

9 May 2019

Hon Heather Roy
Chair
Security and Reliability Council (SRC)

By Email

Dear Heather

The SRC's advice of 15 March 2019

Thank you for your letter of 15 March 2019 advice on the Electricity Price Review's option 'G2'.

Because of the SRC's timely letter, we were able to consider that advice when preparing the Electricity Authority's submission to the Electricity Price Review's consultation. As requested, we also appended the SRC's letter to our submission.

The Ministry of Business, Innovation and Employment published our submission at <https://www.mbie.govt.nz/dmsdocument/4839-electricity-authority-submission-electricity-price-review-options-paper-pdf>

We look forward to continuing to work closely with the SRC on matters related to the Electricity Price Review.

Yours faithfully



James Stevenson-Wallace

cc: SRC members

17 May 2019

Dr Brent Layton
Chair
Electricity Authority
PO Box 10041
Wellington 6143

Dear Brent

Advice resulting from the 28 March 2019 meeting of the SRC

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.

The SRC considered and discussed eight papers at its 28 March 2019 meeting. This letter is the SRC's advice arising from four of those papers, and one miscellaneous matter.

Performance of the system operator for the year ending 30 June 2018

In relation to the performance of the system operator for the year ending 30 June 2018, the SRC received the Authority's final copy of its annual review.

The SRC's advice to the Authority is:

- the system operator should, when reporting in the future on matters that involve Transpower's different roles, be highly transparent about those respective roles
- the SRC is interested in understanding the appropriateness of the system operator's separation from other Transpower roles and welcomes relevant evidence.

2019 annual Assessment of Security of Supply

The SRC received the system operator's annual Assessment of Security of Supply for 2019.

The SRC's advice to the Authority is:

- the results contained no cause for alarm
- the quality of the 2019 annual Assessment of Security of Supply was a substantial improvement

- the system operator's plan to engage with stakeholders on which scenarios to use for 2020 is commendable.

March 2019 New Zealand Generation Balance

The SRC received the system operator's New Zealand Generation Balance report issued in March 2019.

The SRC's advice to the Authority is:

- the report was not alarming, though there is considerable uncertainty about how reliable the contribution of gas-fired generation will be
- the system operator's use of gas-related scenarios to illustrate the impact of gas industry issues on electricity capacity security is commendable.

Implementation of changes affecting the hydro risk curves

The SRC received advice from the Authority concerning timing options for the implementation of changes affecting the hydro risk curves. The possible changes arose from the Authority's project to review the regulatory settings for official conservation campaigns and the system operator's project to review the Security of Supply Forecasting and Information Policy.

The SRC previously gave advice on the timing of implementation. Since then, the project has experienced a one month delay. As such, the SRC was invited to revisit that advice in light of more up-to-date information.

The SRC's latest advice to the Authority is:

- on balance, the SRC is slightly in favour of the earlier implementation option.

Reduced grid security

In addition to the above papers, the SRC also had a discussion about the situation that left substantial parts of Wellington being operated without grid redundancy for several weeks. The SRC were concerned at the risk and how it came to be communicated with so little notice. The SRC directed its secretariat to prepare a paper providing information about grid reliability and incidence of consumers on reduced grid security.

The SRC's advice to the Authority is:

- that Wellington's grid security situation in late-March warrants an independent review by the Authority that identifies and promotes any lessons learned.

There is no further advice arising from the matters discussed at the SRC's 28 March 2019 meeting.

Yours sincerely

A handwritten signature in black ink, appearing to read 'H Roy', written in a cursive style.

Heather Roy
Chair of the SRC

cc: SRC members, Rory Blundell (Authority)

27 May 2019

James Stevenson-Wallace
Chief Executive
Electricity Authority
PO Box 10041
Wellington 6143

Dear James

SRC Chair's regular survey of SRC members

The SRC Chair regularly undertakes a survey of SRC members to:

- a) provide an opportunity for SRC members to comment on the SRC's operation, work programme and interactions with the Authority and system operator
- b) identify any issues that have emerged
- c) explore opportunities for improvement
- d) gain insights into members' views on any significant security and reliability issues on the horizon.

This correspondence summarises the key themes and suggestions that emerged from the 2019 survey.

1. Approach to the survey

The SRC Chair undertook the 2019 survey through responses to an agreed set of questions via an e-survey. The individual responses were collated into a tabular summary for each question. Members were given an opportunity to comment on the draft summary, and invited to make any additional comments before finalising this correspondence to the Authority.

2. Key themes that emerged and possible improvements

The key themes that emerged in the SRC survey are set out in the table below. Where relevant, the table also includes some suggestions for improvement.

Of particular note is the intention to hold an SRC strategy session in the near future, to address a number of issues that emerged in the survey. The aims of the strategy session would be to:

- brief new members (and remind existing members) about the SRC role and regulatory context
- undertake a "scanning" exercise on the potential security and reliability issues existing now and emerging on the horizon in New Zealand and internationally (drawing on SRC survey feedback (see list of issues attached as appendix 1), Authority/System Operator reports, the SRC's previous strategy session in 2018 and other relevant material)

- consider possible security and reliability issues that arise from the Electricity Pricing Review final report and the responses to the report's recommendations from Government and the Authority
- explore the implications for the SRC's work programme, membership, terms of reference, how it undertakes its role, and how it interacts with Authority Board/staff and with the System Operator
- establish an agreed SRC strategy and associated next steps.

The table of key themes and possible improvements is set out here. For ease of comparison, the table follows the same format as the previous SRC member survey conducted in 2017.

Area	Key themes	Possible improvements
SRC membership and meetings	<ol style="list-style-type: none"> 1. The SRC is working well as a team and provides a very good forum for considering security and reliability issues. The SRC is well-served by its Chair. 2. The SRC membership provides a good mix of skills and experience, and members interact well with one another in a collaborative and co-operative way. 3. Gas issues play an increasingly important role in security of supply for electricity, and additional expertise might be useful 4. The nature of the SRC role and the complexity of issues it considers, often over multiple meetings, can pose a barrier for members when they first join. 5. It can be challenging if member(s) are unable to attend an SRC meeting in person at the last minute and join via video or teleconference, or put in a late apology and do not attend at all. 6. The length of time between meetings can be a problem, particularly for issues that develop quickly over time (eg an emerging security situation) or that span multiple meetings. 7. The relative infrequency of meetings can make it difficult for members to maintain currency with emerging security of supply issues and/or outcome of advice it has provided to the Authority. 	<p>Consider need for more specific gas sector expertise on the SRC.</p> <p>Make things easier for new members:</p> <ul style="list-style-type: none"> • provide induction material on SRC role, regulatory context, current work programme, etc • for context/continuity when an issue has been considered in an earlier SRC paper, provide cross-references to relevant past SRC papers/minutes (and make them available on request) <p>Improve commitment to attending SRC meetings, and in person.</p> <p>Consider including an extra meeting each year and/or engaging via email on some matters between meetings.</p> <p>Provide SRC members with regular updates via email on security and reliability issues emerging between meetings and on the outcomes of advice it has provided to the Authority.</p> <p><i>* See also improvements listed below in the area of SRC work programme and agenda.</i></p>

Area	Key themes	Possible improvements
SRC work programme and agenda	<p>8. The balance between looking backwards (eg reviewing the performance of the system, major events), and looking forwards (eg emerging issues) is perhaps now tilted too much towards looking backwards, particularly given significant technology shifts and the transition to a low-carbon future.</p> <p>9. Members consider the SRC's ability to fulfil its role and add value are somewhat constrained by the way its work programme and agenda are set by the Authority.</p> <p>10. At times the SRC work programme and agenda feel like a 'box-ticking exercise' for the Authority, rather than the SRC adding real value.</p> <p>11. Members identified a range of potentially significant threats to security and reliability (in the short term and looking further ahead), and consider there would be significant benefit in discussing these and other threats as a group. (attached as an appendix)</p> <p>12. The SRC needs to be aware of emerging security and reliability issues systemic to other jurisdictions and/or unique to New Zealand.</p> <p>13. Establishing an agreed SRC strategy would help drive a work programme and agenda relevant to the SRC brief, ensure the SRC is fulfilling its role, and provide the Authority with more meaningful, actionable advice.</p>	<p>Time should be provided each meeting as a regular agenda item for members to raise any issues which could threaten security and reliability in the short, mid and longer term. The Secretariat should be tasked with reporting back to the next SRC meeting on the items identified.</p> <p>Members can take more responsibility for raising matters of concern.</p> <p>Once a year there should be an opportunity to discuss the current SRC work programme, explore emerging strategic issues, consider these in the context of the SRC role and develop an agreed SRC strategy.</p> <p>SRC members should be provided with opportunities to be more involved in setting the SRC work programme and agenda.</p> <p>Hold an SRC Strategy Session in the near future (refer section 2 above)</p>
SRC support	<p>14. The SRC is well-served by the Secretariat, which provides timely papers and facilitates information flows when asked.</p> <p>15. SRC papers are generally clear, comprehensive and well-written, although some have been overly long and/or contain complex technical language, acronyms and abbreviations (particularly those from Transpower).</p> <p>16. The use of presentations at SRC meetings is helpful.</p> <p><i>* see also the comments on work programme and agenda (above) which are also relevant here.</i></p>	<p>Where reasonable to do so in SRC papers:</p> <ul style="list-style-type: none"> • make better use of executive summaries and/or appendices • avoid or explain complex technical terms, acronyms and abbreviations

Area	Key themes	Possible improvements
SRC interaction with the Authority	<p>17. The relationship is professional, with mutual respect.</p> <p>18. Members value the attendance of the Authority CEO at SRC meetings.</p> <p>19. The SRC's regular correspondence with the Authority Board provides an effective means of maintaining regular formal interaction, but is insufficient on its own.</p> <p>20. Members have limited opportunities to interact with Authority Board members directly, and consider that more regular Board interaction would benefit both parties.</p> <p>21. Members would appreciate more feedback on SRC performance, how SRC advice has been received and acted on, and the outcomes of that action.</p> <p>22. Members would appreciate an opportunity to engage with the Authority Board and/or senior Authority staff on developing the SRC work programme.</p>	<p>Suggestions for enhanced interaction with the Authority Board and senior Authority staff include:</p> <ul style="list-style-type: none"> • a formal meeting between the SRC, the Board and senior Authority staff once a year to engage on the security and reliability landscape, possible SRC work programme activities and feedback on SRC performance • informal SRC lunches with the Board from time to time • rotating attendance of a Board member at SRC meetings <p>Ensure SRC provides frank advice to the Authority about the Authority itself where it believes the Authority could have done better.</p>
SRC interaction with the System Operator	<p>23. The System Operator's interaction and engagement with the SRC is generally very good, and the SRC values this highly.</p> <p>24. The SRC is kept well-informed, and appreciates the openness with which System Operator staff engage.</p> <p>25. The SRC's interaction and advice may at times risk being overly polite, to avoid offending the System Operator.</p> <p>26. Post event assessment has, at times, created tension/defensiveness between the Authority and Transpower, arguably compromising the quality of self-reflection and learning</p> <p>27. Areas where SRC can add value is providing an independent view on matters where the System Operator/Authority have conflicting positions or the status quo needs challenging.</p> <p>28. There is a risk of confusion between Transpower's dual roles as System Operator and grid owner, particularly in post-event reviews.</p>	<p>Ensure SRC provides frank advice to the Authority about the System Operator where it believes the System Operator could have done better.</p> <p>Encourage a more constructive approach to post event analysis</p> <p>Be mindful that Transpower has dual roles, which may be in conflict at times; where relevant, seek clarification on the nature of the role(s) and how any conflicts are managed.</p>

Yours sincerely



Hon Heather Roy
SRC Chair

cc: Grant Benvenuti, Electricity Authority
Callum McLean, Electricity Authority

Appendix 1 – list of threats to security and reliability identified in SRC member survey

SRC members were each invited to list what they considered to be the most significant threats to security and reliability of supply in the short term from a major system impact, and from multiple localised system impacts. Members were also invited to list what they considered to be the most significant threats in the future, particularly those driven by new technology.

SRC members' responses are collated and summarised below (in no particular order).

(a) Significant threats to security and reliability of supply in the short term from a major system impact, and from multiple localised system impacts:

- traditional dry year
- other weather-related events (eg storm)
- N-security interruptions
- terrorism
- seismic interruption (eg earthquake on Alpine Fault or Hikurangi trench causing widespread disruption to transmission, distribution and generation)
- cyber security breaches
- thermal fuel shortages (eg gas)
- transition to a low emissions economy without considering the infrastructure/societal and market dynamics may result in major impact that causes intervention
- no debate on the economics v security trade off
- public panic or lack of information

(b) Significant threats in the future, particularly those driven by new technology:

- change in general
- new technology can be both a threat and an opportunity (and/or part of the solution)
- poorly designed policies to achieve higher renewables (also a threat to affordability)
- inherent fluctuations in a system with high levels of renewables, especially if the country moves to 100% renewable
- cyber security
- extreme weather events
- a very decentralised system with very complicated interactions that aren't fully understood
- system complexity (the system is becoming increasingly difficult to understand)
- widespread use of non-compliant distributed energy technology
- focusing on the impacts of technology that will take decades to impact fully v the transitions around thermal fuels in the next ten years
- regional system outage where the people affected are unable to get power to address a life-threatening situation, or avoid long term economic damage

17 June 2019

By Email

Hon. Heather Roy
Chair
Security and Reliability Council
C/- Electricity Authority
P O Box 10041
Wellington 6143

Dear Heather

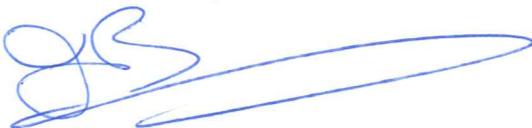
Your letter to James Stevenson-Wallace dated 27 May 2019 on the results of your regular survey of SRC members was shared with the Electricity Authority board as its meeting on 6 June 2019. The Board asked me to write to you on its behalf about a couple of items relating to the SRC and Board and its members.

In your discuss of the SRC's interaction with the Authority you suggest among the possible improvements that "a formal meeting between the SRC, the Board and senior Authority staff once a year to engage on the security and reliability landscape, possible SRC work programme activities and feedback on SRC performance" and "informal SRC lunches with the Board from time to time". The board agrees these are worthwhile suggestions and have asked management to work with you to set a time for the regular formal meeting. The board thinks it would be useful to time the meeting so it can be combined with a lunch at which we can continue the discussion of more formal issues.

You also suggest "rotating attendance of a Board member at SRC meetings". The board questions whether attendance by an individual Board member at an SRC meeting once every 18 months or 2 years would provide the level of continuity of engagement that would be desirable. Management, and specifically, the Chief Executive attending every SRC meeting and your regular post-meeting letters to me, which are always shared with the Board and discussed at its regular meetings, seems to us a preferable option for maintaining high level communications between the Authority and the Board.

If you would like to discuss this feedback, please do not hesitate to call me.

Yours sincerely



Brent Layton
Chair

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