

14 October 2024

Anna Kominik  
Electricity Authority Chair  
Electricity Authority  
PO Box 10041  
Wellington 6143

Dear Anna,

## Advice resulting from the 21 August 2024 meeting of the Security and Reliability Council

The Security and Reliability Council (SRC) is tasked with providing the Electricity Authority Te Mana Hiko (Authority) with independent advice on the performance of the electricity system and the system operator, and reliability of supply issues.

### At the August SRC meeting

The focus of the August SRC meeting was the SRC's annual risk and strategy session. The aim for the session was to identify and prioritise key areas to include in its forward work programme.

In addition to the risk and strategy theme, the SRC received presentations from:

- The Authority's legal team on the Northland outage investigation
- The Authority's compliance team on the AUFLS transition
- The project team leading the Authority's SOSPA review and reset
- Transpower, as system operator, on the annual Security of Supply Assessment (SOSA)

This letter is the SRC's advice arising from the meeting.

### Annual engagement with the Authority Board

Members appreciated the opportunity to meet with the Authority Board the night before our August meeting. Thank you for hosting the event and taking the time to candidly discuss with us the Authority's priorities and how the SRC can best contribute to ensure the sector delivers for all New Zealanders.

### Northland outage investigation

The SRC acknowledged the investigation update from the Authority's legal, monitoring and compliance team. The framework for the review and the approach being taken appear comprehensive.

The SRC notes the contingency plans in place and used to manage the event. Of interest to the SRC is what change may result from the investigation and its findings; is there a way to manage that risk differently to reduce impacts to security and reliability?

Feedback for the Authority is the need for the SRC to spend its time on core matters related to security of supply, with discretion to include additional items, as suggested by Authority staff and others. The Northland investigation is well in hand and the SRC's ability to input is limited, especially given our advice is published. In that context the presentation could have been included in the meeting pack, without a separate presentation or agenda item.

## Risk and strategy

The SRC holds an annual risk and strategy session. For this year's session, the SRC's approach was to focus on working to review our priorities and how advice is delivered, while considering the Authority's priorities and work programme.

As a key independent advisor to the Authority, it is important for SRC members to understand the Authority's functions and be able to give candid feedback on issues within the SRC's scope. The SRC received presentations from senior Authority staff on the Authority's vision and security of supply work programme.

As an output from the risk and strategy session, members identified the following, as priority areas for the upcoming year, in no particular order:

- a) Contingent storage management and access
- b) Barriers to use of ripple control and smart metering to support security of supply
- c) Regional resilience
- d) Security Standards Assumption Document (SSAD) review
- e) Gas information transparency
- f) Cascade events
- g) Demand side response

We have refined our strategic aims, as set out in our themes framework and will continue to use a risk radar approach to setting priorities and informing our forward work programme.

Specific points of feedback for the Authority are:

- To acknowledge the Authority's increased focus on reliability through incentivising energy storage and generation firming
- the need for increased Authority communication and education to support broad understanding of how the sector operates and the mechanisms available to support security of supply

An example of where the Authority's voice for the sector is needed is the tree regulations review. The SRC believes the Authority needs to highlight the importance of speed in

updating the regulations, the impact of trees outside of current management zone and the difference between forestry and cosmetic management requirements

The SRC considered its purpose and approach to its work, as an independent advisor to the Authority. Members appreciate understanding the Authority's work programme and having the opportunity to provide advice on it, while not being led by it. One option members discussed was whether an independent secretariat may further enhance perceptions of the SRC's independence. Further discussion is needed on the viability and implications of such a change.

With the pace of change across the sector, members agreed there may be occasions where input from the SRC on certain issues may be needed between meetings in order to provide timely advice. We are open to new approaches, as an opportunity to ensure we provide timely and actionable advice. If there are specific issues or topics the Authority would like the SRC to consider, they can raise these through the secretariat.

We also discussed at the August meeting, how we can better keep track of our advice and recommendations for the Authority and the Authority's response. We are therefore trialling a new approach of including with our letter of advice, a list of recommendations. Recommendations arising from the August meeting are appended to this letter.

### **Automatic Under-frequency Load Shedding (AUFLS) transition to new scheme**

As requested by the Authority's Compliance Committee, the SRC received an update from the Authority's compliance team on progress with the transition to the four-block AUFLS scheme to support increased security of supply.

When the Authority decided to reset the transition project in 2019 the SRC indicated its support for the work. The update indicates the work is progressing well and the anticipated benefits of increased flexibility to manage future changes in the electricity supply mix will occur.

It was positive to hear the system operator's assessments for 2021 and 2022 were that the system was secure at all times, despite individual non-compliance. We trust the Authority will take the appropriate steps to address material non-compliance, as part of the ongoing compliance work and look forward to updates from the secretariat on the 2023 AUFLS assessment due from the system operator next month.

### **System Operator Service Provider Agreement (SOSPA) review and reset**

The SRC appreciated the Authority's presentation on the SOSPA review and reset. The purpose of the presentation was to inform the SRC of the objectives of the work and give an opportunity for the SRC to raise any potential security and reliability concerns.

In our previous letter of advice, the SRC recommended including provision for an external independent review, as part of the SOSPA reset, believing such a review may give more information to the Authority, and the system operator may benefit from going through a comprehensive independent review process.

The presentation gave an overview of the nine objectives for the reset, which appear to give good coverage and provide a range of measures to track. The objectives could form terms of reference for an independent review.

The SRC supports the potential change to a contractual term of three years for future SOSPA but urges caution as to the impacts a shorter term could have on existing systems and processes.

The SRC would be open to deeper dives on certain aspects of the work, where appropriate, to support the work.

## Security of Supply Assessment (SOSA)

The SRC received the annual SOSA presentation and acknowledges the work that underpins this key reporting from the system operator.

The SRC is extremely concerned the required thermal generation sources will not be available in the right quantities for the report horizon. There is also concern things are worse than may appear, given the reference (base) case includes continued generation from thermal units that are slated for retirement (eg, Taranaki Combined Cycle), generation from new thermal plants that are not being actively progressed by developers, and demand is in the middle of the spectrum when demand is actually increasing. We are concerned the reference case is likely to give readers undue confidence and we believe a clearer sense of the balance of risk facing the sector is needed.

Members also raised concerns about how some generation sources, for example solar, are accounted for in the SOSA and Security Standards Assumption Document (SSAD). It is disappointing the system operator has had to add in multiple scenarios to support the report's accuracy, strongly indicating the SSAD review is long overdue.

We have included a deeper dive into the SSAD in our Q4 (October) agenda to better understand the underpinning assumptions and how various elements are treated. The aim is to inform the Authority of areas it may wish to focus on, as part of a wider Authority review of SSAD in 2025.

Other concerns about the system operator's 2024 SOSA included:

- There is granularity of generation information but demand growth, especially its timing, needs to be better understood. This is particularly important as South Island demand increases due to the electrification of drying processes in the dairy industry
- System operator to consider what analysis would help quantify the cost to country of falling below the margins across a range of scenarios
- The Authority should form a view of the necessary policy setting changes needed to increase confidence in investment for the long term
- There's an opportunity to use the current supply/demand situation to reset expectations and drive investment. The Authority's peak capacity work should support this

We encourage the Authority to lead action to address these issues and work with the system operator to incorporate learnings into consideration for future editions of the SOSA and the system operator's annual review.

### The SRC's next meeting

The SRC's Q4 (October) meeting agenda includes:

- a. Energy and capacity for winter 2025 (including initiatives and how they're working)
- b. A deeper look into the scope of the review of the Security Standards Assumptions Document (SSAD)
- c. Feedback on the system operator's self-review of performance (July 2023-June 2024)

The SRC welcomes feedback from the Authority about its forward work programme and looks forward to ongoing engagement with the Authority Board.

Yours sincerely,

A handwritten signature in dark ink, appearing to read 'H Roy', is positioned above the printed name of the signatory.

Hon Heather Roy  
**Chair of the SRC**

cc: SRC members, Chris Otton and James Blake-Palmer (Authority)

## **For discussion at 24 October 2024 SRC Meeting**

### **Email received from Chris Evers, SRC Member**

Kia ora Heather

I'd be keen to have a chat with the SRC about how I see the security of the power system in the near term as it relates to energy security. This is particularly for winter 2025 and winter 2026, given what we have seen this year with the degradation of gas supplies to power thermal generation.

Looking forward, there is no certainty that gas supplies for power-gen will be greater than they have been this year. If none of the drilling planned for the summer yields any results, then the gradual decline of the fields will continue. Gas industry demand response going forward is also unclear. Coal generation remains limited to the available Rankine units and the ability to import coal – something that appeared constrained this year. With the NZAS option 3 and option 4 DR also not available next year (as per the contract), the power system is in a tighter situation going forward than it was this winter.

There is one option that is available to help shore up storage and that is the contingent storage available in Lakes' Pukaki, Tekapo and Hawea. This year, it became more widely visible that the access to contingent storage (which is based on trigger levels from the SO's ERC process) was restricted due to other operational and consent restrictions (e.g. low operating range limitations in Lakes' Te Anau and Manapouri and a summer resource consent on Lake Tekapo) which meant that the trigger level to reach contingent storage could not be met. The SO did agree and lifted the buffer level on their trigger level to account for these restrictions on a temporary basis for a couple months. Unfortunately, this came a little late – at the same time the rains came and also after some large transactions had taken place (e.g. Methanex gas redirection to power-gen).

Going forward, as an industry, we need to give certainty to the industry that the contingent storage is indeed an option to help manage the security of the system should we need it. This is 545 GWh of additional storage in Lake Pukaki alone – about the same as the NZAS DR Option 4. There is another 280 GWh approx. in Lakes' Tekapo and Hawea. This can be achieved by making those changes to the contingent storage triggers permanent. This could also be encouraged through the SOSFIP review. Transpower have signalled they will not make permanent the temporary adjustments they made this winter – this uncertainty does not help the industry plan and operate in the best manner. As an SRC member, I am requesting that we recommend changes to the contingent storage triggers to ensure that this contingent storage is made available on a permanent basis. It is easy to get in time for winter 2025 and 2026 and a lot cheaper than LNG.

I also recommend that we reiterate the need for disclosure on contracted gas levels for thermal generators. This was an issue this year as expectations of thermal generation volumes were higher than what we actually saw. There has been little movement on this issue over the last three years.

Happy to chat this through, but keen to make sure we really focus on the clear and present issues that face the security of the system in the near term.

Regards  
Chris

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