Recover From the Most Likely Disaster: Power Outage

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12 Months of Preparedness

Stay Prepared Year-Round with Agility Recovery
1. January – Assembling a Team
2. February – Assess Risks & Threats
3. March – Analyzing Critical Business Functions
5. May – Creating Evacuation & Shelter-in-Place Plans
6. June – Designing A Crisis Communications Strategy
7. July – Building a Business Disaster Recovery Kit
8. August – Back Up Your Data
9. September – Help Employees Prepare
10. **October – Determine your Power Needs**
11. November – Find an Alternate Place to Work
12. December – Test and Update Your Plan

www.12StepPrep.com
Recover from a Power Outage

1. Preparing for a Power Outage
   A. Protect Life & Property
   B. Mitigating the Risk
   C. Preparing for Generator Recovery

2. Lessons Learned & Best Practices
Preparing for a Power Outage
Preparing for a Power Outage

Protect Life and Property

• Proper emergency signage, lighting, smoke/CO detection
• Practice safe evacuation procedures
• Avoid dangerous situations related to the interruption
• Avoid downed and dangling power lines
• Disconnect or turn off all equipment
Preparing for a Power Outage

Protect Life and Property

• Ensure Alarm/Security Systems have battery backup
• Take precautions for low-lying areas served by pumps (Sewer ejector pumps, HVAC condensate drain pumps, etc.)
• NEVER run a generator indoors
• NEVER connect a generator to any electrical system until prior steps taken to ensure safe connection / no feedback to power grid
Preparing for a Power Outage

Mitigating the Risk

• Back Up Data Regularly (Test Recovery)
• Install at least one Land-Line Telephone (Fax?)
• Uninterruptible Power Supply (UPS) Devices, Surge Protectors
  • Test these devices
• Installing an on-site generator
  • Regularly test and maintain or service on-site generators
  • Establish at least one stand-by fuel provider
Preparing for a Power Outage

Mitigating the Risk

• Develop a Work-from-home procedure and test the plan
• Provide employees external back-up batteries, solar, car charger/inverters for cellphones and other mobile devices
• Ensure Servers are programmed for proper auto-shutdown during power loss and UPS provides sufficient backup power for shutdown
• Power down all equipment, appliances, etc. to protect from subsequent surges in power
• INSURANCE – Service Interruption (or Utility Services) Insurance
Preparation for Mobile Generator Recovery

***Know Your Electrician***

Get to know several electricians & determine your power needs in advance. Be sure to ask the following questions and note the information for future use. Get the advice of a professional!

1. What phase is your electrical service? Single or Three Phase?
2. What voltage is your service? 208v, 240v or 480v?
3. Is your power requirement for a Wye or Delta generator?
4. How many amps do you need to power key systems? Determine your peak Amperage draw over the past 12-24 months.
5. What size generator will be required?
6. Does your building have a power transfer switch? If no transfer switch has been installed, you will need to consider options – hardwire or spider box?
Preparing for Mobile Generator Recovery

- Prioritize your power needs over time (tiered recovery)
- Don’t neglect critical equipment: sewer ejector pumps, HVAC condensate drain pumps, server room HVAC and pumps that provide protection from flooding
- Determine WHERE a generator should be placed on premises, particularly if you don’t own the building
- Consider HOW you plan to connect generator. (Spider Box, hardwire into panel, docking station, transfer switch, kirk key solution, etc.)
- Accurately estimate the length of cabling needed
- Plan for occasional power loss, even with a generator, due to fuel shortage, overloading capacity, regular maintenance, etc.
- Ensure you have proper security measures in place to protect any outside equipment including generator (fuel and cabling)
Preparing for a Power Outage

Preparation for Mobile Generator Recovery

• Know your generator’s fuel consumption rate and set up regular fuel deliveries ahead of time to ensure you never run out
• Always have backup fuel providers, outside of your immediate area
• Once primary power supply is restored, keep your backup in place for a reasonable time frame to cover unexpected loss after restoration
• Even if you have a permanent generator on site, establish a resource for service, fuel deliveries and backup generators if yours becomes inoperable

Power & Generator Checklist Available Here:
http://agil.me/powerchecklist
Lessons Learned and Best Practices
Lessons Learned & Best Practices

Issues Regarding Fuel Availability

1. Never rely on a single vendor
2. Avoid storage underground or in a basement
3. Plan for lack of supply regionally
4. Fuel for office, but not employees
5. Power & communications interruptions affect fuel availability
Lessons Learned & Best Practices

Best Practices for Permanently Installed Generator

1. Is it protected from the elements?
2. Is it properly serviced & maintained?
3. Do you have service & fuel vendors arranged?
4. Is it tested regularly?
5. Can it be relocated in an emergency?

In the wake of Hurricane Sandy, NYU Langone Medical Center was forced to evacuate more than 220 patients on October 30th due to backup generator failure.
Facility Location Concerns

- If you are tenant and not property owner, and occupy multi-tenant facility, you may not be PERMITTED back in during power outage.
- Never assume you can connect a generator, or run cabling through your building without permission.
- Be sure to speak with facility managers or other “key” individuals that may control access.
- Find a way to “work with less.” Powering an entire building is expensive. Powering only a few areas or departments may be more cost effective.
- Would it be less expensive to relocate offices temporarily?
NUMBER ONE LESSON LEARNED:

**Know Your Power Requirements Ahead of Time**

- Assess the impact of loss of power on your operations
- Know how long you can last without power
- Establish your strategy based on that timeframe
- Act on your plan regardless of outside information; *it is often unreliable*
Questions?

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