

Energy Saving Opportunities and Improved Power Reliability for Health Care and Hospitals



E-SINE
Engineering Solutions



Lower Energy Usage Costs and Improve System Reliability with Advanced Metering

- Increase Awareness of Energy Consumption Profiles through Submetering
- Identify Areas Where Energy Savings Can be Attained
- Implement Energy Reduction Programs and Monitor Their Progress
- Analyze Power Quality to Insure Reliable Power to Critical Loads

Contact E-Sine at:

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► Increase Awareness of Energy Consumption Through Submetering

Submeters are a critical element for measuring energy consumption. The installation of **submeters** has been shown to foster energy savings simply through the awareness of energy consumption they provide, which **promotes the conscientious use of energy and yields savings of up to 15%**.

► Identify Areas Where Energy Savings Can be Attained

Submeters provide key energy data that allows facility engineers and financial managers to identify areas within the hospital that are energy inefficient or that may need improvement. Areas that are often found to be inefficient are patient floors, operating rooms, emergency rooms, maternity departments and doctor's offices.



E-Sine's **submeters** allow you to identify energy used by specific areas or departments. And E-Sine's EnergyReporter EXT application allows you to bill departments directly for their energy use, and to create detailed usage reports for areas and time periods. The application's Usage Dashboard lets you easily compare energy use and costs between departments and timeframes.

► Implement Energy Reduction Programs and Monitor Progress



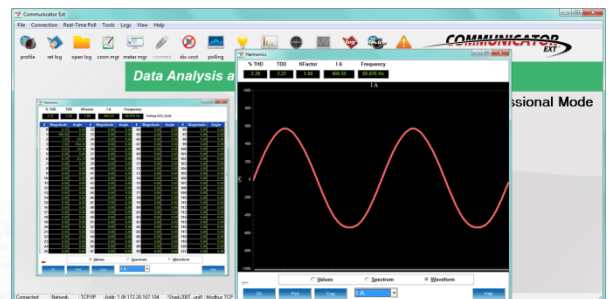
According to ENERGY STAR®, a U.S. government-backed energy savings program, U.S. Healthcare facilities spend over \$6.5 billion on energy each year and that amount is expected to significantly rise to meet the increase in patients' needs. U.S. Healthcare facilities, including hospitals, elder-care facilities, nursing homes and urgent care centers, are affected by rising energy costs.

No matter the size of the facility, the common element of successful energy management is a commitment starting with the support of senior administrators, e.g., the CEO, CFO and COO. Armed with the knowledge they get from E-Sine's meters and submeters, facility managers and engineering managers are able to gain the support of senior executives, and to make decisions that will realize energy savings for their healthcare facility.

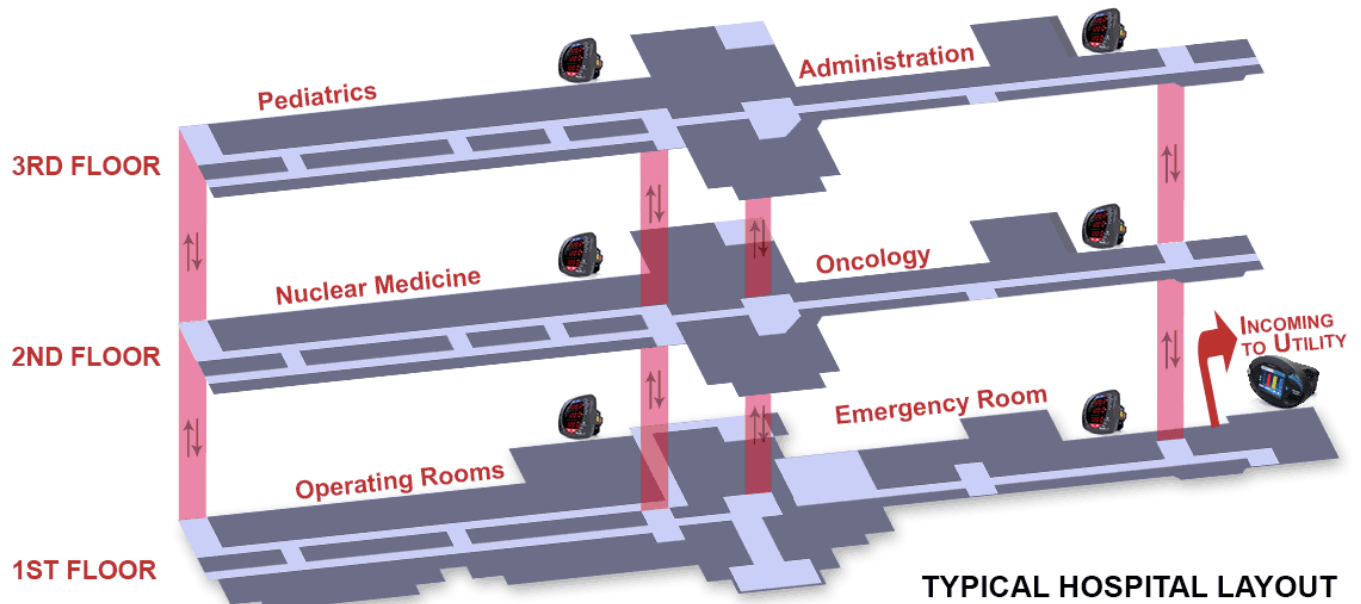
► Analyze Power Quality to Insure Reliable Power to Critical Areas

Critical healthcare areas, such as surgical facilities, nuclear medicine and emergency rooms, need to be certain that the power they are receiving is reliable. E-Sine meters measure, analyze, and report on the quality of the power being received from the utility. Using E-Sine's Communicator EXT™ 4.0 application, you can view real time energy and power quality readings, and create energy and power quality reports.

E-Sine meters show you areas of concern and give you the information you need to act quickly. Since reliable power is integral to any energy management solution, a power reliability program should also be implemented, to insure that the quality of the power and the reliability of the facility's infrastructure are optimal. Energy management and energy reliability go hand in hand to insure smooth and efficient optimal operation of any hospital facility.



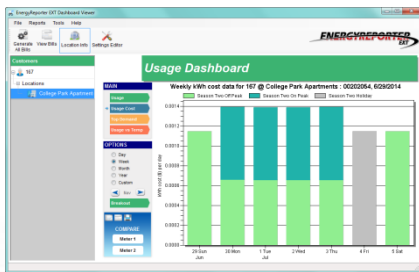
Helping Healthcare & Hospital Facilities' Energy Usage Become More Efficient and Reliable



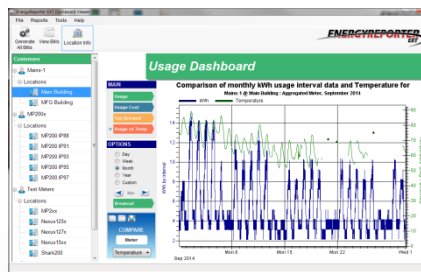
Start with establishing an Energy Tracking system. An Energy Tracking system can be as simple as installing submeters, which are a critical element for understanding energy consumption within the institution. Utilizing submeters allows the hospital to meter consumption facility-wide and easily identify cost savings opportunities.

Submeters provide you with information on which areas and what processes within a building consume energy. Installing submeters leads to energy savings simply through the awareness of energy usage that submetering provides: awareness promotes the conscientious use of energy, which, in turn, can yield energy savings as high as 15%.

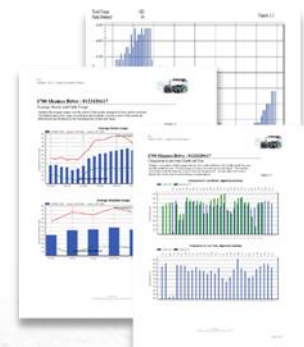
This result is achieved by changing the paradigm and providing “ownership” of utility costs to the utility user. For instance, when a department gets billed for its actual usage, its employees have a strong incentive to conserve energy. Therefore, utilizing the billing for usage versus square footage billing model provides immediate savings that persist over time.



Real Energy Cost by Day



Energy Usage Over Time



Executive Summary Energy Usage Reports

TYPICAL BILL OF MATERIALS:

Critical Load Point

Nexus® 1500+ - Advanced Power Quality Analyzer and Energy Meter

Example Installation: Utility Entry Points, Critical Loads, High Power Sensitivity Points

Ordering Part #: Nexus1500+-D2-60Hz-20-V3-X-X-X-X



Large Loads (400 Amps or more)

Shark® 200 - Data-Logging Energy Meter for Load Profiling

Example Installation: Typical Building Loads, Substations, Control Panels

Ordering Part #: Shark200-60-10-V2-D2-INP100S-X-X



Smaller Loads (200 Amps or less, high-density)

MP200 Metering System - 8 Three Phase Input Meters

Example Installation: Smaller Panel Boards, High-density Circuits

Ordering Part #: MP200-Y-60-10-V2-WIFI-MDSN



Base Data Collection Software

Communicator EXT™ 4.0 Software for configuring meters, automatically collecting data, and studying Power Quality

Ordering Part #: COMEXT4P

Energy Dashboard and Billing Software

EnergyReporter EXT 4.0 Software for energy dash-boarding, generating usage reports and automated submeter billing

Ordering Part #: EREXT4

ENGINEERING ASSISTANCE:

Contact us for conformance specifications and engineering design assistance. E-Sine has on-staff dedicated application engineers to provide comprehensive support and make your project a success.

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