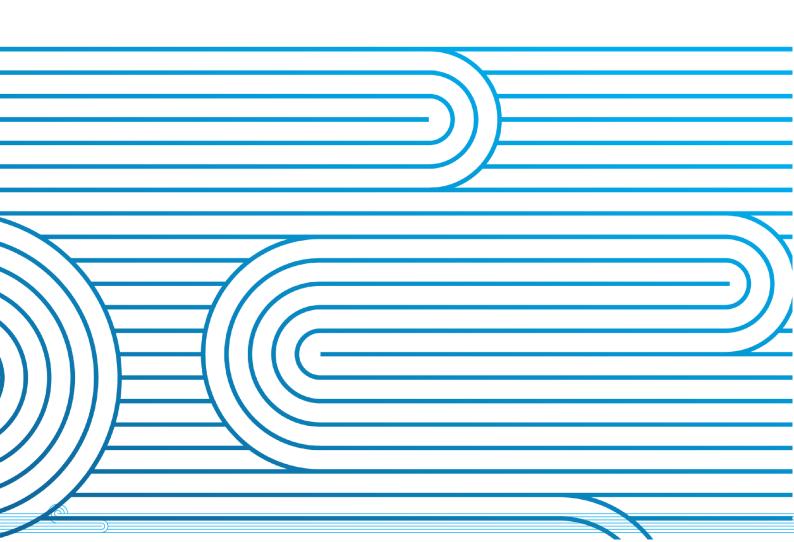
Monthly System Operator performance report

For the Electricity Authority

August 2024



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.

System Operator performance reports are published on the <u>Electricity Authority</u> 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 <u>Transpower website</u>.

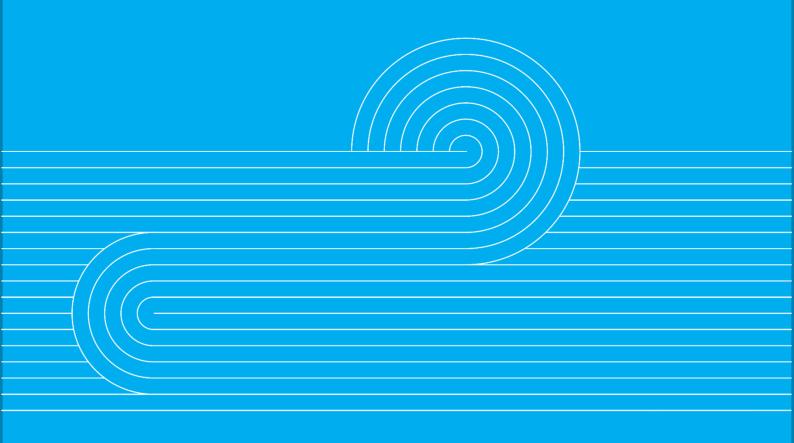




Contents

Rep	ort Pur	pose	2		
Key	points	this month	1		
1	Ope	rating the power system	3		
2	Inve	stigations	4		
3	Com	missioning activity	4		
4	Outa	age planning and coordination	5		
5	Com	mitment to evolving industry needs	5		
6	Proj	ect updates	9		
	6.1	Market design and service enhancement project updates	10		
	6.2	Other projects and initiatives			
7	Tech	nnical advisory hours and services	10		
8	Risk	& Assurance	11		
9	Com	pliance	11		
10	Impa	Impartiality of Transpower roles12			
11	Perf	ormance metric and monitoring	13		
12	Cost	Cost of services reporting13			
13	Actio	Actions taken13			
Арр	endix /	A: Discretion	1		

Commentary



Key points this month

Operating the power system:

- Dry Year 2024: Declining hydro storage due to a combination of relatively low inflows, very
 low wind generation, higher demand (especially during an unseasonably cold May) and
 tight gas supply increased the national energy risk, and South Island peak capacity risk.
 Following consultation, we decided to bring forward access to contingent storage by lifting
 the Alert status contingent storage release boundary under provisions in the Security of
 Supply Forecasting & Information Policy (SOSFIP). We commenced Watch risk status activity
 including preparations ahead of any potential official conservation campaign.
- Very low pricing challenges: Commencing in late August, large amounts of generation was
 offered at \$0.00/MWh and \$0.01/MWh. Operational challenges application of discretion in
 dispatching inflexible and intermittent generators, and oscillatory generation impacting
 frequency.

Investigations:

- *Under-frequency event 27 June 2024- North Island:* We are working through one remaining compliance issue with a generation provider. Once we have resolved and notified one generation provider compliance issue we will send the causation report to the Authority.
- *Under-frequency event 26 July 2024 South Island*: We are currently undertaking an engineering investigation to be able to identify the event causer.
- Significant event 20 June 2024 Northland Loss of Supply: Our independent investigator's report published on 6 September. We have accepted the seven recommendations. We continued to respond to the Authority's information requests on the event.

Commissioning:

- Contact's Te Huka geothermal Unit 3 (59 MW): Modelling has been completed in the market and SCADA tools ahead of testing/commissioning due to begin in September.
- Energy supply new build in pre-commissioning and planning: Meridian Ruakaka BESS, Ruawai Solar Farm, Lauriston Solar Farm Te Herenga O Te Ra Solar Farm, Pukenui Solar Farm, Helios Edgecumbe Solar Farm.
- Commissioning plans for upgrades/replacement units and equipment: Working with several hydro and thermal generators on commissioning plans
- SolarZero DER reserves: Work continues with SolarZero to integrate their distributed battery systems into the reserves market.

Outage planning and coordination:

- *NZGB forecast*: no potential shortfalls for the remainder of the year regarding N-1-G. During August the high commitment of thermal units, coupled with reduced industrial demand due to low hydro storage levels, helped to maintaining healthy margins in real-time.
- South Island Capacity Margin: As part of Watch status activity we developed a South Island Capacity Margin reporting tool using Power BI and Python, to inform the contingent storage release boundary consultation and enabled daily reporting.

Commitment to evolving industry needs:

 Transpower HVDC cable discussion paper: We submitted on 23 August to the Grid Owner's consultation, highlighting matters relating to instantaneous reserves, over-frequency reserves, AUFLS and potential ECE risk.

- FlexForum: The AGM on 22 August confirmed the appointment of our Head of Market Services to the steering group.
- Electrical Industry Space Weather Working Group (EISWWG): We have commenced planning for an extreme solar storm scenario workshop in October, to test and refine our industry response plan.
- Powerco controllable load indications: We continued to work collaboratively with Powerco to gain real-time indications of their available controllable load via ICCP into our control rooms
- AraAke winter peak initiative: several flexibility providers signed up with AraAke, have grid
 owner screens in our control rooms to provide visibility of the flex response in tight market
 conditions, and grid owner WITS trader access approved to also provide participants with
 visibility in forward schedules. We continue to monitor from an SO impartiality perspective.
- Electricity Risk Curves (ERCs): The August ERCs incorporated the updated contingent storage release boundary showed an increase in the risk curves for 2025. As part of Watch status activity we are releasing fortnightly ERC updates.
- System Security Forecast (SSF): We are working on the transient rotor angle stability report, which is due to be published next quarter.
- System Operator Industry Forums: We held forums on 13, 20 and 27 August and continue with weekly forums as part of Watch status activity.
- Evolving market resource co-ordination consultation: we received three more submissions (total 15) on our consultation paper and are developing a summary and response.
- System Operator Rolling Outage Plan (SOROP) review: Following the Authority Board's approval of our SOROP proposal we are working to implement it in our systems and processes, and working with distributors, and direct connects.
- Part 8 Common Quality consultation: We submitted to the Authority's consultation to lower the threshold at which frequency and fault-ride through obligations apply, and to extend voltage obligations and the ability to manage power factor at the GXP.
- Security and Reliability Council: We presented the 2024 annual Security of Supply Assessment (SOSA) to the SRC receiving good feedback.
- Instantaneous reserve (IR) cost allocation consultation: We submitted to the Authority's consultation, agreeing with the proposal and suggesting drafting improvements.
- Scarcity pricing values: We provided high level indications of cost to implement updated scarcity pricing values to the Authority.
- Automatic Under-Frequency Load Shedding (AUFLS) 2023 assessment: We met with the Authority to confirm this year's compliance assessment scope.
- Annual Self-Review: our annual self-review was delivered to the Authority. It highlighted the difficult operating conditions faced along with the significant increase in workload driven by the volume of generation commissioning activities.
- Intermittent Generation forecasting: We contacted intermittent generators requesting they ensure their Forecast of Generation Potential (FOGP) submission are aligned with the Code requirements and the recent Authority guidance note.
- *Media interactions:* With the heightened security of supply situation media enquiries related increased during August.

Risk & Assurance

- We prepared for an internal SLT session on risk management which we held in early September, and began preparing for our next control self-assessment.
- External Auditor interviews for Audit 53: Manage Security constraints are complete.



1 Operating the power system

Dry Year 2024

Declining hydro storage due to a combination of relatively low inflows, very low wind generation, higher demand (especially during an unseasonably cold May) and tight gas supply increased the national energy risk, and South Island peak capacity risk. The risk was heightened by some storage reservoirs declining more rapidly than others.

On 8 August, we released a consultation paper to seek feedback on our draft decision to bring forward access to contingent storage by lifting the Alert status contingent storage release boundary under provisions in the Security of Supply Forecasting & Information Policy (SOSFIP). The consultation closed on 16 August with a total of 11 responses. On 22 August, we published our response to submissions and our decision to update the Alert contingent storage release boundary (CSRB) buffer value for the period 1 September 2024 to 31 October 2024.¹ On 23 August, at the CEO Forum, we gave industry leaders an update on security of supply including our CSRB decision.

In parallel, we brought forward the commencement of Watch risk status reporting including daily market updates, increasing the frequency of our SO Industry Forum to weekly, more frequent (fortnightly) Electricity Risk Curves (ERCs) updates and establishing a dedicated webpage for relevant information: Managing security of supply risks 2024 | Transpower.

To ensure the grid is optimised to conserve hydro storage should Alert risk status be triggered, we progressed Southland and Lower North Island engineering studies to determine possible grid configuration or other mitigations. Southland studies were published with the following mitigations identified: reducing offload times to 10-minutes for the Aviemore-Benmore circuits, having multiple hydro units running in Tail Water Depressed (TWD) mode, and investigating with the grid owner making the Aviemore-Benmore circuits Special Protection Scheme (SPS) non-directional. It is expected that the SPS will be non-directional by mid-September.

In preparation for the risk that Emergency risk status might be reached we wrote to all distributors, and to those direct connects required to have participant rolling outages plans, requesting they be reviewed to ensure they were up to date. We also began preparing a communications plan for if rolling outages were necessary (through an official conversation campaign), including how we would work with EDBs and retailers to communicate with end consumers. This remains a work in progress. We have engaged an advertising agency to develop a marketing campaign and expect to have that finalised by mid-September and ready to test through focus groups.

Very low pricing challenges

Commencing in late August, we saw strong inflows into hydro catchments, high wind generation, gas diverted to electricity generation, and lower demand from industrials and due to mild temperatures. In addition, with Tauhara in operation, the contribution from inflexible geothermal generation has increased relative to past years. As a result, we saw large amounts of generation offered at \$0.00/MWh and \$0.01/MWh. During overnight periods the impact of this on dispatch (during late August) was to require coordinators to apply discretion to manage:



The consultation paper, submissions received and decision paper (including our response to submissions) are published on our webpage: Consultation-Adjustment to Alert Contingent Storage Release Boundary (Closed) Transpower

- geothermal generation being dispatched into its rough running range and participants' operators sighting clause 13.82(2)(a) of the Code (e.g. plant safety and/or resource consent limitations) four times on 28 August and nine on 31 August. Each instance required the coordinators to apply discretion as to whether the generation should be either off (noting they are likely to remain off for over 24 hours) or on (up to its minimum safe running level).
- wind generation being constrained down for periods of time, sometimes for just a single trading period, then ramping up very quickly before being constrained again. This oscillatory behaviour impacted frequency.

In the SO Industry Forum on 3 September we communicated this challenge and what participants can do to help. We also arranged to discuss the challenge and potential near and longer term measures to address it with the Authority on 5 September.

2 Investigations

Under-frequency event investigations

<u>Event Number 4470: 27 June 2024 - North Island</u>: We are working through one remaining compliance issue with a generation provider. Once the issue has been resolved we will notify the outstanding provider of their performance and send the causation report to the Authority.

<u>Event Number 4477: 26 July 2024 - South Island:</u> We are currently undertaking an engineering investigation to be able to identify the event causer.

Significant incident investigations

<u>20 June 2024 - Northland Loss of Supply:</u> Our independent investigator's draft report was provided to the Authority and affected parties on 30 August and published on our <u>SO system events and assessments webpage</u> on 6 September. Seven recommendations have been made by the investigator. We have accepted all the recommendations and our response to the investigation has been published alongside the report. In addition, we continued to respond to the Authority's information requests on the event.

3 Commissioning activity

Energy supply activity

<u>Contact's Te Huka Unit 3</u>: (59 MW) geothermal unit is due to begin testing/commissioning in September 2024. Modelling has been completed in the market and SCADA tools.

New build in pre-commissioning and planning:

- Meridian BESS at Ruakaka
- Ruawai Solar Farm (connecting to Northpower at Maungaturoto)
- Lauriston Solar Farm
- Te Herenga O Te Ra Solar Farm
- Pukenui Solar Farm (connecting to Top Energy)



Helios Edgecumbe Solar Farm

We are also working with several hydro and thermal generators on commissioning plans for upgraded or replaced units and equipment.

Ancillary Services activity

<u>SolarZero DER:</u> Work continues with SolarZero to integrate their distributed battery systems into the reserves market. During August, SolarZero completed their testing and we implemented modelling of the BESS response in the Reserve Management Tool (RMT). We are awaiting SolarZero's model validation report.

4 Outage planning and coordination

New Zealand Generation Balance (NZGB) potential shortfalls and outage planning

NZGB is forecasting no potential shortfalls for the remainder of the year regarding N-1-G. During August the high commitment of thermal units, coupled with reduced industrial demand due to low hydro storage levels, helped to maintaining healthy margins in real-time.

The low lake levels seen through late July and August highlighted a risk of South Island capacity shortfall if some hydro storage lakes reached their respective contingent storage limits without Alert Status having been triggered. Although NZGB was originally designed as a North Island reporting tool, the team quickly adapted by using Power BI and Python to develop a South Island Capacity Margin metric. This new metric informed the contingent storage release boundary consultation and enabled Watch status enhanced daily reporting. Our decision to bring forward access to contingent storage, and a rise in lake levels late in August mitigated risk in the short to medium term.

5 Commitment to evolving industry needs

<u>Transpower HVDC cable discussion paper:</u> We <u>submitted</u> on 23 August to the Grid Owner's consultation on its Cook Strait HVDC Submarine Cable Replacement and Enhancement initiative, highlighting: the impact instantaneous reserve availability and price can have on HVDC transfers, the increased need for over-frequency reserves an increase in bi-pole capacity is likely to require, and noting impacts on the AUFLS scheme a larger potential ECE risk will bring will need to be assessed.

<u>FlexForum:</u> The AGM on 22 August confirmed the appointment of our Head of Market Services to the steering group.

<u>Electrical Industry Space Weather Working Group (EISWWG)</u>: We have commenced planning for a workshop on 10 October 2024 to run through an extreme solar storm scenario with the working group to test our industry response plan and highlight areas for refinement.

<u>Powerco controllable load indications:</u> We continued to work collaboratively with Powerco to gain real-time indications of their available controllable load via ICCP into our control rooms. This will include building the ability to send an alarm to Powerco's control room should we need them to remove controllable load to maintain security. A similar alarm could be used to signal when controllable load can be restored, speeding up the restoration process. Based on the learnings from

this collaborative work, we will look to identify and work with other distributors with ICCP capability to implement real-time indications.

<u>AraAke winter peak initiative</u>: Good progress was made on the AraAke winter peak initiative, with several flexibility providers signing up over August, including SolarZero, Rewiring Aoterora, Blackcurrent, Openloop and Counties Energy DSO. Transpower, as the grid owner using its FlexPoint tool, has setup screens in our system operator control rooms to provide coordinators with visibility of the response to expect from flexibility providers in tight market conditions. The grid owner, has now been granted WITS trader access by NZX, for the discreet purpose of also providing participants with visibility in forward schedules using difference bids functionality. AraAke has promoted the initiative via LinkedIn.

Electricity Risk Curves (ERCs)

System Security Forecast (SSF)

We are working on the second report for the SSF this year, on transient rotor angle stability, which is due to be published in the next quarter.

Connecting with the industry

<u>System Operator Industry Forums:</u> In August we began holding our SO industry forums weekly while continue to monitor emerging security of supply risk for 2024. We held forums on 13, 20 and 27 August. Recent slide packs and recordings for forums within the last month are available on our website: <u>System operator industry forum | Transpower.</u>

<u>Evolving market resource co-ordination consultation</u>: During August we received three more submissions on our <u>consultation paper</u> seeking industry feedback on resource co-ordination challenges we see arising now and in the future. There are now fifteen submissions available on our website: <u>Evolving market resource co-ordination (Closed) | Transpower.</u> We are developing a summary and response to the submissions we received.

Weekly Market Movements:

- 4 August: The insight took a look into the reversing HVDC trends
- <u>11 August</u>: The insight covered current low level of controlled hydro storage, comparing it to other dry years with prolonged low inflows to hydro lakes
- <u>18 August</u>: The insight discussed the consultation paper released on 9 August to adjust the alert contingent storage release boundary.
- <u>25 August</u>: The insight looked at the generation from the Waitaki hydro scheme



Supporting the Authority

System Operator Rolling Outage Plan (SOROP) review: The Authority Board has approved our SOROP proposal with a start date of 1 September. We are now working to implement it in our systems and processes. We have contacted all distributors, and direct connects required to have a one, for a date by when their PROP will be updated, which is required activity following the publication of the new SOROP. We are also working to develop a system and process to quickly provide regular inputs to EnergyLink to run their rolling outage model and take the outputs of that model and publish them to our website. We have also sought help from Powerco around developing templates for exchange of GXP demand forecast information.

<u>Part 8 Common Quality consultation</u>: A joint system operator and grid owner <u>submission</u> to the Authority's consultation on frequency management, voltage management, and harmonics management was submitted on 20 August. Key submission points were to lower the threshold at which frequency and fault-ride through obligations apply to generators, and to extend voltage obligations and the ability to manage power factor at the GXP.

<u>Security and Reliability Council:</u> We presented the 2024 annual Security of Supply Assessment (SOSA) to the SRC meeting on 21 August, receiving good feedback from the council.

<u>Instantaneous reserve (IR) cost allocation consultation:</u> A joint system operator and grid owner <u>submission</u> to the Authority's consultation on the allocation of IR costs was submitted on 23 August. Our submission agreed with the proposal and suggested drafting improvements to better deliver the intent of the proposal.

<u>Scarcity pricing values</u>: We provided high level indications of cost to implement updated scarcity pricing values to the Authority.

<u>Automatic Under-Frequency Load Shedding (AUFLS) 2023 assessment</u>: We met with the Authority to confirm this year's AUFLS compliance assessment scope and provide clarification on our data processing, analysis and approach and assumptions used to date, along with the challenges and issues with data submission. For future assessments the Authority will assist us by notifying North Island Connected Asset Owners prior to submission due date.

<u>Annual Self-Review:</u> the system operator's annual self-review, covering the year to 30 June, was delivered to the Authority on 30 August. This is a Code and SOSPA deliverable which feeds into the Authority's annual review of Transpower's performance as the system operator. This year's self-review highlighted the difficult operating conditions faced along with the significant increase in workload driven by the volume of generation commissioning activities.

<u>Intermittent Generation forecasting:</u> We contacted intermittent wind generators requesting they review their submitted Forecast of Generation Potential (FOGP) to ensure these are aligned with the Code requirements and the recent <u>Authority guidance note</u>. One intermittent generator has indicated a potential bug in its system and will self-breach.

Media interactions

With the escalating security of supply situation, including our contingent storage boundary consultation, media enquiries related to the system operator increased during August:



Date	Outlet/type of engagement	Details	Coverage
7 August	RNZ Morning Report	Request for live interview on low lake levels and high prices. John Clarke was prepared but RNZ cancelled.	Interview cancelled
8 August	TVNZ	Request for interview on high wholesale prices. Explained our role providing information to industry about system conditions but that we don't have a role in setting prices. Reporter decided to interview other parties.	Report
8 August	Politik	Looking for statement on low lake levels and high prices. Factual information provided, including providing our Market Operations Weekly Report.	Report
9 August	Newstalk ZB Drive	Request for interview on consultation on contingent storage, statement provided.	
9 August	Energy News	Statement provided on consultation on contingent storage	<u>Report</u>
9 August	NBR	Statement provided on consultation on contingent storage.	<u>Report</u>
9 August	Stuff	Proactive approach to correct mistakes and alarmist tone in coverage of contingent storage consultation. Statement provided.	Original report
13 August	RNZ Morning Report	Wanted interview on Methanex deal. Explained our role and suggested they interview Contact, Genesis and Methanex instead.	
13 August	Otago Daily Times	Statement provided on low lake levels and contingent storage consultation.	Report

Date	Outlet/type of engagement	Details	Coverage
14 August	Otago Daily Times	Statement provided in response to questions about whether an Official Conservation Campaign should be started now. Response set out the process to be followed.	<u>Report</u>
15 August	Stuff	Statement provided in response to questions about whether security of supply risk is being moved into 2025.	
19 August	Otago Daily Times	Proactive approach after report on calls from some stakeholders to begin energy consultation now indicates that no OCC is planned. Referred to earlier statement regarding process for OCC. Reporter apologised and said he will provide details in follow up story.	Initial report Follow-up report
20 August	NZ Herald	Statement provided on lake levels and contingent storage consultation	<u>Report</u>
22 August	Media release on contingent storage final decision	Multiple outlets reported the story. The only live interview was on RNZ Nine To Noon.	RNZ interview RNZ Report ODT 1 News Business Desk The Post NZ Herald Energy News

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

<u>Ancillary Services Cost Allocation System (ASCAS):</u> The project kick-off meeting took place on 14 August as planned. Regular planning and review meetings have been established and Sprint 0 is currently in progress. Deliverables including detailed design, UI wireframes and development environment setup and planned for completion by the end of September.

<u>Preparation of regional EMT (Electro-magnetic transient) models</u>: We have completed building the EMT network models for the New Zealand power system. In total, we have built seven network models to represent different grid zones. We are reviewing the network models and user guides and will publish these once we have completed the review. These models are enabler for asset owner connection studies.

<u>D&A Modernisation – Market System Data</u>: Connectivity between standby MDB and test cloud data platform established. Data ingestion will now occur staggered by subject area. Build for data products and models is in progress.

<u>SCADA Habitat and EMP Refresh</u>: Work on detailed design and build for development/test environments is in progress, as is base product assessment of new features and components. GE technical phase has commenced under the statement of work. Test planning has commenced.

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 - Extended Reserves – Automatic Under- Frequency Load Shedding (AUFLS) project	In flight	79.5
TAS 112 - Future Security and Resilience (FSR) Programme	In flight	94.0

Progress:

<u>TAS 112 - Future Security and Resilience (FSR) Programme:</u> During August, the team continued to support the Authority on; (1) providing responses to queries raised during the options consultation for issues 1-5; (2) reviewing the consultation submissions after the consultation completed on 20 August; and (3) developing the options paper for issue 6, and Code amendment consultation paper for both issues 6 and 7. These papers will be published for consultation in mid-October. In addition,



we completed the system inertia minimum threshold study, and drafted the report, which is being reviewed internally.

TAS 108 - Extended Reserves – Automatic Under-Frequency Load Shedding (AUFLS) project: In August, we received change requests from four North Island AUFLS providers for the September transition period and future months, and reviewed changes for an additional two AUFLS providers which had been submitted previously. The studies undertaken during August for the September period showed no security issues and the change requests for September 2024 were approved. During August, we identified one non-adherence. The non-adherence was reported to the Authority for further consideration.

8 Risk & Assurance

Risk Management

During August, we prepared for an internal SLT session on risk management which we held in early September. We have begun preparing for our next control self-assessment, covering half of our controls.

Business assurance audits

External Auditor interviews for Audit 53: Manage Security constraints are complete. We will be scoping the audits for Commissioning and Manage a National Scada EMS failure to maintain momentum on the 24/25 audit programme.

9 Compliance

We reported one system operator self-breach in this reporting period. We also advised the Authority of one potential compliance matter observed relating to a participant's offers, and one instance of AUFLS non-adherence (refer to TAS108 update in section 7,

The Compliance activity for this period is set out in the table below:

Event number	Event date	Event Description	Update	Date sent to EA
4275	11/04/22	VSAT node breaker modelling for TWI - Southland voltage stability constraint impact	Currently going through the Rulings Panel process.	Ongoing
		On 5 June 2024 the Authority filed a notice of formal complaint with the Rulings Panel in respect of Transpower in its role as system operator.		
		The complaint alleges Transpower, as a result of errors in the system		

Event number	Event date	Event Description	Update	Date sent to EA
		operator's voltage stability assessment tool (VSAT), failed to correctly apply security constraints between 28 January 2022 and 13 April 2022.		
4380	04/05/23	RTD Topology error after planned market system outage	SO has now responded to the Authority's fact finding – request for further information (EA ref 2313NZSO1)	3/09/24
4430	10/02/24	Non-Response Schedules (long) failed to publish On 10 February 2024, the automatic 00:00 and 10:00 long non-response (NRSL) schedules failed to publish. Operators manually started new NRSL schedules at 01:16 and 11:28 respectively. Both schedules were completed and published successfully by 01:40 and 11:52 respectively. This event is a breach as a schedule started in a trading period was not completed by the end of the following trading period.	Following investigation, corrective actions and reassessment, SO filed a self-notified breach.	6/09/24

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	Corporate Counsel, Compliance and Impartiality	

	documents the actions necessary to ensure impartiality in these circumstances; these items will be monitored to ensure their continue effectiveness.	
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 SO Compliance & Impartiality Manager to ensure their continued effectiveness.	Corporate Counsel, Compliance and Impartiality

<u>AraAke Trial:</u> The System Operator and Grid Owner are collaborating on the FlexPoint platform. As the only impact of this collaboration to date is increased visibility of information in system operator control rooms and to external parties – there are currently no actual or potential conflicts of interest identified. There is nothing in or resulting from the trial that is of benefit to the Grid Owner over and above other participants. 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 2023/24 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 emerging 2024 security of supply situation and the SOSPA3 process has constrained our capacity to progress our work on these activities to planned timelines.

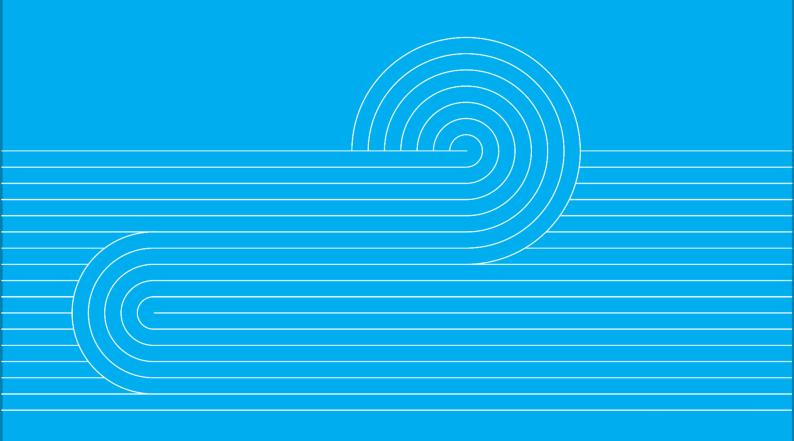


Item of interest	Actions taken
(i) To give effect to the System Operator business plan strategic initiatives:	Support future-focused market developments through white papers, consultation processes and cross-industry forums Submitted to the Authority's Instantaneous reserve (IR) cost allocation consultation Submitted to the Authority's Part 8 options consultation FlexForum: nomination to Steering Group confirmed Progressed work with the EISWWG Develop a view of the information, market and standards required to operate the future electricity system to support the FSR work program Work continues to support the Authority's FSR programme Enhance quality assurance through delivery of the Modelling Quality Assurance Framework Gap analysis and benchmarking exercises have begun Implement stage 1 of new enterprise business process management (BPM) capability for system operations Tool operationalisation has begun. Leverage data and analytics developments to improve our data modelling and reporting Supported Data & Analytics foundational investment to transfer market system data to new data warehouse. Data ingestion set up is complete and data load has commenced. Deliver improvements to our generator commissioning management and assessment process We are now deploying our internal workflow for commissioning management and are reviewing our suite of commissioning documents.
(ii) To comply with the statutory objective work plan:	 Policy statement review (review due 1 November 2024) Preparing to request Authority consent to consult during September. AS procurement plan review (review due 8 June 2025) Internal review process has commenced Identify low residual / informational CANs (due 28 March 2025) Planned for Q1 System Performance Report Low residual notices, threshold and process review (due April 2025) Planned to commence following completion of Watch status activity
(iii) In response to participant	Feedback from the 2023-24 survey "We do have an opportunity to coordinate public facing messages still - want to ensure we get



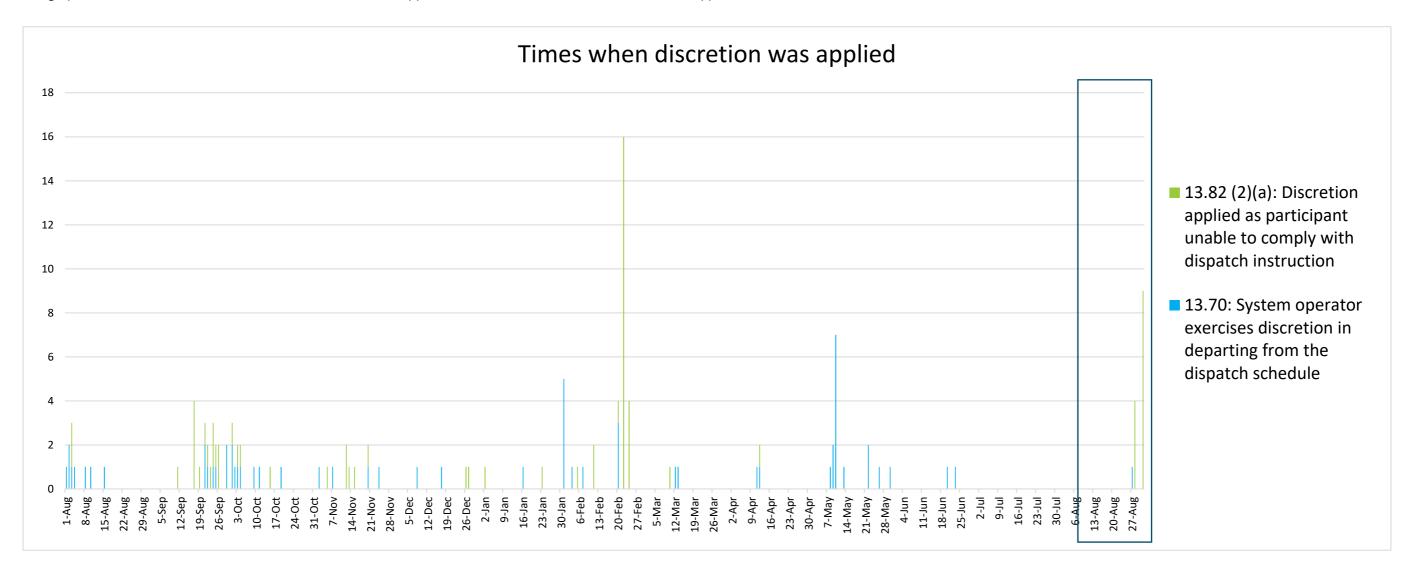
Item of interest	Actions taken
responses to any participant survey:	consistency across the industry and only call on the public when absolutely necessary" We continue to consider where coordinating messages with the industry can better support consistent communications to consumers, including focussing on key messages in our security of supply communications. We also maintain close working relationships with communications professionals from across industry, including ENA and ERANZ.
(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

The graph below shows a recent trend of instances of discretion application. The individual instances of discretion application this month are summarised further below.



System operator applied discretion under cl 13.70 in 14 instances:

- 27 August: 1 instance at Manapouri (MAN) to allow for an extended potline outage due to low residual generation
- 28 August: 4 instances in response to a 13.82(2)(a) rule claim by the trader at Nga Awa Purua (NAP)
- 31 August: 9 instances in response to a 13.82(2)9a) rule claim be the trader at Nga Awa Purua (NAP) 2 instances, Ohaaki (OKI) 1 instance, Tauhara (TAB) 1 instances, Te Mihi, (THI) 2 instances, Poihipi (PPI) 1 instance, Wairakei (WRK) 1 instance, Huntly (HLY) 1 instances