



**CONFIDENTIAL INFORMATION
PURSUANT TO GENERAL ORDER 66-C
AND PU CODE SECTION 583.**

RCx PROGRAM SCREENING ON-SITE FORM

Commercial & Institutional Buildings

Sample questions for building staff interview. It may be appropriate to ask these questions of both the primary contact and the decision-maker. Bring along a copy of the application and the ENERGY STAR® input forms to update and gather any additional information.

GENERAL INFORMATION

Program Representative		Date of Site Visit	
Company			
Building Name		City	State
			CA
Building Representative present during onsite visit		Building Representative Telephone #	
Component	Area (square feet)	kWh Usage (% or total)	Include in RCx Process?
Total Gross Floor Area (should include all supporting functions, such as kitchens used by staff, lobbies, atria, conference rooms, fitness areas for staff, storage areas, stairways, corridors, elevator shafts, etc). This section should NOT include parking garage areas.			-
Parking (applies to any area connected to the building that is used for parking vehicles): <ul style="list-style-type: none"> <input type="checkbox"/> Closed Garage (enclosed with roof) <input type="checkbox"/> Open Garage (unenclosed with roof) <input type="checkbox"/> Open Lot 		<i>(note if separately metered. If not separately metered, back out lighting usage)</i>	<i>(include if there are exhaust fans that can be RCx'd)</i>
Data Center (applies to spaces specifically designed and equipped to meet the needs of high density computing equipment such as server racks)			<i>(include if equipment can be RCx'd)</i>
Other spaces (Specify, e.g., "Retail area". Insert rows as necessary.)			
Total Conditioned Area (minus data center area & kWh if not RCx'd and if area > 5% of conditioned area)			-
Number of Floors			
General Building Notes (year constructed, primary usage, other notes):			

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BUILDING INFORMATION

What is your motivation for participating in the Program? Please check all that apply.	<input type="checkbox"/> RCx Program Assistance and Incentives <input type="checkbox"/> LEED-EB	<input type="checkbox"/> State of CA Green Building Initiative <input type="checkbox"/> Corporate Policy	<input type="checkbox"/> Other (specify): _____
Has the building been commissioned, re-commissioned, or retrocommissioned?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
If yes, how many years ago was the most current activity?			
Are there planned physical additions within the next 3 years? If yes, specify below.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Are there planned changes to the HVAC and/or controls system within the next three years? If yes, specify below.	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Are there plans to sell the building within the next three years?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Are there plans to change primary use of the building?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Is the building leased or owner occupied?	<input type="checkbox"/> Leased	<input type="checkbox"/> Owner	
If leased, do the tenants pay their own utility bills?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
If leased, is each tenant sub-metered?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Will tenant spaces be included in the RCx project?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Are there major tenant changes planned?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Building owner / tenant arrangement notes:			
What are the common financial criteria used to evaluate O&M projects? (i.e. simple payback, ROI)			
What criteria are used to determine if a project is budgeted for capital or O&M expenditures? Will funding for this project come out of your O&M or capital budget?			

When do the funding requests need to be made by? Who are the primary decision makers? What is the deadline for submitting project request? If approved, when is funding available for this project?			
What is the likelihood of implementing measures from this program within the next 12 months? Preliminary estimate for implementation cap is \$_____	<input type="checkbox"/> High	<input type="checkbox"/> Med	<input type="checkbox"/> Low
Comments:			



BUILDING MECHANICAL EQUIPMENT

Primary Building Systems (Complete and check all that apply)	Year Installed	Quantity / Capacity (e.g., hp, tonnage, cfm) / Condition / Planned Changes	Any significant changes underway or funded?
<input type="checkbox"/> Chilled water plant <input type="checkbox"/> Variable speed drives on pumps <input type="checkbox"/> Variable speed drives on chillers <input type="checkbox"/> Waterside Economizer			<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>What is the current chilled water supply temp. set-point? Is chilled water supply temperature reset? If so, how? Are chilled water pumps throttled? (check valves / take picture) How are chillers and pumps enabled? Is any equipment operating in 'hand' mode? Are any VFDs running at 100% (60Hz)? Is system controlled by Hartman Loop? What is system arrangement (primary, primary/secondary, primary variable, etc)?</p>			
<input type="checkbox"/> Cooling Towers <input type="checkbox"/> Variable speed drives on pumps <input type="checkbox"/> Variable speed drives on fans			<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>What is the current condenser water supply temp. set-point? Is condenser water supply temperature reset? If so, how? Are condenser water pumps throttled? (check valves / take picture) How are cooling towers and pumps enabled? Is any equipment (cooling tower fans, VFDs) operating in 'hand' mode? Are any VFDs running at 100% (60Hz)?</p>			
<input type="checkbox"/> Boiler plant <input type="checkbox"/> Variable speed drives on pumps			<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>What is the current hot water supply temp. set point? Is the hot water supply temp. reset? If so, how? Are hot water pumps throttled? (check valves / take picture) How are boilers and pumps enabled? Is any equipment operating in 'hand' mode? Are any VFDs running at 100% (60Hz)?</p>			
<p>Central Air Handlers: Main Equipment: <input type="checkbox"/> Single duct Air Handlers <input type="checkbox"/> Dual duct Air Handlers <input type="checkbox"/> Rooftop Units / Boxcar Units <input type="checkbox"/> Air cooled <input type="checkbox"/> Water cooled Main Equipment Components:</p>			<input type="checkbox"/> Yes <input type="checkbox"/> No

<input type="checkbox"/> Variable speed drives on fans <input type="checkbox"/> Airside Economizer Terminal Equipment: <input type="checkbox"/> VAV boxes w/ reheat (specify electric, hot water or steam) <input type="checkbox"/> VAV boxes w/o reheat <input type="checkbox"/> Dual duct boxes			
What is the current SA temp setpoint? Is supply air temperature reset? If so, how? What is the current duct static pressure setpoint? Is duct static pressure reset? If so, how? Is the airside economizer able to achieve 100% OA? What is the airside economizer OA enable set point? Are any VFDs running at 100% (60Hz)?			
<input type="checkbox"/> Water-source heat pumps			<input type="checkbox"/> Yes <input type="checkbox"/> No
Do heat pumps communicate with the DDC system?			
<input type="checkbox"/> Other HVAC <input type="checkbox"/> Liebert Units <input type="checkbox"/> Fan Coil Units <input type="checkbox"/> Other			<input type="checkbox"/> Yes <input type="checkbox"/> No
Is this equipment tied into the DDC system? Can it be included in RCx work?			
<input type="checkbox"/> Other (e.g. fountain pumps, pool pumps, garage exhaust fans, domestic water booster pumps)			<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> On-site generation (e.g. co-gen plant, pv, fuel cell) *Indicate approximate % of annual building usage			<input type="checkbox"/> Yes <input type="checkbox"/> No
Can all of the above equipment be included in the RCx project? If not, please specify which equipment should be excluded (e.g., computer room Liebert units).	<input type="checkbox"/> Yes <input type="checkbox"/> No		

EQUIPMENT

This information is used to calculate the investigation incentive.

Count	Item	Description
	Chillers	Only count chillers with significant hours of operation. Do not count emergency back-up chillers.

	Cooling Towers	One cooling tower is defined as serving one chilled water plant. Cooling towers with multiple cells are counted as one tower for this calculation.
	Chilled water distribution loops	The number of chilled water distribution loops, each with its own pump(s).
	Air handlers	Cooling or heating air handlers with supply fans over 5 hp. Dedicated outside air fans without cooling do not count towards total.

HVAC SYSTEM OPERATION

Has your heating system always met load?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Under what conditions has your heating system not met load?		
What was the solution to this problem?		
Has your cooling system always met load?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Under what conditions has your cooling system not met load?		
What was the solution to this problem?		
Are there any ventilation issues? If yes, specify below.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Are there any humidity control issues? If yes, specify below.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Can the occupants control the HVAC setpoints?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Can the occupants control the HVAC schedules?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

SCHEDULES

Day	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Occupancy							
Start Time							
End Time							
Equipment							
Start Time							

End Time							
Lighting							
Start Time							
End Time							
Do hours vary by season? If yes, please explain. Also note below if any equipment operates outside of schedule above (e.g., M-F 6a-6p equipment schedule above is for air handlers, but chillers run 24/7/365).						<input type="checkbox"/> Yes	<input type="checkbox"/> No
Weeks of operation per year							
Indicate any holiday periods that are not state or federal holidays							

CONTROL SYSTEM

General Control System Description (type (DDC, pneumatic, t'stats), equipment served by each type)		
List any equipment that is not monitored / controlled by the DDC (i.e. fan coils, remote AHU's, heat pumps..etc):		
EMCS manufacturer		
EMCS make / system model		
EMCS front end software		
Year of most recent front end software update		
Who is primarily responsible for the following EMCS operating parameters?		
	In-house staff	Outside vendor
Temperature setpoints	<input type="checkbox"/>	<input type="checkbox"/>
Airflow setpoints	<input type="checkbox"/>	<input type="checkbox"/>
Operating schedules	<input type="checkbox"/>	<input type="checkbox"/>
Trendlogs	<input type="checkbox"/>	<input type="checkbox"/>
Control Algorithms	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance and technical assistance	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>
For in-house responsibilities, do you have the time to adjust and optimize the EMCS operation? (note if EMCS was accessed during screening, and the apparent level of expertise of the operators)		
Do you use data trends? Are data trends set up for troubleshooting? Is control system capable of trending many points concurrently at 15 min intervals for at least two weeks?		
How often are control sensors checked and calibrated (temperature, pressure, flow)? Within the last two years?		

(note if there is a noticeable difference between the OAT reported by the EMCS and the actual OAT)

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LIGHTING

Lighting controls make and model	
How is the outdoor lighting controlled?	<input type="checkbox"/> Photocells <input type="checkbox"/> Timeclocks <input type="checkbox"/> Manual
Are occupancy sensors installed? Common areas or tenant space?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are daylighting sensors installed?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are your lighting control strategies working correctly? If no, explain below:	<input type="checkbox"/> Yes <input type="checkbox"/> No

BUILDING DOCUMENTATION

Are the following items available? (List only if correct and current)

Item	Yes	No
EMCS Points List	<input type="checkbox"/>	<input type="checkbox"/>
EMCS Program Print Out	<input type="checkbox"/>	<input type="checkbox"/>
Sequences of Operation for HVAC and Lighting	<input type="checkbox"/>	<input type="checkbox"/>
Control Drawings	<input type="checkbox"/>	<input type="checkbox"/>
Mechanical Drawings	<input type="checkbox"/>	<input type="checkbox"/>
Electrical Drawings	<input type="checkbox"/>	<input type="checkbox"/>
Test And Balance Report	<input type="checkbox"/>	<input type="checkbox"/>
Manufacturer Startup Documentation	<input type="checkbox"/>	<input type="checkbox"/>
O&M Manuals (For Controls and Major Equipment)	<input type="checkbox"/>	<input type="checkbox"/>
Recent Energy Study and/or Commissioning Report (2002 or later)	<input type="checkbox"/>	<input type="checkbox"/>
Older Energy Study and/or Commissioning Report (2001 or earlier)	<input type="checkbox"/>	<input type="checkbox"/>
Notes		

OPERATIONS AND MAINTENANCE

Do you face any challenges following your O&M program? If yes, specify below:	<input type="checkbox"/> Yes <input type="checkbox"/> No
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How many in-house staff are assigned to O & M?						
Do you contract with outside vendors for building operations or maintenance services?					<input type="checkbox"/> Yes	<input type="checkbox"/> No
If yes, for which systems, equipment or roles? (check all that apply)						
					Is it okay for PEGI to contact the contractor?	
	Outside vendor used?	Company name	Phone number	Service contract type		
HVAC System	<input type="checkbox"/>				<input type="checkbox"/> Yes <input type="checkbox"/> No	
DDC Controls	<input type="checkbox"/>				<input type="checkbox"/> Yes <input type="checkbox"/> No	
Lighting Controls	<input type="checkbox"/>				<input type="checkbox"/> Yes <input type="checkbox"/> No	

BUILDING OPPORTUNITIES

Do you feel the energy use is too high?					<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Specific opportunities or areas of interest to be addressed						
Identified issues by building occupants (i.e. most common occupant complaints)						
Identified issues by building operators						
Have there been any significant efficiency upgrades or energy system modifications in the last few years? If yes, specify below.					<input type="checkbox"/> Yes	<input type="checkbox"/> No
Is the building enrolled in any demand response programs or are you considering enrollment?					<input type="checkbox"/> Yes	<input type="checkbox"/> No
Has your building participated in any other Utility programs in the last 5 years? If yes, please list program participation details below.					<input type="checkbox"/> Yes	<input type="checkbox"/> No
Program type	Project(s), retrofit(s) and/or measure(s) installed			Completion date		

ENERGY STAR BENCHMARK INFORMATION

Has your building been benchmarked, and if so, what is the benchmark score and in what year was it benchmarked?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Score: Year:
Has your building earned an ENERGY STAR, and if so, what is the score and in what year was it earned? (Note if multiple years).	<input type="checkbox"/> Yes <input type="checkbox"/> No	Score: Year:
Do you manage your ENERGY STAR account with the EPA’s Portfolio Manager?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Are you willing to share your Portfolio Manager information with us? (You can give us read-only access, and we can provide Portfolio Manager sharing instructions).	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Do you mind if we re-benchmark the building for the purposes of the RCx Program? We will also benchmark it at project end.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Notes (Portfolio Manager Username, etc.)		

Information by Space for Energy Star Benchmarking		
Office	Category (general, bank branch, courthouse, financial center)	
	Gross floor area	
	Occupants	
	Number of PCs	
	Operating hours/week	
	What percent of this space is air-conditioned? (> 50%, < 50%, none)	
	What percent of this space is heated? (> 50%, < 50%, none)	
Hotel/Motel	Hotel category (economy, midscale, upscale, upper upscale)	
	Gross floor area	
	Number of rooms	
	Average occupancy	
	On-site laundry?	
	On-site food service?	
Warehouse/Storage	Refrigerated v. unrefrigerated	
	Gross floor area	
	Number of workers	
	Operating hours/week	
	% space air-conditioned? % heated?	
	Number of walk-in coolers and freezers	
Hospital (acute care, children’s)	Gross floor area	
	Number of floors	
	Number of licensed beds	
	Tertiary care? (i.e., Level I trauma services)	
K-12 schools	Gross floor area	
	Number of students	
	Numbers of PCs	
	Operating hours/week	
	On-site cooking?	
	% space air-conditioned? % heated?	
	Number of months building is in use?	
	Is the building mechanically ventilated?	

Residence hall/ Dormitory	Gross floor area	
	Number of rooms	
	% space air-conditioned? % heated?	
Medical Office	Gross floor area	
	Number of workers	
	Operating hours/week	
	% space air-conditioned? % heated?	
Secondary Space Types		
Computer data center	Gross floor area	
	Operating hours/week	
Garage/parking	Gross floor area	
	Number of workers	
	Operating hours/week	
	Floors above ground/floors below ground	
Swimming Pool	Gross floor area (approximate pool size)	
	Number of months pool is in use	
Other	Description	
	Gross floor area	
	Operating hours/week	