



Delivering water and power®

# SRP STANDARD BUSINESS SOLUTIONS POWER OUTAGE TRAINING FOR BUSINESSES: BACKUP POWER CONSIDERATIONS

An unexpected power outage can disrupt your operations and hurt your bottom line. Installing a backup power system is one way to minimize the impact.

There are three main types of backup power generation. The first thing to consider is whether your business operation can tolerate a power interruption. If it cannot for even a second, you'll need critical backup power (also known as an uninterruptible power supply, or UPS). If it can, you'll want non-critical backup power (a generator).

## CRITICAL BACKUP POWER (UPS)

- What is the electrical load requirement (kW, volts, amps, etc.)?
- How long do you need to run on UPS (10, 30, 60 minutes, etc.)?
- If minutes, consider a battery UPS. If seconds, consider a flywheel UPS.

## BATTERY UPS (MINUTES OF RIDE-THROUGH TIME)

- Requires air-conditioned space for installation (72°F).
- Requires exhaust fans to vent battery emissions and HAZMAT protection.
- UPS should be serviced annually.
- Batteries should be inspected semi-annually and replaced every 2-4 years.
- Flywheel UPS (seconds of ride-through time)
- Identify space for installation (< 100°F).
- No exhaust fans or HAZMAT protection are required.
- UPS should be serviced annually.
- Flywheel bearings should be changed every 3 years.
- Flywheel life cycle is about 20 years.

## NON-CRITICAL BACKUP POWER (GENERATOR)

- What is the electrical load requirement (kW, volts, amps, etc.)?
- Automatic or manual transfer switch?
- Diesel, natural gas or propane generator fuel?
- Sub-base fuel tank (under the generator) or auxiliary tank?
- Where will the generator and fuel tank be located — inside or outside?
- Do you need full power (entire facility) or priority power (only critical areas)?
- Requires air quality permit from county authority.
- Requires quarterly inspections, annual oil changes and load bank testing.

## FULL POWER

- What is peak demand (high kW) over the last 12 months?

## PRIORITY POWER

- Which areas/loads will result in business disruption if power is lost?

[Find out more on the next page](#)

## TEMPORARY POWER

- See **Full power** and **Priority power** sections.
- Where will the generator be located?
- Will the generator be on a trailer or will it need to be unloaded?
- How far will the generator be from your building connection?
- Consider installing a quick connection device.
- Do you require different voltages? Do you need transformers, distribution panels, outlets?
- Once running, who knows how to operate the generator?
- Fueling must be arranged (refueling).
- Requires a certified electrician for a safe connection.
- Requires safety and security measures — fencing, barricades, cable ramps, etc.

## HERE TO HELP

If you need help creating a plan for power outages or want more information, contact your Strategic Energy Manager or the SRP Business Customer Center at **(602) 236-8833** or [bizcenter@srpnet.com](mailto:bizcenter@srpnet.com).

[srpnet.com/outagetraining](http://srpnet.com/outagetraining)



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