



# FOCUS ON CASE STUDIES: RETROCOMMISSIONING

Over time, buildings require diagnostic maintenance to ensure peak efficiency. An average building can spend 15-20 percent more on their energy bills if heating, cooling and lighting systems are not properly optimized. Through retrocommissioning (RCx), building owners can improve the performance and efficiency of their building systems, equipment, and operations.

RCx consists of a two-phase process that utilizes data to quantify possible improvements and then implements those measures to verify energy savings. The following RCx case study shows how Sun Prairie Area School District implemented this process.

## Sun Prairie Area School District

### The Problem

Sun Prairie Area School District found that Cardinal Heights Upper Middle School was suffering from building inefficiencies that had accumulated over time. The 275,699 square foot building was originally constructed as two separate buildings in 1959, and it has now been joined together as one building.

In-house facilities team performed regular maintenance on equipment, with over 1.6 million square feet covering their District, however, internal staff was still limited to what they could perform. The District was interested in leveraging the technical expertise and financial incentives available from FOCUS ON ENERGY® to provide not only new insights, but free up their staff's time for other tasks.

### The Approach

In summer 2017, the District contacted Focus on Energy and their Trade Ally contactor, Edison Energy for help. The District had previous experience working with Focus on Energy implementing an energy management plan in 2005. Together with Edison Energy, an audit was conducted to assess the planning and investigation phases. These phases identified low and no-cost, short payback opportunities for the District to reduce their energy consumption while maintaining existing building systems. The District also requested Edison Energy identify certain improvement opportunities broken down into three categories: Energy Conservation Measures, Capital Projects, and Issues List.

### The Solution

Due to advice and technical assistance from Focus on Energy and Edison Energy, the District is on track to save \$13,250 annually. The majority of these savings came from:

- **Triple Duty Valve Adjustment: Heating Hot Water and Chilled Water Pumps**
- **Cabinet Unit Heater Temperature Setback**

By completing this RCx project, the District was able to identify and correct inefficiencies, but also find more opportunities to continuously improve the state of their building's equipment.

### Project Breakdown:

- **Equipment Modifications:**
  - Triple Duty Valve Adjustment
  - Cabinet Unit Heater Temperature Setback
- **Estimated Project Cost:**  
\$6,975
- **Annual Energy Cost Savings:**  
\$13,291
- **Focus on Energy Incentive:**  
\$7,604
- **Payback:** 0.52 Years



Our school district is very active tracking energy usage and seeking projects to reduce our utility consumption and costs. Participating in RCx has shown us the benefits of performing periodic tune-ups to keep our existing equipment running smoothly. ”

**Kevin Splain,**  
Sustainability / Energy Manager  
Sun Prairie Area School District

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## Benefits of RCx

Retrocommissioning your building could save you on average 16 percent each year on energy bills and produce paybacks of less than one year with the help of incentives. Through retrocommissioning, you can manage energy use more effectively, increase building occupant, and catch small maintenance needs before they become costly repairs.

The Focus on Energy RCx offering includes lower cost measures involving adjustments, recalibrations, process changes, etc. to provide quick energy savings paybacks that can help pay for the more expensive retrofit energy savings projects. By participating in RCx and completing an audit, you can make recommended changes to systems, equipment, and practices that can lead to significant energy and cost savings.

Owners and managers of existing buildings (must be five years or older) who are motivated to implement efficiency projects, optimize existing equipment and controls, and train staff are ideal candidates for RCx.

## RCx Service Providers

Specialized Trade Allies, called RCx Service Providers (RSP) drive deep, lasting energy savings for owners and managers of existing buildings by taking a holistic approach to energy efficiency. For more details on finding a registered RCx RSP, visit [focusonenergy.com/trade-ally/find](https://focusonenergy.com/trade-ally/find).

## Follow These Steps to Get Started:

- 1 Choose an approved RSP to evaluate your facility for the benefits of an RCx Audit.**
- 2 Work with your RSP to complete the RCx Enrollment application found at [focusonenergy.com/RCx](https://focusonenergy.com/RCx).**
- 3 Complete the RCx audit within six months of approved enrollment.**
- 4 RSP submits the estimated savings workbook, audit report and audit invoice to Focus on Energy.**
- 5 Focus on Energy reviews and approves the workbook and issues an Incentive Agreement to the customer.**
- 6 Chosen RCx measures are implemented within six months of audit approval.**
- 7 RSP resubmits the workbook with savings verification and implementation invoice and invoices from third-party contractors.**
- 8 Focus on Energy reviews and approves the final workbook and issues a Project Completion Notice to the customer. Incentive will be sent upon receiving signed project completion notice from the customer.**

Interested in participating? Contact your [Energy Advisor](#)  
to find out how retrocommissioning can benefit your facility!  
**[focusonenergy.com/RCx](https://focusonenergy.com/RCx) • 888.623.2146**

### REDUCING ENERGY WASTE ACROSS WISCONSIN

Focus on Energy, Wisconsin utilities' statewide program for energy efficiency and renewable energy, helps eligible residents and businesses save energy and money while protecting the environment. Focus on Energy information, resources and financial incentives help to implement energy efficiency and renewable energy projects that otherwise would not be completed.

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