

Federal Energy and Water Management AWARDS 2013



4th Civil Engineering Squadron U.S. Air Force Seymour Johnson Air Force Base Goldsboro, North Carolina

The Leadership in Energy and Environmental Design (LEED) Gold-rated Seymour Johnson Support Center project, completed in FY 2012, consolidated five functional organizations into a single facility to reduce energy consumption by 60 percent and lower utility costs by almost 50 percent, saving 3.6 billion Btu and \$36,000 in the first year. Much of the efficiency was gained through the installation's first variable refrigerant flow heating, ventilation, and air conditioning (HVAC) system, which provides highly efficient heat and cooling year-round by precisely regulating refrigerant flow to maximize system efficiency regardless of building load and climate.

This system also improves comfort by maintaining precise zone settings closer than conventional equipment. The HVAC system, combined with other energy savings measures including an improved thermal envelope and high-efficiency lighting, reduced building energy use by almost 31 percent below standard construction of a comparable building. Installation of low flow water fixtures and equipment reduced potable water use by 54 percent in FY 2012, saving more than 226,000 gallons. Furthermore, the project made possible the demolition of four buildings, resulting in an 18 percent reduction in overall building footprint.