

Business Outage Preparation Checklist



This checklist can help you create a customized outage preparedness plan for your business. Depending on your type of business, different sections will be most relevant.

Before an outage

1. Look at your building

- Identify the location of your meter room and electric service entrance.
 - Make sure you have access to your meter room
 - If you have more than one electric meter, identify which meter serves each part of your building, and the pieces of equipment that are connected to each meter.
- Identify the voltage levels that BC Hydro delivers to your location.
- If your meter room does not have an emergency lighting system, consider installing one.
 - Keep a flashlight, along with fresh batteries, in the meter room so you can see your equipment if the power goes out.
- If your building has fuses, know their location and ratings. Keep two sets of spares in reserve in case a fuse blows when power is restored.

2. Look at your equipment

- Post an electrical one-line diagram in the meter room to help the people working to restore power.
- Develop and implement a written maintenance program for your vault and electric equipment.
- Prepare a list of the equipment that will need to be reset after an outage.
- Contact the service providers for your telephone service, security system and fire protection system for information on how these systems will operate during, and after, an electrical outage.
- Know what equipment can and cannot be turned off. Develop a plan for controlled shut-down if needed.

3. Take steps to prepare

- Prepare and document your operational tasks and responsibilities during a power outage. Have an operational plan ready for shutting down and restarting electrical equipment and appliances.
- Have someone on site or on call who is qualified to work on your electrical equipment.

- Establish the back-up personnel responsible for handling emergencies that happen after hours, and develop an after-hours notification system.
- Install surge protection devices to protect sensitive electronic equipment.
- Develop a list of emergency phone numbers.
 - Include suppliers, electricians, contractors, elevator services, computer services, managers at your business, and BC Hydro: **1 888 POWERON (1 888 769-3766)**
 - Post the list in the meter room and in other strategic locations for quick access when needed.
- Set up a safety committee. Appoint safety coordinators in each section of your business to provide information and direction to the employees in their work areas.
- Have a cellphone or corded phone available or readily accessible. Cordless phones and your company's phone system may not work without electricity.
- Ensure all key personnel have cellphones, and that every one has a list of the phone numbers.
- Have a qualified electrician test the breakers to make sure they work and are not likely to break when repeatedly opened and closed.
- Put together and maintain an emergency kit. Include flash lights, a battery-powered radio, battery-powered clocks, extra batteries, and a copy of your emergency plan, with key phone numbers.

4. Prepare your employees

- Educate employees on what to do if an outage occurs. Include information on:
 - Using the elevators at your site
 - Shutdown procedures for air conditioning or refrigeration equipment, alarm systems, and any other critical equipment or systems
- Ensure that key staff know the procedure for reporting an outage, and have a note of your BC Hydro account number or your Site Location ID (SLID) handy.
- Have an emergency plan in place for employees who rely on medical equipment. This may include a back-up power supply or transportation to another facility.
- Provide flashlights to each department for use if the power goes out.
 - Do not use candles

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- Keep protective gloves and goggles on hand so employees will be prepared to switch breakers back on when power is restored.
 - Be sure that protective equipment in stock meets the requirements of WorkSafe BC Occupational Health & Safety regulations for the voltage levels in your facility.

5. Check your back-up systems

- If you have a back-up generator, know its make, capacity and delivery voltage.
- Have someone on site or on call who is qualified to work with your back-up system.
 - Make sure all manufacturers' operating instructions are carefully followed.
- Double-check that all critical loads, including elevators and emergency lighting, are connected to your back-up generator.
 - Verify that your back-up generation capacity is enough to handle this load.
- Establish a regular maintenance program for your back-up generator.
- Test your back-up generator each month.
 - Check the generator under load conditions to make sure it works.
 - Include the switchgear and transfer switch in your test.
- Remove potential hazards or hazardous materials that could be impacted by the operation of a back-up generator.
- Know how much fuel you have stored for the generator, and how long it will last during an outage.
 - Establish quick fuel delivery arrangements in case you run out of fuel.
 - Install a fuel inhibitor (gasoline and diesel fuels), and plan to use, replace or polish this fuel at least once a year.
- Test your back-up battery systems (Uninterruptible Power Supply, or UPS), emergency lighting, phone, security, fire protection, etc.) each year.
- If you have a UPS system, know its back-up capacity (in minutes).
 - Update this information as you add or remove equipment.
 - Develop a plan for the orderly shutdown of equipment before the capacity limit is reached.

When the power goes off

- Check your circuit breakers or fuses to make sure that the outage is not being caused by equipment problems in your facility. Is power out in your whole area?
- Check to make sure employees are safe.
 - Check your elevators, equipment and the facility in general for situations that may need immediate attention.
- If the outage is in your own system, contact your electrician or electrical contractor.
- If it's a BC Hydro outage, report it by calling **1 888 POWERON**, or ***HYDRO (*49376)** on your cellphone. The automated outage reporting system will take you through several prompts to match up your telephone number, address and BC Hydro account number. Or it can connect you with a representative if you don't have this information handy.
 - If the outage has already been reported, the system will provide you with the most recent estimated time of power restoration, if one is available.
 - If BC Hydro does not have an outage recorded for your location, you will be transferred to an agent to record the details.
 - If you have a laptop or a computer on a back-up power supply, you can go to bchydro.com/outages for outage information by region, including estimated restoration times where known. An estimated restoration time may not be available if a Hydro crew has not yet assessed the cause and repair required.
 - Tune into your local news on your portable radio for updated outage info.
- If you are using back-up generation, make sure the transfer switch is properly isolated from your generator load and that power is not feeding back into the BC Hydro system.
- Turn off major pieces of equipment not connected to your back-up generator. Because some appliances or tools left on will start up automatically when service is restored, turning them off can prevent damage, injury or fire.
 - Leave a few lights on in visible areas so you know when the power is restored.
- Go to the meter room and shut off the circuit breakers to the major pieces of equipment. This will help avoid power surges, and possible damage to your equipment, when the power is restored.
 - Be sure to leave the breakers on that control the lights, to alert you when power is restored.
- Contact the companies that service your air conditioning system, alarm and communications equipment for information or specific instructions.

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When power is restored

- When power is restored, turn on the most essential equipment first, and wait 10 to 15 minutes before reconnecting voltage-sensitive and less-critical equipment, to give the system a chance to stabilize.
 - Close your circuit breakers one at a time.
 - Start with your non-critical, single-phase breakers first.
 - Wait a minute or two to make sure your equipment is operating before moving to the next breaker.
 - Turn on any three-phase equipment at the end of this process.
 - Remember to reset clocks, automatic timers and alarms.
 - Shut down your back-up generator and transfer load back to your electric system, following manufacturer's instructions.
- Check and replenish the fuel supply for your back-up generator.
 - Review and update your outage plan in light of the learnings from this outage, while the experience is fresh in everyone's mind.
 - Meet with your safety committee to update procedures as necessary.
 - Communicate and report what happened to all concerned.