#### **SAVE ON ENERGY**

# Existing Building Commissioning Program Overview

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## Existing Building Commissioning (EBCx) program

- The EBCx program is designed to help owners, operators and managers of commercial and institutional buildings in Ontario improve their energy management
- Participants will realize energy savings from improved facility operations and maintenance (O&M) business practices
- Implementing building management best practices will help reduce energy wastage, enhance occupant comfort and increase profitability



Learn more at <a href="SaveOnEnergy.ca/EBCx">SaveOnEnergy.ca/EBCx</a>



#### EBCx program – key benefits

- Increase profitability and property value: reduce your operating costs, prolong equipment for higher profits and property value
- Reduce environmental impact: a commissioning provider (CP) can help you identify ways to reduce your carbon footprint
- Develop a continuous improvement mindset: learn how to improve your building management practices and implement a continuous improvement process
- **Enhance occupant comfort:** achieve better indoor air quality and reduced noise for occupant comfort



#### **EBCx** overview

- Commercial and institutional businesses can participate
- Offers incentives for participants to hire a CP to undertake building recommissioning
- The CP will train participants to engage in ongoing commissioning and to integrate this process into their standard management practices
- Designed to help Ontario businesses save energy, reduce costs and increase productivity





### EBCx facility eligibility

- Minimum of 12 months of continuous energy data
- Minimum facility consumption of 750,000 kWh per annum, not including industrial and manufacturing processes
- Must not have undertaken recommissioning exercise in last two years
- Must not be participating in a Building Certification Program that requires EBCx as a prerequisite
- Must be working with a CP who is approved and on the Qualified Commissioning Provider List



#### EBCx program incentive structure

## Investigation Phase



## Implementation Phase



#### Persistence Phase

- Investigation report prepared by CP
- Incentive up to \$0.06/sq ft
- Lesser of \$50,000 or75% of eligiblecosts

- Implement recommended energy-efficiency measures
- Incentive of \$0.03/kWh of confirmed energy savings
- Lesser of \$50,000 or
  30% savings of facility's kWh as per baseline model

- CP training to maintain systems
- Incentive of \$0.03/kWh of confirmed persisting energy savings
- Lesser of \$50,000 or
  30% savings of facility's kWh as per baseline model



#### Ideal candidates for EBCx

- Frequent operator controls overrides
- Simultaneous or unnecessary heating/cooling
- Poor building pressurization
- Indoor air quality issues
- Deferred maintenance issues
- Occupant comfort complaints



### EBCx program project and measures eligibility



- Occupant behavioural measures
- Set point and scheduling optimization
- Air and water balancing
- Other operational and maintenance changes
- Equipment repair and minor replacements

#### Common EBCx measures

- 1. Reduce equipment runtime
- 2. Optimize economizer operation
- 3. Eliminate simultaneous heating and cooling
- 4. Optimize supply air temperature
- 5. Optimize zone/setback temperature set points
- 6. Eliminate unnecessary lighting hours

- 7. Optimize ventilation rates
- 8. Optimize static pressure/differential pressure control of fans and pumps
- 9. Add/optimize chilled water temperature reset
- 10. Eliminate passing (leaky valves)



How to get started

- Assess if your facility meets the minimum eligibility requirements and has eligible measure(s) potential
- Engage with one of the <u>Qualified CPs</u> about the EBCx program and recommissioning
- The qualified CP will submit the application and all reports on the applicant's behalf





#### Online resources

- Program requirements
- Program brochure
- Participant agreement
- Measurement & Verification (M&V) guide
- Additional resources: fact sheets





#### Fact sheets & Guides



#### Consider PMCs #1

- . Vanilation springs are nothing 2017
- . You remake require complaints, such as about an or water temperature, original, or remain
- Don't blow open or get study direct
- Some sections of the building have thanged in use such as a new workspace configuration or a meeting room converted to
- . You head to not your bearing system late in the spring and marks to the fall.
- Your building value more energy than excite office buildings.

#### Managing EBCs Projects

Assign an internal hooder such as a project or facilities manager to condition the process provide information about the foulding. number of occupants, speciation schedules and summit seem to complaints. The memal learning should expect to be choose wowheal in the planning stage and its accompany the EBCs provides for several steps over the to teacher murtilly always the investigation and implementation stages.

#### What to look for it we BBCs provider

- 4 Equilient
- communication willia · Experime in pertilation and mechanical systems and Automation corrects
- What to espect from your SSC4 provider
- + ERCs plan with current beints requirement (CH)
- · Investigation limitings law

staff thairing

+ Detailed Implementation plos-· Personance plan and

#### ESCs hook and resources

- Hencel Security County ASSCart Security Security Security White Mildere
- \* Hitlan Hitschaus
- \* Michigan Billion for Assessment Teach

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- artistics and achieve everyy savings (use a most and doubliness





#### THE PACY PROCESS

- 1. Planning
- · Building owner or internal leader selects an ESICs provider from the list of
- the EBCs program. . ESCs provider leads insuring and a building walk through with quarebony. and mathematics staff to star and who the desired consequence activities
- . Deliverable: ERCs prior that lays and the steps of the BBCs process beyear hallden.
- L. Storreggefun
- · EBCs provider condum a strainer Prestigators of the site to orsure. mechanical systems are consuming ampachy and to clerally performance sture. This implies on title inspections and montoring equipment performance with tists toppers over several months.
- . Deliverable: Fredrigs log with sering symmetric
- 2. implementation
- . Deliverable: Implementation plan. withdrag taxonomical actions. mins and suspersal dities, timetree. verification and municiping assertation and spender being and personne activities.
- · Implementation may be led by the returned leader or the EBCs provides. and should be guided by the implementation plan
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- . Deliverable: Fernissrus plan is qualit specificity and maintenance actions our time, to martier analysis and performance improvements.
- · ENC+ provider trave building gall in pervisores servinges.













## FAQ's

- Q. Who is responsible for completing and submitting the application on the online portal?
  - The commissioning provider
- Q. What is the minimum facility electricity consumption requirement to participate in the EBCx program?
  - 750,000 kWh annual consumption
- Q. Should an application be submitted for each facility?
  - · Yes, each application is tied to one facility



### FAQ's cont'd

#### Q. What are examples of ineligible measures in the EBCx program?

- Lighting projects
- Process load ECMs
- Behind-the-Meter generation projects
- Fuel switching
- Measures funded under other Save on Energy incentive programs

#### Q. What are considered eligible project costs in the EBCx Program?

- Required inspection and testing costs
- Analysis and ECM design costs where applicable
- Project management costs



### FAQ's cont'd

#### Q. What are the approximate timelines for the review process?

**A.** Should all necessary information be made available for technical review, the following timelines can be expected:

Review stage	Approximate processing time (weeks)
Application	2
Investigation phase	2
Implementation phase	2
Persistence phase	3
Incentive invoices per phase	1



## Thank you!

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