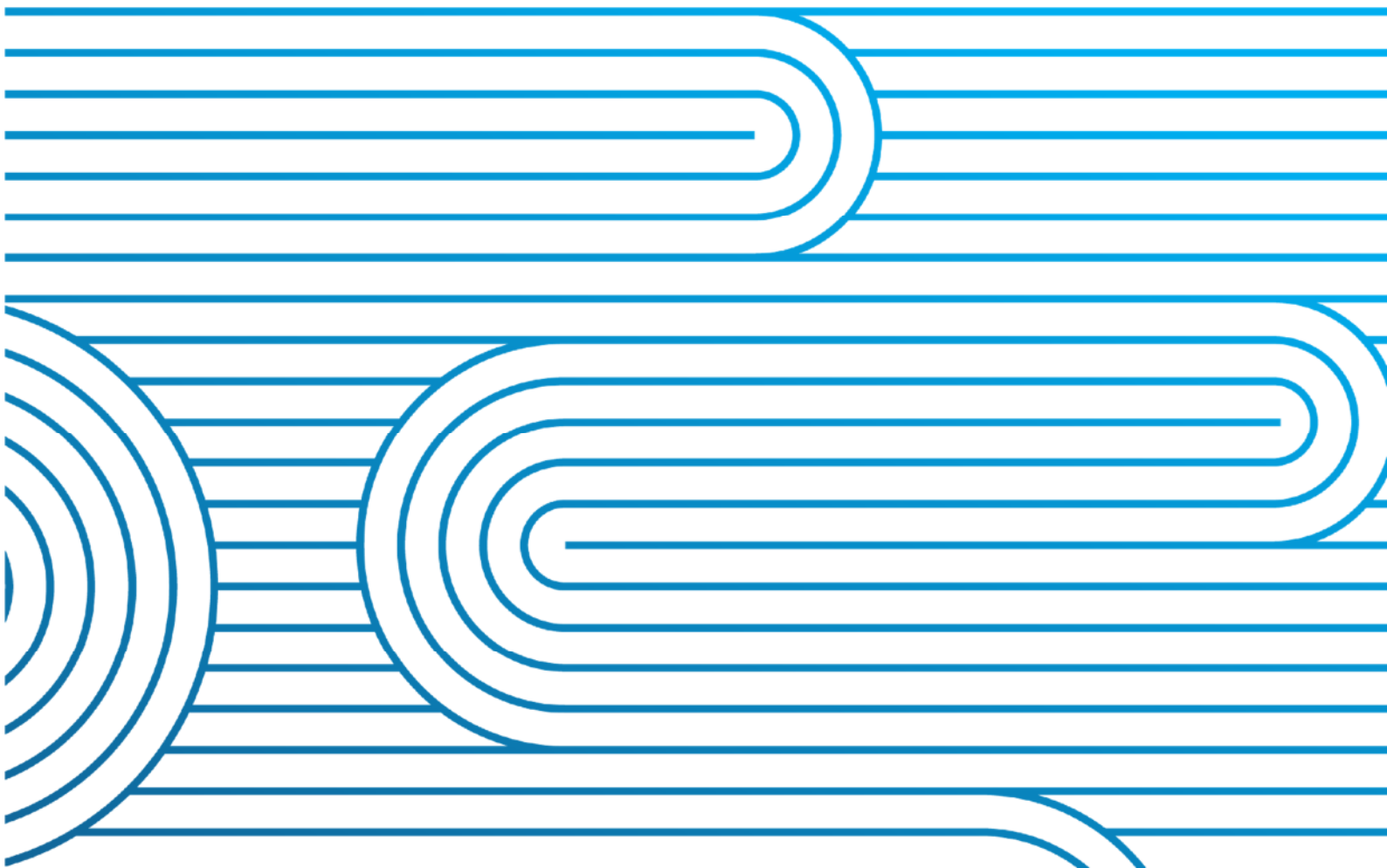


# Monthly System Operator report

for the Electricity Authority

August 2023



## Report Purpose

This report is Transpower's review of its performance as system operator for August 2023, in accordance with clause 3.14 of the Electricity Industry Participation Code 2010 (the Code).

### Changes to the monthly report content

From April 2023 the monthly report will focus on the activity and performance of the system operator, as agreed with the Authority. System performance data which was previously included in this report will be presented through other channels where relevant, such as the system operator industry forum.

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## 1 Key points this month

- John Clarke is now acting as GM Operations until a permanent appointment is made following Steve Jay's move to a new role outside Transpower on 24 August.
- We submitted our annual self-review to the Authority.
- A refresh of the Joint Development Programme (JDP) was agreed with the Authority, which provides a view of shared change programmes from 2023-28.
- A Low Residual Situation CAN was issued for the morning peak of 11<sup>th</sup> August. An industry conference was held. Lower than expected demand and higher actual wind generation resulted in no actions being taken on the day.
- As of 7 August, potential shortfalls exist in September and October in our base N-1-G scenario. The most significant outages during this period are the ongoing unplanned Huntly 5 outage, two Manapouri unit outages, an unplanned Stratford unit outage and the planned late September HVDC outage.
- We continue to work with several stakeholders on their generation commissioning plans.
- We held our annual real-time teams' forums in two sessions. Enabling most of both our system operation and grid owner real-time shift workers to meet in person and share key messages, given the important interaction at the real time operational interface between these two teams.

## 2 Customers and other relationships

We have taken part, and presented at a number of New Zealand and international events:

- IEEE: we hosted an event at which Dr. Lin (Powertech Labs Inc., Canada) covered current practice, challenges, and trends for dynamic security assessments of power systems.
- Taranaki Energy Forum: we presented on the challenges of security of supply, and talked through changes to reporting, monitoring and management of security of supply.
- ENA Future Networks Forum: We led workshops on SO/EDB interfaces and Hot Water Cylinder load control.

We received responses from stakeholders on our international comparison of energy and capacity adequacy measurements and policies which we published as a market insight on 11 July.

We issued a Low Residual Situation CAN on 10<sup>th</sup> August for the morning peak of 11<sup>th</sup> August, after increasing the load forecast based on expected lower temperatures across the country. An industry conference was held on the afternoon of the 10<sup>th</sup>,

drawing attention to the CAN, outlining the drivers for issuing the CAN, and reminding industry of the process that would be followed should a shortfall eventuate. <sup>1</sup>

We have been actively supporting several participants to improve their offers into the market system. Including support around how to best integrate weather forecasts to produce intermittent generation offers.

We continue to work with MetService who provide us with daily 15-minute briefings to assist with close monitoring of weather risks - particularly wind generation and temperature uncertainty – in order to help us manage winter peaks.

### 3 Risk & Assurance

#### Risk Management Framework

We are preparing to undertake our next control self-assessment round which will cover the controls in the following areas: 24-hour real-time operations, business support, incident preparedness and response. Power systems planning and support and delivery of critical tools.

#### Business assurance audits

We have begun work on the 2023/24 Audit Plan. The first audit, the system operator gatekeeper process, is in draft for our review and we are looking to scope the second audit of the year.

### 4 Compliance

We did not report any system operator self-breaches in August.

### 5 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.

During the transition period between Stephen Jay’s departure as GM Operations (24<sup>th</sup> August) and the appointment of a new GM Operations, John Clarke is acting as GM Operations. To maintain System Operator impartiality, John has relinquished his role as GM Grid Development for the period that he is acting as GM Operations. Chantelle Bramley will act as GM Grid Development during this period. We have noted this arrangement in the System Operator Conflict of Interest Register.

System Operator Open Conflict of Interest Issues		
ID	Title	Managed by
40	<b>General System Operator/Grid Owner dual roles:</b> 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.	SO Compliance & Impartiality Manager

<sup>1</sup> Actual demand on the morning of 11<sup>th</sup> August was lower than the increased forecast, and along with slightly greater wind generation resulted in sufficient generation being available to maintain our residual.

System Operator Open Conflict of Interest Issues		
ID	Title	Managed by
41	<b>General relationship situation:</b> 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.	SO Compliance & Impartiality Manager

## 6 Project updates and other initiatives

### 6.1 Market design and service enhancement project updates

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

#### Future Security and Resilience (FSR) Programme

The second FSR Common Quality Technical Group (CQTG) meeting was held on 10 August 2023. A short list of prioritised options to address the seven issues highlighted in the Authority’s Future Security and Resilience – Review of common quality requirements in Part 8 of the Code issues paper, was confirmed at this meeting. In addition, several CQTG members agreed they will provide distribution network models to the System Operator to enable us to conduct the system studies. In the meantime, the System Operator has progressed study preparations and continued collaborating with the Authority to complete a draft scope document for the studies. The draft scope document was submitted to the CQTG sub-group for feedback, after which it will be submitted to the wider CQTG members for final agreement.

#### Extended Reserves – Automatic Under-Frequency Load Shedding (AUFLS) Project

AUFLS assessment report 2022: A draft report is being prepared for internal review. The system security modelling is being performed, based on the real-time cases and load data from AUFLS providers for 2022.

AUFLS Transition: We have progressed detailing the AUFLS transition process under the new TAS (TAS107) to enable the transition to run as effectively as possible. A risk assessment will be completed next to determine any contingency plans that need to be put in place. In addition, as System Operator we are conducting further work optimising the tools in preparation for the transition to commence in January 2024.

### 6.2 Other projects and initiatives

#### Joint development Programme

This month we agreed a refresh of the Joint Development Programme with the Authority, which provides a view of shared change programmes from 2023-28. The updated plan is available on our website.

### **Operational Excellence**

Operational Excellence is a programme of ongoing tasks to lift and improve our system operator control room capability. This month we held a real time forum between our system operations coordinators and grid owner controllers. Both teams are highly dependent on each other in the overall operation and dispatch of the power system and related control of grid assets. Process improvements delivered by the programme were highlighted and reinforced, and open discussion encouraged with all but 20% of those involved in either role able to participate across the two sessions.

Other initiatives completed included an audit of the dispatch training simulator to identify important gaps that have emerged between the testing, training, and simulation environment (TTSE) and the real time production environment. As a result, a number of immediate issues are being worked through by the Technical Training team. Further enhancements will be considered for ongoing prioritisation.

## **7 Technical advisory hours and services**

Technical advisory hours and a summary of all technical advisory services (TAS) to which those hours related (SOSPA 12.3 (d) refers) will be provided in the next quarterly report.

## **8 Outage planning and coordination**

### **Outage planning – near real time**

Planned outages requested by the grid owner and other market participants are increasing as we come out of the winter period. For many weeks in the remainder of the year scheduled to have over 150 outages per week.

We communicated the security and generation margin impacts of the HVDC outage scheduled for the end of September to the grid owner.

### **New Zealand Generation Balance (NZGB) analysis**

As of 7 August, potential shortfalls exist in September and October in our base N-1-G scenario. The most significant outages during this period are the ongoing unplanned Huntly 5 outage, two Manapouri unit outages, an unplanned Stratford unit outage and the late September HVDC outage.

The main risk we are looking at is further planned and unplanned generation outages that can push the margins even lower. We continue to bring awareness of this during our regular SO industry forums.

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## 9 Power systems investigations and reporting

### Significant incident investigations

No new significant events were identified in August.

### Commissioning

We are working on two wind, one solar and one geothermal upcoming generator commissioning plans with stakeholders, in addition to the commissioning of a grid-scale battery behind a GXP.

We have also engaged with a stakeholder for a proposed battery currently planned for Autumn 2024.

## 10 Performance metrics 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 quarterly report.

We completed and submitted our annual self-review to the Authority before the due date of 30 August. The self-review covered the period 1 July 2022 – 30 June 2023. The annual self-review continues to be refined to best meet the needs of readers.

## 11 Cost-of-services reporting

The cost of services reporting for 2022/23 will be delivered to the Authority by the end of the financial year.

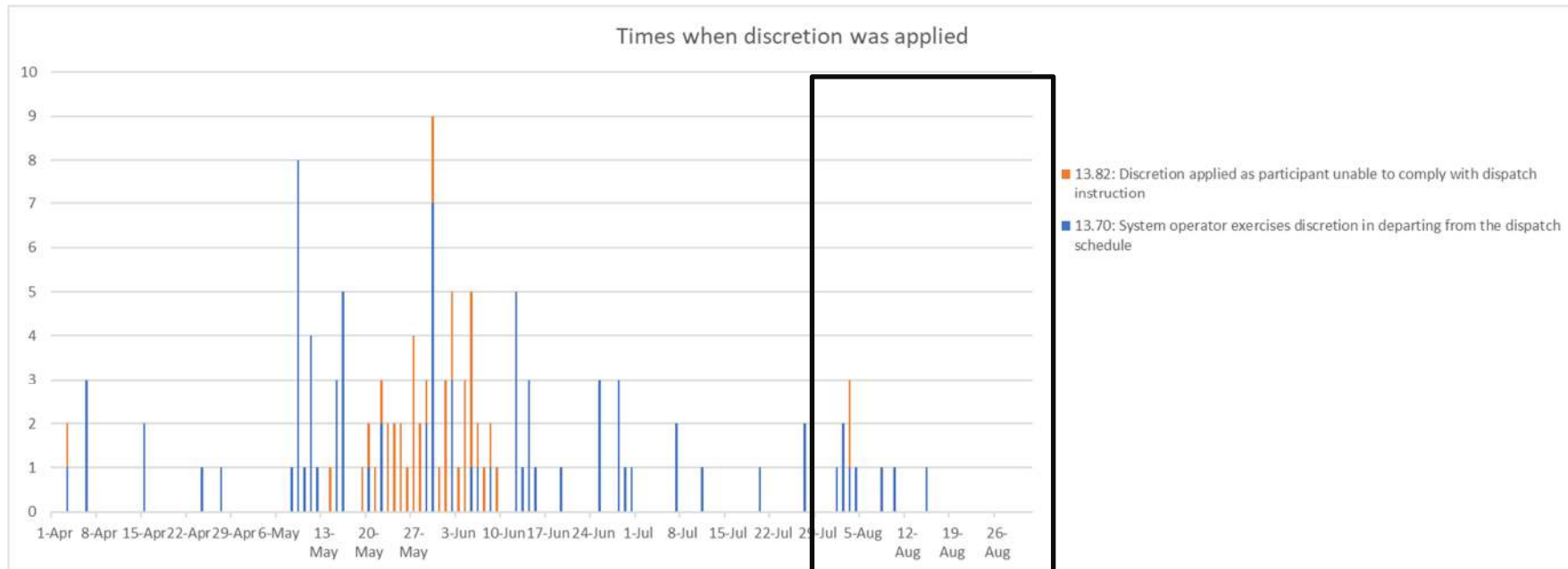
## 12 Actions taken

A full list of actions taken regarding the system operator business plan, statutory objective work plan, participant survey responses and any remedial plan, as required by SOSPA 12.3 (b) will be provided in the next quarterly report.



## Appendix A: Discretion

The graph below shows a recent trend of all instances of discretion application with a summary beneath of some of the individual instances of application this month.



### 10 instances

2-Aug: SFD2201 SFD21 and WHI2201 WHI0 required for security due to low residual

3-Aug: WHI2201 WHI0 required for security due to low residual

4-Aug: SFD2201 SFD22 required for security due to low residual

1, 3, 8, 10, and 15 Aug: For extended potline reductions and restorations