|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 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 7 Contact person unavailable or unaware of survey appointment

2 Complaint about rates 8 Customer expressed dissatisfaction with survey

3 Complaint about energy costs 9 Property damage occurred during on-site survey

4 Complaint about outages or power quality 10 Personal injury occurred during on-site survey

5 Complaint about technology reliability 11 Other (list) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6 Complaint about utility customer service

|  |  |
| --- | --- |
| 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*

**BP** 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

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***Building Operating Schedules***

**BP** Define thebuilding 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** | **Business Operating Hours** | | | | | | | | **Area IDs** |
| **ID** | **Mon** | **Tue** | **Wed** | **Thu** | **Fri** | **Sat** | **Sun** | **Holidays** | **on this schedule** |
| 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 theHVAC 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** | **HVAC Operating Hours** | | | | | | | | **Area IDs** |
| **ID** | **Mon** | **Tue** | **Wed** | **Thu** | **Fri** | **Sat** | **Sun** | **Holidays** | **on this schedule** |
| 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



***Interior Lighting Operating Hours***

**BP5:** Define theinterior 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** | **Interior Lighting Operating Hours** | | | | | | | | **Area IDs** |
| **ID** | **Mon** | **Tue** | **Wed** | **Thu** | **Fri** | **Sat** | **Sun** | **Holidays** | **on this schedule** |
| 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 theexterior 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** | **Exterior Lighting Operating Hours** | | | | | | | |
| **ID** | **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:  C: | O:  C: | O:  C: | O:  C: | O:  C: | O:  C: | O:  C: | O:  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:

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# *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 6. Refused | **1 2 3 4 5 6** |

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\_\_\_\_\_\_\_\_\_**  **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 |

**\*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:

***Heating/Cooling Controls and VSD Equipment – Replaced***

|  |  |
| --- | --- |
|  | **Replaced Equipment** |
| **CDR1. Controls Type Replaced**  **ASD**=Adjustable 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]** |
| **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 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 | 1. **\_\_\_\_\_\_\_\_\_\_** 2. **\_\_\_\_\_\_\_\_\_\_** 3. **\_\_\_\_\_\_\_\_\_\_\_** 4. **\_\_\_\_\_\_\_\_\_\_\_** 5. **\_\_\_\_\_\_\_\_\_\_\_** 6. **\_\_\_\_\_\_\_\_\_\_\_** 7. **\_\_\_\_\_\_\_\_\_\_\_** |
|  |  |
|  |  |
|  |  |

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:

***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:

***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: