

Covid-19 Impact on power system operation

June 2020

- Demand reduction due to COVID-19
 - May lead to issues with voltage levels on the networks
 - May present system stability challenges, compounded by pre-existing DER penetration challenges
- Impacts on key Transmission or Generation assets
- Control Room staff may have to be off for prolonged periods

TNSP and Generator

TNSP

- Monitor supply chain issues and potential impact
- Working with suppliers and unions

Generators

- Control room shifts split into two/more teams, interaction between the teams is managed
- Generators reviewed their minimum generation capabilities
- Risk mitigation strategy
 - Operate units at sustainable output to minimise maintenance or staffing impacts
 - Determine minimum critical generation and prioritise units to be manned, in case of scarce manning

Possible Impact on planned outages

Supply chain disruption

- Reliance on interstate and international contractors to provide specialist skills
- Many spare parts are available nationally however there are a some that are only available from overseas
- Renewables generators – main impact is during commissioning
- Long lead items

Examples:

- HVDC outages may require overseas resources
- A generator is seeking spares to replace LP turbine blades

Mitigations:

- Generators are coordinating these resources
- For work planned for June/July, generators are getting parts made locally.

Impact on planned outages cont'd

Fewer outages proceeded as planned – in comparison to previous years

- Generators and transmission operators have cancelled and deferred outages
- No current adverse impacts
- Regional variation

Increased workload and challenges expected in Q3/Q4

- Increases risk of maintenance congestion in Q3/Q4
 - leading to system operation challenges and further maintenance deferrals
- Increased of summer preparations being impacted

Mitigations

- Evaluating impact during the Summer period where outages are deferred
- Voltage control capability and system strength is being monitored
- Monitor the mix of outages and study impact on combinations of demand and reserves and system strength

Managing Reduced Demand

Causes

- Economic issues or COVID infections may result in the closure or material reduction of major industrial loads
- Domestic demand reduction

Risk/Issues

- Insufficient synchronous units online to maintain system strength
- Low voltages in part of the network requiring directions, ancillary services, or other measures
- Control schemes may be impacted by significant load changes