

Technology Profile

Retrocommissioning (RCx)

A properly commissioned building is efficient, comfortable and economical to operate. If you think of your building like a car, everything should work perfectly when it's new. But over time, it needs fine-tuning to keep all the systems balanced and working together as intended.

This is where retrocommissioning (RCx) can help. PECO Ways to Save offers assessments and financial incentives to help commercial and industrial customers optimize their facility's energy performance and identify low and no-cost operational improvements.

What is Retrocommissioning (RCx)?

RCx is a process for optimizing a building's equipment and systems so they are performing as designed, operating with suitable efficiency and meeting the current operating needs of the building occupant.

Think of an orchestra. If one instrument is out of tune, the whole song sounds bad. Buildings are the same!

As building systems are interconnected, one system or piece of equipment that isn't performing properly can affect the performance of the others.

Likewise, if the size or function of the space has changed, the installed systems need to be properly recalibrated.

Because today's control systems are highly interactive, proper system integration is critical. The presence of sophisticated equipment and control systems results in a trickle-down effect on operations.

Small problems can have big impacts on performance and energy use.

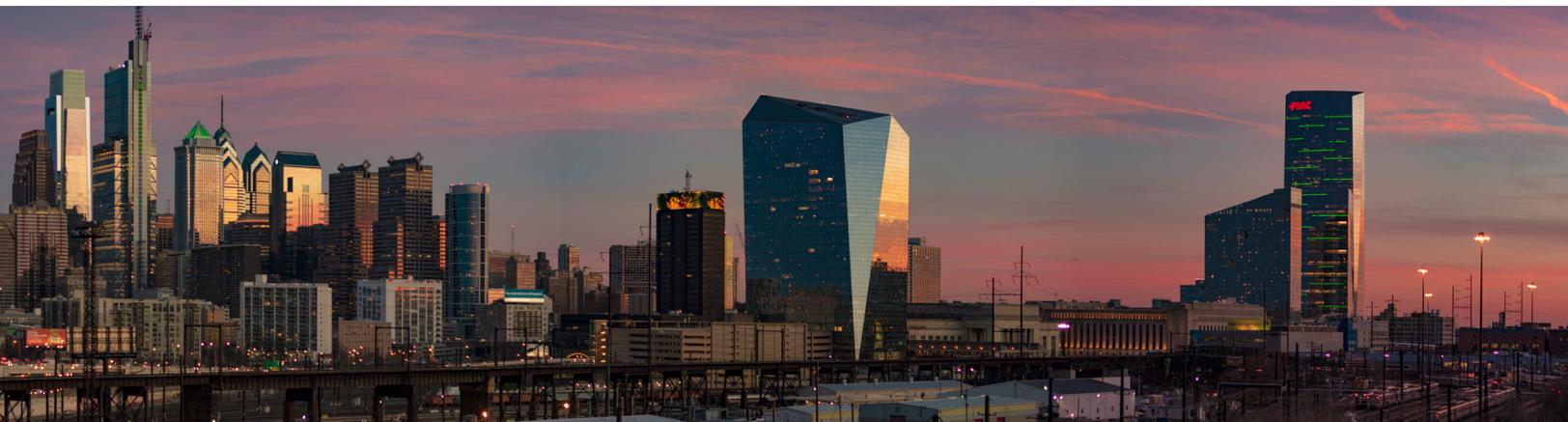
The Benefits of Retrocommissioning

Many building systems can benefit from an RCx solution, and building owners, managers, staff and tenants all stand to gain from the RCx process.

Energy savings up to 10% can be achieved without significant capital investment and provide a payback in less than two years¹.

Benefits include:

- Reduced energy use and added savings on utility bills
- Decreased maintenance costs
- Improved or optimized operations of existing equipment and extend service life
- Improved occupant comfort, productivity and safety
- Improved indoor air quality
- Adjusted and corrected equipment



Is RCx the Right Solution for Your Building?

RCx is best suited to facilities that have an existing building automation system (BAS) to track and adjust operational parameters more easily. There are several conditions that make a building a good candidate for retrocommissioning:

1. The building has never been retrocommissioned, or it has been five years since it was last retrocommissioned.
2. There have been recent renovations or expansions of the space.
3. The use of the building has changed.
4. Equipment or systems are operating at suboptimal levels, such as: lighting that is on when it doesn't need to be, thermostats and sensors that are out of calibration or Variable Frequency Drives (VFDs) that operate at a constant speed even though the load being served is variable.

How RCx Saves Money for PECO Customers

Implementing RCx reduces baseline energy usage and improves building comfort. Some improvements that emerged from RCx projects completed by PECO customers included:

- **Lighting:** Switching the lighting controls in an office building from time-based to occupancy-based reduced energy consumption by lighting spaces only when they were being used.
- **VFD Controlled Water Pump:** Removing a legacy pressure reducing valve (PRV) from a domestic water pump skid allowed the VFD to modulate system flow based on demand, reducing the energy used by the system's motor.
- **HVAC System:** Using their existing BAS to implement multiple equipment modifications, one facility adjusted their air handler fan speeds and cooling season temperature setbacks, and recalibrated their outside air damper to reduce the energy load needed to heat and cool their building.

How PECO Can Help

PECO offers a performance based, retrocommissioning custom measure that incentivizes projects at \$0.10/kWh for energy savings achieved over a one-year period, capped at the cost of the project. A standard measurement and verification process, that follows the International Performance Measurement & Verification Protocol (IPMVP), is required to demonstrate savings.

PECO offers complimentary energy assessments to help customers identify energy saving opportunities based on their goals and unique operating needs. PECO offers three tiers of assessments that allow customers to choose the level of input and report detail that's most helpful to their business:

- **Tier 1 – Energy Scorecard:** a snapshot of your facility's energy use and recommended improvements.
- **Tier 2 – Energy Profile:** specific recommendations based on your facility's equipment and energy use with ways to save while either maintaining or increasing productivity.
- **Tier 3 – On-Site Assessment:** with a PECO energy expert.

Customers receive a customized report featuring targeted and actionable recommendations for energy efficiency improvements.

To learn how retrocommissioning can benefit your facility, [request a PECO energy assessment today](#).

▶ Contact Us Today! To learn more call us at **1-844-4BIZ-SAVE** (1-844-424-9728) or visit peco.com/business.

¹https://www.bgesmartenergy.com/sites/default/files/public/BGE_IC_FactSheet_RCx_Full_Retro.pdf

