



## **Retrocommissioning (RCx) Screening Document**

In a climate where increasing scientific and public attention on the harmful impact of global warming is coinciding with escalating utility costs, there is a clear need for lasting solutions which help building owners curtail their negative impact on the environment while also reducing energy expenditures. Given the technologically sophisticated nature of today's building systems and controls, the operations and maintenance practices governing existing buildings (especially newly constructed buildings - built in the past 10 to 15 years) contain substantial energy savings potential. Increasingly, Retro-Commissioning is being employed to realize this un-tapped potential, create a high return-on-investment (ROI), and improve building performance while mitigating the environmental impacts. In fact, a growing body of research points to Retro-Commissioning producing 2% to 20% energy savings through no-cost/low-cost measures.

**Cool Capital Challenge** has partnered with **Strategic Building Solutions**, a national leader in the Retro-Commissioning field to support building owners interested in reaping the benefits of Retro-Commissioning. To determine whether buildings are good candidates for Retro-Commissioning, building owners and operators are encouraged to complete the enclosed Retro-Commissioning Screening Document. The intent of this document is to support building owners in gathering the pertinent information necessary to assess the viability of Retro-Commissioning as an effective tool. By providing the information requested, including an Energy Star commercial building benchmark score, representatives of the program will be able to determine if candidate buildings are a good fit for the RCx process.

Candidate buildings that meet the basic screening requirements may be visited by a representative of the program. Strategic Building Solutions has committed to provide complimentary site evaluations to promising candidate buildings that fully complete the screening document. This on-site evaluation will be free of charge and provide building owners with a more accurate understanding of the potential benefits (both in terms of reducing CO2 levels and achieving energy savings). Additionally, Strategic Building Solutions is offering a discount on professional services to building owners who commit to implement Retro-Commissioning measures through the **Cool Capital Challenge**.

Please return your completed Retro-Commissioning Screening Document to [rcx@coolcapital.org](mailto:rcx@coolcapital.org). If you should have any questions on how to complete this document, please call Jeff Tiell of the Downtown DC Business Improvement District at 202-638-8361 or Mark Abdella of Strategic Building Solutions at 860-395-0055 x116.



<b>Contact Information:</b>		
Building Owner/Representative Name	Building Owner/Representative Title	
Building Operating Staff Lead	Building Operating Staff Lead Title	
Company:		
Building Name (if applicable):		
Building Address:		
Mailing Address (if different than above):		
City:	State:	Zip:
Email	Telephone #	Fax #

<b>A. Building Information</b>			
1. Square footage:			
1a. Gross: _____ SF		1b. Conditioned: _____ SF	
1c. Garage? <input type="checkbox"/> Y <input type="checkbox"/> N		IF YES > _____ SF	
2. Approximate yearly electric consumption (kWh and cost):	2a. KWh: _____ 2b. Cost: _____	3. Approximate yearly non electric energy consumption (Enter data wherever applicable) Steam: 3a. MLBS: _____ 3b. Cost: _____	Natural Gas: 3a. Therms: _____ 3b. Cost: _____  Heating Oil: 3a. Gallons: _____ 3b. Cost: _____  Other (Specify units): _____ 3a: _____ 3b. Cost: _____
4. Building	4a. Year built: _____ 4b. Last major renovation: _____	5. No. of full time occupants:	
6. Utility Account Number(s): Please also attach one recent bill			
7. Occupancy schedule (ex "9-6 M-F", 24-7, or similar):		8. Percent of building that is occupied:	
<b>HVAC Information</b>			
9. Control type (check one)	<input type="checkbox"/> Entirely DDC	<input type="checkbox"/> DDC/pneumatic hybrid	<input type="checkbox"/> Entirely pneumatic
10. Describe your HVAC system configuration (ex., built up airhandlers, package units, boilers, chillers-centrifugal, absorption, cooling towers, etc.):			
11. HVAC system – Brand and age of major components (heating systems, pumps, air handlers, chillers, etc.)			

<b>B. Available Documentation</b>		
<b>Are these documents available for review at your facility?</b>	<b>Yes</b>	<b>No</b>
1. Utility bills		
2. Control system architecture drawings		
3. Control system sequence of operations		
4. Control system points lists		
5. Architectural design drawings and specifications		
6. HVAC design drawings and specifications		
7. Electrical design drawings and specifications		
8. Benchmarking score and facility summary report (US EPA or other source)		
9. Testing & Balancing Report		
10. Recent Energy Audit Reports		

<b>C. Program Requirements</b>			
<b>Building owner:</b>	<b>Date:</b>		<b>Name:</b>
	<b>Building Owner:</b>		<b>Comments</b>
<b>Answering "yes" certifies that the statement is true.</b>	<b>Yes</b>	<b>No</b>	
1. The building owner is responsible for all operating expenses.			
2. The building owner is willing to commit at least 40 hours of senior building staff time to the project.			
3. There are no planned major renovations or retrofits within the next three years.			
4. The mechanical equipment is not nearing the end of its useful life.			
5. The building owner is willing to sign a release for energy bills.			
6. The building owner can allow the RCx provider (i.e. the engineering firm that would do the work) to walk through and assess ALL spaces.			
6 a. Will the provider need special security clearance above normal visitor protocol?			
7. Does the building owner use a software package for maintenance planning and assignments?			

<b>D. Controls Verification and Trending</b>			
EMS Description (Age, type of system, software version)			
3 <sup>rd</sup> party controls vendor? <input type="checkbox"/> Y <input type="checkbox"/> N IF YES > Brief description of business relationship (full operations, service contract, etc.)			
<b>Controls Check Off Questions</b>	<b>Building Owner:</b>		<b>Comments</b>
<b>“Yes” certifies that the statement is true.</b>	<b>Yes</b>	<b>No</b>	
1. Does the EMS cover the entire facility?			
2. Is there more than one EMS system?			
3. Are “local controls” prevalent within the facility?			
4. Have EMS hardware (head-end, sensors, etc.) been installed or upgraded within the last 5 years?			
5. Has the EMS program been upgraded or installed within the last five years?			
6. Does the existing EMS program have trending/monitoring functions? PROVIDE AT LEAST 3 SAMPLES OF TREND DATA			
6a. Does the building owner or controls contractor have the ability to add/modify trending to the existing software?			
7. Does the head-end computer have sufficient capacity to store trend data?			
8. Are trend reports currently being run on the existing EMS?			
9. Does the EMS report alarms from the field?			
9a. IF YES, do field technicians respond to EMS alarms?			
10. Does a site technician have access to the system and has full knowledge of EMS operation?			
11. Is the control system maintained and operated by a third party vendor?			
11a. IF ABOVE IS YES: Will this vendor be supportive of a Retrocommissioning project, and remain accessible to the project team?			
12. Are system screens comprehensive and cover multiple monitoring points?			
13. Does the EMS system have remote access?			
13a. IF ABOVE IS YES: How is remote access provided? (Internet based, dial up modem etc.)	N/A	N/A	
13b. Could remote access be provided to a third party?			

<b>E. Ownership Commitment</b>	<b>Building Owner:</b>		<b>Comments</b>
	<b>Yes</b>	<b>No</b>	
<b>Please answer to the best of your ability - a “no” does not disqualify eligibility.</b>			
1. The building owner has participated in other utility efficiency programs and services.			
2. The company that owns the building has an energy efficiency, sustainability, or environmental impact mission statement or policy.			
2a. IF YES above > where this can be found (i.e. website, annual report, etc.)			
3. The building facility staff will be motivated and engaged to support this kind of project.			
4. The building owner can dedicate and empower one point of contact for all communications, decision making, and for moving internal decisions forward			
5. Does the building owner operate major tenant leases in 20% or more of the building space?			
5a. IF YES above > Generally describe current lease conditions (amount of space by SF and % of building, and current lease dates)			

<b>F. Final Checklist of Submittal Items</b>	
<b>Checkbox</b>	<b>Submittal Items</b>
<input type="checkbox"/>	One copy of recent utility bill (per metered account)
<input type="checkbox"/>	Samples of trending data (i.e. screen captures from the energy management system)
<input type="checkbox"/>	Attach EPA benchmark portfolio printout called “Statement of Energy Performance – Facility Summary Report”
<input type="checkbox"/>	Excel files of monthly energy and cost consumption data (Minimum two full years)
<input type="checkbox"/>	Mechanical equipment inventory (if available)

Name \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_