

NEEA Success Story: Commercial



» NEEA Helps Northwest Hospitals Identify a Potential for 60% Energy Savings

Hospitals are the second most energy-intensive industry, accounting for a whopping four percent of the nation's energy use. A typical hospital uses about 2.5 times the amount of energy of a similar-sized commercial building. That's a significant demand on the Northwest power grid.

Achieving energy efficiency in hospitals is extremely challenging due to a 24/7 operating schedule and stringent health requirements for ventilation and humidity. To tackle these barriers, healthcare organizations in the region needed a proven and documented approach that is cost-effective and meets strict Northwest health and safety codes.

Collaboration yields big results

NEEA and Northwest utilities, through their award-winning BetterBricks commercial building initiative, partnered with the American Institute of Architects (AIA), local and national healthcare associations, the University of Washington's Integrated Design Lab and NBBJ, one of the nation's leading healthcare architectural firms, to meet this need and develop a prototype design for a healthcare facility that uses 60 percent less energy.

To achieve these long-term energy savings, the team identified an integrated design process that brings together architectural, mechanical and central plant systems within the facility to deliver significant efficiencies by working more closely together. The team also identified substantial non-energy savings benefits of designing hospitals using this prototype.

The prototype was modeled for energy use as well as for cost of construction. The study found that these energy-efficient hospitals can be implemented for less than three percent of a total construction project's cost, an investment that can be recouped through energy savings and utility incentives within the first five to eight years of a building's life.

Within only a year of its release, four architectural firms leveraged the protocol to design five Northwest hospitals. Based on modeled projections, these hospitals are 35 to 65 percent more energy efficient than local code and have combined annual energy savings of 2.2 aMW.

Leveraging our network to encourage adoption

The prototype study was released globally in May 2010 at CleanMed, one of the largest conferences on environmentally sustainable healthcare business practices and technologies. 800 healthcare industry professionals, including top healthcare executives from some of the nation's largest hospitals, attended the conference.

To spread the word further, NEEA is working with partner organizations like the AIA and national healthcare organizations to promote adoption of this energy-efficient design approach via local and national design, healthcare, engineering and government initiatives.



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» NEEA'S UNIQUE VALUE

REGIONAL ADVANTAGE

Only NEEA could bring together the diverse partners necessary to develop a prototype of this complexity.

ACCELERATING MARKET ADOPTION

NEEA's partnerships with the AIA, and local and national healthcare and design associations, and BetterBricks' reputation with the healthcare, design, engineering, construction and building operations communities allow NEEA to influence building design and practices.

FILLING THE PIPELINE

The prototype design identifies many energy-efficient products, services and practices that can be implemented in both new hospital designs and in hospital retrofits.

How NEEA Works

- We build and leverage relationships to influence the energy efficiency market (with the AIA, local and national healthcare associations, architects, engineers, builders, building operators)
- We identify, develop and advance emerging opportunities to fill the pipeline for energy efficiency (an integrated suite of energy-efficient products, services and practices for healthcare facilities)
- We demonstrate and promote the value of energy efficiency to increase demand (by spreading the word through CleanMed, AIA, local and national healthcare associations and BetterBricks)



Maximizing energy efficiency in partnership with:

