

# How the Right UPS Can Impact Sustainability Goals in Health Care Organizations

By Anderson Hungria | February, 2016

Sustainability means reducing waste, utilizing fewer resources and reducing carbon emissions into the atmosphere. Interest in supporting sustainability is growing in the health care industry, primarily due to the perceived positive impact that “green initiatives” have on:

- **Operational costs**
- **The environment**
- **Customer satisfaction**
- **Employee morale**
- **Company’s image**
- **Patient care**

When it comes to reducing overall power consumption and electricity demand, hospitals often focus their sustainability initiatives on upgrading lighting and air distribution systems, because these are easy to observe and manage. But there’s another large piece of electrical equipment that can have a substantial impact on energy consumption and is sometimes overlooked: the uninterruptable power supply (UPS) providing backup power to the facility.

In health care applications, UPS products typically back-up critical patient data and ensure diagnostic imaging equipment (i.e. MRI, CT, X-ray, etc.) operates continuously – reducing the risk of costly downtime. By choosing UPS equipment wisely, hospitals can improve the reliability of their systems while also realizing a real sustainability advantage.

## ***Integrated flywheel UPS vs a more traditional battery-based UPS***

Choosing a UPS with flywheel energy storage instead of battery energy storage is a smart decision. It’s smart for your health care operation, smart for your bottom line, and smart for the environment.

One of the most important aspects of sustainability for hospitals is waste reduction, which translates directly into bottom line savings. By selecting a UPS with permanent energy storage like flywheels that does not require costly battery replacements and can operate at up to 98% efficiency, hospitals can save hundreds of thousands of dollars in utility and maintenance bills, and can eliminate the burning of train cars full of fossil fuels at the same time. This improvement

in UPS energy losses compared to competitive offerings has both a positive economic and environmental impact.

Approximately 70 percent of the electricity produced in the United States is generated using fossil fuels, such as coal and natural gas. Health care facilities are among the largest consumers of energy, consuming up to 2.5 times more energy than a commercial building of the same size. For a 350 kW load, Active Power UPS’s can reduce overall carbon emissions by as much as 40 % versus a less efficient UPS.

This amounts to approximately 800 tons of CO2 saved or as much CO2 generated by 96 homes or 175 cars over a year.

Hospitals that have adopted sustainability best practices are increasingly applying for the U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) program to gain recognition for their environmental sustainable construction and operation. In addition to lower operating costs, receiving some level of LEED certification has improved patient and staff satisfaction and is viewed by the public as evidence of commitment to the environment and social good.

A more efficient UPS can help health care facilities earn LEED certification points in two direct categories: 1. Energy and atmosphere and 2. Innovation in design.

There are a number of other ways that Active Power’s integrated flywheel UPS can improve your sustainability initiatives:

- **Consumes less power**
- **Lowers cooling costs**
- **Takes up less space**
- **Requires less maintenance**

**The integrated flywheel UPS is an ideal fit for health care organizations that are looking to reach their sustainability goals and improve patient care.** The system’s high energy efficiency, low carbon footprint and battery-free design can provide the most amount of savings to the bottom line, both short and long term, while being the most reliable and sustainable UPS in the market.