

24 April 2020

Dr Brent Layton
Chair
Electricity Authority
PO Box 10041
Wellington 6143

Dear Brent

Advice resulting from the 12 March 2020 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 12 March 2020 meeting, plus a discussion about COVID-19 concerns. This letter is the SRC's advice arising from those matters.

The SRC is seeking additional information before it finalises its advice in relation to two of those papers: communication of reduced security and outages, and the March 2019 n-security situation in Wellington.

The SRC has also directed its secretariat to prepare a paper about COVID-19 issues for the next SRC meeting.

Electricity Price Review: A review of security and resilience

The SRC received a paper from its secretariat about the Authority's review of security and resilience.

The SRC's advice to the Authority is:

- the SRC and its secretariat are investigating the use of some kind of SRC subcommittee to provide detailed engagement on the review
- the Authority's review should be accompanied by a framework for monitoring security and resilience, to prevent the report being a snapshot in time.

Review of March 2020 New Zealand Generation Balance report

The SRC received a paper from its secretariat about the system operator's New Zealand Generation Balance March 2020 report.

The SRC notes that it has considered that report and has no concerns or associated advice for the Authority.

System operator performance for 2018/19

The SRC received a paper from its secretariat that included the final version of the Authority's review of the system operator's performance for 2018/19. The SRC had earlier considered an extract of the draft version and provided advice.

The SRC's advice to the Authority is:

- the system operator has made significant improvements to the way they communicate system risks to the industry. The effectiveness and durability of their communication processes should be monitored
- the review noted the system operator has made improvements to its outage planning and real time outage management processes (see section 4.2 of the 2019 annual review). The next annual review should comment on the effectiveness of these improvements.

Overview of the 19 August 2019 power blackout in England and Wales

The SRC received a paper and presentation from the system operator about a 19 August 2019 blackout to over one million British electricity consumers. The review identified four lessons for New Zealand from the event.

The SRC's advice to the Authority is:

- the system operator's four lessons are valid
- the SRC is additionally concerned that New Zealand's equipment and appliance standards do not adequately protect the power system (especially voltage and frequency) and lacks confidence in the standards process to detect non-compliance.

To enable more detailed consideration by the SRC, the SRC's secretariat will prepare a paper on equipment and appliance standards.

Understanding the value of electricity to consumers

The SRC received a paper from the grid owner that gave an overview of their value of lost load (VoLL) study.

The SRC's advice to the Authority is:

- the SRC is pleased to see the work that has been done and that the study has utility
- the VoLL number contained in the Code, calculated in 2004, needs review. At the very least, an adjustment for CPI will increase it to ~\$25,000, which is a similar level

to the average assessed by Transpower in its study. However, there may be more fundamental issues for review, such as prescribing a single average number to represent reality which varies across locations and times

- the Authority should include a regular review and update of VoLL in its work programme.

Automatic under-frequency load shedding (and extended reserve) arrangements

The SRC received a paper from its secretariat about the Authority's extended reserve project.

The SRC's advice to the Authority is:

- The SRC is comfortable with the revised focus of the project, supportive that it continue to be a priority for implementation, and is unlikely to review this topic in the next three years.

Yours sincerely

A handwritten signature in black ink, appearing to read 'H Roy', with a stylized flourish at the end.

Heather Roy

Chair of the SRC

cc: SRC members