul style="list-style-type: none"> Completed September 2024, ongoing in each Quarterly System Performance Information report. <p><i>Low residual notices, threshold and process review</i> (due April 2025)</p> <ul style="list-style-type: none"> Our Low Residual Situation review consultation paper received 6 submissions and 2 cross-submissions to which we are currently preparing our response.
(iii) In response to participant	We have continued to develop our annual participant survey for the 2024-25 period and aim to distribute it by late March.

Item of interest	Actions taken
responses to any participant survey :	
(iv) To comply with any remedial plan agreed by the parties under SOSPA 14.1	<i>N/A – No remedial plan in place.</i>

Appendix



Appendix A: Discretion



System Operator applied discretion under cl 13.70 in 7 instances:

- 1 instance applied 7 February at Rotorua (ROT), due to ROT circuit breaker CB_312 tripping causing a loss of connection to Wheao generation.
- 1 instance applied 23 February by traders in response to a 13.82(2)(a) rule claim for Ngawha at Kaikohe (KOE) as they were kept on for System Security.

5 instances applied Manapouri (MAN) to manage Tiwai (TWI) potline restoration:

- 14 February 3 instances applied
- 26 February 2 instances applied