

PLANNING FOR TEMPORARY POWER: A CRITICAL MANAGEMENT DUTY.

Information made available by www.caterpillar.com and www.johnfabick.com

Step 2, Step 3

As a facility manager, you know better than anyone that electrical power is the lifeblood of business. Without it, computers don't compute, pipes freeze, food spoils, machines don't run.

An electric utility power line has a profound effect on your bottom line. When you're without it, you need reliable temporary power.

This "Rental Power Planner" can help you plan effectively to secure rental generators and:

- **Save time and money during scheduled shutdowns, and**
- **Act quickly during emergency outages.**

You can use this booklet to develop a plan or refine the temporary power strategy you already have in place.

Getting Started: A Three-Step Approach

Although critical, planning for power need not be difficult. Here are three simple steps that will help you secure and maintain the rental power necessary to carry your facility successfully through a scheduled or emergency shutdown:



Step 1: Determine Your Facility Electrical Load. Before you rent temporary power, you have to know how much you need.

Full Power

If you have to keep your whole facility operating as it would with utility-supplied power, you need to determine your aggregate electrical load.

The quickest, easiest and most accurate way to do this is to take ammeter readings of your electrical distribution boxes. Take the reading when your company is normally operating at peak load. You can also obtain peak demand readings from your utility bills.

Aggregate loads are also listed on panels of electrical distribution boxes themselves. A statement of your total electrical capacity is also available at the local utility. However, these sources will not give you true readings of the temporary power you need since all buildings are wired for more electricity than they will use.



Priority Power

At times, you may want to power only those electrical loads that serve critical functions at your facility. If so, you need to prioritize individual loads.

If you're not sure what your critical loads are, start by determining the lost profit or other problems that result if your company is without the equipment. Other than life-safety electrical loads powered by your standby generator sets as required by law, examples of critical loads include:

Lights- Heating, ventilating and air conditioning (HVAC)- Computers- Process equipment - Pumps

Prioritizing will help you decide which loads require power immediately during an emergency. This is important since it may take several hours or longer to secure all of the rental equipment you need on site during a large scale emergency, such as a natural disaster.

In most buildings, a separate distribution box will feed critical loads. In this case, you may only need enough temporary power for the loads served by that set of circuit breakers.

You can also decide to power specific critical loads served by separate circuit breakers within a distribution box. To do so, take an ammeter reading of the distribution box during the off-hours at your facility with the equipment you don't need shut off and the critical loads on. The ammeter will tell you how much power you need to serve the critical loads since that is all the distribution box is feeding. However, it's important that the non-critical loads are shut off and kept off when rental power is hooked up.

If you want to power individual pieces of equipment that use motors, amperage and voltage information is listed on nameplates. You can list this information and all your power needs on the work sheet in this booklet.

An additional note: Rental power is often used to back up standby generator sets during scheduled and emergency outages. To find out how much temporary power you need for standby service, contact the company that supplied the standby generator, or [qualified rental generator set dealership](#).

PLANNING FOR TEMPORARY POWER: EQUIPMENT, KNOW WHERE TO RENT IT.

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[Step 1](#), [Step 3](#)

Step 2: Know Where to Rent Generator Sets and Related Equipment.



Your rental generator sets are only as reliable as the supplier who backs them. In planning for temporary power, find a rental dealership who has the equipment you need and a staff qualified to solve your problems and service the machines.

Visit the dealership ([Fabick Power Systems](#)) to get to know the people you'll need to rely on during scheduled shutdowns and emergency power outages. Cat Rental Power brings you the

strength of Caterpillar and the global [Cat dealer network](#).

Here are basic questions to ask the dealership:

- What is the kilowatt (kw) range of your generator set rental fleet?
- Can you deliver immediately? If not, how long will it take?
- What if I need a generator set in the middle of the night or during a holiday?
- Who supplies fuel?
- How are your rental contracts structured? How flexible are they?
- Have you ever rented generator sets to customers in my industry?
- What equipment/manpower do I need to provide?
- What technical service/support do you offer?
- How do I know my rental units are 100 percent reliable?
- What happens if a generator set I rent goes down?
- Do you have cables and other equipment I may need?
- Can you train my staff to hook up and operate the equipment? How long will it take?
- Can I obtain pre-approved credit so I can avoid delay during an emergency outage?
- Can you supply an operator?

PLANNING FOR TEMPORARY POWER: ANSWER THE BASICS, SAVE TIME AND MONEY

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[Step 1](#), [Step 2](#)

Step 3: Answer the Basics, Save Time and Money.



Think about the following before the power goes off at your facility:

- **How will the generator sets get from the dealership to the facility?** Most dealerships deliver, but if you pick up the equipment yourself, you need to determine what size truck you will need. Most generator sets are towed on semi-trailers and pull trailers. Others are skid mounted and require lifting equipment for loading and unloading.
- **Where will you put the generator sets?** The largest generator sets, also referred to as power modules, measure 8 feet wide by 40 feet long. If tight quarters are a consideration, two or more smaller units will provide the same power at about the same price.
- **How will you get cable from the generator sets outside your building to electrical distribution boxes inside?** Consider installing a weather head, or a cable access door in an outside wall of your facility that can be closed when not in use. Then, you won't need to route cable through windows and doors that should remain shut during off-hours or inclement weather.
- **Where will you get cable?** Not all dealerships supply it. If the dealership you work with does not, use the work sheet in the Power Planner to list your cable supplier and an alternate.
- **Can you store enough fuel close to the area where you plan to keep the generator sets?** During extended generator set runs, an auxiliary tank of fuel will reduce service calls from your fuel supplier.
- **Do you have people on staff who can hook up the generator sets and check to ensure they will operate properly?** If not, make sure your dealership or an electrical contractor can do the hookup, or have the dealership walk your staff through the procedures.

Visit the dealership ([Fabick Power Systems](#)) to get to know the people you'll need to rely on during scheduled shutdowns and emergency power outages. Cat Rental Power brings you the strength of Caterpillar and the global [Cat dealer network](#).

POWER OUTAGE

[Sheet 1 \(Electrical Info\)](#)

WORK SHEET (Key Contacts)

[For HELP with this form](#)

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[Step 1, Step 2, Step 2](#)

Please use worksheet 1 & 2 as a working document to expedite generator set rentals during scheduled and/or emergency power outages. Keep an updated copy at home, since you may not have access to your office in an emergency.

KEY CONTACT TELEPHONE NUMBERS:

CONTACT	OFFICE	HOME
In-House operations/maintenance staff:	_____	_____
	_____	_____
	_____	_____
Person responsible for computers, security/data, recovery/alternate:	_____	_____
	_____	_____
Person in charge during power outages/alternate:	_____	_____
	_____	_____
Supplying Utility contact/alternate:	_____	_____
	_____	_____
Generator set dealership contact/alternate:	_____	_____
	_____	_____
Person responsible for generator hookup/alternate:	_____	_____
	_____	_____
Electrical Engineer or contractor, if necessary:	_____	_____
	_____	_____
Fuel supplier/alternate:	_____	_____
	_____	_____

For help filling out this form, please links at [top](#) of this page.

POWER OUTAGE

[Sheet 1 \(Key Contacts\)](#)

WORK SHEET 2 (Electrical Information)

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IN-HOUSE ELECTRICAL INFORMATION:

Prioritized list of critical loads:

	EQUIPMENT	VOLTAGE/AMPERAGE
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____
6.	_____	_____

Physical location of loads:

Location where schematic drawings, electrical diagrams, power planner work sheet and other instructions are kept:

Loads to isolate from main breaker:

GENERATOR SETS/AUXILIARY EQUIPMENT:

Size of generator sets needed: _____

Transportation arrangements: _____

Time needed to locate generator sets on site: _____

Auxiliary equipment needed: _____

Is company check needed for generator set pick-up? Yes _____ No _____

(Not applicable if arrangements are made for pre-approved credit)

Generator set features to be specified (e.g., sound-attenuation, etc.):

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