

Central Power Protection for Multi-Modality Applications

When Saint Vincent Hospital, a 368-bed, acute care facility in Worcester, MA, purchased several new pieces of imaging equipment, the hospital decided to re-evaluate its power distribution. Rather than installing two 150 kVA UPS systems for a new MRI and Angiography System, the Facilities Engineering and Radiology Departments decided to install one central 750 kVA UPS that could support multiple modalities. The new UPS would support the existing equipment, the new equipment, and still be able to support future



equipment. The Radiology and Cardiology departments are now protected against all power problems, including power outages.

CPN Power, Inc. is a nationally recognized company that designs and applies central UPS and Power Conditioners for Multi-Modality and Multi-Vendor medical equipment applications. CPN Power specializes in power protection for Radiology, Cardiology, and Oncology equipment. CPN Power assisted Saint Vincent Hospital in designing a system to support 12 modalities. The central UPS supports the MRI, CT, the electrophysiology laboratory, the catheterization laboratories, special procedure rooms (angiography, digital fluoroscopy), X-ray rooms, R&F applications, and the PACS equipment, with room for future growth of 3 to 4 suites. The imaging equipment is an assortment of all major medical equipment manufacturers.

“ Across the board, it just made sense! Complete power conditioning and outage protection for the entire radiology and cardiology department (12 suites) for slightly more capital expenditure than to protect two suites. Not to mention protection of the PACS system.”

*Paul Strniste
Associate Administrator for Facilities
Saint Vincent Hospital*

The Hospital benefits by achieving much lower equipment and installation costs, reduced air conditioning costs, lower UPS maintenance costs, and reduced floor space. Power disturbances and outages become a thing of the past.

Most important, the savings on a large Multi-Modality installation can easily exceed \$1,000,000. UPS power protection assures better image quality, patient scheduling maintained, lower equipment service costs, higher radiology equipment reliability, lower lifecycle cost, and increased revenue stream.

CPN Power has engineered and provided several hundred UPS and power conditioners nationally for multi-modality medical equipment applications.

For more detailed information
or to review an application call:
800-491-1210
www.cpnpower.com



For the past 25 years, CPN Power has been providing power solutions for Radiology, Cardiology, and Oncology applications.

The Need for Power Protection

For too many years medical equipment has gone unprotected against power disturbances, power anomalies, and power outages. Radiologists, cardiologists, oncologists, biomedical, clinical, and facility engineers have all suffered with many medical equipment, imaging, and patient issues as a result of power problems without realizing that power was the problem. As medical equipment costs



From left to right: Dave Woodford (Director of Radiology), Paul Strniste (Associate Administrator for Facilities), Chris Valkus (Electrical Foreman for Coghlin Electrical Contractors), Bill Fox (Project Manager for Saint Vincent Hospital).

continue to soar and the need for uptime continues to rise, it has become much more imperative for power protection that assures equipment reliability and, often times, uninterrupted operation. At the same time that medical equipment costs are rising, the cost of multi-modality power protection has dramatically reduced. In addition, the technology changes in some power protection equipment allow for multiple modalities to

be supported by one central Power Conditioner or Uninterruptible Power Supply (UPS). The culmination of these events has opened the door for power protection of the complete radiology, cardiology, and/or oncology department(s).

Power issues create cumulative equipment problems that perpetuate for years to come. Proper protection of the supported modalities avoids system disruptions and assures a continued revenue stream. Today, many hospitals operate radiology and cardiology equipment 24 x 7. Downtime creates many problems that can be avoided. Proper power protection helps to ensure continuous operation and helps to avoid nuisance service calls and costs.

In the past, it was too expensive and, in many cases, just not possible to support single or multiple modalities with the proper

“One large system would be cheaper, take up less space, and provide total protection for all Radiology and Cardiology suites.”

David Woodford
Director of Radiology
Saint Vincent Hospital

power protection. Sure, power protection has been installed at many customer sites; but many of those devices provide minimal protection against most power problems. Fortunately, that issue is history! Double Conversion Power Conditioners and UPS systems offered by CPN Power are designed to operate effectively on single and multi-modality medical applications. The cost for proper protection is now within the acceptable range. Most importantly, the ability to place whole departments on one central UPS system has changed the outlook and the approach toward power protection of medical equipment.

Supported Modalities

Proper power protection for all modalities can now be accomplished. Today, invasive procedures and all other modalities can be supported by properly sized individual UPS systems or by one central UPS that supports multiple modalities.

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Power protection has emerged as a “must have” add-on product due to:

- The cost of the medical equipment justifies the level of protection
- Short-term outages can result in longer-than-acceptable equipment downtime
- New applications are more sensitive to voltage sags and power outages
- Potential liability associated with power failures during invasive procedures
- National power grids are becoming less reliable due to de-regulation
- Summertime brownouts and electrical power grid switching create long-term nuisance medical equipment problems requiring service
- Power problems can adversely affect image quality
- Installing power protection ensures that – “Power disturbances will no longer be the basis of a service issue.”
- Monthly generator testing impacts medical equipment reliability
- Multi-modality power protection is now available and affordable
- Improved equipment operation, less patient re-scheduling and fewer service issues guarantees increased revenue