

The 5 Types of Common Power Problems that Can Affect Your Business

From simple desktop computers to home theaters to enterprise-level data centers, all equipment and systems are prone to damage, downtime and data loss.

Your equipment faces potential dangers every day. Any number of factors can pose a threat to your equipment that could result in either instantly losing power and data, or causing systems to degrade slowly over time.

No matter the size of your business, the effects of reduced power quality impact every system.

According to the Electric Power Research Institute (EPRI), **power outages and other power problems cost the U.S. economy up to \$188 billion per year.**

1. Power Surge (Spike)

A power surge is a short-term high voltage increase of more than 110 percent. Typical causes include outages, lightning strikes or other power malfunctions caused by utility companies.

Power surges can cause catastrophic damage to equipment that can shorten its useful lifespan and corrupt data.

2. Electrical Line Noise

Line noise denotes a high-power frequency wave caused by radio frequency interference (RFI) or electromagnetic interference (EMI).

At some point, line noise will occur on every signal and is unavoidable, although it's not always noticeable or detrimental.

Both natural and human-made sources produce disturbances that can cause A/V quality issues, incremental circuit damage and even data corruption.



3. Over-voltage (Power Swell)

Over-voltage is an increased voltage for an extended period (generally minutes, but could be a few days).

When the provided power is greater than the amount of power being accepted by equipment, an over-voltage occurs and can cause damaged equipment and lost data.

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4. Under-voltage (Power Sag/Brownout)

A power sag, more commonly known as a brownout, is a short-term low-voltage deficiency that occurs when the demand for power exceeds supply.

While they typically only last for a few minutes, power sags can also last up to a few hours, as opposed to temporary fluctuations like surges or spikes.

Brownouts are typically caused by electrical grid disruptions, but utility companies can impose them when demand for power is too high. More common than blackouts, brownouts are responsible for incremental damage and equipment failure.

5. Power Outage (Blackout)

Whether it's short-term or long-term, a blackout or power outage is the total, complete loss of power.

Blackouts kill productivity and crash systems, causing lost revenue and data. As buildings age, high electrical demand often overpowers circuits and electrical grids, which leads to an increase in blackout frequency.

For sites such as hospitals and treatment centers, where life support and safety rely on power, blackouts are particularly dangerous.



Power Problem Solutions

Plenty of reasonable safeguards exist to protect your company's data, equipment and employee productivity against the threats of power issues.

Solutions offering varying levels of protection are available for your business.

When it comes to keeping your business online, nothing is more important than protecting your power load from blackouts and other electrical issues. While some businesses require absolute protection, every business needs some form of protection against these common power problems.



At **PowerIT**, our solutions engineers will review your needs and guide you through selecting the type of UPS system that makes the most sense for your business. [Contact us on our website](#) or call **914.263.7351** to learn more.