Site ID #: ***SiteID*** Site Strata: Survey Date:

Contact Information:

Building Name: Utility:

Business Name:

Primary Contact Name: Primary Contact Title:

Primary Phone: Secondary Phone: Email:

Alternative Contact Name: Secondary Contact Title:

Alternative Contact Phone:

Building Address:

City: Zip:

Survey Tracking Information

Surveyor Name: Travel Mileage:

Start Time: Finish Time: Total Time (mins): (Onsite, QC, Travel)

If the respondent is different than the contacts identified above, please identify name, title and contact information

Respondent Name:	Respondent Title:
Respondent Phone:	Respondent Email:

Circle any incidents as applicable:

1 None to report
2 Complaint about rates
3 Complaint about energy costs
4 Complaint about outages or power quality
5 Complaint about technology reliability
6 Complaint about utility customer service
7 Contact person unavailable or unaware of survey appointment
8 Customer expressed dissatisfaction with survey
9 Property damage occurred during on-site survey
10 Personal injury occurred during on-site survey
11 Other (list) _____

Month/Year of Participation	Month/Year of Work Completion
Number of Employees	Change in number of employees over the past 12 months?
Any significant changes to facility energy consumption over the past 12 months?	Y / N (if yes, please document the changes below)

Site & Survey Notes (Please note any changes to the household's energy usage or occupancy over the past 12 months):

Background Information

Dwelling Information

Facility type	
Year Built	
Square footage of facility	

Utility Information

	Electric	Natural Gas
Utility		
Account Number		
Meter Number		

Installed Measures

	Measure Description	Quantity	Energy Savings	Units of Savings	Total Customer Cost
EE Measure 1					
EE Measure 2					
EE Measure 3					
EE Measure 4					
EE Measure 5					
EE Measure 6					
EE Measure 7					
EE Measure 8					

Interview & Introduction

*Hello, my name is [NAME] and I work with KEMA Inc. I am working on behalf of [**Sponsor**] to conduct an independent assessment of energy-efficiency technologies installed under the **&Program**. I am here to meet with [**FirstName1 LastName2**] to discuss energy-using technologies in this facility.* ***(Show letter, identification and business card.)*** *During my visit I'd like to ask a few questions about your facility's general characteristics and then would like walk through to note the number and type of lighting fixtures and visually inspect other relevant equipment including heating, cooling, water heating, refrigeration and motors equipment. The survey should take no more than 300 minutes to complete. Do you have any questions regarding my visit?*

The U.S. Department of Energy (DOE) would like to inform each individual that the information requested here is being solicited under the statutory authority of Title III of the Energy Policy and Conservation Act of 1975, as amended, which authorizes DOE to administer the State Energy Program (SEP). This information is being sought as part of a national evaluation of SEP, the purpose of which is to reliably quantify Program accomplishments and help inform decisions on future operations. The sole use of the information collected will be for an analysis of national-level Program impacts. Disclosure of this information is voluntary and there will be no adverse effects associated with not providing all or any part of the requested information.

Building Plan Review

BP1 Identify the major functional spaces, or building areas, with distinct schedules or HVAC systems and determine the percentage of space distribution by building area where the project was installed. The total percentage of the floor area represented by these areas should represent the majority of the building (i.e., close to 100%). Use the Building Area Sketch Sheets to assist as necessary.

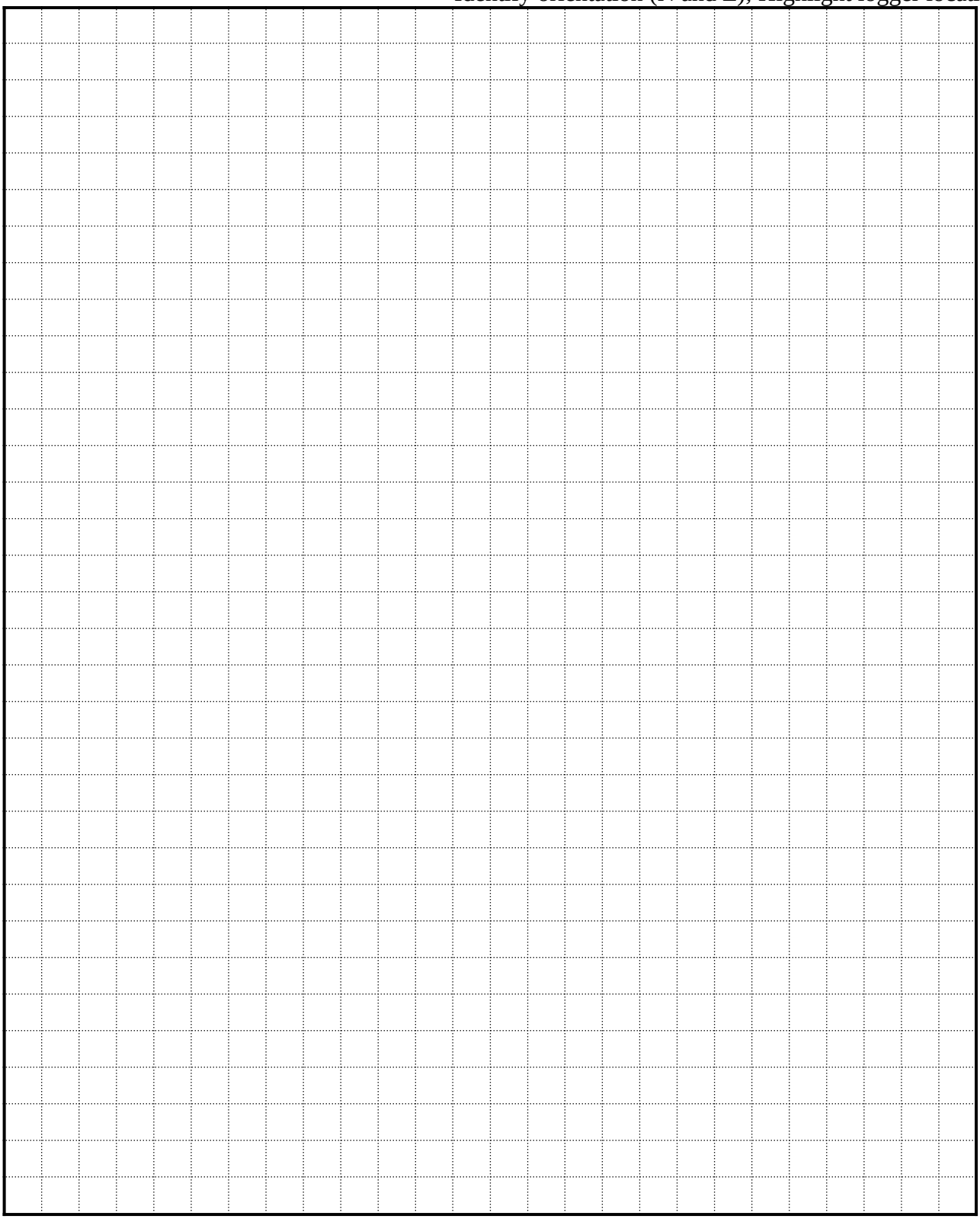
Area ID	Area Code	Area Description	% of Overall Building Area	% of Area Conditioned by			
				Heating	Cooling	Uncond.	Refrigerated
A1							
A2							
A3							
A4							
A5							
A6							
A7							
A8							
A9							
A10							

AA Code	Activity Area Type Description	AA Code	HVAC Type Description	HVAC Code	HVAC Type Description
1	Auditorium/Gym	22	Guest Room (Hotel/Motel)	42	Religious Worship
2	Auto Repair Workshop	23	Kitchen/Break Room & Food Prep	43	Residential
3	Bank/Financial	24	Laboratory	44	Restrooms
4	Bar Cocktail Lounge	25	Laundry	45	Retail Sales / Showroom
5	Barber/Beauty Shop	26	Library	46	Smoking Lounge

6	Casino/Gaming	27	Loading Dock	47	Storage (Conditioned)
7	Classroom/Lecture	28	Lobby (Hotel)	48	Storage (Unconditioned)
8	Clean Room	29	Lobby (Main Entry and Assembly)	49	Storage (Refrigerated/Freezer), Walk-In
9	Computer Room/Data Processing	30	Lobby (Office ReceptionWaiting)	50	Storage (Refrigerated/Freezer), Building
10	Com/Ind Work (General High Bay)	31	Locker and Dressing Room	51	Surgery Rooms
11	Com/Ind Work (General Low Bay)	32	Mall Arcade and Atrium	52	Theater (Motion Picture)
12	Com/Ind Work (Precision)	33	Mechanical/Electrical Room	53	Theater (Performance)
13	Conference Room	34	Medical Offices and Exam Rooms	54	Unknown
14	Convention and Meeting Center	35	Office (Executive/Private)	55	Vacant (Conditioned)
15	Copy Room	36	Office (General)	56	Vacant (Unconditioned)
16	Corridor/Hallways	37	Office (Open Plan)	57	Vocational Areas
17	Courtrooms	38	Patient Rooms	98	Non Rebated Area
18	Dining Area	39	Patio Area	99	Other Unlisted Activity Types
19	Dry Cleaning	40	Pool/Spa Area		
20	Exercise Centers/Gymnasium	41	Police/Fire Station	100	Outside / Outdoor Area
21	Exhibit Display Area / Museum				

Description/Notes:

Building Area Sketch Sheet [Use additional sheets as necessary]
Identify orientation (N and E); Highlight logger locations



Building Operating Schedules

BP2 Define the building operating schedules for the building. Enter the operating hours for each schedule and then note the applicable building areas. (Enter 2400 for 24-hour operation, enter 0 for never open)

SCHD ID	Business Operating Hours								Area IDs on this schedule
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Holidays	
BH1	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10
BH2	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10
BH3	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10
BH4	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10
BH5	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10
BH6	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10
BH7	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10
BH8	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10
BH9	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10
BH10	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10

Description/Notes:

[IF BP1Cooling>0, else skip to BP4]

HVAC Operating Schedules

BP3: Define the HVAC Occupied and Unoccupied schedules for the building. Enter the occupied hours for each schedule and then note the applicable building areas. (Enter 2400 for 24-hour operation, enter 0 for never open)

HVAC ID	HVAC Operating Hours								Area IDs on this schedule
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Holidays	
H1	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10
H2	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 BH4 AA5 AA6 AA7 AA8 AA9 AA10
H3	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10
H4	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10
H5	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10
H6	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10

H7	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10
H8	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10
H9	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10
H10	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10

[If BP1 Cooling or Heating >0, else skip to BP5]

Room Thermostat Setpoints

BP4. Enter the values for heating and cooling thermostat setpoints during normal (occupied) and setback (unoccupied) periods for each HVAC operation schedule

	Period	Heating SetPoint	Cooling SetPoint		Period	Heating SetPoint	Cooling SetPoint
H1	Occupied			**H6**	Occupied		
	Unoccupied				Unoccupied		
H2	Occupied			**H7**	Occupied		
	Unoccupied				Unoccupied		
H3	Occupied			**H8**	Occupied		
	Unoccupied				Unoccupied		
H4	Occupied			**H9**	Occupied		
	Unoccupied				Unoccupied		
H5	Occupied			**H10**	Occupied		
	Unoccupied				Unoccupied		

Interior Lighting Operating Hours

BP5: Define the interior lighting operating schedules for the building. Enter the interior lighting operating hours and then note the applicable building occupancy schedule. (Enter 2400 for 24-hour for lighting operation hours, enter 0 for never on).

SCHD ID	Interior Lighting Operating Hours								Area IDs on this schedule
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Holidays	
IL1	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10
IL2	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10
IL3	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10
IL4	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10
IL5	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10
IL6	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9

									AA10
IL7	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10
IL8	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10
IL9	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10
IL10	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	AA1 AA2 AA3 AA4 AA5 AA6 AA7 AA8 AA9 AA10

Exterior Lighting Operating Hours

BP6: Define the exterior lighting operating schedules for the building if on timer or manual switches. Enter the exterior lighting operating hours and then note the applicable building occupancy schedule. (Enter 2400 for 24-hour for lighting operation hours, enter 0 for never on).

SCHD ID	Exterior Lighting Operating Hours							
	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Holidays
EL1	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:
EL2	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:
EL3	O:	O:	O:	O:	O:	O:	O:	O:

	C:	C:	C:	C:	C:	C:	C:	C:
EL4	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:
EL5	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:	O: C:

BP7: How is the exterior lighting controlled? (check all that apply)

Manual Switches* _____ Daylight Sensors _____
Time Clock* _____ Other (explain) _____
Occupancy Sensors _____ Don't Know _____

*If manual switches or time clock complete table <based on response to BP6>.

Description/Notes:

_____

_____

Building Characteristics

[If BP1 Heating >0, else skip to BC2] **BC1. Space heating fuel type:** **E**=Electricity **G**=Natural gas **P**=Propane **EG**=Electricity and gas **N**=Neither electricity or gas **O**=Other(specify) **DK**= Don't know **REF**=Refused	**E G P EG N** **O**_____ **DK REF**
[If BC2=2 GO TO BC3, else skip to BC4] **BC2. Age of building**	1. _____ 2. Don't know **3.** Refused
BC3. Age of building: 1. Before 1950 2. 1960's 3. 1970's 4. 1980's 5. 1990-1994 6. 1995-1999 7. 2000's 8. Don't know 9. Refused to answer	**1 2 3 4 5 6 7** **8 9**

BC4. Primary business activity at the facility 1. Office 2. Retail (non-food) 3. College/University 4. School 5. Grocery store 6. Restaurant 7. Health care (other than hospital) 8. Hospital 9. Hotel/Motel 10. Warehouse 11. Construction 12. Community service/Religious/Municipality 13. Industrial process/Manufacturing 14. Condo association/Apt. management 15. Greenhouse 16. Laundry/Dry cleaner 17. Other (specify)_____ 18. Don't know 19. Refused	**1 2 3 4 5 6 7 8 9** **10 11 12 13 14 15 16** **17**_____ **18 19**
BC5. Number of part-time and full-time employees	1. _____ 2. Don't know 3. Refused

[If BP1 Cooling >0, else skip to H1]
Cooling Equipment –Verification of Installed Measures

Cooling Type <from tracking system>	C1. Cooling Type Installed*	C2. Qty Installed	C3. Capacity	C4. Efficiency	C5. Building Area ID	C6. Frequency of Use*	C7. Hrs of Operation Vary with Weather
	SS PS PTAC EC C IAC W O________________ DK REF		______ tons ______kBtuh ______kW	_____ EER _____ SEER ______Btu/hr ______kW/ton ______ Other	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5	Y N DK REF
	SS PS PTAC EC C IAC W O________________ DK REF		______ tons ______kBtuh ______kW	_____ EER _____ SEER ______Btu/hr ______kW/ton ______ Other	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5	Y N DK REF
	SS PS PTAC EC C IAC W O________________ DK REF		______ tons ______kBtuh ______kW	_____ EER _____ SEER ______Btu/hr ______kW/ton ______ Other	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5	Y N DK REF
	SS PS PTAC EC C IAC W O________________ DK REF		______ tons ______kBtuh ______kW	_____ EER _____ SEER ______Btu/hr ______kW/ton ______ Other	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5	Y N DK REF

	SS PS PTAC EC **C IAC W** **O________________** **DK REF**		______ tons ______kBtuh ______kW	______ EER ______ SEER ______Btu/hr ______kW/ton ______ Other	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5	Y N DK REF
	SS PS PTAC EC **C IAC W** **O________________** **DK REF**		______ tons ______kBtuh ______kW	______ EER ______ SEER ______Btu/hr ______kW/ton ______ Other	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5	Y N DK REF
	SS PS PTAC EC **C IAC W** **O________________** **DK REF**		______ tons ______kBtuh ______kW	______ EER ______ SEER ______Btu/hr ______kW/ton ______ Other	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5	Y N DK REF
	SS PS PTAC EC **C IAC W** **O________________** **DK REF**		______ tons ______kBtuh ______kW	______ EER ______ SEER ______Btu/hr ______kW/ton ______ Other	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5	Y N DK REF
	SS PS PTAC EC **C IAC W** **O________________** **DK REF**		______ tons ______kBtuh ______kW	______ EER ______ SEER ______Btu/hr ______kW/ton ______ Other	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5	Y N DK REF

***KEY CODES**

Cooling Type

SS=Split system
PS=Package system
PTAC=Package terminal AC or heat pump
EC=Evaporative cooler
C=Water chiller/cooling tower
IAC=Individual AC or heat pump
W=Window/Wall units
O = Other (describe)
DK = Don't know
REF = Refused

Frequency of Use

1. All summer
2. Quite a bit
3. Only a few times when needed
4. Not at all
5. Don't know

Notes:

Cooling Equipment – Discrepancy of Installed Measures *(repeat set of questions for each type of equipment installed where verification identified discrepancies from tracking system and CATI data)*

	Installed Equipment
CV1. Cooling Type **SS**=Split system **PS**=Package system **PTAC**=Package terminal AC or heat pump **EC**=Evaporative cooler **C**=Water chiller/cooling tower **IAC**=Individual AC or heat pump **W**=Window/Wall units **O** = Other (describe) **DK** = Don't know **REF** = Refused	**SS PS PTAC EC** **C IAC W** **O**_____ **DK REF**
[IF C2 not equal to quantity in tracker, else skip to CV3] **CV2. Reason quantity differed:** 1. Put into storage 2. Installed at another facility 3. Insufficient financial resources to complete 4. Other (describe)_____ 5. Don't know 6. Refused	**1 2 3 4** **5**_____ **6 7**
[IF C3 not equal to quantity in tracker, else skip to CR1] **CV3. Reason capacity differed:** 1. Put into storage 2. Installed at another facility 3. Insufficient financial resources to complete 4. Other (describe)_____ 5. Don't know 6. Refused	**1 2 3 4** **5**_____ **6 7**
[IF C4 not equal to quantity in tracker, else skip to CR1] **CV4. Reason capacity differed:** 1. Put into storage 2. Installed at another facility 3. Insufficient financial resources to complete 4. Other (describe)_____ 5. Don't know 6. Refused	**1 2 3 4** **5**_____ **6 7**

Notes: _____

Cooling Equipment – Replaced Equipment *(repeat set of questions for each type of equipment replaced)*

	Replaced Equipment
CR1. Cooling Type Replaced **SS**=Split system **PS**=Package system **PTAC**=Package terminal AC or heat pump **EC**=Evaporative cooler **C**=Water chiller/cooling tower **IAC**=Individual AC or heat pump **W**=Window/Wall units **O** = Other (describe) **N=**None **DK**= Don't know **REF=** Refused	**SS PS PTAC EC** **C IAC W** **O**_____ **N DK REF** **[If N, DK, REF skip to H1]**
CR2. Quantity	1. _____ 2. Don't know 3. Refused
CR3. Capacity	1. _____ tons 2. _____Btu/hr 3. _____therm 4. _____kW 5. Don't know 6. Refused
CR4. Condition of replaced equipment **G**= Good **F**= Fair **P**=Poor **I**=Inoperable **DK**=Don't know **REF**=Refused	**G F P I DK REF**
CR5. Efficiency	_____ EER _____ SEER _____Btu/hr _____kW/ton _____ Other
CR6. Estimated Age 1. <5 years old 2. 5-10 years old 3. 11-20 years old 4. >20 years old 5. Don't know	**1 2 3 4 5 6**

6. Refused	

Notes:

Heating Type <from tracking system>	H1. Heating Type Installed*	H2. Qty Installed	H3. Fuel Type	H4. Size	H5. Efficiency (AFUE)	H6. Building Area ID	H7. Frequency of Use*
	C P SH SS F D R O__________ DK REF		1. Electricity 2. Natural gas 3. Fuel oil 4. LP gas 5. Other________	1. ________kW 2. _____kBtuh 3. ______HP 4. Other______		A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5
	C P SH SS F D R O__________ DK REF		1. Electricity 2. Natural gas 3. Fuel oil 4. LP gas 5. Other________	1. ________kW 2. _____kBtuh 3. ______HP 4. Other______		A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5
	C P SH SS F D R O__________ DK REF		1. Electricity 2. Natural gas 3. Fuel oil 4. LP gas 5. Other________	1. ________kW 2. _____kBtuh 3. ______HP 4. Other______		A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5
	C P SH SS F D R O__________ DK REF		1. Electricity 2. Natural gas 3. Fuel oil 4. LP gas 5. Other________	1. ________kW 2. _____kBtuh 3. ______HP 4. Other______		A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5
	C P SH SS F D R O__________ DK REF		1. Electricity 2. Natural gas 3. Fuel oil 4. LP gas 5. Other________	1. ________kW 2. _____kBtuh 3. ______HP 4. Other______		A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5
	C P SH SS F D R O__________		1. Electricity 2. Natural gas 3. Fuel oil 4. LP gas	1. ________kW 2. _____kBtuh 3. ______HP 4. Other______		A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5

	DK REF		**5.** Other_____				
	C P SH SS F D R O_____ DK REF		1. Electricity 2. Natural gas 3. Fuel oil 4. LP gas **5.** Other_____	1. _____kW 2. _____kBtuh 3. _____HP 4. Other_____		A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5
	C P SH SS F D R O_____ DK REF		1. Electricity 2. Natural gas 3. Fuel oil 4. LP gas **5.** Other_____	1. _____kW 2. _____kBtuh 3. _____HP 4. Other_____		A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5
	C P SH SS F D R O_____ DK REF		1. Electricity 2. Natural gas 3. Fuel oil 4. LP gas **5.** Other_____	1. _____kW 2. _____kBtuh 3. _____HP ***4.*** Other_____		A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1 2 3 4 5

***KEY CODES**

Heating Types

C=Central Boiler
P=Package Heating Units
SH=Individual Space Heater/Portable Room Heater/Strip Heating
SS=Split-system Heat Pumps
F=Central Furnaces
D=District Steam or Hot Water
R=Radiant Heaters
O=Other (specify)_____
DK=Don't know
REF=Refused

Notes:

Heating Equipment –Installed Measures Discrepancies *(repeat set of questions for each type of equipment installed where verification identified discrepancies from tracking system and CATI data)*

	Installed Equipment
HV1. Heating Type Installed **C**=Central boilers **P**=Package heating units **SH**=Individual space heater/portable room heater/strip heating **SS**=Split system heat pumps **F**=Central furnaces **D**=District steam or hot water **R**=Radiant heaters **O**=Other (specify)_____ **DK**=Don't know **REF**=Refused	**C P SH SS F D R** **O**_____ **DK REF**
[Ask If quantity not equal to quantity in tracker, else skip to HV3] **HV2. Reason quantity differed:** 1. Put into storage 2. Installed at another facility 3. Insufficient financial resources to complete 4. Other (describe)_____ 5. Don't know 6. Refused	**1 2 3 4** **5**_____ **6 7**
[Ask If capacity not equal to quantity in tracker, else skip to HR1] **HV3. Reason capacity differed:** 1. Put into storage 2. Installed at another facility 3. Insufficient financial resources to complete 4. Other (describe)_____ 5. Don't know 6. Refused	**1 2 3 4** **5**_____ **6 7**

Notes:

Heating Equipment – Replaced Equipment *(repeat set of questions for each type of equipment replaced)*

	Replaced Equipment

HR1. Heating Type Replaced **C**=Central boilers **P**=Package heating units **SH**=Individual space heater/portable room heater/strip heating **SS**=Split system heat pumps **F**=Central furnaces **D**=District steam or hot water **R**=Radiant heaters **O**=Other (specify)_____ **N = None** **DK**=Don't know **REF**=Refused	**C P SH SS F D R** **O**_____ **N DK REF** **[If N, DK, REF, skip to CDV1]**
HR2. Quantity	1. _____ 2. Don't know 3. Refused
HR3. Capacity	1. _____ tons 2. _____Btu/hr 3. _____therm 4. _____kW 5. Don't know 6. Refused
HR4. Condition of replaced equipment **G**= Good **F**= Fair **P**=Poor **I**=Inoperable **DK**=Don't know **REF**=Refused	**G F P I DK REF**
HR5. Efficiency	_____ EER _____ SEER _____Btu/hr _____kW/ton _____ Other
HR 6. Estimated Age 1. <5 years old 2. 5-10 years old 3. 11-20 years old 4. >20 years old 5. Don't know 6. Refused	**1 2 3 4 5 6**

Notes:

[If BP1 Heating or Cooling >0, else skip to RV1]

Heating/Cooling Controls and VSD Equipment – Installed

(repeat set of questions for each type of equipment installed under the program)

	Installed Equipment
CDV1. Controls Type Installed **ASD**=Adjustable speed drives or variable speed drives **EMS**=Energy management system **CMT**=HVAC controls – manual thermostat **CBT**=HVAC controls – bypass timer **CTC**=HVAC controls – time clock **CPT**=HVAC controls – programmable thermostat **SV**=CO2 sensor/demand control ventilation **E**=Economizers**O**=Other (specify)_____ **N** = None **DK**=Don't know **REF**=Refused	**ASD EMS** **CMT CBT CTC CPT** **SV E** **O**_____ **N DK REF** **[If N, DK, REF, skip to R1]**
CDV2. Quantity	1. _____ 2. Don't know 3. Refused
CDV3. Percentage of total enclosed floor space in the facility the control serves?	1. _____ 2. Don't know 3. Refused
[Ask If CDV2 not equal to quantity in tracker, else skip to CDR1] **CDV4. Reason quantity differed:** 1. Put into storage 2. Installed at another facility 3. Insufficient financial resources to complete 4. Other (describe)_____ 5. Don't know 6. Refused	**1 2 3 4** **5**_____ **6 7**

Notes: _____

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Heating/Cooling Controls and VSD Equipment – Replaced

	Replaced Equipment
CDR1. Controls Type Replaced **ASD**=Adjustable speed drives	**ASD EMS**

EMS=Energy management system **CMT**=HVAC controls – manual thermostat **CBT**=HVAC controls – bypass timer **CTC**=HVAC controls – time clock **CPT**=HVAC controls – programmable thermostat **SV**=CO2 sensor/demand control ventilation **E**=Economizers **O**=Other (specify)_____ **N**=None **DK**=Don't know **REF**=Refused	**CMT CBT CTC CPT** **SV E** **O**_____ **N DK REF** **[If N, DK, REF, skip to R1]**
CDR2. Quantity	1. _____ 2. Don't know 3. Refused
CDR3. Condition of replaced equipment **G**= Good **F**= Fair **P**=Poor **I**=Inoperable **DK**=Don't know **REF**=Refused	**G F P I DK REF**
CDR4. Estimated Age 1. <5 years old 2. 5-10 years old 3. 11-20 years old **4.** >20 years old **5.** Don't know **6.** Refused	**1 2 3 4 5 6**

Notes: _____

Refrigeration Equipment – Installed

(repeat set of questions for each type of equipment installed under the program) **[If BP1 Refrigeration >0, else skip to M1]**

	Installed Equipment
RV1. Refrigeration Measure **RR**=Residential sized refrigerator **RF**=Residential sized freezer **LR**=Large standard refrigerator (>30 cf) **HC**=Self contained – coffin/horizontal case **VC**=Self contained – vertical case (multi shelf) **SDO**=Single deck display cases - open single deck **SDD**=Single deck display cases – glass door cases **MDO**=Multi deck display cases – open single deck **MDD**=Multi deck display cases – glass door cases **WF**=Walk-in freezers **O**=Other (specify)_____ **DK**=Don't know **REF**=Refused	**RR RF LR HC VC SDO SDD** **MDO MDD WF** **O**_____ **DK REF**
RV2. Quantity	1. _____ 2. Don't know 3. Refused
[Ask If RV2 not equal to quantity in tracker, else skip to RV4] **RV3. Reason quantity differed:** 1. Put into storage 2. Installed at another facility 3. Insufficient financial resources to complete 4. Other (describe)_____ 5. Don't know 6. Refused	**1 2 3 4** **5**_____ **6 7**
RV4. How many were used to REPLACE existing units?	1. _____ 2. Don't know 3. Refused
RV5. Total size of the units installed to replace existing units	1. _____ 2. Don't know 3. Refused
RV6. How many were used to INCREASE refrigeration capacity?	1. _____ 2. Don't know 3. Refused
RV7. Total size of the units installed to increase refrigeration capacity	1. _____ 2. Don't know 3. Refused
RV8. Number of hours the unit is left open	1. _____ 2. Don't know 3. Refused
RV9. When the unit is closed, number of times it is opened per hour	1. _____ 2. Don't know 3. Refused

Notes:

	Replaced Equipment
[Ask If RV4>0, else skip to M1] **RR1. Amount of refrigeration equipment removed compared to the amount of capacity installed:** 1. Same 2. More 3. Less 4. Don't know ***5.*** Refused	**1 2 3 4 5**
[Ask If RR1 =2, else skip to RR3] **RR2. How much LESS capacity was installed?**	1. _____ 2. Don't know 3. Refused
[Ask If RR1 =3, else skip to RR4] **RR3. How much MORE capacity was installed?**	1. _____ 2. Don't know 3. Refused
RR4. What year was the old equipment removed? 1. 2008 2. 2009 3. 2010 4. 2011 5. Don't know ***6.*** Refused	**1 2 3 4 5 6**
RR5. Condition of replaced equipment **G**= Good **F**= Fair **P**=Poor **I**=Inoperable **DK**=Don't know **REF**=Refused	**G F P I DK REF**
RR6. Estimated age of removed equipment 1. <5 years old 2. 5-10 years old 3. 11-20 years old **4.** >20 years old **5.** Don't know **6.** Refused	**1 2 3 4 5 6**
RR7. Percentage of removed capacity disposed of by the following methods: 1. Never removed equipment 2. Sent to landfill	**1** _____ **2** _____ **3** _____ **4** _____

3. Moved to another location in the company 4. Sold or given to another company or residence for use 5. Recycled or sold for scrap 6. Don't know **7.** Refused	**5** _____ **6** _____ **7** _____
8.	

Notes:

Motors – Verification of Installed Measures

Motor Size (HP)	M1: Qty Purchased <from tracking>	M2: Qty Installed	M3: Qty Premium Efficiency	[If M2 not equal to M1] M4: Reason for Qty Discrepancy*	M5: Equipment Type Driven by Motor (multiple responses)*	M6: Qty Replaced	M7: Qty of Existing Motors Rewound
1-5							
6-20							
21-50							
51-100							
101-200							
201-500							

***KEY CODES**

Reason for quantity discrepancy:
1. Put into storage
2. Installed at another facility
3. Insufficient financial resources to complete
4. Other (describe)_____
5. Don't know
6. Refused

Motor Applications:

1. HVAC equipment (describe in notes section the type of equipment: condenser fans, exhaust fans, etc.)
2. Pump (describe in notes section type of equipment: hot water pumps, chilled water primary pump, chilled water secondary pump, hot water secondary or primary pump, condenser pumps, etc.)

3. Fan
4. Air compressor
5. Conveyor belt or other materials handling
6. Production process machinery
7. Other(describe)_____
8. Don't know
9. Refused

Motors – Hours of Operation for Non-HVAC Installed Motors *(repeat for each multiple response to M5)*

	Non-HVAC Installed Motors
M8. Number of hours per day the equipment typically operates	1. _____ 2. Don't know 3. Refused
M9. Number of days per week the equipment typically operates	1. _____ 2. Don't know 3. Refused
M10. Are there months during the year that differ significantly from the responses to M8 and M9?	1. Yes 2. No 3. Don't know 4. Refused
[Ask If M10 = Yes, else skip to L1] **M11. Number of hours per day the equipment operates during the periods with different operating schedules**	1. _____ 2. Don't know 3. Refused
M12. Number of days per week does the equipment operates during the periods with different operating schedules	1. _____ 2. Don't know 3. Refused
M12. Number of months the equipment operates on the different operating schedules	1. _____ 2. Don't know 3. Refused

Notes: _____

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Lighting Equipment and Controls – Verification of Installed Measures

Measure Type <from tracking system>	L1. Qty Installed	L2. Wattage of Installed Measure	L3. Operational	L4. Building Area ID	L5. Square Feet Served by Measure
			Y N	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1. ________ 2. Don't know 3. Refused
			Y N	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1. ________ 2. Don't know 3. Refused
			Y N	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1. ________ 2. Don't know 3. Refused
			Y N	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1. ________ 2. Don't know 3. Refused
			Y N	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1. ________ 2. Don't know 3. Refused
			Y N	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1. ________ 2. Don't know 3. Refused
			Y N	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1. ________ 2. Don't know 3. Refused
			Y N	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1. ________ 2. Don't know 3. Refused
			Y N	A1 A2 A3 A4 A5 A6 A7 A8 A9 A10	1. ________ 2. Don't know 3. Refused

Lighting Control Measures

Control Measure Type <from tracking system>	LC1. Wattage Controlled	LC2. Hours/day before Control	LC3. % Reduction in Operating Hours
			1. _____ 2. Don't know ***3.*** Refused
			1. _____ 2. Don't know ***3.*** Refused
			1. _____ 2. Don't know ***3.*** Refused
			1. _____ 2. Don't know ***3.*** Refused
			1. _____ 2. Don't know ***3.*** Refused
			1. _____ 2. Don't know ***3.*** Refused
			1. _____ 2. Don't know ***3.*** Refused
			1. _____ 2. Don't know ***3.*** Refused
			1. _____ 2. Don't know ***3.*** Refused

Lighting – Installed Measures Discrepancies *(repeat set of questions for each type of equipment installed where verification identified discrepancies from tracking system and CATI data)*

	Installed Equipment
[Ask If L1 differs from quantity in trackers, else LV2] **LV1. Reason quantity differed:** 1. No idea 2. Put into storage 3. Installed at another facility 4. Insufficient financial resources to complete 5. Other (describe)_____ 6. Don't know 7. Refused	**1 2 3 4** **5**_____ **6 7**

[Ask If L2 differs from quantity in trackers, else LR1] **LV2. Reason wattage differed:** 1. Put into storage 2. Installed at another facility 3. Insufficient financial resources to complete 4. Other (describe)_____ 5. Don't know 6. Refused	**1 2 3 4** **5**_____ **6 7**

Notes: _____

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_____

Lighting – Replaced Equipment *(repeat set of questions for each type of equipment replaced)*

	Replaced Equipment
LR1: Type of lighting fixtures replaced*	**[If N, DK, REF, skip to O1, else continue to LR2]**
LR2. Did you remove the same number of old fixtures as installed? 1. Same 2. More 3. Less 4. Don't know ***5.*** Refused	**1 2 3 4 5**
[If LR2=2, else skip to LR4] **LR3. How fewer fixtures were installed?**	1. _____ 2. Don't know 3. Refused
[If LR2=2, else skip to LR8] **LR4. How many more fixtures installed?**	1. _____ 2. Don't know 3. Refused
LR 5. Estimated age of removed equipment	1. _____ 2. Don't know 3. Refused

***KEY CODES**

N= Did not replace anything
HT8= High performance T8 – 1" diameter bulbs
T8= T8 fluorescent fixtures – 1" diameter bulbs
T10= T10 fluorescent fixtures
T12= T12 fixtures – 1.5" diameter bulbs

HID= High density discharge fixtures, compact
CFS=Compact fluorescent – screw-in modular
CFH= Compact fluorescent – hardwire
I=Incandescent
EXCF=Exit signs – compact fluorescent
EXL=Exit signs – LED
H=Halogen
EB=Electronic ballast
DK = Don't know
REF= Refused

MB=Magnetic ballast
FT=Fat/thick tubes
ST=Skinny/thin tubes
T5=T5 fixtures – 5/8" diameter
HPS=High pressure sodium
MH=Metal halide
MV=Mercury vapor
OTH=Other (specify)
DK=Don't know
REF=Refused

Other Measure Verification

O1. Type of equipment	_____
O2. Quantity installed through the program	1. Number _____ 2. Don't know 3. Refused
O3. Facility's square footage served by this equipment	1. _____ 2. Don't know 3. Refused
O4. Type of equipment that was replaced	_____
O5. Condition of replaced equipment **G**= Good **F**= Fair **P**=Poor **I**=Inoperable **DK**=Don't know **REF**=Refused	**G F P I DK REF**
O6. Estimated Age 1. <5 years old 2. 5-10 years old 3. 11-20 years old 4. >20 years old 5. Don't know **6.** Refused	**1 2 3 4 5 6**
O7. Did you remove the same amount of equipment as installed? 1. Same 2. More 3. Less 4. Don't know ***5.*** Refused	**1 2 3 4 5**

Notes: