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| Security and Reliability Council ::: Meeting Number 3 |
| Venue ::: Level 7, ASB Bank tower, 2 Hunter Street, Wellington |
| Time and date ::: 9:30 am ::: 13 December 2011 |

Minutes

Members Present

::: Kevin Thompson (Chair)
 ::: Patrick Strange (until 12:45pm)
 ::: Bruce Turner
 ::: Dennis Barnes
 ::: David Russell
 ::: Terrence Currie

Leave of Absence

::: Albert Brantley

In attendance

Electricity Authority (Authority):

::: Carl Hansen, Chief Executive and principal Authority representative
 ::: Fraser Clark, General Manager Operations Development
 ::: Darryl Renner, Director System Operations and Common Quality
 ::: Mike Collis, Senior Adviser Common Quality

System Operator:

::: Kieran Devine, General Manager System Operations (until 12:45pm)
 ::: John Campbell, Risk and Performance Manager
 ::: Shane Tennett

Gas Industry Company

::: Steve Bielby (agenda item 8 only)
 ::: Ian Dempster (agenda item 8 only)
 ::: John Bright (agenda item 8 only)

Independent Consultant

::: John Kidd (agenda item 10 only)

The meeting opened at 09:30 am.

1 Welcome and Apologies

1. The Chair welcomed members to the meeting of the Security and Reliability Council (SRC), and noted he had granted Albert Brantley leave of absence from Meeting 3 of the SRC.
2. The Chair noted that resignations from the SRC had been received from Tim Lusk, due to his retirement as CEO of Meridian, and from Roger Sutton owing to his ongoing commitments to CERA.

2a Previous Minutes

3. The minutes of the 18 August 2011 meeting were accepted as a true and accurate record.

(Turner/Russell)

2b Actions and Matters Arising

4. Disclosure of Interests: The Chair noted that statements have now been received from all members and a register of interests is attached to the previous meeting's minutes.
5. The other actions and matters arising are addressed in individual agenda items.

3 Correspondence

6. A letter was received from the Acting Minister of Energy and Resources granting permission under section 68(4) of the Crown Entities Act for Kevin Thompson to participate in the Council despite his interest in Kiwi Rail as a director.

4 Changes to Disclosure of Interests

7. A member questioned whether members were required to update changes in shareholding interests on an ongoing basis. Carl Hansen advised that the extent of disclosure required under the Crown Entities Act was a matter of judgement for each member and the Authority has guidelines for advisory group members available on its website.

5 Update on Current System Performance – *system operator*

Kieran Devine, John Campbell and Shane Tennett joined the meeting at 9:47 am

8. Kieran Devine provided a verbal update of current system performance issues. He reported that 3 weeks ago there had been a failure of the market systems software for a period of 4 hours. While backup stand-alone dispatch worked satisfactorily, not all schedules required under the Code were able to be produced during the period of the failure.
9. The problem was not caused by software failure, it is thought to be more of a systems infrastructure and data communications problem as multiple systems failed during the event. The problem is still being investigated and a solution is yet to be found. The system operator has engaged Randy Berry, a former head of Alstom and now director of Power Systems Consulting USA, to carry out a peer review of its systems architecture.
10. This is the second failure of the market systems software following a more significant event in April 2011. The system operator is investigating whether the two events are related.
11. Kieran noted that the voltage support ancillary services contracts in the Auckland region are due to expire at the end of this year. The system operator will need to renegotiate contracts for this service.

6 Review of System Operator Performance for 2010/11

12. Patrick Strange noted a conflict of interest for this agenda item given his role as CEO of Transpower.
13. The Chair directed members to focus their feedback on the system operator's performance at a high level, noting that a measured level of tension in the contractual relationship between the system operator and the Authority is appropriate.
14. A member questioned whether there is enough tension, particularly over funding arrangements and the system operator's commitment to the Authority's priorities under the joint work programme (capital) and the TASC contract (investigations). Darryl Renner indicated that the priorities of the two organisations are now better aligned and that good progress is being made under agreed work programmes.
15. A member enquired whether the system operator puts sufficient emphasis on succession planning. Patrick Strange assured the SRC that the system operator is well served by an experienced management team and that adequate succession planning is in place.
16. Darryl Renner clarified that the SRC's review should not duplicate the detailed review of the system operator's performance carried out by the Authority. He suggested the SRC should concentrate on particular areas of concern that it might like to see emphasised in the review such as:
 - the constraints development issue that occurred in January;
 - the two failures of the market systems; and
 - the performance of RMT which is aged and in need of development.
17. In addition to the above, members identified the following issues:
 - the level of priority being given to the upgrade of RMT;
 - what processes are in place to deliver the best market outcomes for the industry, e.g. is the system operator getting the message out about cost consequences of AUFLS exemptions?
 - use of discretionary constraints, particularly in relation to the January incident, including costs and frequency;
 - peer review of the internal reviews regarding management of Transpower's critical facilities;
 - should a post-project review be carried out for MSP?
 - the use of KPIs to identify trends over time (e.g. constrained-on costs).

7 Enhancing the System Operator Performance Assessment Cycle

18. Patrick Strange noted a conflict of interest for this agenda item given his role as CEO of Transpower.
 19. Darryl Renner introduced this item explaining that a significant issue for the system operator is that its performance is assessed under three different mechanisms – the Code, the SOSPA and the compliance regime. More consistent performance incentives would be provided by a more focussed approach to assessment.
 20. Members identified the following possible initiatives that could be used to enhance the current arrangements:
 - the existing measures are based at too much of a transactional level and there are no measures
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relating to strategic responses to future needs;

- is the SOSPA at risk component too small?
- measures should focus on transparency, governance and development, although it is accepted that it is difficult to create specific measures in these categories;
- KPIs should be developed in a way that allows the set of measures to be developed over time; and
- prioritising the KPIs, rather than just weighting them, as security considerations should be the first priority.

21. Carl Hansen undertook to work with the system operator to develop a new set of KPIs for discussion at the next SRC meeting.

| Action | By | Date for action |
|---|-------------|-------------------|
| The secretariat to work with the system operator to develop a set of integrated and prioritised performance measures. | Secretariat | For April meeting |

8 Lessons from the Maui Pipeline Outage

Steve Bielby, Ian Dempster and John Bright from the Gas Industry Company joined the meeting at 10:35 am

22. Steve Bielby provided a presentation on the lessons learnt from the critical contingency event that occurred on the Maui pipeline on 24 October 2011. The key learnings from the event were:
- regulations generally worked well – curtailment of off-take avoided de-pressurisation of the pipeline;
 - customer compliance with the curtailment obligations was very good, although some breaches are being identified;
 - tiered industry responsibilities using critical contingency bands was the right regime but some refinement of responsibilities is needed;
 - crisis management is all about communication – the Government requested one voice for industry;
 - the challenge in the first two days was how to get early information out to the industry;
 - communication with the Transpower system operator worked well; and
 - a review is needed with other operational groups to clarify precisely ‘who communicates what’ in an emergency

Steve Bielby, Ian Dempster and John Bright left the meeting at 11:20 am

9 Managing Security of Supply Risks

Lee Wilson joined the meeting at 11:40 am

23. Fraser Clark outlined the three-limb framework to the management of supply risks, being short-term monitoring, longer-term monitoring and emergency management.
24. Members questioned whether there ought to be a third horizon for monitoring extending out beyond five years and whether the deterministic approach to the emergency zone margin is the best approach to use. Patrick Strange explained that the system operator considers committed projects over the next 5

years but does not extend its analysis beyond that period as market investments are too uncertain beyond the 5-year horizon.

25. Members confirmed that the hydro risk curve is widely used by purchasers of electricity as part of their own risk assessment processes.
26. It was difficult for members to comment in any details on the paper presented due to lack of information and specific expertise in this area. The chair advised that this item would be on the agenda for the next meeting and the paper would be developed further for that meeting.

| Action | By | Date for action |
|--|-------------|-------------------|
| The secretariat to develop a final paper for the April 2012 SRC meeting. | Secretariat | For April meeting |

10 The Future of Natural Gas for Electricity Generation

John Kidd joined the meeting at 12:00 noon.

27. John Kidd provided a presentation on macro gas trends, New Zealand gas trends and the implications for the New Zealand generation sector.
28. Globally, a supply-side revolution is taking place, which is maintaining the global reserves-to-production ratio at 60 years. Unconventional sources of gas such as shale gas and coal seam gas are becoming economically viable.
29. The supply of gas in New Zealand is looking increasingly positive in the near, medium and longer-term although long-term gas access is still a major issue. Consented CCGT sites are likely to remain undeveloped, particularly with the near-term focus on new geothermal build
30. A member noted that the level of security of the gas supply is much lower than the level of security expected of the electricity system which uses 50% of the gas supply output.

Dennis Barnes left the meeting at 12:20 pm.

John Kidd left the meeting at 12:30 pm.

11 Other Business

31. The Chair suggested that the SRC's views on the system operator's performance should be conveyed to the Board separately from those of the Authority staff in the form of a letter. The letter should be drafted by the secretariat and circulated to members for comment.
32. The SRC has been invited to the Authority Board meeting on 31 January 2012 to present its views on the system operator's performance. The final version of the letter needs to be provided to the Board Secretary by 24 January 2012. As many members as possible should attend the Board meeting.
33. The meeting schedule for 2012 will be reviewed by the Chair and circulated to members.
34. The agenda for the next meeting will focus on security of supply and reliability of the electricity system, and risk management.

| Action | By | Date for action |
|---|-------------|-----------------|
| The secretariat to draft a letter for circulation to members by the Chair. | Secretariat | 31/12/2011 |
| Action | By | Date for action |
| The secretariat to prepare a schedule of meetings for 2012 for review by the Chair prior to circulation to members. | Secretariat | 31/12/2011 |

12 AUFLS Provision in the South Island

35. Fraser Clark introduced this item and explained the background to the issue of the non-supply of AUFLS at Tiwai Point and the resulting difficulty faced by Transpower in meeting its Code obligations in the South Island. Some of the contracted parties to the Rio Tinto agreements at Tiwai Point consider these agreements provide a “ring fence” in relation to any requirement to comply with the AUFLS obligation in the Code.
36. These circumstances may change following the expiry of the Rio Tinto agreements on 31 December 2012 but the Authority has not received any information regarding any plans to address this non-compliance.
37. Members noted that the issue should be made transparent to participants and the security, reliability and costs consequences published (subject to the compliance process).
38. It was concluded that the Chair should write to the Authority Board on behalf of the SRC advising that the SRC is of the view that the non-supply of AUFLS at Tiwai Point is not a security risk. The system operator procures additional reserves to compensate for the deficit of AUFLS at the Tiwai Point GXP when extended contingent events are binding. Kieran Devine advised that the cost of procuring the additional reserves is not significant.
39. Discussion on this item was curtailed when Patrick Strange and Kieran Devine left the meeting at 12:45 pm to attend to an urgent operational issue. The meeting quorum was lost at this point.

| Action | By | Date for action |
|--|-------------|-----------------|
| The secretariat to (i) request the system operator to confirm the actual cost of procuring the additional reserves in the South Island and (ii) draft a letter to the Authority Board for circulation to members by the Chair. | Secretariat | 31/12/2011 |

13 Proposed Scenarios for the 2012 Annual Security Assessment

40. Shane Tennett introduced a paper on the annual security of supply assessment (ASA) process. The ASA is intended to signal the power system’s ability to meet prudent winter operating margins for the next 5 or more years.
41. The prudent winter operating margins currently in use are the Winter Capacity Margin and the Winter Energy Margin. The margins are defined in the Security of Supply Forecast and Information Policy which forms part of the Code.
42. The major inputs to the assessment are load forecasts and a forecast of future plant availability. The system operator relies on voluntary confidential submission of information from grid connected asset owners gathered by its own survey.

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43. A member indicated that he would like to examine a number of load forecasting assumptions in more detail with the system operator. The Chair requested that such enquiries be made via the secretariat.

The meeting closed at 1:26 pm
