

Meeting Date: 21 October 2021

SYSTEM OPERATOR PERFORMANCE:  
1 JULY 2020 – 30 JUNE 2021

SECURITY  
AND  
RELIABILITY  
COUNCIL

This paper provides the SRC with a copy of the system operator's annual self-review and gives an indication of the content of the Electricity Authority's corresponding review.

**Note:** This paper has been prepared for the purpose of the Security and Reliability Council. Content should not be interpreted as representing the views or policy of the Electricity Authority.

# 1 Background to annual reviews of the system operator's performance

- 1.1.1 The Security and Reliability Council's (SRC) functions under the Electricity Industry Act 2010 include providing advice to the Electricity Authority (Authority) on:
- a) the performance of the electricity system and the system operator
  - b) reliability of supply issues.
- 1.1.2 The SRC was given a specific mandate for system operator performance because of the information asymmetry that arises between the Authority and the system operator. As a group with industry and consumer representation, the SRC can bring perspectives to the system operator's performance otherwise unavailable to the Authority.
- 1.1.3 The Electricity Industry Participation Code 2010 (Code) requires the Authority to review the system operator's performance each year. In doing so, it must take account of a self-review that the system operator must perform each year under the Code.<sup>1</sup>
- 1.1.4 The system operator has completed its self-review of its performance for the 2020-21 financial year, and the Authority is currently drafting its corresponding review (collectively, the reviews).
- 1.1.5 The purpose of this paper is to enable the SRC to formulate advice to the Authority about the system operator's performance in the 2020/21 year. To inform that advice, this paper has a copy of the system operator's annual self-review (attached as Appendix A) and gives an indication of the preliminary content of the Authority's corresponding review (included in Appendix B).

## 2 The reviews are structured differently but cover the same scope

- 2.1.1 The system operator's self-review is structured around three sections based on areas that the system operator considers are key aspects of its service delivery. These three areas are:
- a) Maintain a secure and reliable power system
  - b) Operate a competitive and transparent electricity market
  - c) Prepare our people, process and technology
- 2.1.2 The Authority's draft review is presently structured into four substantive sections:
1. Long-term planning, such as strategic documents and market-shaping influencing.
  2. Medium- to short-term activities, such as delivery of joint and system operator projects, maintenance of software tools and business processes, and business assurance audits.

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<sup>1</sup>

Clause 7.11 of the Code specifies the requirements of both the system operator and the Authority in reviewing the system operator's performance.

3. Real-time operations, such as power system events, COVID response, and security of supply management.
4. Other outcomes, such as the self-review, results against performance metrics, and financial performance.

### 3 Previous SRC advice

3.1.1 When the SRC considered last year's reviews the SRC advised that:

- a) "the system operator is generally performing to a high standard, however there was room for improvement with project delivery targets"
- b) "the performance metrics and incentives regime should involve some stretch targets for the system operator and raise the performance standard over time"
- c) "the annual self-review should include the important insights the system operator took from its review of international power system events"
- d) "the annual self-review should better reflect on what didn't go so well and what the system operator learned from that"
- e) "Authority staff to follow up with the system operator about the Hutt Valley and Wairarapa region outage and ensure it is included in next year's annual review, as the system operator's report was completed after the review period ended."

3.1.2 As a result of the SRC's advice, the Board directed Authority staff to engage with the system operator to discuss the improvements required specifically relating to:

- Planning and committing to project delivery dates
- Providing some stretch targets to raise performance standard over time
- Including in future annual self-reviews:
  - Important insights the system operator took from its reviews of international power system events
  - To better reflect on what did not go so well and the lessons learned

3.1.3 Regarding the Hutt Valley and Wairarapa outage noted in 3.1.1e (above) the Board considered any follow up sits with the grid owner, rather than system operator, and a copy of the grid owner's full incident report has been circulated to the SRC via email on 2 September.

### 4 Points to note

4.1.1 As noted in both reports, the grid emergency of 9 August is outside the reporting period. Reports and other investigations are ongoing, with potential for further SRC input by email circulation, as these progress. There is also time in the agenda for discussion about the 9 August event at the October meeting.

4.1.2 Regarding cyber security, the system operator will present its annual cyber-security assurance report to the Authority's System Operations Committee in February.

4.1.3 In line with previous SRC advice, there is a section on lessons learned and opportunities to improve (p33), as well as feedback received from stakeholders. The SRC may like to consider whether these meet expectations and if not, what further content would be appropriate.

4.1.4 The draft conclusion of the Authority's review is that the system operator performed well in the period. The Authority has made two recommendations, both of which relate to work the system operator has underway or already committed to start soon.

## 5 SRC feedback is valuable

5.1.1 The Authority appreciates feedback from SRC members on any aspects of system operator performance that they may wish to comment on, even if it is not included in either the reviews. The SRC's advice to the Authority on this matter is valuable, as evidenced by SRC advice over the years typically being adopted as recommendations into the Authority's annual reviews.

5.1.2 An indication of the preliminary content of the Authority's review is included in Appendix B. It provides a useful indication of the initial assessment of the system operator's performance and what recommendations the Authority is considering making to the system operator as opportunities for improvement.

**This is a first draft and is subject to extensive amendment as it goes through the Authority's internal review process, including incorporating feedback from the system operator and the SRC.**

## 5.2 Questions for the SRC to consider

5.2.1 The SRC may wish to consider the following questions.

**Q1 What aspects, if any, does the SRC wish to highlight of the system operator's performance as strengths or having markedly improved?**

**Q2 What concerns, if any, does the SRC have about the performance of the system operator?**

**Q3 What aspects, if any, of the system operator's functions would the SRC like the system operator to give greater weight to in its dealings with stakeholders?**

**Q4 What further information, if any, does the SRC wish to have provided to it by the secretariat?**

**Q5 What advice, if any, does the SRC wish to provide to the Authority?**

## 6 Attachments

6.1.1 The following items are included as attachments to this paper:

a) System operator annual self-review and assessment: 1 July 2020 – 30 June 2021 (Appendix A)

b) Indication of preliminary content of Authority's annual review of system operator performance, for the period 1 July 2020 – 30 June 2021 (Appendix B).

## **Appendix A      System operator annual self-review and assessment: 1 July 2020 – 30 June 2021**

## Appendix B Indicative content of Authority's annual review of system operator performance 2020-21

### Executive summary

1. Transpower, in its role as the electricity system operator, is responsible for the secure, efficient operation of the power system in real time. The system operator's role is broad, complex and critically important to New Zealand.
2. In our role as industry regulator, we are responsible for defining the role of the system operator and assessing Transpower's performance. We require the system operator to carry out its obligations with skill, diligence, prudence, foresight, good economic management and in accordance with recognised international good practice.
3. There are currently four reviews underway that are relevant to the system operator's performance. Three of those are reviews of the power system event of 9 August 2021 (outside the period of this review). The fourth is a review on the performance of the system operator and ourselves in terms of the management of the security of supply concerns during the 2021 dry year event (February to June 2021).

#### **1. Overall, the system operator has performed well in the review period**

4. The system operator performed well in the period from 1 July 2020 until 30 June 2021. We were particularly impressed with the system operator's:

- ✓ Diligent and effective delivery of key projects (real-time pricing, extended reserve)
- ✓ Continued strong and positive response to challenges posed by the ongoing COVID pandemic
- ✓ Communication efforts responding to stakeholders' security of supply concerns in the second quarter of 2021
- ✓ Achievement of 100% of the financially incentivised performance metrics.

5. While the system operator was proactive in its communication of security of supply forecasting, we also consider the system operator should work to improve its published documentation of the assumptions it uses and why. There may be other lessons arising from the aforementioned 2021 dry year review.

6. There were, not unexpectedly, a number of modelling errors during the review period. However, three of those had a market impact greater than \$40,000. Outside of the review period, the system operator provided assurance to our System Operations Committee about its work programme to prevent and mitigate modelling errors. The Authority is supportive of the system operator's work programme (and the Modelling Working Group that does it) and keen to ensure it remains of importance to the system operator.

#### **2. We have made two recommendations**

7. The system operator responded well to the three recommendations in our previous annual review of its performance. This year, we have made the following two recommendations:
  8. The system operator should report on the progress of the Modelling Working Group in its quarterly and annual performance reports, and consider the merits of additional resourcing for the Group.

9. The system operator should, once the lessons from 2021 are known, revise the work programme of its security of supply function and report on progress in its quarterly performance reports.