

Meeting Date: 28 March 2019

THE ELECTRICITY PRICE REVIEW'S OPTION 'G2'

SECURITY
AND
RELIABILITY
COUNCIL

The Electricity Pricing Review consulted on an option to direct that a review of security, reliability and resilience be undertaken. The SRC made a brief submission on that consultation and had a preliminary discussion about the possible 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.

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1. Introduction

The Electricity Price Review's option 'G2'

- 1.1. The Electricity Price Review consulted on, among many other matters, a review of security, reliability and resilience. The option is included as Figure 1 below.

Figure 1: Option G2 consultation material

G2: Examine security and resilience of electricity supply

The Minister of Energy and Resources would ask the Electricity Authority to conduct a thorough review of the security, reliability and resilience of the electricity supply, in response to the range of technological and other developments that, as noted in our first report, have the potential to profoundly alter the way the electricity sector works. A review would examine whether the electricity supply was positioned to meet those challenges in the decades ahead.

The Electricity Authority would assign the task to the Security and Reliability Council to complete within 12 months. The review should include the Council's own terms of reference and work programme; Transpower's policies and procedures for risk monitoring (as system operator responsible for managing the power system and operating the wholesale electricity market); the Electricity Authority's market development work programme and market performance monitoring functions; and other relevant matters, including matters overseen by agencies such as the Commerce Commission and Gas Industry Company.

Some submitters said security of supply should not be taken for granted, particularly in light of the many uncertainties facing the sector.¹⁸⁸ Others emphasised the need to focus less on security and more on resilience.¹⁸⁹ We think both are important.

We favour this option.

¹⁸⁸ For example, BusinessNZ Energy Council said that question was not simply whether current arrangements would ensure sufficient new generation to meet demand, but whether there will be sufficient generation to meet demand and maintain security of supply, especially if very low emissions are planned for the electricity sector, pg6.

¹⁸⁹ Vector's view was that the industry had always focused on security of supply, and attention had shifted only recently to the resilience of the energy system. "Recent events both locally and internationally reinforce the need for more innovative thinking around the principles of resilience", pg73.

- 1.2. Option G2 explicitly involves the SRC as the indirect recipient of a task. The SRC members corresponded with each other and the Chair signed a short letter of advice to the Electricity Authority for its consideration and inclusion in its own submission to the Electricity Price Review. That letter is included in the correspondence received at the 28 March 2019 meeting of the SRC.
- 1.3. The Authority's advice to the Panel was broadly aligned with the SRC advice. Namely, that the scope of any review should be sharpened and aimed at addressing potential gaps in the already substantial analysis of the sector.
- 1.4. The purpose of this paper is to guide a preliminary SRC discussion of option G2, with an emphasis on helping define the scope of any potential review. The secretariat considers that this will be more productive than a discussion of who is best to do what. To this end, each section provides some pertinent facts and poses questions for possible SRC discussion and ultimately advice to the Authority.

2. A 'blank sheet' approach

- 2.1. In this section, the secretariat asks members to set aside option G2's discussion and consider:
 - 2.1.1. What time frame do members consider is useful when assessing security and reliability, the next 5 to 10 years or further into the future?
 - 2.1.2. What security and reliability concerns do members already have?
 - 2.1.3. What threats to security and reliability are already on the members' radar?
 - 2.1.4. What aspects of future security and reliability are already well analysed and reported against? What aspects are not?
 - 2.1.5. Of the concerns, threats and reporting identified, which are of most urgency? Which are of most importance?

3. Other considerations

Content and scope considerations

- 3.1. Option G2 is not clear about the scope of its review. The second paragraph of option G2 includes an odd assortment of matters for inclusion in the review:
 - 3.1.1. the SRC's Terms of Reference and work programme
 - 3.1.2. the system operator's policies and procedures for risk monitoring
 - 3.1.3. the Authority's work programme and monitoring function
 - 3.1.4. other relevant matters, regardless of regulatory jurisdiction.
- 3.2. The SRC's Charter and Terms of Reference were last reviewed, consulted on and updated in January 2017. The SRC has an annually scheduled review of its strategic alignment that includes how well its work programme has matched its statutory function and an environment scan.
- 3.3. The system operator has a large number of documents that relate to managing risk. The key documents are set out in Table 1 below.
- 3.4. The Authority consults on its work programme every year.

Table 1: Key system operator documents for managing risk

Security-related	Reliability-related	Resilience-related	Risk framework
Annual assessment of security of supply	Policy statement (esp. security policy)	Process for black start testing	Risk bowties
New Zealand Generation Balance	Credible event review	Processes for system restoration	Control self-assessment
Hydro risk curves	Reserve management tool	Processes for incident management	Business continuity planning
Simulated storage trajectories	Situational assessment tools		
System security forecast	Outage planning policy (incl. security constraints process)		
Security of supply forecasting and information policy	Commissioning and testing guidelines		
Emergency management policy	Dispensation and equivalence procedures		
System operator rolling outage plan			

3.5. SRC members should consider:

- 3.5.1. Are there matters that ought to be in scope that aren't yet?
- 3.5.2. Are there overseas jurisdictions that have undertaken similar reviews?
- 3.5.3. Of any matters identified as potentially in scope, what prioritisation should be applied?
- 3.5.4. Should the work programmes of the SRC and the Authority be reviewed only once the results of the multi-decadal analysis are completed?

Resourcing considerations

- 3.6. Paragraph 4.1 of the SRC's Charter requires the Authority to provide secretariat services to the SRC. Paragraph 4.5 goes on to state:

"Authority staff will, where possible, undertake any required analysis. The Authority's representative has the discretion to engage any external expertise that may be needed to assist the SRC. However, the SRC may recommend external expertise to the Authority's representative that it considers necessary to perform its function."

- 3.7. The Authority's secretariat function and associated budgets would not currently be remotely adequate to resource the review proposed by option G2. There are other options favoured by the Electricity Price Review that could markedly increase the Authority's overall workload.
- 3.8. SRC members should consider:
 - 3.8.1. What are their expectations for the scale and the expertise of the resources that would need to be applied for G2's review?
 - 3.8.2. Does the SRC anticipate that its involvement would include partaking in detailed workshops?
 - 3.8.3. If the SRC was needed to significantly contribute to the review, is the SRC open to scheduling additional meetings?

4. Questions for the SRC to consider

- 4.1. The SRC may wish to consider the following questions.

- Q1. Are there any immediate actions the SRC want undertaken? For example, does the SRC want its secretariat to book members' diaries for additional meetings in 2019/20?**
- Q2. What further information, if any, does the SRC wish to have provided to it by the secretariat?**
- Q3. What advice, if any, does the SRC wish to provide to the Authority?**