



Health Center Power Outage Response Guidance for Health Centers

Administrators

This document provides recommendations for policies or procedures in the event of a power outage that can be included in an Emergency Operations Plan (EOP) or into a standalone power outage plan. They can help ensure the safety of staff and patients in the event of a power outage during a heat wave.

Section 1: Power Outage Preparedness

1. Develop policies and procedures for, a) periods of time when a power outage occurs, and clinic operations rely on backup power or b) when backup power is available or fails. Responses to power failures may include closing the facility, limiting services, communicating operational changes to staff and patients, and assisting high risk patients out of the facility.
2. See the Extreme Heat Administrative Checklist to learn more about contacting patients prior to a heat wave and what to communicate to patients.
3. Have an inventory of what equipment is and is not powered when using generator or battery.
 - A. Have equipment clearly marked, including power outlets.
4. Explore partnerships with local hospitals for refrigeration of vaccines and medications in case of power outage.
5. Implement policies to reduce energy demand when on back-up power.
 - A. Set thermostats to 76 degrees
 - B. Turn off non-essential lights
 - C. Use LED bulbs throughout facility (use less electricity and produce less heat)
 - D. Turn off and unplug all not in use computers and monitors.
 - E. Unplug microwaves and coffeemakers
6. Develop a purchasing schedule policy to procure energy efficient equipment to limit the strain on generators during power outages.
7. Identify staff members to oversee the implementation of each of these policies and ensure they are followed through.

Section 2: Partnerships & Vendors

Contacting Partners

Establish relationships with power related companies, such as electrical utility companies, generator service companies, electricians, etc.. Plan for at least annual communication with these companies to check on the status of any verbal or written agreements, especially those that pertain to power outages. All formal business relationships such as with vendors should have written agreements. Create agreements with partners to receive emergency maintenance in case alternative power sources fail during an extreme heat event.

1. **Utility Companies:** Contact your power company to identify if your clinic is listed as a priority location during a power outage. Priority locations may receive preferential access to electricity during system outages or have electricity restored earlier. Utility companies may have a “Critical Infrastructure and Key Resources” (CIKR) list that identifies priority locations.

- A. Also inquire as to whether notice can be given in advance of planned outages and provide them with point of contact information for your clinic.
- 2. **Electricians & Contractors:** Establish a relationship with an electrical or contractor company to have the facility generator regularly inspected and maintained to prevent deterioration.
- 3. **Rental Companies:** Work with rental companies and develop partnerships to ensure the clinic can obtain extra generators and equipment in case the generator fails to operate during an extreme heat event.
- 4. **Community Organizations or Businesses:** Work with local businesses, organizations, or health centers to identify back-up cold chain options in case supply gets too warm.
- 5. Identify staff members to oversee the implementation of each of these policies and ensure they are followed through.

Section 3: Emergency Power Sources

SECTION 3.1: Emergency Power Options

- 1. Work with an electrician to receive an evaluation on the possibility of installing generators (or battery packs) and prices for the installation. An evaluation may be able to identify the size of generators or battery packs needed to run a portion of the facility or the entire facility, along with the price of labor required to complete the installation.
- 2. Generators
 - A. Gas/Diesel generators are the most affordable backup power source available. These can range from portable generators to industrial generators which can be installed into the ground and configured to turn on when the power grid fails.
 - i. Benefit: These are generally less expensive and more reliable for large facilities.
 - ii. Negatives: Requires purchase of fossil fuels and regular refueling during long power outages.
 - B. Solar/Wind generators are more expensive but more environmentally friendly. These can also range from small portable generators to larger industrial generators (portable or installable).
 - i. Benefits: These do not rely on fuel sources during prolonged power outages, purchasing fuel is not required, and do not emit exhaust.
 - ii. Negatives: More expensive than fossil fuel generators.
- 3. Battery Packs
 - A. Battery packs today can power up an entire facility, however, not for long. These are more expensive than generators but can be paired with a generator to reduce energy strain on generators (reducing fuel consumption).
 - i. Benefit: Benefits: Quieter than a generator, more portable, does not rely on purchasing fuel, and does not emit pollutants.
 - ii. Negatives: Unlikely to supply energy for more than one day.

SECTION 3.2: Procurement

1. Identify a purchasing schedule to buy gas/diesel generators (or replace old ones as they become outdated or inefficient), back up battery packs and sustainable energy generators (solar or wind).
 - A. Create policies to set aside funds in a reasonable time frame for each large purchase over time.
 - B. Consider guidelines for generator specifics (such as energy output, size, weight, and other factors that could be critical to effectively powering your clinic).
2. Create policies for generator placement to encompass safety, such as away from windows, doors, air-conditioning units, or any air intake for the facility to prevent carbon monoxide from getting into the facility if it is a gas or diesel generator.
3. Create policies for generator placement to ensure the generator is easily accessible for maintenance but also remains cool and receives adequate airflow during days of extreme heat.
4. Identify staff members to oversee the implementation of each of these policies and ensure they are followed through.

SECTION 3.3: Upkeep

1. Schedule annual maintenance and inspections for the clinic's emergency power sources.
 - A. Maintenance and upkeep are critical to ensuring equipment will turn on and run properly when needed.
 - B. Schedule maintenance during the off-season to save on costs.
2. Schedule a regular cycle to ensure the clinic's generator is running properly and continues operating.
 - A. It is optimal to run a generator monthly for at least 30 minutes to keep it functioning smoothly.
3. Identify staff members to oversee the implementation of each of these policies and ensure they are followed through.

SECTION 3.4: Refueling

1. Create a refueling schedule to ensure the generator(s) is ready to operate when least expected.
2. Identify personnel with the task of refueling the generator(s) and establishing a schedule to refuel during emergency operations.
3. Fuel Sources: Establish an agreement with partners to ensure fuel can be delivered or picked up during emergency operations or so fuel supplies can be held for your clinic's needs.
4. Identify staff members to oversee the implementation of each of these policies and ensure they are followed through.

