

30 July 2019

Dr Brent Layton
Chair
Electricity Authority
PO Box 10041
Wellington 6143

Dear Brent

Advice resulting from the 20 June 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 six papers at its 20 June 2019 meeting. This letter is the SRC's advice arising from five of those papers.

Distributors' emergency preparedness and management

The SRC received presentations about the emergency preparedness of electricity distributors from the Ministry of Civil Defence & Emergency Management (MCDEM) and the Commerce Commission.

The SRC's advice to the Authority is:

- to be aware that:
 - o the electricity industry is a critical part of an interdependent economy (see appendix)
 - o each 'lifeline utility' has a legislative obligation to "ensure that it is able to function to the fullest possible extent, even though this may be at a reduced level, during and after an emergency"
 - o distributors, the grid owner and generators are all lifeline utilities
 - o there are moves afoot to classify electricity retailers as lifeline utilities
- there are gaps and fragmentation in emergency response capabilities, with considerable variation in the preparedness of distributors and local government

- consumers need access to good quality information and a single conduit for that information will promote awareness. MCDEM have a website aimed at consumers, and the electricity industry should be encouraged to use this as the conduit
- the electricity industry has a duty to feed good quality information into the conduit for consumers, and promote the existence of that conduit.

Asset management of electricity distribution businesses

The SRC received a presentation from the Commerce Commission about its increased focus on the asset management of distributors.

The SRC's advice to the Authority is:

- the 'state of the network' reports¹ undertaken by some distributors is a worthwhile activity for all distributors, as the visibility drives improvements in reporting and behaviours.

A minority opinion of the SRC is that Commerce Act regulation is an undue barrier to appropriate reliability/resilience investments.

Management of gas production outage risks

The SRC received a presentation from OMV about their approach to, and views on, risks to gas production outages. The SRC also discussed gas information disclosure arrangements and directed its secretariat to invite a Gas Industry Company representative to talk to the SRC about their process.

The SRC's advice to the Authority is:

- the electricity and gas industries are co-dependent, even at the consumer level where they are substitute fuels for heating and cooking
- the gas industry seem to be managing their risks well but alignment between it and the electricity industry is an issue. In particular, the SRC remains concerned with gas industry information disclosure arrangements, as set out in the SRC's 21 November 2018 letter of advice
- gas production operators have good commercial incentives for reliability in the short-term, though the longer term has less certainty.

¹ Examples are Aurora Energy's [state of the network](#) report, and the annual [independent state of the network](#) reports about Vector's network.

Network Transformation Roadmap

The SRC received a copy of the Network Transformation Roadmap and a related presentation from the Electricity Networks' Association and the Chair of the Smart Technologies Working Group.

The SRC's advice to the Authority is:

- that the SRC members have a wide range of views about how quickly the impact of smart technologies will be felt
- the Network Transformation Roadmap contents definitely do not over-reach. Some members felt the content was suitable, others felt the content didn't go far enough and the Network Transformation Roadmap would be side-lined as a result
- approaches that create optionality, such as 'open networks' will be important to following a 'least regrets' path
- that there is merit in networks embedded within distributors' networks voluntarily adopting the Network Transformation Roadmap.

Risk and strategy

The SRC held an independently facilitated session to discuss the SRC's work in light of the strategic and risk environment.

The SRC's advice to the Authority is:

- New Zealand's power system has performed well in terms of security and reliability over the last decade – but that environment was relatively benign due to high supply margins and low demand growth
- New Zealand's power system now faces a transition driven by decarbonisation, technology and wider social and market changes – these provide new opportunities and challenges
- it will be important for decision makers to keep up to date with changing consumer behaviour and expectations (such as attitudes to renewables versus fossil-fuelled generation, attitudes to and uptake of new technology, growth of peak demand and aggregate consumption) throughout the transition – or else decisions will be made without consumers' interests represented
- energy security (i.e. generation/fuel adequacy) is likely to be the biggest challenge as demand grows and thermal plant face increasing pressure to retire

- network reliability (especially on low-voltage networks) may be a challenging issue, though the rate of technology uptake and the level of control available will be critical factors as to when or if this issue arises
- it will be more important than ever to ensure decision-makers (regulators, asset owners and operators) have suitable information and incentives to make sound trade-offs between security/reliability and other objectives.

There is no further advice arising from the matters discussed at the SRC's 20 June 2019 meeting.

Yours sincerely

A handwritten signature in black ink, appearing to read 'H Roy', is positioned above the printed name.

Heather Roy
Chair of the SRC

cc: SRC members, Rory Blundell (Authority)

Appendix

The following three figures are slides 11-13 from the MCDEM presentation.

Figure 1: Overview of lifeline utilities interdependencies

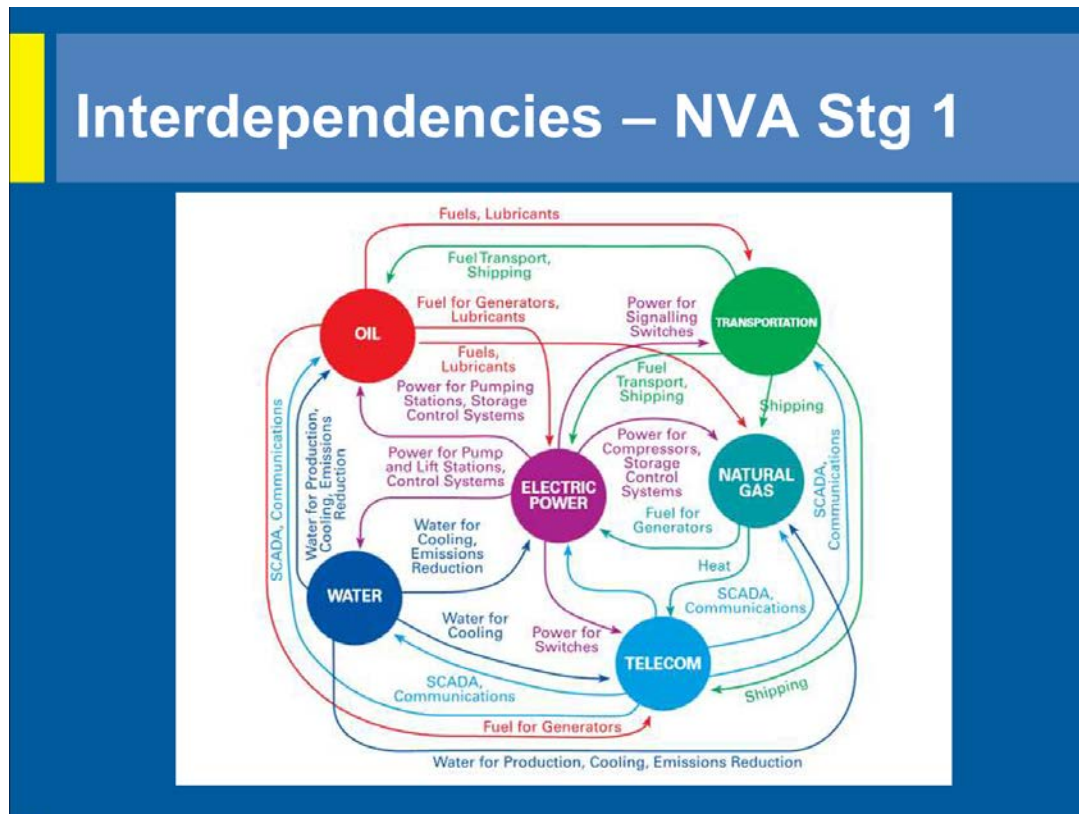


Figure 2: Degree of interdependencies during business as usual

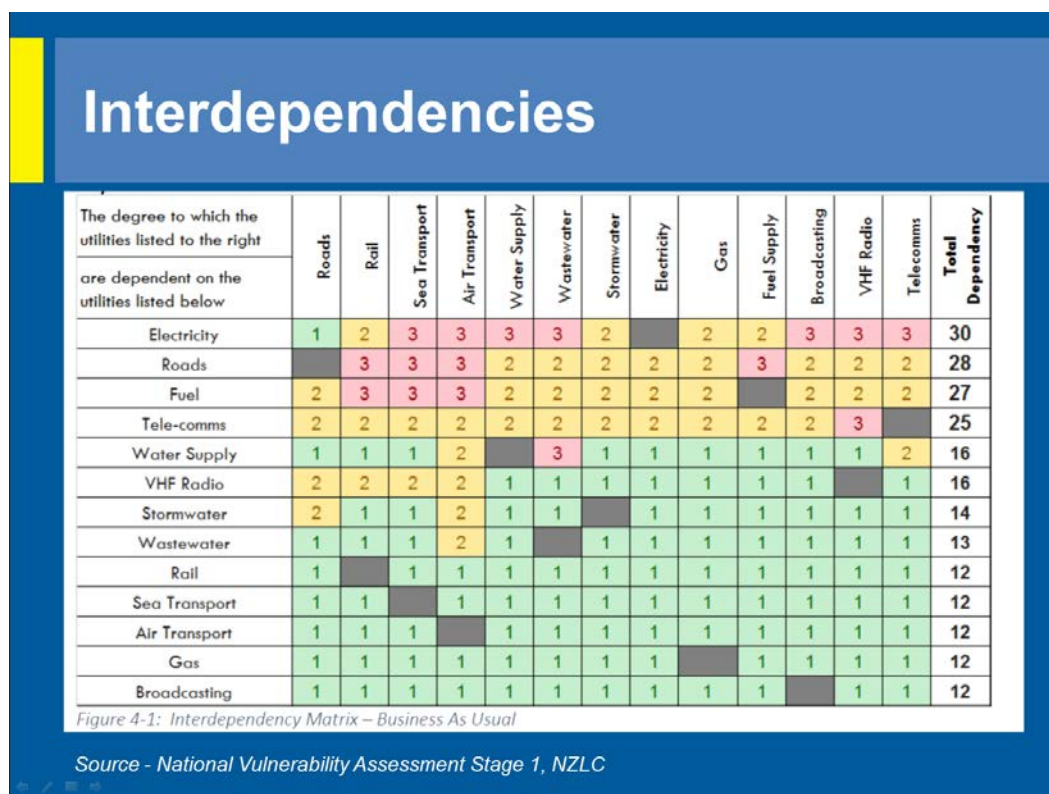


Figure 3: Degree of interdependencies during/post disaster

