

Chart of the Week

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“Besides the suppression in demand and improved support from Queensland, the market operator (AEMO) - for the second time this summer - also activated emergency reserves through the Reliability and Emergency Reserve Trader (RERT) scheme with about 232 MWh delivered at an estimated cost of \$7.2 million”

The fire between us: the day bushfires separated NSW & Victoria

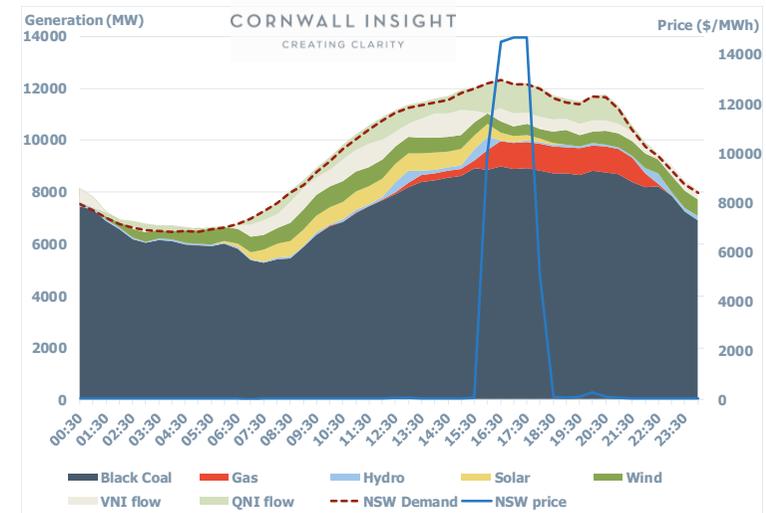
This summer has already sprung many newsworthy events for the NEM and broader climate discussions with increased tightening of demand/ supply balance as bushfires continue to burn across all NEM regions. On Saturday 4 January, bushfires directly impacted the NEM, triggering a series of supply disruptions resulting in power prices in NSW hitting value of lost load (VoLL).

In this chart of the week, via a time-of-day analysis, we take a closer look at how the NSW supply/ demand stack evolved through this event which coincided with high demand levels.

Shortly before 4PM, bushfires raging through the Snowy region resulted in a separation between NSW and Victoria with demand approaching its peak (see Figure 1). This outage resulted in a complete loss of flow in the Victoria – NSW Interconnector (VNI) as prices in NSW spiked to VoLL at 4.30PM (settlement interval). This separation and price incentive meant increased southerly flows from Queensland via the Queensland – NSW Interconnector (QNI); a 26% increase in southerly output post-separation was observed on QNI. In addition to QNI, Tomago aluminium smelter – usually responsible for around 10% of NSW demand – also turned off two potlines as demand in the state responded in balancing the market.

Besides the suppression in demand and improved support from Queensland, the market operator (AEMO) - for the second time this summer - also activated emergency reserves through the Reliability and Emergency Reserve Trader (RERT) scheme with about 232 MWh delivered at an estimated cost of \$7.2 million. An increase in wind generation - particularly from the New England Tablelands - as demand slightly eased off eventually led to softening of prices in the late afternoon. QNI continued to support NSW through the early to late evening, albeit to a much lesser degree as demand waned and wind generation remained strong. Though northerly flows through the VNI into NSW were metered shortly after the VoLL event, they were limited to a part of the

Figure 1: NSW supply vs demand – 04 January 2020



NSW network south of Wagga and away from high demand centres.

Events on this day demonstrated the plethora of tools required to maintain market balance and avoid loss of load. Whilst the RERT is generally not viewed as a long-term mechanism for maintaining supply, it is increasingly being utilised during tight supply conditions across different NEM regions. With much of summer left to go, and tighter conditions typically expected towards the backend, how the market will respond to these conditions if/ when they do arise is one to watch.

Though interactions between the NEM and bushfires are infrequent, they can lead to gyrations in market conditions when they happen. These gyrations can only be managed through dynamism in both demand/ supply across the interconnected NEM states.

There is evident need to include resiliency as a consideration in the future NEM. The system's ability to respond to low probability, high impact events will be heavily dependent on how resiliency is valued alongside reliability going forward.