

MINUTES

Meeting number: 49

Venue: Rūnanga, Electricity Authority, Level 7, AON Centre, 1 Willis Street, Wellington

Time and date: 9.00am until 3.15pm, Thursday 24 October 2024

Members Present

- Hon Heather Roy (Chair)
- Ben Gerritsen
- Chris Ewers
- Nanette Moreau
- Karen Frew
- Allan Miller
- André Botha (via Teams)
- Rebecca Larking (via Teams)
- Paula Checketts (via Teams)

In attendance

Name	Title	Agenda item # attended
<u>Electricity Authority (Authority):</u>		
Sarah Gillies	Chief Executive	Items #4-#9, #10-14
Andrew Millar	GM, Policy	Items #4-#10, #12-#14
Chris Otton	Manager, Market Policy Operations	All items excluding #3
James Blake-Palmer	Senior Analyst, Policy (Secretariat)	All items excluding #3
Daniel Griffiths	Manager, Retail and Network Markets	#8
Natalie Bartos	Principal Analyst, Electricity Authority	#10
Emma Andrew	Analyst, Electricity Authority	#10
Peter Taylor	Commercial Manager	#11 non-agenda item that followed
Nicole Gagnon	Commercial Contract Manager	#11, non-agenda item that followed
	<u>Other:</u>	
James Tipping	GM Market Strategy/Regulation, Vector Limited	#8
John Hancock	Powerco	#8
Chantelle Bramley	Executive GM, Operations, Transpower	#11
Rebecca Osborne	Head of Market Services, Transpower	#11

The meeting opened at 8.30am, Andrew Millar, Chris Otton and James Blake-Palmer joined the meeting at 8.30am.

1. Attendance and apologies

- 1.1. The Chair welcomed members to the 49th meeting of the Security and Reliability Council (SRC). A quorum was established.
- 1.2. The Chair noted there were no apologies.
- 1.3. The Chair noted André Botha, Rebecca Larking and Paula Checketts attended remotely.

2. Changes to disclosure of interests

- 2.1. The Chair reviewed the interests register.
- 2.2. The secretariat noted a change to the Karen Frew's interests.
- 2.3. There were no further changes disclosed. The Chair approved members to act despite those declared interests.

Andrew Millar, James Blake-Palmer, and Chris Otton left the meeting at 9.05am.

3. Members-only session

- 3.1. The members discussed their priorities for the meeting.

Andrew Millar, Chris Otton and James Blake-Palmer joined the meeting at 9:25am.

4. Minutes of previous meeting

- 4.1. The minutes of the 21 August 2024 SRC meeting were discussed.
- 4.2. The minutes were accepted as a true and accurate record.

Ben Gerritsen moved. All members approved.

5. Correspondence

- 5.1. The Chair noted the SRC's letter of 14 October sent to the Authority.
- 5.2. There were no other comments from members.
- 5.3. Authority staff confirmed the response is in train.
- 5.4. The Chair noted the letter received from Chris Ewers and circulated to members the day before the meeting and asked Chris to speak to it.
- 5.5. Points noted include:
 - a) Concerns about the combinations of dry year risk, declining gas, the unavailability of tranches of Tiwai demand response next year and uncertainty about coal supplies for electricity generation
 - b) The availability of contingency storage, with a need to ensure there is certainty around settings and the trigger for its use, well in advance of next winter to avoid last-minutes decisions

6. Action list and updates

- 6.1. The Chair noted the ongoing and completed actions in the table, which were taken as read.

7. Risk radar (Agenda item #7)

- 7.1. The Chair led an around-the-table discussion on the risks impacting the sector over the short, medium and long term.
- 7.2. Members and those present noted and discussed the following risks:

- a) Will there be sufficient energy and capacity available in Winter 2025, particularly at peak demands periods? Consideration should be given to the degradation in the diversity of consumer peak load, in response to various retail offerings and new peaks emerging.
- b) Are we confident in the level of regulatory certainty moving towards 2025 regarding security of supply settings?
- c) Does the sector have the confidence the lights will stay on over winter 2025, with decisions made sufficiently in advance and what may be the cost to consumers?
- d) The taskforce's focus on eight initiatives, with different milestones, with the aim of having material for publication by February 2025
- e) The risk of knee-jerk responses to energy and capacity signals, where there are incentives to act quickly
- f) The need to incentivise conversations earlier, given the potential adverse impact on future years of knee-jerk responses
- g) The (positive) inclusion in the government's policy statement for electricity, of reliability of supply expectations
- h) Does the sector have the confidence for winter 2025, with decisions being made sufficiently in advance?
- i) The short-term risk of multiple contingencies occurring at once, for example gas supply constraints, dry-year, Huntly failure
- j) Resource access - to appropriate levels of gas and water for electricity generation enough in advance to avoid a scramble
- k) The need for outage plans to be consistent across the sector for necessary resilience
- l) Is there enough innovation and non-traditional thinking occurring?
- m) Are current workstreams to address energy and capacity the right ones?
- n) Is security of supply reporting delivering for the sector, for example Security of Supply Forecasting and Information Policy (SOSFIP) and Security Standards Assumptions Document (SSAD)
- o) Do we have enough energy (fuel) storage, given long lead times for new gas exploration and the focus on switching to renewable energy sources?
- p) The need to not lose sight of *capacity* issues as *energy* security issues increase
- q) The impact of deferred 2024 outages on 2025 capacity and energy security

Action 1: The secretariat to action member suggestions about the table layout and provide to members in advance of the next meeting for further discussion

James Tipping and John Hancock joined at 10.20am

8. (Agenda item #8) Opportunities for the use of controlled circuits for managing peaks

- 8.1. The Chair introduced this item, noting it arose from the SRC's risk radar discussion at the August meeting.
- 8.2. The presentations covered the experience Powerco had encouraging retailers to take control of discretionary load on their networks and suggestions from Vector about managing emergencies on transmission networks

Powerco

- 8.3. The Powerco presentation and related discussion noted:
 - a) New technologies provide an opportunity for more efficient use of controlled load at ICP level (individual installations) increasing the amount of demand response available
 - b) Removal of Regional Coincident Peak Demand (RCPD) charges has reduced the sector's use of controlled load to manage constraints at the GXP level, with more EDB's (distributors) offering controllable load into the instantaneous reserves market
 - c) Powerco, partly through its customised price-pathway (CPP) funding as approved by the Commerce Commission, has approximately 20-30% of controlled circuits controlled by retailers on their network and encourages others to do the same to address peaks on their networks
 - d) The technology for ripple control is fast and efficient with great coverage but applies to all dispatchable circuits. Conversely, Advanced Metering Infrastructure (AMI) enables different retailers to send different signals, for example switching off different sized cylinders for differing lengths of time
 - e) Ripple relay control is still used for street lighting and does not rely on third-party data networks but is still needed as there is not universal penetration of AMI across New Zealand and ICP control needs greater coordination
 - f) There is little administration cost to using controlled load for an emergency back-stop, as part of a distributor's regulated asset base
 - g) Powerco's approach was to enable retailers to take control of circuits (outside of local or grid emergencies), driven by incentives to, for example, keep the lights on and reduce consumer cost
 - h) Distributors are required to make difference bids during low residual situations (to show available levels of discretionary demand), so there is a need for them to retain a level of control or understanding about controlled load on their networks to ensure they meet their Code obligations
 - i) There may be a need to consider a hierarchy, to support distributors to engage in greater use of controlled load by third parties while still meeting their existing obligations

- j) The trial showed how efficiencies can be achieved and how some issues, eg creation of new secondary peaks, can be addressed through development of further protocols
- k) Thoughts on recent Authority initiatives (slide 6) how different resources participated in the 10 May generation scarcity event (slide 7) and financial and other benefits (slides 8-10)

Vector

8.4. The Vector presentation and related discussion noted:

- a) The need to realise the benefits and efficiencies fairly and equitably for all customers
- b) Vector's views on the market structure required to support greater use of controlled load to manage peaks
- c) The importance of the customer experience, the role of Metering Equipment Providers (MEPs) and understanding the value stack, in supporting how this work is coordinated
- d) Changes may be needed to the Default Distribution Agreement (DDA) to ensure there is a clear hierarchy between grid, market and network emergencies
- e) Changes may be needed to the Code to ensure common quality and acknowledge operating limits of networks
- f) The need for greater visibility of the low voltage network and non-retailer aggregators to ensure positive customer outcomes, including guidance about EV charging and careful orchestration when returning load

8.5. Questions and further points of discussion included:

- a) Whether the DDA precludes making changes – No
- b) Consistency and clarity are needed
- c) There is a level of sophistication not available to some retailers (incl. small, medium and large)
- d) It's a sales and marketing question and some MEPs are more interested than others
- e) Next steps are for Powerco to continue working on operational protocols, seeing the value for customers of this work and the time is right
- f) There is scope to heat hot water from excess solar generation during the day within small network areas to avoid network congestion in those networks

John Hancock and James Tipping left at 11.06am

Doug Watt joined at 11.07am

9. (Agenda item #9a) Winter 2025 outlook and regulatory response

- 9.1. The Chair introduced the item and Chris Otton ran through the Authority presentation.
- 9.2. The presentation and points of discussion noted:
- a) The updated Electricity Risk Curves (ERC's) as provided by the system operator and the reduced supply risk post-winter
 - b) The lack of rain drove up prices to conserve water, with system operator consultation on changes to the buffer levels
 - c) There was a confluence of events in spring, increasing system security - Tiwai demand response, availability of gas from Methanex, high inflow and wind generation, and increased snowpack (to above the 75th percentile)
 - d) The Authority is working with the system operator to improve thermal visibility in the ERCs, and ensure there are the right incentives on participants to act
 - e) System operator modelling shows capacity margins are susceptible to multiple coincident events
 - f) Supply side has increased by approximately 250MW, in addition to capacity from Manapouri and the Stratford peakers returning, Tauhara increasing generation post commissioning
 - g) Authority work to improve trust and confidence, including wholesale market settings around scarcity, outage coordination enhancements and the SOSPA review looking at how the system operator publishes security of supply information.
 - h) The Authority's power innovation pathway to increase understanding and availability of information from entities outside the industry and provide support for their ideas
 - i) Increased monitoring and engagement, including with MBIE, DPMC, the Commerce Commission and the GIC.
- 9.3. Members raised the following points:
- a) How can the Authority help support industry sooner, so decisions are made at the optimal time and feel less reactionary – the Authority can guide, share information and point out risks, with a response and contributions needed from across the sector to avoid the spectre of further intervention
 - b) Changes to buffers for contingent storage need to be made permanent (as a permitted activity under resource consents) so parties know it's available. However, care is needed to ensure future years are not negatively impacted and future year lake level operating requirements are met. Also, the buffer reflects operational uncertainty.
 - c) The contingent storage release buffer of 50GWh meant that access to contingent storage was not feasible this year. The contingent storage was unable to be used because the trigger levels were not reached, despite consumers paying for expensive thermal generation

at a time of energy shortage. Therefore, in the longer-term, a review of the trigger levels is recommended, and in the short-term (2025) considering a temporary option that would avoid a re-occurrence of the 2024 conundrum is recommended.

- d) Contingent hydro storage has potential environmental flow-on effects, so triggers for longer term use need careful consideration.

10. (Agenda item #9b) – Wrap-up on items #8-#9

- 10.1. The Chair led a Wrap-up discussion with members on items #8-9, including areas of concern and points to note in the letter of advice.

The meeting broke for lunch at 12.31pm and began again at 12.52pm

Natalie Bartos and Emma Andrew joined the meeting at 12.52pm

11. (Agenda item 10) Security Standards Assumptions Document (SSAD) review

- 11.1. The Chair introduced the Authority presenters.
- 11.2. The presentation and points of discussion noted:
 - a) Where the SSAD fits into the system operator's reporting and the in-built flexibility allowing the system operator to use alternative assumptions
 - b) The review is to ensure the assumptions are fit for purpose and incentivise investment when and where needed
 - c) There is a need to more accurately represent the power system – commissioning and de-commissioning generation, new solar, batteries, and energy margins
 - d) The need to factor in winter having broader 'shoulders' and whether the framing of winter as a timeframe is appropriate
 - e) The Authority is considering a 2025 review of the Value of Lost Load (VoLL)
 - f) The updated Electricity Risk Curves (ERC's) as provided by the system operator and the reduced supply risk post-winter
 - g) The standards have a range, so what's the issue with having too much? – could lead to inefficiencies and prevent the Authority from meeting its statutory objectives. The Authority has different consideration when reviewing or assessing the standards
 - h) There is a tension between economic efficiency and what may be acceptable politically

Sarah Gillies left the meeting at 1.15pm and rejoined at 2.50pm

Rebecca Larking left the meeting at 1.20pm and rejoined at 1.37pm

Andrew Millar left the meeting at 1.27pm

Natalie Bartos and Emma Andrew left the meeting at 1.30pm

Peter Taylor, Nicole Gagnon, Chantelle Bramley and Rebecca Osborne joined the meeting at 1.32pm

12. (Agenda item #11) System operator annual self-review

- 12.1. The Chair introduced this item and the presenters from Transpower, as system operator.
- 12.2. The presentation and points of discussion noted:
 - a) Focus has been on changes to the power system and understanding the implications and responding, with a more digitised system and data informing day to day work
 - b) The system operator wants to learn from and input into the New Zealand context, bringing international perspectives
 - c) Engagement with NZ groups like ENA, flex forum, and their thoughts on data requirements; and with the Authority's FSR team to enable the system to best integrate new player and technology
 - d) The system security forecast focuses on challenges and smoothing work over a two-year period to support the Authority's work and the wider investment regime
 - e) The system operator's focus on integrating new technology, such as grid-scale Battery Energy Storage Systems (BESS) to avoid overly onerous obligations and the system operator becoming a bottleneck
 - f) A 2-3 year pipeline of workforce personnel is needed and challenging
 - g) Building capability needs people and data. The system operator is bringing joint funding ideas to the CE forum
- 12.3. Members raised and discussed the following points:
 - a) A critical aspect of the system operator's role is to inform of risks and enabling market responses through sharing data and forecast information
 - b) With pro-active moves from the system operator (increased communications and engagement, buffer management) care is needed to avoid unduly undermining trust and confidence in existing triggers for managing tight supply situations
 - c) In the 10 May peak capacity event, the market model supported load reduction, rather than funding new generation but are the pricing implications understood?
 - d) There is a need to ensure the industry is more informed of the risks, for example through industry forums, and has more time to respond to the market signals – to support a systematic response. How much notice is needed may depend on the risk and how it manifests. In response the system operator noted the need for participants to focus on the weekly dispatch schedules and get the best information into their offers
 - e) Does the system operator get the responses from industry it needs? When asked, participants respond, but the discipline to pro-actively provide information is not embedded

- f) Lessons from industry exercise 2024 and the 10 May supply event include the criticality of aligned messaging, not necessarily from the system operator and the need for enhanced scalability
- g) Lessons from the system operator role in the Northland event? – independent review conducted; focus on restoration, control room communications, achieving a single source of truth; looking at contingency plans and operational practice and regional ability to operate at lower than 'N-1' security.
- h) Other improvements? – system operator can improve how it sets out how it's impartial and learnings from its new system operator-specific risk matrix; a new comprehensive framework for monitoring and compliance is being developed
- i) Reflections on winter 2024? – Engaging earlier and more flagging up of issues; acknowledging the system operator view is subject to the information it receives and the complexities of assessing individual catchments, as non-aggregated resources
- j) There is a need to extract the key messages from SOSA, NZGB, ERCs, addressing the 'so what' for readers, so informed decisions result. The system operator is seeking feedback on this.

12.4. Authority staff noted next steps for the Authority's corresponding review of system operator, including gathering information for the Authority Board through December/January

Sarah Gillies left the meeting at 1.59pm

Chantelle Bramley and Rebecca Osborne left the meeting at 2.15pm

Lee Saunders joined the meeting at 2.18pm

13. (non-agenda item – SRC input on Industry Exercise 2025

- 13.1. The Chair introduced this non-agenda item, and the secretariat noted members will be sent the slides and questions post-meeting to enable deeper consideration of the proposed changes for Industry Exercise 2025.
- 13.2. Authority presenters noted proposed changes, including the potential for a single day event, the inclusion of scenarios to test rolling outage plans, dry year and inclusion of other entities, for example the Minister's office

Peter Taylor, Nicole Gagnon and Lee Saunders left the meeting at 2.24pm

Rebecca Larking left the meeting at 2.25pm

The meeting broke at 2.25pm

The meeting recommenced at 2.30pm

14. (Agenda item #12) – Wrap-up on items #10-#11

- 14.1. The Chair led a Wrap-up discussion with members on items #10-#11, including areas of concern and points to note in the letter of advice.

Rebecca Larking rejoined the meeting at 2.40pm

Sarah Gillies rejoined the meeting at 2.50pm

Andrew Millar rejoined the meeting at 2.55pm

15. (Agenda item #13 and # 14 – purpose and scope of next meeting’s papers and forward work programme

- 15.1. Members considered and discussed items for their Q1 and Q2 meetings for 2025:
- a) **Q1-** The theme of regional resilience was agreed to. Thinking about – an overall resilience framework would be helpful and items to include on the agenda include geographical information, distributor perspectives on rural areas, the role of customer resources, energy use profiles (if available), funding models, input from grid owner/system operator
 - b) Section 18, Electricity Industry Act, Minister review request - update
 - c) Power innovation pathway
 - d) **Q2** – Suggested themes of demand-side management, Commerce Commission’s role in security and reliability of supply

The meeting ended at 3:15pm

Please note the latest version of the SRC’s risk radar over the page.

The secretariat has an action to update the table, as proposed, for further discussion at the SRC’s next meeting

SRC risk radar – as at 24 October 2024 (with October-proposed changes noted)

Priority	Cause	Effect	Horizon	Comments
	Reduced gas supply	Reduced peaking and last resort generation	P	
	Insufficient collaboration arrangements in place	Increased costs, reduces reliability	P	Changed wording
	Government policy misaligned with industry objectives	Reduced investment and confidence & reduced water for hydro output & reduced gas	P	
	Increased small scale DG	Network congestion	P	
	Weather events	Increased outages	P	
	Inadequate AUFLS	Blackouts	P	
	Cyber attack	Damages system assets	P	
	Physical attack	Damaged system assets	P	
	Pandemic	Reduced workforce, restricted travel	P	
	Loss live work	Increased outages	P	Remove
	Social media	Personnel/asset attacks	P	
	Natural disasters and fires	Damaged system assets	P	A resilience issue
	Delayed tree regulations	Increased outages	S	
	Regulator strategic priorities misaligned with industry objectives	Reduced investment and confidence	S	
	Commerce Commission regulations	Inhibits investment	S	
	Supply chain	Reduced goods/services	S	
	Dry Year	Increased prices and emissions & reduced market confidence and investment	S	Changed from amber to red
	Increased intermittency	Reduced capacity and flexibility at peaks	S	
	Poor extended reserve implementation	Increased blackouts	S	
	Fragmented government approach	Delays	S	
	Lack of thermal	Reduced capacity and flexibility	L	
	Demand increases outpace generation capacity increases	Causing outages	L	
	Inefficient market response	Insufficient generation	L	
	Early thermal exit	Reduced capacity and flexibility	L	
	Poor/unenforced standards	Reduced power quality	L	Through noncompliance
	Insufficient DER uptake	Network instability	L	
	Generation market misaligned with policy changes	Reduced capacity and flexibility	L	
	Inadequate maintenance of aging assets	Increased failures	L	Changed from green to amber
	Over-reliance on AI and automation	Reduced emergency human input	L	Inadequate response leading to outages
	Ageing/emigrating workforce	Reduced institutional knowledge and people available to plan, design and build	L	
	EV uptake	Undermined LV network stability	L	Customer experience is the impact
	Stranded asset costs	Reduced network viability	L	
	Simultaneous asset replacement	Reduced asset availability	L	
	Low-risk approach by industry	High-cost and consumer disengagement		*

	Consumer disengagement	Inadequate demand response and peaking issues		*
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Key	Symbol/colour	Meaning	Horizon	Meaning
	Red	High priority	P	Persistent risks – could happen any time
	Amber	Medium priority	S	Risks that can manifest anytime in approx. the next year
	Green	Lower priority	L	Risks that can manifest in approx. 1-5 years