

ENGAGING OPERATORS IN THE EXISTING BUILDING COMMISSIONING PROCESS

This fact sheet emphasizes the vital role building operators play in the Existing Building Commissioning (EBCx) process. It provides best practices for ensuring the active involvement of building operators and training opportunities to achieve successful EBCx.

The Existing Building Commissioning Process

Existing Building Commissioning (EBCx) helps existing buildings operate efficiently by reducing unnecessary energy consumption and greenhouse gas emissions, improving occupant comfort, and extending the life expectancy of equipment. Through EBCx, a building's operational processes and systems are assessed, investigated, monitored, and verified to identify opportunities to optimize building performance, often with a focus on low- or no-cost measures.

The Importance of Engaging Building Operators in EBCx

Working with the building's operations team throughout the EBCx process is an integral part of ensuring success. Building operators possess a wealth of knowledge about building operations and are well-positioned to identify and execute operational changes to improve energy efficiency, minimize carbon emissions, and increase occupant comfort. By regularly engaging in EBCx practices, building operators can reduce operational and maintenance costs.

Moreover, they play a crucial role in enhancing building operations by optimizing building controls, effectively operating equipment, and taking advantage of other energy management technologies.

Challenges in Engaging Building Operators

Building operators are often kept busy with day-to-day operations and maintenance tasks, which can make it difficult for them to allocate time and resources for the EBCx process. Implementing EBCx often involves changes in operational practices, complex documentation, and reporting requirements which may take time, patience, and support to understand and implement. In some cases, they may not have the necessary training and knowledge of the EBCx principles and practices under investigation, making it difficult to participate without additional training and support. When building operators do not fully understand the value and benefits of EBCx, it may be challenging to get their buy-in. Additionally, building operators worry that modifications or changes to building systems could adversely impact tenant comfort, putting positive relationships with tenants at risk.

Best Practices for Engaging Operators

Early involvement and collaboration

To ensure successful engagement, involve building operators from the outset, ideally during the planning phase of the EBCx process. It is important to establish open and transparent communication channels between commissioning providers, facility managers, and building operators and to ensure that all parties are informed and aligned on project goals. Below are some other ways to foster engagement:

- › Acknowledge and actively appreciate the experience and knowledge that building operators have of the buildings they operate. They are familiar with the building's systems, equipment, and controls, and can quickly pinpoint irregularities, system inefficiencies, or potential areas for improvement, leading to faster and more accurate problem resolution.
- › Define specific goals and objectives for the EBCx process and ensure that building operators understand how their involvement contributes to achieving these goals.
- › Identify EBCx knowledge gaps and training needs in a supportive and productive manner. Assure operators that training and skills development opportunities are available to them.



Offer opportunities for learning and engagement

The commissioning team can offer the following opportunities for learning and engagement:

- › Include building operators in commissioning investigations to show that their ideas and opinions matter. Listening to the building operator about problems that occur in the building (for example, temperature complaints, equipment cycling) may help identify potential opportunities.
- › Build skills and encourage good habits through training and workshops on the importance of EBCx investigations, the types of measures that may result, and the actions they can take to improve building operations.
- › Provide training on sustainability and energy efficiency throughout the process.
- › Encourage in-person sessions as they provide the opportunity to collaborate and build connections within the organization.
- › Share success stories and case studies with building operators to illustrate the positive impact of EBCx on building performance, cost savings, and tenant satisfaction.

The hand-off process and coaching

The hand-off process for EBCx involves the transition of responsibilities and documentation from the commissioning team to building operators and facility management. This process is essential to ensure that the improvements and recommendations made during the commissioning process are effectively implemented, maintained, and sustained over time. Your EBCx program should include a robust hand-off and coaching component so that the intent of the energy conservation measures (ECMs) is well understood.

- › Encourage operators to connect with a commissioning team member to clarify any questions regarding commissioning recommendations and documentation as needed for the first 1-2 months.
- › Provide building operators and facility managers with all relevant documentation, including commissioning reports, operation and maintenance manuals, test and inspection results, and any recommended corrective actions. Ensure that the operation and maintenance manuals include information on routine maintenance, troubleshooting, and emergency procedures.

Ensure that any issues building operators face are promptly escalated to the commissioning team and resolved in a timely manner. Throughout the first year post hand-off, regular check-ins or meetings should be scheduled between the commissioning team and building operators to address any questions, concerns, or performance issues that may arise. Ideally, this would occur quarterly with different seasonal conditions.

Over the longer term, the commissioning team can support building operators in the following ways:

- › Create checklists or action sheets that building operators can follow and adjust to suit their building. See the [Sample Building Optimization Checklist \(to the right\)](#) based on the *Common EBCx Measures Factsheet*.
- › Establish and communicate performance metrics and Key Performance Indicators (KPIs) that will be used to track the ongoing performance of the building and its systems. This could include energy usage, indoor air quality, comfort levels, and equipment efficiency.

Support building operators in communicating changes to tenants

The commissioning and facility management teams can help protect the building operators' relationships with tenants by informing tenants about upcoming changes, why they are being made, and the potential impacts of the changes. Facility management should seek the building operators' help in drafting the message and help them respond to questions and concerns as they arise. Working together on this task can foster a positive relationship between facility management and operations staff while increasing facility management's understanding of the building. See the sample tenant memo in the box below.

Key Takeaways

- › Involve building operators at an early stage of the EBCx process, allowing them to share their valuable insights and expertise.
- › Offer learning and engagement opportunities for building operators by involving them in commissioning investigations, providing training on sustainability and energy efficiency, and sharing success stories.
- › A robust hand-off process involving documentation, knowledge transfer, recommendations, and best practices is essential to ensure a smooth transition from the EBCx team to the building operators.
- › Provide ongoing support in the form of regular check-ins, access to technical resources, and troubleshooting assistance.

For further information on EBCx resources and support, please [CLICK HERE](#).

Sample Building Optimization Checklist

EBCx opportunities typically relate to schedules, setpoints, and sequences of operation. Below is a sample checklist that building operators can use to optimize their building on a regular basis. Work with the EBCx team to adjust the checklist, as appropriate, to include actions identified during EBCx investigations and determine an appropriate schedule for follow-up investigations.

- Align HVAC equipment operating schedules with building or space-specific occupancy.
- Incorporate statutory holidays into HVAC operating schedules.
- Confirm appropriate temperature setpoints for both occupied and unoccupied periods.
- Eliminate unnecessary lighting use by aligning lighting schedules with building occupancy.
- Ensure that outdoor air dampers are sequenced closed during morning warm-up cycles before occupancy.
- Ensure that outdoor air dampers remain closed during unoccupied periods when temperature setpoints are not met and require the ventilation system to activate.
- Investigate and eliminate passing valves by comparing upstream/downstream flow and temperatures when valves are closed. This may be supplemented with the use of a thermal infrared camera.
- Implement seasonal disable programming for major equipment to reduce consumption from heating equipment when not required.

Sample Tenant Memo

The tenant memo below provides an example of how changes to building operations resulting from the EBCx process can be communicated to tenants.

MEMORANDUM

To: All Tenants
From: [Company Name]
Date: [Date]
RE: Upcoming Changes to Optimize Building Systems

Dear Tenants,

Over the next few weeks, we will be optimizing our building systems for greater energy efficiency and occupant comfort. We will be aligning the operating schedules of space heating and cooling systems and lighting with current building occupancy patterns and changes in seasonal weather.

While these changes are intended to improve building operations and occupant comfort, you may notice some differences in the building, particularly if you access the building outside of our core hours, from 8:00 a.m. to 6:00 p.m., or on holidays. If your regular office hours have changed, please let us know so that we can accommodate this within the buildings' schedule.

Please do not hesitate to reach out to the Facility Management team should you have any questions or comments about the changes.

Thank you,
The Facility Management Team

