

# Trade-offs and risks explained

We advise customers to consider what level of supply risk is acceptable which informs supply security choices for their operations.

While back-up supply options can be built into our network for you, the cost of building an alternate supply to provide uninterrupted power in the event of an outage on your primary supply may outweigh the benefits.

Depending on your needs, your considerations could include:

- **Does back-up capacity need to be the same as your primary supply?**  
A network back-up solution that provides enough power for only the critical parts of your operations for the duration of an outage may be sufficient, and more cost-effective to build.
- **Can security of supply be improved over time?**  
Factoring in the build of a back-up solution can extend the timeframe of your project. You could consider prioritising the build of your primary supply, and accept the risk of an outage for a period until your alternate supply is built.
- **Is it more economic to have your own back-up supply?**  
It may be more economical to have your own back-up supply (in the form of generation or battery storage) to use during the occasional outage than it is to underwrite the cost of having a back-up supply built on our network.
- **Can you accept the risk of occasional supply interruptions?**  
The cost of mitigating supply interruptions using either of the options above may mean it's preferable to accept the risk of occasional power outages.

## Assessing your risk of an outage

To understand the risk of unplanned outages affecting you, you can talk to us about the probability of an unplanned outage occurring, typical length of time of outages, and the chance of an outage occurring during your peak load times.

### Example scenario one: increasing load

A coolstore customer using a peak load of 2MVA want to expand their operations and double their peak load to 4MVA in the process.

Security of supply is important to them, so they already have an alternate supply in place for their existing operations in the event of an outage on their primary supply.

While their primary supply can support their increased load with minor network development, reinforcing the alternate supply to support the additional 2MVA requires substantial work that will take two years to complete. This customer could consider:

- Deferring the expansion until the alternate supply upgrade is completed.
- Proceeding with the alternate supply upgrade and with the expansion at the same time, accepting the risk of having only partial back-up until the alternate supply upgrade is completed.
- Accepting that in the event of an outage, their alternate supply will only provide them with half their total load needs.
- Further to the above, having outage mitigation plans in place, such as on-site back-up generation or keeping coolstore doors closed.

### Example scenario two: Switching from non-renewables to electricity

A manufacturer who relies on continual power supply is considering moving from non-renewable coal to electricity to run their operations.

With coal, the manufacturer has enough supply on-site to work as a buffer in the event that coal deliveries are temporarily interrupted – ensuring operations are unaffected.

The manufacturer needs to consider the increased risk of an interruption to supply when switching to electricity.

The customer should think about their risk tolerance, the mitigation they want to have in place and the costs associated with those measures as part of their switching decision.