Power Interruption

Response Plan

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Our Business is Keeping You in Business

1. PURPOSE OF DOCUMENT

- To outline the response plan of ContinuitySA, this caters for municipal power failures.
- To summarise the preventative maintenance procedures in place to support the power systems.
- To inform all stakeholders of the procedures in place to manage power failure and related incidents.

2. OUR BUSINESS IS KEEPING YOU IN BUSINESS

2.1. Municipal Power Failures

Municipal power failures are one of many sources of disruption to business today. For ContinuitySA this is **'business as usual'** as we assist organisations when they incur disruption as a result of various large or small disasters or incidents.

This document specifically refers to Municipal Power Failures.

In the event of a municipal power failure lasting more than three seconds, the generator automatically starts and takes the load within 20 seconds from start-up. For the short duration while the generator starts, the UPS units supply power to the building's critical loads. Lighting and cooling is only available again after the generator takes the load (within 20 seconds). The number and configuration of generators and UPS' are specific to each site that ContinuitySA manages.

3. PROCESSES AND MAINTENANCE

3.1. Procedures during Municipal Power Failures

i. The initial incident to trigger action is a municipal power failure (The same procedure is followed by ContinuitySA 24 hours a day, 7 days per week)
ii. Sensing equipment automatically senses a power failure, phase failure or phase rotation and the generator starts and takes over the load of the facility.
iii. SMS modules relay the text message (alerts) of the failure via the GSM network to the Service Desk, Facilities Manager, technical infrastructure resource and electrician. Messages are also sent via the building management system to the Service Desk.
iv. When power is restored the SMS modules relay the message of power restoration to Service Desk, Facilities Manager and electrician.
v. The Service Desk logs a Priority 1 (P1) call after power restoration by generators.
vi. The technical resource from Infrastructure Services receives a text message but is also contacted by the Service Desk and is immediately dispatched to

the site to confirm that all is in order. Each UPS, generator and server room is inspected to confirm normal operation.

vii. All generators and UPS systems are inspected to confirm normal operation.

viii. In the event of any anomalies being detected during the inspection the Service Desk and Facilities Manager are alerted.

ix. The relevant contracted technical support organisation is alerted about the problem and immediate support is requested.

x. When municipal power is restored, the Service Desk and Facilities Manager are texted to confirm the changeover to municipal supply is completed.

3.2. Diesel Management

i. All generators are provided with day tanks which are maintained with a diesel level at above 80% of the capacity of the tank when not in use.

ii. There are underground or above ground bulk on-site tanks which provide additional diesel at various sites. Diesel can be moved from the bulk tanks to the day tanks with a mobile tank which is mounted on the company vehicle reducing ContinuitySA's resilience on a third party supplier of diesel.

iii. An electrical pump is used to pump the diesel from the holding tanks to the mobile tank and then to each generator's day tank.

iv. The day tanks are refilled when the tank capacity reaches the 40% or after the power returns (restored) whichever comes first.

v. Diesel levels are continuously monitored by physical inspections by Infrastructure Services staff at various sites.

vi. Diesel is ordered from bulk suppliers but can also be procured from any retail point using the mobile tank mounted on the company vehicle.

3.3. Proactive and Preventative Maintenance

i. All generators are equipped with dual battery sets.

ii. Generator batteries are replaced every two years.

iii. Physical inspections are done daily on business days before 08:30. Anomalies are recorded and service calls are logged based on the severity level.

iv. Generators are maintained as per manufacturer's specifications and serviced quarterly by the specialist contractor.

v. UPS units are serviced quarterly by a specialist contractor. Records are kept of the services.

vi. UPS batteries are replaced at least every five years or as recommended by a specialist service organisation. Records are kept of the services.

vii. Diesel is tested annually for degradation.

viii. Thermal imaging is done twice per annum on all distribution panels.

ix. Mini substations are checked and serviced annually by a specialist contractor.

x. All generators are provided with heaters to keep the engine warm under all-weather conditions.

3.4. Incident Management and Escalations

The ITIL framework is used as the basis for service management within ContinuitySA. Incidents are managed by the Service Desk. Depending on the nature, extent and severity of an incident, the Service Desk Manager can elect to call for an incident management team to be established to manage incidents when they occur. Root cause analyses are done after each incident with a severity 1 or priority 1 incident.

In the event where clients are affected or exposed to higher levels of risk, communication is sent by the incident management team via the appropriate medium available to the listed key contact persons at the client organisations.