

Security and Reliability Council ::: Meeting Number 17

Venue ::: Level 7, ASB Bank tower, 2 Hunter Street, Wellington

Time and date ::: 9:30 am ::: 21 June 2016

Minutes

Members present

::: Mike Underhill (Chair)
 ::: Albert Brantley (by telephone)
 ::: Barbara Elliston
 ::: Bruce Turner
 ::: Erik Westergaard
 ::: Nigel Barbour (from 11.00 am)
 ::: Vince Hawksworth (by telephone)

Apologies

::: Guy Waipara

In Attendance

Electricity Authority (Authority):

::: Carl Hansen, Chief Executive
 ::: Grant Benvenuti, Manager Market Operations
 ::: Callum McLean, Adviser System Operations

Transpower:

::: John Clarke, General Manager System Operations (from 10.13 am until 11.06 am)
 ::: Kevin Duckworth, Business Manager System Operations (from 11.04 am until 11.06 am)
 ::: Leigh Westley, Ancillary Services Manager (from 10.13 am until 10.41 am)
 ::: Murray Henderson, Senior Analyst Market Operations (from 10.54 am until 11.04 am)
 ::: Stephen Jay, General Manager Grid Development (from 10.41 am until 10.54 am)

Others (on behalf of the secretariat):

::: Bill Heaps, Principal Consultant, Strata Energy (from 9.38 am until 9.58 am)
 ::: Victoria Coad, Senior Consultant, Concept Consulting (from 11.18 am until 11.38 am)

The meeting opened at 09:30 am.

1 Welcome and apologies

1. The Chair welcomed members to the seventeenth meeting of the Security and Reliability Council (SRC).

-
2. The Chair noted the apology from Guy Waipara.

Administration

2 Changes to disclosure of interests

3. The Chair reviewed the latest interests register and approved members to act despite those declared interests.

3 Previous minutes

4. The minutes of the 15 March 2016 meeting were accepted as true and accurate records. *Erik Westergaard moved, Barbara Elliston seconded*

4 Action list

5. The SRC reviewed the current action list.
6. In relation to action item #8, the SRC discussed that:
- a) changes to health and safety legislation could reduce use of live line work by 50%
 - b) this is something for the secretariat to be cognisant of as an example of regulatory pressure (rightly or wrongly) negatively impacting on reliability.
7. The SRC agreed that there may be a role for it to provide some advice to the Authority, but that this would depend of the release of a related report by the Electricity Engineers Association.

ACTION

- 1. Change action item #8 to require the secretariat to provide relevant findings from the Electricity Engineers Association report once it has been released.

5 Correspondence

8. There were no questions in relation to the correspondence tabled.

Reliability of supply

6 Further development of the SRC's risk management framework

Bill Heaps joined the meeting at 9.38 am

9. Authority representatives introduced the paper, noting:
- a. progress has been slower than anticipated
 - b. the whole exercise helps clarify and define the SRC's scope
 - c. the outcomes should engage the SRC, the Authority and other stakeholders on key hazards
 - d. the bowtie method is very good at highlighting responsibility of risk owners.
10. The SRC's discussion included the following points made by members:
-

- a. risk management can be difficult to keep on track, and the secretariat needs to ensure the risk management framework (RMF) remains manageable and does not become 'all consuming'
 - b. the bowtie method is great at identifying risk
 - c. the SRC's role is about identifying risk rather than managing risks, however the level of detail in the bowties should support the SRC being involved enough to know risk owners are accountable and taking actions
 - d. having the framework in place is important for the SRC to be able to provide advice that gives it confidence the Authority has a broad view of asset owner processes
 - e. the failure of Australia's Bass Strait Link was raised as an example of a risk where:
 - i) a consequence of the risk (a long return-to-service time that met neither customer needs nor expectations) had not been well anticipated by any of the risk owners, despite their risk management activities
 - ii) each risk owner managed its own risk but the interaction of risks between the different risk owners involved may have been missed, and there may be lessons here for how the SRC views risks that exist on the boundaries of responsibility between industry participants
 - f. consumers may have an expectation that electricity supply is guaranteed, and the real risks of energy security are not understood or accepted
 - g. financial transfer of risk can be highly effective for risk mitigation, though it can be overlooked in favour of more visible technical solutions.
11. An Authority representative noted that the paper's description of the SRC's objectives for the RMF does not mention systemic risks, though this is something the SRC have previously focussed on.
12. The SRC responded to questions as follows:
- a. question 1: in relation to the objectives of the RMF, that:
 - i. identifying risks is important, particularly around boundaries between risk owners (gaps and overlaps)
 - ii. the RMF should produce more than just 'conversations', there needs to be insight that enables action
 - iii. the objectives do talk about keeping the SRC's focus at "an appropriately high level", but could mention a focus on systemic risks as a key manifestation of this
 - iv. the objectives do not include managing identified risks or proposing solutions
 - b. question 2: the SRC's earlier conversations reinforced some of the principles and no modifications were requested
 - c. question 3: the SRC noted no disagreement with any of the 'implications for future RMF development'
 - d. question 4: the SRC agreed, noting it was a key milestone to get one or two bowties presented at the SRC's next meeting

- e. question 5: as noted in question four, the proposed next steps were satisfactory
- f. question 6: the SRC wanted to advise the Board that there was a lesson for New Zealand from the Bass Strait HVDC link failure that relates to boundaries of responsibilities and taking account of customers' needs when managing risks.

Bill Heaps departed the meeting at 09.58 am

7 Overseas examples of edge technologies affecting security or reliability

13. An Authority representative introduced the report, noting there were a number of groups investigating aspects of this area.
14. The SRC's discussion included the following points:
 - a. several members were familiar with the various groups' investigations and studies
 - b. new technology can be more forgiving in some areas (reducing total costs) and introduce quality problems in other areas (increasing total costs)
 - c. direct importing of consumer equipment may bypass compliance with standards, meaning more non-compliant equipment on the system, which could affect safety of workers and consumers as well as system reliability:
 - i. such equipment may or may not purport to comply with the relevant standards
 - ii. installers should have an interest in the longer-term market dynamics of non-compliant equipment, though it is not clear they are incentivised to plan for the longer-term
 - iii. Energy Safety Services appears to be concerned about these issues and the secretariat should find out the details to assess if there is a security or reliability issue
 - d. edge technologies generally have higher penetration rates overseas, meaning many of the security and reliability concerns will be addressed first by other jurisdictions. This will likely be reflected in development of standards
 - e. New Zealand has virtually no influence on the design or pricing of new consumer technology
 - f. when the public moves *en masse* to install new technologies, the industry and regulators can easily be left behind.
15. The SRC responded to questions as follows:
 - a. question 1: the SRC agreed with the description of potential security and reliability impacts for New Zealand, but wanted the risk of non-compliant consumer equipment recognised
 - b. question 2: the SRC agreed the studies currently underway appear sufficient
 - c. question 3: the SRC requested that a representative from the Green Grid project attend and present to a future SRC meeting. The SRC suggested the secretariat discuss the topic further with Energy Safety Services
 - d. question 4: the SRC wishes to advise the Board that:
 - i. the various studies currently underway (nationally and internationally) appear to

- be suitable for New Zealand's purposes at this time
- ii. the increasing internationalisation of standards (such as AS/NZS 4777) are good news for New Zealand as a technology- and price-taker
 - iii. there is a threat to system reliability posed by the importation and installation of equipment that does not comply with relevant standards (and that may or may not purport to meet the relevant standards)
 - iv. the SRC will keep a watching brief on this area and anticipates receiving information annually from its secretariat.

ACTION

- 2. The secretariat is to request for a representative from the Green Grid project to attend and present to a future SRC meeting, by no later than the second SRC meeting of 2017.
- 3. The secretariat is to engage with Energy Safety Services to understand their concerns by 1 October 2016.

8 A debrief on the system operator's 8 June 2016 'Core grid restoration desktop exercise'

John Clarke and Leigh Westley joined the meeting at 10.13 am

- 16. After introductions, a system operator representative tabled updated slides (Annex 1 to these minutes) and spoke to the presentation. System operator representatives:
 - a. explained why the 8 June 2016 event had the scope it did
 - b. advised that take-outs from the day included:
 - v. there were no major concerns, surprises or issues
 - vi. there was good buy-in to the concept of 'industry collective capability'
 - vii. that participants were keen to progress their own capability
 - viii. that participants now have clearer expectation about restoration times
 - ix. that participants are looking for frequent and timely updates from Transpower, including very early on in the restoration process
 - c. concluded with the next steps which are:
 - i. in the short-term, learning from participants and checking on progress
 - ii. in the medium-term, the next stage of exercises to test North Island regional restoration plans
 - iii. in the long-term, testing the South Island plans followed by sharing communications with a wider audience.
 - 17. The SRC and the system operator discussed the lessons learned in distribution and transmission about the length of outages versus the hours of battery backup at substations. A system operator noted that some participants took that as a lesson from the exercise and were able to better define the potential length of transmission outages.
 - 18. A member queried if any significant opportunities (such as the prioritisation of restoring different loads) were identified to reduce the total restoration time. A system operator
-

representative advised there weren't, but that further investigations into the priority of restoring geothermal generation may offer some advantages.

19. An Authority representative asked the system operator what its expectations were for communicating to a wider audience. A system operator representative advised that information is being discussed among the industry only at this point, then will be discussed with emergency management experts. There are, as yet, no plans in place for communicating to the public.
20. Members discussed two examples where the relevant emergency services were able to communicate useful information to members of the public and this lead to better outcomes.
21. The SRC responded to questions as follows:
 - a. question 1: the SRC agreed with the next steps, but encouraged the system operator to ensure useful information is communicated to industry, emergency services, politicians and the public at suitable times
 - b. question 2: the SRC did not request any further information from the secretariat
 - c. question 3: the SRC did not have any advice for the Board.

Security of supply

9 Thermal generation decommissioning

Stephen Jay joined the meeting, and Leigh Westley departed the meeting, at 10.41 am

22. Transpower representatives introduced the paper and highlighted, in light of the announcement that Huntly Rankine units will remain for longer than previously expected, the areas of security of supply and the major capital project investigation.
23. The SRC responded to the questions as follows:
 - a. question 1: the SRC were comforted with the information provided at the last meeting and the Huntly Rankine announcement has pushed those concerns out, allowing the 'business as usual' processes to produce relevant information that will help inform appropriate investment decisions
 - b. question 2: the SRC agreed with Transpower's 18 May 2016 observations
 - c. question 3: the SRC requested to be kept abreast of the progress of Transpower's major capital project for voltage stability issues in the upper North Island (MCP)
 - d. question 4: the SRC agreed its advice to the Board should note:
 - i. without earlier investment or intervention, there are power system issues expected to emerge from 2021
 - ii. Transpower's major capital project to mitigate such power system issues has tight, but not unachievable, timeframes (an 'amber light' status)
 - iii. stakeholders ought to be aware that the Huntly Rankine units could still come out of service earlier than 2022 if circumstances change, such as the Tiwai aluminium smelter closing
 - iv. stakeholders ought to be aware that Tiwai closing has little impact on voltage and

thermal limits in the upper-North Island.

ACTION

4. The secretariat is to keep the SRC updated with the progress of Transpower's major capital project for voltage stability issues in the upper North Island. Updates of milestones should be provided until the investment decision is made in about October 2017.

10 The National Winter Group's (NWG's) report on winter 2016

Murray Henderson joined the meeting, and Stephen Jay departed the meeting, at 10.54am

24. A system operator representative introduced the paper and discussed the historic focus of the NWG, the role of the New Zealand Generation Balance reporting (a 200-day rolling review of system security), and what changes are being made to improve the process in order to avoid any repeats of this year's confusion.

Nigel Barbour joined the meeting at 11.00 am

25. A system operator representative noted the wording of the 5 April 2016 customer advice notice regarding the HAY F3 filter outage in early June was not ideal and Transpower is aiming to improve in this regard.
26. The SRC responded to the questions as follows:
 - a. question 1: the SRC had no questions about the facts of the situation
 - b. question 2: the SRC requested no further information from the secretariat
 - c. question 3: the SRC was satisfied with the system operator's response and had no advice for improvements in addition to those already completed or planned by the system operator
 - d. question 4: the SRC noted that the system operator agreed that its communication of the matter was not ideal and is something that it is looking to improve in future
 - e. question 5: the SRC had no advice in addition to its answers to questions 3 and 4.

Performance of the system operator

11 Proposed system operator performance measures for 2016-17

Kevin Duckworth joined the meeting, and Murray Henderson departed the meeting, at 11.04 am

27. An Authority representative introduced the paper and explained the performance incentives under negotiation. These incentives are market focused. There is also likely to be a requirement agreed for the system operator to develop and establish a broad suite of operational performance metrics.
28. A system operator representative noted this is progressing and the inter-organisation relationship is healthy.
29. The SRC did not request any additional information from the secretariat and had no advice for the Board.

Kevin Duckworth and John Clarke departed the meeting at 11.06 am

The SRC returned to agenda item 4 (action item #8). This discussion is recorded in paragraphs 6-7.

General Business

12 Assessing the applicability of the Health and Safety at Work Act to the SRC

30. The SRC noted the paper and did not request any additional information from the secretariat or have any advice for the Board.

13 Comparing the SRC with international counterparts

Victoria Coad joined the meeting at 11.18 am

31. The SRC had questions for the secretariat on the potential for international benchmarking and the North American RISC group. The secretariat responded that benchmarking is unlikely to be useful and explained that RISC are an advisory and enabling committee that assists NERC with how to think in a coordinated way on security and reliability matters.

32. SRC responded to the questions as follows:

- a. question 1: the SRC agreed that the secretariat should not broaden its search for international comparator entities
- b. question 2: the SRC did not agree that the secretariat should further investigate how the three jurisdictions identified perform any tasks that are similar to the SRC as there are so many differences, including the regulatory environment
- c. question 3: the SRC requested an update from the secretariat on cybersecurity-related matters at its October meeting
- d. question 4: the SRC wished to advise the Board it had investigated this but it plans no further activity. The closest international jurisdictions are still very different and the SRC seems to be functioning well enough so as not to warrant the time and expense of investigating this in detail.

ACTION

5. The secretariat is to provide an update on cybersecurity-related matters at the 19 October 2016 SRC meeting.

Victoria Coad departed the meeting at 11.38 am

14 A discussion of the SRC's strategic environment

33. The secretariat and the Chair introduced the background for how this strategic discussion was initiated and what the Chair aims to get out of the session.

34. Members had a wide-ranging discussion that included:

- a. three meetings a year seems an appropriate level of attention
- b. there seems to be an appropriate mix of papers, but the challenge is looking forward to identify what other matters are strategically relevant to the sector
- c. that cybersecurity and 'edge' technology are examples of areas of 'up and coming' strategic

- importance that the SRC is already receiving information on
- d. whether aging asset fleets should be a matter the SRC investigates further
 - e. that the SRC needs sufficient information to identify gaps at the boundaries between participants' responsibilities and provide good advice to the Authority, but to do so in a way that avoids duplication of the relevant industry participants' Boards. This was an area of significant concern for the SRC
 - f. whether market reactions and perceptions of risk are an area the SRC should be receiving information on. For example, premiums on a cap product would inform perceptions of risk
 - g. whether the SRC's focus aligns with regulatory strategy. The SRC could, for instance, provide input to the Authority's and/or Commerce Commission's strategies, or comment on the completed strategies
 - h. because individual participants can have quite a narrow focus, and different types of participant (such as retailers and distributors) have vastly different areas of focus, these organisations can use help to identify strategically relevant matters (especially for matters that are not in the traditional focus areas).
35. SRC members responded to questions as follows:
- a. question 1: the discussion in paragraph 34 captures the members' comments
 - b. question 2: the SRC would like the secretariat to investigate aging asset fleets, risk perceptions evident in market reactions and alignment with regulatory strategies
 - c. question 3: the SRC wished to advise the Board of a summary of the strategy-related papers it has received.

ACTION

6. The secretariat is to do a preliminary investigation of tranches or classes of power system assets that are expected to reach their end-of-life in the next ten years. The preliminary investigation should be provided to the SRC no later than its first meeting of 2017.
7. The secretariat is to identify a suite of market measures that may give an indication of the perception of risks to security or reliability.
8. The secretariat is to propose a plan that describes the SRC's interactions with the aspects of the Electricity Authority and Commerce Commission strategies that affect security and reliability.

15 General business (no papers)

36. The secretariat provided an update on the process for appointing a replacement for Judi Jones. The SRC members were requested to put forward the names of some people that the Authority could consider approaching during the next stage of the appointment process.
37. The secretariat alerted the members to a forthcoming consultation expected to propose changes to the Charter about Advisory Groups and the advisory groups' terms of reference. As such, if there are changes that ought to be made to the SRC's part of the Charter about Advisory Groups or the SRC's *Terms of Reference*, now is an ideal time to propose them.

ACTION

-
9. The secretariat is to circulate a copy of the SRC's part of the *Charter about Advisory Groups* and the SRC's *Terms of Reference* to the members with a high-level description of the changes that may be proposed. Members are to be given a deadline to respond by.

Carl Hansen, Grant Benvenuti and Callum McLean departed the meeting at 12.04 pm

16 2016 assessment of secretariat performance

38. The SRC discussed the secretariat's performance. Overall, the SRC has been very satisfied with the secretariat's performance, though some suggestions for improvement have been made. The Chair undertook to send a written summary to the secretariat.
-

17 Administration

39. There was no discussion of any administrative matters.
-

18 Meeting close

40. The meeting was closed at 12.11 pm.