



## **When The Power Goes Off**

We live in a society dependent on electricity. From lighting a room to illuminating our lives with computers, televisions, and appliances, we expect the power to always be on when we need it.

But that's not always the case. And for small businesses, power outages can be disastrous if they are not prepared with back-up power sources and other technologies that make it easy to quickly transfer to those back-up sources. For small companies in a struggling economy, a power outage can not only put them in the dark but also, quite possibly, in the red.

Following are answers to frequently asked questions about power outages in the United States and elsewhere:

### **Why does the power go out? Storms can't be the only cause.**

There are a number of reasons why power outages occur. Mother Nature is often a culprit, causing trees to fall on power lines. Animals climbing on utility equipment can also be a cause, along with equipment failure, and human error.

In fact, the Electric Power Research Institute (EPRI) says that, excluding major storms, equipment failure is the leading cause of each outage hour, followed by untrimmed trees near power lines, and mistakes by power company personnel.

During the past few years, another culprit has wreaked havoc on the power supply: the copper thief. The price of copper has quintupled since 1999, making it all too attractive a target. Power outages can occur when copper ground wires from utility poles are stolen. At least 42 states have reported utility copper thefts since 2005, with many resulting in power failures.

The crime is rampant in some areas. For instance, San Diego Gas & Electric has had its power substations broken into and looted of grounding and transmission wiring more than 100 times since January 2007.

### **How are businesses affected by a power outage?**

For some businesses, a power failure can turn out the lights *permanently*. Businesses that rely on data – and which ones don't? – can suffer the ultimate loss. According to a University of Texas study, more than two-fifths of companies experiencing a major loss of computer records never reopen for business. More than half close within two years, and just 6 percent survive in the long term.

### **But we rarely have major outages, right?**

The U.S. Department of Energy's Office of Electricity Delivery and Reliability reports that 77 major outages occurred in the United States during 2007 and at least six more happened during the first month of 2008.

But an outage of any size in terms of area impacted or length can be problematic for small businesses. Just because an outage does not garner national news coverage doesn't mean it doesn't have a devastating impact – especially for small companies.

### **Will the situation improve?**

Government agencies that monitor electric service reliability expect a milder storm and severe weather forecast, and that could be a good thing in terms of outages. However, the North American Electric Reliability Council reports that overall demand for electricity is predicted to jump 19 percent in the next decade, while the miles of transmission lines needed to meet the increase are expected to rise by just 7 percent.

### **What's the best way to prepare for a power outage?**

The tricky thing about power outages is that they are unpredictable. And that's why it is critical to have a back-up power supply – such as a generator – and technologies that enable a business to either manually or automatically switch to the back-up power supply when the main power source is lost are critical. Additionally, mission-critical components such as PCs, cash registers, and other electronic devices should be protected with battery back-ups known as uninterruptible power supplies.

Unfortunately, not all businesses – especially small ones – have prepared themselves for outages. In fact, a 2008 survey of 451 U.S. small businesses commissioned by Emerson Network Power showed that 61 percent do not have back-up power supplies.

Remember the adage about an ounce of prevention? It applies here. Three key steps can help keep a business up and running during a power outage:

1. **Make a plan.** It's important that businesses have a plan for managing disruptions and disasters. Disruptions – natural or manmade – are chaotic at best. Having a plan in place allows you to focus on the issues at hand as you work toward restoring your business to a normal state.
2. **Invest in back-up power systems.** Installing a back-up generator and power-switch technology that transfers from the main power source to the generator means no interruption in power.
3. **Back up computer data.** Lack of data access or loss of information can be a death sentence for a small business. Uninterruptible power supplies are battery back-up systems that should be used with PCs, cash registers, and other electronics.

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**The United States is among the most developed nations in the world, so it would seem logical that other countries suffer outages much more often than we do, right?**

The average U.S. power company customer loses power for 214 minutes each year, according to the Electric Power Research Institute (EPRI). That compares to 70 minutes in the United Kingdom, 53 minutes in France, and six minutes in Japan. Further, the EPRI reports that the average Japanese customer loses power once every 20 years, while the average U.S. customer, excluding hurricanes and other strong storms, loses power once every nine months.