

# Existing Building Commissioning (EBCx)

An Effective Approach to Eliminate Energy Waste



# What Is EBCx?

## A QUALITY-FOCUSED PROCESS

to ensure that a building operates optimally and as intended based on its current use.



## A COST-EFFECTIVE INVESTMENT

to optimize the performance of existing equipment and systems through low-cost or no-cost operational improvements.



## A BROAD CONCEPT

that includes other terms such as recommissioning (RCx), retro-commissioning and ongoing commissioning (OCx).

# Why Choose an EBCx Project?



Requires a **lower investment** than capital investment projects



Generates payback in typically **3 years or less**



Produces **energy and cost savings** in the range of **5 to 20%**



### Differences between EBCx projects and energy audits:

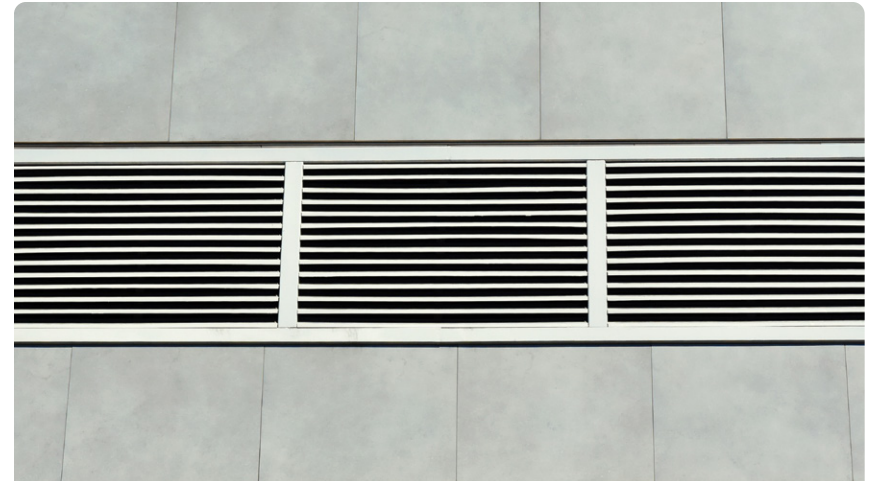
COMPARISONS	EBCx	ENERGY AUDIT
Primary focus	Optimizing existing systems performance (energy, water, air quality, occupant comfort)	Determining where, when, why and how energy is being used
Main outcome	O&M improvements and low-cost savings opportunities	Low-cost and capital retrofit savings opportunities
Expected energy & cost savings	5 to 20%	Often up to 30%
Payback	Typically less than 3 years	Typically greater than 3 years



## Examples of EBCx measures:



Aligning operation schedules with actual building use  
Optimizing the sequence of operation for building systems



Optimizing fresh air intake

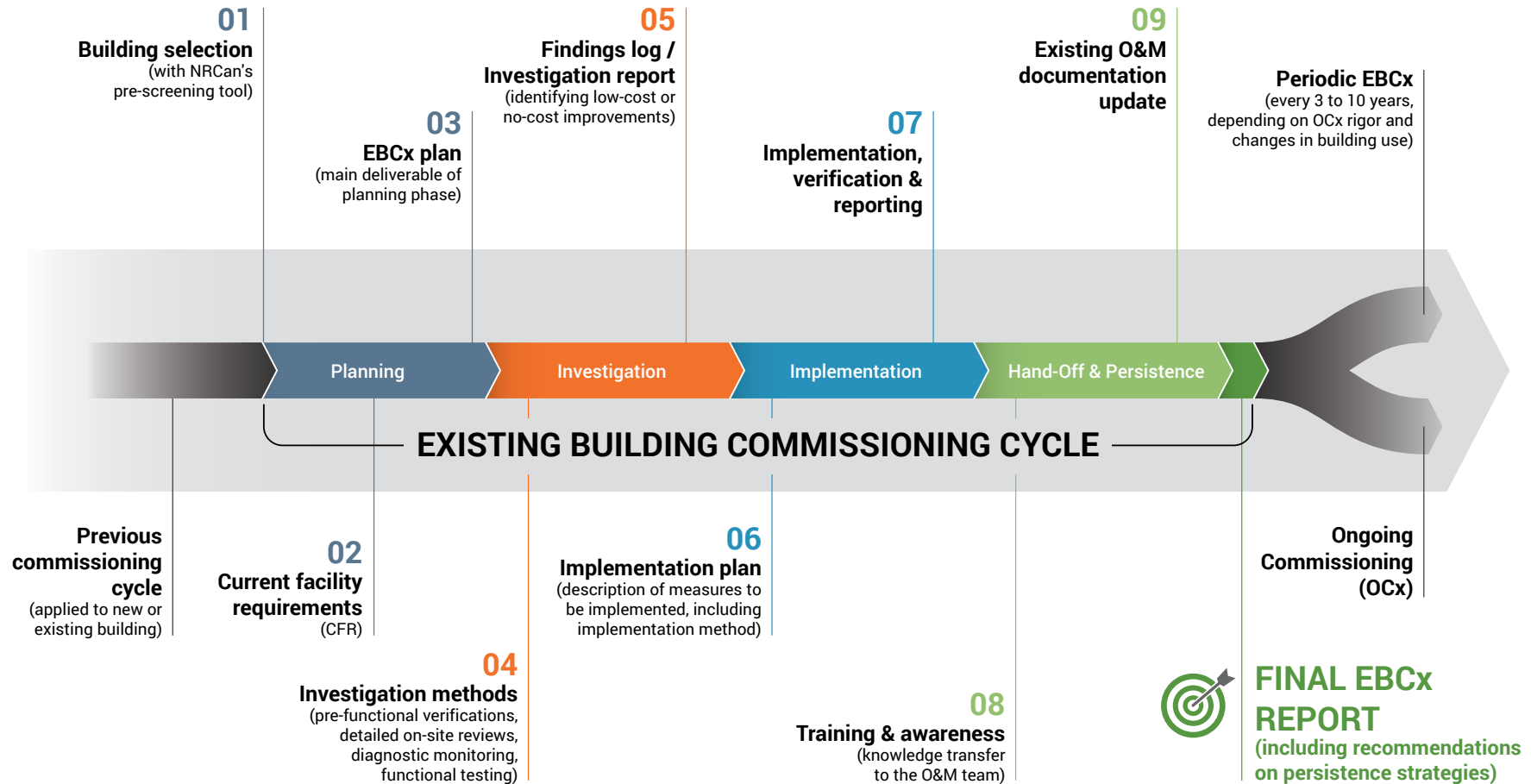


Readjusting or optimizing setpoints



Eliminating simultaneous heating and cooling

# EBCx Cycle, Phases & Milestones



# How Much Does it Cost?



The cost of an EBCx project ranges from

**\$0.86 to \$4.95/m<sup>2</sup>**

with an average cost of

**\$2.58/m<sup>2</sup>**



Typically, the cost of the EBCx provider represents

**35 to 75%**

of the total project cost.

The remaining budget is used to implement the measures.

The project cost can be impacted by the:

- › Number and complexity of systems to investigate
- › Size of the facility
- › Age and condition of equipment and systems
- › Knowledge level of on-site staff interfacing with the project
- › Extent of the O&M program and documentation

# Is My Building a Good Candidate for EBCx?

Most buildings can benefit from an EBCx project. However, the following characteristics help to determine whether a building is a good candidate:



Age and condition of  
mechanical equipment



Financial  
considerations



O&M staff  
participation



Type and capabilities  
of building controls



Available and  
up-to-date building  
documentation



Owner support  
with an in-house  
champion



No major upcoming  
retrofit projects

Evaluate the potential of your building with the NRCan pre-screening tool



# Want to Learn More About EBCx?

CLICK HERE



No cat.: M154-155/2023E-PDF | ISBN: 978-0-660-48258-3

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