



Power Innovations
INTERNATIONAL, INC.



Case Study 1600

Power Innovations Provides Power Quality and Battery Backup to Keep Fire Panel from Shutting Down

The Customer

With over 11 million members worldwide, The Church of Jesus Christ of Latter-day Saints, headquartered in Salt Lake City, Utah, is host to hundreds of thousands of tourists, local residents, and Church members annually. People from around the globe visit the Family History Library, the Joseph Smith Memorial Building, the Salt Lake Temple, the Tabernacle, and the Church's new Conference Center for spiritual enlightenment, uplifting entertainment, and religious instruction.

Making sure facilities are available, equipment is running, and scheduled televised programs are delivered in a timely manner are critical to maintaining a precise organizational calendar for the Church. On demand, electronic equipment with both audio and visual capabilities must run flawlessly. Power outages or problems with the power supply cannot be an issue.

Also owned and operated by the Church is the Granite Mountain Record Vault located in the Wasatch Mountains of Utah. This man-made vault, carved in solid rock, is a one-of-a-kind underground facility that houses a permanent repository for genealogical records. For more than half a century, genealogical records from 105 countries have been sent to this repository. Records are then copied and distributed to the Family History Library and to family history centers worldwide.

The Challenge

Fire panels, like the one protecting the Granite Mountain Record Vault, alert security personnel to the location of potential crisis situations. Standby or line-interactive uninterruptible power supplies (UPS) proved inadequate for providing the power quality and battery backup necessary to keep equipment running during power outages or brownouts. Recently, when using these off-line systems to backup emergency equipment, power voltage fluctuations caused the Granite Mountain Record Vault's fire panel to shutdown, leaving lives and data unprotected.

It was determined that the fire panel system was being continually subjected to fluctuations in the quality of power that was being delivered by the utility company. Traditional off-line UPS systems were unable to protect the Church's critical electronic equipment by handling these poor power conditions.

The Solution

The Church of Jesus Christ of Latter-day Saints chose Power Innovations' Uninterruptible Power Quality™ (UPQ™) systems to meet the extreme power demands placed on emergency equipment at the Granite Mountain Record Vault, as well as its audio/video equipment at other Church facilities. UPQ systems are designed to efficiently accept the most erratic power supplied by utility companies and to provide perfect output power to run critical equipment.

The Church of Jesus Christ of Latter-day Saints

INDUSTRY SERVED

Life-Saving Equipment

CHALLENGE

Standby UPS systems proved inadequate for providing the power quality and battery backup necessary to keep equipment running during power outages or brownouts.

SOLUTION

The UPQ™ systems are designed to efficiently accept the most erratic power supplied by utility companies and to provide perfect output power to run critical equipment.

UPQ systems address the critical issues of power quality and power management, while still providing power backup. Every UPQ system provides the following standard features, which protect critical electronic equipment:

- Dual stage isolation
- Power conditioning and filtering
- True on-line double conversion
- High resolution sine wave

Power: The Critical Need

In the corporate world, as well as in the consumer community, predictable, pure electric power is a necessity. Current utility power is not reliable. Without clean, consistent power, today's technologies cannot function properly, and operations and service are compromised or cease. Fluctuations in power supply—spikes, dips, brownouts, noise, and frequency variations—can all lead to a crippling loss of data resources. The effects of these problems range from erratic operation through hardware damage to irreversible losses of mission-critical data and operations.

Competing Technology

In the past the number one issue in dealing with power was the backup of equipment in the event of power failure. The basis of typical UPS machines and generators on the market today is still backup power; however, hospitals need a new level of power generation and management tools that extend and enhance this most critical medical resource. Power Innovations' UPQ systems address today's number one power issue—power quality. While UPQ systems efficiently handle power backup, they are also designed to accept the power that is available, regardless of quality, and then isolate, filter, and regulate that power to provide pure, clean, reliable power to connected equipment.

Power Innovations

Launched in 1997, Power Innovations has pioneered a revolutionary set of solutions to generate, store, and manage AC power. Power Innovations' mission is to provide and manage continuous high-quality power in conjunction with, or even independent of, utility services worldwide. Power Innovations is helping forward-thinking companies accomplish this goal through a new class of technology called Uninterruptible Power Quality (UPQ).

Today, Power Innovations' UPQ systems, coupled with its UPQnet-agent II™ IP management tools, assist organizations of every size in addressing the key issues surrounding power management. On its own, this is an area of tremendous need and opportunity that has Power Innovations poised for long-term success.

Power management is just one arm of Power Innovations' long-term strategy. The company is involved in the development of a spectrum of solutions for power storage. Ultimately, Power Innovations will premier revolutionary solutions for the generation of new power. Together, these three areas are the foundation of Power Innovations' long-term strategy.

Powering Life

Powering Miracles
Powering Peace of Mind
Powering Life's Connections
Powering the Human Spirit
Powering Freedom
Powering Innovation



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