

# Terms of reference for Electricity Authority review of 20 June 2024 grid emergency under the Electricity Industry Act 2010

## Purpose of this document

Under section 18 of the Electricity Industry Act 2010 (the Act), the Minister for Energy (the Minister) has asked the Electricity Authority to review and report on the grid emergency event that occurred on 20 June 2024 which resulted in significant power outages in the Northland region.

This document describes the scope, conduct and output for this review.

## Background

Around 11am on 20 June 2024, a 220kV transmission tower in a field near Glorit fell. Transpower has stated that this occurred when the nuts securing the tower to its base plate on three legs were removed causing the tower to lift off the base plate and fall.

Consequently, power was cut to Bream Bay, Kaikohe, Maungatapere, and Marsden. This represents most of Northpower and Top Energy's networks.

Power was mostly restored by the evening through the 110kV network, although consumers were asked to conserve power.

There was an economic impact as businesses were unable to trade. In addition, any unplanned outage puts medically dependent consumers at risk.

Transpower has appointed an external party to undertake a full investigation into the cause of the fallen tower.

## Intent of this review

The Authority's statutory objectives are set out in the Electricity Industry Act 2010. The Authority's main objective has three main parts focused on: competition, reliability and operational efficiency. The reliability objective provides the starting point for this Inquiry, with efficient levels of reliability a key consideration.

## Scope of the review

The scope of the review is to understand and explain the cause(s) of the event, the response to the event and lessons that can be learnt from the event.

The Authority will consider the following questions in carrying out its review and preparing its report:

1. What was the cause/s of the event?
2. What were Transpower's planning, risk identification, risk assessment, risk mitigation and residual risk assessment processes for any transmission maintenance work related to the event? This should include consideration of:
  - maintenance instructions, asset condition monitoring and assessment, and assurance procedures,

- any relevant previous faults and failures of assets supplying the Northland region, and their disclosure,
  - the timing of the works being carried out given security of supply risks, including if other assets supplying Northland were out at the same time.
3. Do Transpower's assurance and management processes, for activities carried out by contractors, conform to good industry practice? Are any aspects of Transpower contracting arrangements likely to lead to adverse outcomes or unintended consequences?
  4. What was the impact of local generation capacity on pre-maintenance planning and on recovery following the event?
  5. What communications were there between Transpower, lines companies, other participants, and consumers regarding any planned transmission work related to the event and the increased risk of outage?
  6. After the tower fell, were there appropriate communications from and between Transpower, lines companies, retailers, businesses and the public?
  7. What actions were taken to restore supply and did these conform to good industry practice?
  8. What lessons can be learnt from the recovery from the event including the actions taken by the grid owner, system operator and other participants. For example, the use of strategic spares, communications, and load management? This includes the availability of temporary towers, spares and other critical assets, their location, and timeframes to deploy these.
  9. How quickly does Transpower permanently rectify failures that do occur? How does this compare with comparable overseas jurisdictions?
  10. What lessons were learnt from similar events and were lessons learnt acted on in this event?
  11. How did retailers care for their medically dependent consumers during the event?
  12. Does the Electricity Industry Participation Code (the Code) provide appropriate provisions for such circumstances?
  13. What are the grid reliability standards in Northland (under business as usual and under maintenance conditions), and how does this compare with other parts of New Zealand?
  14. Do the grid reliability standards in the Code need to be reviewed, particularly to address single points of failure?
  15. More broadly does this event highlight improvements that should be made to electricity system resilience?
  16. Are there any other lessons learned or recommended improvements?

The Authority will also consider further questions that arise during the course of their review that are relevant to the scope of the review.

Section 18 states that if "the Authority considers that there are matters that fall outside the scope of the review but which it should nevertheless report on to the Minister, the Authority may include a report on those matters in the final report or in a separate report."

Consequently, this scope may expand to cover any other issues that emerge during the review that require investigation.

The Authority is expected to cooperate with any other reviews or investigations being undertaken into the event to extent as is reasonably practicable.

### **Conduct of the review**

The Authority will appoint an independent party to chair/head the review.

The Authority will keep MBIE and the Minister up-to-date with the review as it progresses.

### **Output**

The Authority will prepare a report for the Minister within 12 weeks from the date that the Minister requested the review.

A written report must incorporate all the details required to satisfy the intent and scope of the review.

As required by the Act, the Minister must make the report publicly available within 15 days of receiving the final report.