

GAP ANALYSIS OF THE ELECTRICITY INDUSTRY RESPONSE TO COVID-19

SECURITY AND RELIABILITY COUNCIL

The purpose of this paper is to prompt a discussion on the electricity industry's response to the COVID-19 pandemic and subsequent Government restrictions and highlight any deficiencies in the industry response. This enables the SRC to provide advice to the Electricity Authority Board and in turn the wider industry.

At this time, over half a million people have died globally from the COVID-19 pandemic. The emotional and economic cost in New Zealand and internationally is enormous. As we focus on our specialised area of responding to the pandemic, we extend our sympathies to the victims and our thanks to the essential workers.

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.

1. Electricity Industry Response to COVID-19

- 1.1. At its 12 May 2020 meeting, the SRC reviewed the electricity industry's response to the COVID-19 pandemic and any risks to security, reliability and resilience.
- 1.2. The purpose of this paper is to prompt a discussion on lessons learned and industry preparedness for the COVID-19 response to:
 - 1.2.1. Consider what has been done well with the industry response.
 - 1.2.2. Highlight any gaps in the industry response.
 - 1.2.3. Examine whether and/or how these gaps are being addressed.
 - 1.2.4. Discuss how prepared the industry appears to be for any subsequent waves.
- 1.3. New Zealand was in a state of national emergency from 25 March 2020 to 13 May 2020 due to the COVID-19 pandemic. This was replaced by a National Transition Period, which was terminated on 8 June 2020. However, the global situation still presents significant risks to New Zealand, both directly through infection risk, and indirectly (eg through effects on the supply chain).
- 1.4. The Electricity Authority received a letter of advice from the SRC as a result of the 12 May 2020 meeting, which included an appendix of other facts and opinions concerning the industry's response to COVID-19. A complete copy of that letter is included in the correspondence section of the papers for this SRC meeting. The main points of advice are reproduced below:
 - 1.4.1. in general, the reduced demand for electricity has either enhanced or not harmed electricity security.
 - 1.4.2. in terms of electricity reliability, the pandemic has had minor positive and negative impacts. For example, there have been fewer car crashes into electricity assets to cause outages, but response times to outages have generally been longer due to additional safety protocols introduced to minimise pandemic-related risks.
 - 1.4.3. Transpower's management of the National Emergency Management Agency's Lifelines Liaison Electricity Desk has been outstanding, with efficient and clear communication. The SRC thanks Transpower for its response and asks the Authority to relay this to them.
 - 1.4.4. there is an opportunity for the industry to share and reflect on what worked well and what could be improved, and to do this swiftly in case the lockdown level rises again.
 - 1.4.5. the financial impacts of the pandemic are significant for industry participants and their electrical works contractors. The continued availability of these critical workers is important to maintaining reliable supply.

Issues have been raised and some still need to be addressed

- 1.5. As discussed in the 12 May 2020 meeting, the summary of the Electricity Authority's COVID-19 Issues Working Group (CIWG) is published on the

Authority's website¹. The working group considered addressing reliability issues to be out of scope as the National Crisis Management Centre (NCMC) was addressing such issues. The CIWG has now closed as there are no new issues to raise.

- 1.6. The NCMC surveyed generators and electricity distribution businesses (EDBs), and out of 38 surveyed there were 32 respondents (22 distributors and 10 generators). The survey asked a series of questions about control room operations, such as actions to minimise COVID-19 impact and actions should the control room team become compromised. From the survey replies we note:
 - 1.6.1. eight organisations (25% of respondents) did not have duplicated control rooms, though four of those did have capabilities in place (eg working from home) to mitigate risk.
 - 1.6.2. six organisations (18%) did not implement staff health self-reporting.
 - 1.6.3. two organisations (6%) did not implement advanced cleaning procedures.
 - 1.6.4. about half of respondents had some level of discussion with other industry participants regarding assisting each other in case of a COVID infection amongst their control room staff.
- 1.7. The lessons learned from the COVID-19 response are still sitting within individual industry members and there has been no industry-wide forum to date which have disseminated those lessons between parties.
- 1.8. The Authority is planning to do a formal review of the industry response at the end of the pandemic period, however the exact nature of any review has yet to be decided.²
- 1.9. The Electricity Networks' Association (ENA), the Major Electricity Users' Group (MEUG), and the Electricity Retailers' Association (ERANZ). are sharing lessons learned with their members.
- 1.10. Transpower has been documenting the COVID-19 response, and we note they intend to complete a formal full review of lessons learned to date.

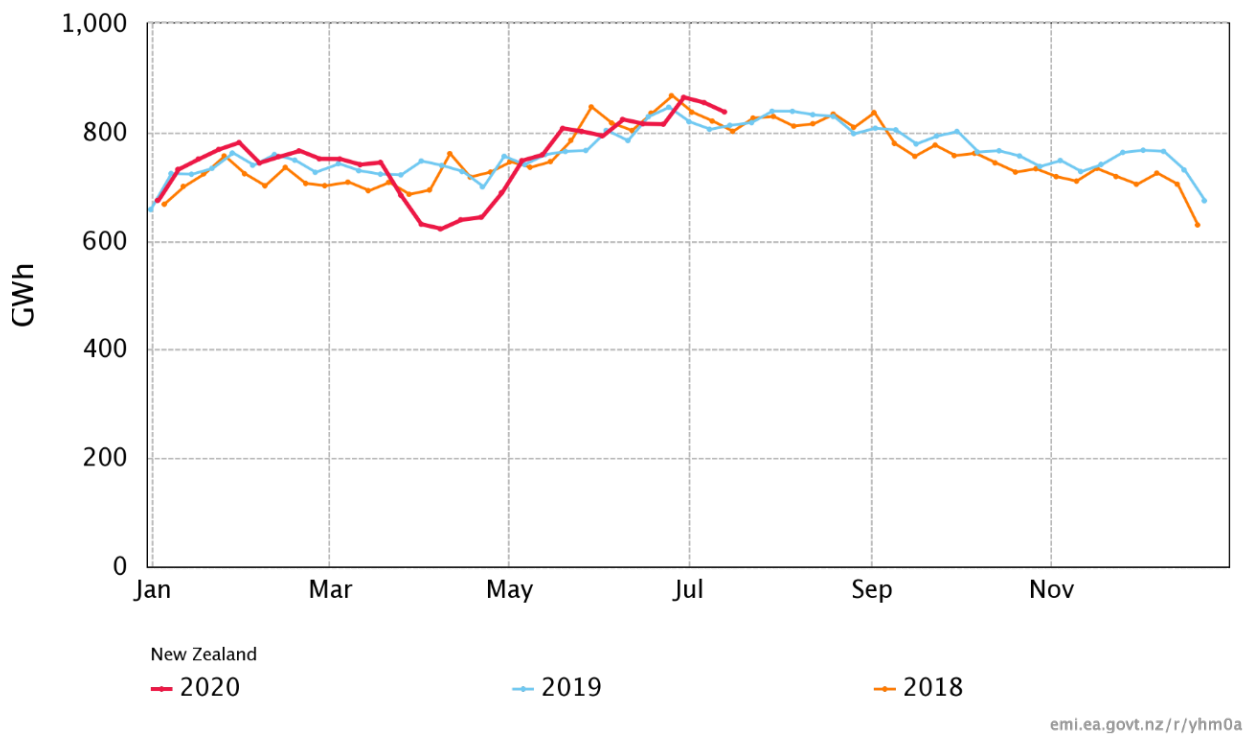
Demand for electricity has mostly recovered with a return to level one

- 1.11. In the 12 May paper, we highlighted how the country's response to COVID-19 had reduced demand for electricity. Demand now follows closely with demand from prior years.
- 1.12. Figure 1 illustrates that overall demand is now closer to 2018/19 levels but has not surpassed them with the regularity shown in the pre-COVID period. We also note poutine 4 at Tiwai ran from late 2018 up until mid-April 2020 and will have some effect on this graph.

¹ <https://www.ea.govt.nz/about-us/media-and-publications/covid-19/covid-19-issues-working-group/>

² <https://www.ea.govt.nz/dmsdocument/26672-letter-to-electricity-retailers-ongoing-industry-response-to-covid-19>

Figure 1: Weekly New Zealand electricity demand for 2018, 2019 and 2020



2. Questions for the SRC to consider

2.1 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. Does the SRC believe there are any gaps in the industry's response to COVID-19 and if so, how should they be addressed?
- Q3. Does the SRC consider industry sufficiently prepared for any subsequent waves of COVID within New Zealand?
- Q4. What advice, if any, does the SRC wish to provide to the Authority?