WHAT TO EXPECT WITH PUBLIC SECTOR RETRO-COMMISSIONING (RCX)

The Department of Commerce and Economic Opportunity (DCEO) offers free, objective retro-commissioning evaluation services for your public sector buildings in Illinois. These services, delivered by the Smart Energy Design Assistance Center (SEDAC) and its team of contracted retro-commissioning service providers, provide guidance and analysis to improve the energy performance of your facilities through low-cost repair, adjustment, and control of existing energy systems, focusing primarily on HVAC (heating, ventilating, and air conditioning) systems. The assigned retro-commissioning service provider (a private energy firm or SEDAC staff team) works with your building staff to investigate the condition, operation and performance of systems and identify retro-commissioning measures that will pay back investment costs in 1.5 years or less. In exchange for this service, DCEO requires you to invest in upgrading your facility by implementing at least $10K in identified measures.

To get started, submit an on-line Notice of Interest (NOI) at SEDAC’s website: http://rcx.sedac.org

Once we receive your NOI, a retro-commissioning service provider performs a preliminary benchmark of your building’s energy performance and a walk-through audit of building systems to determine the potential improvement from RCx. Promising candidates are asked to submit a detailed RCx application. If selected, a more detailed utility bill analysis and review of construction and equipment documents takes place. Then, working with your building staff, as well as your mechanical, electrical and controls contractors, the RCx service provider identifies measures to help restore the building to optimal performance.

RCx YIELDS RESULTS

- QUICK PAYBACKS
  SEDAC identifies no-cost, low-cost improvements that PAYBACK in 1.5 YEARS or LESS

- GREAT SAVINGS
  RCx generally REDUCES energy use by 16% *(median whole building savings)

- MULTIPLE BENEFITS
  Longer equipment life
  Lower utility bills
  Lower maintenance costs
  FEWER COMFORT COMPLAINTS

- EXTENSIVE EXPERIENCE
  SEDAC has provided RCx analysis for over 53 facilities, totaling 19 MILLION square feet

- SIGNIFICANT IMPACT
  SEDAC has already identified $4.3 MILLION PER YEAR IN SAVINGS

The RCx service provider employs your building automation system (BAS), stand-alone data loggers, or hand held instruments to **diagnose system malfunctions** such as failed sensors, actuators and valves that are not functioning properly, and equipment in alarm states. Data trends are examined to **verify that control strategies produce the desired outcome**. As a result of this analysis, modifications to setpoints, zones, schedules, and logic routines are recommended. Along with your operations team, your RCx service provider performs **functional testing** of select systems. Opportunities will be identified to **improve control settings and schemes**. Additional findings include: failed equipment; equipment in need of cleaning, adjusting, or replacement; and suboptimal equipment run hours or settings. Some items may be identified as quick fixes and should be repaired immediately to avoid masking significant system problems.

While developing the list of retro-commissioning measures, the RCx effort sometimes reveals errors in equipment identification and labeling. Or, the RCx project may uncover building design issues that make it challenging to maintain comfort within your space **(such as outdated equipment zoning)**.

The RCx service provider will **quantify the energy and cost impact** of significant retro-commissioning measures (RCxMs) and present them for **your review, approval, and potential implementation**. You decide what to implement and who will provide any repair and construction work. During implementation, your service provider will be available for discussion of unforeseen findings. Once you have worked through the punch list of operations and maintenance items and enhanced control, the RCx service provider will **verify and document that conditions have improved** with site inspections, trend analysis, and review of BAS programming. Your service provider will suggest methods for sustaining the operational gains through on-going maintenance procedures, energy tracking, and training of building operators and occupants.

This state-sponsored, independent analysis provides a systematic approach to operations upgrade as well as a new set of eyes to make your building more comfortable, increase energy efficiency, and reduce operating costs.

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**RCx ELIGIBILITY**

Eligibility is limited to public sector entities that receive electrical delivery service from Ameren Illinois or ComEd. Facilities receiving natural gas from Ameren Illinois, Nicor, North Shore, or Peoples Gas may be eligible for gas savings measures.

Eligible existing buildings:

- are more than 5 years old*
- exceed 150,000 square feet*
- have a functioning building automation system (BAS) that RCx provider can access
- have energy use indices that show potential to produce significant savings

Clients are required to invest at least $10,000 to implement identified measures.

* Newer or smaller buildings considered case-by-case.

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**ENERGY TRAINING**

SEDAC is planning a series of nine workshops for three different audiences in Chicagoland, Peoria, Springfield and Belleville.

1. General workshop 10/2, 10/11, 10/30
   Audience: Building owners, users, managers and stakeholders
2. New Construction 10/10
   Audience: Architects and Engineers
3. Existing building operations and management 10/25, 11/1
   Audience: Operators and Managers of existing buildings

Dates and Locations at [training.sedac.org](http://training.sedac.org)