

Annual reviews of the system operator's performance

Summarising the annual reviews of system operator performance

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1 The system operator and the Authority have reviewed the system operator's performance for the year to 31 August 2013

- 1.1.1 The system operator is required to review its performance monthly¹ and annually². The system operator provided the annual self-review to the Authority on 30 September 2013³.
- 1.1.2 The Authority is required to annually review the system operator's performance.⁴ The Authority published its review on 17 December 2013.⁵
- 1.1.3 One of the statutory functions of the SRC is to provide independent advice to the Authority on the performance of the system operator.
- 1.1.4 The Authority's Charter about Advisory Groups contains some more specific guidance as to how the SRC should assess the system operator's performance.
- "3.1 The Authority expects the SRC to take a strategic view, utilising the knowledge and experience of its members."
- "3.6 The SRC must avoid duplicating the Authority's role in assessing the day-to-day performance of the electricity system and the system operator, such as receiving and reviewing regular reports from the system operator required under the Code and the system operator service provider agreement."
- 1.1.5 The purpose of this paper is to summarise the findings of the annual reviews so as to obtain any feedback from SRC members on the performance of the system operator.

2 In summary, the system operator's annual self-review says that...

2.1 it was one of the busiest years ever for commissioning activity...

- 2.1.1 There was a great deal of commissioning activity on the system, requiring advice and coordination from the system operator. The commissioning included:
- a) grid assets such as:
 - i) Pole 3
 - ii) Pole 2 control upgrade
 - iii) North Island grid upgrade (NIGU)
 - iv) North Auckland and Northland (NAaN) upgrade
 - v) Clyde-Roxborough re-conductoring
 - b) generation assets such as:
 - i) Kawerau
 - ii) McKee

¹ Refer to clauses 3.13 and 3.14 of the Electricity Industry Participation Code 2010 (Code).

² Refer to clause 7.11 of the Code.

³ The Authority has published the self-review at <http://www.ea.govt.nz/industry/pso-cq/system-operations/system-operator-reports/system-operator-annual-self-review-assessment/>

⁴ Refer to clause 7.11 of the Code.

⁵ The Authority has published its review at <http://www.ea.govt.nz/industry/pso-cq/system-operations/system-operator-reports/review-so-performance/>

iii) Ngatamariki

iv) Te Mihi.

2.1.2 The system operator did not identify any specific instances of unsatisfactory performance with respect to commissioning activities, but did note that the experience, including forming a dedicated planning and coordination team, had “improved the way we work with our customers”.

2.2 the forces of nature tested the system operator’s response procedures...

2.2.1 Though there were a variety of storms to test the system, two in particular stood out.

- a) A storm on 3 December 2012 resulted in an outage of the HEN_OTA 1 circuit in Auckland. System operator responded by declaring a grid emergency and obtained load reductions through a mix of voluntary and mandatory measures.
- b) A storm on 20 June 2013 resulted in the staggered tripping of the ISL_WPR_CUL_KIK 2 circuit, both HVDC links, 400MW of interruptible load, generation at Kinleith, HAY_WIL 1, KWA_WIL 1, BPE_WIL and LTN 2, though there was no loss of supply. System operator declared a North Island grid emergency and coordinated the restoration of normal security conditions.

2.2.2 The 21 November 2012 eruption of Mount Tongariro required some monitoring, but little action from the system operator.

2.2.3 Hydrology conditions saw extremes of inflow sequences. System operator needed to constrain wind generators off in late 2012 in response to high South Island lake levels. By March 2013, system operator was making contingency preparations with industry as North Island inflow sequences were the lowest in decades.

2.2.4 System operator took the precaution of temporarily de-manning its Wellington coordination centre after a 6.5 earthquake shook Seddon on 21 July 2013.

2.2.5 The system operator did not identify any unsatisfactory performance with respect to its response to power system events caused by natural forces.

2.3 actual and potential power system events required system operator management...

2.3.1 The system operator issued 41 grid emergency notices and 16 warning notices during the period under review. 29 out of 41 of the grid emergencies involve the splits in the 110 kV power system between the Waikato and Bay of Plenty region.

2.3.2 The system operator notes that “there were a higher than normal number of under/over frequency events on the system...This was mainly a result of the testing associated with the Pole 3 commissioning work”. The Authority agrees that the number of frequency events will usually be driven by parties other than the system operator. As such, it is not a good indicator of system operator performance. It would be more valuable to understand whether the system operator succeeded in minimising the procurement of instantaneous reserves within the limits of the under-frequency standard,⁶ but there was no discussion of this.

2.3.3 On 16 March 2013, the system operator was forced to operate using its stand-alone dispatch system for a period of four hours and forty minutes. This was caused by an operational failure of a component of the market software. System operator had already flagged the risk posed by the enterprise service bus (ESB) component of its market systems as it is nearing the end of its

⁶ Refer to Schedule 8.4 of the Code for the reserve management objective and the under-frequency standard.

commercial life and will no longer be maintained or upgraded by the vendor. A full replacement is expected within two years.

- 2.3.4 The system operator participated in a gas industry exercise that simulated a major earthquake off Taranaki with major implications for gas supply.
- 2.3.5 The system operator did not identify any unsatisfactory performance with respect to its role in the above matters, other than the risk posed by the ESB.

2.4 and that the system operator sought to improve its performance

- 2.4.1 The Transpower Board requested the system operator obtain an independent review of its direction, capability and performance. The Authority was closely involved with the review and is aware of the findings. The findings of the independent review are not discussed in the annual self-review other than to say the recommendations were accepted by Transpower's Board and the system operator is proceeding with implementation.
- 2.4.2 The Authority, in its review of system operator's performance for the year to 31 August 2012, had a concern that project management of Code-related projects and system developments was unsatisfactory. The system operator's latest self-review noted the following areas of improvement:
 - a) working with the Authority to publish the Joint Development Programme
 - b) working with the Authority to establish and benefit from the Joint Work Planning Team
 - c) completion of a ten year joint plan
 - d) implementation of an agreed estimation methodology for the system operator to use when estimating project costs.
- 2.4.3 The system operator conducted its annual customer satisfaction survey. It engaged an independent consultant to interview 19 customers in order to assess the system operator's performance against ten facets of its service. The survey concluded that:
 - a) over 70% of customers rate the overall level of service as very good or excellent, compared with nearly 90% for the 2011-12 review period
 - b) the system operator should focus on developing its knowledge and better understanding the needs of its customers.

3 In summary, the Authority's review says that the system operator...

3.1 has achieved good outcomes...

- 3.1.1 The system operator has met or exceeded the principal performance obligations.
- 3.1.2 The compliance of the system operator under the Code has been satisfactory.
- 3.1.3 Performance under the system operator service provider agreement (SOSPA) has resulted in the system operator retaining 94% of the at risk component of that agreement.
- 3.1.4 The system operator competently managed the power system through:
 - a) a flurry of commissioning activity
 - b) drought, storms, earthquakes and volcanic eruptions.

3.2 demonstrated very good improvements in areas of previous concern...

- 3.2.1 The system operator's engagement with, and commitment to, joint work planning has been particularly pleasing.
- 3.2.2 Project management disciplines within the system operator have improved markedly, with positive flow-on effects to joint projects. The system operator has shown strong commitment to project timelines, with nearly all projects progressing well and on track to meet their planned milestones.

3.3 should continue to plan to align its objectives with that of the Authority...

- 3.3.1 Transpower's independent review of the system operator (known as the Value for Money review) has been a useful and proactive initiative.
- 3.3.2 The system operator and the Authority are progressing discussions regarding a renegotiation of the SOSPA, including:
 - a) a review to ensure that the objectives and functions of the system operator in the Code and in the SOSPA are consistent with the Authority's statutory objective
 - b) agreeing a set of formal performance standards against which the system operator's performance will be assessed in future years.

3.4 should consider four recommendations from the Authority

- 3.4.1 The Authority has made four recommendations to the system operator, as follows.
 - a) Consider whether practical opportunities are available to reduce the number of manual errors where there is a potential market impact, such as through implementation of new or changed procedures.
 - b) Ensure that reports are appropriately detailed for their purpose and audience, and have been subject to peer review.
 - c) Work with the Authority to develop better processes around making changes to documents incorporated by reference, and consider whether the system operator could adopt a more formal approach to consultation.
 - d) Ensure that communication is proactive and timely when project issues arise.

Q1. Does the SRC have any views on the performance of the system operator that it would like to report to the Authority Board?

Q2. Are there any matters that the SRC would like the secretariat to investigate for a future SRC meeting?