

27 August 2018

Apartment 11C
Herbert Gardens
186 The Terrace
Wellington

Dear Mike

Thank you for your letter of 18 June 2018 advising of your resignation from the position of the Security and Reliability Council (SRC) Chair. That letter was formally presented to the 22 June 2018 meeting of the SRC.

As the SRC members were unable to thank you in person for your contribution to the group, we have chosen to express our gratitude in this letter. Your colleagues on the SRC appreciated the guidance and knowledge provided by your energetic leadership of the SRC. Your skills and experience are a major loss to the SRC.

On behalf of the SRC, I would like to thank you for your contribution to the SRC for the past four years.

Yours sincerely



Bruce Turner
Temporary Deputy Chair

cc: SRC members, Rory Blundell (Electricity Authority)

27 August 2018

Dr Brent Layton
Chair
Electricity Authority
PO Box 10041
Wellington 6143

Dear Brent

Advice resulting from the 22 June 2018 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 different papers at its 22 June 2018 meeting. This letter is the SRC's advice arising from seven of those papers.

Electricity cybersecurity exercise

A Transpower representative from the Control System Security Information Exchange (CSSIE) presented to the SRC about a cybersecurity exercise undertaken by key companies involved in the supply-side of New Zealand's electricity industry. The SRC appreciates the efforts of the CSSIE and especially Transpower for its leading role within the CSSIE.

The SRC's advice to the Authority is:

- that the SRC takes assurance from the supply-side industry coordinating to improve outcomes for consumers, though cybersecurity is a field in which guaranteed outcomes are not possible
- that the SRC sees the CSSIE's exercise as evidence that the industry is heading in the right direction and taking a mature attitude to management of cyber-risk
- that the potentially high impact consequences of a cybersecurity event means it is incumbent upon the industry and the Authority to be vigilant, and for the Authority to keep abreast of industry activity.

Understanding electricity reliability risks originating in the gas industry

The SRC received presentations at its 28 March 2018 meeting from Woodward Partners and First Gas relating to the gas industry. The Authority gave advice on those matters in its 26 April 2018 letter of advice to the Authority. At its 22 June 2018 meeting, the SRC

received a presentation from the Gas Industry Company (GIC) on management of critical gas contingencies.

The SRC expects to receive one or two more presentations in this series, and will provide summarised advice at that time. However, the GIC presentation provided some lessons that the SRC endorses.

The SRC's advice to the Authority is:

- Voluntary arrangements for critical processes can be exposed at times of stress to be inadequate. Regulated arrangements can, if implemented well, provide a way for action to be consistently applied across an industry.
- Limiting the discretion of the organisations involved in critical processes can provide valuable certainty. This can be seen in the limited discretion that the system operator has for starting and stopping official conservation campaigns. The Authority should value the certainty such arrangements provide.
- Communication during times of power system stress is vitally important. Such communication must be timely, consistent and delivered to all interested stakeholders (including politicians).
- Preparation is vital for enabling effective crisis management. Processes and systems should be exercised using a range of scenarios to the extent practical.

Asset management of electricity distributors

The SRC received presentations from:

- Wellington Electricity, on its emergency preparedness
- The Commerce Commission, on its regulatory focus on asset management.

The SRC has requested its secretariat research and provide more information to the SRC on the emergency preparedness of electricity distributors and will consider advice on emergency preparedness at that time.

The SRC's advice to the Authority is:

- the Commerce Commission's focus on encouraging best practice asset management is a positive step for reliability of supply
- electricity network resilience is an important facet of best practice asset management, but is problematic to quantify.

The Electricity Authority's review of winter 2017

The SRC received a copy of the Authority's review of winter 2017. As the review had been published, the secretariat was seeking to inform the SRC rather than soliciting feedback from the SRC. Nonetheless, the SRC had some feedback for the Authority.

The SRC's advice to the Authority is:

- that, as the review noted, the security of supply regulatory arrangements played a part in the observed differences in managing hydro storage
- some members considered that other important factors were ignored or underemphasised by the review, such as:
 - the analytical scrutiny and commercial focus that accompanied public listing of major gentailers
 - asset swaps
- that the review didn't convey the level of concern felt within the industry at the time the events of winter 2017 were unfolding. During the event, it was not obvious to stakeholders how the winter would play out. There was a lot of industry activity that occurred to maintain sufficient hydro storage for an extended dry period. Had different decisions been made, or a key asset broken down, there could have been significant impacts on consumers.

Treatment of thermal fuels in the hydro risk curves

The SRC received a paper from the system operator concerning its consultation with industry about its proposed treatment of thermal fuels (especially delays in thermal fuel availability) within the hydro risk curves.

The SRC's advice to the Authority is:

- That the merits of any particular thermal fuel constraint the system operator elects to model will depend on the actual facts and the system operator's ability to independently verify those facts.
- When the system operator does elect to model a thermal fuel constraint:
 - that decision will receive considerable interest and scrutiny as it will likely be at a time when the power system is under stress with low hydro inflows
 - the system operator needs to communicate in a manner that minimises alarm or perceptions of it having made a hasty decision.

- It would be ideal if wholesale electricity purchasers understood all their risks and had products available to facilitate covering of risks where appropriate. However, many purchasers are likely unaware of the risk of thermal fuel unavailability and that they have limited options to protect themselves once unavailability occurs.

Miscellaneous advice

The SRC received a paper from its secretariat that facilitated the SRC to discuss matters of strategic importance and reflect on the focus of the SRC. The discussion covered some matters that are important enough to document here despite the apparent obviousness.

The SRC's advice to the Authority is:

- Poor public understanding coupled with political pressure to 'do something' can lead to costly interventions for consumers. South Australia's 28 September 2016 power outage demonstrated this very clearly and the 'social capital' lost with consumers will take a lot of time and effort to rebuild. The SRC considers the Authority should be endeavouring to improve consumers' understanding of the electricity industry.
- The industry responsibility for providing security of supply is diffused among many players. This is an uncomfortable fact for many people to accept and therefore a difficult but important matter to communicate.
 - This diffused responsibility is exacerbated by the partial privatisation of the state-owned gentailers. The scrutiny associated with being listed on the New Zealand stock exchange means those companies have altered their market behaviour. Any stakeholders with outdated expectations of market behaviour may discover their misapprehension only when the power system is under stress.
- There is widespread understanding that environmental factors, especially technology, will force significant changes within the electricity sector. That common understanding of coming change creates a bow-wave of uncertainty and volatility that precedes the actual changes.
- Change is the source of progress, but also a source of risk. Change may exacerbate the risk of 'black swan' events in the medium-term. As such, industry-wide alertness and vigilance to the potential for such events is vital.

Finally, the SRC considers that the Mike Underhill's success with the SRC was built on a foundation of industry experience and the Authority should prize such experience when appointing a replacement. There is no further advice arising from the matters discussed at the SRC's 22 June 2018 meeting.

Yours sincerely



Bruce Turner

Temporary Deputy Chair of the SRC, in relation to the 22 June 2018 meeting

cc: SRC members, Rory Blundell (Electricity Authority)