

APPENDIX F

SAMPLE INTERVIEW FORMS

Project Name	Site Contact Name(s)
Survey By	Site Contact Phone
Survey Date	Site Contact E-Mail

How do you monitor Energy use and Cost?	
Briefly describe the Renovation, Retrofit and Equipment Replacement history for this site:	
Are there any previous Energy Study documents available?	
Do you contract with outside vendors for building operations or maintenance services?	<p>Controls:</p> <p>General HVAC:</p> <p>Specific HVAC equipment (e.g. Chiller, Boiler, etc.):</p> <p>Water Treatment:</p> <p>Outside Lighting:</p> <p>Other:</p>
Briefly describe site Control Systems – Make, Age, Capabilities:	
Is the Control System capable of providing Trending Data? Is it set up to do so? How much memory is available?	
What control system upgrades would you like to see implemented?	

<p>Do you maintain Complaint Logs related to HVAC systems operation?</p> <p>Are they available?</p>	
<p>From which areas in the building do you receive the greatest number of complaints for heating, cooling or other comfort problems?</p>	
<p>What would you describe as your worst building problem and how do you deal with that?</p>	
<p>Briefly describe site HVAC Systems - Equipment Age, Make, Capacities, and Configuration:</p>	
<p>Has Heating System always met Load? Under what conditions has your heating system not met load?</p> <p>What was the solution to this problem?</p>	
<p>Has Cooling System always met Load? Under what conditions has your cooling system not met load?</p> <p>What was the solution to this problem?</p>	
<p>How is the HVAC system operation scheduled?</p>	
<p>What HVAC adjustments do you make to</p>	

unoccupied areas or spaces (turn off HVAC, adjust thermostat to minimum heating and cooling, close off damper, etc.)?	
Do you feel you have any undersized or oversized HVAC equipment? Please describe.	
In your opinion, is the building HVAC system well balanced? If no, please explain:	
Are there areas with persistent comfort complaints? Please describe.	
Are there areas with air quality problems? Please describe.	
Are there areas where infection control standards are difficult to maintain? Please describe.	
Do you maintain and utilize a Computerized Maintenance Management System? Describe:	
Briefly describe the structure, number of staff, work order process, parts procurement process, and workload of your O&M organization?	
What are some recent energy conservation	

<p>measures that have been implemented?</p> <p>How well do you think they were implemented?</p> <p>Are there other energy conservation measures that you think should be implemented?</p>	
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Indicators of Potential Benefits from Retro-Commissioning (Check all that apply)

Electrical

<input type="checkbox"/>	Nuisance circuit breaker trips
<input type="checkbox"/>	Frequent motor starter overload element failure
<input type="checkbox"/>	Large equipment trips from phase imbalance
<input type="checkbox"/>	Known phase imbalance
<input type="checkbox"/>	Excessive transformer heat
<input type="checkbox"/>	Excessive motor heat
<input type="checkbox"/>	Lamp/ballast life much shorter than rated
<input type="checkbox"/>	Backup generator not tested routinely or not operational

Occupant complaints & reactions

<input type="checkbox"/>	Too hot / Too cold
<input type="checkbox"/>	Complaints of stuffiness or offensive odors (“sick building syndrome”)
<input type="checkbox"/>	Complaints of excessive drafts or cold walls
<input type="checkbox"/>	Air supply diffusers covered up by occupants
<input type="checkbox"/>	Light fixtures de-lamped or masked by occupants

	Use of portable heaters, spot coolers, or fans
	Use of personal desk lamps or floor lamps
	High absentee rate

System types

	Constant volume hydronic systems with 2-way (2 port) valves at coils
	Variable volume hydronic systems with 3-way valves at coils
	Constant volume primary-secondary pumping systems
	Pressure control using air-side bypass ducts or water-side bypass valves
	Central chilled water and/or hot water plants without DDC
	Multiple air handling units serving single large open areas
	Very old or poorly maintained equipment

Airflow and temperature

	Excessive positive or negative pressurization at exterior doors, elevator shafts, or between zones
	Dirt around air diffusers and registers
	Excessive airflow noise
	Poor mixing of cold or hot air at outlet of supply air diffusers
	Poor condition of filters, coils, fans, fan belts, or air handler cabinets
	VAV systems with inlet vane dampers
	Inoperable, blocked, or locked dampers
	Disconnected actuators
	Low temperature differentials across coils
	Inconsistent control settings from one air handler to another

	Excessively early start times “to reach temperature by occupancy”
	Very low CO ₂ levels throughout building (<100 ppm above ambient) when economizers closed and/or during weather extremes
	Static pressure sensors located close to air handler discharge
	Exhaust systems with no provision for makeup air; or supply systems with no provision for return/exhaust air
	Coil condensate not properly drained – flooded plenum, roof puddles, or ceiling leaks

Water-side systems

	Variable volume systems with differential pressure transmitters located close to pumps
	Leaking coil or convector valves
	Significant scale or corrosion
	Water treatment systems not working or non-existent
	Boilers spilling combustion air in boiler room
	Boilers exhibit operational problems at reduced setpoints (<180°)
	Chillers surging or excessive noise at low load
	Chillers trip on refrigerant pressure
	R-11 or R-12 in use
	Single speed cooling tower fans, esp. with frequent cycling

Control systems

	Displayed values that don’t match actual conditions
	Lack of trend logs or inability to generate trend logs
	Pressure sensors located close to discharge of controlled fan or pump
	Non-operational pneumatic controls

Compressed air and pneumatic systems

	Short cycling or constant operation of compressor
	Air dryer not draining or not working
	Known air leaks
	Bleed-type pneumatic control components
	Non-operational pneumatic controls
	Significantly lower main air pressure in parts of system

Other Observations & Comments