# retrocommissioning







RETROCOMMISSIONING OF EXISTING FACILITIES PROVIDES ESSENTIAL MAINTENANCE, IMPROVES CUSTOMER COMFORT, SAVES ENERGY, AND REDUCES GREENHOUSE GAS EMISSIONS.

#### **RETROCOMMISSIONING (RCx) PROCESS**

The process of retrocommissioning campus buildings is focused on reviewing and improving the operation and maintenance of building systems. Facilities & Services utilizes composite teams of engineers, technicians, and craftspeople to complete an in-depth analysis and corrective work for the building's systems, update operations, and maintenance programs. The goal of the team is to establish optimal operating conditions and control strategies for greater energy conservation, sustainability, and occupant comfort.

## **DURING THE PROCESS**

- Engineers undertake a thorough investigation of available building documentation, energy usage history, and data
- RCx teams meet with building contacts and facility managers to understand the usage of the building and needs of the occupants
- Field technicians and craftspeople gather data regarding operating conditions, sensor accuracy, equipment condition, and historic maintenance in addition to conducting informal customer and maintenance staff interviews
- RCx teams discuss findings and then look to restore mechanical systems to their original design while implementing energy saving improvements
- These teams take the lead in making small changes and recommending larger capital projects, which require more funding, to augment and sustain the building's energy saving strategies
- Building system control experts monitor energy usage after changes, gather actual metered data, and verify the projected savings

## **IMPACT ON THE CAMPUS**

Many campus buildings have extensive deferred maintenance issues which waste energy, affect building systems, and indebt institutional finances. The RCx effort is successfully addressing this campus-wide backlog. Since August 2007, RCx teams have performed work in more than 50 campus buildings totaling more than six million gross square feet. The average energy reduction in buildings that have been updated through the RCx process is greater than 27% with a cost avoidance of more than \$20M.

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