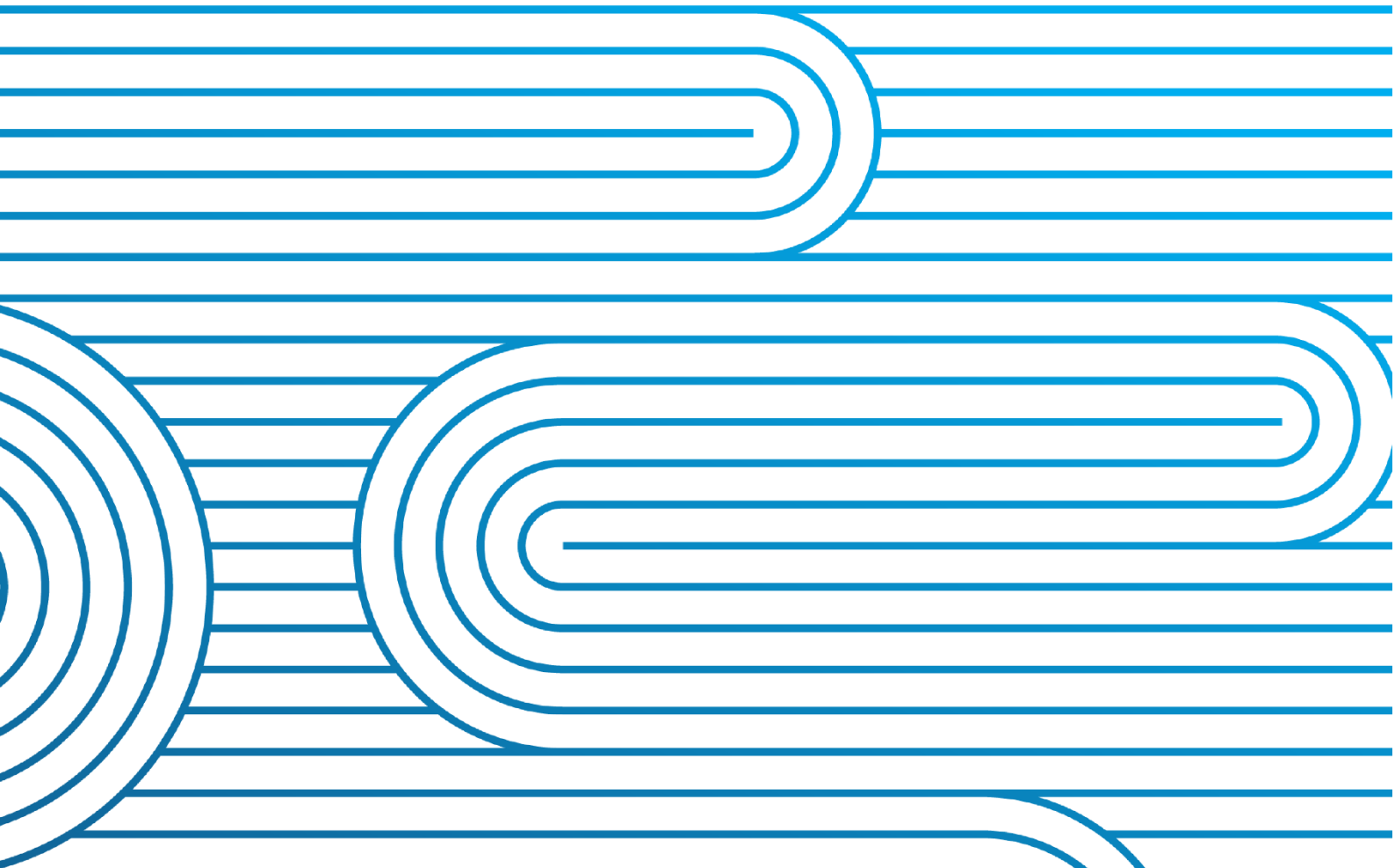


Monthly System Operator performance report

For the Electricity Authority

March 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](#)



Contents

Key points this month	1
1 Operating the power system	3
2 Security of supply	3
3 Investigations	4
4 Supporting Asset-owner activity	5
5 Commitment to evolving industry needs	7
6 Project updates	8
6.1 Market design and service enhancement project updates.....	8
6.2 Other projects and initiatives.....	8
7 Technical advisory hours and services	9
8 Risk & Assurance	11
9 Compliance	12
10 Impartiality of Transpower roles	12
11 Performance metric and monitoring	13
12 Cost of services reporting	13
13 Actions taken	14
Appendix A: Discretion	18

Commentary



Key points this month

Operating the power system

- No events this month.

Security of supply

- *Security of Supply Forecasting and Information Policy (SOSFIP)*: We ran our SOSFIP Review issues paper consultation throughout March and received 15 submissions and 4 cross submissions. Our summary and response will be published in April.
- *Energy Security Outlook*: The March update shows two SSTs crossing the watch curves in 2025 with hydro storage continuing to drop. A reduction in forecast gas production and storage, and the starting coal stockpile, resulted in an increase in the risk curves.
- *Industry Exercise 2025*: The two supporting webinars were held on 4 and 18 March with final preparations completed for the industry exercise to take place in early April.
- *Official Conservation Campaign (OCC)*: The OCC concepts and approach were presented to participants at the 4 March webinar in support of the industry exercise.
- *2025 Annual Security of Supply Assessment (SOSA)*: During March, we processed participant survey results, and finalised inputs to run through the SOSA model. Based on these results we commenced drafting our SOSA report for consultation in May.
- *System Operator coordination of Low Residual situations*: We prepared our summary and response to submissions which will be published in early April.
- *New Zealand Generation Balance (NZGB) potential shortfalls*: The March NZGB report highlights one day of negative margins in April, and eight days in May coinciding with planned outages.

Investigations

- *20 June 2024 Northland Loss of Supply*: all actions identified in the Ray Hardy and Authority reports and due by March 2025 have been completed.
- *21 December 2024 Hawke's Bay Loss of Supply*: On 31 March we submitted our moderate event report to the Authority for the 21 December 2024 event that resulted in loss of supply to the Hawke's Bay and loss of connection of associated generation in the region.

Supporting Asset-owner Activity

- *Outage Co-ordination*: We continued to monitor low lake levels in Southland through March. Preparations are in place to request a grid reconfiguration from the grid owner if required to manage potential security issues. One outage had to be rescheduled. Following a request from Contact Energy, we reviewed outages impacting Taranaki generation. As a result, the grid owner changed its plans and reduced 15 days of constraints on Taranaki generation down to 4 days. The Grid Owner has developed a draft Annual Outage Plan (AOP) consisting of over 2,700 outages, 300 more than last year but significantly less than will actually occur as the AOP only captures around 20-25% of all outages in advance. We commenced our review of the plan.
- *Generator commissioning and testing*: Work continues with the sites in the process of commissioning 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). Sites expected to begin commissioning in the next three months include Far North Solar Farm and Aquila's Pukenui Solar Farm (20 MW in Northland) and Rānui's Twin Rivers Solar Farm (25 MW in Northland).

- *Ancillary services activity:* The ancillary services procurement plan review is in the final stage as we begin to finalise our consultation documents with the aim to publish these from mid April pending the Authority's review and our request for its consent to consult. Work continues with Lastmyle to establish interruptible load services. One station in the South Island remains unavailable to provide frequency keeping as a result of failed testing. Planning continues for Black Start testing at Tokaanu Power Station to occur later in 2025.

Commitment to evolving industry needs

- *Very low pricing operational challenges:* Enhancements were implemented in the Market System in March to better support intermittent generators in low price scenarios.
- *Outage Optimisation:* The System Operator continues to support the Grid Owner in its' outage optimisation project that aims to reduce the number of outages on the grid and the risks and costs they pose. The project is expected to be completed by the end of April.
- *System Operator Industry Forums:* Forums were held on 4 and 18 March with a focus on current operational and market issues. Topics of note this month were the approach to managing low Southland Generation and SOSFIP review.
- *Update to Scarcity Pricing Settings:* We are in the process of implementing the Authorities revised scarcity pricing settings that are to take effect at midnight on 17 April 2025.

Risk & Assurance

Risk management: We have started the latest six-monthly controlled self-assessment review, each reviews covering five more controls in our risk bowtie with the process to be completed by the end of June 2025. We have also started preparing for a risk register workshop with the Authority to be held later in the quarter.

Business assurance audits: Reports for Audit 50 (Generation commissioning process requirements) and Audit 51 (Manage a national SCADA_EMS) are both expected to be finalised by May . Preparations for Audit 52 (ERC Modelling) are in progress with the audit expected to start in mid April.

1 Operating the power system

System Events

Nothing to report.

Market Operations

Forecast v real-time residual variability: We monitor the variations¹ 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 March 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 role² to provide information and near to medium term forecasting on all aspects of security or 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): In early March we finalised our SOSFIP Review issues paper consultation which we published on 10 March commencing a two-week period for submissions and a further week for cross submissions closing on 31 March. We received 15 submissions and 4 cross submissions. We will publish our summary and response as early as possible in April. It will signal next steps for the SOSFIP review and shorter term initiatives for 2025. Further consultation for the SOSFIP review will follow later in 2025. We continue to work closely with the Authority's Wholesale and Supply team.

Energy Security Outlook: The March update providing the ERCs and SSTs is available [here](#). The outlook showed two SSTs crossing the ERCs in 2025 and highlighted a 230 kT gap between firm contracted coal supplies and the physical capability to import coal from April to the end of October 2025. Changes from the last monthly ERCs included a reduction in forecast gas production and storage, and a reduction in the starting coal stockpile. This resulted in an increase to the Watch, Alert and Emergency curves. National hydro storage levels continued to decline rapidly over March due to record low inflows and low wind generation in January and February, combined with planned thermal generator outages. TCC came back early from outage and Methanex gas has been diverted to generation to the extent possible without a full shutdown. National storage dropped to 77% of the historic mean as of 31 March and gas supply remains tight for Winter 2025.

Prices were consistently high throughout March, with the average price across reference nodes being \$279/MWh. Demand has been less than in recent years largely due to reduced industrial load with the closure of the Winstone mills and Oji's paper recycling plant, along with the Tiwai demand

¹ The variability measure is the same as outlined in Page 11 of our [Low Residual Situation Review](#) Consultation paper.

² [Electricity Industry Act 2010](#), s8

reduction agreement with Meridian Energy. Capacity margins in March have been healthy in line with high thermal unit commitment.

Quarterly Security of Supply Outlook: we completed most of the work on our latest quarterly outlook which will be published in early April.

Industry exercise 2025: In March the two supporting webinars were held with key participants and stakeholders in advance of the annual industry exercise on 9 April. The 4 March webinar focussed on presenting the updates to the SOROP and the approach to an OCC if required. The second webinar on 18 March was to educate industry about our processes for declaring a supply shortage and the communications that would accompany any declaration and to prepare participants for the industry exercise itself. Both webinars had good attendance and were well received. Final preparations have been completed for the industry exercise itself to take place on 9 April.

Official Conservation Campaign (OCC): The OCC concepts and approach were presented to participants at the 4 March webinar in support of the industry exercise. Digital assets are in the process of being finalised, and we will prepare other assets if we get close to an OCC being needed.

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. During March, we processed participant survey results, finalised model inputs, and generated some initial results from running the SOSA model. We have now written the draft SOSA report based on these results. It is currently undergoing internal review before a planned release for consultation in May.

System Operator coordination of low residual situations: Through March we prepared our summary and response to the six submissions and two cross submissions to our System Operator coordination of Low Residual Situations review [consultation](#). We will publish our response in early April.

New Zealand Generation Balance (NZGB) potential shortfalls: The March 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 (-210 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 and Huntly Rankine unit 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 with Taranaki Combine Cycle unit running 3 months earlier than it typically does.

3 Investigations

Under-frequency event investigations

Under Frequency Events (UFE) causer investigations: We continued our investigation into the 21 December 2024 Hawke's Bay UFE. Our UFE report focuses on around 15s of time when the UFE was

triggered (and the two lightning strikes within that period). This will be provided to the Authority by 1 May 2025.

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 have completed all actions which are due by end of March (these were related to general contingency plan principles and clarification of whether Ngawha Generation can remain connected during restoration and updating the Northland Contingency Plan).

21 December 2024 – Hawke's Bay: On 31 March we submitted our moderate event report to the Authority for the loss of supply to the Hawke's Bay and loss of connection of associated generation in the region which occurred on 21 December 2024. This included five recommendations for Transpower as Grid Owner and System Operator including recommendations around some updates to the relevant contingency plan and the Grid Owner to complete their self-identified review of the protection schemes in place.

4 Supporting Asset-owner activity

Outage Coordination:

March had high outage volumes typical for the time of year. The outages were further complicated by the early start of Taranaki Combined Cycle³ and low lake levels at Manapouri and Te Anau.

- **Low Lake Levels at Manapouri and Te Anau:** The System Operator was prepared to request a grid reconfiguration from the grid owner to manage potential security issues if lake levels dropped further. They worked closely with the Grid Owner and Meridian to ensure outages could proceed without impacting security. Only one outage had to be rescheduled.
- **Taranaki Generation:** While TCC generating did not pose a direct security risk, not all Taranaki generation could operate due to industry outages while hydro storage was low. Contact Energy requested the System Operator help coordinate a review of the outages. The System Operator assisted the grid owner in adjusting outages to minimize their impact on Taranaki generation ensuring the changes were of benefit to all of New Zealand not one asset owner. As a result, the grid owner rearranged some work and used system splits to reduce 15 days of constraints on Taranaki Generation down to 4.
- **Annual Outage Plan:** The Grid Owner has developed a draft Annual outage plan consisting of over 2600 outages. This is 150 more than last year. The System Operator is currently reviewing the plan and will be providing advice on security risks and mitigations options during April.

Generator commissioning and testing

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

- Lodestone's Te Herenga o Te Rā (38 MW at Waitahe) will complete commissioning in April.

³ Taranaki combine Cycle typically runs from June to September. Because of this, outages that constrain Taranaki generation are planned between November and May.

- Meridian’s Ruakākā BESS (100 MW at Bream Bay) is due to complete commissioning at the 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.
- Rānui’s Twin Rivers Solar Farm (25 MW connected to Top Energy) is due to begin commissioning in June 2025.

We are also working with existing generators to commission governor and AVR upgrades.

Demand commissioning and testing

Edendale load forecast: In February we re-issued our request for GXP EDN0331 to be assessed as non-conforming. We await the Authorities decision on this request.

Ancillary Services activity

Simply Energy: Simply Energy are finalising their new dispatch system and will assume responsibility for dispatch of the interruptible load previously sent to Contact Energy.

Lastmyle: We are working with Lastmyle to enable them to offer and be dispatched for reserves.

Procurement Plan Review: We continue work on our two-yearly review of the Ancillary Services Procurement Plan as required under the Code. This has been progressing at pace with legal review completed through the period, and an initial draft provided to the Authority for review and feedback has been received for consideration. As of the end of March, we are in the process of finalising the full consultation documentation pack to formally request consent to consult from the EA, with the consultation period anticipated to open in mid-April.

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	3 sites	N/A	
Additional resource	5 sites	3.363 MW FIR	4.122 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 has continued to work on refining its industry response plan based on the latest information available from each party. Discussions were held with GNS to confirm the industries requirements for space weather expert advice and monitoring for GNS to refine cost estimates for EISWWG to consider securing funding for. NEMA also invited Transpower including in its role as System Operator to attend a desktop exercise in early April to test the first phases of the National Response Plan developed.

Electricity Networks Aotearoa (ENA) Future Networks Forum (FNF): During March the ENA FNF project team including our System Operator 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.

Feedback centred on the need case for DSO being to deliver secure and reliable electricity to end consumers. In the absence of issues on the distribution network there is no justification for a DSO. We also drew attention to potential integration issues with existing markets and operating models which will need to be addressed in New Zealand in a way they haven't overseas. Another recommendation was to ensure the "least regrets next step actions" section features prominently in the presentation of the final report. The project is nearing completion with the final Baringa report targeting publication in early April. A goal of the timing of this work by ENA FNF is to inform the Authority's next Future System Operations (FSO) issues and options paper which is targeting a May/June publication date.

Very low pricing operational challenges: Enhancements were implemented in the Market System in March to enable intermittent generators (IGs), or a group of IGs, that are setting the risk to follow dispatch in real time. We continue to monitor the changes, and no adverse impacts have been observed to date.

Tie break situations: We have collated learnings and feedback from our successful early trials and initial engagement with the Authority, we anticipate engaging industry on tie break situations later in the year.

Outage Optimisation: The Operational Planning team at Transpower, which includes both grid and system operations outage planning teams, is working on a new initiative to improve outage management. This initiative aims to make the planning of grid work more efficient, which will help manage the 30% increase in work on the grid expected under RCP4 while reducing the number of outages.

Fewer outages are beneficial to the System Operator because each outage introduces risks and costs that they must handle. By reducing the number of outages during RCP4, the System Operator can better manage power system risks, which also reduces the cost impact on consumers.

The project has defined its target state and is now working with the Grid Owner on an implementation plan for expected to start during May.

Connecting with the industry

System Operator Industry Forums:

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

Weekly Market Movements:

- [2 March](#): This insight looked into causes of hydro storage decline.
- [9 March](#): This insight discussed the on Security of Supply Forecasting and Information Policy (SOSFIP) Review Issues Paper.
- [16 March](#): This insight covered the correlation between hydro storage and the weekly average spot price, as well as how recent years have seen an increase in average spot prices associated with periods of low hydro storage.
- [23 March](#): This insight looked at the recent rain throughout the motu and its effect on controlled hydro storage catchments
- [30 March](#): This insight discussed the results from the Security of Supply Assessment (SOSA) annual survey and look at the supply pipeline results from this year's survey and compare it to last year's to see how it has evolved.

Supporting the Authority

Intermittent Generation (IG) Forecasting project: The System Operator is providing technical advice and support to the Authority as it works to procure a provider of a centralised intermittent generation forecast service. It is conducting an eight-week trial with potential providers, with the new forecasting arrangement planned to be available from 1 July 2025.

Update to Scarcity Pricing Settings: The Authority published its [Update to scarcity pricing settings decision paper](#) on 14 March 2025. The System Operator is underway with the implementation of these updates to the market systems to support the new settings which are scheduled to take effect at midnight on 17 April 2025.

The future operation of New Zealand's power system consultation paper: The Authority asked for the System Operator's input on their paper which centres on the same 3 DSO models the ENA FNF project is exploring for management of assets on the distribution networks: Total TSO, hybrid TSO and DSO operations, and Total DSO. Our preliminary feedback related to the central need for any model and key delivery focus must be secure and reliable delivery of electricity to consumers. Additional comments concerned supporting initiatives, how any new markets would integrate with existing markets and operational roles, and the key role data will play in the future.

Media interactions

It was a very quiet month on the media front for the System Operator. We put out a media release on 12 March about our [call for feedback on our SOSFIP Issues Paper](#). Only Energy News published a story.

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): Development is currently underway and show and Tell session for Business has been scheduled for 20th March. Data & Analytics team has been engaged. NZX work in progress to share the requirements for their analysis and estimation.

D&A Modernisation – Market System Data: This project is migrating Market Systems data to the newly established Cloud Data Platform to meet regulation requirements and increase consistency and efficiency. UAT completed for all 51 reports. Data ingestion finished for all tables and data migration is in progress. BI /Publisher provisioning complete, with UAT testing for critical reports and Ancillary Service Reports rebuild underway.

SCADA Habitat and EMP Refresh: This project is to upgrade critical components of SCADA system and Market Solvers, for the operational integrity of New Zealand's electricity infrastructure. System Integration Testing of Transpower customisation changes is advancing as planned. Factory Acceptance Testing of GE customisation Packages 1 to 3 is ongoing, with development on the next package also in progress. Delays in GE customisation delivery are impacting subsequent project activities, potentially delaying the project commissioning date. The overall schedule impact is under assessment. Options to address the delay will be presented to the Project Governance Board in the March meeting. VxRail hardware has been delivered to the data centres, with installation scheduled for March.

Digital Switch Management (DSM): This project within the DSM programme will extend DSM to digitise and support Switch Execution by NGOC for planned Switching and Faults. Release 7 Testing and Business Acceptance Test are in progress, with the go-live for DSM Release 7 on track for 27 March 2025. This release will introduce Detailed Outage Requirements for Connected Parties on the Customer Portal and some enhancements to support near real-time and fault planning. The Switch Execution (Business) Change Management Plan covering releases 7, 8, and 9 has been approved, and work is underway on developing the material for the change readiness program and inducting the change champion network. All Release 8 stories agreed with the Product Owner. A Release 8 training-only, is scheduled for 5 June 2025, and Release 9, the final release of Switch Execution, is planned for 4 September 2025.

Control room of the future (CROF): The draft report outlining the challenge New Zealand's energy transition presents to real-time operations and what actions are proposed to ensure our control rooms have the capability to continue to deliver effective services in the future is nearing completion. Once finalised we will be engaging with internal and external stakeholders to seek feedback and build consensus on the challenge and changes required.

Modelling quality assurance: Process and quality checklists to standardise process execution and peer reviews are under development, along with a reporting dashboard for future quality assurance performance reporting and monitoring.

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	67.00

TAS Statement of Work (SOW)	Status	Hours worked during Month
TAS 112 – Future Security and Resilience	In progress	568.00
TAS 113 - BESS Wholesale Market Enhancements	In progress	44.00
TAS 114 – Dispatchable Demand	In progress	57.25
TAS 115 - Settlement of the market following publication of final prices for 9 Aug 2021	In progress	5.50
TAS 116 – Implementing a hybrid forecasting arrangement – procuring a centralised forecast provider	In progress	2.00
TAS 117 – Scarcity Pricing	In progress	19.25

Progress:

TAS 108 Extended Reserve Implementation 23/24 – Extended Implementation: In March, 1,212 feeders (80%) transitioned to the 4-block AUFLS scheme. The System Operator approved change requests from four NI Connected Asset Owners (NI CAOs) for April and future months, with no security issues identified. No non-adherence was found during the February transition period. At the second to last quarterly industry meeting, the System Operator emphasized the responsibility of NI CAOs to progress the A&O process with the Grid Owner to meet the June 2025 transition deadline. However, there remains a high risk that several NI CAOs may not complete their transitions by the 30 June 2025 deadline.

TAS 112 FSR Workstream - Part 8 of the Code - Common Quality Requirements: In March, the System Operator FSR team supported the Authority team by providing technical input and reviewing several draft options decision and Code amendment proposal papers for the upcoming CQTG meeting in April and the May Authority Board meeting. Following the February CQTG meeting, the System Operator finalised and submitted the GXP Reactive Power Factor Assessment Report and the BESS AOPOs Literature Review Report to the Authority. They also drafted the System Strength Study Approach and completed an internal review before submitting it to the Authority in early April. Additionally, significant effort was put into developing the CQ Document Incorporated by Reference (DIBR) document through workshops and multiple iterations, with the draft submitted to the Authority and legal teams ahead of the 9 April CQTG meeting. In March, the Authority informed the System Operator team about the development of a BESS Regulatory Roadmap paper, shared an initial draft, and received preliminary feedback.

TAS 113 - BESS wholesale market enhancements: In March, the Authority approved a TAS change request to move the project completion date from 28 February to 11 April 2025 to allow the System Operator to address feedback from the Authority and internal reviews. The report was submitted to the Authority end of March for final reviews and approval. The Authority requested the System Operator to provide a Rough Order of Magnitude (ROM)

assessment of both implementation options separately (i.e. Include BESS SOC in scheduling processes and Bi-directional offering), and to include both assessments in the report for the Authority's consideration and consultation.

TAS 114 – Dispatchable demand enhancement assessment pre-implementation: The initial Rough Order of Magnitude (ROM) workshop in mid-March was delayed because SMEs needed more information about the Use Cases to discuss the effort required for implementation. After a discussion with the Authority to understand the Use Cases and intent, SMEs scheduled a second ROM attempt on 4 April. A first draft of the DD enhancement report has been delivered and is under internal review. The ROM outputs will be added to the report before its finalisation in early April.

TAS 115 - 9th August 2021 UTS decision: The project has been completed and Project Closeout Report has been submitted to the Authority on 2 April 2025.

TAS 117 – Scarcity Pricing: The pre-production implementation is complete, and testing is currently 60% complete with no issues reported. The focus for the period will be on alarm threshold changes and testing, with the goal of completing testing by 9 April. Updates to procedures and training materials are scheduled to start on Monday, 7 April.

8 Risk & Assurance

Risk Management

Control Self Assessments: We have started the latest six-monthly review, each reviews covers five of the ten controls in our risk bowtie. This round covers People Management, Stakeholder Management, Monitoring & Evaluating Potential Operating Environment, Connected Asset Monitoring and Change Management. Interviews are about to begin and the process will be completed by the end of June 2025.

Risk Register workshop with the Authority: We are preparing for a risk register workshop with the Authority in late May/early June. This will be a 'blank sheet' exercise to identify new and emerging risks. We will use this exercise to validate the existing register to ensure it is capturing the breadth of risks that we will be managing via our risk bowtie.

Business assurance audits

Audit 50: Generation Commissioning Process Requirements (Power Systems): The draft report from the auditors is due mid-April. The audit will be finalised in mid-May.

Audit 51: Manage a national SCADA EMS (Grid & System Operations): All interviews have been completed. The audit will be finalised in mid-May.

Audit 52: ERC modelling (Market Services): The kick-off meeting for this audit will be held in mid-April and the forecast timetable is for this audit to be completed by the end of May. This audit requires the involvement of analysts working on the security of supply issues for winter 2025. As a result the resources for this audit will need to be co-ordinated with our business as usual work and the final report may be delivered in June.

Business Assurance Audits for 2025/26: We are compiling a list of possible business auditable services to be audited during the next financial year. Once we have internally reviewed the options we will arrange a meeting with the Authority to negotiate the final list.

Software audits

The external auditor’s report of the annual SPD/RMT audit has been delivered to the Authority. There were no findings or recommendations, and the audit concluded that ‘SPD and RMT complied with and performed in accordance with their respective software specifications’.

9 Compliance



EA Compliance Team Information Requests:

On 17 March 2025 we responded to the Authority’s request for further information relating to a breach that we self-reported on 1 October 2024 (2410NZSO1). This related to schedules that failed to complete within the required times and the System Operator switching to stand-alone dispatch. On 31 March 2025 we received a No Action letter from the Authority in relation to this breach.

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.

Each quarter we report our year-to-date performance against the Performance Metrics and Incentives Agreement with the Authority. A quarterly review session is then held to discuss and agree an interim / indicative score. Following the end of the financial year we reach a joint determination of our full-year performance, that is used to determine our performance incentive outcome.

The Q3 scores shown below are interim ahead of the review meeting to be held at the end of April.

Q3 interim outcome scores		Year end forecast		Score	Level of performance
New security and reliability risks are identified and appropriately managed	3.50 O1 Score	4.50 O1 Score		1	Poor/unacceptable performance, requires focused improvement
Significant events are appropriately scoped, understood, prepared for and managed	4.00 O2 Score	4.64 O2 Score		2	Partially meets requirements, some improvement needed
The Authority is supported to evolve and develop the electricity market and power systems	3.40 O3 Score	4.70 O3 Score		3	Performance of all requirements in line with requirements of the Code and SOSPA
Relevant market information is made accessible to stakeholders	3.58 O4 Score	4.83 O4 Score		4	Exceeds some aspects of what is required by the Code and SOSPA
Stakeholders are effectively informed on and included in decisions where relevant	3.30 O5 Score	4.90 O5 Score		5	Consistent delivery of exceptional performance of (or beyond) what is required by the Code and SOSPA
Stakeholders are satisfied with our service	5.00 O6 Score	5.00 O6 Score			
SOSPA delivery provides value	3.80 O7 Score	4.80 O7 Score			
	Overall Performance Score 3.76	Overall Performance Score 4.71			
	Performance % Score 78%	Performance % Score 80%			

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: We have worked through March to collate feedback from our survey of and apply updates to our SOSA model, results from which will inform our final report. <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 continued to support the Authority's FSR programme, and we have predominantly focussed on developing a new SO Document Incorporated by Reference (DIBR) covering common quality related information requirements in support of the Authority's Information Sharing Options and Code Amendment Proposal Consultation Paper. The initial draft of the DIBR was shared with the Authority for feedback. We completed finalising the BESS AOPOs Literature Review and the GXP Reactive Power Flow Assessment reports and submitted the final reports to the Authority at the end of March. We continued providing support to the Authority drafting the options decision and Code Amendment consultation papers covering options addressing frequency and voltage management issues, and options regarding information sharing requirements. We drafted the system strength study approach for Authority and CQTG review, planning to progress the system strength work during FY24/25 as the Authority indicated no further BESS AOPO work was required at this stage. The Authority shared an initial draft their BESS regulatory Roadmap Paper, which was requested by the Authority's

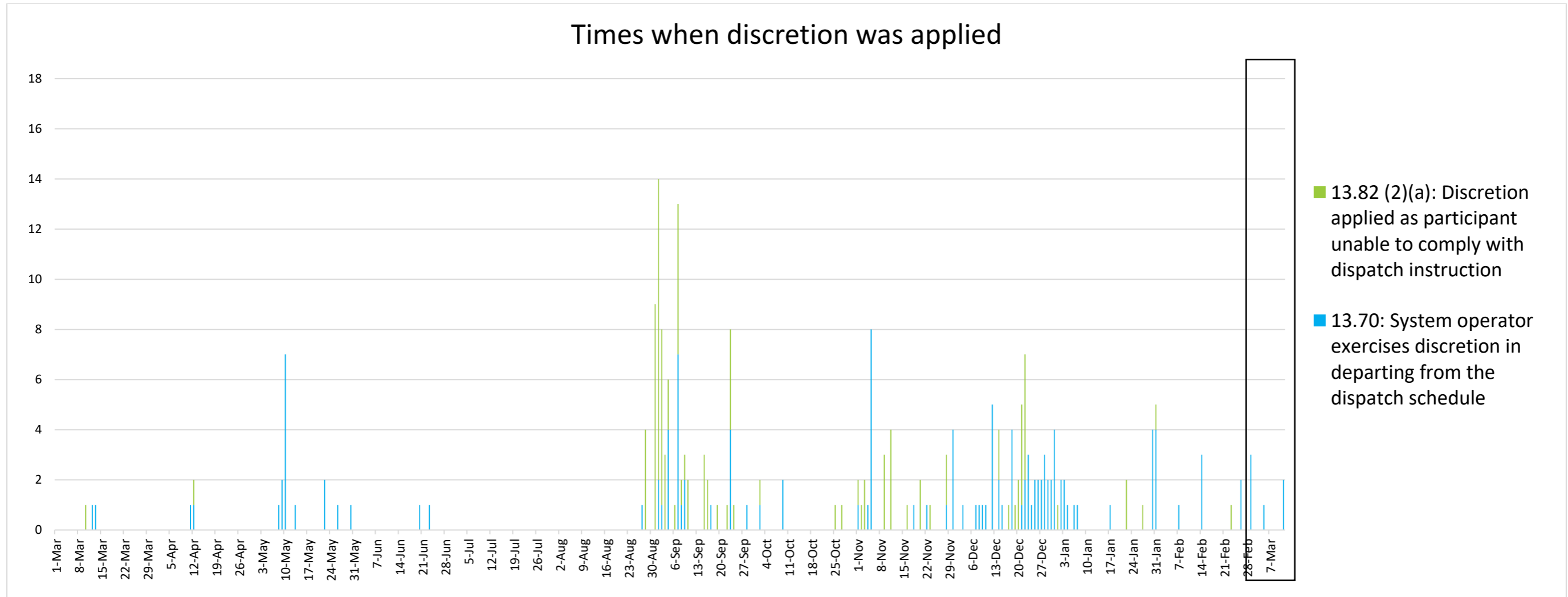
Item of interest	Actions taken
	<p>Board. The Authority sought preliminary feedback on the paper from the FSR team.</p> <p>Enhance quality assurance through delivery of the Modelling Quality Assurance Framework</p> <ul style="list-style-type: none"> Process and quality checklists to standardise process execution and peer review are under development, along with a reporting dashboard for future quality assurance performance monitoring. <p>Implement stage 1 of new enterprise business process management (BPM) capability for system operations</p> <ul style="list-style-type: none"> Process levels 1-3, with their process information and metadata, are being implemented in the process management tool concurrently with a process review and stocktake involving relevant process owners. <p>Leverage data and analytics developments to improve our data modelling and reporting</p> <ul style="list-style-type: none"> Data ingestion of market system data into the new data warehouse is ongoing. Solve constraints and hydrology data ingestion and migration have recently been completed and are currently undergoing testing. <p>Deliver improvements to our generator commissioning management and assessment process</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. This process has now bedded in, and regular Generator commissioning updates are provided at the fortnightly SO Forum.
(ii) To comply with the statutory objective work plan:	<p>Security of Supply Forecasting and Information Policy (SOSFIP) review</p> <ul style="list-style-type: none"> The consultation period for our 2025 SOSFIP Review issues paper commenced on 10 March with cross submissions closing on 31 March. We received 15 submissions and 4 cross-submissions. We will be working on our summary and response to submissions which we expect to publish in April. <p>Policy statement review (review due 1 November 2024)</p> <ul style="list-style-type: none"> The review has been completed with the Authority approving the submitted draft which took effect on 14 March. <p>AS procurement plan review (review due 8 June 2025)</p>

Item of interest	Actions taken
	<ul style="list-style-type: none"> We have completed our legal review and are now finalising updates to the draft procurement plan. We have also produced the consultation documents for internal review The Authority was provided an initial draft of the updated procurement plan in March for initial review and feedback has been received. We are targeting consent to consult from the Authority in April. <p>Identify low residual / informational CANs (due 28 March 2025)</p> <ul style="list-style-type: none"> Completed September 2024, ongoing in each Quarterly System Performance Information report. <p>Low residual notices, threshold and process review (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 summary and response to submissions which we expect to publish in early April.
(iii) In response to participant responses to any participant survey :	We released our annual System Operator participant survey on 25 March 2025. The survey seeks feedback on various aspects of our role as System Operator and the services we provide and will close 17 April 2025.
(iv) To comply with any remedial plan agreed by the parties under SOSPA 14.1	N/A – No remedial plan in place.

Appendix



Appendix A: Discretion



System Operator applied discretion under cl 13.70 in 6 instances:

- 3 instances applied on 1 March in order to produce a secure and stable dispatch when oscillations occur between RMT (Reserve Management Tool) and SPD (Scheduling, Pricing and Dispatch).
- 1 instance applied on 5 March at Stratford (SFD) as was unable to meet the 0.9 MW dispatch as they needed a minimum of 40MW or to be dispatched off. They were not required for security or reserves.
- 2 instances applied on 11 March at Gore (GOR) to assist with the management of a real time security violation (Invercargill – Roxburgh contingency).

Appendix B: Performance Metrics

Scoring

Performance metric scores as at Q3				Score out of 5					N/A	Comment
Metric	Definition	Q3	Year end forecast	1	2	3	4	5		
PM1	Risk register has been updated and tested externally with the Authority and widely among industry participants	2	4	Internal Risk Register has not been updated in the last 12 months, no engagements have been held to identify new threats or assess current threats	Internal Risk Register has been reviewed and updated internally in the last 12 months	Internal Risk Register has been reviewed and updated internally in the last 6 months	An annual workshop is held with the Authority, OR representatives from a diverse range of stakeholders, to review threats and identify and assess new security and reliability threats	An annual workshop is held with each of the Authority, AND representatives from a diverse range of stakeholders, to review threats and identify and assess new security and reliability threats		Internal risk bowtie framework is active and has been reviewed and updated, the new risk register is in the design stage. The risk register is being designed to complement the risk bowtie framework. Risk workshop with the EA is being planned for Q4
PM2	% of SMART actions from the control self-assessment with maturity ratings of 1 or 2 will be addressed by the planned due date	4	4	< 50% of SMART actions with a maturity rating of 1 and 2 are completed by due date	≥ 50% of SMART actions with a maturity rating of 1 and 2 are completed by due date	≥ 75% of SMART actions with a maturity rating of 1 and 2 are completed by due date	100% of SMART actions with a maturity rating of 1 and ≥ 75% of SMART actions with a maturity rating of 2 are completed by due date	100% of SMART actions with a maturity rating of 1 and 2 are completed by due date		6 Actions completed on or before the due date 2 actions due in Q4 2 actions overdue
PM3	At least one pan-industry event exercise held to test existing controls	3	5	-	-	0 pan-industry event exercises	1 pan-industry event exercise	2 event exercises (1 of which must be a pan-industry exercise) – includes smaller event exercises with industry involvement		South Island Black Start industry exercise 19 February completed The pan-industry exercise is currently being planned: Webinars 4 and March, Industry Exercise 2025 - 9 April
PM4	% of actions from industry exercises which were completed on time	N/A	N/A	< 50 %	≥ 50 % and < 65 %	≥ 65 % and < 75 %	≥ 75 % and < 100 %	100%		No actions for 24/25
PM5	Average score of internal process assessments arising from significant events	5	5	Poor	Below Expectations	Acceptable	Good	Excellent		A internal process assessment was completed from the Northland LOS event
PM6	Percentage of actions from significant events which are closed on time	5	5	< 50 %	≥ 50 % and < 65 %	≥ 65 % and < 75 %	≥ 75 % and < 100 %	100%		No actions overdue 7 Actions
PM7	On time delivery of significant event reports	4	4	Less than 100% of major preliminary reports delivered on time	All major preliminary reports and 60% of other reports delivered on time	All major preliminary reports and 80% of other reports delivered on time	100% of all reports delivered on time	Score not available		Northland Loss of Supply report delivered on time Hawke's Bay LOS moderate event report delivered 31 March
PM8	Average satisfaction score from stakeholders, as per responses received to transactional surveys taken at forums and asked for in correspondence	5	5	< 35 %	≥ 35 % and < 50 %	≥ 50 % and < 70 %	≥ 70 % and < 85 %	≥ 85 %		The responses to the Market Matters weekly update have been very positive and provided good feedback
PM9	All categories of stakeholders are actively engaged by the system operator throughout the year	N/A	5	SO Annual Participant Survey is not sent to a diverse range of stakeholders	SO Annual Participant Survey sent to a diverse range of stakeholders to request their feedback on how well they believe market information has been made accessible to them	Responses are received from a diverse range of stakeholders and are considered by the SO for improvement of engagement activities	Specific action is taken to build engagement from a diverse range of stakeholders	More than one action is taken as a result of feedback received from the Annual Participant Survey or other industry mechanisms and forums, with the aims of improving engagement with stakeholders		The annual participant survey was released 25 March running till 17 April. We have been actively addressing the findings from the 2023/24 survey, as detailed in the "Actions Taken" section of our monthly reports. Our efforts to enhance industry engagement include: • Updating the security of supply, commissioning and consultations webpages • Adding accessible key points to Energy Security Outlook documents and webpage • Introducing quarterly seasonal outlooks to make our security of supply information more widely accessible
PM10	% of industry submissions, made in response to system operator consultations, which are responded to	4	5	Not all submissions acknowledged	All submissions acknowledged and < 50% responded to	All submissions acknowledged and ≥ 50 % responded to	All submissions acknowledged and ≥ 75 % responded to	All submissions acknowledged and ≥ 90 % responded to		8 consultations have been produced. All submissions have been acknowledged and 8 have been responded to. Our SOSFIP review Issues Paper consultation ended 31 March, we are currently considering the feedback and next steps.
PM11	Stakeholder engagement in project delivery	2	5	The stakeholder engagement planning process is not undertaken during the year – ie no list of suitable projects and target list of stakeholder engagement is created	A list of suitable projects and target list of stakeholder engagement is created	The consultation process for the projects is carried out	Stakeholder engagement is actively monitored and managed throughout the year	Stakeholder input is incorporated into the process		We have identified 3 suitable projects for stakeholder input: Demand Allocation Tool (Capex) Customer Portal Enhancements (Capex) ASCAS – Support Tools (Capex)
PM12	Average satisfaction score from stakeholders from Annual Survey	N/A	4	< 73 %	≥ 73 % and < 76 %	≥ 76 % and < 85 %	≥ 85 % and < 89 %	≥ 90 %		The annual participant survey will be carried out in the March-April period
PM13	Average score from stakeholders on their perception of SO impartiality	N/A	5	< 60 %	≥ 60 % and < 70 %	≥ 70 % and < 80 %	≥ 80 % and < 89 %	≥ 90 %		The annual participant survey will be carried out in the March-April period
PM14	Number of thought leadership publications on specific areas of system operator work that affect and/or are of interest to the industry	3	5	Score not available	No thought leadership publications and 1 participant education piece in the financial year	1-2 thought leadership publications and 1 participant education piece in the financial year	3-4 thought leadership publications and 2 participant education piece in the financial year	>4 thought leadership publications and 3 participant education piece in the financial year		We have released 4 leadership publications and 2 participant education pieces: 30/09/2024 Security of Supply Outlook – 30 September 2024 30/07/2024 Evolving market resource co-ordination 20/11/2024 Winter 2024 Review 5/02/2025 -Security of Supply Outlook – 5 February 2025 27/02/2025 Rolling outage comms and process
PM16	# of SO Industry Forums held	4	5	Score not available	1-10 forums	11-19 forums	20 or more forums	20 or more forums, plus 1 longer format forum		These are being held every fortnight and will reach the 20 or more forums target by the end of the year
PM17	% of key SOSPA documents delivered on time to the Authority	3	5	< 70%	≥ 70 % and < 100%	100%	SO works proactively with Authority staff to enhance the accessibility of existing content in >50% of key documents	SO works proactively with Authority staff to provide new, value-add content in >50% of key documents		All documents delivered as agreed, with any changes to the current SOSPA targets agreed by the parties ahead of time New value add content has been included incrementally to be discussed with the EA at the next operational meeting

Appendix B (cont): Performance Metrics

Relationship between performance metrics and outcomes

These relationships explain why some performance metrics have a greater influence on the outcomes than others.

Note: Where the score of the performance metric is currently N/A, that performance metric does not contribute to the outcome or overall score.

Performance metric ref	Metric	O 1: New security and reliability risks are identified and appropriately managed	O 2: Significant events are appropriately scoped, understood, prepared for and managed	O 3: The Authority is supported to evolve and develop the electricity market and power systems	O 4: Relevant market information is made accessible to stakeholders	O 5: Stakeholders are effectively informed on and included in decisions where relevant	O 6: System Operator stakeholders are satisfied with our service	O 7: SOSPA delivery provides value	PM contribution to overall performance score
PM 1	Risk register has been updated and tested externally with the Authority and widely among industry participants	25%	9%	10%	8%	10%	0%	0%	11%
PM 2	% of SMART actions from the control self-assessment with maturity ratings of 1 or 2 will be addressed by the planned due date	25%	9%	0%	0%	0%	0%	0%	7%
PM 3	At least one pan-industry event exercise held to test existing controls	13%	18%	10%	8%	0%	0%	10%	10%
PM 4	% of high value actions from industry exercises which were completed on time	0%	0%	0%	0%	0%	0%	0%	0%
PM 5	Average score of internal process audits arising from significant events	13%	18%	0%	0%	0%	0%	0%	7%
PM 6	Percentage of priority actions from system events which are closed on time	13%	18%	10%	0%	0%	0%	0%	9%
PM 7	Average delivery time for final reports for moderate and major events, and preliminary reports for major events	0%	18%	20%	8%	0%	0%	20%	10%
PM 8	Average satisfaction score from stakeholders, as per responses received to transactional surveys taken at forums and asked for in correspondence.	0%	0%	0%	17%	10%	100%	10%	13%
PM 9	All categories of stakeholders are actively engaged by the system operator throughout the year	0%	0%	0%	0%	0%	0%	0%	0%
PM 10	% of system operator consultations for which industry submissions are responded to	0%	0%	10%	17%	20%	0%	20%	7%
PM 11	% of SO-led JWP projects which require stakeholder engagement that have carried out stakeholder engagement	0%	0%	10%	8%	20%	0%	0%	5%
PM 12	Average satisfaction score from stakeholders from Annual Survey	0%	0%	0%	0%	0%	0%	0%	0%
PM 13	Average score from stakeholders on their perception of SO impartiality	0%	0%	0%	0%	0%	0%	0%	0%
PM 14	Number of thought leadership publications on specific areas of system operator work that affect and/or are of interest to the industry	13%	0%	20%	17%	10%	0%	0%	9%
PM 15	Revoked	0%	0%	0%	0%	0%	0%	0%	0%
PM 16	# of SO Industry Forums held	0%	9%	10%	17%	20%	0%	20%	9%
PM 17	% of key SOSPA documents delivered on time to the Authority	0%	0%	0%	0%	10%	0%	20%	2%
PM 18	Revoked	0%	0%	0%	0%	0%	0%	0%	0%
TOTAL		100%	100%	100%	100%	100%	100%	100%	100%
Outcome weighting to final performance score		20%	25%	20%	10%	10%	10%	5%	