

31 August 2022

Dr Nicki Crauford
Electricity Authority Chair
Electricity Authority
PO Box 10041
Wellington 6143

Dear Nicki,

Advice resulting from the 10 August 2022 meeting of the Security and Reliability Council

The Security and Reliability Council (SRC) is tasked with providing the Electricity Authority (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 theme for the August meeting was climate change, combined with the SRC's annual facilitated strategy session. To support these themes, the SRC received presentations from:

- The Ministry of Business Innovation and Employment (MBIE), on progress with the *Aotearoa New Zealand Energy Strategy*;
- The Climate Change Commission, on their role and aspects of their work programme relevant to the electricity sector;
- Te Waihanga, the Infrastructure Commission, on their work relevant to the electricity sector; and
- Concept Consulting and Authority staff on its (as yet unpublished) generation investment analysis.

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

Climate Change

The SRC has climate change mitigation and adaptation as one of its overarching themes, as New Zealand transitions away from fossil fuels, towards renewable sources of energy. To obtain more meaningful information, the SRC postponed including this work in its programme until the government had released its response to the Climate Change Commission's final report.

Of concern to members is the disparate approach being taken to assess the issues presented by climate change, in particular as they relate to the security and reliability of electricity supply, and the options to resolve them. Many agencies are working on the

problems but there is a need for cohesion to ensure the work occurs efficiently and effectively.

It is positive the issues are being considered broadly. However, the SRC is concerned there is potential for gaps and overlaps to develop where there is a lack of coordination of the step changes participants, the wider energy sector, and consumers may need to make. Set out below are further recommendations and advice, arising from the presentations.

The SRC acknowledges the work of the presenters and their teams and appreciated them taking the time to present and discuss the issues.

The Climate Change Commission

The Climate Change Commission spoke of its role to interpret the government's climate aspirations, provide the government with policy advice, and follow through on its nine statutory deliverables. The Climate Change Commission sees a critical role for the SRC in providing advice to the Authority to support its roles and functions through the transition.

To achieve its ambitious work programme, the Climate Change Commission will need to ensure it is up to speed on the relevant sectors generally and that it engages early and broadly with the right parties. This is of particular importance to the electricity sector, given the diversity of participants, the lead times needed to adapt, and the increasing criticality of electricity to consumers' wellbeing.

The Climate Change Commission will also need to consider how it can utilise resources available across the sector, upskill in key areas and achieve a high level of sector knowledge. It will also need to increase the sector's trust and confidence in the Climate Change Commission's approach to its work.

The Authority has a key role as trusted advisor to the Climate Change Commission. The SRC recommends the Authority ensure its various teams are engaging early and applying their significant knowledge base and regulatory expertise to the issues presented by the transition to a low emissions future.

The Aotearoa New Zealand Energy strategy

Representatives from the Ministry of Business, Innovation and Employment (MBIE) presented their initial work on developing a comprehensive Aotearoa New Zealand energy strategy to support the transition.

As raised with MBIE during the meeting, the SRC is concerned the proposed timeframe of a completed strategy by the end of 2024 will be too late. The market is already reacting to the challenges and there is a danger of uncoordinated outcomes to meet the government's aspirations in the absence of a strategy.

A two year wait for a strategy combined with the slow pace of regulatory change is very concerning when significant investment decisions require the right signals now. A staged approach will give the industry clarity and indication of necessary actions to achieve the government's goals.

During the presentation, the SRC recommended to the MBIE representatives, they should present the current and emerging issues sooner, with a view to obtaining quick wins where possible.

The SRC considers MBIE should both expedite and coordinate the strategy in the context of its wider work programme. MBIE noted an early focus on stakeholder engagement to help it assess the support available from the sector and refine its work. The SRC strongly encourages this. The SRC has recommended to MBIE representatives, this work should include both 1:1 engagement and workshops, adopting the successful approach taken by the Authority in its work in 2021 on the Consumer Care Guidelines.

The SRC recommends the Authority engage early with MBIE on the energy strategy. There is a need to ensure the right level of information is available early to enable meaningful assessment of appropriate regulatory intervention and support from the Authority or other regulators.

The SRC appreciated the opportunity have an early view of this critical work and will include receiving regular updates from MBIE in its work programme where possible to monitor progress.

The SRC also took the opportunity to express its concerns over the seeming endless delays to the review of the *Electricity (Hazards from Trees) Regulations (tree regulations)*. There is continuing damage to networks and interruption to consumers supply that could be prevented with updated tree regulations.

The SRC recommends the Authority continue to regularly remind MBIE of the importance of completing the review of the tree regulations.

The Infrastructure Commission

The SRC acknowledges the Infrastructure Commission's work on *Rautaki Hanganga o Aotearoa* (the New Zealand Infrastructure Strategy) and its purpose to improve New Zealanders' lives through better infrastructure.

The SRC heard from the Infrastructure Commission on the significant challenges to achieving the aims of net zero carbon emissions and an electricity system resilient to shocks and stresses. Of particular concern for the electricity sector are the current personnel shortfalls, and the need to significantly increase generation capacity. From an infrastructure perspective, there are also the competing needs for expenditure, for example on aging water infrastructure and inadequate housing.

The Infrastructure Commission's assessment of the challenges presented by decarbonising the energy sector is similar to the SRC's. For example, the SRC agrees with the Infrastructure Commission's view there is a significant role for the Authority to play in the transition by supporting the implementation and updating of standards.

The events of 9 August 2021 and Transpower's *New Zealand Generation Balance* report (NZGB) also provide evidence of the need for the Authority to have a strong focus on the importance of demand-side management and the opportunities it presents.

The SRC's strategic focus

The SRC engaged David Hunt of Concept Consulting to facilitate its annual risk and strategy session. The aim of the session is for the SRC to identify and prioritise key issues to include in its forward work programme and ensure the SRC is fulfilling its role to provide the Authority with meaningful actionable advice.

The main themes for this year's strategy session are the issues arising from the transition to 100% renewable energy by 2030. These will be used to identify the SRC's top priorities for the next 12-24 months.

The top focus areas included the need to:

- a) Better align New Zealand's decarbonisation capabilities and ambitions – lift the capability or adjust the ambition; address any fragmentation across government entities, reduce policy uncertainty and spur investment
- b) Strengthen information base for decision-making by government, consumers and industry – achieve a common evidence base to increase understanding of the options; extend *capacity* security, together with the existing focus on *energy* security; managing cyber and information privacy risks
- c) Strengthen consumer trust and confidence – timely and clear information to achieve the above; helping consumers know how decarbonisation affects them and their role in the transition; partnering with trusted consumer entities, including the Consumer Advocacy Council, the Energy Hardship Expert Panel and reference group

The SRC will include these issues, and others that arise, in its forward work programme. We welcome feedback from the Authority on these top focus areas.

Authority Board and SRC annual engagement - August

SRC members appreciated the opportunity to attend and engage with the Board at the Board's August meeting.

SRC members acknowledge the SRC's role, as trusted advisor to the Authority, and values the relationship with the Authority Board.

It was positive to hear the Board talk about the need for transformational change. The SRC believes bold leadership will be required to ensure that regulatory-settings promote and enable an active demand-side / flexibility resources to balance less dispatchable generation. The SRC acknowledges the difficulties for regulators to achieve short term transformational change but considers that approach is needed to ensure the right work is done at the right time.

The SRC also strongly supports the Authority's collaborative approach of having real conversations with stakeholders and focusing on continuous improvement across its various workstreams.

If the Board has any particular focus areas for the SRC ahead of next year's annual engagement, it can let the SRC know through its Chair or the secretariat.

Yours sincerely,



Hon Heather Roy
Chair of the SRC

cc: SRC members, Grant Benvenuti (Authority)

20 September 2022

Hon Heather Roy
Chair
Security and Reliability Council (SRC)

By email: heatherjroy@gmail.com

Dear Heather,

Response to your letter of 31 August 2022

Thank you for your letter of 31 August 2022 that gives the SRC's advice arising from its 10 August 2022 meeting. The Authority Board considered all the advice at its 13 September 2022 meeting and have asked me to write to you with their response.

Climate Change

The Authority appreciates the SRC's focus on climate change and its impact on security and reliability of the power system. The SRC's approach of delaying until all the necessary inputs into the theme were available seems appropriate and will enable the SRC to provide quality advice.

It is positive to see the various energy sector organisations following the science behind climate change and focusing on the problems. The government's signalled climate and decarbonisation aspirations for the sector are having an impact already, with significant investment in renewable generation and demand flexibility occurring at pace. Much of this is out of sight of consumers due to the investment sensitivities involved.

However, the SRC's points as to the potential for adverse outcomes are valid if the sector and consumers are not receiving the correct information and incentives about their role in the transition toward decarbonisation.

The first National Adaptation Plan (NAP), responding to the Climate Change Commission's risk assessment, focuses on establishing robust information exchange processes and portals to enable better informed risk decisions. The Authority strongly supports this level of transparency and will ensure this type of guidance informs relevant Authority workstreams to support the transition for the benefit of New Zealanders and the environment.

The Authority welcomes further advice from the SRC throughout the transition.

The Climate Change Commission

The Authority agrees there is a need for the Climate Change Commission to engage early and broadly with electricity sector participants to achieve its aims. The Authority's strategy team is already building relationships with Climate Change Commission staff to support this and align relevant workstreams to maximise efficient progress on the necessary work ahead.

As the SRC's advice suggests, the Climate Change Commission has a role to increase consumer trust and confidence in its work. This is a difficult task in the energy sector, given the often-competing drivers and incentives for participants, the rate of change needed to achieve necessary outcomes and the uncertainty around the viability and impacts of potentially transformative projects, such as NZ Battery, hydrogen production, and large-scale data centres.

The Authority will ensure staff are connecting with the Climate Change Commission, as appropriate to support our respective workstreams and aligned aims to increase consumer trust and confidence.

The Aotearoa New Zealand Energy Strategy

The Authority agrees that the Ministry of Business, Innovation and Employment (MBIE) has a role to expedite and coordinate the energy strategy. The Authority understands MBIE will be deciding how the content and process will be developed this year. Sharing this thinking early would provide an opportunity for MBIE to engage and seek sector input to refine its thinking.

It is up to MBIE to determine the most appropriate way to engage in line with its stakeholder engagement processes and the Authority will pass the SRC's feedback on to MBIE. The approach the Authority took to engage on the consumer care guidelines, with early and ongoing consultation to share and refine thinking, provides a good principled approach to how this could work effectively.

MBIE's work on the NZ Battery project continues and decisions around it will inform key parts of the Aotearoa New Zealand Energy Strategy and how the sector needs to contribute.

The Authority will ensure staff are kept up to date on MBIE's progress on the strategy. The SRC's ongoing input is welcome to ensure focus remains on the security and reliability implications of decisions and any potential sector reform.

The Authority also agrees with the need for the tree regulations review. As your advice suggests, there is evidence the current state of the regulations is resulting in adverse outcomes for consumers directly affected. The work needs to be prioritised, in the interests of both those consumers and trust and confidence in the sector and staff will raise this again with MBIE.

The Infrastructure Commission

The Authority acknowledges the work of the Infrastructure Commission on *Rautaki Hanganga o Aotearoa* New Zealand Infrastructure Strategy and its aims for the energy sector. The Infrastructure Commission is a key stakeholder for the Authority and Authority staff will ensure they keep up to date with developments and opportunities to engage.

The challenges of maintaining the energy trilemma of *security, sustainability, and affordability* during the transition toward decarbonisation, are significant. A high level of sector uncertainty over key potential components, such as NZ Battery, combined with Covid-related personnel and supply chain impacts, adds complication. Early, informed decisions from government on key decarbonisation and resilience projects would assist the Authority in its work.

Regarding the Infrastructure Commission's focus on the sector reducing costs and getting more from its existing assets, this would be good for the SRC to raise with the grid owner when they present at the SRC's October meeting on the *Transmission* theme, as to how they can achieve this while maintaining a stable and reliable grid.

The Infrastructure Commission's, and SRC's, concerns about relevant standards are responded to in a separate section below.

Demand-side management

The Authority acknowledges the SRC's strong view about the need to focus on demand-side management and its opportunities. As noted in the Authority's response to the SRC's June advice, this is a key component of phase 3 of the Future Security and Resilience (FSR) workstreams, being led by the Authority's strategy team.

Other Authority work focusing on the demand-side includes the Real Time Pricing (RTP) project, making settlement pricing more dynamic and reflective of real-time power system conditions. As the RTP team recently announced, real-time pricing implementation is scheduled for 1 November 2022. A further software release in April 2023 will implement enhancements to the dispatchable demand regime and introduce dispatch notification participation for small scale demand and generation resource aggregators. The timeframe for the latter is driven by the system operator's need to undertake the necessary software development.

The work by the Market Development Advisory Group (MDAG) on price discovery, together with the Authority's work on *updating the regulatory settings for electricity distribution networks* also focus on demand-side and will help inform the Authority's approach to any changes that may be necessary.

Development of standards

Regarding the development of standards, thank you for your advice. As the SRC may be aware, Standards NZ is responsible for updating standards, with commissioning and enforcement by other agencies, including MBIE, WorkSafe and The Energy Efficiency & Conservation Authority (EECA).

An example of the Authority's role in this area is the support and endorsement of EECA's work on car charging standards.

The Authority, through the SRC's secretariat, has received information about the specific standards the SRC has concerns about. Authority staff will refer these to the relevant agency to consider, as part of their workstreams, and can provide updates to the SRC via the secretariat.

The SRC's strategic focus

The Authority acknowledges the SRC's focus on the security and reliability aspects of the transition to a low emissions future.

The SRC's top focus areas for the short term appear appropriate, in terms of issues the sector (as a whole) need to focus on. Care will be needed to ensure the SRC continues to maintain its lens on its security and reliability functions and its advisory role to the Authority.

The Authority's focus is to support the transition by minimising regulatory barriers and allowing competition to incentivise participants to invest and for consumers to receive the right information and signals for them to participate meaningfully.

The Authority strongly supports the need for change in the sector during the transition to a low emissions future. Some examples of potentially transformational change are those proposed in the Authority's work, with the system operator, on the Future Security and Resilience (FSR) workstreams¹, as noted above.

The Authority looks forward to an update on the SRC's forward work programme, when available, and to further advice on the focus areas you have outlined. The SRC, through its secretariat, is welcome to approach the Authority for any additional support that may be needed to ensure it has the information needed to support the work.

¹ [Covering-Paper-FSR-Final-Roadmap-and-Phase-Three.pdf \(ea.govt.nz\)](#)

Authority Board and SRC annual engagement

Board members enjoyed the opportunity to engage with SRC members at their annual meeting. The Authority looks forward to further constructive engagement with the SRC in their role as advisors on security and reliability, which are critical for success of the power system through the transition to a low emissions future.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Nicki Crauford', with a stylized, flowing script.

Dr Nicki Crauford
Chair
Electricity Authority