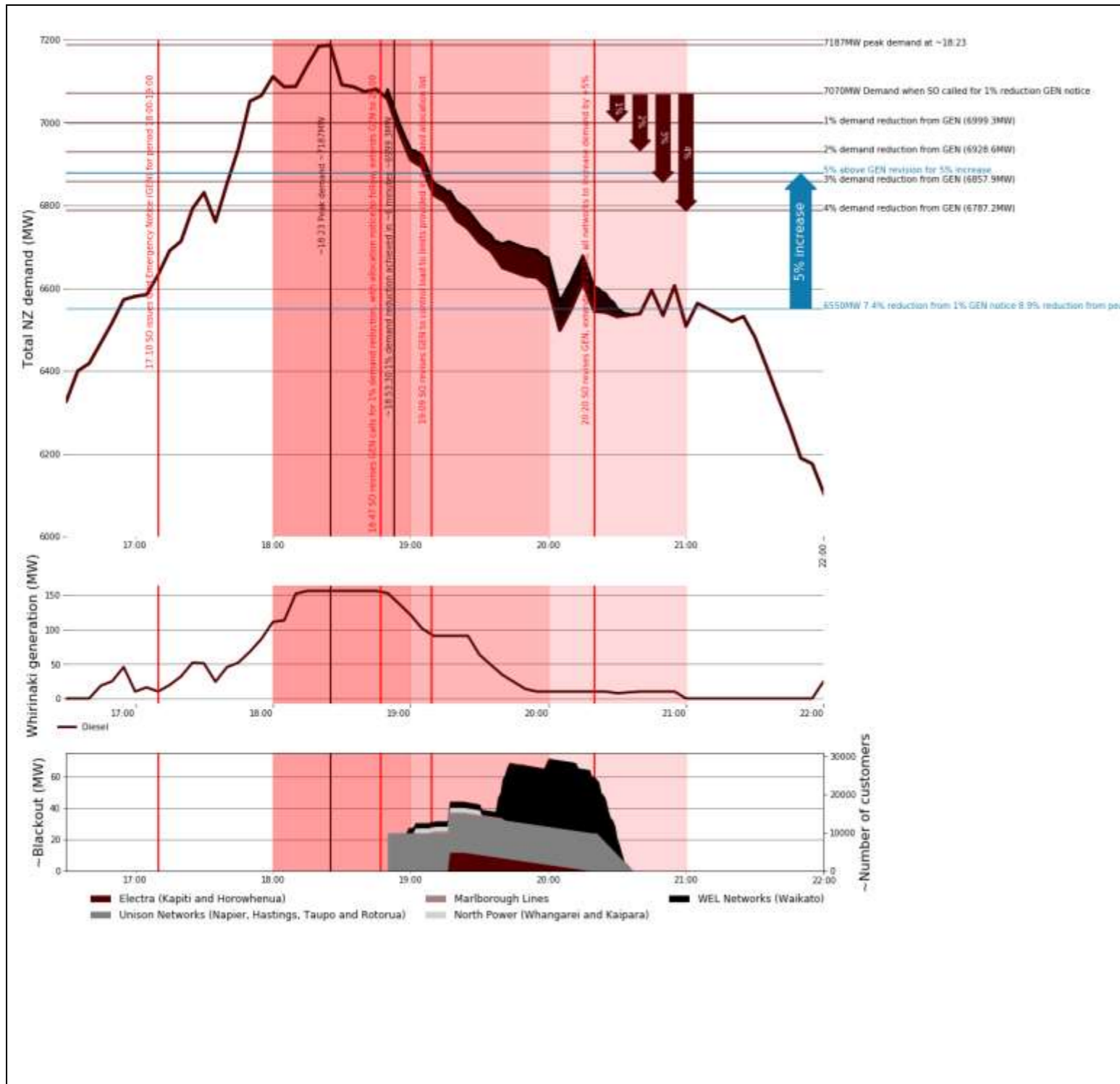


9 AUGUST TIMELINE: DEMAND, COMMUNICATION AND ACTION GRID EMERGENCY 17:00 TO 2100



On 9 August 2021 New Zealand’s power system experienced its highest ever peak electricity demand. Forecast high electricity prices during the day indicated a tight supply situation. Industry responded and prices dropped by 4pm. But the situation was still tight and Transpower, as the system operator, sent a grid emergency notice (**GEN**) to industry just before 6pm.

The diagram on the left depicts the event as it unfolded including demand levels, the response and the system operator’s communication during the event. It also shows when and how many customers were without power that night as a result of the response, as well as Whirinaki generation during the period.

Key times and actions

- 17.10** **GEN issued** for the peak period between 6pm and 7pm calling for increased generation offers and decreased demand. Generation increased and network companies reduced demand.
- 18.23 – 18.45** **Demand peaked**
- 18.47** **Revised GEN** all network companies to reduce load by 1% until further notice
- 18.53** **Total demand decreased by 1%** and continued to drop. Generation decreasing in response to declining demand
- 19.09** **Revised GEN** contained errors and asked 7 out of 33 recipients to reduce load further (at this stage **3% demand reduction** had been achieved). It also permitted other users to increase load.
- 20.20** **Revised GEN** all network companies can increase load by 5% based on current load.
- 21.00** **Revised GEN GRID EMERGENCY ENDED**

BLACKOUTS

Approximately 30000 customers disconnected between 18.50 and 20.37