

Security of supply activities out to 2018/19

27 October 2017

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

Background

The Security and Reliability Council (SRC) functions under the Electricity Industry Act 2010 (Act) include providing advice to the Electricity Authority (Authority) on security of supply matters.

The experiences of winter 2017 led the Authority to consider the timing, scope and interdependencies of various security of supply projects either underway or scheduled to run during the 2017/18 and 2018/19 financial years. Given the system operator's integral security of supply role, it is leading or involved in all of these projects.

The Authority intends to publish a summary of security of supply activities

The Authority intends to publish a document on 21 November 2017 that summarises the scope, timing and interdependencies between the following five projects:

- The system operator's review of the security of supply and forecasting information policy (SOSFIP), which includes investigation of the treatment of contingent hydro storage within the hydro risk curves.
- The Authority's refinements to the customer compensation scheme.
- The Authority's review of the winter security margins that are used for the system operator's annual assessments of security of supply.
- The Authority's review of winter 2017.
- The system operator's review of the assumptions it uses when calculating the hydro risk curves.

As that summary document is still under development, the Authority has instead prepared some slides (attached as an appendix to this paper) to briefly explain those elements of the projects that are known and very unlikely to influence the decisions of electricity traders.

The SRC may wish to consider the following questions.

- | | |
|------------|--|
| Q1. | What further information, if any, does the SRC wish to have provided to it by the secretariat? |
| Q2. | What advice, if any, does the SRC wish to provide to the Authority? |

PRESENTATION TO THE SRC

Security of supply projects

Security of supply projects for 2017/18 and 2018/19

6 November 2017

The Authority will publish a summary of security of supply projects

- The Authority intends to publish a summary of security of supply projects on 21 November 2017.
- The purpose of the summary will be to advise participants of any security of supply project activity that could affect the decisions of electricity traders.
- The summary will detail the scope, timing and interdependencies of the projects.

Review of supply forecasting and information policy

- The system operator's SOSFIP review includes an investigation of the treatment of contingent hydro storage within the hydro risk curves.
- If changes to the treatment of contingent hydro storage are proposed by the system operator and approved by the Authority, this could impact the risk management decisions of electricity traders.
- The scope and timing of this review is to be confirmed.
- Elements of the review that relate to improvements for the annual assessment of security of supply are to be in place for the 2018 annual assessment.

Refinements to the customer compensation scheme

- The Authority's 2016 review of the customer compensation scheme identified six residual matters for further consideration.
 - One of those six matters is a review of the ongoing suitability of the triggers for stopping official conservation campaigns (and therefore the customer compensation scheme).
- This project appears on the Authority's work programme for 2017/18.
- The scope and timing of this project is to be confirmed.

Review of the winter security margins and associated assumptions

- The winter security margins are the benchmark against which the system operator performs its annual assessments of security of supply.
- The winter security margins have not been reviewed since 2013.
- The review of the winter security margins is underway and currently in the analysis phase.
- We expect to consult with stakeholders during May/June 2018.
- If the Authority subsequently decides to change the margins, the Code would be amended around September/October 2018. This would mean the system operator's 2019 annual assessment of security of supply would be based on the amended margins.

Review of winter 2017

- From early-February until mid-July 2017 South Island hydro lakes experienced a steady decline in stored energy.
- As part of the Authority's monitoring function, we have committed to reviewing the events of winter 2017 to understand what can be learned about security of supply.
- We expect to provide this report to our Board in April 2018 and publish it in the following weeks.

Update of hydro risk curve assumptions

- The system operator is reviewing the assumptions it uses when calculating the HRCs. This is a business-as-usual activity for the system operator, though this review is slightly more extensive than normal.
- The review includes but is not limited to:
 - Demand forecasting
 - HVDC assumptions
 - Water value calculations
 - Derivation of HRCs for the South Island.
- The system operator expects to publish its updated HRC assumptions in January 2019.