OMB No. 1905-0145  
Expiration Date: mm/dd/yyyy  
Burden:   
Form EIA-871A – 50 minutes  
Form EIA-871I – 22 minutes  
Form EIA-871J – 36 minutes

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**Commercial Buildings Energy Consumption Survey (CBECS)**

**Form EIA-871A (Building Questionnaire)**

**Form EIA-871I (Mall Building Questionnaire)**

**Form EIA-871J (Mall Establishment Questionnaire)**

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**How to Use This Questionnaire**

The 2018 Commercial Buildings Energy Consumption Survey (CBECS) is programmed and conducted in computer-assisted interview software called Blaise.

The 2018 CBECS is offered in two different modes: interviewer-administered and web. For the interviewer-assisted mode, a professional interviewer administers the questionnaire in-person with a respondent at the building using a Surface Pro tablet computer. For the web version, the respondent is provided with a URL and a PIN and completes the questionnaire on their own.

The purpose of this paper representation of the questionnaire is to document the question text, fills, and skip patterns within the 2018 CBECS questionnaire. *PLEASE NOTE:* All the question fills and skip patterns are handled automatically by the software and are transparent to the interviewer, so this document appears much more complex than the actual CBECS instrument.

Here is an example question to show the general question format of this document:

|  |  |
| --- | --- |
| **A11** | Cool roof materials {CoolRoof*} see below* |
| ASK | IF Building or Mall interview |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | SHOW CARD A4 |
| **Question Text** | Please look at Show Card A4. Some roofs are designed to reflect more sunlight or absorb less heat than a standard roof. Which special qualities, if any, describe the roof of this building? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT - web** | |
| **Question Text** | Some roofs are designed to reflect more sunlight or absorb less heat than a standard roof. Which special qualities, if any, describe the roof of this building? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |  |
| --- | --- | --- | --- |
| **RESPONSE OPTIONS** | | | |
| ***Enumerated*** | | | |
| **Response options** |  | **Image** | **SAS Name** |
| 1. White or highly reflective coating or paint |  |  | *CPCLRF* |
| 2. White or highly reflective tiles or shingles |  |  | *TSCLRF* |
| 3. Aluminum coating |  |  | *ALCLRF* |
| 4. Ballasted roof system |  |  | *BLCLRF* |
| 5. Vegetated roof |  |  | *VGCLRF* |
| 6. Other |  |  | *OTCLRF* |
| 7. None |  |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other selected 🡺 A12 [Other cool roof]  OTHERWISE 🡺 A13 [Roof tilt] |

In the first row, the black box (**A11** here) contains the question number, followed by the **Question name** (**Cool roof materials** here), the internal **Blaise programming variable** in brackets ({CoolRoof} here) andthe ***SAS variable*** (if applicable) in the same row. If the SAS variable area says “*see below,*” (as it does in this example) the variables are found within the RESPONSE OPTIONS box.

The **ASK** line describes the conditions that need to be true for a question to be on path for the interview.

As shown in the next example below, sometimes there is a **FILL** line that describes any question fills and the conditions under which each appears.

The **QUESTION TEXT - interviewer-administered** boxprovides information about the question in interviewer-assisted mode. The **Show Card** box shows which Show Card, if any, is applicable for the question, and if so, text reading SHOW CARD A4 (e.g.) will display above the question on the screen. Show Cards allow respondents completing the interviewer-administered questionnaire to see the full list of response options (as well as definitions, examples, or images, where applicable) that are displayed on screen for web respondents. The **Question text** box shows the question to be displayed and the **Interviewer Instructions** box shows the text that will be displayed below the question in italics (or N/A if there are no instructions for the particular question).

The **QUESTION TEXT - web** boxprovides information about the question in web mode. There are no Show Cards for the web, so that box is not there. The **Question text** box shows the question to be displayed if it’s different from the interviewer-assisted mode (or “No changes required” if it is the same).The **Respondent Instructions** show the text that will be displayed below the question in italics.

The **ITEM TYPE** box shows an **X** for whether the question is Enumerated, Numeric, String Text, or a Date. Each of these types then provides different information, as follows:

**RESPONSE OPTIONS: *Enumerated*** shows the response set for the question, the associated **Image** to be shown on the screen, if applicable (not many questions have images), and the **SAS Name**, if applicable.

**RESPONSE OPTIONS: *Numeric*** shows the response set for the question, the **Watermark** shows the text that will be displayed within the data entry box before the interviewer or respondent begins typing, the **Label** that will be displayed directly to the right of the data entry box, and the allowable **Range** of data.

**RESPONSE OPTIONS: *String Text*** are mostly used for “other specify” responses. The **Watermark** shows the text that that will be displayed within the data entry box before the interviewer or respondent begins typing.

|  |
| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other activity associated with this gas station |

**RESPONSE OPTIONS: *Date*** all show a **Watermark** of mm/dd/yyyy.

The **NONRESPONSE** box shows how the interviewer or respondent will proceed if they do not know the answer to the question. **Explicit DK** and **Explicit RF** mean that there will be a radio button or check box directly on the screen that says “I don’t know” or “I’d rather not answer.” **Missing Item Prompt Box** means that if the interviewer or respondent leaves the question blank, a message will appear that says “Did you mean to leave this question blank? If not, please provide an answer and select the “Next” button. Otherwise, select “Next” to skip the question.” **Allow Blank** means that a question can be left blank without the missing item prompt box appearing.

The **NEXT** line details the routing for the next question. Follow these instructions in order. Once a true statement is reached, go to the question indicated by the arrow (🢂).

Example of **Numeric** response option:

|  |  |
| --- | --- |
| **A18** | Floor-to-ceiling height {FloorToCeiling} *FLCEILHT* |
| ASK | IF Building or Mall interview |
| FILL | **{Floors}**  IF A16 [Number of floors] = 1 = “in this building”  OTHERWISE = “of the majority of floors in this building” |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the typical floor-to-ceiling height {Floors}, measured in feet? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | feet | 7 to 500 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 A19 [Attic] |

**Section R: Respondent Questions**

|  |  |
| --- | --- |
| **RRT** | **Respondent Question Routing** |
| **NOTE:** If more than one contact is necessary to complete the interview, the questions in this section should be asked each time the case is re-started.  IF interviewer-administered 🢂 R1 [Consent]  IF web THEN:  IF First time case started 🢂 R2 [Respondent function]  IF Re-started case 🢂 R4 [Same respondent] | |

|  |  |
| --- | --- |
| **R1** | Consent {Consent} *R1CARI – RXCARI* |
| ASK | IF interviewer-administered |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Some parts of this interview will be recorded for quality control purposes. I'd like to continue now unless you have any questions. |
| **Interviewer Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Gives consent to record interview |  |  |
| 2. Does not give consent to record interview |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box Allow Blank |
| NEXT | IF First time case started 🡺 R2 [Respondent function]  IF Re-started case 🡺 R4 [Same respondent] |

|  |  |
| --- | --- |
| **R2** | Respondent function {Respondent} *R1JOB* |
| ASK | IF First time case started |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD 1  Take out the Show Cards or make sure the respondent has access to them. |
| **Question Text** | Please turn to Show Card 1. Which of these categories best describes your job function? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of the following categories best describes your job function? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Operations, maintenance, or engineering |  |  |
| 2. Property management |  |  |
| 3. Store management |  |  |
| 4. Mall management |  |  |
| 5. Administration or company management |  |  |
| 6. Energy or environmental management |  |  |
| 7. Building owner |  |  |
| 8. Business owner |  |  |
| 9. Accounting, finances, or payroll |  |  |
| 10. Executive official |  |  |
| 11. School official |  |  |
| 12. Religious official |  |  |
| 13. Support staff |  |  |
| 14. Other |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other 🡺 R3 [Other job function]  OTHERWISE 🡺 R7 [Building boundaries] |

|  |  |
| --- | --- |
| **R3** | Other job function {RespSpecify} *R1JOBX* |
| ASK | IF Other IN R2 [Respondent function] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

|  |  |
| --- | --- |
| **RESPONSE OPTIONS** | |
| ***String Text*** | |
| **Watermark** |  |
| Briefly describe your job function |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 R7 [Building boundaries] |

c

|  |  |
| --- | --- |
| **R4** | Same respondent {SameRespondent} *R2SAME - RXSAME* |
| ASK | IF Re-started case |
| FILL | **{StructDesc} =** name, description, or address from listing or screening |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A |
| **Interviewer Instructions** | It appears the survey for {StructDesc} been partially answered. Are you continuing the survey with the same respondent? |
| **QUESTION TEXT – web** | |
| **Question Text** | It appears the survey for {StructDesc} been partially answered. Are you the person that answered the first portion of this survey? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 Next applicable question that has not been answered  IF No OR Missing 🡺 R5 [Respondent function] |

|  |  |
| --- | --- |
| **R5** | Respondent function {NextResp} *R2JOB – RXJOB* |
| ASK | IF R4 [Same response] = No OR Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD 1  Take out the Show Cards or make sure the respondent has access to them. |
| **Question Text** | Please turn to Show Card 1. Which of these categories best describes your job function? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of the following categories best describes your job function? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Operations, maintenance, or engineering |  |  |
| 2. Property management |  |  |
| 3. Store management |  |  |
| 4. Mall management |  |  |
| 5. Administration or company management |  |  |
| 6. Energy or environmental management |  |  |
| 7. Building owner |  |  |
| 8. Business owner |  |  |
| 9. Accounting, finances, or payroll |  |  |
| 10. Executive official |  |  |
| 11. School official |  |  |
| 12. Religious official |  |  |
| 13. Support staff |  |  |
| 14. Other |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other 🡺 R6 [Other job function]  OTHERWISE 🡺 R7 [Building boundaries] |

|  |  |
| --- | --- |
| **R6** | Other job function {NextRespSpecify} *R2JOBX – RXJOBX* |
| ASK | IF Other IN R5 [Respondent function] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

|  |  |
| --- | --- |
| **RESPONSE OPTIONS** | |
| ***String Text*** | |
| **Watermark** |  |
| Briefly describe your job function |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 R7 [Building boundaries] |

|  |  |
| --- | --- |
| **R7** | Building boundaries {BuildingBounds} |
| ASK | All structure types |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment”  **{StructDesc} =** name, description, or address from listing or screening  **{StartCont}**  IF First time case started = “start the survey.”  IF Re-started case = “continue the survey at the next un-answered question.” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | The {Structure} that we’re going to be talking about today is the {StructDesc}. |
| **Interviewer Instructions** | If this is correct, please select the “Next” button to {StartCont}  If this is incorrect, contact your supervisor. |
| **QUESTION TEXT – web** | |
| **Question Text** | When completing this survey, please consider only the {StructDesc}. |
| **Respondent Instructions** | If this is correct, please select the “Next” button to {StartCont}  If this is incorrect or you are unsure, please call 555-555-5555. |
| **ITEM TYPE** | No space for answer , just Next button. |
| NONRESPONSE | N/A |
| NEXT | 🡺 A1 [Building name] |

**Section A: Size, Structural Characteristics, and Age**

|  |  |
| --- | --- |
| **A1** | Building name {BuildingName} *BLDGNAM* |
| ASK | All structure types |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Mall = “shopping center”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | By what name is this {Structure} most commonly referred? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

|  |
| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building or Mall interview 🡺 A2 [Street address]  IF Establishment interview 🡺 A6 [Square footage] |

|  |  |
| --- | --- |
| **A2** | Street address {StreetAddress} *ADDRESS* |
| ASK | IF Building or Mall interview |
| DISPLAY | A2-A5 are all on one screen |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please tell me the address of the building, beginning with the street address.  Street address: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | What is the address of the building?  Street address: |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

|  |
| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 A3 [City] |

|  |  |
| --- | --- |
| **A3** | City {City} *CITY* |
| ASK | IF Building or Mall interview |
| DISPLAY | A2-A5 are all on one screen |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | City: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

|  |
| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 A2 [State] |

|  |  |
| --- | --- |
| **A4** | State {State} *STATE* |
| ASK | IF Building or Mall interview |
| DISPLAY | A2-A5 are all on one screen |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | State: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| State list drop-down with “Select a state” as watermark. Alphabetic order by state name, beginning with state abbreviation. Example : AL - ALABAMA |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 A5 [ZIP code] |

|  |  |
| --- | --- |
| **A5** | ZIP code {ZIPcode} *ZIP* |
| ASK | IF Building or Mall interview |
| DISPLAY | A2-A5 are all on one screen |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | ZIP code: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| None | None | 00000 to 99999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 A6 [Square footage] |

|  |  |
| --- | --- |
| **A6** | Square footage {SqFt} *SQFT* |
| ASK | All structure types |
| FILL | **{Structure}**  IF Interview = Building or Mall = “building”  IF Interview = Establishment = “establishment”  **{ElevatorParking}**  IF Interview = Building or Mall = “elevator shafts, and indoor parking levels?”  IF Interview = Establishment = “and elevator shafts?” |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the gross or total square footage of all the space in this {Structure}, both finished and unfinished, including basements, hallways, lobbies, stairways, {ElevatorParking} |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1 to 999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF DK/Missing 🡺 A7 [Square footage category]  IF Establishment interview 🡺 B56 [Establishment activity]  IF 1,000 square feet or less 🡺 A8 [End of interview]  OTHERWISE 🡺 A9 [Wall construction material] |

|  |  |
| --- | --- |
| **A7** | Square footage category {SqFtRange} *SQFTC* |
| ASK | IF A6 [Square footage] = DK/Missing |
| FILL | **{Structure}**  IF Interview = Building or Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | SHOW CARD A1 |
| **Question Text** | I understand that it may be difficult to give an exact figure for square footage. Please look at Show Card A1 and tell me which category best describes the total gross square footage in this {Structure}. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | Which category best describes the total gross square footage in this {Structure}? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. 1,000 square feet or less  *(1,000 square feet is approximately 2 times the size of a two car garage)* |  |  |
| 2. 1,001 to 5,000 square feet  *(Example: fast food restaurant)* |  |  |
| 3. 5,001 to 10,000 square feet  *(Example: sit-down style chain restaurant)* |  |  |
| 4. 10,001 to 25,000 square feet  *(Example: high school gym)* |  |  |
| 5. 25,001 to 50,000 square feet  *(Example: supermarket)* |  |  |
| 6. 50,001 to 100,000 square feet  *(Example: large discount or home improvement store)* |  |  |
| 7. 100,001 to 200,000 square feet  *(Example: 3-level department store)* |  |  |
| 8. 200,001 to 500,000 square feet  *(Example: professional basketball arena)* |  |  |
| 9. 500,001 to 1 million square feet  *(Example: convention center)* |  |  |
| 10. Over 1 million square feet  *(Example: skyscraper)* |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Establishment interview 🡺 B56 [Establishment activity]  IF 1,000 square feet or less 🡺 A8 [End of interview]  OTHERWISE 🡺 A9 [Wall construction material] |

|  |  |
| --- | --- |
| **A8** | End of interview {TerminateSize} |
| ASK | IF Building or Mall interview & (A6 [Square footage] ≤ 1,000 OR  A7 [Square footage category] = 1,000 or less) |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Thank you for your time and help. This completes your interview since this study only includes buildings that are larger than one thousand square feet. |
| **Interviewer Instructions** | If this is incorrect, and the building is larger than one thousand square feet, please select the “Back” button to change the previous answer.   Otherwise, please select the “Next” button to finish the interview. |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | No space for answer, just Next button |
| NONRESPONSE | N/A |
| NEXT | TERMINATE |

|  |  |
| --- | --- |
| **A9** | Wall construction material {WallCons} *WLCNS* |
| ASK | IF Building or Mall interview |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | SHOW CARD A2 |
| **Question Text** | Please look at Show Card A2 for a list of different types of construction materials. Which one of these categories best describes the predominant exterior wall construction material used on this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | Which one of these categories best describes the predominant exterior wall construction material used on this building? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Brick, stone, or stucco |  |  |
| 2. Pre-cast concrete panels |  |  |
| 3. Concrete block or poured concrete (above grade) |  |  |
| 4. Aluminum, asbestos, plastic, or wood materials (siding, shingles, tiles, or shakes) |  |  |
| 5. Sheet metal panels |  |  |
| 6. Window or vision glass (glass that can be seen through) |  |  |
| 7. Decorative or construction glass (glass that cannot be seen through) |  |  |
| 8. Other |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 A10 [Roof construction material] |

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| **A10** | Roof construction material {RoofCons} *RFCNS* |
| ASK | IF Building or Mall interview |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | SHOW CARD A3 |
| **Question Text** | Please look at Show Card A3 for a list of different types of roofing materials. Which one of these categories best describes the building's predominant exterior roof surface? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | Which one of these categories best describes the building's predominant exterior roof surface? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Built-up (tar, felts, or fiberglass and a ballast, such as stone) |  |  |
| 2. Slate or tile shingles |  |  |
| 3. Wood shingles, shakes, or other wooden materials |  |  |
| 4. Asphalt, fiberglass, or other shingles |  |  |
| 5. Metal surfacing |  |  |
| 6. Plastic, rubber, or synthetic sheeting (single or multi ply) |  |  |
| 7. Concrete |  |  |
| 8. Other |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 A11 [Cool roof materials] |

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| **A11** | Cool roof materials {CoolRoof*} see below* |
| ASK | IF Building or Mall interview |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | SHOW CARD A4 |
| **Question Text** | Please look at Show Card A4. Some roofs are designed to reflect more sunlight or absorb less heat than a standard roof. Which special qualities, if any, describe the roof of this building? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT - web** | |
| **Question Text** | Some roofs are designed to reflect more sunlight or absorb less heat than a standard roof. Which special qualities, if any, describe the roof of this building? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | | |
| ***Enumerated*** | | | |
| **Response options** |  | **Image** | **SAS Name** |
| 1. White or highly reflective coating or paint |  |  | *CPCLRF* |
| 2. White or highly reflective tiles or shingles |  |  | *TSCLRF* |
| 3. Aluminum coating |  |  | *ALCLRF* |
| 4. Ballasted roof system |  |  | *BLCLRF* |
| 5. Vegetated roof |  |  | *VGCLRF* |
| 6. Other |  |  | *OTCLRF* |
| 7. None |  |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other selected 🡺 A12 [Other cool roof]  OTHERWISE 🡺 A13 [Roof tilt] |

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| --- | --- |
| **A12** | Other cool roof {OtherCoofRoof} *OTCLRFX* |
| ASK | IF A11 [Cool roof materials] = Other |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other quality of the roof |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 A13 [Roof tilt] |

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| --- | --- |
| **A13** | Roof tilt {RoofTilt} *RFTILT* |
| ASK | IF Building or Mall interview |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | SHOW CARD A5 |
| **Question Text** | Looking at Show Card A5, please tell me which one of these images best represents the tilt or pitch of the roof of this building. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | Which one of these images best represents the tilt or pitch of the roof of this building? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Flat | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\roof - flat.tif |  |
| 2. Shallow pitch | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\roof - shallow.tif |  |
| 3. Steeper pitch | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\roof - steeper.tif |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 A14 [Building shape] |

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| **A14** | Building shape {BldgShape} *BLDSHP* |
| ASK | IF Building or Mall interview |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | SHOW CARD A6 |
| **Question Text** | Looking at Show Card A6, which one of these shapes best resembles the floorplan of this building at ground level? This is sometimes called the "footprint" of the building. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | Which one of these shapes best resembles the floorplan of this building at ground level? This is sometimes called the "footprint" of the building. |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Square | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\Square.BMP |  |
| 2. Wide rectangle | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\WideRectangle.BMP |  |
| 3. Narrow rectangle | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\ThinRectangle.BMP |  |
| 4. Rectangle or square with an interior courtyard | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\Courtyard.BMP |  |
| 5. “H” shaped | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\HShaped.BMP |  |
| 6. “U” shaped | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\UShaped.BMP |  |

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| --- | --- | --- |
| 7. “E” shaped | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\EShaped.BMP |  |
| 8. “T” shaped | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\TShaped.BMP |  |
| 9. “L” shaped | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\LShaped.BMP |  |
| 10. “+” or cross shaped | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\CrossShaped.BMP |  |
| 11. Other shape |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 A15 [Percent exterior glass] |

|  |  |
| --- | --- |
| **A15** | Percent exterior glass {GlassPct} *GLSSPC* |
| ASK | IF Building or Mall interview |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | SHOW CARD A7 |
| **Question Text** | Which of the ranges on Show Card A7 best describes the percentage of the exterior wall surface of this building that is covered with window glass or glass doors? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | Which of these ranges best describes the percentage of the exterior wall surface of this building that is covered with window glass or glass doors? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. 1 percent or less | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\1 percent glazing.tif |  |
| 2. 2 to 10 percent | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\6 percent glazing.tif |  |
| 3. 11 to 25 percent | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\18 percent glazing.tif |  |

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| 4. 26 to 50 percent | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\40 percent glazing.tif |  |
| 5. 51 to 75 percent | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\65 percent glazing.tif |  |
| 6. 76 to 100 percent | \\Fs-f3\oes\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\90 percent glazing.tif |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 A16 [Number of floors] |

|  |  |
| --- | --- |
| **A16** | Number of floors {Floors} *NFLOOR* |
| ASK | IF Building or Mall interview |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many floors are in the tallest section of the building? Include basements, parking levels, or any other floors below ground level. Exclude attics, half-floors, mezzanines, balconies, and lofts. If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | floors | 1 to 999 |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Mall interview OR Only one floor OR DK/Missing 🡺 A18 [Floor to ceiling height]  OTHERWISE 🡺 A17 [Number of underground floors] |

|  |  |
| --- | --- |
| **A17** | Number of underground floors {Basement} *BASEMNT* |
| ASK | IF Building interview & A16 [Number of floors] > 1 |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many of these floors are completely or partly below ground? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | underground floors | 0 to 999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 A18 [Floor-to-ceiling height] |

|  |  |
| --- | --- |
| **A18** | Floor-to-ceiling height {FloorToCeiling} *FLCEILHT* |
| ASK | IF Building or Mall interview |
| FILL | **{Floors}**  IF A16 [Number of floors] = 1 = “in this building”  OTHERWISE = “of the majority of floors in this building” |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the typical floor-to-ceiling height {Floors}, measured in feet? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | feet | 7 to 500 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 A19 [Attic] |

|  |  |
| --- | --- |
| **A19** | Attic {Attic} *ATTIC* |
| ASK | IF Building or Mall interview |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this building have an attic? An attic is a space in a building that is directly below the roof, not permanently occupied, and not directly heated or cooled. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF A16 [Number of floors] = 1 🡺 A24 [Year of construction]  OTHERWISE 🡺 A20 [Elevators] |

|  |  |
| --- | --- |
| **A20** | Elevators {Elevators}  *ELEVTR* |
| ASK | IF A16 [Number of floors] ≠ 1 |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Are there any elevators in this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 A21 [Number of elevators]  OTHERWISE 🡺 A22 [Escalators] |

|  |  |
| --- | --- |
| **A21** | Number of elevators {NumElevator}  *NELVTR* |
| ASK | IF A20 [Elevators] = Yes |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many elevators are there? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | elevators | 1 to 999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 A22 [Escalators] |

|  |  |
| --- | --- |
| **A22** | Escalators {Escalators}  *ESCLTR* |
| ASK | IF A16 [Number of floors] ≠ 1 |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Are there any escalators in this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 A23 [Number of escalators]  OTHERWISE 🡺 A24 [Year of construction] |

|  |  |
| --- | --- |
| **A23** | Number of escalators {NumEscalator}  *NESLTR* |
| ASK | IF A22 [Escalators] = Yes |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many escalators are there? Count each escalator. For example, a pair of up and down escalators should be counted as two. “Moving sidewalks” should be counted as escalators. If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | escalators | 1 to 99 |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 A24 [Year of construction] |

|  |  |
| --- | --- |
| **A24** | Year of construction {Year}  *YRCON* |
| ASK | IF Building or Mall interview |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What year was this building constructed? If there have been major additions, give the year the largest portion of the building was completed. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a year | None | 1600 to 2019 |

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| NONRESPONSE | **X** Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF DK/Missing 🡺 A25 [Year of construction category]  IF 2018 🡺 A27 [Month ready for occupancy]  IF 2019 🡺 A26 [End of interview]  IF 2012 or earlier 🡺 A28 [Renovations]  IF 2013 to 2017 & Building interview 🡺 B1 [Primary activity]  IF 2013 to 2017 & Mall interview 🡺 B42 [On a multibuilding complex] |

|  |  |
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| **A25** | Year of construction category {YearRange} *YRCONC* |
| ASK | IF A24 [Year of construction] = DK/Missing |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | SHOW CARD A8 |
| **Question Text** | Please look at Show Card A8 and tell me which range best describes when this building was constructed. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | Which range best describes when this building was constructed? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | | |
| ***Enumerated*** | | | |
| **Response options** | | **Image** | **SAS Name** |
| 1. Before 1920 |  |  |  |
| 2. 1920 to 1945 |  |  |  |
| 3. 1946 to 1959 |  |  |  |
| 4. 1960 to 1969 |  |  |  |
| 5. 1970 to 1979 |  |  |  |
| 6. 1980 to 1989 |  |  |  |
| 7. 1990 to 1999 |  |  |  |
| 8. 2000 to 2009 |  |  |  |
| 9. 2010 to 2012 |  |  |  |
| 10. 2013 to 2018 |  |  |  |
| 11. 2019 |  |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF 2019 🡺 A26 [End of interview]  IF Any category (OR DK/Missing) except 2013 to 2018 🡺 A28 [Renovations]  IF 2013 to 2018 & Building interview 🡺 B1 [Primary activity]  IF 2013 to 2018 & Mall interview 🡺 B42 [On a multibuilding complex] |

|  |  |
| --- | --- |
| **A26** | End of interview {Terminate2019} |
| ASK | IF A24 [Year of construction] OR A25 [Year of construction category] = 2019 |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Thank you for your time and help. This completes your interview since this study only includes buildings that were ready for occupancy before January 1, 2019. |
| **Interviewer Instructions** | If this is incorrect, and the building was occupied before January 1, 2019, please select the “Back” button to change the previous answer.   Otherwise, please select the “Next” button to finish the interview. |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | No space for answer, just Next button. |
| NONRESPONSE | N/A |
| NEXT | TERMINATE |

|  |  |
| --- | --- |
| **A27** | Month ready for occupancy {Month} *MONCON* |
| ASK | IF A24 [Year of construction] = 2018 |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | In what month of 2018 was this building first ready for occupancy? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | | |
| ***Enumerated*** | | | |
| **Response options** | | **Image** | **SAS Name** |
| 1. January |  |  |  |
| 2. February |  |  |  |
| 3. March |  |  |  |
| 4. April |  |  |  |
| 5. May |  |  |  |
| 6. June |  |  |  |
| 7. July |  |  |  |
| 8. August |  |  |  |
| 9. September |  |  |  |
| 10. October |  |  |  |
| 11. November |  |  |  |
| 12. December |  |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building interview 🡺 B1 [Primary activity]  IF Mall interview 🡺 B42 [On a multibuilding complex] |

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| **A28** | Renovations {Renovations}  *RENOV* |
| ASK | IF A24 [Year of construction] = 2012 or earlier OR  A25 [Year of construction category] = Any category (OR DK/Missing) except  2013 to 2018 |
| FILL | **{Since2000orConstructed}**  IF A24 [Year of construction] = 2000 or later OR  A25 [Year of construction category] = 2000 to 2009 OR 2010 to 2012  = “since it was constructed”  OTHERWISE = “since 2000” |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Has any part of this building undergone renovations {Since2000orConstructed}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 A29 [What renovations]  OTHERWISE:  IF Building interview 🡺 B1 [Primary activity]  IF Mall interview 🡺 B42 [On a multibuilding complex] |

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| **A29** | What renovations {WhatRenovated} *see below* |
| ASK | IF A28 [Renovations] = Yes |
| FILL | **{Since2000orConstructed}**  IF A24 [Year of construction] = 2000 or later OR  A25 [Year of construction category} = 2000 to 2009 OR 2010 to 2012  = “since it was constructed”  OTHERWISE = “since 2000” |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | SHOW CARD A9 |
| **Question Text** | Please look at Show Card A9 and tell me which types of renovations have been done {Since2000orConstructed}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT - web** | |
| **Question Text** | Which types of renovations have been done {Since2000orConstructed}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Cosmetic improvements (interior or exterior)  *(Examples: new paint, siding, furniture, wallpaper, carpeting)* |  | *RENCOS* |
| 2. Addition or annex |  | *RENADD* |
| 3. Reduction of enclosed floorspace  *(Example: demolition of unused wing of building)* |  | *RENRDC* |
| 4. Interior wall re-configuration *(Example: individual offices turned into area for cubicles)* |  | *RENINT* |
| 5. Roof replacement |  | *RENRFF* |
| 6. Window replacement |  | *RENWIN* |
| 7. HVAC (heating, ventilation, or air conditioning) equipment upgrade |  | *RENHVC* |
| 8. Lighting upgrade |  | *RENLGT* |
| 9. Plumbing system upgrade (includes hot water heaters) |  | *RENPLB* |
| 10. Electrical upgrade |  | *RENELC* |
| 11. Insulation upgrade |  | *RENINS* |
| 12. Fire, safety, or security upgrade |  | *RENSAF* |
| 13. Structural upgrade  *(Examples: foundation upgrade, seismic upgrade)* |  | *RENSTR* |
| 14. Other |  | *RENOTH* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other selected 🡺 A30 [Other renovation]  OTHERWISE:  IF Building interview 🡺 B1 [Primary activity]  IF Mall interview 🡺 B42 [On a multibuilding complex] |

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| **A30** | Other renovation {OtherRenovation} *RENOTHX* |
| ASK | IF A29 [What renovations] = Other |
| **QUESTION TEXT - interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT - web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of renovation |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Building interview 🡺 B1 [Primary activity]  IF Mall interview 🡺 B42 [On a multibuilding complex] |

**Section B: Building or Establishment Activity**

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| **B1** | Primary activity {Activity} *ACT, ACT1* |
| ASK | IF Building interview |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B1 |
| **Question Text** | Please look at Show Card B1. Which one of the activities on the list accounts for the majority of the floorspace in this building? |
| **Interviewer Instructions** | If there are equal shares of floorspace for more than one activity, select any one of those activities here. |
| **QUESTION TEXT – web** | |
| **Question Text** | Which one of these activities accounts for the majority of the floorspace in this building? |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | |
| ***Enumerated*** | |
| **Response options** | **Tooltip text** |
| 11. Office/Professional | Examples: administration; bank; brokerage/securities firm; consulting; government; insurance; law; mixed professional; non-profit; real estate; research and development; sales or leasing. |
| 12. Data center | A data center is a group of networked computer servers that are housed in one location, usually a secure area. The servers perform functions such as data storage and processing. There are usually many servers stacked in rows of racks and they operate continuously, day and night. Data centers are generally kept very cool and require a dedicated uninterruptible power supply. |
| 13. Warehouse/Storage | Includes non-refrigerated and refrigerated warehouses, distribution or shipping centers, other storage buildings, and public rental storage units. |
| 14. Food sales or service | Examples: grocery store/supermarket; convenience store; restaurant; fast food; cafeteria; caterer; bar; enclosed farmer's market; fruit/vegetable market; meat/seafood store; specialty food store; sandwich shop; coffee shop. |
| 15. Enclosed mall | An enclosed shopping mall contains multiple stores and other establishments, often anchored by one or more department stores, with interior walkways and common areas. |
| 16. Retail (other than mall) | Examples: big-box chain store; department store; wholesale club; clothing store; home improvement/gardening/building supplies; automobile dealer/showroom; hardware store; drugstore; furniture/appliances; car rental; equipment rental; alcoholic beverage store; antique shop; pawn shop; bookstore. |
| 17. Education | Buildings for academic or technical classroom instruction. Other activities that occur on school campuses (e.g., gyms, dormitories, libraries) should be reported in their respective categories. Examples of classroom education: preschool/daycare, elementary school, middle/junior high school, high school, college/university classroom, vocational school/career training, religious education. |
| 18. Religious worship | Examples: chapel; church; mosque; synagogue; temple. |

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| 19. Public assembly | Buildings where people gather for entertainment, cultural, recreational, or social activities. Examples: art gallery; exhibit hall; library; museum; casino; concert hall; night club; observatory/planetarium; stadium/arena/coliseum; theater/cinema; amusement arcade; bowling alley; community center; gymnasium/health club; indoor racquet sports; recreation center; indoor swimming pool; skating rink; assembly hall/auditorium; convention center; funeral home; lecture hall; lodge hall; meeting hall; student union; senior center; town hall; armory; airport terminal; train/bus station. |
| 20. Health care | Includes both inpatient (services involving overnight care) and outpatient services. Examples: medical care hospital; psychiatric hospital; substance abuse rehabilitation center; veterinary facilities; physical therapy center; dental clinic/office; medical clinic/office; mental health/psychiatric clinic; urgent care clinic; women’s health clinic. |
| 21. Service | Examples: motor vehicle repair or service; other repair or maintenance shop; dry cleaner; laundry; car wash; gas station; barber shop; salon/spa; animal shelter; kennel; doggie daycare; copy center/printing; post office/shipping center/mailbox facility. |
| 22. Lodging | Buildings that offer group quarters for short-term or long-term residents. Examples: hotel; motel; inn/bed and breakfast; dormitory/sorority/fraternity; retirement home; nursing home; shelter/group home/children’s home; halfway house; convent/monastery. |
| 23. Public order and safety | Examples: fire station; police station; courthouse/probation office; jail/penitentiary/prison; reformatory; sheriff's office. |
| 24. Residential | Living quarters for one or more households with individual kitchen facilities. Examples: apartment building; single family detached home; duplex; townhouse; row house; mobile home. |
| 25. Industrial/Manufacturing | Buildings that involve the processing or procurement of goods, merchandise, raw materials or food. Examples: assembly factory; construction or natural resource procurement; food processing; manufacturing plant; mill; paper, chemical, rubber or petroleum processing; utility or sanitary service. |
| 26. Agricultural | Buildings that involve the production, processing, sale, storage or housing of agricultural products, including livestock. Examples: greenhouse; livestock housing; nursery; grain storage. |
| 27. Vacant | Buildings that were vacant during 2018, but were previously used for commercial purposes. |
| 28. Other | Examples: laboratory; airplane hangar; public restroom/locker room/changing area; crematorium; enclosed parking garage; telephone switching facilities; broadcasting studio. |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Missing 🡺 B42 [On a multibuilding complex]  OTHERWISE 🡺 B2 [One activity in building] |

|  |  |
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| **B2** | One activity in building {OneAct} *ONEACT* |
| ASK | IF B1 [Primary activity] ≠ Missing |
| FILL | **{Activity}**  IF B1 [Primary activity] = Office/Professional = “used as office space”  IF B1 [Primary activity] = Data center = “used as a data center”  IF B1 [Primary activity] = Warehouse/Storage = “used as warehouse or storage  space”  IF B1 [Primary activity] = Food sales or service = “used for food sales or service”  IF B1 [Primary activity] = Enclosed mall = “an enclosed mall”  IF B1 [Primary activity] = Retail = “used for retail”  IF B1 [Primary activity] = Education = “used for education”  IF B1 [Primary activity] = Religious worship = “used for religious worship”  IF B1 [Primary activity] = Public assembly = “used for public assembly”  IF B1 [Primary activity] = Health care = “used for health care”  IF B1 [Primary activity] = Service = “used for service”  IF B1 [Primary activity] = Lodging = “used for lodging”  IF B1 [Primary activity] = Public order and safety = “used for public order and  safety”  IF B1 [Primary activity] = Residential = “residential”  IF B1 [Primary activity] = Industrial/Manufacturing = “industrial or manufacturing”  IF B1 [Primary activity] = Agricultural = “agricultural”  IF B1 [Primary activity] = Vacant = “vacant”  IF B1 [Primary activity] = Other = “used for this activity” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is 75 percent or more of the floorspace in this building {Activity}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes OR Missing THEN:  IF B1 [Primary activity] = Office/Professional 🡺 B5 [Office type]  IF B1 [Primary activity] = Data center 🡺 B6 [Verify data center]  IF B1 [Primary activity] = Warehouse/Storage 🡺 B9 [Warehouse type]  IF B1 [Primary activity] = Food sales or service  🡺 B10 [Food sales or service type]  IF B1 [Primary activity] = Enclosed mall 🡺  B32 [Assign CBECS Activity = Enclosed mall]  IF B1 [Primary activity] = Retail 🡺 B11 [Retail type]  IF B1 [Primary activity] = Education 🡺 B12 [Education type]  IF B1 [Primary activity] = Religious worship  🡺 B32 [Assign CBECS Activity = Religious worship]  IF B1 [Primary activity] = Public assembly 🡺 B13 [Assembly type]  IF B1 [Primary activity] = Health care 🡺 B14 [Health care type]  IF B1 [Primary activity] = Service 🡺 B15 [Service type]  IF B1 [Primary activity] = Lodging🡺 B19 [Lodging type]  IF B1 [Primary activity] = Public order and safety 🡺 B20 [Public order type]  IF B1 [Primary activity] = Residential 🡺 B21 [Residential type]  IF B1 [Primary activity] = Industrial/Manufacturing 🡺 B8 [Used as warehouse]  IF B1 [Primary activity] = Agricultural 🡺 B23 [Space for retail sales]  IF B1 [Primary activity] = Vacant 🡺 B24 [Vacant for noncommercial]  IF B1 [Primary activity] = Other 🡺 B26 [Other type]  OTHERWISE 🡺 B3 [Activities in building] |

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| **B3** | Activities in building {MultiUse} *ACT2, ACT3* |
| ASK | IF B2 [One activity in building] = No |
| FILL | **{Activity}**  IF B1 [Primary activity] = Office/Professional = “office”  IF B1 [Primary activity] = Data center = “data center”  IF B1 [Primary activity] = Warehouse/Storage = “warehouse or storage”  IF B1 [Primary activity] = Food sales or service = “food sales or service”  IF B1 [Primary activity] = Enclosed mall = “enclosed mall”  IF B1 [Primary activity] = Retail = “retail”  IF B1 [Primary activity] = Education = “education”  IF B1 [Primary activity] = Religious worship = “religious worship”  IF B1 [Primary activity] = Public assembly = “public assembly”  IF B1 [Primary activity] = Health care = “health care”  IF B1 [Primary activity] = Service = “service”  IF B1 [Primary activity] = Lodging = “lodging”  IF B1 [Primary activity] = Public order and safety = “public order and safety”  IF B1 [Primary activity] = Residential = “residential”  IF B1 [Primary activity] = Industrial/Manufacturing = “industrial or manufacturing”  IF B1 [Primary activity] = Agricultural = “agricultural”  IF B1 [Primary activity] = Vacant = “vacant”  IF B1 [Primary activity] = Other = “the main activity” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B1 |
| **Question Text** | Looking again at Show Card B1, which one or two activities account for the next largest amount of space in this building, after {Activity}? There may be other activities in the building, but just report up to two more. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Which one or two activities account for the next largest amount of space in this building, after {Activity}? There may be other activities in the building, but just report up to two more. |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | |
| ***Enumerated*** | |
| **Response options** | **Tooltip text** |
| 11. Office/Professional | See B1 [Primary activity] |
| 12. Data center |
| 13. Warehouse/Storage |
| 14. Food sales or service |
| 15. Enclosed mall |
| 16. Retail (other than mall) |
| 17. Education |
| 18. Religious worship |
| 19. Public assembly |
| 20. Health care |
| 21. Service |
| 22. Lodging |
| 23 Public order and safety |
| 24. Residential |
| 25. Industrial/Manufacturing |
| 26. Agricultural |
| 27. Vacant |
| 28. Other |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Answered 🡺 B4 [Percents for activities]  IF Missing 🡺  IF B1 [Primary activity] = Office/Professional 🡺 B5 [Office type]  IF B1 [Primary activity] = Data center 🡺 B6 [Verify data center]  IF B1 [Primary activity] = Warehouse/Storage 🡺 B9 [Warehouse type]  IF B1 [Primary activity] = Food sales or service  🡺 B10 [Food sales or service type]  IF B1 [Primary activity] = Enclosed mall  🡺 B32 [Assign CBECS Activity = Enclosed mall]  IF B1 [Primary activity] = Retail 🡺 B11 [Retail type]  IF B1 [Primary activity] = Education 🡺 B12 [Education type]  IF B1 [Primary activity] = Religious worship  🡺 B32 [Assign CBECS Activity = Religious worship]  IF B1 [Primary activity] = Public assembly 🡺 B13 [Assembly type]  IF B1 [Primary activity] = Health care 🡺 B14 [Health care type]  IF B1 [Primary activity] = Service 🡺 B15 [Service type]  IF B1 [Primary activity] = Lodging🡺 B19 [Lodging type]  IF B1 [Primary activity] = Public order and safety 🡺 B20 [Public order type]  IF B1 [Primary activity] = Residential 🡺 B21 [Residential type]  IF B1 [Primary activity] = Industrial/Manufacturing 🡺 B8 [Used as warehouse]  IF B1 [Primary activity] = Agricultural 🡺 B23 [Space for retail sales]  IF B1 [Primary activity] = Vacant 🡺 B24 [Vacant for noncommercial]  IF B1 [Primary activity] = Other 🡺 B26 [Other type] |

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| **B4** | Percents for activities {ActPcts} *ACT1PCT, ACT2PCT, ACT3PCT* |
| ASK | IF B2 [One activity in building] = No; Ask for *ACT1*, *ACT2*, and *ACT3* |
| FILL | **{ActivityLabel}**  IF Office/Professional = “Office”  IF Data center = “Data center”  IF Warehouse/Storage = “Warehouse”  IF Food sales or service = “Food sales or service”  IF Enclosed mall = “Enclosed mall”  IF Retail = “Retail”  IF Education = “Education”  IF Religious worship = “Religious worship”  IF Public assembly = “Public assembly”  IF Health care = “Health care”  IF Service = “Service”  IF Lodging = “Lodging”  IF Public order and safety = “Public order and safety”  IF Residential = “Residential”  IF Industrial/Manufacturing = “Industrial or manufacturing”  IF Agricultural = “Agricultural”  IF Vacant = “Vacant”  IF Other = “The other activity” |
| DISPLAY | ACT1PCT, ACT2PCT, and ACT3PCT are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | About what percentage of the total space is…  {ActivityLabel}? (For ACT1)  {ActivityLabel}? (For ACT2)  {ActivityLabel}? (For ACT3) |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 1 to 100 | % | 1 to 100 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |

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| NEXT | IF There is an activity with a maximum percent, assign that as the primary activity  IF There are equal maximum percents (e.g. 50% and 50%), or if they are all missing, assign the primary activity as the most energy-intensive one (based on 2012 CBECS data, in this order:  *Data center, Food sales or service, Health care, Other, Lodging, Public order and safety, Public assembly, Office/Professional, Education, Enclosed mall, Retail, Service, Religious worship, Warehouse/Storage, Vacant*).  THEN, follow here based on the assigned primary activity:  IF Office/Professional 🡺 B5 [Office type]  IF Data center 🡺 B6 [Verify data center]  IF Warehouse/Storage 🡺 B9 [Warehouse type]  IF Food sales or service 🡺 B10 [Food sales or service type]  IF Enclosed mall 🡺 B32 [Assign CBECS Activity = Enclosed mall]  IF Retail 🡺 B11 [Retail type]  IF Education 🡺 B12 [Education type]  IF Religious worship 🡺 B32 [Assign CBECS Activity = Religious worship]  IF Public assembly 🡺 B13 [Assembly type]  IF Health care 🡺 B14 [Health care type]  IF Service 🡺 B15 [Service type]  IF Lodging 🡺 B19 [Lodging type]  IF Public order and safety 🡺 B20 [Public order type]  IF Residential 🡺 B21 [Residential type]  IF Industrial/Manufacturing 🡺 B8 [Used as warehouse]  IF Agricultural 🡺 B23 [Space for retail sales]  IF Vacant 🡺 B24 [Vacant for noncommercial]  IF Other 🡺 B26 [Other type] |

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| **B5** | Office type {OfficeSpec}  *OFFCSP* |
| ASK | IF B1 [Primary activity] OR  B4 [Percents for activities] assigned activity = Office/Professional |
| FILL | **{ActivityExplanation}**  IF (B2 [One activity in building] ≠ Yes) = “For the purposes of this survey, this  building will be included in the general category of office.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B2 |
| **Question Text** | {ActivityExplanation}  Looking at the list on Show Card B2, what type of office is this? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | {Activity Explanation}  What type of office is this? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Administrative or professional office building  *(Examples: consulting, insurance, law, utility/telephone company, publishing, or college administration)* |  |  |
| 2. Government office |  |  |
| 3. Mixed-use office |  |  |
| 4. Bank or other financial institution |  |  |
| 5. Doctor’s or dentist’s office |  |  |
| 6. Sales or leasing office  *(Examples: vehicles or real estate)* |  |  |
| 7. Contractor’s office  *(Examples: construction, plumbing, or HVAC)* |  |  |
| 8. Non-profit or social services office |  |  |
| 9. Research and development office |  |  |
| 10. City hall or city center |  |  |
| 11. Religious office |  |  |
| 12. Call center |  |  |
| 13. Courthouse or probation office |  |  |
| 14. Veterinarian’s office |  |  |
| 15. Vacant |  |  |
| 16. Other type of office |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Administrative or professional office building; Government office; Mixed-use office; Bank or other financial institution; Doctor's or dentist's office; Sales office; Contractor's office; Non-profit or social services office; Research and development office; City hall or city center; Religious office; Call center; OR Missing 🡺 B32 [Assign CBECS Activity = Office]  IF Courthouse or probation office  🡺 B32 [Assign CBECS Activity = Public order and safety]  IF Veterinarian’s office 🡺 B32 [Assign CBECS Activity = Outpatient health]  IF Vacant:  IF More than one activity 🡺 B32 [Assign CBECS Activity = Vacant]  IF Only one activity 🡺 B25 [Completely vacant]  IF Other type of office 🡺 B27 [Specify other activity] |

|  |  |
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| **B6** | Verify data center {DataSpec} *DATACTR* |
| ASK | IF B1 [Primary activity] OR  B4 [Percents for activities] assigned activity = Data center |
| FILL | **{ActivityExplanation}**  IF (B2 [One activity in building] ≠ Yes) = “For the purposes of this survey, this  building will be included in the general category of data center.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {ActivityExplanation}  A data center is a group of networked computer servers that are housed in one location, usually a secure area. The servers perform functions such as data storage and processing.  There are usually many servers stacked in rows of racks and they operate continuously, day and night. Data centers are generally kept very cool and require a dedicated uninterruptible power supply.  Does this accurately describe this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 B32 [Assign CBECS Activity = Data center]  IF No OR Missing 🡺 B7 [Classify as office] |

|  |  |
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| **B7** | Classify as office {DataSpecRecode} *NODCTR* |
| ASK | IF B6 [Verify data center] = No OR Missing |
| FILL | N/A |
| DISPLAY | Shown on same screen as B6 |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Then, for the purposes of this study, this building will be classified as an office. |
| **Interviewer Instructions** | Enter “Next” to continue. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | No space for answer, just Next button. |
| NONRESPONSE | N/A |
| NEXT | 🡺 B32 [Assign CBECS Activity = Office] |

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| **B8** | Used as warehouse {Warecheck} *WARECHK* |
| ASK | IF B1 [Primary activity] OR  B4 [Percents for activities] assigned activity = Industrial/Manufacturing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is this building used primarily as a warehouse or distribution center? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 B9 [Warehouse type]  OTHERWISE 🡺 B23 [Space for retail sales] |

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| **B9** | Warehouse type {WareSpec}  *WARESP* |
| ASK | IF B1 [Primary activity] OR  B4 [Percents for activities] assigned activity = Warehouse/Storage |
| FILL | **{ActivityExplanation}**  IF (B2 [One activity in building] ≠ Yes) = “For the purposes of this survey, this  building will be included in the general category of warehouse.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B3 |
| **Question Text** | {ActivityExplanation}  Looking at the list on Show Card B3, what type of warehouse is this? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | {Activity Explanation}  What type of warehouse is this? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Non-refrigerated warehouse |  |  |
| 2. Refrigerated warehouse |  |  |
| 3. Distribution or shipping center |  |  |
| 4. Public rental storage units |  |  |
| 5. Vehicle storage and/or maintenance (car barn) |  |  |
| 6. Other storage building |  |  |
| 7. Airplane hangar |  |  |
| 8. Vacant |  |  |
| 9. Other type of warehouse |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Non-refrigerated warehouse; Distribution or shipping center;  Public rental storage units; Other storage building; OR Missing  🡺 B32 [Assign CBECS Activity = Nonrefrigerated warehouse]  IF Refrigerated warehouse  🡺 B32 [Assign CBECS Activity = Refrigerated warehouse]  IF Vehicle storage and/or maintenance 🡺 B32 [Assign CBECS Activity = Service]  IF Airplane hangar 🡺 B32 [Assign CBECS Activity = Other]  IF Vacant:  IF More than one activity 🡺 B32 [Assign CBECS Activity = Vacant]  IF Only one activity 🡺 B25 [Completely vacant]  IF Other type of warehouse 🡺 B27 [Specify other activity] |

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| **B10** | Food sales or service type {FoodSpec}  *FOODSP* |
| ASK | IF B1 [Primary activity] OR  B4 [Percents for activities] assigned activity = Food sales or service |
| FILL | **{ActivityExplanation}**  IF (B2 [One activity in building] ≠ Yes) = “For the purposes of this survey, this  building will be included in the general category of food sales or service.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B4 |
| **Question Text** | {ActivityExplanation}  Looking at the list on Show Card B4, what type of food sales or service building is this? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | {Activity Explanation}  What type of food sales or service building is this? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Restaurant or cafeteria |  |  |
| 2. Fast food |  |  |
| 3. Bar, pub, or lounge |  |  |
| 4. Grocery store, supermarket, or specialty food market |  |  |
| 5. Gas station with convenience store |  |  |
| 6. Convenience store |  |  |
| 7. Beer, wine, or liquor store |  |  |
| 8. Reception hall |  |  |
| 9. Catering service |  |  |
| 10. Coffee, doughnut, or bagel shop |  |  |
| 11. Ice cream or frozen yogurt shop |  |  |
| 12. Bakery |  |  |
| 13. Vacant |  |  |
| 14. Other type of food sales or service |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Restaurant or cafeteria; Fast food; Bar, pub, or lounge; Reception hall; Catering service; Coffee, doughnut, or bagel shop; OR Ice cream or frozen yogurt shop  🡺 B32 [Assign CBECS Activity = Food service]  IF Grocery store, supermarket, or specialty food market; Gas station with a convenience store; Convenience store; Bakery; OR Missing  🡺 B32 [Assign CBECS Activity = Food sales]  IF Beer, wine, or liquor store 🡺 B32 [Assign CBECS Activity = Retail]  IF Vacant:  IF More than one activity 🡺 B32 [Assign CBECS Activity = Vacant]  IF Only one activity 🡺 B25 [Completely vacant]  IF Other type of food sales or service 🡺 B27 [Specify other activity] |

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| **B11** | Retail type {RetailSpec}  *RETLSP* |
| ASK | IF B1 [Primary activity] OR B4 [Percents for activities] assigned activity = Retail |
| FILL | **{ActivityExplanation}**  IF (B2 [One activity in building] ≠ Yes) = “For the purposes of this survey, this  building will be included in the general category of retail.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B5 |
| **Question Text** | {ActivityExplanation}  Looking at the list on Show Card B5, what type of retail building is this? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | {Activity Explanation}  What type of retail building is this? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Retail store  *(Examples: big-box chain store, department store, furniture, clothing, hardware, drugstore, bookstore, building supplies, auto parts, lumber, home improvement, farm equipment, lawn and garden, floral, crafts, gifts, antiques, pawn shop, or wholesale club)* |  |  |
| 2. Bank or other financial institution |  |  |
| 3. Convenience store |  |  |
| 4. Beer, wine, or liquor store |  |  |
| 5. Rental center  *(Examples: equipment, furnishings, or movies)* |  |  |
| 6. Dealership or showroom for vehicles or boats |  |  |
| 7. Auto service or auto repair shop |  |  |
| 8. Studio or gallery |  |  |
| 9. Grocery store, supermarket, or specialty food market |  |  |
| 10. Salon, spa, or barber shop |  |  |
| 11. Copy center or printing shop |  |  |
| 12. Distribution or shipping center |  |  |
| 13. Gas station with a convenience store |  |  |
| 14. Gas station |  |  |
| 15. Post office, postal center, or mail sorting |  |  |
| 16. Recreation  *(Examples: gymnasium, health club, bowling alley, ice rink, field house, or indoor racquet sports)* |  |  |

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| 17. Repair shop |  |  |
| 18. Vacant |  |  |
| 19. Other type of retail |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Gas station 🡺 B17 [Gas station building use]  IF Retail store; Beer, wine, or liquor store; Rental center; Dealership or showroom;  Studio or gallery; OR Missing 🡺 B32 [Assign CBECS Activity = Retail]  IF Bank or other financial institution🡺 B32 [Assign CBECS Activity = Office]  IF Convenience store; Grocery store, supermarket, or specialty food market; OR  Gas station with a convenience store  🡺 B32 [Assign CBECS Activity = Food sales]  IF Auto service or auto repair shop; Salon, spa, or barber shop;  Copy center or printing service; Post office, postal center, or mail sorting; OR  Repair shop 🡺 B32 [Assign CBECS Activity = Service]  IF Distribution or shipping center  🡺 B32 [Assign CBECS Activity = Nonrefrigerated warehouse]  IF Recreation 🡺 B32 [Assign CBECS Activity = Public assembly]  IF Vacant:  IF More than one activity 🡺 B32 [Assign CBECS Activity = Vacant]  IF Only one activity 🡺 B25 [Completely vacant]  IF Other type of retail 🡺 B27 [Specify other activity] |

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| **B12** | Education type {EducSp}  *EDUCSP* |
| ASK | IF B1 [Primary activity] OR  B4 [Percents for activities] assigned activity = Education |
| FILL | **{ActivityExplanation}**  IF (B2 [One activity in building] ≠ Yes) = “For the purposes of this survey, this  building will be included in the general category of education.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B6 |
| **Question Text** | {ActivityExplanation}  Looking at the list on Show Card B6, what type of education building is this? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | {Activity Explanation}  What type of education building is this? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Elementary school |  |  |
| 2. Middle or junior high school |  |  |
| 3. High school |  |  |
| 4. Other multi-grade primary or secondary school (any combination pre-K through 12) |  |  |
| 5. College or university |  |  |
| 6. Preschool or daycare |  |  |
| 7. Adult education |  |  |
| 8. Career or vocational training |  |  |
| 9. Religious education |  |  |
| 10. Library |  |  |
| 11. Recreation  *(Examples: gymnasium, health club, bowling alley, ice rink, field house, or indoor racquet sports)* |  |  |
| 12. Entertainment or culture  *(Examples: museum, theater, cinema, sports arena, stadium, casino, or night club)* |  |  |
| 13. Laboratory |  |  |
| 14. Vacant |  |  |
| 15. Other type of classroom education |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Elementary school; Middle or junior high school; High school; Other multi-grade primary or secondary school; College or university; Preschool or daycare; Adult education; Career or vocational training; Religious education; OR Missing  🡺 B32 [Assign CBECS Activity = Education]  IF Library; Recreation; OR Entertainment or culture  🡺 B32 [Assign CBECS Activity = Public assembly]  IF Laboratory 🡺 B32 [Assign CBECS Activity = Laboratory]  IF Vacant:  IF More than one activity 🡺 B32 [Assign CBECS Activity = Vacant]  IF Only one activity 🡺 B25 [Completely vacant]  IF Other type of classroom education 🡺 B27 [Specify other activity] |

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| **B13** | Assembly type {AssemblySpec}  *ASSMSP* |
| ASK | IF B1 [Primary activity] OR  B4 [Percents for activities] assigned activity = Public assembly |
| FILL | **{ActivityExplanation}**  IF (B2 [One activity in building] ≠ Yes) = “For the purposes of this survey, this  building will be included in the general category of public assembly.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B7 |
| **Question Text** | {ActivityExplanation}  Looking at the list on Show Card B7, what type of public assembly building is this? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | {Activity Explanation}  What type of public assembly building is this? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Social or meeting  *(Examples: community center, lodge, meeting hall, convention center, event space, or senior center)* |  |  |
| 2. Recreation  *(Examples: gymnasium, health club, bowling alley, ice rink, field house, or indoor racquet sports)* |  |  |
| 3. Entertainment or culture  *(Examples: museum, theater, cinema, sports arena, stadium, casino, or night club)* |  |  |
| 4. Library |  |  |
| 5. Religious worship |  |  |
| 6. Funeral home |  |  |
| 7. Student activities center |  |  |
| 8. Armory |  |  |
| 9. Exhibition hall |  |  |
| 10. Transportation terminal  *(Examples: airport terminal, bus station, or train station)* |  |  |
| 11. Bar, pub, or lounge |  |  |
| 12. Vacant |  |  |
| 13. Other type of public assembly |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Social or meeting; Recreation; Entertainment or culture; Library; Funeral home;  Student activities center; Armory; Exhibition hall; Transportation terminal; OR Missing 🡺 B32 [Assign CBECS Activity = Public assembly]  IF Religious worship 🡺 B32 [Assign CBECS Activity = Religious worship]  IF Bar, pub, or lounge 🡺 B32 [Assign CBECS Activity = Food service]  IF Vacant:  IF More than one activity 🡺 B32 [Assign CBECS Activity = Vacant]  IF Only one activity 🡺 B25 [Completely vacant]  IF Other type of public assembly 🡺 B27 [Specify other activity] |

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| **B14** | Health care type {HealthSpec}  *HLTHSP* |
| ASK | IF B1 [Primary activity] OR  B4 [Percents for activities] assigned activity = Health care |
| FILL | **{ActivityExplanation}**  IF (B2 [One activity in building] ≠ Yes) = “For the purposes of this survey, this  building will be included in the general category of health care.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B8 |
| **Question Text** | {ActivityExplanation}  Looking at the list on Show Card B8, what type of health care building is this? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | {Activity Explanation}  What type of health care building is this? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Doctor’s or dentist’s office |  |  |
| 2. Clinic or other outpatient health care building |  |  |
| 3. Hospital (inpatient) |  |  |
| 4. Outpatient rehabilitation center |  |  |
| 5. Inpatient rehabilitation center |  |  |
| 6. Nursing home, assisted living center, or other residential care building |  |  |
| 7. Retirement home |  |  |
| 8. Veterinarian’s office |  |  |
| 9. Laboratory |  |  |
| 10. Vacant |  |  |
| 11. Other type of health care |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Clinic or other outpatient health care building; Outpatient rehabilitation center;  Veterinarian’s office; OR Missing  🡺 B32 [Assign CBECS Activity = Outpatient health care]  IF Hospital (inpatient); OR Inpatient rehabilitation  🡺 B32 [Assign CBECS Activity = Inpatient health care]  IF Doctor's or dentist's office 🡺 B32 [Assign CBECS Activity = Office]  IF Nursing home, assisted living center, or other residential care building  🡺 B32 [Assign CBECS Activity = Nursing]  IF Retirement home 🡺 B32 [Assign CBECS Activity = Lodging]  IF Laboratory 🡺 B32 [Assign CBECS Activity = Laboratory]  IF Vacant:  IF More than one activity 🡺 B32 [Assign CBECS Activity = Vacant]  IF Only one activity 🡺 B25 [Completely vacant]  IF Other type of health care 🡺 B27 [Specify other activity] |

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| **B15** | Service type {ServiceSpec}  *SERVSP* |
| ASK | IF B1 [Primary activity] OR B4 [Percents for activities] assigned activity = Service |
| FILL | **{ActivityExplanation}**  IF (B2 [One activity in building] ≠ Yes) = “For the purposes of this survey, this  building will be included in the general category of service.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B9 |
| **Question Text** | {ActivityExplanation}  Looking at the list on Show Card B9, what type of service building is this? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | {Activity Explanation}  What type of service building is this? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Auto service or auto repair shop |  |  |
| 2. Vehicle storage and/or maintenance (car barn) |  |  |
| 3. Airplane hangar |  |  |
| 4. Car wash |  |  |
| 5. Gas station with a convenience store |  |  |
| 6. Gas station |  |  |
| 7. Building and ground maintenance shop |  |  |
| 8. Contractor’s office  *(Examples: construction, plumbing, or HVAC)* |  |  |
| 9. Kennel |  |  |
| 10. Repair shop |  |  |
| 11. Dry cleaner or laundromat |  |  |
| 12. Copy center or printing shop |  |  |
| 13. Post office, postal center, or mail sorting |  |  |
| 14. Distribution or shipping center |  |  |
| 15. Bank or other financial institution |  |  |
| 16. Salon, spa, or barber shop |  |  |
| 17. Bar, pub, or lounge |  |  |
| 18. Transportation terminal  *(Examples: airport terminal, bus station, or train station)* |  |  |

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| 19. Recreation  *(Examples: gymnasium, health club, bowling alley, ice rink, field house, or indoor racquet sports)* |  |  |
| 20. Social or meeting  *(Examples: community center, lodge, meeting hall, convention center, event space, or senior center)* |  |  |
| 21. Student activities center |  |  |
| 22. Library |  |  |
| 23. Non-profit or social services office |  |  |
| 24. Funeral home |  |  |
| 25. Rental center  *(Examples: equipment, furnishings, or movies)* |  |  |
| 26. Vacant |  |  |
| 27. Other type of service |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Dry cleaner or laundromat 🡺 B16 [Dry cleaning onsite]  IF Gas station 🡺 B17 [Gas station building use]  IF Auto service or auto repair shop; Building and grounds maintenance shop; Vehicle storage and/or maintenance; Repair shop; Post office, postal center, or mail sorting; Car wash; Spa, salon, or barber shop; Copy center or printing shop; Kennel; OR Missing 🡺 B32 [Assign CBECS Activity = Service]  IF Contractor's office; Bank or other financial institution; OR Non-profit or social services office 🡺 B32 [Assign CBECS Activity = Office]  IF Bar, pub, or lounge 🡺 B32 [Assign CBECS Activity = Food service]  IF Gas station with convenience store  🡺 B32 [Assign CBECS Activity = Food sales]  IF Airplane hangar 🡺 B32 [Assign CBECS Activity = Other]  IF Distribution or shipping center  🡺 B32 [Assign CBECS Activity = Nonrefrigerated warehouse]  IF Funeral home; Library; Recreation; Social or meeting; Student activities center;  OR Transportation terminal 🡺 B32 [Assign CBECS Activity = Public assembly]  IF Rental center 🡺 B32 [Assign CBECS Activity = Retail]  IF Vacant:  IF More than one activity 🡺 B32 [Assign CBECS Activity = Vacant]  IF Only one activity 🡺 B25 [Completely vacant]  IF Other type of service 🡺 B27 [Specify other activity] |

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| **B16** | Dry cleaning onsite {DryCleaningOnsite} *DRYCL* |
| ASK | IF B15 [Service type] = Dry cleaner or laundromat |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is the dry cleaning or laundry done in this building, or is it done off-site? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. In this building |  |  |
| 2. Off-site |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B32 [Assign CBECS Activity = Service] |

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| **B17** | Gas station building use {GasBldg} *GASBLDG* |
| ASK | IF B11 [Retail type] = Gas station OR B15 [Service type] = Gas station |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Which activity accounts for most of the space in the building that is associated with this gas station: convenience store, auto service, car wash, or something else? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Which activity accounts for most of the space in the building that is associated with this gas station? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Convenience store |  |  |
| 2. Auto service |  |  |
| 3. Car wash |  |  |
| 4. Something else |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Something else 🡺 B18 [Other gas station bldg use]  IF Convenience store 🡺 B32 [Assign CBECS Activity = Food sales]  OTHERWISE 🡺 B32 [Assign CBECS Activity = Service] |

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| **B18** | Other gas station bldg use {OtGasBldg} *OTGASBLDX* |
| ASK | IF B17 [Gas station building use] = Something else |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other activity associated with this gas station |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 B32 [Assign CBECS Activity = Service] |

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| **B19** | Lodging type {LodgeSpec}  *LODGSP* |
| ASK | IF B1 [Primary activity] OR B4 [Percents for activities] assigned activity = Lodging |
| FILL | **{ActivityExplanation}**  IF (B2 [One activity in building] ≠ Yes) = “For the purposes of this survey, this  building will be included in the general category of lodging.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B10 |
| **Question Text** | {ActivityExplanation}  Looking at the list on Show Card B10, what type of lodging building is this? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | {Activity Explanation}  What type of lodging building is this? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Hotel or resort |  |  |
| 2. Motel, inn, or bed and breakfast |  |  |
| 3. Dormitory, fraternity, or sorority |  |  |
| 4. Retirement home |  |  |
| 5. Nursing home, assisted living center, or other residential care building |  |  |
| 6. Convent or monastery |  |  |
| 7. Shelter, group home, or children’s home |  |  |
| 8. Halfway house |  |  |
| 9. Jail, reformatory, or penitentiary |  |  |
| 10. Vacant |  |  |
| 11. Other type of lodging |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Hotel or resort; Motel, inn, or bed and breakfast; Dormitory, fraternity, or sorority; Retirement home; Convent or monastery; Shelter, group home, or children's home; Halfway house; OR Missing  🡺 B32 [Assign CBECS Activity = Lodging]  IF Nursing home, assisted living center, or other residential care building  🡺 B32 [Assign CBECS Activity = Nursing]  IF Jail, reformatory, or penitentiary  🡺 B32 [Assign CBECS Activity = Public order and safety]  IF Vacant:  IF More than one activity 🡺 B32 [Assign CBECS Activity = Vacant]  IF Only one activity 🡺 B25 [Completely vacant]  IF Other type of lodging 🡺 B27 [Specify other activity] |

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| **B20** | Public order type {OrderSpec}  *ORDRSP* |
| ASK | IF B1 [Primary activity] OR  B4 [Percents for activities] assigned activity = Public order and safety |
| FILL | **{ActivityExplanation}**  IF (B2 [One activity in building] ≠ Yes) = “For the purposes of this survey, this  building will be included in the general category of public order and safety.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B11 |
| **Question Text** | {ActivityExplanation}  Looking at the list on Show Card B11, what type of public order and safety building is this? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | {Activity Explanation}  What type of public order and safety building is this? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Police station |  |  |
| 2. Fire station |  |  |
| 3. Combination police and fire station |  |  |
| 4. Jail, reformatory, or penitentiary |  |  |
| 5. Courthouse or probation office |  |  |
| 6. Halfway house |  |  |
| 7. Armory |  |  |
| 8. City hall or city center |  |  |
| 9. Vacant |  |  |
| 10. Other type of public order and safety |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Police station; Fire station; Combination police and fire station; Jail, reformatory, or penitentiary; Courthouse or probation office; OR Missing  🡺 B32 [Assign CBECS Activity = Public order and safety]  IF Halfway house 🡺 B32 [Assign CBECS Activity = Lodging]  IF Armory 🡺 B32 [Assign CBECS Activity = Public assembly]  IF City hall or city center 🡺 B32 [Assign CBECS Activity = Office]  IF Vacant:  IF More than one activity 🡺 B32 [Assign CBECS Activity = Vacant]  IF Only one activity 🡺 B25 [Completely vacant]  IF Other type of public order and safety 🡺 B27 [Specify other activity] |

|  |  |
| --- | --- |
| **B21** | Residential type {ResidSpec}  *RESDSP* |
| ASK | IF B1 [Primary activity] OR  B4 [Percents for activities] assigned activity = Residential |
| FILL | **{ActivityExplanation}**  IF (B2 [One activity in building] ≠ Yes) = “For the purposes of this survey, this  building will be included in the general category of residential.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B12 |
| **Question Text** | {ActivityExplanation}  Looking at the list on Show Card B12, what type of residential building is this? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | {Activity Explanation}  What type of residential building is this? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Hotel or resort |  |  |
| 2. Motel, inn, or bed and breakfast |  |  |
| 3. Dormitory, fraternity, or sorority |  |  |
| 4. Retirement home |  |  |
| 5. Nursing home, assisted living center, or other residential care building |  |  |
| 6. Convent or monastery |  |  |
| 7. Shelter, group home, or children’s home |  |  |
| 8. Halfway house |  |  |
| 9. Jail, reformatory, or penitentiary |  |  |
| 10. Other type of residential |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Hotel or resort; Motel, inn, or bed and breakfast; Dormitory, fraternity, or sorority; Retirement home; Convent or monastery; Shelter, group home, or children's home; Halfway house; OR Missing  🡺 B32 [Assign CBECS Activity = Lodging]  IF Nursing home, assisted living center, or other residential care building  🡺 B32 [Assign CBECS Activity = Nursing]  IF Jail, reformatory, or penitentiary  🡺 B32 [Assign CBECS Activity = Public order and safety]  IF Other type of residential 🡺 B28 [End of interview] |

|  |  |
| --- | --- |
| **B22** | Space for retail sales {IndusCheck} *INDRET* |
| ASK | IF (B1 [Primary activity] OR  B4 [Percents for activities] assigned activity = Industrial/Manufacturing)  & B8 [Used as warehouse] = No OR Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is any of the space in this building used for retail sales of the products that are made here? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 B32 [Assign CBECS Activity = Other]  IF No OR Missing 🡺 B29 [End of interview] |

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| --- | --- |
| **B23** | Space for retail sales {AgricCheck} *AGRRET* |
| ASK | IF B1 [Primary activity] OR  B4 [Percents for activities] assigned activity = Agricultural |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is any of the space in this building used for retail sales of the products that are grown here? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 B32 [Assign CBECS Activity = Other]  IF No OR Missing 🡺 B29 [End of interview] |

|  |  |
| --- | --- |
| **B24** | Vacant for noncommercial {VacantUse} *VACUSE* |
| ASK | IF B1 [Primary activity] OR B4 [Percents for activities] assigned activity = Vacant |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Was the vacant space used for or intended to be used for either agricultural, industrial, manufacturing, or residential purposes or as a parking garage? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 B31 [End of interview]  IF No OR Missing:  IF B2 [One activity in building] ≠ Yes 🡺 B32 [Assign CBECS Activity = Vacant]  OTHERWISE 🡺 B25 [Completely vacant] |

|  |  |
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| **B25** | Completely vacant {AllVacant} *VACANT* |
| ASK | IF B2 [One activity in building] = Yes & B1 [Primary activity] = Vacant |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is this building completely vacant? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B32 [Assign CBECS Activity = Vacant] |

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| **B26** | Other type {OtherSpec}  *OTHRSP* |
| ASK | IF B1 [Primary activity] OR B4 [Percents for activities] assigned activity = Other |
| FILL | **{ActivityExplanation}**  IF (B2 [One activity in building] ≠ Yes) = “For the purposes of this survey, this  building will be included in the general category of other types of buildings.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B13 |
| **Question Text** | {ActivityExplanation}  Looking at the list on Show Card B13, which of these activities best describes this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | {Activity Explanation}  Which of these activities best describes this building? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Laboratory |  |  |
| 2. Airplane hangar |  |  |
| 3. Broadcasting studio |  |  |
| 4. Telephone switching facilities |  |  |
| 5. Funeral home |  |  |
| 6. Crematorium |  |  |
| 7. Vehicle storage and/or maintenance (car barn) |  |  |
| 8. Public restroom, locker room, or changing area |  |  |
| 9. Indoor parking garage |  |  |
| 10. Dry cleaner or laundromat |  |  |
| 11. Library |  |  |
| 12. Post office, postal center, or mail sorting |  |  |
| 13. Distribution or shipping center |  |  |
| 14. Social or meeting  *(Examples: community center, lodge, meeting hall, convention center, event space, or senior center)* |  |  |
| 15. Entertainment or culture  *(Examples: museum, theater, cinema, sports arena, stadium, casino, or night club)* |  |  |
| 16. Recreation  *(Examples: gymnasium, health club, bowling alley, ice rink, field house, or indoor sports)* |  |  |
| 17. Transportation terminal  *(Examples: airport terminal, bus station, or train station)* |  |  |
| 18. Veterinarian’s office |  |  |
| 19. Vacant |  |  |
| 20. Agricultural building with some retail space |  |  |
| 21. Manufacturing or industrial building with some retail space |  |  |
| 22. Some other activity |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Laboratory 🡺 B32 [Assign CBECS Activity = Laboratory]  IF Airplane hangar; Broadcasting studio; Telephone switching facilities; Crematorium; Public restroom, locker room, or changing area; Agricultural building with some retail space; Manufacturing or industrial building with some retail space; OR Missing 🡺 B32 [Assign CBECS Activity = Other]  IF Funeral home; Library; Social or meeting; Entertainment or culture; Recreation; OR Transportation terminal 🡺 B32 [Assign CBECS Activity = Public assembly]  IF Vehicle storage and/or maintenance; OR Post office, postal center, or mail sorting 🡺 B32 [Assign CBECS Activity = Service]  IF Indoor parking garage:  IF B2 [One activity in building] = Yes 🡺 B30 [End of interview]  IF B2 [One activity in building] ≠ Yes 🡺 B32 [Assign CBECS Activity = Other]  IF Dry cleaner or laundromat 🡺 B16 [Dry cleaning onsite]  IF Distribution or shipping center  🡺 B32 [Assign CBECS Activity = Nonrefrigerated warehouse]  IF Veterinarian’s office 🡺 B32 [Assign CBECS Activity = Outpatient health care]  IF Vacant:  IF More than one activity 🡺 B32 [Assign CBECS Activity = Vacant]  IF Only one activity 🡺 B25 [Completely vacant]  IF Other type of building 🡺 B27 [Specify other activity] |

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| **B27** | Specify other activity {ActSpecify} *PBASPX* |
| ASK | IF B5 [Office type] = Other type of office OR  IF B9 [Warehouse type] = Other type of warehouse OR  IF B10 [Food sales or service type] = Other type of food sales or service OR  IF B11 [Retail type] = Other type of retail OR  IF B12 [Education type] = Other type of classroom education OR  IF B13 [Assembly type] = Other type of public assembly OR  IF B14 [Health care type] = Other type of health care OR  IF B15 [Service type] = Other type of service OR  IF B19 [Lodging type] = Other type of lodging OR  IF B20 [Public order type] = Other type of public order and safety OR  IF B26 [Other type] = Other type of building |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please describe this other type of activity. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Previous question was:  B5 [Office type] 🡺 B32 [Assign CBECS Activity = Office]  B9 [Warehouse type]  🡺 B32 [Assign CBECS Activity = Nonrefrigerated warehouse]  B10 [Food sales or service type] 🡺 B32 [Assign CBECS Activity = Food service]  B11 [Retail type] 🡺 B32 [Assign CBECS Activity = Retail]  B12 [Education type] 🡺 B32 [Assign CBECS Activity = Education]  B13 [Assembly type] 🡺 B32 [Assign CBECS Activity = Public assembly]  B14 [Health care type] 🡺 B32 [Assign CBECS Activity = Outpatient health care]  B15 [Service type] 🡺 B32 [Assign CBECS Activity = Service]  B19 [Lodging type] 🡺 B32 [Assign CBECS Activity = Lodging]  B20 [Public order type]  🡺 B32 [Assign CBECS Activity = Public order and safety]  B26 [Other type] 🡺 B32 [Assign CBECS Activity = Other] |

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| **B28** | End of interview {TerminateResid} |
| ASK | IF B21 [Residential type] = Other type of residential |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Thank you for your time and help. This completes your interview since this study does not include buildings that are primarily residential. |
| **Interviewer Instructions** | If this is incorrect, and the primary activity of the building is something else, please select the “Back” button to change the previous answer. Otherwise, please select the “Next” button to finish the interview. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | No space for answer, just Next button. |
| NONRESPONSE | N/A |
| NEXT | TERMINATE |

|  |  |
| --- | --- |
| **B29** | End of interview {TerminateAgrInd} |
| ASK | IF B22 [Space for retail sales] = No OR Missing OR  B23 [Space for retail sales] = No OR Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Thank you for your time and help. This completes your interview since this study does not include buildings that are primarily industrial or agricultural. |
| **Interviewer Instructions** | If this is incorrect, and the primary activity of the building is something else, please select the “Back” button to change the previous answer. Otherwise, please select the “Next” button to finish the interview. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | No space for answer, just Next button. |
| NONRESPONSE | N/A |
| NEXT | TERMINATE |

|  |  |
| --- | --- |
| **B30** | End of interview {TerminateParking} |
| ASK | IF B26 [Other type] = Indoor parking garage |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Thank you for your time and help. This completes your interview since this study does not include parking garages. |
| **Interviewer Instructions** | If this is incorrect, and the primary activity of the building is something else, please select the “Back” button to change the previous answer. Otherwise, please select the “Next” button to finish the interview. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | No space for answer, just Next button. |
| NONRESPONSE | N/A |
| NEXT | TERMINATE |

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| **B31** | End of interview {TerminateVacUse} |
| ASK | IF B24 [Vacant for noncommercial] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Thank you for your time and help. This completes your interview since this study only includes buildings intended for commercial use. |
| **Interviewer Instructions** | Please select the “Next” button to finish the interview. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | No space for answer, just Next button. |
| NONRESPONSE | N/A |
| NEXT | TERMINATE |

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| **B32** | Assign CBECS Activity {CBECS\_Act} *PBA* |
| ASK | IF Building interview |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – this item assigns CBECS building activity only, no question text for respondents |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | N/A |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric String Text Date |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box Allow Blank |
| NEXT | **1 Vacant** 🡺 B42 [On a multibuilding complex]  **2 Office** 🡺 B42 [On a multibuilding complex]  **3 Data center** 🡺 B42 [On a multibuilding complex]  **4 Laboratory** 🡺 B42 [On a multibuilding complex]  **5 Nonrefrigerated warehouse** 🡺 B42 [On a multibuilding complex]  **6 Food sales** 🡺 B42 [On a multibuilding complex]  **7 Public order and safety** 🡺 B42 [On a multibuilding complex]  **8 Outpatient health care** 🡺 B42 [On a multibuilding complex]  **11 Refrigerated warehouse** 🡺 B42 [On a multibuilding complex]  **12 Religious worship** 🡺 B33 [Religious worship seating capacity]  **13 Public assembly** 🡺 B34 [Assembly seating capacity]  **14 Education** 🡺 B35 [Number of classroom seats]  **15 Food service** 🡺 B36 [Food service seating capacity]  **16 Inpatient health care** 🡺 B38 [Licensed bed capacity]  **17 Nursing** 🡺 B39 [Licensed bed capacity]  **18 Lodging** 🡺 B40 [Number of guest rooms]  **24 Enclosed mall** 🡺 B41 [Food court]  **25 Retail** 🡺 B42 [On a multibuilding complex]  **26 Service** 🡺 B42 [On a multibuilding complex]  **91 Other** 🡺 B42 [On a multibuilding complex] |

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| **B33** | Religious worship seating capacity {ReligSeat} *RWSEAT* |
| ASK | IF CBECS Activity = Religious worship |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the total seating capacity of the religious worship areas in this building? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | seats | 0 to 99,999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B42 [On a multibuilding complex] |

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| **B34** | Assembly seating capacity {AssemSeat} *PBSEAT* |
| ASK | IF CBECS Activity = Public assembly |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the fixed seating capacity of the public assembly areas in this building?  If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | seats | 0 to 99,999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B42 [On a multibuilding complex] |

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| --- | --- |
| **B35** | Number of classroom seats {EducSeat} *EDSEAT* |
| ASK | IF CBECS Activity = Education |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many students can be seated in all of the classrooms in this building at one time? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | classroom seats | 0 to 99,999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B42 [On a multibuilding complex] |

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| **B36** | Food service seating capacity {FoodSeat} *FDSEAT* |
| ASK | IF CBECS Activity = Food service |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the total seating capacity of the food service areas in this building? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | seats | 0 to 99,999 |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF B10 [Food sales or service type = Restaurant, Fast food, Coffee, doughnut, or bagel shop, OR Ice cream or frozen yogurt shop} 🡺 B37 [Drive thru]  ELSE 🡺 B42 [On a multibuilding complex] |

|  |  |
| --- | --- |
| **B37** | Drive thru {DriveThru} *DRVTHRU* |
| ASK | IF B10 [Food sales or service type] = Restaurant, Fast food, Coffee, doughnut, or bagel shop, OR Ice cream or frozen yogurt shop |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this building have any drive-thru windows? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B42 [On a multibuilding complex] |

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| --- | --- |
| **B38** | Licensed bed capacity {HospBed} *HCBED* |
| ASK | IF CBECS Activity = Inpatient health care |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the inpatient licensed bed capacity in this building? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | beds | 0 to 99,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B42 [On a multibuilding complex] |

|  |  |
| --- | --- |
| **B39** | Licensed bed capacity {NurseBed} *NRSBED* |
| ASK | IF CBECS Activity = Nursing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the skilled or residential care licensed bed capacity in this building? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | beds | 0 to 99,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B42 [On a multibuilding complex] |

|  |  |
| --- | --- |
| **B40** | Number of guest rooms {LodgeRoom} *LODGRM* |
| ASK | IF CBECS Activity = Lodging |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many guest rooms or occupant rooms are there in this building? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | rooms | 0 to 99,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B42 [On a multibuilding complex] |

|  |  |
| --- | --- |
| **B41** | Food court {FoodCourt} *COURT* |
| ASK | IF CBECS Activity = Enclosed mall |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is there a food court in this mall? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B42 [On a multibuilding complex] |

|  |  |
| --- | --- |
| **B42** | On a multibuilding complex {Facility} *FACIL* |
| ASK | IF Building or Mall interview |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is this building part of a multibuilding campus or complex? A campus or complex is a group of two or more buildings on the same site that are owned or operated by a single organization or individual. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 B43 [Number of buildings on complex]  OTHERWISE:  IF Building interview 🡺 C1 [Government owned]  IF Mall interview 🡺 C3 [Owner] |

|  |  |
| --- | --- |
| **B43** | Number of buildings on complex {NumFacBldgs} *FACBLDGS* |
| ASK | IF B42 [On a multibuilding complex] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many buildings are part of this multibuilding campus or complex? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | buildings | 2 to 500 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B44 [Multibuilding complex name] |

|  |  |
| --- | --- |
| **B44** | Multibuilding complex name {FacilityName} *FACNAME* |
| ASK | IF B42 [On a multibuilding complex] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | By what name is this multibuilding campus or complex most commonly referred? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building interview 🡺 B45 [Federal complex]  IF Mall interview 🡺 B46 [Type of complex] |

|  |  |
| --- | --- |
| **B45** | Federal complex {FedFacil} *FEDFAC* |
| ASK | IF Building interview & B42 [On a multibuilding complex] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is this campus or complex owned by the Federal government? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B46 [Type of complex] |

|  |  |
| --- | --- |
| **B46** | Type of complex {FacAct}  *FACACT* |
| ASK | IF B42 [On a multibuilding complex] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B14 |
| **Question Text** | Looking at the list on Show Card B14, what is the primary business or function of this group of buildings as a whole? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | What is the primary business or function of this group of buildings as a whole? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. College, university, or junior college |  |  |
| 2. Primary or secondary school [grades K-12] |  |  |
| 3. Other type of school |  |  |
| 4. Office complex |  |  |
| 5. Retail complex |  |  |
| 6. Storage or distribution complex |  |  |
| 7. Religious campus or complex |  |  |
| 8. Hospital or other health care complex |  |  |
| 9. Lodging or resort complex |  |  |
| 10. Post office complex |  |  |
| 11. Prison or correctional facility |  |  |
| 12. Other type of government complex |  |  |
| 13. Industrial complex |  |  |
| 14. Transportation complex such as terminal, depot, or airport |  |  |
| 15. Other type of campus or complex |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Industrial complex 🡺 B47 [Manufacturing industrial]  IF Mall interview 🡺 C3 [Owner]  OTHERWISE 🡺 B50 [Central physical plant] |

|  |  |
| --- | --- |
| **B47** | Manufacturing industrial {ManInd} *MANIND* |
| ASK | IF B46 [Type of complex] = Industrial complex |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is it a manufacturing industrial complex? Manufacturing industrial complexes involve the production or processing of goods, merchandise, raw materials, or food. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 B48 [Same owner as manufacturing]  IF Mall interview 🡺 C3 [Owner]  OTHERWISE 🡺 B50 [Central physical plant] |

|  |  |
| --- | --- |
| **B48** | Same owner as manufacturing {SameOwn} *MANFAC* |
| ASK | IF B47 [Manufacturing industrial] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this building have the same owner and operator as the manufacturing campus or complex? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 B49 [End of interview]  IF Mall interview 🡺 C3 [Owner]  OTHERWISE 🡺 B50 [Central physical plant] |

|  |  |
| --- | --- |
| **B49** | End of interview {TerminateMan} |
| ASK | IF B48 [Same owner as manufacturing] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Thank you for your time and help. This completes your interview since this study does not include buildings on manufacturing facilities. |
| **Interviewer Instructions** | Please select the “Next” button to finish the interview. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | No space for answer, just Next button. |
| NONRESPONSE | N/A |
| NEXT | TERMINATE |

|  |  |
| --- | --- |
| **B50** | Central physical plant {Plant} *PLANT* |
| ASK | IF Building interview & B42 [On a multibuilding complex] = Yes  & **NOT** B48 [Same owner as manufacturing] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this campus or complex have a central physical plant that produces and distributes district hot water, district steam, district chilled water, or electricity to more than one building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 B51 [Plant produces district steam]  OTHERWISE 🡺 C1 [Government owned] |

|  |  |
| --- | --- |
| **B51** | Plant produces district steam {PlantSteam} *FACDST* |
| ASK | IF B50 [Central physical plant] = Yes |
| DISPLAY | B51-B54 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does the central plant produce…  District steam? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B52 [Plant produces district hot water] |

|  |  |
| --- | --- |
| **B52** | Plant produces district hot water {PlantHW} *FACDHW* |
| ASK | IF B50 [Central physical plant] = Yes |
| DISPLAY | B51-B54 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | District hot water? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B53 [Plant produces district chilled water] |

|  |  |
| --- | --- |
| **B53** | Plant produces district chilled water {PlantCW} *FACDCW* |
| ASK | IF B50 [Central physical plant] = Yes |
| DISPLAY | B51-B54 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | District chilled water? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B54 [Plant produces electricity] |

|  |  |
| --- | --- |
| **B54** | Plant produces electricity {PlantElec} *FACELC* |
| ASK | IF B50 [Central physical plant] = Yes |
| DISPLAY | B51-B54 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Electricity? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 B55 [Central plant in building] |

|  |  |
| --- | --- |
| **B55** | Central plant in building {PlantInBldg} *BLDPLT* |
| ASK | IF B50 [Central physical plant] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is the central physical plant for this campus or complex located in this building or is it in another building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. In this building |  |  |
| 2. In another building |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 C1 [Government owned] |

|  |  |
| --- | --- |
| **B56** | Establishment activity {EstabAct}  *PEA* |
| ASK | IF Establishment interview |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B15 |
| **Question Text** | Please look at the list of activities on Show Card B15. Which one of these activities accounts for the majority of the floorspace in this establishment? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Which one of these activities accounts for the majority of the floorspace in this establishment? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Retail store |  |  |
| 2. Food sales  *(Examples: grocery store, supermarket, convenience store, butcher shop, seafood market, produce market)* |  |  |
| 3. Food service/Bar/Night club  *(Examples: restaurant, fast food, sandwich shop, pizzeria, coffee shop, doughnut or bagel shop, ice cream parlor, bakery, bar, night club)* |  |  |
| 4. Dry cleaner/Laundromat |  |  |
| 5. Office/Financial  *(Examples: bank, credit union, insurance, tax assistance, loans, check cashing, real estate, lawyer, accountant, recruiting)* |  |  |
| 6. Medical/Dental |  |  |
| 7. Education/Child care  *(Examples: tutoring, adult education, art school, preschool, daycare)* |  |  |
| 8. Movie theater/Cinema |  |  |
| 9. Salon/Spa/Barber shop |  |  |
| 10. Fitness center/Dance studio  *(Includes martial arts)* |  |  |
| 11. Vacant |  |  |
| 12. Other |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other 🡺 B57 [Specify other activity]  IF Dry cleaner/Laundromat 🡺 B58 [Dry cleaning onsite]  OTHERWISE 🡺 C21 [Occupied/vacant all 2018] |

|  |  |
| --- | --- |
| **B57** | Specify other activity {EstabActSpecify} *PEASPX* |
| ASK | IF B56 [Establishment activity] = Other |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

|  |
| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of activity |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 C21 [Occupied/vacant all 2018] |

|  |  |
| --- | --- |
| **B58** | Dry cleaning onsite {EstabDryCleaningOnsite} *DRYCLESTB* |
| ASK | IF B56 [Establishment activity] = Dry cleaner/Laundromat |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is the dry cleaning or laundry done in this establishment, or is it done off-site? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. In this establishment |  |  |
| 2. Off-site |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 C21 [Occupied/vacant all 2018] |

**Section C: Ownership/Occupancy, Operating Hours, and Employment**

|  |  |
| --- | --- |
| **C1** | Government owned {GovOwn} *GOVOWN* |
| ASK | IF Building interview |
| FILL | **{BldgIntro}**  IF B42 [On a multibuilding complex] = Yes = “For the rest of this survey, I will be  asking you only about this building, not the entire campus or complex.”  OTHERWISE = BLANK  **{SchoolExample}**  IF B12 [Education type] = Elementary OR Middle or junior high school OR High  School OR Other multi-grade primary or secondary school =  “, such as a local school district”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {BldgIntro}  Is this building owned by a government agency {SchoolExample}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 C2 [Type of government]  IF No OR Missing 🡺 C3 [Owner] |

|  |  |
| --- | --- |
| **C2** | Type of government {GovType} *GOVTYP* |
| ASK | IF C1 [Government owned] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is it owned by the Federal government, a State government, or a local government? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Federal |  |  |
| 2. State |  |  |
| 3. Local |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF B25 [Completely vacant] = Yes 🡺 C10 [Owner operates]  OTHERWISE 🡺 C5 [Number of businesses] |

|  |  |
| --- | --- |
| **C3** | Owner {Owner} *OWNER* |
| ASK | IF Building or Mall interview & **NOT** C1 [Government owned] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD C1 |
| **Question Text** | Looking at Show Card C1, please tell me which category best describes the owner of this building. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Which category best describes the owner of this building? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Real estate investment trust (REIT) |  |  |
| 2. Other public or private corporation, partnership, LLC, or LLP |  |  |
| 3. Individual owner(s) |  |  |
| 4. Religious organization |  |  |
| 5. Non-profit organization (other than religious or government) |  |  |
| 6. Private academic institution |  |  |
| 7. Other |  |  |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other 🡺 C4 [Other owner]  OTHERWISE:  IF **NOT** B25 [Completely vacant] = Yes 🡺 C5 [Number of businesses]  IF B25 [Completely vacant] = Yes:  IF Owner known 🡺 C10 [Owner operates]  IF Missing 🡺 C18 [Months in use] |

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| --- | --- |
| **C4** | Other owner {OtherOwner} *OTHOWNX* |
| ASK | IF C3 [Owner] = Other |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other owner |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF **NOT** B25 [Completely vacant] = Yes 🡺 C5 [Number of businesses]  IF B25 [Completely vacant] = Yes:  IF Owner known 🡺 C10 [Owner operates]  IF Missing 🡺 C18 [Months in use] |

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| **C5** | Number of businesses {NumOcc} *NOCC* |
| ASK | IF Building or mall interview & **NOT** B25 [Completely vacant] = Yes |
| FILL | **{BldgMall}**  IF Building interview = “How many different businesses or organizations use  space full-time in this building?”  IF Mall interview =  “How many tenant spaces are there in this building, including vacant spaces?”  **{ActExplain}**  IF Residential selected IN B3 [Activities in building] =  “Include any residential units in this number.”  IF B12 [Education type] = Elementary OR Middle or junior high school OR High  School OR Other multi-grade primary or secondary school OR  CBECS Activity = Religious worship =  “Do not include clubs or organizations that use space part-time.”  IF B9 [Warehouse type] = Public rental storage units =  “Do not count each storage unit separately.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {BldgMall} {ActExplain} |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | None | 0 to 9,999 |

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| NONRESPONSE | **X** Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF DK/Missing 🡺 C6 [Number of businesses category]  IF >1 OR Mall interview 🡺 C8 [Multi-occupant owner occupies]  IF 1 🡺 C7 [Single occupant owner occupies]  IF 0 & **NOT** (C1 [Government owned] = Missing & C3 [Owner] = Missing)   🡺 C10 [Owner operates]  IF 0 & (C1 [Government owned] = Missing & C3 [Owner] = Missing)  🡺 C18 [Months in use] |

|  |  |
| --- | --- |
| **C6** | Number of businesses category {OccupantsCategory} *NOCCAT* |
| ASK | IF C5 [Number of businesses] = DK/Missing |
| FILL | **{BusTen}**  IF Building interview = “businesses or organizations that use space full-time”  IF Mall interview = “tenant spaces”  **{Zero}**  IF Building interview = “Zero”  IF Mall interview = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD C2 |
| **Question Text** | Which category on Show Card C2 best describes the number of {BusTen} in this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Which category best describes the number of {BusTen} in this building? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 0. {Zero} |  |  |
| 1. One |  |  |
| 2. 2 to 5 |  |  |
| 3. 6 to 10 |  |  |
| 4. 11 to 20 |  |  |
| 5. 21 to 50 |  |  |
| 6. 51 to 100 |  |  |
| 7. More than 100 |  |  |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Any category except Zero or One OR Mall interview  🡺 C8 [Multi-occupant owner occupies]  IF One 🡺 C7 [Single occupant owner occupies]  IF Zero OR Missing & **NOT** (C1 [Government owned] = Missing &  C3 [Owner] = Missing) 🡺 C10 [Owner operates]  IF Zero OR Missing & (C1 [Government owned] = Missing &  C3 [Owner] = Missing) 🡺 C18 [Months in use] |

|  |  |
| --- | --- |
| **C7** | Single occupant owner occupies {SingleOccOwnOcc} *SOWNOCC* |
| ASK | IF Building interview & (C5 [Number of businesses] = 1 OR  C6 [Number of businesses category] = One) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does the owner occupy the building or is it leased to a tenant? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Owner occupies |  |  |
| 2. Leased to tenant |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF C1 [Government owned] = Missing & C3 [Owner] = Missing  🡺 C18 [Months in use]  OTHERWISE 🡺 C10 [Owner operates] |

|  |  |
| --- | --- |
| **C8** | Multi-occupant owner occupies {MultOccOwnOcc} *MOWNOCC* |
| ASK | IF (Building interview & (C5 [Number of businesses] > 1 OR  C6 [Number of businesses category] NOT Zero, One, Missing)) OR  Mall interview |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does the owner occupy any space in this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building interview 🡺 C9 [Number of tenants]  IF Mall interview:  IF C3 [Owner] = Missing 🡺 C18 [Months in use]  OTHERWISE 🡺 C10 [Owner operates] |

|  |  |
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| **C9** | Number of tenants {NumTenants} *NTENANT* |
| ASK | IF Building interview & (C5 [Number of businesses] > 1 OR  C6 [Number of businesses category] NOT Zero, One, Missing) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many tenants lease space in this building? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | tenants | 0 to 9,999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF C1 [Government owned] = Missing & C3 [Owner] = Missing  🡺 C18 [Months in use]  OTHERWISE 🡺 C10 [Owner operates] |

|  |  |
| --- | --- |
| **C10** | Owner operates {OwnerOperates} *OWNOPR* |
| ASK | IF (Building interview & **NOT** (C1 [Government owned] = Missing &  C3 [Owner] = Missing)) OR (Mall interview & NOT C3 [Owner] = Missing) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is the building owner responsible for the operation of the energy systems? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 C11 [Owner has purchasing power]  IF No 🡺 C14 [Nonowner operator]  IF Missing 🡺 C18 [Months in use] |

|  |  |
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| **C11** | Owner has purchasing power {OwnerPurchasePower} *OWNPPR* |
| ASK | IF C10 [Owner operates] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does the building owner also have direct input on decisions regarding purchases of energy-related equipment? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes OR Missing 🡺C18 [Months in use]  IF No 🡺 C12 [Nonowner with purchasing power] |

|  |  |
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| **C12** | Nonowner with purchasing power {NonOwnerPurchPower} *NWNPPR* |
| ASK | IF C11 [Owner has purchasing power] = No |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD C3 |
| **Question Text** | Looking at Show Card C3, please tell me who does have direct input on decisions regarding purchases of energy-related equipment. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Who has direct input on decisions regarding purchases of energy-related equipment? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Property management company or leasing agent |  |  |
| 2. Business owner or tenant |  |  |
| 3. Facilities personnel employed directly by the building owner |  |  |
| 4. Facilities or energy management consultant |  |  |
| 5. Volunteer member of the organization |  |  |
| 6. Manager with general supervisory duties |  |  |
| 7. Other |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other 🡺 C13 [Other nonowner purchasing power]  OTHERWISE 🡺 C18 [Months in use] |

|  |  |
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| **C13** | Other nonowner purchasing power {OtherNonOwnPurchPower} *OTNWNPPRX* |
| ASK | IF C12 [Nonowner with purchasing power] = Other |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** | |
| ***String Text*** | |
| **Watermark** |  |
| Briefly describe who has the most direct input regarding purchases of energy-related equipment | |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 C18 [Months in use] |

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| --- | --- |
| **C14** | Nonowner operator {NonOwnerOperator} *NWNOPR* |
| ASK | IF C10 [Owner operates] = No |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD C3 |
| **Question Text** | Looking at Show Card C3, please tell me who is responsible for the operation of the energy systems. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Who is responsible for the operation of the energy systems? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Property management company or leasing agent |  |  |
| 2. Business owner or tenant |  |  |
| 3. Facilities personnel employed directly by the building owner |  |  |
| 4. Facilities or energy management consultant |  |  |
| 5. Volunteer member of the organization |  |  |
| 6. Manager with general supervisory duties |  |  |
| 7. Other |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other 🡺 C15 [Other operator]  OTHERWISE 🡺 C16 [Who has purchasing power] |

|  |  |
| --- | --- |
| **C15** | Other operator {OtherOperator} *OTNWNOPRX* |
| ASK | IF C14 [Nonowner operator] = Other |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe who is responsible for the operation of energy systems |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 C16 [Who has purchasing power] |

|  |  |
| --- | --- |
| **C16** | Who has purchasing power {PurchPowerOwnOpr} *WHOPPR* |
| ASK | IF C10 [Owner operates] = No |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Who has the most direct input on decisions regarding purchases of energy-related equipment – the building owner or the party who is responsible for operation of the energy systems? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Building owner |  |  |
| 2. Party responsible for operation of energy systems |  |  |
| 3. Both (either they have equal input, or are the same person) |  |  |
| 4. Other |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other 🡺 C17 [Other with purchasing power]  OTHERWISE 🡺C18 [Months in use] |

|  |  |
| --- | --- |
| **C17** | Other with purchasing power {OtherPurchPower} *OTPPRX* |
| ASK | IF C16 [Who has purchasing power] = Other |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe who has the most direct input regarding purchases of energy-related equipment |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺C18 [Months in use] |

|  |  |
| --- | --- |
| **C18** | Months in use {MonUse} *MONUSE* |
| ASK | IF Building or Mall interview |
| FILL | **{DiffActivity}**  IF CBECS Activity = Education = “The next question is about the number of  months that the building was in use. If there were months when the building  was only entered by a limited number of staff, do not count those months.  How many months was this building in use during calendar year 2018?”  IF CBECS Activity = Nonrefrigerated warehouse OR Refrigerated warehouse =  “The next question is about the number of months that the building was in use.  If there were goods being stored, even if there was not much activity in the  building, it should count as being “in use.”  How many months was this building in use during calendar year 2018?”  OTHERWISE = “Thinking of calendar year 2018, for how many months was this  building in use?” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {DiffActivity} |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 0 to 12 | months | 0 to 12 |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF 0 THEN:  IF B25 [Completely vacant] = Yes 🡺 D1 [Heating]  OTHERWISE 🡺 C19 [Zero months in use check]  OTHERWISE:  IF B25 [Completely vacant] = Yes 🡺 C20 [Previous use]  IF CBECS Activity = Office OR Enclosed Mall OR Outpatient health care OR  Mall interview 🡺 C26 [Percent occupancy]  IF B19 [Lodging type] = Hotel or resort OR Motel, inn, or bed and breakfast OR  Retirement home OR B21 [Residential type] = Hotel or resort OR  Motel, inn, or bed and breakfast OR Retirement home OR  B14 [Health care type] = Retirement home  🡺 C27 [Lodging room percent occupancy]  OTHERWISE 🡺 C28 [Open 24 hours a day] |

|  |  |
| --- | --- |
| **C19** | Zero months in use check {MonUseCheck} |
| ASK | IF C18 [Months in use] = 0 & **NOT** B25 [Completely vacant] = Yes |
| FILL | **{Warehouse}**  IF CBECS Activity = Nonrefrigerated warehouse OR Refrigerated warehouse =  “If goods are stored in the building, then it should be considered "in use" by  CBECS definition.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Your previous answers did not indicate that this building was completely vacant in 2018. Unless the building was completely vacant and unused, there should be at least one month in use. {Warehouse} |
| **Interviewer Instructions** | Please select the "Back" button to change the months in use, or the "Next" button to keep your current answer. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | No space for answer, just Next button. |
| NONRESPONSE | N/A |
| NEXT | 🡺 D1 [Heating] |

|  |  |
| --- | --- |
| **C20** | Previous use {PreviousUse} *PREVUSE* |
| ASK | IF B25 [Completely vacant] = Yes & **NOT** C18 [Months in use] = 0 |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Since this building was not completely vacant for all of 2018, please think about the equipment and the energy that was used during the time that the building was in use when answering this questionnaire.    What was the building used for during the months that it was used in 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 D1 [Heating] |

|  |  |
| --- | --- |
| **C21** | Occupied/vacant all 2018 {EstabSameSpace} *ESTOCC* |
| ASK | IF Establishment interview |
| FILL | **{VacOcc}**  IF Establishment Activity = Vacant = “Was this establishment vacant”  IF Establishment Activity ≠ Vacant =  “Did this establishment occupy this same space” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {VacOcc} for all of calendar year 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes OR Missing:  IF Establishment Activity = Vacant 🡺 D1 [Heating]  IF Establishment Activity ≠ Vacant 🡺 C28 [Open 24 hours a day]  IF No 🡺 C22 [Month occupied/vacant] |

|  |  |
| --- | --- |
| **C22** | Month occupied/vacant {MonthEstab} *MONOCC* |
| ASK | IF C21 [Occupied/vacant all 2018] = No |
| FILL | **{VacOcc}**  IF Establishment Activity = Vacant = “become vacant”  OTHERWISE = “begin occupying this space” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | In what month of 2018 did this establishment {VacOcc}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. January |  |  |
| 2. February |  |  |
| 3. March |  |  |
| 4. April |  |  |
| 5. May |  |  |
| 6. June |  |  |
| 7. July |  |  |
| 8. August |  |  |
| 9. September |  |  |
| 10. October |  |  |
| 11. November |  |  |
| 12. December |  |  |
| 13. Establishment did not {VacOcc} until 2019 |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Establishment did not begin occupying space until 2019 THEN:  IF Establishment Activity ≠ Vacant 🡺 C23 [Vacant in 2018]  IF Establishment Activity = Vacant 🡺 C24 [Prior establishment activity]  OTHERWISE:  IF Establishment Activity = Vacant 🡺 D1 [Heating]  OTHERWISE 🡺 C28 [Open 24 hours a day] |

|  |  |
| --- | --- |
| **C23** | Vacant in 2018 {VacantPriorYear} *VACPRIOR* |
| ASK | IF C22 [Month occupied/vacant] = Establishment did not begin occupying space  until 2019 & Establishment Activity ≠ Vacant |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | This study is about the use of this space during 2018. Was this space vacant for all of 2018, or did some other establishment occupy this space for all or part of 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Vacant for all of 2018 |  |  |
| 2. Some other establishment occupied the space |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other establishment occupied the space  🡺 C24 [Prior establishment activity]  OTHERWISE 🡺 C25 [End of interview] |

|  |  |
| --- | --- |
| **C24** | Prior establishment activity {PriorActivity} *ACTPRIOR* |
| ASK | IF (C22 [Month occupied/vacant] = Establishment did not begin occupying space  until 2019 & Establishment Activity = Vacant) OR  C23 [Vacant in 2018] = Some other establishment occupied the space |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD B15 |
| **Question Text** | Looking at the list of activities on Show Card B15, which one best describes the activity of the establishment that occupied this space in 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of the following activities best describes the activity of the establishment that occupied this space in 2018? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Retail store |  |  |
| 2. Food sales  *(Examples: grocery store, supermarket, convenience store, butcher shop, seafood market, produce market)* |  |  |
| 3. Food service/Bar/Night club  *(Examples: restaurant, fast food, sandwich shop, pizzeria, coffee shop, doughnut or bagel shop, ice cream parlor, bakery, bar, night club)* |  |  |
| 4. Dry cleaner/Laundromat |  |  |
| 5. Office/Financial  *(Examples: bank, credit union, insurance, tax assistance, loans, check cashing, real estate, lawyer, accountant, recruiting)* |  |  |
| 6. Medical/Dental |  |  |
| 7. Education/Child care  *(Examples: tutoring, adult education, art school, preschool, daycare)* |  |  |
| 8. Movie theater/Cinema |  |  |
| 9. Salon/Spa/Barber shop |  |  |
| 10. Fitness center/Dance studio  *(Includes martial arts)* |  |  |
| 11. Vacant |  |  |
| 12. Other |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 C25 [End of interview] |

|  |  |
| --- | --- |
| **C25** | End of interview {Terminate2019} |
| ASK | IF C22 [Month occupied/vacant] = Establishment did not begin occupying space  until 2019 |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Thank you for your time and help. This completes your interview since this study only includes establishments that were occupying this space in 2018. |
| **Interviewer Instructions** | Please select the “Next” button to finish the interview. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes requires |
| **ITEM TYPE** | No space for answer, just Next button. |
| NONRESPONSE | N/A |
| NEXT | TERMINATE |

|  |  |
| --- | --- |
| **C26** | Percent occupancy {OccupancyPct} *OCCUPYP* |
| ASK | IF (CBECS Activity = Office OR Enclosed Mall OR Outpatient health care) OR  Mall interview) & **NOT** C18 [Months in use] = 0 |
| FILL | **{MonthsInUse}**  IF C18 [Months in use] < 12 = “Thinking about the months that this building was in  use in 2018, about “  OTHERWISE = “In 2018, about ” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {MonthsInUse} what percentage of the total floorspace of this building was occupied? If occupancy varied, please provide the average. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 0 to 100 | % | 0 to 100 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building interview 🡺 C28 [Open 24 hours a day]  IF Mall interview 🡺 D1 [Heating] |

|  |  |
| --- | --- |
| **C27** | Lodging room percent occupancy {LodgeRoomOccupyPct} *LODOCCP* |
| ASK | IF (B19 [Lodging type] = Hotel or resort OR Motel, inn, or bed and breakfast OR  Retirement home OR B21 [Residential type] = Hotel or resort OR  Motel, inn, or bed and breakfast OR Retirement home OR  B14 [Health care type] = Retirement home) & **NOT** C18 [Months in use] = 0 |
| FILL | **{LodgeRooms}**  IF B40 [Number of guest rooms] known = “B40 [Number of guest rooms]”  IF B40 [Number of guest rooms] = Missing = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | In 2018, on average, what percentage of the {LodgeRooms} guest or occupant rooms in this building were occupied per night? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 0 to 100 | % | 0 to 100 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 C28 [Open 24 hours a day] |

|  |  |
| --- | --- |
| **C28** | Open 24 hours a day {Open24Hrs} *OPEN24* |
| ASK | IF (Building interview & **NOT** B25 [Completely vacant] = Yes &  **NOT** C18 [Months in use] = 0) OR  (Establishment interview & Establishment Activity ≠ Vacant) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{Occur}**  IF C18 [Months in use] = 12 OR  C21 [Occupied/vacant all 2018] = Yes OR Missing = “occur”  OTHERWISE = “occurred during the months when the {Structure} was in use”  **{HoursInstruct}**  IF C18 [Months in use] = 12 OR  C21 [Occupied/vacant all 2018] = Yes OR Missing = “If the hours of operation  varied throughout the year, report the most typical hours.”  OTHERWISE = “If the hours of operation varied throughout this time, consider the  hours for the most typical months.” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | The next questions are about the hours that this {Structure} is normally open.  "Normally open" means the hours when the usual activities {Occur}. Do not consider the {Structure} to be open if only maintenance, housekeeping, or security personnel are present. {HoursInstruct}  Is this {Structure} normally open 24 hours a day, seven days a week? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 C34 [Number of employees]  IF No OR Missing 🡺 C29 [Open during week] |

|  |  |
| --- | --- |
| **C29** | Open during week {OpenMonFri} *OPNMF* |
| ASK | IF C28 [Open 24 hours a day] = No OR Missing |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Thinking of Monday through Friday, is this {Structure} open all five days, open some of these days, or is it not open at all Monday through Friday? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. All five days |  |  |
| 2. Some of these days |  |  |
| 3. Not open at all Monday through Friday |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 C30 [Open on weekend] |

|  |  |
| --- | --- |
| **C30** | Open on weekend {OpenWeekend} *OPNWE* |
| ASK | IF C28 [Open 24 hours a day] = No OR Missing |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is this {Structure} normally open at all on the weekend? If it is only open one day of the weekend, consider it to be open. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF No & C29 [Open during week] = Not open at all Monday through Friday  🡺 C31 [No operating hours]  OTHERWISE 🡺 C32 [Total hours open per week] |

|  |  |
| --- | --- |
| **C31** | No operating hours {NoHours} *NOHRS* |
| ASK | IF C29 [Open during week] = Not open at all Monday through Friday &  C30 [Open on weekend] = No |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Based on your previous answers, it appears this {Structure} does not have any normal operating hours. Is that correct? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Correct, no operating hours |  |  |
| 2. Incorrect, there are some operating hours |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Correct, no operating hours 🡺 🡺 D1 [Heating]  IF Incorrect, there are some operating hours OR Missing  🡺 C32 [Total hours open per week] |

|  |  |
| --- | --- |
| **C32** | Total hours open per week {WeeklyHrs} *WKHRS* |
| ASK | IF C29 [Open during week] = All five days OR Some of these days OR Missing  OR C30 [Open on weekend] = Yes OR Missing OR  C31 [No operating hours] = Incorrect, there are some operating hours OR  Missing |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many total hours per week is the {Structure} normally open? "Normally open" means the hours when the usual activities occur. If the hours vary for different parts of the building, report the hours for most of the building, based on square footage. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 0 to 168 | hours | 0 to 168 |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF DK/Missing 🡺 C33 [Weekly hours category]  OTHERWISE 🡺 C34 [Number of employees] |

|  |  |
| --- | --- |
| **C33** | Weekly hours category {WeeklyHrsCat} *WKHRSC* |
| ASK | IF C32 [Total hours open per week] = DK/Missing |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD C4 |
| **Question Text** | Please look at Show Card C4. Which category best describes the total hours per week that the {Structure} is normally open? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Which category best describes the total hours per week that the {Structure} is normally open? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. 1 to 39  *(For example, open only a few hours per day, or only on weekends)* |  |  |
| 2. 40 to 48  *(For example, open 8 or 9 hours a day, Monday through Friday)* |  |  |
| 3. 49 to 60  *(For example, open 10 to 12 hours a day, Monday through Friday, or 7 or 8 hours a day, every day)* |  |  |
| 4. 61 to 84  *(For example, open 9 to 12 hours a day, every day)* |  |  |
| 5. 85 to 167  *(Open most of the time)* |  |  |
| 6. 168  *(Open 24 hours a day)* |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 C34 [Number of employees] |

|  |  |
| --- | --- |
| **C34** | Number of employees {Workers} *NWKER* |
| ASK | IF ((Building interview & **NOT** B25 [Completely vacant] = Yes &  **NOT** C18 [Months in use] = 0) OR  (Establishment interview & Establishment Activity ≠ Vacant))  & **NOT** C31 [No operating hours] = Correct, no operating hours |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many employees work in the {Structure} during the main shift, that is, when most employees are present? Please note that this is not a total count of workers, but rather a count of workers who are present at the same time. Include any volunteer workers. Do not include employees who always work outside the building, such as drivers with delivery routes. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | workers (main shift) | 0 to 99,999 |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF DK/Missing 🡺 C35 [Number of employees category]  IF Number given 🡺 D1 [Heating] |

|  |  |
| --- | --- |
| **C35** | Number of employees category {WorkersCat} *NWKERC* |
| ASK | IF C34 [Number of employees] = DK/Missing |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD C5 |
| **Question Text** | Please look at Show Card C5. Which category best describes how many employees work in the {Structure} during the main shift? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Which category best describes how many employees work in the {Structure} during the main shift? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. None |  |  |
| 2. 1 to 4 |  |  |
| 3. 5 to 9 |  |  |
| 4. 10 to 19 |  |  |
| 5. 20 to 49 |  |  |
| 6. 50 to 99 |  |  |
| 7. 100 to 249 |  |  |
| 8. 250 to 499 |  |  |
| 9. 500 to 999 |  |  |
| 10. 1,000 to 2,499 |  |  |
| 11. 2,500 to 4,999 |  |  |
| 12. 5,000 or More |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 D1 [Heating] |

**Section D: Energy Sources, Uses, and Equipment**

|  |  |
| --- | --- |
| **D1** | Heating {Heating} *HT1* |
| ASK | All structure types |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | The next section is about energy sources, uses, and equipment.  For the next five questions, please tell me whether or not energy was used in this {Structure} for any of these purposes during calendar year 2018.  Was any energy used for heating the {Structure}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | The next section is about energy sources, uses, and equipment.  For the next five questions, please report whether or not energy was used in this {Structure} for any of these purposes during calendar year 2018.  Was any energy used for heating the {Structure}? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF No & **NOT** CBECS Activity = Vacant, Refrigerated warehouse,  Nonrefrigerated warehouse, OR Service & **NOT** Establishment Activity = Vacant  🡺 D2 [Why no heating]  OTHERWISE 🡺 D4 [Cooling] |

|  |  |
| --- | --- |
| **D2** | Why no heating {WhyNoHeating} *NOHEAT* |
| ASK | IF D1 [Heating] = No & **NOT** CBECS Activity = Vacant, Refrigerated warehouse,  Nonrefrigerated warehouse, OR Service &  **NOT** Establishment Activity = Vacant |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please briefly tell me why this {Structure} wasn’t heated during 2018. |
| **Interviewer Instructions** | Select option that best matches respondent’s answer |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of the following reasons best explains why this {Structure} wasn’t heated during 2018? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | | |
| ***Enumerated*** | | | |
| **Response options** |  | **Image** | **SAS Name** |
| 1. Previous answer incorrect, {Structure} does have heating | |  |  |
| 2. Climate doesn’t require heating | |  |  |
| 3. {Structure} wasn’t used during the 2018 heating season | |  |  |
| 4. Waste heat from other equipment is sufficient | |  |  |
| 5. Heating equipment was broken during 2018 | |  |  |
| 6. Some other reason | |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other reason 🡺 D3 [Other no heating specify]  OTHERWISE 🡺 D4 [Cooling] |

|  |  |
| --- | --- |
| **D3** | Other no heating specify {OtherNoHeatReason} *NOHEATX* |
| ASK | IF D2 [Why no heating] = Some other reason |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| --- | --- |
| **RESPONSE OPTIONS** | |
| ***String Text*** | |
| **Watermark** |  |
| Briefly describe the reason there was no heating |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 D4 [Cooling] |

|  |  |
| --- | --- |
| **D4** | Cooling {Cooling} *COOL* |
| ASK | All structure types |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | (Was any energy used...)    For air conditioning? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Was any energy used for air conditioning? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF No & **NOT** CBECS Activity = Vacant, Refrigerated warehouse,  Nonrefrigerated warehouse, OR Service  & **NOT** (A24 [Year of construction = 2018] & A27 [Month ready for occupancy] =  September, October, November, OR December)  & **NOT** Establishment Activity = Vacant  & **NOT** C22 [Month occupied/vacant] = September, October, November, OR  December] 🡺 D5 [Why no cooling]  OTHERWISE 🡺 D7 [Water heating] |

|  |  |
| --- | --- |
| **D5** | Why no cooling {WhyNoCooling} *NOCOOL* |
| ASK | IF D4 [Cooling] = No & **NOT** CBECS Activity = Vacant, Refrigerated warehouse,  Nonrefrigerated warehouse, OR Service  & **NOT** (A24 [Year of construction = 2018] &  A27 [Month ready for occupancy] = September, October, November, OR  December) & **NOT** Establishment Activity = Vacant  & **NOT** C22 [Month occupied/vacant] = September, October, November, OR  December] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please briefly tell me why this {Structure} wasn’t air conditioned during 2018. |
| **Interviewer Instructions** | Select option that best matches respondent’s answer |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of the following reasons best explains why this {Structure} wasn’t air conditioned during 2018? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Previous answer incorrect, {Structure} does have air conditioning |  |  |
| 2. Climate doesn’t require air conditioning |  |  |
| 3. {Structure} wasn’t used during the 2018 cooling season |  |  |
| 4. {Structure} is used for storage |  |  |
| 5. Air conditioning equipment was broken during 2018 |  |  |
| 6. Can not afford air conditioning |  |  |
| 7. Some other reason |  |  |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other reason 🡺 D6 [Other no heating specify]  OTHERWISE 🡺 D7 [Water heating] |

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| **D6** | Other no cooling specify {OtherNoCoolReason} *NOCOOLX* |
| ASK | IF D5 [Why no cooling] = Some other reason |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the reason there was no air conditioning |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 D7 [Water heating] |

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| **D7** | Water heating {WaterHeat} *WATR* |
| ASK | All structure types |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | (Was any energy used...)    For heating water for purposes such as washing hands, dishes, or clothes? |
| **Interviewer Instructions** | Select option that best matches respondent’s answer |
| **QUESTION TEXT – web** | |
| **Question Text** | Was any energy used for heating water for purposes such as washing hands, dishes, or clothes? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF No & **NOT** (D1 [Heating] = No & D4 [Cooling] = No)  & **NOT** CBECS Activity = Vacant, Refrigerated warehouse,  Nonrefrigerated warehouse, OR Service  & **NOT** Establishment Activity = Vacant 🡺 D8 [Why no water heating]  OTHERWISE 🡺 D10 [Cooking] |

|  |  |
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| **D8** | Why no water heating {WhyNoWaterHeating} *NOWATR* |
| ASK | IF D7 [Water heating] = No & **NOT** (D1 [Heating] = No & D4 [Cooling] = No)  & **NOT** CBECS Activity = Vacant, Refrigerated warehouse,  Nonrefrigerated warehouse, OR Service  & **NOT** Establishment Activity = Vacant |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please briefly tell me why there was no water heating in this {Structure} during 2018. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of the following reasons best explains why there was no water heating in this {Structure} during 2018? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Previous answer incorrect, {Structure} does have water heating |  |  |
| 2. No plumbing in {Structure} |  |  |
| 3. Cold water only |  |  |
| 4. Water heating was broken during 2018 |  |  |
| 5. Some other reason |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other reason 🡺 D9 [Other no water heating specify]  OTHERWISE 🡺 D10 [Cooking] |

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| **D9** | Other no water heating specify {OtherNoWatrReason} *NOWATRX* |
| ASK | IF D8 [Why no water heating] = Some other reason |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the reason there was no water heating |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 D10 [Cooking] |

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| **D10** | Cooking {Cooking} *COOK* |
| ASK | All structure types |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | (Was any energy used...)    For cooking? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Was any energy used for cooking? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 D11 [Manufacturing] |

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| **D11** | Manufacturing {Manufacturing} *MANU* |
| ASK | All structure types |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | (Was any energy used...)    For manufacturing? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Was any energy used for manufacturing? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF (No OR Missing) & (D1 [Heating] = No OR Missing)  & (D4 [Cooling] = No OR Missing) & (D7 [Water heating] = No OR Missing)  & (D10 [Cooking] = No OR Missing)  D12 [Any energy used]  OTHERWISE  D13 [Energy sources used] |

|  |  |
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| **D12** | Any energy used {AnyEnergy} *ANYEGY* |
| ASK | IF (D1 [Heating] = No OR Missing) & (D4 [Cooling] = No OR Missing)  & (D7 [Water heating] = No OR Missing) & (D10 [Cooking] = No OR Missing)  & (D11 [Manufacturing] = No OR Missing) |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Based on your previous answers, it appears there are no major uses of energy in this {Structure}. Did this {Structure} use any energy in 2018 for other purposes, such as lighting or appliances? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes, some energy was used in 2018 |  |  |
| 2. No, no energy was used |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes, some energy was used OR Missing 🢂 D13 [Energy sources used]  IF No, no energy was used 🢂 E83 [Window glass type] |

|  |  |
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| **D13** | Energy sources used {Sources} *see below* |
| ASK | IF **NOT** D12 [Any energy used] = No, no energy was used |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D1 |
| **Question Text** | Looking at this list of energy sources on Show Card D1, please tell me which ones were used in this {Structure} for any purpose in 2018. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which energy sources were used in this {Structure} for any purpose in 2018? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Electricity |  | *ELUSED* |
| 2. Natural gas |  | *NGUSED* |
| 3. Fuel oil, diesel, or kerosene |  | *FKUSED* |
| 4. Propane, also known as bottled gas or LPG |  | *PRUSED* |
| 5. District steam piped in from a separate building or utility |  | *STUSED* |
| 6. District hot water piped in from a separate building or utility |  | *HWUSED* |
| 7. District chilled water piped in from a separate building or utility |  | *CWUSED* |
| 8. Wood |  | *WOUSED* |
| 9. Coal |  | *COUSED* |
| 10. Solar |  | *SOUSED* |
| 11. Other source |  | *OTUSED* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other source selected 🢂 D14 [Other energy source]  IF Answered & **NOT** Electricity selected 🢂 D15 [Verify no electricity]  IF Fuel, oil, diesel, or kerosene selected 🢂 D16 [Fuel oil, diesel, or kerosene]  IF Solar selected 🢂 D17 [Type of solar]  IF District steam OR District hot water selected  & B50 [Central physical plant] = Yes  & B55 [Central plant in building] = In another building  🢂 D18 [From central plant]  OTHERWISE:  IF Building OR Mall interview & D1 [Heating] = Yes 🢂 D20 [Percent heated]  IF Establishment interview & D1 [Heating] = Yes  🢂 D22 [Source for main heating]  IF Building OR Mall interview & D4 [Cooling] = Yes 🢂 D90 [Percent cooled]  IF Establishment interview & D4 [Cooling] = Yes  & **NOT** District chilled water used 🢂 D91 [Electricity only for cooling]  IF Establishment interview & D4 [Cooling] = Yes  & District chilled water used 🢂 D94 [EL or CW for cooling]  IF D7 [Water heating] = Yes 🢂 D131 [Sources for water heating]  IF D10 [Cooking] = Yes 🢂 D135 [Sources for cooking]  IF D11 [Manufacturing] = Yes 🢂 D137 [Sources for manufacturing]  OTHERWISE 🢂 D139 [Electricity generation capability] |

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| **D14** | Other energy source {OthSourceSp1} *OTUSDX* |
| ASK | IF Other source IN D13 [Energy sources used] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other energy source used |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF **NOT** Electricity IN D13 [Energy sources used] 🢂 D15 [Verify no electricity]  IF Fuel, oil, diesel, or kerosene IN D13 [Energy sources used]  🢂 D16 [Fuel oil, diesel, or kerosene]  IF Solar IN D13 [Energy sources used] 🢂 D17 [Type of solar]  IF District steam OR District hot water IN D13 [Energy sources used]  & B50 [Central physical plant] = Yes  & B55 [Central plant in building] = In another building  🢂 D18 [From central plant]  IF Building OR Mall interview & D1 [Heating] = Yes 🢂 D20 [Percent heated]  IF Establishment interview & D1 [Heating] = Yes 🢂 D22 [Source for main heating]  IF Building OR Mall interview & D4 [Cooling] = Yes 🢂 D90 [Percent cooled]  IF Establishment interview & D4 [Cooling] = Yes & **NOT** District chilled water used  🢂 D91 [Electricity only for cooling]  IF Establishment interview & D4 [Cooling] = Yes & **NOT** Electricity used  & **NOT** District chilled water used 🢂 D92 [Sources for cooling]  IF Establishment interview & D4 [Cooling] = Yes & District chilled water used  🢂 D94 [EL or CW for cooling]  IF D7 [Water heating] = Yes 🢂 D131 [Sources for water heating]  IF D10 [Cooking] = Yes 🢂 D135 [Sources for cooking]  IF D11 [Manufacturing] = Yes 🢂 D137 [Sources for manufacturing]  OTHERWISE 🢂 D139 [Electricity generation capability] |

|  |  |
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| **D15** | Verify no electricity {NoELCheck} |
| ASK | IF D13 [Energy sources used] given & **NOT** Electricity used |
| FILL | **{Structure}**  IF Interview = Building OR Mall= “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | You did not indicate that electricity was used in this {Structure} in 2018. This is unusual. |
| **Interviewer Instructions** | Please select the “Back” button to add electricity, or the “Next” button to keep your current answer. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | No space for answer, just Next button. |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Fuel, oil, diesel, or kerosene IN D13 [Energy sources used]  🢂 D16 [Fuel oil, diesel, or kerosene]  IF Solar IN D13 [Energy sources used] 🢂 D17 [Type of solar]  IF District steam OR District hot water IN D13 [Energy sources used]  & B50 [Central physical plant] = Yes  & B55 [Central plant in building] = In another building  🢂 D18 [From central plant]  IF Building OR Mall interview & D1 [Heating] = Yes 🢂 D20 [Percent heated]  IF Establishment interview & D1 [Heating] = Yes 🢂 D22 [Source for main heating]  IF Building OR Mall interview & D4 [Cooling] = Yes 🢂 D90 [Percent cooled]  IF Establishment interview & D4 [Cooling] = Yes & **NOT** District chilled water used  🢂 D91 [Electricity only for cooling]  IF Establishment interview & D4 [Cooling] = Yes & District chilled water used  🢂 D94 [EL or CW for cooling]  IF D7 [Water heating] = Yes 🢂 D131 [Sources for water heating]  IF D10 [Cooking] = Yes 🢂 D135 [Sources for cooking]  IF D11 [Manufacturing] = Yes 🢂 D137 [Sources for manufacturing]  OTHERWISE 🢂 D139 [Electricity generation capability] |

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| **D16** | Fuel oil, diesel, or kerosene {TypeFuelOil} *FKTYPE* |
| ASK | IF Fuel, oil, diesel, or kerosene IN D13 [Energy sources used] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | Verify if volunteered in previous question |
| **Question Text** | You mentioned fuel oil, diesel, or kerosene. Which of these were used (in this {Structure} in 2018)? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported fuel oil, diesel, or kerosene. Which of these were used in this {Structure} in 2018? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Fuel oil |  |  |
| 2. Diesel |  |  |
| 3. Kerosene |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Solar IN D13 [Energy sources used] 🢂 D17 [Type of solar]  IF District steam OR District hot water IN D13 [Energy sources used]  & B50 [Central physical plant] = Yes  & B55 [Central plant in building] = In another building  🢂 D18 [From central plant]  IF Building OR Mall interview & D1 [Heating] = Yes 🢂 D20 [Percent heated]  IF Establishment interview & D1 [Heating] = Yes 🢂 D22 [Source for main heating]  IF Building OR Mall interview & D4 [Cooling] = Yes 🢂 D90 [Percent cooled]  IF Establishment interview & D4 [Cooling] = Yes & **NOT** District chilled water used  🢂 D91 [Electricity only for cooling]  IF Establishment interview & D4 [Cooling] = Yes & **NOT** Electricity used  & **NOT** District chilled water used 🢂 D92 [Sources for cooling]  IF Establishment interview & D4 [Cooling] = Yes & District chilled water used  🢂 D94 [EL or CW for cooling]  IF D7 [Water heating] = Yes 🢂 D131 [Sources for water heating]  IF D10 [Cooking] = Yes 🢂 D135 [Sources for cooking]  IF D11 [Manufacturing] = Yes 🢂 D137 [Sources for manufacturing]  OTHERWISE 🢂 D139 [Electricity generation capability] |

|  |  |
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| **D17** | Type of solar {TypeSolar} *see below* |
| ASK | IF Solar IN D13 [Energy sources used] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Which type of solar was used: solar panels to generate electricity or solar thermal energy, which is the direct use of solar energy without generating electricity? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Solar panels used to generate electricity |  | *PVC/SOGENR/CAPGEN* |
| 2. Solar thermal energy (use of solar energy without generating electricity) |  | *SOTHERM* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF District steam OR District hot water IN D13 [Energy sources used]  & B50 [Central physical plant] = Yes  & B55 [Central plant in building] = In another building  🢂 D18 [From central plant]  IF Building OR Mall interview & D1 [Heating] = Yes 🢂 D20 [Percent heated]  IF Establishment interview & D1 [Heating] = Yes 🢂 D22 [Source for main heating]  IF Building OR Mall interview & D4 [Cooling] = Yes 🢂 D90 [Percent cooled]  IF Establishment interview & D4 [Cooling] = Yes & **NOT** District chilled water used  🢂 D91 [Electricity only for cooling]  IF Establishment interview & D4 [Cooling] = Yes & **NOT** Electricity used  & **NOT** District chilled water used 🢂 D92 [Sources for cooling]  IF Establishment interview & D4 [Cooling] = Yes & District chilled water used  🢂 D94 [EL or CW for cooling]  IF D7 [Water heating] = Yes 🢂 D131 [Sources for water heating]  IF D10 [Cooking] = Yes 🢂 D135 [Sources for cooking]  IF D11 [Manufacturing] = Yes 🢂 D137 [Sources for manufacturing]  IF Solar panels used to generate electricity  🢂 D142 [Generation technologies other than solar]  OTHERWISE 🢂 D139 [Electricity generation capability] |

|  |  |
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| **D18** | From central plant {DistFromPlant} *DHFRPL* |
| ASK | IF District steam OR District hot water IN D13 [Energy sources used]  & B50 [Central physical plant] = Yes  & B55 [Central plant in building] = In another building |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is the district steam or hot water piped in from a central plant that is part of the same campus or complex as this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF No OR Missing 🢂 D19 [Purchase from offsite]  IF Yes:  IF D1 [Heating] = Yes 🢂 D20 [Percent heated]  IF D4 [Cooling] = Yes 🢂 D90 [Percent cooled]  IF D7 [Water heating] = Yes 🢂 D131 [Sources for water heating]  IF D10 [Cooking] = Yes 🢂 D135 [Sources for cooking]  IF D11 [Manufacturing] = Yes 🢂 D137 [Sources for manufacturing]  IF D17 [Type of solar] = Solar panels  🢂 D142 [Generation technologies other than solar]  OTHERWISE 🢂 D139 [Electricity generation capability] |

|  |  |
| --- | --- |
| **D19** | Purchase from offsite {DistFromOffsite} *DHOFF* |
| ASK | IF D18 [From central plant] = No OR Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is the district steam or hot water purchased from somewhere off-site, such as a commercial or municipal plant? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF D1 [Heating] = Yes 🢂 D20 [Percent heated]  IF D4 [Cooling] = Yes 🢂 D90 [Percent cooled]  IF D7 [Water heating] = Yes 🢂 D131 [Sources for water heating]  IF D10 [Cooking] = Yes 🢂 D135 [Sources for cooking]  IF D11 [Manufacturing] = Yes 🢂 D137 [Sources for manufacturing]  IF D17 [Type of solar] = Solar panels  🢂 D142 [Generation technologies other than solar]  OTHERWISE 🢂 D139 [Electricity generation capability] |

|  |  |
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| **D20** | Percent heated {HeatPct} *HEATP* |
| ASK | IF Building OR Mall interview & D1 [Heating] = Yes |
| FILL | **{SqFt}**  IF A6 [Square footage] known = “A6 [Square footage]”  IF A6 [Square footage] = DK/RF = “floorspace” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | These next questions are about heating in this building.  What percentage of the {SqFt} in this building was heated to at least 50 degrees Fahrenheit during 2018, including basements and indoor parking levels if they were heated to at least 50 degrees? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 0 to 100 | % | 0 to 100 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF 0 🢂 D21 [Heated to less than 50 degrees]  OTHERWISE 🢂 D22 [Source for main heating] |

|  |  |
| --- | --- |
| **D21** | Heated to less than 50 degrees {HeatLess50} *HTLS50* |
| ASK | IF D20 [Percent heated] = 0 |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Was any of this building heated to less than 50 degrees Fahrenheit? Areas may be heated to less than 50 degrees to prevent pipes from freezing. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes OR Missing 🢂 D22 [Source for main heating]  IF No:  IF D4 [Cooling] = Yes 🢂 D90 [Percent cooled]  IF D7 [Water heating] = Yes 🢂 D131 [Sources for water heating]  IF D10 [Cooking] = Yes 🢂 D135 [Sources for cooking]  IF D11 [Manufacturing] = Yes 🢂 D137 [Sources for manufacturing]  IF D17 [Type of solar] = Solar panels  🢂 D142 [Generation technologies other than solar]  OTHERWISE 🢂 D139 [Electricity generation capability] |

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| **D22** | Source for main heating {HeatSource} *see below* |
| ASK | IF D1 [Heating] = Yes & **NOT** ([D20 [Percent heated] = 0  & D21 [Heated to less than 50 degrees] = No) |
| FILL | **{Intro}**  IF Interview = Establishment = “These next questions are about heating in this  establishment.”  IF Interview = Building OR Mall = BLANK  **{Ht1SourcesList}** = List of all energy sources used  **{Electricity} – {Other}** = If a source is used, it appears  **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene]  **{Other}** = Source specified in D14 [Other energy source] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {Intro}  What was the main energy source for heating? (Was it {Ht1SourcesList}?) |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | {Intro}  What was the main energy source for heating? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. {Electricity} |  | *ELHT1* |
| 2. {Natural gas} |  | *NGHT1* |
| 3. {FuelOilType} |  | *FKHT1* |
| 4. {Propane} |  | *PRHT1* |
| 5. {District steam} |  | *STHT1* |
| 6. {District hot water} |  | *HWHT1* |
| 7. {Wood} |  | *WOHT1* |
| 8. {Coal} |  | *COHT1* |
| 9. {Solar thermal} |  | *SOHT1* |
| 10. {Other} |  | *OTHT1* |
| 11. Some other energy source |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other energy source 🢂 D23 [Other source for main heating]  IF Missing 🢂 D31 [Heating equipment for unknown source]  OTHERWISE:  IF More than one energy source used 🢂 D24 [Which other sources for heating]  IF Only one energy source used 🢂 D25 [Any other sources for heating] |

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| **D23** | Other source for main heating {OtHt1Source} *see below* |
| ASK | IF D22 [Source for main heating] = Some other energy source |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the other energy source used for main space heating? |
| **Interviewer Instructions** | Read choices if necessary |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Electricity |  | *ELHT1* |
| 2. Natural gas |  | *NGHT1* |
| 3. Fuel Oil/Diesel/Kerosene |  | *FKHT1* |
| 4. Propane |  | *PRHT1* |
| 5. District steam |  | *STHT1* |
| 6. District hot water |  | *HWHT1* |
| 7. Wood |  | *WOHT1* |
| 8. Coal |  | *COHT1* |
| 9. Solar thermal |  | *SOHT1* |
| 10. Some other energy source |  | *OTHT1* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 D24 [Which other sources for heating] |

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| **D24** | Which other sources for heating {SecHtSource} *HT2 & see below* |
| ASK | IF D1 [Heating] = Yes & More than one energy source used  & **NOT** D22 [Source for main heating] = Missing |
| FILL | **{Ht2SourcesList}** = List of all energy sources used, other than the one used for main heating  **{Electricity} – {Other}** = If a source is used (other than for main space heating), it appears  **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene]  **{Other}** = Source specified in D14 [Other energy source] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Which other energy sources, if any, were used for heating? Do not include electricity if it is used only to run fan motors. (Was it {Ht2SourcesList}?) |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which other energy sources, if any, were used for heating? Do not include electricity if it is used only to run fan motors. |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. {Electricity} |  | *ELHT2* |
| 2. {Natural gas} |  | *NGHT2* |
| 3. {FuelOilType} |  | *FKHT2* |
| 4. {Propane} |  | *PRHT2* |
| 5. {District steam} |  | *STHT2* |
| 6. {District hot water} |  | *HWHT2* |
| 7. {Wood} |  | *WOHT2* |
| 8. {Coal} |  | *COHT2* |
| 9. {Solar thermal} |  | *SOHT2* |
| 10. {Other} |  | *OTHT2* |
| 11. Some other energy source |  |  |
| 12. No other sources for heating |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other energy source 🢂 D26 [Other source for heating]  OTHERWISE 🢂 DRT [Main heating routing] |

|  |  |
| --- | --- |
| **D25** | Any other sources for heating {SecOthSource} *HT2* |
| ASK | IF D1 [Heating] = Yes & Only one energy source used  & **NOT** D22 [Source for main heating] = Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Where there any other energy sources used for heating? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🢂 D26 [Other source for heating]  OTHERWISE 🢂 DRT [Main heating routing] |

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| **D26** | Other source for heating {OtHt2Source} *see below* |
| ASK | IF D24 [Which other sources for heating] = Some other energy source  OR D25 [Any other sources for heating] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the other energy source used for secondary space heating? |
| **Interviewer Instructions** | Read choices if necessary |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Electricity |  | *ELHT2* |
| 2. Natural gas |  | *NGHT2* |
| 3. Fuel Oil/Diesel/Kerosene |  | *FKHT2* |
| 4. Propane |  | *PRHT2* |
| 5. District steam |  | *STHT2* |
| 6. District hot water |  | *HWHT2* |
| 7. Wood |  | *WOHT2* |
| 8. Coal |  | *COHT2* |
| 9. Solar thermal |  | *SOHT2* |
| 10. Some other energy source |  | *OTHT2* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 DRT [Main heating routing] |

**NOTE ON ENERGY SOURCES:**

Throughout the rest of this questionnaire, there will be references such as “Electricity used” or “Natural gas used.” In addition to the energy sources that were given in D13 [Energy sources used], if sources are added along the way, such as in D23 [Other source for main heating] OR D26 [Other source for heating], those sources are then also considered to be used.

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| **DRT** | **Main heating routing** |
| NEXT | IF D22 [Source for main heating] = District steam & **NOT** D18 [From central plant] = Yes  & **NOT** D19 [Purchase from offsite] = Yes 🢂 D27 [Where does steam come from]  IF D22 [Source for main heating] = District hot water & **NOT** D18 [From central plant] = Yes  & **NOT** D19 [Purchase from offsite] = Yes 🢂 D29 [Where does hot water come from]  IF D22 [Source for main heating] OR D23 [Other source for main heating] = Electricity  🢂 D33 [Elec main heating equipment]  IF D22 [Source for main heating] OR D23 [Other source for main heating] = Natural gas  🢂 D35 [Nat gas main heating equipment]  IF D22 [Source for main heating] OR  D23 [Other source for main heating] = Fuel oil/Diesel/Kerosene  🢂 D37 [Fuel oil main heating equipment]  IF D22 [Source for main heating] OR D23 [Other source for main heating] = Propane  🢂 D39 [Propane main heating equipment]  IF D22 [Source for main heating] OR D23 [Other source for main heating] = District steam  🢂 D41 [District steam distribution]  IF D22 [Source for main heating] OR D23 [Other source for main heating] = District hot water  🢂 D42 [District hot water distribution]  IF D22 [Source for main heating] OR D23 [Other source for main heating] = Wood  🢂 D43 [Wood main heating equipment]  IF D22 [Source for main heating] OR D23 [Other source for main heating] = Coal  🢂 D45 [Coal main heating equipment]  IF D22 [Source for main heating] OR D23 [Other source for main heating] = Solar thermal  🢂 D47 [Solar thermal heating equipment]  IF D22 [Source for main heating] = {Other} OR  D23 [Other source for main heating] = Some other energy source  🢂 D48 [Other source main heating equipment] |

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| **D27** | Where does steam come from {WhereSteam} *STLOCTN* |
| ASK | IF D22 [Source for main heating] = District steam  & **NOT** D18 [From central plant] = Yes  & **NOT** D19 [Purchase from offsite] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does the steam come from a boiler in another building, from a utility, or from a boiler inside this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. From a boiler in another building |  |  |
| 2. From a district steam utility |  |  |
| 3. From a boiler inside this building |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF From a boiler inside this building 🢂 D28 [Steam boiler fuel]  OTHERWISE 🢂 D41 [District steam distribution] |

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| **D28** | Steam boiler fuel {SteamFuel} *STBLFL* |
| ASK | IF D27 [Where does steam come from] = From a boiler inside the building |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What energy source does the boiler use to make the district steam: natural gas, fuel oil, propane, coal, electricity, or some other energy source? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | What energy source does the boiler use to make the district steam? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Natural gas |  |  |
| 2. Fuel oil |  |  |
| 3. Propane |  |  |
| 4. Coal |  |  |
| 5. Electricity |  |  |
| 6. Other energy source |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Answered 🢂 D51 [Boiler distribution]  IF Missing 🢂 D41 [District steam distribution] |

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| **D29** | Where does hot water come from {WhereDistHW} *HWLOCTN* |
| ASK | IF D22 [Source for main heating] = District hot water  & **NOT** D18 [From central plant] = Yes  & **NOT** D19 [Purchase from offsite] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does the district hot water come from a boiler in another building, from a utility, or from a boiler inside this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. From a boiler in another building |  |  |
| 2. From a district hot water utility |  |  |
| 3. From a boiler inside this building |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF From a boiler inside this building 🢂 D30 [Hot water boiler fuel]  OTHERWISE 🢂 D42 [District hot water distribution] |

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| **D30** | Hot water boiler fuel {DistHWFuel} *HWBLFL* |
| ASK | IF D29 [Where does hot water come from] = From a boiler inside the building |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What energy source does the boiler use to make the district hot water: natural gas, fuel oil, propane, coal, electricity, or some other energy source? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | What energy source does the boiler use to make the district hot water? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Natural gas |  |  |
| 2. Fuel oil |  |  |
| 3. Propane |  |  |
| 4. Coal |  |  |
| 5. Electricity |  |  |
| 6. Other energy source |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Answered 🢂 D51 [Boiler distribution]  IF Missing 🢂 D42 [District hot water distribution] |

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| **D31** | Heating equipment for unknown source {HeatEquip\_DK\_Source} *see below* |
| ASK | IF D22 [Source for main heating] = DK/Missing |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D2 |
| **Question Text** | Even though you aren’t sure of the energy source used for heating this {Structure}, you may still be familiar with the equipment. Looking at the list of heating equipment and distribution types on Show Card D2, please tell me which one (or ones) are used in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Even though you aren’t sure of the energy source used for heating this {Structure}, you may still be familiar with the equipment. Which of these heating equipment and distribution types are used in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Packaged central units (such as rooftop units, or RTUs)  *(Packaged units contain all of their components in a single outdoor enclosure that sits on either the roof or to the side of a building. Some packaged heating units will contain air conditioning equipment. Packaged heating units may also be known as self-contained units.)* |  | *PKGHT\_DK* |
| 2. Boilers that produce steam or hot water for space heating |  | *BOILER\_DK* |
| 3. Heat pumps (other than components of a packaged central unit)  *(These types of heat pumps may also be referred to as split system heat pumps.)* |  | *HTPMPH\_DK* |
| 4. Residential-type furnaces  *(Furnaces heat air directly and circulate the warm air through ducts and vents.)* |  | *FURNAC\_DK* |
| 5. Individual space heaters  *(Individual space heaters directly heat only the room or area where they are located. Examples include electric baseboards, electric radiant or quartz heaters, heating panels, infrared radiant heaters, gas- or kerosene-fired unit heaters, wood stoves, heating elements in Packaged Terminal Air Conditioners (PTACs), and Packaged Terminal Heat Pumps (PTHPs).)* |  | *SLFCON\_DK* |
| 6. Fireplaces |  | *FIREPLC\_DK* |
| 7. Central air handlers |  | *AIRHAND\_DK* |
| 8. Fan coil or induction units  *(Fan coil units, including unit ventilators, contain a heating coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the heating coil and circulate the air within a room.)* |  | *FANCOIL\_DK* |

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| 9. Duct reheat  *(Heating coils located within ducts)* |  | *REHEAT\_DK* |
| 10. Radiators  *(Radiators heat by circulating hot water or steam, using convection and radiation without fans; typically located along baseboards)* |  | *RADIATR\_DK* |
| 11. Radiant floor/ceiling panels |  | *RADFLR\_DK* |
| 12. Other heating equipment |  | *OTHTEQ\_DK* |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other heating equipment selected 🢂 D32 [Unknown source heat equip specify]  IF Boilers selected & Building interview 🢂 D50 [Where is the boiler located]  OTHERWISE 🢂 ART [Heating follow-up routing] STEP 10 |

|  |  |
| --- | --- |
| **D32** | Unknown source heat equip specify {OthHeatSpecify\_DK\_Source} *OTHTEQX\_DK* |
| ASK | IF D31 [Heating equipment for unknown source] = Other heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of heating equipment |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Building interview & Boilers IN D31 [Heating equipment for unknown source]  🢂 D50 [Where is the boiler located]  OTHERWISE 🢂 ART [Heating follow-up routing] STEP 10 |

|  |  |
| --- | --- |
| **D33** | Elec main heating equipment {HeatEquip\_ELHT1} *see below* |
| ASK | IF D22 [Source for main heating] OR D23 [Other source for main heating]  = Electricity |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D3 |
| **Question Text** | Looking at the list of heating equipment types on Show Card D3, please tell me which one (or ones) are powered by electricity in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating equipment types are powered by electricity in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Packaged central units (such as rooftop units, or RTUs)  *(Packaged units contain all of their components in a single outdoor enclosure that sits on either the roof or to the side of a building. Some packaged heating units will contain air conditioning equipment. Packaged heating units may also be known as self-contained units.)* |  | *PKGHT\_EL* |
| 2. Boilers that produce steam or hot water for space heating |  | *BOILER\_EL* |
| 3. Heat pumps (other than components of a packaged central unit)  *(These types of heat pumps may also be referred to as split system heat pumps.)* |  | *HTPMPH\_EL* |
| 4. Residential-type furnaces  *(Furnaces heat air directly and circulate the warm air through ducts and vents.)* |  | *FURNAC\_EL* |
| 5. Individual space heaters  *(Individual space heaters directly heat only the room or area where they are located. They can be freestanding or self-contained units mounted along baseboards or in walls, ceilings, or windows. Examples include electric baseboards, electric radiant or quartz heaters, heating panels, infrared radiant heaters, heating elements in Packaged Terminal Air Conditioners (PTACs), and Packaged Terminal Heat Pumps (PTHPs).)* |  | *SLFCON\_EL* |
| 6. Fireplaces |  | *FIREPLC\_EL* |
| 7. Duct reheat  *(Heating coils located within ducts)* |  | *REHEAT\_EL* |
| 8. Other heating equipment |  | *OTHTEQ\_EL* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other heating equipment selected 🢂 D34 [Elec other main heat equip specify]  IF Boilers selected THEN:  IF Building interview 🢂 D50 [Where is the boiler located]  IF Mall OR Establishment interview 🢂 D51 [Boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] |

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| **D34** | Elec other main heat equip specify {OthHeatSpecify\_ELHT1} *OTHT1X\_EL* |
| ASK | IF D33 [Elec main heating equipment] = Other heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of heating equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Boilers IN D33 [Elec main heating equipment] THEN:  IF Building interview 🢂 D50 [Where is the boiler located]  IF Mall OR Establishment interview 🢂 D51 [Boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] |

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| **D35** | Nat gas main heating equipment {HeatEquip\_NGHT1} *see below* |
| ASK | IF D22 [Source for main heating] OR D23 [Other source for main heating]  = Natural gas |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D4 |
| **Question Text** | Looking at the list of heating equipment types on Show Card D4, please tell me which one (or ones) are fueled by natural gas in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating equipment types are fueled by natural gas in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Packaged central units (such as rooftop units, or RTUs)  *(Packaged units contain all of their components in a single outdoor enclosure that sits on either the roof or to the side of a building. Some packaged heating units will contain air conditioning equipment. Packaged heating units may also be known as self-contained units.* |  | *PKGHT\_NG* |
| 2. Boilers that produce steam or hot water for space heating |  | *BOILER\_NG* |
| 3. Heat pumps (other than components of a packaged central unit)  *(These types of heat pumps may also be referred to as split system heat pumps.)* |  | *HTPMPH\_NG* |
| 4. Residential-type furnaces  *(Furnaces heat air directly and circulate the warm air through ducts and vents.)* |  | *FURNAC\_NG* |
| 5. Individual space heaters  *(Individual space heaters directly heat only the room or area where they are located. Individual space heaters are not connected to external sources of heat via pipes or air ducts. Examples include gas- or kerosene-fired unit heaters, wood stoves, and infrared radiant heaters.)* |  | *SLFCON\_NG* |
| 6. Fireplaces |  | *FIREPLC\_NG* |
| 7. Other heating equipment |  | *OTHTEQ\_NG* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other heating equipment selected  🢂 D36 [Nat gas other main heat equip specify]  IF Boilers selected THEN:  IF Building interview 🢂 D50 [Where is the boiler located]  IF Mall OR Establishment interview 🢂 D51 [Boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] |

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| **D36** | Nat gas other main heat equip specify {OthHeatSpecify\_NGHT1} *OTHT1X\_NG* |
| ASK | IF D35 [Nat gas main heating equipment] = Other heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of heating equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Boilers IN D35 [Nat gas main heating equipment] THEN:  IF Building interview 🢂 D50 [Where is the boiler located]  IF Mall OR Establishment interview 🢂 D51 [Boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] |

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| **D37** | Fuel oil main heating equipment {HeatEquip\_FKHT1} *see below* |
| ASK | IF D22 [Source for main heating] OR D23 [Other source for main heating]  = Fuel Oil/Diesel/Kerosene |
| FILL | **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene]  **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D5 |
| **Question Text** | Looking at the list of heating equipment types on Show Card D5, please tell me which one (or ones) are fueled by {FuelOilType} in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating equipment types are fueled by {FuelOilType} in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Boilers that produce steam or hot water for space heating |  | *BOILER\_FK* |
| 2. Residential-type furnaces  *(Furnaces heat air directly and circulate the warm air through ducts and vents.)* |  | *FURNAC\_FK* |
| 3. Individual space heaters  *(Individual space heaters directly heat only the room or area where they are located. Individual space heaters are not connected to external sources of heat via pipes or air ducts. Examples include gas- or kerosene-fired unit heaters, wood stoves, and infrared radiant heaters.)* |  | *SLFCON\_FK* |
| 4. Other heating equipment |  | *OTHTEQ\_FK* |

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| NONRESPONSE | Explicit DK Explicit RF **X**  Missing Item Prompt Box Allow Blank |
| NEXT | IF Other heating equipment selected  🢂 D38 [Fuel oil other main heat equip specify]  IF Boilers selected THEN:  IF Building interview 🢂 D50 [Where is the boiler located]  IF Mall OR Establishment interview 🢂 D51 [Boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] |

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| **D38** | Fuel oil other main heat equip specify {OthHeatSpecify\_FKHT1} *OTHT1X\_FK* |
| ASK | IF D37 [Fuel oil main heating equipment] = Other heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of heating equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Boilers IN D37 [Fuel oil main heating equipment] THEN:  IF Building interview 🢂 D50 [Where is the boiler located]  IF Mall OR Establishment interview & 🢂 D51 [Boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] |

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| **D39** | Propane main heating equipment {HeatEquip\_PRHT1} *see below* |
| ASK | IF D22 [Source for main heating] OR D23 [Other source for main heating]  = Propane |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D4 |
| **Question Text** | Looking at the list of heating equipment types on Show Card D4, please tell me which one (or ones) are fueled by propane in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating equipment types are fueled by propane in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Packaged central units (such as rooftop units, or RTUs)  *(Packaged units contain all of their components in a single outdoor enclosure that sits on either the roof or to the side of a building. Some packaged heating units will contain air conditioning equipment. Packaged heating units may also be known as self-contained units.)* |  | *PKGHT\_PR* |
| 2. Boilers that produce steam or hot water for space heating |  | *BOILER\_PR* |
| 3. Heat pumps (other than components of a packaged central unit)  *(These types of heat pumps may also be referred to as split system heat pumps.)* |  | *HTPMPH\_PR* |
| 4. Residential-type furnaces  *(Furnaces heat air directly and circulate the warm air through ducts and vents.)* |  | *FURNAC\_PR* |
| 5. Individual space heaters  *(Individual space heaters directly heat only the room or area where they are located. Individual space heaters are not connected to external sources of heat via pipes or air ducts. Examples include gas- or kerosene-fired unit heaters, wood stoves, and infrared radiant heaters.)* |  | *SLFCON\_PR* |
| 6. Fireplaces |  | *FIREPLC\_PR* |
| 7. Other heating equipment |  | *OTHTEQ\_PR* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other heating equipment selected  🢂 D40 [Propane other main heat equip specify]  IF Boilers selected THEN:  IF Building interview 🢂 D50 [Where is the boiler located]  IF Mall OR Establishment interview 🢂 D51 [Boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] |

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| **D40** | Propane other main heat equip specify {OthHeatSpecify\_PRHT1}*OTHT1X\_PR* |
| ASK | IF D39 [Propane main heating equipment] = Other heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of heating equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Boilers IN D39 [Propane main heating equipment] THEN:  IF Building interview 🢂 D50 [Where is the boiler located]  IF Mall OR Establishment interview 🢂 D51 [Boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] |

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| **D41** | District steam distribution {HeatEquip\_STHT1} *see below* |
| ASK | IF D22 [Source for main heating] OR D23 [Other source for main heating]  = District steam |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D6 |
| **Question Text** | Looking at the list of heating distribution types on Show Card D6, please tell me which one (or ones) are used with the district steam in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating distribution types are used with the district steam in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central air handlers |  | *AIRHAND\_ST* |
| 2. Fan coil or induction units  *(Fan coil units, including unit ventilators, contain a heating coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the heating coil and circulate the air within a room.)* |  | *FANCOIL\_ST* |
| 3. Duct reheat  *(Heating coils located within ducts)* |  | *REHEAT\_ST* |
| 4. Radiators  *(Radiators heat by circulating hot water or steam, using convection and radiation without fans; typically located along baseboards)* |  | *RADIATR\_ST* |
| 5. Radiant floor/ceiling panels |  | *RADFLR\_ST* |
| 6. Water loop heat pumps |  | *WTLOOP\_ST* |
| 7. Other distribution equipment |  | *OTDIST\_ST* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 SRT [Secondary heating routing] |

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| **D42** | District hot water distribution {HeatEquip\_HWHT1} *see below* |
| ASK | IF D22 [Source for main heating] OR D23 [Other source for main heating]  = District hot water |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D6 |
| **Question Text** | Looking at the list of heating distribution types on Show Card D6, please tell me which one (or ones) are used with the district hot water in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating distribution types are used with the district hot water in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central air handlers |  | *AIRHAND\_HW* |
| 2. Fan coil or induction units  *(Fan coil units, including unit ventilators, contain a heating coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the heating coil and circulate the air within a room.)* |  | *FANCOIL\_HW* |
| 3. Duct reheat  *(Heating coils located within ducts)* |  | *REHEAT\_HW* |
| 4. Radiators  *(Radiators heat by circulating hot water or steam, using convection and radiation without fans; typically located along baseboards)* |  | *RADIATR\_HW* |
| 5. Radiant floor/ceiling panels |  | *RADFLR\_HW* |
| 6. Water loop heat pumps |  | *WTLOOP\_HW* |
| 7. Other distribution equipment |  | *OTDIST\_HW* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 SRT [Secondary heating routing] |

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| **D43** | Wood main heating equipment {HeatEquip\_WOHT1} *see below* |
| ASK | IF D22 [Source for main heating] OR D23 [Other source for main heating] = Wood |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D7 |
| **Question Text** | Looking at the list of heating equipment types on Show Card D7, please tell me which one (or ones) are fueled by wood in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating equipment types are fueled by wood in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Residential-type furnaces  *(Furnaces heat air directly and circulate the warm air through ducts and vents.)* |  | *FURNAC\_WO* |
| 2. Individual space heaters  *(Individual space heaters directly heat only the room or area where they are located. Individual space heaters are not connected to external sources of heat via pipes or air ducts. Examples include gas- or kerosene-fired unit heaters, wood stoves, and infrared radiant heaters.)* |  | *SLFCON\_WO* |
| 3. Fireplaces |  | *FIREPLC\_WO* |
| 4. Other heating equipment |  | *OTHTEQ\_WO* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other heating equipment selected 🢂 D44 [Wood other main heat equip specify]  OTHERWISE 🢂 SRT [Secondary heating routing] |

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| **D44** | Wood other main heat equip specify {OthHeatSpecify\_WOHT1} *OTHT1X\_WO* |
| ASK | IF D43 [Wood main heating equipment] = Other heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of heating equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | OTHERWISE 🢂 SRT [Secondary heating routing] |

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| **D45** | Coal main heating equipment {HeatEquip\_COHT1} *see below* |
| ASK | IF D22 [Source for main heating] OR D23 [Other source for main heating] = Coal |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D8 |
| **Question Text** | Looking at the list of heating equipment types on Show Card D8, please tell me which one (or ones) are fueled by coal in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating equipment types are fueled by coal in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Boilers that produce steam or hot water for space heating |  | *BOILER\_CO* |
| 2. Residential-type furnaces  *(Furnaces heat air directly and circulate the warm air through ducts and vents.)* |  | *FURNAC\_CO* |
| 3. Other heating equipment |  | *OTHTEQ\_CO* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other heating equipment selected 🢂 D46 [Coal other main heat equip specify]  IF Boilers selected THEN:  IF Building interview 🢂 D50 [Where is the boiler located]  IF Mall OR Establishment interview 🢂 D51 [Boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] |

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| **D46** | Coal other main heat equip specify {OthHeatSpecify\_COHT1} *OTHT1X\_CO* |
| ASK | IF D45 [Coal main heating equipment] = Other heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of heating equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Boilers IN D45 [Coal main heating equipment] THEN:  IF Building interview 🢂 D50 [Where is the boiler located]  IF Mall OR Establishment interview 🢂 D51 [Boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] |

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| --- | --- |
| **D47** | Solar thermal heating equipment {HeatEquip\_SOTHERMHT1} *SOHT\_HT1X* |
| ASK | IF D22 [Source for main heating] OR D23 [Other source for main heating]  = Solar thermal |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please describe the solar thermal heating system. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 SRT [Secondary heating routing] |

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| **D48** | Other source main heating equipment {HeatEquip\_OTHT1} *see below* |
| ASK | IF D22 [Source for main heating] = {Other} OR  D23 [Other source for main heating] = Some other energy source |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D9 |
| **Question Text** | Looking at the list of heating equipment types on Show Card D9, please tell me which one (or ones) are fueled by the other energy source in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating equipment types are fueled by the other energy source in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Packaged central units (such as rooftop units, or RTUs)  *(Packaged units contain all of their components in a single outdoor enclosure that sits on either the roof or to the side of a building. Some packaged heating units will contain air conditioning equipment. Packaged heating units may also be known as self-contained units.)* |  | *PKGHT\_OT* |
| 2. Boilers that produce steam or hot water for space heating |  | *BOILER\_OT* |
| 3. Residential-type furnaces  *(Furnaces heat air directly and circulate the warm air through ducts and vents.)* |  | *FURNAC\_OT* |
| 4. Individual space heaters  *(Individual space heaters directly heat only the room or area where they are located. Individual space heaters are not connected to external sources of heat via pipes or air ducts. Examples include gas- or kerosene-fired unit heaters, wood stoves, and infrared radiant heaters.)* |  | *SLFCON\_OT* |
| 5. Other heating equipment |  | *OTHTEQ\_OT* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other heating equipment selected  🢂 D49 [Other source other main heat specify]  IF Boilers selected THEN:  IF Building interview 🢂 D50 [Where is the boiler located]  IF Mall OR Establishment interview 🢂 D51 [Boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] |

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| **D49** | Other source other main heat specify {OthHeatSpecify\_OTHT1} *OTHT1X\_OT* |
| ASK | IF D48 [Other source main heating equipment] = Other heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of heating equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Boilers IN D48 [Other source main heating equipment] THEN:  IF Building interview 🢂 D50 [Where is the boiler located]  IF Mall OR Establishment interview 🢂 D51 [Boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] |

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| **D50** | Where is the boiler located {WhereBoiler} *BLLOCTN* |
| ASK | IF Building interview & (Boilers IN D31 [Heating equipment for unknown source]  OR D33 [Elec main heating equipment] OR  D35 [Nat gas main heating equipment] OR  D37 [Fuel oil main heating equipment] OR  D39 [Propane main heating equipment] OR D45 [Coal main heating equipment]  OR D48 [Other source main heating equipment]) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is the boiler located in this building or in another building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. In this building |  |  |
| 2. In another building |  |  |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF D22 [Source for main heating] = DK/Missing  🢂 ART [Heating follow-up routing] STEP 10  OTHERWISE 🢂 D51 [Boiler heat distribution] |

|  |  |
| --- | --- |
| **D51** | Boiler heat distribution {BoilerDistrib} *see below* |
| ASK | IF Boilers for any main heating equipment  OR D28 [Steam boiler fuel] answered OR D30 [Hot water boiler fuel] answered |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D6 |
| **Question Text** | Looking at the list of heating distribution types on Show Card D6, please tell me which one (or ones) are used with the boiler. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating distribution types are used with the boiler? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central air handlers |  | *BLRAIR\_HT1* |
| 2. Fan coil or induction units  *(Fan coil units, including unit ventilators, contain a heating coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the heating coil and circulate the air within a room.)* |  | *BLRFNCL\_HT1* |
| 3. Duct reheat  *(Heating coils located within ducts)* |  | *BLRDUCT\_HT1* |
| 4. Radiators  *(Radiators heat by circulating hot water or steam, using convection and radiation without fans; typically located along baseboards)* |  | *BLRRAD\_HT1* |
| 5. Radiant floor/ceiling panels |  | *BLRRDFL\_HT1* |
| 6. Water loop heat pumps |  | *BLRWTLP\_HT1* |
| 7. Other distribution equipment |  | *BLROTD\_HT1* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 SRT [Secondary heating routing] |

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| **SRT** | **Secondary heating routing** |
| NEXT | STEP 1 IF Electricity IN D24 [Which other sources for heating] OR  D26 [Other source for heating] 🢂 D52 [Elec secondary heating equipment]  STEP 2 IF Natural gas IN D24 [Which other sources for heating] OR  D26 [Other source for heating]  🢂 D55 [Nat gas secondary heating equipment]  STEP 3 IF Fuel Oil/Diesel/Kerosene IN D24 [Which other sources for heating] OR  D26 [Other source for heating]  🢂 D58 [Fuel oil secondary heating equipment]  STEP 4 IF Propane IN D24 [Which other sources for heating] OR  D26 [Other source for heating]  🢂 D61 [Propane secondary heating equipment]  STEP 5 IF District steam IN D24 [Which other sources for heating] OR  D26 [Other source for heating] THEN:  IF **NOT** D18 [From central plant] = Yes  & **NOT** D19 [Purchase from offsite] = Yes  🢂 D64 [Where does steam come from]  OTHERWISE 🢂 D66 [District steam distribution]  STEP 6 IF District hot water IN D24 [Which other sources for heating] OR  D26 [Other source for heating] THEN:  IF **NOT** D18 [From central plant] = Yes  & **NOT** D19 [Purchase from offsite] = Yes  🢂 D67 [Where does hot water come from]  OTHERWISE 🢂 D69 [District hot water distribution]  STEP 7 IF Wood IN D24 [Which other sources for heating] OR  D26 [Other source for heating]  🢂 D70 [Wood secondary heating equipment]  STEP 8 IF Coal IN D24 [Which other sources for heating] OR  D26 [Other source for heating] 🢂 D72 [Coal secondary heating equipment]  STEP 9 IF Solar thermal IN D24 [Which other sources for heating] OR  D26 [Other source for heating]  🢂 D75 [Solar thermal secondary heating equipment]  STEP 10 IF {Other} IN D24 [Which other sources for heating] OR  D26 [Other source for heating] = Some other energy source  🢂 D76 [Other source secondary heating equipment]  STEP 11 🢂 ART [Heating follow-up routing] |

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| **D52** | Elec secondary heating equipment {HeatEquip\_ELHT2} *see below* |
| ASK | IF Electricity IN D24 [Which other sources for heating] OR  D26 [Other source for heating] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D3 |
| **Question Text** | You mentioned that electricity was also used for heating. Looking at the list of heating equipment types on Show Card D3, please tell me which one (or ones) are powered by electricity in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that electricity was also used for heating. Which of these heating equipment types are powered by electricity in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
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| **Response options** | **Image** | **SAS Name** |
| 1. Packaged central units (such as rooftop units, or RTUs)  *(Packaged units contain all of their components in a single outdoor enclosure that sits on either the roof or to the side of a building. Some packaged heating units will contain air conditioning equipment. Packaged heating units may also be known as self-contained units.)* |  | *PKGHT\_EL* |
| 2. Boilers that produce steam or hot water for space heating |  | *BOILER\_EL* |
| 3. Heat pumps (other than components of a packaged central unit)  *(These types of heat pumps may also be referred to as split system heat pumps.)* |  | *HTPMPH\_EL* |
| 4. Residential-type furnaces  *(Furnaces heat air directly and circulate the warm air through ducts and vents.)* |  | *FURNAC\_EL* |
| 5. Individual space heaters  *(Individual space heaters directly heat only the room or area where they are located. They can be freestanding or self-contained units mounted along baseboards or in walls, ceilings, or windows. Examples include electric baseboards, electric radiant or quartz heaters, heating panels, infrared radiant heaters, heating elements in Packaged Terminal Air Conditioners (PTACs), and Packaged Terminal Heat Pumps (PTHPs).)* |  | *SLFCON\_EL* |
| 6. Fireplaces |  | *FIREPLC\_EL* |
| 7. Duct reheat  *(Heating coils located within ducts)* |  | *REHEAT\_EL* |
| 8. Other heating equipment |  | *OTHTEQ\_EL* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other heating equipment selected 🢂 D53 [Elec other secondary heat equip]  IF Boilers selected 🢂 D54 [Elec boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] STEP 2 |

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| **D53** | Elec other secondary heat equip {OthHeatSpecify\_ELHT2} *OTHT2X\_EL* |
| ASK | IF D52 [Elec secondary heating equipment] = Other heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
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| **RESPONSE OPTIONS** |
| ***String Text*** |
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| Briefly describe the other type of heating equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Boilers IN D52 [Elec secondary heating equipment]  🢂 D54 [Elec boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] STEP 2 |

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| **D54** | Elec boiler heat distribution {BoilerDistrib\_ELHT2} *see below* |
| ASK | IF Boilers IN D52 [Elec secondary heating equipment] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D6 |
| **Question Text** | Looking at the list of heating distribution types on Show Card D6, please tell me which one (or ones) are used with the electric boiler in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating distribution types are used with the electric boiler in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central air handlers |  | *BLRAIR\_EL2* |
| 2. Fan coil or induction units  *(Fan coil units, including unit ventilators, contain a heating coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the heating coil and circulate the air within a room.)* |  | *BLRFNCL\_EL2* |
| 3. Duct reheat  *(Heating coils located within ducts)* |  | *BLRDUCT\_EL2* |
| 4. Radiators  *(Radiators heat by circulating hot water or steam, using convection and radiation without fans; typically located along baseboards)* |  | *BLRRAD\_EL2* |
| 5. Radiant floor/ceiling panels |  | *BLRRDFL\_EL2* |
| 6. Water loop heat pumps |  | *BLRWTLP\_EL2* |
| 7. Other distribution equipment |  | *BLROTD\_EL2* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 SRT [Secondary heating routing] STEP 2 |

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| **D55** | Nat gas secondary heating equipment {HeatEquip\_NGHT2} *see below* |
| ASK | IF Natural gas IN D24 [Which other sources for heating] OR  D26 [Other source for heating] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D4 |
| **Question Text** | You mentioned that natural gas was also used for heating. Looking at the list of heating equipment types on Show Card D4, please tell me which one (or ones) are fueled by natural gas in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that natural gas was also used for heating. Which of these heating equipment types are fueled by natural gas in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Packaged central units (such as rooftop units, or RTUs)  *(Packaged units contain all of their components in a single outdoor enclosure that sits on either the roof or to the side of a building. Some packaged heating units will contain air conditioning equipment. Packaged heating units may also be known as self-contained units.* |  | *PKGHT\_NG* |
| 2. Boilers that produce steam or hot water for space heating |  | *BOILER\_NG* |
| 3. Heat pumps (other than components of a packaged central unit)  *(These types of heat pumps may also be referred to as split system heat pumps.)* |  | *HTPMPH\_NG* |
| 4. Residential-type furnaces  *(Furnaces heat air directly and circulate the warm air through ducts and vents.)* |  | *FURNAC\_NG* |
| 5. Individual space heaters  *(Individual space heaters directly heat only the room or area where they are located. Individual space heaters are not connected to external sources of heat via pipes or air ducts. Examples include gas- or kerosene-fired unit heaters, wood stoves, and infrared radiant heaters.)* |  | *SLFCON\_NG* |
| 6. Fireplaces |  | *FIREPLC\_NG* |
| 7. Other heating equipment |  | *OTHTEQ\_NG* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other heating equipment selected  🢂 D56 [Nat gas other secondary heat equip]  IF Boilers selected 🢂 D57 [Nat gas boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] STEP 3 |

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| **D56** | Nat gas other secondary heat equip {OthHeatSpecify\_NGHT2} *OTHT2X\_NG* |
| ASK | IF D55 [Nat gas secondary heating equipment] = Other heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of heating equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Boilers IN D55 [Nat gas secondary heating equipment]  🢂 D57 [Nat gas boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] STEP 3 |

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| **D57** | Nat gas boiler heat distribution {BoilerDistrib\_NGHT2} *see below* |
| ASK | IF Boilers IN D55 [Nat gas secondary heating equipment] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D6 |
| **Question Text** | Looking at the list of heating distribution types on Show Card D6, please tell me which one (or ones) are used with the natural gas boiler in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating distribution types are used with the natural gas boiler in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central air handlers |  | *BLRAIR\_NG2* |
| 2. Fan coil or induction units  *(Fan coil units, including unit ventilators, contain a heating coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the heating coil and circulate the air within a room.)* |  | *BLRFNCL\_NG2* |
| 3. Duct reheat  *(Heating coils located within ducts)* |  | *BLRDUCT\_NG2* |
| 4. Radiators  *(Radiators heat by circulating hot water or steam, using convection and radiation without fans; typically located along baseboards)* |  | *BLRRAD\_NG2* |
| 5. Radiant floor/ceiling panels |  | *BLRRDFL\_NG2* |
| 6. Water loop heat pumps |  | *BLRWTLP\_NG2* |
| 7. Other distribution equipment |  | *BLROTD\_NG2* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 SRT [Secondary heating routing] STEP 3 |

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| **D58** | Fuel oil secondary heating equipment {HeatEquip\_FKHT2} *see below* |
| ASK | IF Fuel Oil/Diesel/Kerosene IN D24 [Which other sources for heating] OR  D26 [Other source for heating] |
| FILL | **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene]  **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D5 |
| **Question Text** | You mentioned that {FuelOilType} was also used for heating. Looking at the list of heating equipment types on Show Card D5, please tell me which one (or ones) are fueled by {FuelOilType} in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that {FuelOilType} was also used for heating. Which of these heating equipment types are fueled by {FuelOilType} in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Boilers that produce steam or hot water for space heating |  | *BOILER\_FK* |
| 2. Residential-type furnaces  *(Furnaces heat air directly and circulate the warm air through ducts and vents.)* |  | *FURNAC\_FK* |
| 3. Individual space heaters  *(Individual space heaters directly heat only the room or area where they are located. Individual space heaters are not connected to external sources of heat via pipes or air ducts. Examples include gas- or kerosene-fired unit heaters, wood stoves, and infrared radiant heaters.)* |  | *SLFCON\_FK* |
| 4. Other heating equipment |  | *OTHTEQ\_FK* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other heating equipment selected  🢂 D59 [Fuel oil other secondary heat equip]  IF Boilers selected 🢂 D60 [Fuel oil boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] STEP 4 |

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| **D59** | Fuel oil other secondary heat equip {OthHeatSpecify\_FKHT2} *OTHT2X\_FK* |
| ASK | IF D58 [Fuel oil secondary heating equipment] = Other heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
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| Briefly describe the other type of heating equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Boilers IN D58 [Fuel oil secondary heating equipment]  🢂 D60 [Fuel oil boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] STEP 4 |

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| **D60** | Fuel oil boiler heat distribution {BoilerDistrib\_FKHT2} *see below* |
| ASK | IF Boilers IN D58 [Fuel oil secondary heating equipment] |
| FILL | **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene]  **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D6 |
| **Question Text** | Looking at the list of heating distribution types on Show Card D6, please tell me which one (or ones) are used with the {FuelOilType} boiler in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating distribution types are used with the {FuelOilType} boiler in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central air handlers |  | *BLRAIR\_FK2* |
| 2. Fan coil or induction units  *(Fan coil units, including unit ventilators, contain a heating coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the heating coil and circulate the air within a room.)* |  | *BLRFNCL\_FK2* |
| 3. Duct reheat  *(Heating coils located within ducts)* |  | *BLRDUCT\_FK2* |
| 4. Radiators  *(Radiators heat by circulating hot water or steam, using convection and radiation without fans; typically located along baseboards)* |  | *BLRRAD\_FK2* |
| 5. Radiant floor/ceiling panels |  | *BLRRDFL\_FK2* |
| 6. Water loop heat pumps |  | *BLRWTLP\_FK2* |
| 7. Other distribution equipment |  | *BLROTD\_FK2* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 SRT [Secondary heating routing] STEP 4 |

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| **D61** | Propane secondary heating equipment {HeatEquip\_PRHT2} *see below* |
| ASK | IF Propane IN D24 [Which other sources for heating] OR  D26 [Other source for heating] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D4 |
| **Question Text** | You mentioned that propane was also used for heating. Looking at the list of heating equipment types on Show Card D4, please tell me which one (or ones) are fueled by propane in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that propane was also used for heating. Which of these heating equipment types are fueled by propane in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Packaged central units (such as rooftop units, or RTUs)  *(Packaged units contain all of their components in a single outdoor enclosure that sits on either the roof or to the side of a building. Some packaged heating units will contain air conditioning equipment. Packaged heating units may also be known as self-contained units.)* |  | *PKGHT\_PR* |
| 2. Boilers that produce steam or hot water for space heating |  | *BOILER\_PR* |
| 3. Heat pumps (other than components of a packaged central unit)  *(These types of heat pumps may also be referred to as split system heat pumps.)* |  | *HTPMPH\_PR* |
| 4. Residential-type furnaces  *(Furnaces heat air directly and circulate the warm air through ducts and vents.)* |  | *FURNAC\_PR* |
| 5. Individual space heaters  *(Individual space heaters directly heat only the room or area where they are located. Individual space heaters are not connected to external sources of heat via pipes or air ducts. Examples include gas- or kerosene-fired unit heaters, wood stoves, and infrared radiant heaters.)* |  | *SLFCON\_PR* |
| 6. Fireplaces |  | *FIREPLC\_PR* |
| 7. Other heating equipment |  | *OTHTEQ\_PR* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other heating equipment selected  🢂 D62 [Propane other secondary heat equip]  IF Boilers selected 🢂 D63 [Propane boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] STEP 5 |

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| **D62** | Propane other secondary heat equip {OthHeatSpecify\_PRHT2} *OTHT2X\_PR* |
| ASK | IF D61 [Propane secondary heating equipment] = Other heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of heating equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Boilers IN D61 [Propane secondary heating equipment]  🢂 D63 [Propane boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] STEP 5 |

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| **D63** | Propane boiler heat distribution {BoilerDistrib\_PRHT2} *see below* |
| ASK | IF Boilers IN D61 [Propane secondary heating equipment] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D6 |
| **Question Text** | Looking at the list of heating distribution types on Show Card D6, please tell me which one (or ones) are used with the propane boiler in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating distribution types are used with the propane boiler in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central air handlers |  | *BLRAIR\_PR2* |
| 2. Fan coil or induction units  *(Fan coil units, including unit ventilators, contain a heating coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the heating coil and circulate the air within a room.)* |  | *BLRFNCL\_PR2* |
| 3. Duct reheat  *(Heating coils located within ducts)* |  | *BLRDUCT\_PR2* |
| 4. Radiators  *(Radiators heat by circulating hot water or steam, using convection and radiation without fans; typically located along baseboards)* |  | *BLRRAD\_PR2* |
| 5. Radiant floor/ceiling panels |  | *BLRRDFL\_PR2* |
| 6. Water loop heat pumps |  | *BLRWTLP\_PR2* |
| 7. Other distribution equipment |  | *BLROTD\_PR2* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 SRT [Secondary heating routing] STEP 5 |

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| **D64** | Where does steam come from {WhereSteam\_HT2} *ST2LOCTN* |
| ASK | IF (District steam IN D24 [Which other sources for heating] OR  D26 [Other source for heating]) & **NOT** D18 [From central plant] = Yes  & **NOT** D19 [Purchase from offsite] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | You mentioned that district steam was also used for heating. Does the steam come from a boiler in another building, from a utility, or from a boiler inside this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that district steam was also used for heating. Does the steam come from a boiler in another building, from a utility, or from a boiler inside this building? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. From a boiler in another building |  |  |
| 2. From a district steam utility |  |  |
| 3. From a boiler inside this building |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF From a boiler inside this building 🢂 D65 [Steam boiler fuel]  OTHERWISE 🢂 D66 [District steam distribution] |

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| **D65** | Steam boiler fuel {SteamFuel\_HT2} *ST2BLFL* |
| ASK | IF D64 [Where does steam come from] = From a boiler inside the building |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What energy source does the boiler use to make the district steam: natural gas, fuel oil, propane, coal, electricity, or some other energy source? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | What energy source does the boiler use to make the district steam? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Natural gas |  |  |
| 2. Fuel oil |  |  |
| 3. Propane |  |  |
| 4. Coal |  |  |
| 5. Electricity |  |  |
| 6. Other energy source |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 D66 [District steam distribution] |

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| **D66** | District steam distribution {HeatEquip\_STHT2} *see below* |
| ASK | IF District steam IN D24 [Which other sources for heating] OR  D26 [Other source for heating] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D6 |
| **Question Text** | Looking at the list of heating distribution types on Show Card D6, please tell me which one (or ones) are used with the district steam in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating distribution types are used with the district steam in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central air handlers |  | *AIRHAND\_ST* |
| 2. Fan coil or induction units  *(Fan coil units, including unit ventilators, contain a heating coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the heating coil and circulate the air within a room.)* |  | *FANCOIL\_ST* |
| 3. Duct reheat  *(Heating coils located within ducts)* |  | *REHEAT\_ST* |
| 4. Radiators  *(Radiators heat by circulating hot water or steam, using convection and radiation without fans; typically located along baseboards)* |  | *RADIATR\_ST* |
| 5. Radiant floor/ceiling panels |  | *RADFLR\_ST* |
| 6. Water loop heat pumps |  | *WTLOOP\_ST* |
| 7. Other distribution equipment |  | *OTDIST\_ST* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 SRT [Secondary heating routing] STEP 6 |

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| **D67** | Where does hot water come from {WhereDistHW\_HT2} *HW2LOCTN* |
| ASK | IF (District hot water IN D24 [Which other sources for heating] OR  D26 [Other source for heating]) & **NOT** D18 [From central plant] = Yes  & **NOT** D19 [Purchase from offsite] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | You mentioned that district hot water was also used for heating. Does the district hot water come from a boiler in another building, from a utility, or from a boiler inside this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that district hot water was also used for heating. Does the district hot water come from a boiler in another building, from a utility, or from a boiler inside this building? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. From a boiler in another building |  |  |
| 2. From a district hot water utility |  |  |
| 3. From a boiler inside this building |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF From a boiler inside this building 🢂 D68 [Hot water boiler fuel]  OTHERWISE 🢂 D69 [District hot water distribution] |

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| **D68** | Hot water boiler fuel {DistHWFuel\_HT2} *HW2BLFL* |
| ASK | IF D67 [Where does hot water come from] = From a boiler inside the building |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What energy source does the boiler use to make the district hot water: natural gas, fuel oil, propane, coal, electricity, or some other energy source? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | What energy source does the boiler use to make the district hot water? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Natural gas |  |  |
| 2. Fuel oil |  |  |
| 3. Propane |  |  |
| 4. Coal |  |  |
| 5. Electricity |  |  |
| 6. Other energy source |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 D69 [District hot water distribution] |

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| **D69** | District hot water distribution {HeatEquip\_HWHT2} *see below* |
| ASK | IF District hot water IN D24 [Which other sources for heating] OR  D26 [Other source for heating] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D6 |
| **Question Text** | Looking at the list of heating distribution types on Show Card D6, please tell me which one (or ones) are used with the district hot water in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating distribution types are used with the district hot water in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central air handlers |  | *AIRHAND\_HW* |
| 2. Fan coil or induction units  *(Fan coil units, including unit ventilators, contain a heating coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the heating coil and circulate the air within a room.)* |  | *FANCOIL\_HW* |
| 3. Duct reheat  *(Heating coils located within ducts)* |  | *REHEAT\_HW* |
| 4. Radiators  *(Radiators heat by circulating hot water or steam, using convection and radiation without fans; typically located along baseboards)* |  | *RADIATR\_HW* |
| 5. Radiant floor/ceiling panels |  | *RADFLR\_HW* |
| 6. Water loop heat pumps |  | *WTLOOP\_HW* |
| 7. Other distribution equipment |  | *OTDIST\_HW* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 SRT [Secondary heating routing] STEP 7 |

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| **D70** | Wood secondary heating equipment {HeatEquip\_WOHT2} *see below* |
| ASK | IF Wood IN D24 [Which other sources for heating] OR  D26 [Other source for heating] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D7 |
| **Question Text** | You mentioned that wood was also used for heating. Looking at the list of heating equipment types on Show Card D7, please tell me which one (or ones) are fueled by wood in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that wood was also used for heating. Which of these heating equipment types are fueled by wood in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Residential-type furnaces  *(Furnaces heat air directly and circulate the warm air through ducts and vents.)* |  | *FURNAC\_WO* |
| 2. Individual space heaters  *(Individual space heaters directly heat only the room or area where they are located. Individual space heaters are not connected to external sources of heat via pipes or air ducts. Examples include gas- or kerosene-fired unit heaters, wood stoves, and infrared radiant heaters.)* |  | *SLFCON\_WO* |
| 3. Fireplaces |  | *FIREPLC\_WO* |
| 4. Other heating equipment |  | *OTHTEQ\_WO* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other heating equipment selected 🢂 D71 [Wood other secondary heat equip]  OTHERWISE 🢂 SRT [Secondary heating routing] STEP 8 |

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| **D71** | Wood other secondary heat equip {OthHeatSpecify\_WOHT2} *OTHT2X\_WO* |
| ASK | IF D70 [Wood secondary heating equipment] = Other heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of heating equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | OTHERWISE 🢂 SRT [Secondary heating routing] STEP 8 |

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| **D72** | Coal secondary heating equipment {HeatEquip\_COHT2} *see below* |
| ASK | IF Coal IN D24 [Which other sources for heating] OR  D26 [Other source for heating] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D8 |
| **Question Text** | You mentioned that coal was also used for heating. Looking at the list of heating equipment types on Show Card D8, please tell me which one (or ones) are fueled by coal in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that coal was also used for heating. Which of these heating equipment types are fueled by coal in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Boilers that produce steam or hot water for space heating |  | *BOILER\_CO* |
| 2. Residential-type furnaces  *(Furnaces heat air directly and circulate the warm air through ducts and vents.)* |  | *FURNAC\_CO* |
| 3. Other heating equipment |  | *OTHTEQ\_CO* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other heating equipment selected 🢂 D73 [Coal other secondary heat equip]  IF Boilers selected 🢂 D74 [Coal boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] STEP 9 |

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| **D73** | Coal other secondary heat equip {OthHeatSpecify\_COHT2} *OTHT2X\_CO* |
| ASK | IF D72 [Coal secondary heating equipment] = Other heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of heating equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Boilers IN D72 [Coal secondary heating equipment]  🢂 D74 [Coal boiler heat distribution]  OTHERWISE 🢂 SRT [Secondary heating routing] STEP 9 |

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| **D74** | Coal boiler heat distribution {BoilerDistrib\_COHT2} *see below* |
| ASK | IF Boilers IN D72 [Coal secondary heating equipment] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D6 |
| **Question Text** | Looking at the list of heating distribution types on Show Card D6, please tell me which one (or ones) are used with the coal boiler in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating distribution types are used with the coal boiler in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central air handlers |  | *BLRAIR\_CO2* |
| 2. Fan coil or induction units  *(Fan coil units, including unit ventilators, contain a heating coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the heating coil and circulate the air within a room.)* |  | *BLRFNCL\_CO2* |
| 3. Duct reheat  *(Heating coils located within ducts)* |  | *BLRDUCT\_CO2* |
| 4. Radiators  *(Radiators heat by circulating hot water or steam, using convection and radiation without fans; typically located along baseboards)* |  | *BLRRAD\_CO2* |
| 5. Radiant floor/ceiling panels |  | *BLRRDFL\_CO2* |
| 6. Water loop heat pumps |  | *BLRWTLP\_CO2* |
| 7. Other distribution equipment |  | *BLROTD\_CO2* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 SRT [Secondary heating routing] STEP 9 |

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| **D75** | Solar thermal secondary heating equipment {HeatEquip\_SOTHERMHT2}*SOHT\_HT2X* |
| ASK | IF Solar thermal IN D24 [Which other sources for heating] OR  D26 [Other source for heating] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | You mentioned that solar thermal was also used for heating. Please describe the solar thermal heating system. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that solar thermal was also used for heating. Please describe the solar thermal heating system. |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 SRT [Secondary heating routing] STEP 10 |

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| **D76** | Other source secondary heating equipment {HeatEquip\_OTHT2} *see below* |
| ASK | IF {Other} IN D24 [Which other sources for heating] OR  D26 [Other source for heating] = Some other energy source |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D9 |
| **Question Text** | You mentioned that some other energy source was also used for heating. Looking at the list of heating equipment types on Show Card D9, please tell me which one (or ones) are fueled by the other energy source in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that some other energy source was also used for heating. Which of these heating equipment types are fueled by the other energy source in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Packaged central units (such as rooftop units, or RTUs)  *(Packaged units contain all of their components in a single outdoor enclosure that sits on either the roof or to the side of a building. Some packaged heating units will contain air conditioning equipment. Packaged heating units may also be known as self-contained units.)* |  | *PKGHT\_OT* |
| 2. Boilers that produce steam or hot water for space heating |  | *BOILER\_OT* |
| 3. Residential-type furnaces  *(Furnaces heat air directly and circulate the warm air through ducts and vents.)* |  | *FURNAC\_OT* |
| 4. Individual space heaters  *(Individual space heaters directly heat only the room or area where they are located. Individual space heaters are not connected to external sources of heat via pipes or air ducts. Examples include gas- or kerosene-fired unit heaters, wood stoves, and infrared radiant heaters.)* |  | *SLFCON\_OT* |
| 5. Other heating equipment |  | *OTHTEQ\_OT* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other heating equipment selected  🢂 D77 [Other source other secondary heat]  IF Boilers selected 🢂 D78 [Other source boiler heat distribution]  OTHERWISE 🢂 ART [Heating follow-up routing] |

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| **D77** | Other source other secondary heat equip {OthHeatSpecify\_OTHT2}*OTHT2X\_OT* |
| ASK | IF D76 [Other source secondary heating equipment] = Other heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** | |
| ***String Text*** | |
| **Watermark** |  |
| Briefly describe the other type of heating equipment | |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Boilers IN D76 [Other source secondary heating equipment]  🢂 D78 [Other source boiler heat distribution]  OTHERWISE 🢂 ART [Heating follow-up routing] |

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| **D78** | Other source boiler heat distribution {BoilerDistrib\_OTHT2} *see below* |
| ASK | IF Boilers IN D76 [Other source secondary heating equipment] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D6 |
| **Question Text** | Looking at the list of heating distribution types on Show Card D6, please tell me which one (or ones) are used with the other energy source boiler in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these heating distribution types are used with the other energy source boiler in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central air handlers |  | *BLRAIR\_OT2* |
| 2. Fan coil or induction units  *(Fan coil units, including unit ventilators, contain a heating coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the heating coil and circulate the air within a room.)* |  | *BLRFNCL\_OT2* |
| 3. Duct reheat  *(Heating coils located within ducts)* |  | *BLRDUCT\_OT2* |
| 4. Radiators  *(Radiators heat by circulating hot water or steam, using convection and radiation without fans; typically located along baseboards)* |  | *BLRRAD\_OT2* |
| 5. Radiant floor/ceiling panels |  | *BLRRDFL\_OT2* |
| 6. Water loop heat pumps |  | *BLRWTLP\_OT2* |
| 7. Other distribution equipment |  | *BLROTD\_OT2* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 ART [Heating follow-up routing] |

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| **ART** | **Heating follow-up routing** |
| NEXT | STEP 1 IF (Furnaces IN D33 [Elec main heating equipment] OR  D52 [Elec secondary heating equipment])  & Furnaces for any other source main or secondary heating equipment  🢂 D79 [Furnace with >1 source]  STEP 2 IF Boilers for two or more main or secondary heating equipment  🢂 D80 [Boiler with >1 source]  STEP 3 IF (Packaged IN D33 [Elec main heating equipment] OR  D52 [Elec secondary heating equipment])  & **NOT** Packaged for any other source main or secondary heating  equipment 🢂 D81 [Heat pump in packaged unit]  STEP 4 IF (Heat pumps IN D35 [Nat gas main heating equipment] OR  D39 [Propane main heating equipment] OR  D55 [Nat gas secondary heating equipment] OR  D61 [Propane secondary heating equipment])  & **NOT** (Heat pumps IN D33 [Elec main heating equipment] OR  D52 [Elec secondary heating equipment]) 🢂 D82 [Heat pump with no elec]  STEP 5 IF Heat pumps IN D33 [Elec main heating equipment] OR  D52 [Elec secondary heating equipment]) OR  D82 [Heat pump with no elec] = Heat pumps uses only electricity  🢂 D83 [Heat pumps are PTHPs]  STEP 6 IF (D81 [Heat pump in packaged unit] = Yes  & **NOT** Heat pump for any main or secondary heating equipment) OR  D82 [Heat pump with no elec] = Heat pump uses only {GasType}; Heat  pump uses both {GasType} and electricity; OR DK/Missing OR  D83 [Heat pumps are PTHPs] = No; Heat pumps are both PTHP and split  system; OR DK/Missing 🢂 D84 [Heat pump heating type]  STEP 7 IF Individual space heaters IN D33 [Elec main heating equipment] OR  D52 [Elec secondary heating equipment]  🢂 D86 [Space heaters are PTHPs]  STEP 8 IF Building OR Mall interview & More than one selected heating  source/equipment combination 🢂 D87 [Percent heated by type]  STEP 9 IF Building OR Mall interview & Only one selected heating equipment  & **NOT** District steam or hot water & (A24 [Year of construction] < 2000 OR  A25 [Year of construction category] ≠ 2000 to 2009 OR 2010 to 2012 OR 2013 to 2018) 🢂 D89 [Main heating replaced]  STEP 10 IF Building OR Mall interview & D4 [Cooling] = Yes 🢂 D90 [Percent cooled]  IF Establishment interview & D4 [Cooling] = Yes  & **NOT** District chilled water used 🢂 D91 [Electricity only for cooling]  IF Establishment interview & D4 [Cooling] = Yes & **NOT** Electricity used  & **NOT** District chilled water used 🢂 D92 [Sources for cooling]  IF Establishment interview & D4 [Cooling] = Yes & District chilled water used  🢂 D94 [EL or CW for cooling]  IF Mall OR Establishment interview 🢂 D121 [Who has temperature control]  OTHERWISE 🢂 D122 [Building automation system] |

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| **D79** | Furnace with >1 source {FurnaceWith2Sources} *FURN2SRC* |
| ASK | IF (Furnaces IN D33 [Elec main heating equipment] OR  D52 [Elec secondary heating equipment])  & Furnaces for any other source main or secondary heating equipment |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment”  **{SecondFuel} =** The non-electric energy source reported with a furnace |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | You reported that this {Structure} runs a furnace with electricity and {SecondFuel}. Is the electricity for components such as the fans, igniter, or thermostat, or are there two or more furnaces that run on different energy sources? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Electricity is for fans, igniter, thermostat, etc. |  |  |
| 2. Two or more furnaces |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 ART [Heating follow-up routing] STEP 2 |

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| **D80** | Boiler with >1 source {BoilerWith2Sources} *BOIL2SRC* |
| ASK | IF Boilers for Two or more main or secondary heating equipment |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment”  **{BoilerFuels}** = Sources reported with boiler  **{ElectricityBoiler}**  IF Electricity reported as a boiler fuel = “Is the electricity used to run components  such as fans or pumps, is this one boiler that can switch fuels,”  OTHERWISE = “Is this one boiler that can switch fuels”  **{ElectricityResponse}**  IF Electricity reported as a boiler fuel = “Electricity is for fans, pumps, controls, thermostat, etc.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | You reported that this {Stucture} runs a boiler with {BoilerFuels}. {ElectricityBoiler} or is it two or more boilers that run on different energy sources? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. {ElectricityResponse} |  |  |
| 2. The boiler can switch fuels |  |  |
| 3. Two or more boilers |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 ART [Heating follow-up routing] STEP 3 |

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| **D81** | Heat pump in packaged unit {HeatPumpInPackagedUnit} *PKGHPH* |
| ASK | IF (Packaged IN D33 [Elec main heating equipment] OR  D52 [Elec secondary heating equipment])  & **NOT** Packaged for any other source main or secondary heating equipment |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | You reported that this {Structure} uses a packaged central unit. Does the packaged unit contain a heat pump? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 ART [Heating follow-up routing] STEP 4 |

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| **D82** | Heat pump with no elec {HeatPumpWithNoEL} *HPCHKEL* |
| ASK | IF (Heat pumps IN D35 [Nat gas main heating equipment] OR  D39 [Propane main heating equipment] OR  D55 [Nat gas secondary heating equipment] OR  D61 [Propane secondary heating equipment])  & **NOT** (Heat pumps IN D33 [Elec main heating equipment] OR  D52 [Elec secondary heating equipment]) |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment”  **{GasType}** = “natural gas” or “propane” based on what type of heat pump is reported |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | You reported that this {Structure} runs a heat pump with only {GasType}. This is fairly unusual. Does the heat pump use only {GasType}, is it a dual-fuel/hybrid heat pump that also uses electricity, or does it only use electricity? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heat pump uses only {GasType} |  |  |
| 2. Heat pump is both {GasType} and electricity (dual-fuel/hybrid) |  |  |
| 3. Heat pump uses only electricity |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 ART [Heating follow-up routing] STEP 5 |

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| **D83** | Heat pumps are PTHPs {HeatPump\_PTHP} *HPHPTHP* |
| ASK | IF Heat pumps IN D33 [Elec main heating equipment] OR  D52 [Elec secondary heating equipment]) OR  D82 [Heat pump with no elec] = Heat pumps uses only electricity |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | You reported that this {Structure} uses heat pumps. Are the heat pumps “Packaged Terminal Heat Pumps”? These are also referred to as PTHPs. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |
| 3. Heat pumps are both PTHP and split system |  |  |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 ART [Heating follow-up routing] STEP 6 |

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| **D84** | Heat pump heating type {HeatPumpType}  *see below* |
| ASK | IF (D81 [Heat pump in packaged unit] = Yes  & **NOT** Heat pump for any main or secondary heating equipment) OR  D82 [Heat pump with no elec] = Heat pump uses only {GasType}; Heat  pump uses both {GasType} and electricity; OR DK/Missing OR  D83 [Heat pumps are PTHPs] = No; Heat pumps are both PTHP and split  system; OR DK/Missing |
| FILL | **{HeatPumpType}**  IF D81 [Heat pump in packaged unit] = Yes = “type of heat pump is in this packaged unit?”  OTHERWISE = “types of heat pumps are used in this {Structure}?”  **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D10 |
| **Question Text** | Looking at the list on Show Card D10, which {HeatPumpType} |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which {HeatPumpType} |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Air source heat pump |  | *HPHAIR* |
| 2. Ground source or ground water heat pump (geothermal) |  | *HPHGRD* |
| 3. Combination air source and geothermal |  | *HPHDUAL* |
| 4. Water loop heat pump |  | *HPHWATR* |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 D85 [VRF system] |

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| **D85** | VRF system {VRFSystem} *HPHVRF* |
| ASK | IF (D81 [Heat pump in packaged unit] = Yes  & **NOT** Heat pump for any main or secondary heating equipment) OR  D82 [Heat pump with no elec] = Heat pump uses only {GasType}; Heat  pump uses both {GasType} and electricity; OR DK/Missing OR  D83 [Heat pumps are PTHPs] = No; Heat pumps are both PTHP and split  system; OR DK/Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is the heat pump system a variable refrigerant flow, or VRF, system? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 ART [Heating follow-up routing] STEP 7 |

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| **D86** | Space heaters are PTHPs {SpaceHeat\_PTHP} *SPHTPTHP* |
| ASK | IF Individual space heaters IN D33 [Elec main heating equipment] OR  D52 [Elec secondary heating equipment] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | You reported that this {Structure} uses individual space heaters. Are the space heaters “Packaged Terminal Heat Pumps”? These are also referred to as PTHPs. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |
| 3. Space heaters are both PTHP and other types |  |  |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 ART [Heating follow-up routing] STEP 8 |

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| **D87** | Percent heated by type {HtEqPct} *various* |
| ASK | IF Building OR Mall interview  & More than one selected heating source/equipment combination |
| FILL | **{Explanation}**  IF D20 [Percent heated] ≠ 100 = “We are talking only about the heated portion of  the floorspace, so these percentages must add up to at least 100, but since  more than one type of equipment can heat the same area, it is also possible for  them to add up to more than 100.”  IF D20 [Percent heated] = 100 = “These percentages must add up to at least 100,  but since more than one type of equipment can heat the same area, it is also  possible for them to add up to more than 100.”  **{SourceEquipment}**  Combination of selected heating source and equipment, for example:  “Electric furnace” |
| INTRO TEXT | All selected heating source/equipment combinations are one screen, with this introduction:  The next questions are about the percentage of floorspace heated by each type of equipment. Please keep in mind: {Explanation}  What percentage of the heated area in this building is served by each of the following equipment types? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {SourceEquipment} |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 1 to 100 | % | 1 to 100 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF there are equal maximum percents OR Missing  🢂 D88 [Main heating equipment]  IF Main heating equipment **NOT** District steam or hot water  & (A24 [Year of construction] < 2000 OR A25 [Year of construction category] ≠  2000 to 2009 OR 2010 to 2012 OR 2013 to 2018)  🢂 D89 [Main heating replaced]  OTHERWISE 🢂 ART [Heating follow-up routing] STEP 10 |

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| **D88** | Main heating equipment {MainHeatSelect} *MAINHTX* |
| ASK | IF D87 [Percent heated by type] has equal maximum percents OR Missing |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment”  **{SourceEquipmentMaxList}** = List of all source/equipment combinations with  equal maximum percents, for example:  “the electric furnace or the natural gas boiler”  **{SourceEquipmentMax}** = Each source/equipment combination with an equal  maximum percent, for example: “Electric furnace” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Which do you consider to be the main heating equipment for this {Structure}: {SourceEquipmentMaxList}? |
| **Interviewer Instructions** | N/A} |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. {SourceEquipmentMax1} |  |  |
| 2. {SourceEquipmentMax2} |  |  |
| 3. {Etc.} |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Main heating equipment known & **NOT** District steam or hot water  & (A24 [Year of construction] < 2000 OR A25 [Year of construction category] ≠  2000 to 2009 OR 2010 to 2012 OR 2013 to 2018)  🢂 D89 [Main heating replaced]  OTHERWISE 🢂 ART [Heating follow-up routing] STEP 10 |

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| **D89** | Main heating replaced {ReplaceHtEq} *NWMNHT* |
| ASK | IF Building OR Mall interview & Main heating equipment known  & **NOT** District steam or hot water  & (A24 [Year of construction] < 2000 OR A25 [Year of construction category] ≠  2000 to 2009 OR 2010 to 2012 OR 2013 to 2018) |
| FILL | **{MainSourceEquipment}**  Combination of main heating source and equipment, for example:  “electric furnace” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Has the {MainSourceEquipment} been replaced since the year 2000? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 ART [Heating follow-up routing] STEP 10 |

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| **D90** | Percent cooled {CoolPct} *COOLP* |
| ASK | IF Building OR Mall interview & D4 [Cooling] = Yes |
| FILL | **{SqFt}**  IF A6 [Square footage] known = “A6 [Square footage]”  IF A6 [Square footage] = DK/RF = “floorspace” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | These next questions are about cooling in this building.  What percentage of the {SqFt} in this building was cooled by air conditioning equipment during 2018? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 0 to 100 | % | 0 to 100 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF 0 THEN:  IF D20 [Percent heated] ≠ 0 & Building interview  🢂 D122 [Building automation system]  IF D20 [Percent heated] ≠ 0 & Mall interview  🢂 D121 [Who has temperature control]  IF D7 [Water heating] = Yes 🢂 D131 [Sources for water heating]  IF D10 [Cooking] = Yes 🢂 D135 [Sources for cooking]  IF D11 [Manufacturing] = Yes 🢂 D137 [Sources for manufacturing]  IF D17 [Type of solar] = Solar panels  🢂 D142 [Generation technologies other than solar]  OTHERWISE 🢂 D139 [Electricity generation capability]  OTHERWISE:  IF Electricity used & **NOT** District chilled water used  🢂 D91 [Electricity only for cooling]  IF Establishment interview & D4 [Cooling] = Yes & **NOT** Electricity used  & **NOT** District chilled water used 🢂 D92 [Sources for cooling]  IF District chilled water used 🢂 D94 [EL or CW for cooling]  OTHERWISE 🢂 D92 [Sources for cooling] |

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| **D91** | Electricity only for cooling {ElecCoolSource} *see below* |
| ASK | IF D4 [Cooling] = Yes & Electricity used & **NOT** District chilled water used  & **NOT** D90 [Percent cooled] = 0 |
| FILL | **{Intro}**  IF Interview = Establishment =  “These next questions are about cooling in this establishment.”  IF Interview = Building OR Mall = BLANK  **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {Intro}  Was electricity the only energy source used for air conditioning in this {Structure} in 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes, electricity was the only energy source for air conditioning |  | *ELCOOL* |
| 2. No, some other energy source was used in addition to or instead of electricity for air conditioning |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🢂 CRT [Cooling routing]  IF No 🢂 D92 [Sources for cooling]  IF Missing THEN:  IF Mall OR Establishment interview 🢂 D121 [Who has temperature control]  OTHERWISE 🢂 D122 [Building automation system] |

|  |  |
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| **D92** | Sources for cooling {OtCoolSourceAll} *see below* |
| ASK | IF D4 [Cooling] = Yes  & (D91 [Electricity only for cooling] = No OR (**NOT** Electricity used  & **NOT** District chilled water used & **NOT** D90 [Percent cooled] = 0)) |
| FILL | **{Intro}**  IF Interview = Establishment & **NOT** Electricity used  & **NOT** District chilled water used =  “These next questions are about cooling in this establishment.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {Intro}  Which energy source or sources were used for air conditioning? |
| **Interviewer Instructions** | Read choices if necessary  Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Electricity |  | *ELCOOL* |
| 2. Natural gas |  | *NGCOOL* |
| 3. Fuel Oil/Diesel/Kerosene |  | *FKCOOL* |
| 4. Propane |  | *PRCOOL* |
| 5. District steam |  | *STCOOL* |
| 6. District chilled water |  | *CWCOOL* |
| 7. Some other energy source |  | *OTCOOL* |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other energy source selected 🢂 D93 [Other type of cooling source]  IF Missing THEN:  IF Mall OR Establishment interview 🢂 D121 [Who has temperature control]  OTHERWISE 🢂 D122 [Building automation system]  OTHERWISE 🢂 CRT [Cooling routing] |

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| **D93** | Other type of cooling source {OtCoolSourceAllSp} *OTCOOL1X* |
| ASK | IF Some other energy source IN D92 [Sources for cooling] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other energy source |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 CRT [Cooling routing] |

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| **D94** | EL or CW for cooling {ELCWCoolSource} *see below* |
| ASK | IF D4 [Cooling] = Yes & District chilled water used  & **NOT** D90 [Percent cooled] = 0 |
| FILL | **{Intro}**  IF Interview = Establishment =  “These next questions are about cooling in this establishment.”  OTHERWISE = BLANK  **{ACSourceList}**  IF Electricity used = “(…electricity or district chilled water?)“  IF **NOT** Electricity used = “(Was district chilled water used?)”  **{Electricity}** = If electricity is used it appears |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {Intro}  Which energy sources were used for air conditioning? {ACSourceList} |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | {Intro}  Which energy sources were used for air conditioning? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. {Electricity} |  | *ELCOOL* |
| 2. District chilled water |  | *CWCOOL* |
| 3. Some other energy source |  | *OTCOOL* |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other energy source selected 🢂 D95 [Other source for cooling]  IF Missing THEN:  IF Mall OR Establishment interview 🢂 D121 [Who has temperature control]  OTHERWISE 🢂 D122 [Building automation system]  OTHERWISE 🢂 CRT [Cooling routing] |

|  |  |
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| **D95** | Other source for cooling {OtCoolSource} *see below* |
| ASK | IF Some other energy source IN D94 [EL or CW for cooling] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the other energy source used for air conditioning? |
| **Interviewer Instructions** | Read choices if necessary |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Electricity |  | *ELCOOL* |
| 2. Natural gas |  | *NGCOOL* |
| 3. Fuel Oil/Diesel/Kerosene |  | *FKCOOL* |
| 4. Propane |  | *PRCOOL* |
| 5. District steam |  | *STCOOL* |
| 6. District chilled water |  | *CWCOOL* |
| 7. Some other energy source |  | *OTCOOL* |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other energy source selected 🢂 D96 [Other type of cooling source]  IF Missing THEN:  IF Mall OR Establishment interview 🢂 D121 [Who has temperature control]  OTHERWISE 🢂 D122 [Building automation system]  OTHERWISE 🢂 CRT [Cooling routing] |

|  |  |
| --- | --- |
| **D96** | Other type of cooling source {OtCoolSourceSp} *OTCOOL2X* |
| ASK | IF Some other energy source IN D95 [Other source for cooling] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other energy source |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 CRT [Cooling routing] |

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| **CRT** | Cooling routing |
| NEXT | STEP 1 IF D91 [Electricity only for cooling] = Yes OR (Electricity IN  D92 [Sources for cooling] OR D94 [EL or CW for cooling] OR  D95 [Other source for cooling]) 🢂 D97 [Elec cooling equipment]  STEP 2 IF Natural gas IN D92 [Sources for cooling] OR D95 [Other source for cooling]  🢂 D104 [Nat gas cooling equipment]  STEP 3 IF Fuel oil/Diesel/Kerosene IN D92 [Sources for cooling] OR  D95 [Other source for cooling] 🢂 D106 [Fuel oil cooling equipment]  STEP 4 IF Propane IN D92 [Sources for cooling] OR D95 [Other source for cooling]  🢂 D108 [Propane cooling equipment]  STEP 5 IF District steam IN D92 [Sources for cooling] OR  D95 [Other source for cooling] 🢂 D110 [District steam cooling equipment]  STEP 6 IF Some other energy source IN D92 [Sources for cooling] OR  D95 [Other source for cooling]  🢂 D112 [Other source other cool equip specify]  STEP 7 IF District chilled water IN D92 [Sources for cooling] OR  D94 [EL or CW for cooling] OR D95 [Other source for cooling]  🢂 D113 [Where does CW come from]  STEP 8 🢂 BRT [Cooling follow-up routing] |

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| **D97** | Elec cooling equipment {HeatEquip\_ELHT1} *see below* |
| ASK | IF D91 [Electricity only for cooling] = Yes  OR (Electricity IN D92 [Sources for cooling] OR D94 [EL or CW for cooling]  OR D95 [Other source for cooling]) |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D11 |
| **Question Text** | Looking at the list of electric air conditioning equipment types on Show Card D11, please tell me which types are used in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these electric air conditioning equipment types are used in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Packaged air conditioning units (such as rooftop units, or RTUs)  *(Packaged units contain all of their components in a single outdoor enclosure that sits on either the roof or to the side of a building. Packaged air conditioning units may also be known as self-contained units or packaged direct expansion (DX) units.)* |  | *PKGCL\_EL* |
| 2. Central chillers that chill water for air conditioning |  | *CHILLR\_EL* |
| 3. Heat pumps for air conditioning (other than components of a packaged central unit)  *(These types of heat pumps may also be referred to as split system heat pumps.)* |  | *HTPMPC\_EL* |
| 4. Residential-type split system air conditioners  *(Central split system air conditioners cool air directly and use a fan or blower to circulate it through a system of air ducts without using chilled water. These systems consist of an outdoor condensing unit connected by refrigerant lines to an indoor evaporator or cooling coil.)* |  | *RCAC\_EL* |
| 5. Individual room or portable air conditioners  *(Room or portable air conditioners directly cool only the room or area where they are located. Room air conditioners are self-contained units installed in or through walls or windows, and include Packaged Terminal Air Conditioners (PTACs), Packaged Terminal Heat Pumps (PTHPs), and window air conditioning units. Portable air conditioners are freestanding with a tube to vent warm air outside.)* |  | *ACWNWL\_EL* |
| 6. “Swamp” coolers or evaporative coolers  *(A unit that uses the cooling effect of water evaporation to cool air.)* |  | *EVAPCL\_EL* |
| 8. Other air conditioning equipment |  | *OTCLEQ\_EL* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other air conditioning equipment selected 🢂 D98 [Elec other cool equip specify]  IF Heat pumps selected  & **NOT** Heat pumps for any main or secondary heating equipment  🢂 D100 [Heat pumps are PTHPs]  IF Residential-type split system air conditioners selected 🢂 D102 [VRF system]  IF Individual room or portable air conditioners selected  🢂 D103 [Individual AC are PTHPs]  OTHERWISE 🢂 CRT [Cooling routing] STEP 2 |

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| **D98** | Elec other cool equip specify {OthCoolSpecify\_EL} *OTCLEQX\_EL* |
| ASK | IF Other air conditioning equipment IN D97 [Elec cooling equipment] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of air conditioning equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Heat pumps IN D97 [Elec cooling equipment]  & **NOT** Heat pumps for any main or secondary heating equipment  🢂 D100 [Heat pumps are PTHPs]  IF Residential-type split system air conditioners IN D97 [Elec cooling equipment]  🢂 D102 [VRF system]  IF Individual room or portable air conditioners IN D97 [Elec cooling equipment]  🢂 D103 [Individual AC are PTHPs]  OTHERWISE 🢂 CRT [Cooling routing] STEP 2 |

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| **D99** | Question intentionally removed |

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| **D100** | Heat pumps are PTHPs {CoolPump\_PTHP} *PHCPTHP* |
| ASK | IF Heat pumps IN D97 [Elec cooling equipment]  & **NOT** Heat pumps for any main or secondary heating equipment |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Are the heat pumps “Packaged Terminal Heat Pumps”? These are also referred to as PTHPs. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |
| 3. Heat pumps are both PTHP and split system |  |  |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF No; Heat pumps are both PTHP and split system; OR DK/Missing  🢂 D101 [Heat pump cooling type]  OTHERWISE:  IF Residential-type split system air conditioners IN D97 [Elec cooling equipment]  🢂 D102 [VRF system]  IF Individual room or portable air conditioners IN D97 [Elec cooling equipment]  🢂 D103 [Individual AC are PTHPs]  OTHERWISE 🢂 CRT [Cooling routing] STEP 2 |

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| **D101** | Heat pump cooling type {CoolPumpType}  *see below* |
| ASK | IF D100 [Heat pumps are PTHPs] = No; Heat pumps are both PTHP and split  system; OR DK/Missing |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D10 |
| **Question Text** | Looking at the list on Show Card D10, which types of heat pumps are used in this {Structure}? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these types of heat pumps are used in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Air source heat pump |  | *HPCAIR* |
| 2. Ground source or ground water heat pump (geothermal) |  | *HPCGRD* |
| 3. Combination air source and geothermal |  | *HPCDUAL* |
| 4. Water loop heat pump |  | *HPCWATR* |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 D102 [VRF system] |

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| **D102** | VRF system {VRFSystemCool} *ACVRF* |
| ASK | IF Residential-type split system air conditioners IN D97 [Elec cooling equipment]  OR D100 [Heat pumps are PTHPs] = No; Heat pumps are both PTHP and split  system; OR DK/Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is the air conditioning system a variable refrigerant flow, or VRF, system? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Individual room or portable air conditioners IN D97 [Elec cooling equipment]  🢂 D103 [Individual AC are PTHPs]  OTHERWISE 🢂 CRT [Cooling routing] STEP 2 |

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| **D103** | Individual AC are PTHPs {RoomAC\_PTHP} *RMACPTHP* |
| ASK | IF Individual room or portable air conditioners IN D97 [Elec cooling equipment] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Are the individual air conditioners “Packaged Terminal Heat Pumps”? These are also referred to as PTHPs. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |
| 3. Individual air conditioners are both PTHP and other types |  |  |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 CRT [Cooling routing] STEP 2 |

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| **D104** | Nat gas cooling equipment {CoolEquip\_NG} *see below* |
| ASK | IF Natural gas IN D92 [Sources for cooling] OR D95 [Other source for cooling] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D12 |
| **Question Text** | Looking at the list of air conditioning equipment types on Show Card D12, please tell me which types are fueled by natural gas in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these air conditioning equipment types are fueled by natural gas in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central chillers that chill water for air conditioning |  | *CHILLR\_NG* |
| 2. Other air conditioning equipment |  | *OTCLEQ\_NG* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other air conditioning equipment selected  🢂 D105 [Nat gas other cool equip specify]  OTHERWISE 🢂 CRT [Cooling routing] STEP 3 |

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| **D105** | Nat gas other cool equip specify {OthCoolSpecify\_NG} *OTCLEQX\_NG* |
| ASK | IF Other air conditioning equipment IN D104 [Nat gas cooling equipment] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of air conditioning equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 CRT [Cooling routing] STEP 3 |

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| **D106** | Fuel oil cooling equipment {CoolEquip\_FK} *see below* |
| ASK | IF Fuel oil/Diesel/Kerosene IN D92 [Sources for cooling] OR  D95 [Other source for cooling] |
| FILL | **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene]  **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D12 |
| **Question Text** | Looking at the list of air conditioning equipment types on Show Card D12, please tell me which types are fueled by {FuelOilType} in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these air conditioning equipment types are fueled by {FuelOilType} in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central chillers that chill water for air conditioning |  | *CHILLR\_FK* |
| 2. Other air conditioning equipment |  | *OTCLEQ\_FK* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other air conditioning equipment selected  🢂 D107 [Fuel oil other cool equip specify]  OTHERWISE 🢂 CRT [Cooling routing] STEP 4 |

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| **D107** | Fuel oil other cool equip specify {OthCoolSpecify\_FK} *OTCLEQX\_FK* |
| ASK | IF Other air conditioning equipment IN D106 [Fuel oil cooling equipment] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of air conditioning equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 CRT [Cooling routing] STEP 4 |

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| **D108** | Propane cooling equipment {CoolEquip\_PR} *see below* |
| ASK | IF Propane IN D92 [Sources for cooling] OR D95 [Other source for cooling] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D12 |
| **Question Text** | Looking at the list of air conditioning equipment types on Show Card D12, please tell me which types are fueled by propane in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these air conditioning equipment types are fueled by propane in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central chillers that chill water for air conditioning |  | *CHILLR\_PR* |
| 2. Other air conditioning equipment |  | *OTCLEQ\_PR* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other air conditioning equipment selected  🢂 D109 [Propane other cool equip specify]  OTHERWISE 🢂 CRT [Cooling routing] STEP 5 |

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| **D109** | Propane other cool equip specify {OthCoolSpecify\_PR} *OTCLEQX\_PR* |
| ASK | IF Other air conditioning equipment IN D108 [Propane cooling equipment] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of air conditioning equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 CRT [Cooling routing] STEP 5 |

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| **D110** | District steam cooling equipment {CoolEquip\_ST} *see below* |
| ASK | IF District steam IN D92 [Sources for cooling] OR D95 [Other source for cooling] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D12 |
| **Question Text** | Looking at the list of air conditioning equipment types on Show Card D12, please tell me which types are fueled by district steam in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these air conditioning equipment types are fueled by district steam in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central chillers that chill water for air conditioning |  | *CHILLR\_ST* |
| 2. Other air conditioning equipment |  | *OTCLEQ\_ST* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other air conditioning equipment selected  🢂 D111 [Steam other cool equip specify]  OTHERWISE 🢂 CRT [Cooling routing] STEP 6 |

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| **D111** | Steam other cool equip specify {OthCoolSpecify\_DS} *OTCLEQX\_ST* |
| ASK | IF Other air conditioning equipment IN D110 [District steam cooling equipment] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of air conditioning equipment |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 CRT [Cooling routing] STEP 6 |

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| **D112** | Other source other cool equip specify {OthCoolSpecify\_OT} *OTCLEQX\_OT* |
| ASK | IF Some other energy source IN D92 [Sources for cooling] OR  D95 [Other source for cooling] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please describe the air conditioning equipment that is fueled by the other energy source. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 CRT [Cooling routing] STEP 7 |

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| **D113** | Where does CW come from {WhereCW} *CWLOCTN* |
| ASK | IF District chilled water IN D92 [Sources for cooling] OR  D94 [EL or CW for cooling] OR D95 [Other source for cooling] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does the district chilled water come from a chiller in another building, from a utility, or from a chiller inside this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. From a chiller in another building |  |  |
| 2. From a district chilled water utility |  |  |
| 3. From a chiller inside this building |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 D114 [Chilled water distribution] |

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| **D114** | Chilled water distribution {CoolEquip\_CW} *see below* |
| ASK | IF District chilled water IN D92 [Sources for cooling] OR  D94 [EL or CW for cooling] OR D95 [Other source for cooling] |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D13 |
| **Question Text** | Looking at the list of cooling distribution types on Show Card D13, please tell me which one (or ones) are used with the district chilled water in this {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of the following cooling distribution types are used with the district chilled water in the {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central air handlers |  | *CWAIR* |
| 2. Fan coil or induction units  *(Fan coil units, including unit ventilators, contain a cooling coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the cooling coil and circulate the air within a room.)* |  | *CWFNCL* |
| 3. Chilled beam  *(A chilled beam has pipes of chilled water that through a beam in or near the ceiling.)* |  | *CWBEAM* |
| 4. Water loop heat pump |  | *CWWTLP* |
| 5. Other cooling distribution |  | *CWOTD* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 BRT [Cooling follow-up routing] |

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| **BRT** | Cooling follow-up routing |
| NEXT | IF Building interview & Chillers for any cooling equipment  🢂 D115 [Where is the chiller located]  IF Mall OR Establishment interview & Chillers for any cooling equipment  🢂 D116 [Chiller distribution]  IF Building OR Mall interview & More than one cooling equipment selected  🢂 D118 [Percent cooled by type]  IF Building OR Mall interview & Only one selected cooling equipment  & **NOT** District chilled water & (Main cooling equipment **NOT** Packaged cooling if the Main  heating equipment was Packaged heating) & (Main cooling equipment **NOT** Heat pump if  the Main heating equipment was Heat pump) & (A24 [Year of construction] < 2000 OR  A25 [Year of construction category] ≠ 2000 to 2009 OR 2010 to 2012 OR 2013 to 2018)  🢂 D120 [Main cooling replaced]  IF Mall OR Establishment interview 🢂 D121 [Who has temperature control]  OTHERWISE 🢂 D122 [Building automation system] |

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| **D115** | Where is the chiller located {WhereChiller} *CHLLOCTN* |
| ASK | IF Building interview & Chillers for any cooling equipment |
| FILL | **{ChillerNum}**  IF Chillers reported for only one energy source = “Is the chiller”  IF Chillers reported for more than one energy source = “Are the chillers” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {ChillerNum} located in this building or in another building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. In this building |  |  |
| 2. In another building |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 D116 [Chiller distribution] |

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| **D116** | Chiller distribution {ChillerDistrib} *see below* |
| ASK | IF Chillers for any cooling equipment |
| FILL | **{Chillers}**  IF Chillers reported for only one energy source = “chiller”  IF Chillers reported for more than one energy source = “chillers”  **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D13 |
| **Question Text** | Looking at the list of cooling distribution types on Show Card D13, please tell me which one (or ones) are used with the {Chillers} in the {Structure}. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of the following cooling distribution types are used with the {Chillers} in the {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Central air handlers |  | *CHLAIR* |
| 2. Fan coil or induction units  *(Fan coil units, including unit ventilators, contain a cooling coil and fan to circulate air within a room. Induction units are typically connected directly to the air duct system and use nozzles to induce airflow across the cooling coil and circulate the air within a room.)* |  | *CHLFNCL* |
| 3. Chilled beam  *(A chilled beam has pipes of chilled water that through a beam in or near the ceiling.)* |  | *CHLBEAM* |
| 4. Water loop heat pump |  | *CHLWTLP* |
| 5. Other cooling distribution |  | *CHLOTD* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF D115 [Where is the chiller located] = In another building THEN:  IF More than one cooling equipment selected 🢂 D118 [Percent cooled by type]  IF Only one selected cooling equipment & **NOT** District chilled water  & (Main cooling equipment **NOT** Packaged cooling if the Main heating  equipment was Packaged heating) & (Main cooling equipment **NOT** Heat  pump if the main heating equipment was Heat pump)  & (A24 [Year of construction] < 2000 OR  A25 [Year of construction category] ≠ 2000 to 2009 OR 2010 to 2012 OR  2013 to 2018) 🢂 D120 [Main cooling replaced]  IF Mall OR Establishment interview 🢂 D121 [Who has temperature control]  OTHERWISE 🢂 D122 [Building automation]  OTHERWISE 🢂 D117 [Type of chiller] |

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| **D117** | Type of chiller {TypeChiller} *see below* |
| ASK | IF Chillers for any cooling equipment  & **NOT** D115 [Where is the chiller located] = In another building |
| FILL | **{ChillerIs}**  IF Chillers reported for only one energy source = “chiller is”  IF Chillers reported for more than one energy source = “chillers are”  **{Absorption}**  IF Chillers reported for only one energy source = “an absorption chiller”  IF Chillers reported for more than one energy source = “absorption chillers”  **{ChillerNum}**  IF Chillers reported for only one energy source = “Is the chiller”  IF Chillers reported for more than one energy source = “Are the chillers” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D14 |
| **Question Text** | Please look at Show Card D14 and tell me whether the {ChillerIs} air-cooled, water-cooled, or {Absorption}? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | {ChillerNum} air-cooled, water-cooled, or {Absorption}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Air-cooled  *(Chiller that uses a vapor-compression refrigeration cycle and has an air-cooled condenser.)* |  | *CHLAIRCL* |
| 2. Water-cooled  *(Chiller that uses a vapor-compression refrigeration cycle and has a water-cooled condenser.)* |  | *CHLWTRCL* |
| 3. Absorption  *(Chiller that uses an absorption-refrigeration cycle. Heat is used to drive the refrigeration cycle.)* |  | *CHLABSRP* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building OR Mall interview & More than one cooling equipment selected  🢂 D118 [Percent cooled by type]  IF Building OR Mall interview & Only one selected cooling equipment  & **NOT** District chilled water & (Main cooling equipment **NOT** Packaged cooling  if the Main heating equipment was Packaged heating) & (Main cooling  equipment **NOT** Heat pump if the main heating equipment was Heat pump)  & (A24 [Year of construction] < 2000 OR  A25 [Year of construction category] ≠ 2000 to 2009 OR 2010 to 2012 OR  2013 to 2018) 🢂 D120 [Main cooling replaced]  IF Mall OR Establishment interview 🢂 D121 [Who has temperature control]  OTHERWISE 🢂 D122 [Building automation] |

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| **D118** | Percent cooled by type {ClEqPct} *various* |
| ASK | IF Building OR Mall interview  & More than one selected cooling source/equipment combination |
| FILL | **{Explanation}**  IF D90 [Percent cooled] ≠ 100 = “We are talking only about the cooled portion of  the floorspace, so these percentages must add up to at least 100, but since  more than one type of equipment can cool the same area, it is also possible for  them to add up to more than 100.”  IF D90 [Percent cooled = 100 = “These percentages must add up to at least 100,  but since more than one type of equipment can cool the same area, it is also  possible for them to add up to more than 100.”  **{SourceEquipment}**  Combination of selected cooling source and equipment, for example:  “Electric chiller” |
| INTRO TEXT | All selected cooling source/equipment combinations are on one screen, with this introduction:  The next questions are about the percentage of floorspace cooled by each type of equipment. Please keep in mind: {Explanation}  What percentage of the cooled area in this building is served by each of the following equipment types? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {SourceEquipment} |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 1 to 100 | % | 1 to 100 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF there are equal maximum percents OR Missing  🢂D119 [Main cooling equipment]  IF Main cooling equipment **NOT** District chilled water  & (Main cooling equipment **NOT** Packaged cooling if the Main heating  equipment was Packaged heating) & (Main cooling equipment **NOT** Heat pump  if the main heating equipment was Heat pump)  & (A24 [Year of construction] < 2000 OR  A25 [Year of construction category] ≠ 2000 to 2009 OR 2010 to 2012 OR  2013 to 2018) 🢂 D120 [Main cooling replaced]  IF Mall interview 🢂 D121 [Who has temperature control]  OTHERWISE 🢂 D122 [Building automation system] |

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| **D119** | Main cooling equipment {MainCoolSelect} *MAINCLX* |
| ASK | IF D118 [Percent cooled by type] has equal maximum percents OR Missing |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment”  **{SourceEquipmentMaxList}** = List of all source/equipment combinations with  equal maximum percents, for example:  “the electric chiller or the heat pump”  **{SourceEquipmentMax}** = Each source/equipment combination with an equal  maximum percent, for example: “Electric chiller” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Which do you consider to be the main cooling equipment for this {Structure}: {SourceEquipmentMaxList}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. {SourceEquipmentMax1} |  |  |
| 2. {SourceEquipmentMax2} |  |  |
| 3. {Etc.} |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Main cooling equipment known & **NOT** District chilled water  & (Main cooling equipment **NOT** Packaged cooling if the Main heating  equipment was Packaged heating) & (Main cooling equipment **NOT** Heat pump  if the main heating equipment was Heat pump)  & (A24 [Year of construction] < 2000 OR  A25 [Year of construction category] ≠ 2000 to 2009 OR 2010 to 2012 OR  2013 to 2018) 🢂 D120 [Main cooling replaced]  IF Mall interview 🢂 D121 [Who has temperature control]  OTHERWISE 🢂 D122 [Building automation system] |

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| **D120** | Main cooling replaced {ReplaceClEq} *NWMNCL* |
| ASK | IF Building OR Mall interview & Main cooling equipment known  & **NOT** District chilled water & (Main cooling equipment **NOT** Packaged cooling  if the Main heating equipment was Packaged heating) & (Main cooling  equipment **NOT** Heat pump if the main heating equipment was Heat pump)  & (A24 [Year of construction] < 2000 OR  A25 [Year of construction category] ≠ 2000 to 2009 OR 2010 to 2012 OR  2013 to 2018) |
| FILL | **{MainSourceEquipment}**  Combination of main cooling source and equipment, for example:  “electric chiller” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Has the {MainSourceEquipment} been replaced since the year 2000? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Mall interview 🢂 D121 [Who has temperature control]  OTHERWISE 🢂 D122 [Building automation system] |

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| **D121** | Who has temperature control {TempControl} *ESTBTEMP* |
| ASK | IF (D1 [Heating] = Yes OR D4 [Cooling] = Yes)  & (Establishment interview OR  (Mall interview & **NOT** (D20 [Percent heated] = 0 & D90 [Percent cooled] = 0)) |
| FILL | **{BusTen}**  IF Interview = Mall =  “Do individual tenants have direct control of the temperature in their space?”  IF Interview = Establishment =  “Does this business have direct control of the temperature in the space?” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {BusTen} |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF (No & Mall interview) OR (Yes & Establishment interview)  🢂 D122 [Building automation system]  OTHERWISE:  IF (**NOT** D20 [Percent heated] = 0 & Heating equipment known other than  Individual space heaters or Fireplaces) OR Cooling equipment known  other than Individual room or portable air conditioners  🢂 D127 [Airflow control]  OTHERWISE 🢂 D130 [Regular HVAC maintenance] |

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| **D122** | Building automation system {EMCS} *EMCS* |
| ASK | IF (D1 [Heating] = Yes & OR D4 [Cooling] = Yes)  & **NOT** (D20 [Percent heated] = 0 & D90 [Percent cooled] = 0)  & **NOT** (Mall interview & D121 [Who has temperature control] = Yes OR  Missing) & **NOT** (Establishment interview  & D121 [Who has temperature control] = No OR Missing) |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this {Structure} have a building automation system which may also be referred to as BAS, smart building controls, an energy management and control system, or EMCS? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🢂 D123 [BAS system controls]  IF No OR Missing 🢂 D124 [Smart thermostats] |

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| **D123** | BAS system controls {SystemsBASControls} *see below* |
| ASK | IF D122 [Building automation system] = Yes |
| FILL | **{HeatingCooling}**  IF D1 [Heating] = Yes & **NOT** D20 [Percent heated] = 0 & D4 [Cooling] = Yes  & **NOT** D90 [Percent cooled] = 0 = “heating, cooling,”  IF D1 [Heating] = Yes & **NOT** D20 [Percent heated] = 0 = “heating”  IF D4 [Cooling] = Yes & **NOT** D90 [Percent cooled] = 0 = “cooling”  **{Heating}**  IF D1 [Heating] = Yes & **NOT** D20 [Percent heated] = 0 = “Heating”  OTHERWISE = BLANK  **{Cooling}**  IF D4 [Cooling] = Yes & **NOT** D90 [Percent cooled] = 0 = “Cooling”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does the building automation system control the {HeatingCooling} and/or lighting? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. {Heating} |  | *EMCSHT* |
| 2. {Cooling} |  | *EMCSCL* |
| 3. Lighting |  | *EMCSLT* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF (**NOT** D20 [Percent heated] = 0 & Heating equipment known other than  Individual space heaters or Fireplaces) OR Cooling equipment known other than  Individual room or portable air conditioners 🢂 D127 [Airflow control]  OTHERWISE 🢂 D130 [Regular HVAC maintenance] |

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| **D124** | Smart thermostats {SmartTherm} *SMRTTHRM* |
| ASK | IF D122 [Building automation system] = No OR Missing |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this {Structure} use any “smart” or internet-connected thermostats? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF No OR Missing THEN:  IF D1 [Heating] = Yes & **NOT** D20 [Percent heated] = 0  🢂 D125 [How reduce heating]  IF D4 [Cooling] = Yes & **NOT** D90 [Percent cooled] = 0  🢂 D126 [How reduce cooling]  IF Yes THEN:  IF (**NOT** D20 [Percent heated] = 0 & Heating equipment known other than  Individual space heaters or Fireplaces) OR Cooling equipment known  other than Individual room or portable air conditioners  🡺 D127 [Airflow control]  OTHERWISE 🡺 D130 [Regular HVAC maintenance] |

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| **D125** | How reduce heating {ReduceHeat}  *HWRDHT* |
| ASK | IF (D124 [Smart thermostats] = No OR Missing) & D1 [Heating] = Yes  & **NOT** D20 [Percent heated] = 0 |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D15 |
| **Question Text** | Please look at Show Card D15. Which one of the methods, if any, is most often used to control the indoor temperature of the {Structure} during the heating season? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Which one of the following methods, if any, is most often used to control the indoor temperature of the {Structure} during the heating season? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Setting a programmable thermostat to automatically change the temperature at certain times |  |  |
| 2. Manually adjusting the temperature setting |  |  |
| 3. Turning equipment on or off |  |  |
| 4. None of these methods |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF D4 [Cooling] = Yes & **NOT** D90 [Percent cooled] = 0  🢂 D126 [How reduce cooling]  IF **NOT** D20 [Percent heated] = 0 & Heating equipment known other than  Individual space heaters or Fireplaces 🢂 D127 [Airflow control]  OTHERWISE 🡺 D130 [Regular HVAC maintenance] |

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| **D126** | How reduce cooling {ReduceCool} *HWRDCL* |
| ASK | IF (D124 [Smart thermostats] = No OR Missing) & D4 [Cooling] = Yes  & **NOT** D90 [Percent cooled] = 0 |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment”  **{FirstQuest}**  IF D125 [How reduce heating] asked =  “Still looking at Show Card D15, which one”  OTHERWISE = “Please look at Show Card D15. Which one” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D15 |
| **Question Text** | {FirstQuest} of the methods, if any, is most often used to control the indoor temperature of the {Structure} during the cooling season? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Which one of the following methods, if any, is most often used to control the indoor temperature of the {Structure} during the cooling season? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Setting a programmable thermostat to automatically change the temperature at certain times |  |  |
| 2. Manually adjusting the temperature setting |  |  |
| 3. Turning equipment on or off |  |  |
| 4. None of these methods |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF (**NOT** D20 [Percent heated] = 0 & Heating equipment known other than  Individual space heaters or Fireplaces) OR Cooling equipment known other than  Individual room or portable air conditioners 🢂 D127 [Airflow control]  OTHERWISE 🡺 D130 [Regular HVAC maintenance] |

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| **D127** | Airflow control {AirflowControl} *see below* |
| ASK | IF (**NOT** D20 [Percent heated] = 0 & Heating equipment known other than  Individual space heaters or Fireplaces) OR Cooling equipment known other  than Individual room or portable air conditioners |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D16 |
| **Question Text** | Please look at Show Card D16. Which of these types of systems, if any, are used to control the airflow in this {Structure}? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these types of systems, if any, are used to control the airflow in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Variable air volume (VAV) system |  | *VAV* |
| 2. Dedicated outside air system (DOAS) |  | *DOAS* |
| 3. Demand controlled ventilation (DCV) |  | *DCV* |
| 4. None of these types |  | *NOVENT* |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X**  Missing Item Prompt Box Allow Blank |
| NEXT | IF Cooling equipment known other than Individual room or portable air conditioners  🢂 D128 [Economizer cycle]  OTHERWISE 🢂 D130 [Regular HVAC maintenance] |

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| **D128** | Economizer cycle {EconCyc} *ECN* |
| ASK | IF Cooling equipment known other than Individual room or portable air  conditioners |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this {Structure} have any equipment that uses outside air for cooling, often called an "economizer cycle"? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building OR Mall interview & (Packaged air conditioning units OR Chillers OR  Heat pumps IN D97 [Elec cooling equipment]) OR (Chillers IN  D104 [Nat gas cooling equipment] OR D106 [Fuel oil cooling equipment] OR  D108 [Propane cooling equipment] OR D110 [District steam cooling equipment])  🡺 D129 [Cooling tower]  OTHERWISE 🡺 D130 [Regular HVAC maintenance] |

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| --- | --- |
| **D129** | Cooling tower {CoolingTower} *CTOWER* |
| ASK | IF Building OR Mall interview & (Packaged air conditioning units OR Chillers OR  Heat pumps IN D97 [Elec cooling equipment]) OR (Chillers IN  D104 [Nat gas cooling equipment] OR D106 [Fuel oil cooling equipment] OR  D108 [Propane cooling equipment] OR D110 [District steam cooling equipment]) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this building have a cooling tower for the cooling equipment? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 D130 [Regular HVAC maintenance] |

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| **D130** | Regular HVAC maintenance {Maint} *MAINT* |
| ASK | IF (D1 [Heating] = Yes & **NOT** D20 [Percent heated] = 0)  OR (D4 [Cooling] = Yes & **NOT** D90 [Percent cooled] = 0) |
| FILL | **{HeatingCooling}**  IF D1 [Heating] = Yes & **NOT** D20 [Percent heated] = 0 & D4 [Cooling] = Yes  & **NOT** D90 [Percent cooled] = 0 = “heating and cooling”  IF D1 [Heating] = Yes & **NOT** D20 [Percent heated] = 0 = “heating”  IF D4 [Cooling] = Yes & **NOT** D90 [Percent cooled] = 0 = “cooling” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is there any regularly scheduled maintenance and repair for the {HeatingCooling} system? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF D7 [Water heating] = Yes 🢂 D131 [Sources for water heating]  IF D10 [Cooking] = Yes 🢂 D135 [Sources for cooking]  IF D11 [Manufacturing] = Yes 🢂 D137 [Sources for manufacturing]  IF D17 [Type of solar] = Solar panels  🢂 D142 [Generation technologies other than solar]  OTHERWISE 🢂 D139 [Electricity generation capability] |

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| **D131** | Sources for water heating {WaterSource} *see below* |
| ASK | IF D7 [Water heating] = Yes |
| FILL | **{WatrSourcesList}** = List of all energy sources used  **{Electricity} – {Other}** = If a source is used, it appears  **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene]  **{Other}** = Source specified in D14 [Other energy source] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Which energy sources were used for water heating? (Was it {WatrSourcesList}?) |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which energy sources were used for water heating? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. {Electricity} |  | *ELWATR* |
| 2. {Natural gas} |  | *NGWATR* |
| 3. {FuelOilType} |  | *FKWATR* |
| 4. {Propane} |  | *PRWATR* |
| 5. {District steam} |  | *STWATR* |
| 6. {District hot water} |  | *HWWATR* |
| 7. {Wood} |  | *WOWATR* |
| 8. {Coal} |  | *COWATR* |
| 9. {Solar thermal} |  | *SOWATR* |
| 10. {Other} |  | *OTWATR* |
| 11. Some other energy source |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other energy source 🢂 D132 [Other water heating source]  OTHERWISE 🢂 D133 [Water heating equipment] |

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| --- | --- |
| **D132** | Other water heating source {OtWaterSource} *see below* |
| ASK | IF D131 [Sources for water heating] = Some other energy source |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the other energy source used for water heating? |
| **Interviewer Instructions** | Read choices if necessary |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Electricity |  | *ELWATR* |
| 2. Natural gas |  | *NGWATR* |
| 3. Fuel Oil/Diesel/Kerosene |  | *FKWATR* |
| 4. Propane |  | *PRWATR* |
| 5. District steam |  | *STWATR* |
| 6. District hot water |  | *HWWATR* |
| 7. Wood |  | *WOWATR* |
| 8. Coal |  | *COWATR* |
| 9. Solar thermal |  | *SOWATR* |
| 10. Some other energy source |  | *OTWATR* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 D133 [Water heating equipment] |

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| **D133** | Water heating equipment {WaterEquip} *WTHTEQ* |
| ASK | IF D7 [Water heating] = Yes |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this {Structure} have centralized water heaters, "point-of-use" water heaters, or both of these types? Point-of-use water heaters may also be referred to as “tankless” water heaters. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Centralized water heaters |  |  |
| 2. “Point-of-use” water heaters |  |  |
| 3. Both types |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF CBECS Activity = Food service OR Inpatient health OR  B15 [Service type] = Dry cleaner or Laundromat OR Car wash OR  Establishment Activity = Food service OR Dry cleaner/Laundromat  🢂 D134 [Booster water heaters]  IF D10 [Cooking] = Yes 🢂 D135 [Sources for cooking]  IF D11 [Manufacturing] = Yes 🢂 D137 [Sources for manufacturing]  IF D17 [Type of solar] = Solar panels  🢂 D142 [Generation technologies other than solar]  OTHERWISE 🢂 D139 [Electricity generation capability] |

|  |  |
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| **D134** | Booster water heaters {BoosterWaterHeater} *BOOSTWT* |
| ASK | IF D7 [Water heating] = Yes & (CBECS Activity = Food service OR Inpatient health  OR B15 [Service type] = Dry cleaner or Laundromat OR Car wash OR  Establishment Activity = Food service OR Dry cleaner/Laundromat) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this {Structure} have any “booster” water heaters, which are used to increase the water temperature up to 195 degrees, often for the purpose of sanitizing? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF D10 [Cooking] = Yes 🢂 D135 [Sources for cooking]  IF D11 [Manufacturing] = Yes 🢂 D137 [Sources for manufacturing]  IF D17 [Type of solar] = Solar panels  🢂 D142 [Generation technologies other than solar]  OTHERWISE 🢂 D139 [Electricity generation capability] |

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| **D135** | Sources for cooking {CookSource} *see below* |
| ASK | IF D10 [Cooking] = Yes |
| FILL | **{CookSourcesList}** = List of all energy sources used  **{Electricity} – {Other}** = If a source is used, it appears  **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene]  **{Other}** = Source specified in D14 [Other energy source] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Which energy sources were used for cooking? (Was it {CookSourcesList}?) |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which energy sources were used for cooking? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. {Electricity} |  | *ELCOOK* |
| 2. {Natural gas} |  | *NGCOOK* |
| 3. {FuelOilType} |  | *FKCOOK* |
| 4. {Propane} |  | *PRCOOK* |
| 5. {District steam} |  | *STCOOK* |
| 6. {District hot water} |  | *HWCOOK* |
| 7. {Wood} |  | *WOCOOK* |
| 8. {Coal} |  | *COCOOK* |
| 9. {Other} |  | *OTCOOK* |
| 10. Some other energy source |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other energy source 🢂 D136 [Other cooking source]  IF D11 [Manufacturing] = Yes 🢂 D137 [Sources for manufacturing]  IF D17 [Type of solar] = Solar panels  🢂 D142 [Generation technologies other than solar]  OTHERWISE 🢂 D139 [Electricity generation capability] |

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| **D136** | Other cooking source {OtCookSource} *see below* |
| ASK | IF D135 [Sources for cooking] = Some other energy source |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the other energy source used for cooking? |
| **Interviewer Instructions** | Read choices if necessary |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Electricity |  | *ELCOOK* |
| 2. Natural gas |  | *NGCOOK* |
| 3. Fuel Oil/Diesel/Kerosene |  | *FKCOOK* |
| 4. Propane |  | *PRCOOK* |
| 5. District steam |  | *STCOOK* |
| 6. District hot water |  | *HWCOOK* |
| 7. Wood |  | *WOCOOK* |
| 8. Coal |  | *COCOOK* |
| 9. Some other energy source |  | *OTCOOK* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF D11 [Manufacturing] = Yes 🢂 D137 [Sources for manufacturing]  IF D17 [Type of solar] = Solar panels  🢂 D142 [Generation technologies other than solar]  OTHERWISE 🢂 D139 [Electricity generation capability] |

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| **D137** | Sources for manufacturing {ManuSource} *see below* |
| ASK | IF D11 [Manufacturing] = Yes |
| FILL | **{ManuSourcesList}** = List of all energy sources used  **{Electricity} – {Other}** = If a source is used, it appears  **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene]  **{Other}** = Source specified in D14 [Other energy source] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Which energy sources were used for manufacturing? (Was it {ManuSourcesList}?) |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which energy sources were used for manufacturing? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. {Electricity} |  | *ELMANU* |
| 2. {Natural gas} |  | *NGMANU* |
| 3. {FuelOilType} |  | *FKMANU* |
| 4. {Propane} |  | *PRMANU* |
| 5. {District steam} |  | *STMANU* |
| 6. {District hot water} |  | *HWMANU* |
| 7. {Wood} |  | *WOMANU* |
| 8. {Coal} |  | *COMANU* |
| 9. {Other} |  | *OTMANU* |
| 10. Some other energy source |  |  |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other energy source 🢂 D138 [Other manufacturing source]  IF D17 [Type of solar] = Solar panels  🢂 D142 [Generation technologies other than solar]  OTHERWISE 🢂 D139 [Electricity generation capability] |

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| **D138** | Other manufacturing source {OtManuSource} *see below* |
| ASK | IF D137 [Sources for manufacturing] = Some other energy source |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the other energy source used for manufacturing? |
| **Interviewer Instructions** | Read choices if necessary |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Electricity |  | *ELMANU* |
| 2. Natural gas |  | *NGMANU* |
| 3. Fuel Oil/Diesel/Kerosene |  | *FKMANU* |
| 4. Propane |  | *PRMANU* |
| 5. District steam |  | *STMANU* |
| 6. District hot water |  | *HWMANU* |
| 7. Wood |  | *WOMANU* |
| 8. Coal |  | *COMANU* |
| 9. Some other energy source |  | *OTMANU* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF D17 [Type of solar] = Solar panels  🢂 D142 [Generation technologies other than solar]  OTHERWISE 🢂 D139 [Electricity generation capability] |

|  |  |
| --- | --- |
| **D139** | Electricity generation capability {AbleGen} *CAPGEN* |
| ASK | IF **NOT** D17 [Type of solar] = Solar panels |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this {Structure} have the ability to generate electricity on-site, such as from solar panels or a generator? Please include generation equipment even if it is used only for emergency backup purposes. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🢂 D140 [Generation technologies]  OTHERWISE:  IF Missing OR No & D12 [Any energy] = Missing  & D13 [Energy sources] = Missing 🢂 E83 [Window glass type]  IF Building OR Mall interview & Electricity used 🢂 D149 [EV charging stations]  IF (B15 [Service type] = Dry cleaner or laundromat OR  Establishment Activity = Dry cleaner/Laundromat) & Natural gas used  🢂 D150 [Natural gas dryers]  OTHERWISE 🢂 D151 [Any other sources] |

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| **D140** | Generation technologies {GenerTech} *see below* |
| ASK | IF D139 [Electricity generation capability] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D17 |
| **Question Text** | Looking at Show Card D17, which of the technologies on the list were used on-site for generating electricity? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these technologies were used on-site for generating electricity? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Solar panels used to generate electricity |  | *PVC* |
| 2. Reciprocating engine generator |  | *ENGINE* |
| 3. Fuel cells |  | *FUELCL* |
| 4. Large turbines |  | *LRGTRB* |
| 5. Microturbines |  | *MCROTB* |
| 6. Wind turbines |  | *WINDTRB* |
| 7. Some other technology |  | *OTGENTECH* |

|  |  |
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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other technology 🢂 D141 [Other gener tech specify]  IF Missing/DK OR (ONLY Solar panels OR Wind turbines) THEN:  IF Building OR Mall interview & Electricity used 🢂 D149 [EV charging stations]  IF (B15 [Service type] = Dry cleaner or laundromat OR  Establishment Activity = Dry cleaner/Laundromat) & Natural gas used  🢂 D150 [Natural gas dryers]  OTHERWISE 🢂 D151 [Any other sources]  IF Building OR Mall interview 🢂 D144 [Cogeneration system]  IF Establishment interview 🢂 D145 [Sources for electricity generation] |

|  |  |
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| **D141** | Other gener tech specify {OthGenerTech} *OTHGEN1X* |
| ASK | IF Some other technology IN D140 [Generation technologies] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other technology used to generate electricity on-site |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Building OR Mall interview 🢂 D144 [Cogeneration system]  IF Establishment interview 🢂 D145 [Sources for electricity generation] |

|  |  |
| --- | --- |
| **D142** | Generation technologies other than solar {GenerTechMod} *see below* |
| ASK | IF D17 [Type of solar] = Solar panels |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D18 |
| **Question Text** | Earlier you mentioned that solar panels were used to generate electricity for this {Structure}. Looking at Show Card D18, were any of the other technologies on the list used on-site for generating electricity? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Earlier you reported that solar panels were used to generate electricity for this {Structure}. Were any of these other technologies used on-site for generating electricity? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Reciprocating engine generator |  | *ENGINE* |
| 2. Fuel cells |  | *FUELCL* |
| 3. Large turbines |  | *LRGTRB* |
| 4. Microturbines |  | *MCROTB* |
| 5. Wind turbines |  | *WINDTRB* |
| 6. Some other technology |  | *OTGENTECH* |
| 7. No other electricity generation technologies used |  |  |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other technology 🢂 D143 [Other gener tech specify]  IF Missing/DK OR (ONLY Wind turbines OR No other technologies) THEN:  IF Building OR Mall interview & Electricity used 🢂 D149 [EV charging stations]  IF (B15 [Service type] = Dry cleaner or laundromat OR  Establishment Activity = Dry cleaner/Laundromat) & Natural gas used  🢂 D150 [Natural gas dryers]  OTHERWISE 🢂 D151 [Any other sources]  IF Building OR Mall interview 🢂 D144 [Cogeneration system]  IF Establishment interview 🢂 D145 [Sources for electricity generation] |

|  |  |
| --- | --- |
| **D143** | Other gener tech specify {OthGenerTechMod} *OTHGEN2X* |
| ASK | IF Some other technology IN D142 [Generation technologies other than solar] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other technology used to generate electricity on-site |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Building OR Mall interview 🢂 D144 [Cogeneration system]  IF Establishment interview 🢂 D145 [Sources for electricity generation] |

|  |  |
| --- | --- |
| **D144** | Cogeneration system {Cogen} *COGEN* |
| ASK | IF Building OR Mall interview & (Any technology other than Solar panels OR Wind  turbines IN D140 [Generation technologies] OR Any response other than Wind  turbines OR No other technologies IN  D142 [Generation technologies other than solar]) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is the electric power generating system also a cogeneration system? That is, in addition to producing electric power, does the same system simultaneously produce heat that is used in this or another building for space heating, water heating, or industrial processes? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 D145 [Sources for electricity generation] |

|  |  |
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| **D145** | Sources for electricity generation {GenerSource} *see below* |
| ASK | IF Any technology other than Solar panels OR Wind turbines IN  D140 [Generation technologies] OR Any response other than Wind turbines OR  No other technologies IN D142 [Generation technologies other than solar] |
| FILL | **{GenrTechList}** = List of generation technologies used excluding Solar and Wind  **{Other}** = Source specified in D14 [Other energy source] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Which energy sources were used for the {GenerTechList}? |
| **Interviewer Instructions** | Read choices if necessary  Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Natural gas |  | *NGGENR* |
| 2. Fuel oil/Diesel/Kerosene |  | *FKGENR* |
| 3. Propane |  | *PRGENR* |
| 4. Wood |  | *WOGENR* |
| 5. Coal |  | *COGENR* |
| 6. {Other} |  | *OTGENR* |
| 7. Some other energy source |  | *OTGENR* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 D146 [Use of generated electricity] |

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| **D146** | Use of generated electricity {GenerUse} *GENUSE* |
| ASK | IF Any technology other than Solar panels OR Wind turbines IN  D140 [Generation technologies] OR Any response other than Wind turbines OR  No other technologies IN D142 [Generation technologies other than solar] |
| FILL | **{GenrTechList}** = List of generation technologies used excluding Solar and Wind |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | During 2018, was the electricity generated by the {GenrTechList} used: primarily for emergency backup or testing, only during periods of high electricity demand, or whenever electricity was used? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Primarily for emergency backup or testing |  |  |
| 2. During periods of high electricity demand |  |  |
| 3. Whenever electricity was used |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Primarily for emergency backup or testing OR During periods of high electricity  demand 🢂 D147 [Energy for generation]  OTHERWISE:  IF A6 [Square footage] > 50,000 OR A7 [Square footage category] =  50,001 to 100,000 square feet; 100,0001 to 200,000 square feet;  200,001 to 500,000 square feet; 500,001 to 1 million square feet;  Over 1 million square feet 🢂 D148 [1MW generator capacity]  IF Building OR Mall interview & Electricity used 🢂 D149 [EV charging stations]  IF (B15 [Service type] = Dry cleaner or laundromat OR  Establishment Activity = Dry cleaner/Laundromat) & Natural gas used  🢂 D150 [Natural gas dryers]  OTHERWISE 🢂 D151 [Any other sources] |

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| **D147** | Energy for generation {Gener} *GENR* |
| ASK | IF D146 [Use of generated electricity] = Primarily for emergency backup or  testing OR During periods of high electricity demand |
| FILL | **{GenrTechList}** = List of generation technologies used excluding Solar and Wind |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Was any energy actually used by the {GenrTechList} for generating electricity during 2018, even if just a small amount was used for emergency backup or for testing generators? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF A6 [Square footage] > 50,000 OR A7 [Square footage category] =  50,001 to 100,000 square feet; 100,0001 to 200,000 square feet;  200,001 to 500,000 square feet; 500,001 to 1 million square feet;  Over 1 million square feet 🢂 D148 [1MW generator capacity]  IF Building OR Mall interview & Electricity used 🢂 D149 [EV charging stations]  IF (B15 [Service type] = Dry cleaner or laundromat OR  Establishment Activity = Dry cleaner/Laundromat) & Natural gas used  🢂 D150 [Natural gas dryers]  OTHERWISE 🢂 D151 [Any other sources] |

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| **D148** | 1MW generator capacity {Gener1MW} *GENGT1MW* |
| ASK | IF (Any technology other than Solar panels OR Wind turbines IN  D140 [Generation technologies] OR Any response other than Wind turbines OR  No other technologies IN D142 [Generation technologies other than solar])  & (A6 [Square footage] > 50,000 OR A7 [Square footage category] =  50,001 to 100,000 square feet; 100,0001 to 200,000 square feet;  200,001 to 500,000 square feet; 500,001 to 1 million square feet;  Over 1 million square feet) |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is the capacity of all of the generators in this {Structure} greater than 1 megawatt? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building OR Mall interview & Electricity used 🢂 D149 [EV charging stations]  IF (B15 [Service type] = Dry cleaner or laundromat OR  Establishment Activity = Dry cleaner/Laundromat) & Natural gas used  🢂 D150 [Natural gas dryers]  OTHERWISE 🢂 D151 [Any other sources] |

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| **D149** | EV charging stations {EVCharging} *EVCHARGE* |
| ASK | IF Building OR Mall interview & Electricity used |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Are there any electric vehicle charging stations associated with this building, either inside or outside the building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF B15 [Service type] = Dry cleaner or laundromat & Natural gas used  🢂 D150 [Natural gas dryers]  OTHERWISE 🢂 D151 [Any other sources] |

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| **D150** | Natural gas dryers {NatGasDryers} *NGDRY* |
| ASK | IF (B15 [Service type] = Dry cleaner or laundromat OR  Establishment Activity = Dry cleaner/Laundromat) & Natural gas used |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Are there any clothes dryers that use natural gas in this {Structure}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 D151 [Any other sources] |

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| **D151** | Any other sources {OthSource} *ANYOTSRC* |
| ASK | IF **NOT** (D12 [Any energy] = Missing & D13 [Energy sources] = Missing  & D139 [Electricity generation capacity] = No OR Missing) |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment”  **{SourcesList}** = List of all energy sources used |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | As a final check, were there any energy sources used in this {Structure} other than {SourcesList}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🢂 D152 [Other sources]  IF No OR Missing 🢂 MRT [Missing sources and uses routing] STEP 2 |

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| **MRT** | **Missing sources and uses routing** |
| STEP 1 IF Electricity IN D152 [Other sources] 🢂 D153 [Electricity use]  IF Natural gas IN D152 [Other sources] 🢂 D154 [Natural gas use]  IF Fuel oil/Diesel/Kerosene IN D152 [Other sources] 🢂 D155 [Fuel oil use]  IF Propane IN D152 [Other sources] 🢂 D156 [Propane use]  IF District steam IN D152 [Other sources] 🢂 D157 [District steam use]  IF District hot water IN D152 [Other sources] 🢂 D158 [District hot water use]  IF Wood IN D152 [Other sources] 🢂 D159 [Wood use]  IF Coal IN D152 [Other sources] 🢂 D160 [Coal use]  IF Other IN D152 [Other sources] 🢂 D161 [Other source use]  STEP 2 Check that every energy source given in D13 [Energy sources used] (other than electricity) was assigned an end use. THEN:  IF Yes THEN:  IF Propane used 🢂 D172 [Propane amount]  IF Wood used 🢂 D174 [Amount wood burned]  IF Heating OR Cooling 🡺 D178 [Energy management plan]  OTHERWISE 🡺 ERT [Section E Routing]  IF No THEN:  IF Natural gas not assigned an end use 🡺 D162 [Missed natural gas use]  IF Fuel oil/kerosene/diesel not assigned an end use 🡺 D163 [Missed fuel oil use]  IF Propane not assigned an end use 🡺 D164 [Missed propane use]  IF District steam not assigned an end use 🡺 D165 [Missed district steam use]  IF District hot water not assigned an end use  🡺 D166 [Missed district hot water use]  IF District chilled water not assigned an end use  🡺 D167 [Missed district chilled water use]  IF Wood not assigned an end use 🡺 D168 [Missed wood use]  IF Coal not assigned an end use 🡺 D169 [Missed coal use]  IF Solar thermal not assigned an end use 🡺 D170 [Missed solar use]  IF {Other} not assigned an end use 🡺 D171 [Missed other source use]  STEP 3 IF Building interview & Propane used 🢂 D172 [Propane amount]  IF Building interview & Wood used 🢂 D174 [Amount wood burned]  IF Heating OR Cooling 🡺 D178 [Energy management plan]  OTHERWISE 🡺 ERT [Section E Routing] | |

**NOTE ON USES OF ENERGY:**

In addition to the end uses given in D1 [Heating], D4 [Cooling], D7 [Water heating], D10 [Cooking], and D11 [Manufacturing], end uses can be added in D153 – D171. For the rest of this questionnaire, end uses will just simply be stated, for example: “IF Cooking” would mean: IF D10 [Cooking] = Yes OR Cooking was added as an end use in D153 – D171.

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| **D152** | Other sources {WhatSource} *see below* |
| ASK | IF D151 [Any other sources] =Yes |
| FILL | **{Electricity} – {Coal}** = If a source has NOT been mentioned, it appears in this list; if it has, the line is blank |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What other sources were used? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. {Electricity} |  | *ELUSED* |
| 2. {Natural gas} |  | *NGUSED* |
| 3. {Fuel Oil/Diesel/Kerosene} |  | *FKUSED* |
| 4. {Propane} |  | *PRUSED* |
| 5. {District steam} |  | *STUSED* |
| 6. {District hot water} |  | *HWUSED* |
| 7. {District chilled water} |  | *CWUSED* |
| 8. {Wood} |  | *WOUSED* |
| 9. {Coal} |  | *COUSED* |
| 10. Other |  | *OTUSED* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D153** | Electricity use {ElUse} *see below* |
| ASK | IF Electricity IN D152 [Other sources] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the electricity used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *ELHT1/ELHT2* |
| 2. Cooling |  | *ELCOOL* |
| 3. Water heating |  | *ELWATR* |
| 4. Cooking |  | *ELCOOK* |
| 5. Manufacturing |  | *ELMANU* |
| 6. Some other use |  | *ELOTH* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D154** | Natural gas use {NGUse} *see below* |
| ASK | IF Natural gas IN D152 [Other sources] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the natural gas used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *NGHT1/NGHT2* |
| 2. Cooling |  | *NGCOOL* |
| 3. Water heating |  | *NGWATR* |
| 4. Cooking |  | *NGCOOK* |
| 5. Manufacturing |  | *NGMANU* |
| 6. Electricity generation |  | *NGGENR* |
| 7. Some other use |  | *NGOTH* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D155** | Fuel oil use {FOUse} *see below* |
| ASK | IF Fuel oil/Diesel/Kerosene IN D152 [Other sources] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the fuel oil/diesel/kerosene used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *FKHT1/FKHT2* |
| 2. Cooling |  | *FKCOOL* |
| 3. Water heating |  | *FKWATR* |
| 4. Cooking |  | *FKCOOK* |
| 5. Manufacturing |  | *FKMANU* |
| 6. Electricity generation |  | *FKGENR* |
| 7. Some other use |  | *FKOTH* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D156** | Propane use {BotGasUse} *see below* |
| ASK | IF Propane IN D152 [Other sources] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the propane used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *PRHT1/PRHT2* |
| 2. Cooling |  | *PRCOOL* |
| 3. Water heating |  | *PRWATR* |
| 4. Cooking |  | *PRCOOK* |
| 5. Manufacturing |  | *PRMANU* |
| 6. Electricity generation |  | *PRGENR* |
| 7. Some other use |  | *PROTH* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D157** | District steam use {SteamUse} *see below* |
| ASK | IF District steam IN D152 [Other sources] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the district steam used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *STHT1/STHT2* |
| 2. Cooling |  | *STCOOL* |
| 3. Water heating |  | *STWATR* |
| 4. Cooking |  | *STCOOK* |
| 5. Manufacturing |  | *STMANU* |
| 6. Some other use |  | *STOTH* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D158** | District hot water use {HWUse} *see below* |
| ASK | IF District hot water IN D152 [Other sources] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the district hot water used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *HWHT1/HWHT2* |
| 2. Water heating |  | *HWWATR* |
| 3. Cooking |  | *HWCOOK* |
| 4. Manufacturing |  | *HWMANU* |
| 5. Some other use |  | *HWOTH* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D159** | Wood use {WoodUse} *see below* |
| ASK | IF Wood IN D152 [Other sources] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the wood used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *WOHT1/WOHT2* |
| 2. Water heating |  | *WOWATR* |
| 3. Cooking |  | *WOCOOK* |
| 4. Manufacturing |  | *WOMANU* |
| 5. Electricity generation |  | *WOGENR* |
| 6. Some other use |  | *WOOTH* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D160** | Coal use {CoalUse} *see below* |
| ASK | IF Coal IN D152 [Other sources] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the coal used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *COHT1/COHT2* |
| 2. Water heating |  | *COWATR* |
| 3. Cooking |  | *COCOOK* |
| 4. Manufacturing |  | *COMANU* |
| 5. Electricity generation |  | *COGENR* |
| 6. Some other use |  | *COOTH* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D161** | Other source use {OtUse} *see below* |
| ASK | IF Other IN D152 [Other sources] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the other energy source used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *OTHT1/OTHT2* |
| 2. Cooling |  | *OTCOOL* |
| 3. Water heating |  | *OTWATR* |
| 4. Cooking |  | *OTCOOK* |
| 5. Manufacturing |  | *OTMANU* |
| 6. Electricity generation |  | *OTGENR* |
| 7. Some other use |  | *OTOTH* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| --- | --- |
| **D162** | Missed natural gas use {WhatNGUse} *see below* |
| ASK | IF Natural gas not assigned an end use |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | I recorded that natural gas was used in this {Structure} but not how it was used. What was the natural gas used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that natural gas was used in this {Structure} but not how it was used. What was the natural gas used for? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *NGHT1/NGHT2* |
| 2. Cooling |  | *NGCOOL* |
| 3. Water heating |  | *NGWATR* |
| 4. Cooking |  | *NGCOOK* |
| 5. Manufacturing |  | *NGMANU* |
| 6. Electricity generation |  | *NGGENR* |
| 7. Some other use |  | *NGOTH* |
| 8. Incorrectly recorded—source not used |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D163** | Missed fuel oil use {WhatFOUse} *see below* |
| ASK | IF Fuel oil/Diesel/Kerosene not assigned an end use |
| FILL | **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene]  **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | I recorded that {FuelOilType} was used in this {Structure} but not how it was used. What was the {FuelOilType} used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that {FuelOilType} was used in this {Structure} but not how it was used. What was the {FuelOilType} used for? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *FKHT1/FKHT2* |
| 2. Cooling |  | *FKCOOL* |
| 3. Water heating |  | *FKWATR* |
| 4. Cooking |  | *FKCOOK* |
| 5. Manufacturing |  | *FKMANU* |
| 6. Electricity generation |  | *FKGENR* |
| 7. Some other use |  | *FKOTH* |
| 8. Incorrectly recorded—source not used |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D164** | Missed propane use {WhatBotGasUse} *see below* |
| ASK | IF Propane not assigned an end use |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | I recorded that propane was used in this {Structure} but not how it was used. What was the propane used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that propane was used in this {Structure} but not how it was used. What was the propane used for? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *PRHT1/PRHT2* |
| 2. Cooling |  | *PRCOOL* |
| 3. Water heating |  | *PRWATR* |
| 4. Cooking |  | *PRCOOK* |
| 5. Manufacturing |  | *PRMANU* |
| 6. Electricity generation |  | *PRGENR* |
| 7. Some other use |  | *PROTH* |
| 8. Incorrectly recorded—source not used |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D165** | Missed district steam use {WhatStUse} *see below* |
| ASK | IF District steam not assigned an end use |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | I recorded that district steam was used in this {Structure} but not how it was used. What was the district steam used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that district steam was used in this {Structure} but not how it was used. What was the district steam used for? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *STHT1/STHT2* |
| 2. Cooling |  | *STCOOL* |
| 3. Water heating |  | *STWATR* |
| 4. Cooking |  | *STCOOK* |
| 5. Manufacturing |  | *STMANU* |
| 6. Some other use |  | *STOTH* |
| 7. Incorrectly recorded—source not used |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D166** | Missed district hot water use {WhatHWUse} *see below* |
| ASK | IF District hot water not assigned an end use |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | I recorded that district hot water was used in this {Structure} but not how it was used. What was the district hot water used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that district hot water was used in this {Structure} but not how it was used. What was the district hot water used for? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *HWHT1/HWHT2* |
| 2. Water heating |  | *HWWATR* |
| 3. Cooking |  | *HWCOOK* |
| 4. Manufacturing |  | *HWMANU* |
| 5. Some other use |  | *HWOTH* |
| 6. Incorrectly recorded—source not used |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D167** | Missed district chilled water use {WhatCWUse} *see below* |
| ASK | IF District chilled water not assigned an end use |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | I recorded that district chilled water was used in this {Structure} but not how it was used. What was the district chilled water used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that district chilled water was used in this {Structure} but not how it was used. What was the district chilled water used for? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Cooling |  | *CWCOOL* |
| 2. Some other use |  | *CWOTH* |
| 3. Incorrectly recorded—source not used |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D168** | Missed wood use {WhatWdUse} *see below* |
| ASK | IF Wood not assigned an end use |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | I recorded that wood was used in this {Structure} but not how it was used. What was the wood used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that wood was used in this {Structure} but not how it was used. What was the wood used for? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *WOHT1/WOHT2* |
| 2. Water heating |  | *WOWATR* |
| 3. Cooking |  | *WOCOOK* |
| 4. Manufacturing |  | *WOMANU* |
| 5. Electricity generation |  | *WOGENR* |
| 6. Some other use |  | *WOOTH* |
| 7. Incorrectly recorded—source not used |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| --- | --- |
| **D169** | Missed coal use {WhatCoUse} *see below* |
| ASK | IF Coal not assigned an end use |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | I recorded that coal was used in this {Structure} but not how it was used. What was the coal used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that coal was used in this {Structure} but not how it was used. What was the coal used for? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *COHT1/COHT2* |
| 2. Water heating |  | *COWATR* |
| 3. Cooking |  | *COCOOK* |
| 4. Manufacturing |  | *COMANU* |
| 5. Electricity generation |  | *COGENR* |
| 6. Some other use |  | *COOTH* |
| 7. Incorrectly recorded—source not used |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| **D170** | Missed solar use {WhatSoUse} *see below* |
| ASK | IF Solar thermal not assigned an end use |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | I recorded that solar thermal energy was used in this {Structure} but not how it was used. What was the solar thermal used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that solar thermal energy was used in this {Structure} but not how it was used. What was the solar thermal used for? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *SOHT1/SOHT2* |
| 2. Water heating |  | *SOWATR* |
| 3. Some other use |  | *SOOTH* |
| 4. Incorrectly recorded—source not used |  |  |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| --- | --- |
| **D171** | Missed other source use {WhatOtUse} *see below* |
| ASK | IF {Other} not assigned an end use |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | I recorded that another energy source was used in this {Structure} but not how it was used. What was the other energy source used for? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that another energy source was used in this {Structure} but not how it was used. What was the other energy source used for? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Heating |  | *OTHT1/OTHT2* |
| 2. Cooling |  | *OTCOOL* |
| 3. Water heating |  | *OTWATR* |
| 4. Cooking |  | *OTCOOK* |
| 5. Manufacturing |  | *OTMANU* |
| 6. Electricity generation |  | *OTGENR* |
| 7. Some other use |  | *OTOTH* |
| 8. Incorrectly recorded—source not used |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 MRT [Missing sources and uses routing] |

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| --- | --- |
| **D172** | Propane amount {BotGasAmt} *PRAMTC* |
| ASK | IF Building interview & Propane used |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D19 |
| **Question Text** | I recorded that propane is used in this building. Looking at Show Card D19, which range best describes the amount of propane used in 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that propane is used in this building. Which range best describes the amount of propane used in 2018? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Less than 100 |  |  |
| 2. 100 to 499 |  |  |
| 3. 500 to 999 |  |  |
| 4. 1,000 or more |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 D173 [Propane units] |

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| **D173** | Propane units {BotGasUnits} *PRUNIT* |
| ASK | IF Building interview & Propane used |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | Verify if volunteered in previous question |
| **Question Text** | Is that in gallons or pounds? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Gallons |  |  |
| 2. Pounds |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Wood used 🢂 D174 [Amount wood burned]  IF Heating OR Cooling 🡺 D178 [Energy management plan]  OTHERWISE 🡺 ERT [Section E Routing] |

|  |  |
| --- | --- |
| **D174** | Amount wood burned {WoodAmt} *WOAMT* |
| ASK | IF Building interview & Wood used |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D20 |
| **Question Text** | I recorded that wood is used in this building. Looking at Show Card D20, which range best describes how much wood was burned in this building in 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | You reported that wood is used in this building. Which range best describes how much wood was burned in this building in 2018?  Z:\ECES\ECES\CBECS\2018 CBECS\6 - Questionnaire\Show Cards\Graphics from 2007\1cord.bmp |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Less than 1 cord |  |  |
| 2. 1 to 9 cords |  |  |
| 3. 10 or 20 cords |  |  |
| 4. More than 20 cords |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 D175 [How obtain wood] |

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| **D175** | How obtain wood {WoodSource} *WOSRC* |
| ASK | IF Building interview & Wood used |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Was the wood purchased, obtained free of charge, or a combination of both methods? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Purchased all the wood |  |  |
| 2. Obtained it all free of charge |  |  |
| 3. Some purchased and some free |  |  |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Purchased all the wood OR Some purchased and some free  🢂 D176 [Expenditures for wood]  IF Heating OR Cooling 🡺 D178 [Energy management plan]  OTHERWISE 🡺 ERT [Section E Routing] |

|  |  |
| --- | --- |
| **D176** | Expenditures for wood {WoodExp} *WOEXP* |
| ASK | IF D175 [How obtain wood] = Purchased all the wood OR  Some purchased and some free |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What was the total amount spent for wood in 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter dollar amount | None | 1 to 99,999 |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF DK/Missing 🢂 D177 [Wood expenditures category]  IF Heating OR Cooling 🡺 D178 [Energy management plan]  OTHERWISE 🡺 ERT [Section E Routing] |

|  |  |
| --- | --- |
| **D177** | Wood expenditures category {WoodCat} *WOEXPC* |
| ASK | IF D176 [Expenditures for wood] = DK/Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD D21 |
| **Question Text** | Looking at Show Card D21, which range best describes the total amount spent for the wood used in 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Which range best describes the total amount spent for the wood used in 2018? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. $1 to $100 |  |  |
| 2. $101 to $500 |  |  |
| 3. $501 to $1,000 |  |  |
| 4. $1,001 to $2,000 |  |  |
| 5. Over $2,000 |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Heating OR Cooling 🡺 D178 [Energy management plan]  OTHERWISE 🡺 ERT [Section E Routing] |

|  |  |
| --- | --- |
| **D178** | Energy management plan {EnergyMgmtPlan} *ENRGYPLN* |
| ASK | IF Heating OR Cooling |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this {Structure} have a formal energy management plan in which energy targets are set and consistently monitored? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 ERT [Section E Routing] |

**Section E: Miscellaneous Equipment**

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| **ERT** | **Section E Routing** |
| IF Mall interview 🢂 L1 [Response effort]  IF (Cooking & (CBECS Activity OR Establishment Activity≠ Food service)  OR (Any energy used, even if Cooking = No &  CBECS Activity = Nursing OR (B12 [Education type] = Elementary OR Middle or junior high school  OR High school OR Other multi-grade primary or secondary school &  B42 [On a multibuilding complex] = No) OR B41 [Food court] = Yes) 🢂 E1 [Type of food area]  IF Water heating 🢂 E7 [Large amounts of hot water]  IF Any energy used THEN:  IF CBECS Activity = Lodging OR Inpatient health care 🡺 E8 [Laundry onsite]  IF B5 [Office type] = Doctor’s or dentist’s office OR Mixed-use office OR  B14 [Health care type] = Doctor’s or dentist’s office OR CBECS Activity = Outpatient health care  OR Establishment Activity = Medical/Dental 🢂 E11 [Medical equipment]  IF CBECS Activity = Education; Laboratory; Office; Public assembly; Retail; Service; OR Missing OR  Establishment Activity = Retail shop; Office/Financial; OR Other 🢂 E18 [Laboratory equipment]  IF CBECS Activity = Nonrefrigerated OR Refrigerated warehouse 🢂 E19 [Machine equipment]  IF CBECS Activity = Enclosed mall 🢂 E23 [Indoor ice rink]  IF CBECS Activity = Food sales; Food service; Public order and safety; OR Religious worship  🢂 E24 [Sterilizers or autoclaves]  *NOTE: IF D17 [Type of solar] = Solar panels used to generate electricity OR Solar panels used to generate electricity OR Wind turbines IN D140 [Generation technologies] OR IN D142 [Generation technologies other than solar] OR D146 [Use of generated energy] = Whenever electricity was used OR D147 [Energy for generation] = Yes, THEN case has “Electricity generated” for use in Section E skip logic.*  IF Electricity used OR Electricity generated 🢂 E25 [Refrigeration]  OTHERWISE 🢂 E83 [Window glass type] | |

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| **E1** | Type of food area {FoodPrepType} *FDRM* |
| ASK | IF (Cooking & (CBECS Activity OR Establishment Activity≠ Food service)  OR (Any energy used, even if Cooking=No &  CBECS Activity = Nursing OR (B12 [Education type] = Elementary OR  Middle or junior high school OR Other multi-grade primary or secondary school  & B42 [On a multibuilding complex] = No) OR B41 [Food court] = Yes) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{FoodCourtIntro}**  IF B41 [Food court] = Yes = “In addition to the food court that was mentioned  earlier, which”  OTHERWISE = “Which” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD E1 |
| **Question Text** | The next questions are about uses of space and equipment in this {Structure}.  Please look at Show Card E1. {FoodCourtIntro} of these types of food preparation or serving areas are found in this {Structure}? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | The next questions are about uses of space and equipment in this {Structure}.  {FoodCourtIntro} of these types of food preparation or serving areas are found in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Employee lounge, breakroom, vending area, or pantry  *(Very limited cooking such as coffeepots and microwaves)* |  | *BREAKRM* |
| 2. Small kitchen area  *(Similar to a residential kitchen)* |  | *KITCHN* |
| 3. Snack bar, concession stand, coffee shop, or breakfast service  *(Some food preparation such as a grill or warming areas)* |  | *SNACK* |
| 4. Fast or small restaurant  *(Smaller than ~3,000 square feet; includes area for food preparation and customer seating)* |  | *FASTFD* |
| 5. Cafeteria or large restaurant  *(Larger than ~3,000 square feet; includes area for food preparation and customer seating)* |  | *CAF* |
| 6. Large kitchen, commercial kitchen, or other large food preparation area  *(Area for high-volume food preparation such as in a pastry shop or bakery, catering service, culinary school, or nursing home; usually no customer seating)* |  | *FDPREP* |
| 7. Other type of food preparation or serving area |  | *OTFDRM* |
| 8. None of these |  | *NOFDRM* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other type of food preparation or serving area selected 🡺 E2 [Other food area]  IF Building interview & Snack bar, concession stand, coffee shop, or breakfast  service selected 🡺 E3 [Snack bar square footage]  IF Building interview & Fast food or small restaurant selected  🡺 E4 [Fast food square footage]  IF Building interview & Cafeteria or large restaurant selected  🡺 E5 [Cafeteria square footage]  IF Building interview & Large kitchen, commercial kitchen, or other large food  preparation area selected 🡺 E6 [Commercial kitchen square footage]  IF Water heating 🢂 E7 [Large amounts of hot water]  IF Any energy used THEN:  IF CBECS Activity = Lodging; Inpatient health care; OR Nursing  🡺 E8 [Laundry onsite]  IF B5 [Office type] = Doctor’s or dentist’s office OR Mixed-use office OR  B14 [Health care type] = Doctor’s or dentist’s office OR  CBECS Activity = Outpatient health care OR  Establishment Activity = Medical/Dental 🢂 E11 [Medical equipment]  IF CBECS Activity = Education; Laboratory; Office; Public assembly; Retail;  Service; OR Missing OR Establishment Activity = Retail shop;  Office/Financial; OR Other 🢂 E18 [Laboratory equipment]  IF CBECS Activity = Nonrefrigerated OR Refrigerated warehouse  🢂 E19 [Machine equipment]  IF CBECS Activity = Enclosed mall 🢂 E23 [Indoor ice rink]  IF CBECS Activity = Food sales; Public order and safety; OR Religious worship  🢂 E24 [Sterilizers or autoclaves]  IF Electricity used OR Electricity generated 🢂 E25 [Refrigeration]  OTHERWISE 🢂 E83 [Window glass type] |

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| **E2** | Other food area {OtherFoodPrep} *OTFDRMX* |
| ASK | IF Other type of food preparation or serving area IN E1 [Type of food area] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of food preparation or serving area |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Building interview & Snack bar, concession stand, coffee shop, or breakfast  service IN E1 [Type of food area] 🡺 E3 [Snack bar square footage]  IF Building interview & Fast food or small restaurant IN E1 [Type of food area]  🡺 E4 [Fast food square footage]  IF Building interview & Cafeteria or large restaurant IN E1 [Type of food area]  🡺 E5 [Cafeteria square footage]  IF Building interview & Large kitchen, commercial kitchen, or other large food  preparation area IN E1 [Type of food area]  🡺 E6 [Commercial kitchen square footage]  IF Water heating 🢂 E7 [Large amounts of hot water]  IF Any energy used THEN:  IF CBECS Activity = Lodging; Inpatient health care; OR Nursing  🡺 E8 [Laundry onsite]  IF B5 [Office type] = Doctor’s or dentist’s office OR Mixed-use office OR  B14 [Health care type] = Doctor’s or dentist’s office OR  CBECS Activity = Outpatient health care OR  Establishment Activity = Medical/Dental 🢂 E11 [Medical equipment]  IF CBECS Activity = Education; Laboratory; Office; Public assembly; Retail; OR  Service; OR Missing OR Establishment Activity = Retail shop;  Office/Financial; OR Other 🢂 E18 [Laboratory equipment]  IF CBECS Activity = Nonrefrigerated OR Refrigerated warehouse  🢂 E19 [Machine equipment]  IF CBECS Activity = Enclosed mall 🢂 E23 [Indoor ice rink]  IF CBECS Activity = Food sales; Public order and safety; OR Religious worship  🢂 E24 [Sterilizers or autoclaves]  IF Electricity used OR Electricity generated 🢂 E25 [Refrigeration]  OTHERWISE 🢂 E83 [Window glass type] |

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| **E3** | Snack bar square footage {SnackBarSqft} *SNACKSF* |
| ASK | IF Building interview & Snack bar, concession stand, coffee shop, or breakfast  service IN E1 [Type of food area] |
| INTRO TEXT | E3 – E6 (as applicable, if the type was selected) are on one screen, with this introduction:  What is the total square footage of the following food preparation or serving areas? Include seating areas, if any. If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Snack bar, concession stand, coffee shop, or breakfast service areas |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 10 to 99,999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Fast food or small restaurant IN E1 [Type of food area]  🡺 E4 [Fast food square footage]  IF Cafeteria or large restaurant IN E1 [Type of food area]  🡺 E5 [Cafeteria square footage]  IF Large kitchen, commercial kitchen, or other large food preparation area IN  E1 [Type of food area] 🡺 E6 [Commercial kitchen square footage]  IF Water heating 🢂 E7 [Large amounts of hot water]  IF Any energy used THEN:  IF CBECS Activity = Lodging; Inpatient health care; OR Nursing  🡺 E8 [Laundry onsite]  IF B5 [Office type] = Doctor’s or dentist’s office OR Mixed-use office OR  B14 [Health care type] = Doctor’s or dentist’s office OR  CBECS Activity = Outpatient health care 🢂 E11 [Medical equipment]  IF CBECS Activity = Education; Laboratory; Office; Public assembly; Retail;  Service; OR Missing 🢂 E18 [Laboratory equipment]  IF CBECS Activity = Nonrefrigerated OR Refrigerated warehouse  🢂 E19 [Machine equipment]  IF CBECS Activity = Enclosed mall 🢂 E23 [Indoor ice rink]  IF CBECS Activity = Food sales; Public order and safety; OR Religious worship  🢂 E24 [Sterilizers or autoclaves]  IF Electricity used OR Electricity generated 🢂 E25 [Refrigeration]  OTHERWISE 🢂 E83 [Window glass type] |

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| **E4** | Fast food square footage {FastFoodSqft} *FASTFDSF* |
| ASK | IF Building interview & Fast food or small restaurant IN E1 [Type of food area] |
| INTRO TEXT | E3 – E6 (as applicable, if the type was selected) are on one screen, with this introduction:  What is the total square footage of the following food preparation or serving areas? Include seating areas, if any. If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Fast food or small restaurant areas |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 10 to 99,999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Cafeteria or large restaurant IN E1 [Type of food area]  🡺 E5 [Cafeteria square footage]  IF Large kitchen, commercial kitchen, or other large food preparation area IN  E1 [Type of food area] 🡺 E6 [Commercial kitchen square footage]  IF Water heating 🢂 E7 [Large amounts of hot water]  IF Any energy used THEN:  IF CBECS Activity = Lodging; Inpatient health care; OR Nursing  🡺 E8 [Laundry onsite]  IF B5 [Office type] = Doctor’s or dentist’s office OR Mixed-use office OR  B14 [Health care type] = Doctor’s or dentist’s office OR  CBECS Activity = Outpatient health care 🢂 E11 [Medical equipment]  IF CBECS Activity = Education; Laboratory; Office; Public assembly; Retail;  Service; OR Missing 🢂 E18 [Laboratory equipment]  IF CBECS Activity = Nonrefrigerated OR Refrigerated warehouse  🢂 E19 [Machine equipment]  IF CBECS Activity = Enclosed mall 🢂 E23 [Indoor ice rink]  IF CBECS Activity = Food sales; Public order and safety; OR Religious worship  🢂 E24 [Sterilizers or autoclaves]  IF Electricity used OR Electricity generated 🢂 E25 [Refrigeration]  OTHERWISE 🢂 E83 [Window glass type] |

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| **E5** | Cafeteria square footage {CafeteriaSqft} *CAFSF* |
| ASK | IF Building interview & Cafeteria or large restaurant IN E1 [Type of food area] |
| INTRO TEXT | E3 – E6 (as applicable, if the type was selected) are on one screen, with this introduction:  What is the total square footage of the following food preparation or serving areas? Include seating areas, if any. If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Cafeteria or large restaurant areas |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 10 to 99,999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Large kitchen, commercial kitchen, or other large food preparation area IN  E1 [Type of food area] 🡺 E6 [Commercial kitchen square footage]  IF Water heating 🢂 E7 [Large amounts of hot water]  IF Any energy used THEN:  IF CBECS Activity = Lodging; Inpatient health care; OR Nursing  🡺 E8 [Laundry onsite]  IF B5 [Office type] = Doctor’s or dentist’s office OR Mixed-use office OR  B14 [Health care type] = Doctor’s or dentist’s office OR  CBECS Activity = Outpatient health care 🢂 E11 [Medical equipment]  IF CBECS Activity = Education; Laboratory; Office; Public assembly; Retail;  Service; OR Missing 🢂 E18 [Laboratory equipment]  IF CBECS Activity = Nonrefrigerated OR Refrigerated warehouse  🢂 E19 [Machine equipment]  IF CBECS Activity = Enclosed mall 🢂 E23 [Indoor ice rink]  IF CBECS Activity = Food sales; Public order and safety; OR Religious worship  🢂 E24 [Sterilizers or autoclaves]  IF Electricity used OR Electricity generated 🢂 E25 [Refrigeration]  OTHERWISE 🢂 E83 [Window glass type] |

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| **E6** | Commercial kitchen square footage {PrepAreaSqft} *FDPREPSF* |
| ASK | IF Building interview & Large kitchen, commercial kitchen, or other large food  preparation area IN E1 [Type of food area] |
| INTRO TEXT | E3 – E6 (as applicable, if the type was selected) are on one screen, with this introduction:  What is the total square footage of the following food preparation or serving areas? Include seating areas, if any. If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Large kitchen, commercial kitchen, or other large food preparation areas |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 10 to 99,999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Water heating 🢂 E7 [Large amounts of hot water]  IF Any energy used THEN:  IF CBECS Activity = Lodging; Inpatient health care; OR Nursing  🡺 E8 [Laundry onsite]  IF B5 [Office type] = Doctor’s or dentist’s office OR Mixed-use office OR  B14 [Health care type] = Doctor’s or dentist’s office OR  CBECS Activity = Outpatient health care 🢂 E11 [Medical equipment]  IF CBECS Activity = Education; Laboratory; Office; Public assembly; Retail;  Service; OR Missing 🢂 E18 [Laboratory equipment]  IF CBECS Activity = Nonrefrigerated OR Refrigerated warehouse  🢂 E19 [Machine equipment]  IF CBECS Activity = Enclosed mall 🢂 E23 [Indoor ice rink]  IF CBECS Activity = Food sales; Public order and safety; OR Religious worship  🢂 E24 [Sterilizers or autoclaves]  IF Electricity used OR Electricity generated 🢂 E25 [Refrigeration]  OTHERWISE 🢂 E83 [Window glass type] |

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| **E7** | Large amounts of hot water {HotWatRoom} *HWTRM* |
| ASK | IF Water heating |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{Introduction}**  IF E1 [Type of food area] was **NOT** asked = “The next questions are about uses  of space and equipment in this {Structure}.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {Introduction}  Is any space in this {Structure} used for any activities requiring large amounts of hot water, such as a commercial dishwasher, laundry room, heated pool, steam room, whirlpool, or showers? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF CBECS Activity = Lodging; Inpatient health care; OR Nursing  🡺 E8 [Laundry onsite]  IF B5 [Office type] = Doctor’s or dentist’s office OR Mixed-use office OR  B14 [Health care type] = Doctor’s or dentist’s office OR  CBECS Activity = Outpatient health care OR  Establishment Activity = Medical/Dental 🢂 E11 [Medical equipment]  IF CBECS Activity = Education; Laboratory; Office; Public assembly; Retail;  Service; OR Missing OR Establishment Activity = Retail shop; Office/Financial;  OR Other 🢂 E18 [Laboratory equipment]  IF CBECS Activity = Nonrefrigerated OR Refrigerated warehouse  🢂 E19 [Machine equipment]  IF CBECS Activity = Enclosed mall 🢂 E23 [Indoor ice rink]  IF CBECS Activity = Food sales; Food service; Public order and safety; OR  Religious worship 🢂 E24 [Sterilizers or autoclaves]  IF Electricity used OR Electricity generated 🢂 E25 [Refrigeration]  OTHERWISE 🢂 E83 [Window glass type] |

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| **E8** | Laundry onsite {LaundryOnsite} *LAUNDR* |
| ASK | IF Any energy used &  CBECS Activity = Lodging; Inpatient health care; OR Nursing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Are linens, such as sheets, towels, and tablecloths, primarily laundered in this building, in another building on-site, or by an off-site laundry service? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – Web/respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. In this building |  |  |
| 2. In another building on-site |  |  |
| 3. By an off-site laundry service |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF B14 [Health care type] = Inpatient rehabilitation center  🢂 E11 [Medical equipment]  IF CBECS Activity = Inpatient health care 🢂 E12 [Number of X-ray machines]  IF (B19 [Lodging type] = Hotel or resort OR Motel, inn, or bed and breakfast) OR  (B21 [Residential type] = Hotel or resort OR Motel, inn, or bed and breakfast)  🢂 E9 [Conference or event space]  IF CBECS Activity = Lodging 🢂 E20 [Indoor pool]  IF CBECS Activity = Nursing 🢂 E24 [Sterilizers or autoclaves] |

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| **E9** | Conference or event space {LodgingSpace} *CONFSP* |
| ASK | IF Any energy used &  (B19 [Lodging type] = Hotel or resort OR Motel, inn, or bed and breakfast OR  B21 [Residential type] = Hotel or resort OR Motel, inn, or bed and breakfast) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is there any space in this building used for conferences or social events? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – Web/respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 E10 [Percent conference or event space]  IF No OR Missing 🢂 E20 [Indoor pool] |

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| **E10** | Percent conference or event space {PctLodgingSpace} *CONFSPP* |
| ASK | IF E9 [Conference or event space] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | About what percentage of the total floorspace in the building is used for these events? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 1 to 100 | % | 1 to 100 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 E20 [Indoor pool] |

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| **E11** | Medical equipment {MedEquip} *MEDEQP* |
| ASK | IF Any energy used &  (B5 [Office type] = Doctor’s or dentist’s office OR Mixed-use office OR  B14 [Health care type] = Doctor’s or dentist’s office OR  Inpatient rehabilitation center OR CBECS Activity = Outpatient health care OR  Establishment Activity = Medical/Dental) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this {Structure} have any equipment for medical diagnosis or treatment, such as X-ray, CT scan, MRI, linear accelerator, dialysis, or ultrasound machines? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🢂 E12 [Number of X-ray machines]  OTHERWISE:  IF CBECS Activity = Outpatient health care 🢂 E17 [Outpatient surgery]  OTHERWISE 🢂 E18 [Laboratory equipment] |

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| **E12** | Number of X-ray machines {NumXray} *XRAYN* |
| ASK | IF E11 [Medical equipment] = Yes OR (CBECS Activity = Inpatient health care &  **NOT** E11 [Medical equipment] = No OR Missing) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many of the following types of medical equipment are used in this {Structure}?  X-ray machines |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 0 to 999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 E13 [Number of CT scan machines] |

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| **E13** | Number of CT scan machines {NumCTScan} *CTSCANN* |
| ASK | IF E11 [Medical equipment] = Yes OR (CBECS Activity = Inpatient health care &  **NOT** E11 [Medical equipment] = No OR Missing) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | CT scan machines |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 0 to 999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 E14 [Number of MRI machines] |

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| **E14** | Number of MRI machines {NumMRI} *MRIN* |
| ASK | IF E11 [Medical equipment] = Yes OR (CBECS Activity = Inpatient health care &  **NOT** E11 [Medical equipment] = No OR Missing) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | MRI machines |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 0 to 999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 E15 [Number of linear accelerators] |

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| --- | --- |
| **E15** | Number of linear accelerators {NumLinAcc} *LINACCN* |
| ASK | IF E11 [Medical equipment] = Yes OR (CBECS Activity = Inpatient health care &  **NOT** E11 [Medical equipment] = No OR Missing) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Linear accelerators (used for external beam radiation treatments for patients with cancer) |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 0 to 999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF CBECS Activity = Inpatient health care 🢂 E16 [Percent outpatient space]  IF CBECS Activity = Outpatient health care 🢂 E17 [Outpatient surgery]  IF Establishment Activity = Medical/Dental 🢂 E18 [Laboratory equipment] |

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| **E16** | Percent outpatient space {PctHospOut} *OUTHOSPP* |
| ASK | IF Any energy used & CBECS Activity = Inpatient health care |
| FILL | **{SqFt}**  IF A6 [Square footage] known = “A6 [Square footage] square feet”  IF A6 [Square footage] = DK/Missing = “square footage” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What percentage of the {SqFt} in this building is used for outpatient care? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 0 to 100 | % | 0 to 100 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 E18 [Laboratory equipment] |

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| **E17** | Outpatient surgery {OutPatSurgery} *OUTSURG* |
| ASK | IF Any energy used & CBECS Activity = Outpatient health care |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Are there any operating rooms used for outpatient surgery in this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 E18 [Laboratory equipment] |

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| **E18** | Laboratory equipment {LabEquip} *LABEQP* |
| ASK | IF Any energy used & (CBECS Activity = Education; Inpatient health care;  Laboratory; Office; Outpatient health care; Public assembly; Retail; Service; OR  Missing OR Establishment Activity = Retail shop; Office/Financial;  Medical/Dental; OR Other) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this {Structure} have any specialized laboratory equipment that requires extra energy consumption? Some examples are fume hoods, gas chromatographs, centrifuges, spectrometers, and analysis equipment. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF CBECS Activity = Education; Laboratory; Retail; Service; OR Missing OR  Establishment Activity = Retail shop OR Other 🢂 E19 [Machine equipment]  IF CBECS Activity = Public Assembly OR B14 [Health care type] = Outpatient  rehabilitation center OR Inpatient rehabilitation center 🢂 E20 [Indoor pool]  IF CBECS Activity = Inpatient health care; Office; OR Outpatient health care  🢂 E24 [Sterilizers or autoclaves]  IF Electricity used OR Electricity generated 🢂 E25 [Refrigeration]  OTHERWISE 🢂 E83 [Window glass type] |

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| **E19** | Machine equipment {MachineEquip} *MCHEQP* |
| ASK | IF Any energy used & (CBECS Activity = Education; Laboratory;  Nonrefrigerated warehouse; Refrigerated warehouse; Retail; Service; OR  Missing OR Establishment Activity = Retail shop OR Other) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this {Structure} have any machine or shop equipment such as woodworking tools, metalworking tools, arc welders, or any other types of power tools? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF CBECS Activity = Education 🢂 E20 [Indoor pool]  IF CBECS Activity = Laboratory 🢂 E24 [Sterilizers or autoclaves]  IF Electricity used OR Electricity generated 🢂 E25 [Refrigeration]  OTHERWISE 🢂 E83 [Window glass type] |

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| **E20** | Indoor Pool {IndoorPool} *POOL* |
| ASK | IF Any energy used & (CBECS Activity = Education; Lodging; OR  Public assembly OR B14 [Health care type] = Outpatient rehabilitation center  OR Inpatient rehabilitation center) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is there an indoor swimming pool in this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 E21 [Heated pool]  IF No OR Missing:  IF CBECS Activity = Education; Lodging; OR Public assembly  🢂 E23 [Indoor ice rink]  OTHERWISE 🡺 E24 [Sterilizers or autoclaves] |

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| **E21** | Heated pool {HeatedPool} *HTPOOL* |
| ASK | IF E20 [Indoor pool] =Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is it a heated pool? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 E22 [Pool energy source]  IF No OR Missing:  IF CBECS Activity = Education; Lodging; OR Public assembly  🢂 E23 [Indoor ice rink]  OTHERWISE 🡺 E24 [Sterilizers or autoclaves] |

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| **E22** | Pool energy source {PoolFuel} *POOLSRC* |
| ASK | IF E21 [Heated pool] =Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What energy source is used to heat the pool? |
| **Interviewer Instructions** | Read choices if necessary |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Electricity |  |  |
| 2. Natural gas |  |  |
| 3. Fuel oil/Diesel/Kerosene |  |  |
| 4. Propane |  |  |
| 5. Solar |  |  |
| 6. Some other energy source |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF CBECS Activity = Education; Lodging; OR Public assembly  🢂 E23 [Indoor ice rink]  OTHERWISE 🡺 E24 [Sterilizers or autoclaves] |

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| **E23** | Indoor ice rink {IceRink} *RINK* |
| ASK | IF Any energy used &  CBECS Activity = Education; Lodging; Enclosed mall OR Public assembly |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this building contain an indoor ice skating rink? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF CBECS Activity = Enclosed mall THEN:  IF Electricity used OR Electricity generated 🢂 E25 [Refrigeration]  OTHERWISE 🢂 E83 [Window glass type]  OTHERWISE 🢂 E24 [Sterilizers or autoclaves] |

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| **E24** | Sterilizers or autoclaves {Sterilizers} *STRLZR* |
| ASK | IF Any energy used & CBECS Activity = Education; Food sales; Food service;  Inpatient health care; Laboratory; Lodging; Nursing; Office;  Outpatient health care; Public assembly; Public order and safety; OR  Religious worship |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Are any sterilizers or autoclaves used in this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Electricity used OR Electricity generated 🢂 E25 [Refrigeration]  OTHERWISE 🢂 E83 [Window glass type] |

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| **E25** | Refrigeration {RefrEquip} *RFGEQP* |
| ASK | IF Electricity used OR Electricity generated |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is there any refrigeration or freezer equipment used in this {Structure}, including vending machines? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 E26 [Refrigeration types]  IF No OR Missing THEN:  IF Establishment Activity = Vacant 🡺 E61 [Vacant estab lit]  IF **NOT** (B25 [Completely vacant] = Yes & C18 [Months in use] = 0)  🡺 E38 [Computing equipment]  IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

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| **E26** | Refrigeration types {RefrTypes} *see below* |
| ASK | IF E25 [Refrigeration] = Yes |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD E2 |
| **Question Text** | Looking at Show Card E2, please tell me which types of refrigeration or freezer equipment are found in this {Structure}? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | Which types of refrigeration or freezer equipment are found in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Full-size residential-type refrigerators/freezers |  | *RFGRES* |
| 2. Half-size or compact refrigerators |  | *RFGCOMP* |
| 3. Walk-in refrigeration/freezer units |  | *RFGWI* |
| 4. Open refrigerated/freezer cases or cabinets  *(Units with no covers, flexible covers, or plastic strips, such as produce, dairy, and deli cases; salad bars, and sandwich preparation units)* |  | *RFGOP* |
| 5. Closed refrigerated/freezer cases or cabinets  *(Units with doors that shut, such as beverage display coolers, grocery coolers or freezers, dessert displays, under-counter coolers, and floral display coolers)* |  | *RFGCL* |
| 6. Refrigerated vending machines  *(Examples: soda, juice, water, or frozen dessert machines)* |  | *RFGVEN* |
| 7. Commercial ice makers |  | *RFGICE* |
| 8. Large cold storage areas  *(Such as within a refrigerated warehouse)* |  | *RFGSTO* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Residential-type selected 🡺 E27 [Number residential refrigerators]  IF Compact size selected 🡺 E28 [Number compact size refrigerators]  IF Walk-in units selected 🡺 E29 [Number walk-in units]  IF Open cases or cabinets selected 🡺 E30 [Number open cases]  IF Closed cases or cabinets selected 🡺 E31 [Number closed cases]  IF Refrigerated vending machines selected 🡺 E32 [Number vending]  IF Commercial ice makers selected 🡺 E33 [Number ice makers]  IF Large cold storage areas selected 🡺 E34 [Percent cold storage]  IF Missing:  IF (CBECS Activity = Food sales OR Food service OR  Establishment Activity = Food sales OR Food service) OR  ((B19 [Lodging type] = Hotel or resort OR B21 [Residential type] = Hotel or  resort) & (A6 [Square footage] > 100,000 OR A7 [Square footage category] =  100,0001 to 200,000 square feet; 200,001 to 500,000 square feet;  500,001 to 1 million square feet; OR Over 1 million square feet))  🡺 E35 [Waste heat recovery]  IF Establishment Activity = Vacant 🡺 E61 [Vacant estab lit]  IF **NOT** (B25 [Completely vacant] = Yes & C18 [Months in use] = 0)  🡺 E38 [Computing equipment]  IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

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| **E27** | Number residential refrigerators {NumResidRefr} *RFGRSN* |
| ASK | IF Residential-type IN E26 [Refrigeration types] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E27 – E33 (as applicable, if the refrigeration type was selected) are on one screen, with this introduction:  How many of the following types of refrigeration or freezer equipment are used in this {Structure}? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Residential-type refrigerators or freezers |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 1 to 9,999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Compact size IN E26 [Refrigeration types]  🡺 E28 [Number compact size refrigerators]  IF Walk-in units IN E26 [Refrigeration types] 🡺 E29 [Number walk-in units]  IF Open cases or cabinets IN E26 [Refrigeration types]  🡺 E30 [Number open cases]  IF Closed cases or cabinets IN E26 [Refrigeration types]  🡺 E31 [Number closed cases]  IF Refrigerated vending machines IN E26 [Refrigeration types]  🡺 E32 [Number vending]  IF Commercial ice makers IN E26 [Refrigeration types]  🡺 E33 [Number ice makers]  IF Large cold storage areas IN E26 [Refrigeration types]  🡺 E34 [Percent cold storage]  IF (CBECS Activity = Food sales OR Food service OR  Establishment Activity = Food sales OR Food service) OR  ((B19 [Lodging type] = Hotel or resort OR B21 [Residential type] = Hotel or  resort) & (A6 [Square footage] > 100,000 OR A7 [Square footage category] =  100,0001 to 200,000 square feet; 200,001 to 500,000 square feet;  500,001 to 1 million square feet; OR Over 1 million square feet))  🡺 E35 [Waste heat recovery]  IF Establishment Activity = Vacant 🡺 E61 [Vacant estab lit]  IF **NOT** (B25 [Completely vacant] = Yes & C18 [Months in use] = 0)  🡺 E38 [Computing equipment]  IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

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| **E28** | Number compact refrigerators {NumCompactFridge} *RFGCOMPN* |
| ASK | IF Compact size IN E26 [Refrigeration types] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E27 – E33 (as applicable, if the refrigeration type was selected) are on one screen, with this introduction:  How many of the following types of refrigeration or freezer equipment are used in this {Structure}? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Half-size or compact refrigerators |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 1 to 9,999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Walk-in units IN E26 [Refrigeration types] 🡺 E29 [Number walk-in units]  IF Open cases or cabinets IN E26 [Refrigeration types]  🡺 E30 [Number open cases]  IF Closed cases or cabinets IN E26 [Refrigeration types]  🡺 E31 [Number closed cases]  IF Refrigerated vending machines IN E26 [Refrigeration types]  🡺 E32 [Number vending]  IF Commercial ice makers IN E26 [Refrigeration types]  🡺 E33 [Number ice makers]  IF Large cold storage areas IN E26 [Refrigeration types]  🡺 E34 [Percent cold storage]  IF (CBECS Activity = Food sales OR Food service OR  Establishment Activity = Food sales OR Food service) OR  ((B19 [Lodging type] = Hotel or resort OR B21 [Residential type] = Hotel or  resort) & (A6 [Square footage] > 100,000 OR A7 [Square footage category] =  100,0001 to 200,000 square feet; 200,001 to 500,000 square feet;  500,001 to 1 million square feet; OR Over 1 million square feet))  🡺 E35 [Waste heat recovery]  IF Establishment Activity = Vacant 🡺 E61 [Vacant estab lit]  IF **NOT** (B25 [Completely vacant] = Yes & C18 [Months in use] = 0)  🡺 E38 [Computing equipment]  IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

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| **E29** | Number walk-in units {NumWalkIn} *RFGWIN* |
| ASK | IF Walk-in units IN E26 [Refrigeration types] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E27 – E33 (as applicable, if the refrigeration type was selected) are on one screen, with this introduction:  How many of the following types of refrigeration or freezer equipment are used in this {Structure}? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Walk-in refrigeration or freezer units |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 1 to 999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Open cases or cabinets IN E26 [Refrigeration types]  🡺 E30 [Number open cases]  IF Closed cases or cabinets IN E26 [Refrigeration types]  🡺 E31 [Number closed cases]  IF Refrigerated vending machines IN E26 [Refrigeration types]  🡺 E32 [Number vending]  IF Commercial ice makers IN E26 [Refrigeration types]  🡺 E33 [Number ice makers]  IF Large cold storage areas IN E26 [Refrigeration types]  🡺 E34 [Percent cold storage]  IF (CBECS Activity = Food sales OR Food service OR  Establishment Activity = Food sales OR Food service) OR  ((B19 [Lodging type] = Hotel or resort OR B21 [Residential type] = Hotel or  resort) & (A6 [Square footage] > 100,000 OR A7 [Square footage category] =  100,0001 to 200,000 square feet; 200,001 to 500,000 square feet;  500,001 to 1 million square feet; OR Over 1 million square feet))  🡺 E35 [Waste heat recovery]  IF Establishment Activity = Vacant 🡺 E61 [Vacant estab lit]  IF **NOT** (B25 [Completely vacant] = Yes & C18 [Months in use] = 0)  🡺 E38 [Computing equipment]  IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

|  |  |
| --- | --- |
| **E30** | Number open cases {NumOpenCase} *RFGOPN* |
| ASK | IF Open cases or cabinets IN E26 [Refrigeration types] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E27 – E33 (as applicable, if the refrigeration type was selected) are on one screen, with this introduction:  How many of the following types of refrigeration or freezer equipment are used in this {Structure}? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Open refrigerated or freezer cases or cabinets |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 1 to 999 |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Closed cases or cabinets IN E26 [Refrigeration types]  🡺 E31 [Number closed cases]  IF Refrigerated vending machines IN E26 [Refrigeration types]  🡺 E32 [Number vending]  IF Commercial ice makers IN E26 [Refrigeration types]  🡺 E33 [Number ice makers]  IF Large cold storage areas IN E26 [Refrigeration types]  🡺 E34 [Percent cold storage]  IF (CBECS Activity = Food sales OR Food service OR  Establishment Activity = Food sales OR Food service) OR  ((B19 [Lodging type] = Hotel or resort OR B21 [Residential type] = Hotel or  resort) & (A6 [Square footage] > 100,000 OR A7 [Square footage category] =  100,0001 to 200,000 square feet; 200,001 to 500,000 square feet;  500,001 to 1 million square feet; OR Over 1 million square feet))  🡺 E35 [Waste heat recovery]  IF Establishment Activity = Vacant 🡺 E61 [Vacant estab lit]  IF **NOT** (B25 [Completely vacant] = Yes & C18 [Months in use] = 0)  🡺 E38 [Computing equipment]  IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

|  |  |
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| **E31** | Number closed cases {NumClosedCase} *RFGCLN* |
| ASK | IF Closed cases or cabinets IN E26 [Refrigeration types] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E27 – E33 (as applicable, if the refrigeration type was selected) are on one screen, with this introduction:  How many of the following types of refrigeration or freezer equipment are used in this {Structure}? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Closed refrigerated or freezer cases or cabinets |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 1 to 999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Refrigerated vending machines IN E26 [Refrigeration types]  🡺 E32 [Number vending]  IF Commercial ice makers IN E26 [Refrigeration types]  🡺 E33 [Number ice makers]  IF Large cold storage areas IN E26 [Refrigeration types]  🡺 E34 [Percent cold storage]  IF (CBECS Activity = Food sales OR Food service OR  Establishment Activity = Food sales OR Food service) OR  ((B19 [Lodging type] = Hotel or resort OR B21 [Residential type] = Hotel or  resort) & (A6 [Square footage] > 100,000 OR A7 [Square footage category] =  100,0001 to 200,000 square feet; 200,001 to 500,000 square feet;  500,001 to 1 million square feet; OR Over 1 million square feet))  🡺 E35 [Waste heat recovery]  IF Establishment Activity = Vacant 🡺 E61 [Vacant estab lit]  IF **NOT** (B25 [Completely vacant] = Yes & C18 [Months in use] = 0)  🡺 E38 [Computing equipment]  IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

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| --- | --- |
| **E32** | Number vending {NumVending} *RFGVNN* |
| ASK | IF Refrigerated vending machines IN E26 [Refrigeration types] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E27 – E33 (as applicable, if the refrigeration type was selected) are on one screen, with this introduction:  How many of the following types of refrigeration or freezer equipment are used in this {Structure}? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Refrigerated vending machines |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 1 to 999 |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Commercial ice makers IN E26 [Refrigeration types]  🡺 E33 [Number ice makers]  IF Large cold storage areas IN E26 [Refrigeration types]  🡺 E34 [Percent cold storage]  IF (CBECS Activity = Food sales OR Food service OR  Establishment Activity = Food sales OR Food service) OR  ((B19 [Lodging type] = Hotel or resort OR B21 [Residential type] = Hotel or  resort) & (A6 [Square footage] > 100,000 OR A7 [Square footage category] =  100,0001 to 200,000 square feet; 200,001 to 500,000 square feet;  500,001 to 1 million square feet; OR Over 1 million square feet))  🡺 E35 [Waste heat recovery]  IF Establishment Activity = Vacant 🡺 E61 [Vacant estab lit]  IF **NOT** (B25 [Completely vacant] = Yes & C18 [Months in use] = 0)  🡺 E38 [Computing equipment]  IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

|  |  |
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| **E33** | Number ice makers {NumIceMakers} *RFGICN* |
| ASK | IF Commercial ice makers IN E26 [Refrigeration types] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E27 – E33 (as applicable, if the refrigeration type was selected) are on one screen, with this introduction:  How many of the following types of refrigeration or freezer equipment are used in this {Structure}? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Commercial ice makers |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 1 to 999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Large cold storage areas IN E26 [Refrigeration types]  🡺 E34 [Percent cold storage]  IF (CBECS Activity = Food sales OR Food service OR  Establishment Activity = Food sales OR Food service) OR  ((B19 [Lodging type] = Hotel or resort OR B21 [Residential type] = Hotel or  resort) & (A6 [Square footage] > 100,000 OR A7 [Square footage category] =  100,0001 to 200,000 square feet; 200,001 to 500,000 square feet;  500,001 to 1 million square feet; OR Over 1 million square feet))  🡺 E35 [Waste heat recovery]  IF Establishment Activity = Vacant 🡺 E61 [Vacant estab lit]  IF Establishment interview OR (Building interview &  **NOT** (B25 [Completely vacant] = Yes & C18 [Months in use] = 0))  🡺 E38 [Computing equipment]  IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

|  |  |
| --- | --- |
| **E34** | Percent cold storage {PctColdStorage} *RFGSTP* |
| ASK | IF Large cold storage areas IN E26 [Refrigeration types] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | About what percentage of the total floorspace in the {Structure} is used for cold storage? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| **Watermark** | **Label** | **Range** |
| 1 to 100 | % | 1 to 100 |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF (CBECS Activity = Food sales OR Food service OR  Establishment Activity = Food sales OR Food service) OR  ((B19 [Lodging type] = Hotel or resort OR B21 [Residential type] = Hotel or  resort) & (A6 [Square footage] > 100,000 OR A7 [Square footage category] =  100,0001 to 200,000 square feet; 200,001 to 500,000 square feet;  500,001 to 1 million square feet; OR Over 1 million square feet))  🡺 E35 [Waste heat recovery]  IF Establishment Activity = Vacant 🡺 E61 [Vacant estab lit]  IF **NOT** (B25 [Completely vacant] = Yes & C18 [Months in use] = 0)  🡺 E38 [Computing equipment]  IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

|  |  |
| --- | --- |
| **E35** | Waste heat recovery {WasteHeatRecovery} *WHRECOV* |
| ASK | IF E25 [Refrigeration] = Yes & ((CBECS Activity = Food sales OR Food service  OR Establishment Activity = Food sales OR Food service) OR  ((B19 [Lodging type] = Hotel or resort OR B21 [Residential type] = Hotel or  resort) & (A6 [Square footage] > 100,000 OR A7 [Square footage category] =  100,0001 to 200,000 square feet; 200,001 to 500,000 square feet;  500,001 to 1 million square feet; OR Over 1 million square feet))) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Refrigeration equipment gives off excess heat that can be used to supplement other equipment in the {Structure}. Is there such a waste heat recovery system associated with the refrigeration equipment? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 E36 [Waste heat use]  IF No OR Missing 🡺 E38 [Computing equipment] |

|  |  |
| --- | --- |
| **E36** | Waste heat use {WasteHeatUse} *see below* |
| ASK | IF E35 [Waste heat recovery] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the waste heat used for: space heating, water heating, or some other use? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Space heating |  | *WHHT2* |
| 2. Water heating |  | *WHWT* |
| 3. Some other use |  | *WHOT* |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other use 🡺 E37 [Other waste heat use]  OTHERWISE 🡺 E38 [Computing equipment] |

|  |  |
| --- | --- |
| **E37** | Other waste heat use {WasteHeatOtherUse} *WHOTX* |
| ASK | IF Some other use IN E36 [Waste heat use] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe how the waste heat is used |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 E38 [Computing equipment] |

|  |  |
| --- | --- |
| **E38** | Computing equipment {ComputingEquip} *see below* |
| ASK | IF (Electricity used OR Electricity generated)  & **NOT** (B25 [Completely vacant] = Yes & C18 [Months in use] = 0)  & **NOT** Establishment Activity = Vacant |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{RetailFill}**  IF CBECS Activity = Retail OR Establishment Activity = Retail store = “Include  demonstration or floor models if they are turned on.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD E3 |
| **Question Text** | Please look at Show Card E3. Which of these types of computing equipment are used in this {Structure}? {RetailFill} |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | Which of these types of computing equipment are used in this {Structure}? {RetailFill} |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Desktop computers |  | *PCTERM* |
| 2. Laptop computers |  | *LPTP* |
| 3. Tablets |  | *TABLET* |
| 4. Servers |  | *SERVER* |
| 5. None of these types |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Desktop computers selected 🡺 E39 [Number of computers]  IF Laptop computers selected 🡺 E41 [Number of laptops]  IF Tablets selected 🡺 E45 [Tablets charged in building]  IF Servers selected 🡺 E47 [Server units]  OTHERWISE 🡺 E54 [Other equipment types] |

|  |  |
| --- | --- |
| **E39** | Number of computers {NumPCs} *PCTERMN* |
| ASK | IF Desktop computers IN E38 [Computing equipment] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{RetailFill}**  IF CBECS Activity = Retail OR Establishment Activity = Retail store = “(Include  demonstration or floor models if they are turned on.)”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many desktop computers are used in this {Structure}? {RetailFill} |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | desktop computers | 1 to 9,999,999 |

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| NONRESPONSE | **X** Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF DK/Missing 🡺 E40 [Computers category]  OTHERWISE:  IF Laptop computers IN E38 [Computing equipment] 🡺 E41 [Number of laptops]  OTHERWISE 🡺 E43 [Multiple monitors] |

|  |  |
| --- | --- |
| **E40** | Computers category {PCCat} *PCTRMC* |
| ASK | IF E39 [Number of computers] = DK/Missing |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD E4 |
| **Question Text** | Please look at Show Card E4. Which category best describes the number of desktop computers used in this {Structure}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | Which category best describes the number of desktop computers used in this {Structure}? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. 1 to 4 |  |  |
| 2. 5 to 9 |  |  |
| 3. 10 to 19 |  |  |
| 4. 20 to 49 |  |  |
| 5. 50 to 99 |  |  |
| 6. 100 to 249 |  |  |
| 7. 250 to 499 |  |  |
| 8. 500 to 999 |  |  |
| 9. 1,000 to 2,499 |  |  |
| 10. 2,500 to 4,999 |  |  |
| 11. 5,000 or more |  |  |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Laptop computers IN E38 [Computing equipment] 🡺 E41 [Number of laptops]  OTHERWISE 🡺 E43 [Multiple monitors] |

|  |  |
| --- | --- |
| **E41** | Number of laptops {NumLaptops} *LAPTPN* |
| ASK | IF Laptop computers IN E38 [Computing equipment] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{RetailFill}**  IF CBECS Activity = Retail OR Establishment Activity = Retail store = “(Include  demonstration or floor models if they are turned on.)”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many laptop computers are used in this {Structure}? {RetailFill} |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | laptops | 1 to 9,999,999 |

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| NONRESPONSE | **X** Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF DK/Missing 🡺 E42 [Laptops category]  OTHERWISE 🡺 E43 [Multiple monitors] |

|  |  |
| --- | --- |
| **E42** | Laptops category {LaptopCat} *LAPTPC* |
| ASK | IF E41 [Number of laptops] = DK/Missing |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD E4 |
| **Question Text** | Please look at Show Card E4. Which category best describes the number of laptop computers used in this {Structure}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | Which category best describes the number of laptop computers used in this {Structure}? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. 1 to 4 |  |  |
| 2. 5 to 9 |  |  |
| 3. 10 to 19 |  |  |
| 4. 20 to 49 |  |  |
| 5. 50 to 99 |  |  |
| 6. 100 to 249 |  |  |
| 7. 250 to 499 |  |  |
| 8. 500 to 999 |  |  |
| 9. 1,000 to 2,499 |  |  |
| 10. 2,500 to 4,999 |  |  |
| 11. 5,000 or more |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 E43 [Multiple monitors] |

|  |  |
| --- | --- |
| **E43** | Multiple monitors {MultipleMonitors} *MLTMON* |
| ASK | IF Desktop computers OR Laptop computers IN E38 [Computing equipment] |
| FILL | **{Computers}**  IF (E39 [Number of computers] = 1 & **NOT** Laptop computers IN  E38 [Computing equipment]) OR (E41 [Number of laptops] = 1 & **NOT**  Desktop computers IN E38 [Computing equipment]) = “Does the computer”  OTHERWISE = “Do any of the computers” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {Computers} use more than one monitor? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes & **NOT** ((E39 [Number of computers] = 1 & **NOT** Laptop computers IN  E38 [Computing equipment]) OR (E41 [Number of laptops] = 1 &  **NOT** Desktop computers IN E38 [Computing equipment]))  🡺 E44 [Multiple monitor category]  OTHERWISE:  IF Tablets IN E38 [Computing equipment] 🡺 E45 [Tablets charged in building]  IF Servers IN E38 [Computing equipment] 🡺 E47 [Server units]  IF CBECS Activity = Data center 🡺 E50 [Power usage effectiveness]  OTHERWISE 🡺 E51 [Computer areas] |

|  |  |
| --- | --- |
| **E44** | Multiple monitor category {MultiMonitorCat} *MLTMNC* |
| ASK | IF E43 [Multiple monitors] = Yes & **NOT** ((E39 [Number of computers] = 1 & NOT  Laptop computers IN E38 [Computing equipment]) OR  (E41 [Number of laptops] = 1 & **NOT**  Desktop computers IN E38 [Computing equipment])) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Are multiple monitors used with all of the computers, most of them, some of them, or just a few? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. All |  |  |
| 2. Most |  |  |
| 3. Some |  |  |
| 4. A few |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Tablets IN E38 [Computing equipment] 🡺 E45 [Tablets charged in building]  IF Servers IN E38 [Computing equipment] 🡺 E47 [Server units]  IF CBECS Activity = Data center 🡺 E50 [Power usage effectiveness]  OTHERWISE 🡺 E51 [Computer areas] |

|  |  |
| --- | --- |
| **E45** | Tablets charged in building {ChargeTabs} *TABCHRG* |
| ASK | IF Tablets IN E38 [Computing equipment] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Are any of the tablets charged in this {Structure}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 E46 [Number of tablets]  OTHERWISE:  IF Servers IN E38 [Computing equipment] 🡺 E47 [Server units]  IF CBECS Activity = Data center 🡺 E50 [Power usage effectiveness]  OTHERWISE 🡺 E51 [Computer areas] |

|  |  |
| --- | --- |
| **E46** | Number of tablets {NumTabs} *TABLETN* |
| ASK | IF E45 [Tablets charged in building] = Yes |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | About how many tablets are charged in this {Structure}? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | tablets charged in building | 1 to 9,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Servers IN E38 [Computing equipment] 🡺 E47 [Server units]  IF CBECS Activity = Data center 🡺 E50 [Power usage effectiveness]  OTHERWISE 🡺 E51 [Computer areas] |

|  |  |
| --- | --- |
| **E47** | Server units {ServerUnit} *SRVUNIT* |
| ASK | IF Servers IN E38 [Computing equipment] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | The next question is about how many servers are used in this {Structure}. Would you prefer to provide the number of servers or the number of server racks? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Servers |  |  |
| 2. Server racks |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK **X** Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF RF THEN:  IF CBECS Activity = Data center 🡺 E54 [Other equipment types]  OTHERWISE 🡺 E51 [Computer areas]  IF Missing 🡺 E49 [Servers category]  OTHERWISE 🡺 E48 [Number of servers or racks] |

|  |  |
| --- | --- |
| **E48** | Number of servers or racks {NumServers} *SERVERN* |
| ASK | IF E47 [Server units] given |
| FILL | **{ServerUnits}** = “E47 [Server units]”  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many {ServerUnits} are there in this {Structure}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | servers or racks | 1 to 9,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK **X** Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF DK/Missing 🡺 E49 [Servers category]  IF RF & CBECS Activity = Data center 🡺 E54 [Other equipment types]  OTHERWISE:  IF CBECS Activity = Data center 🡺 E50 [Power usage effectiveness]  OTHERWISE 🡺 E51 [Computer areas] |

|  |  |
| --- | --- |
| **E49** | Servers category {ServerCat} *SERVERC* |
| ASK | IF E47 [Server units] = Missing OR  E48 [Number of servers or racks] = DK/Missing |
| FILL | **{ServerUnits}**  IF E47 [Server units] given = “E47 [Server units]”  OTHERWISE = “servers”  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD E5 |
| **Question Text** | Please look at Show Card E5. Which category best describes the number of {ServerUnits} in this {Structure}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | Which category best describes the number of {ServerUnits} in this {Structure}? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. 1 to 4 |  |  |
| 2. 5 to 24 |  |  |
| 3. 25 to 499 |  |  |
| 4. 500 or more |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF CBECS Activity = Data center 🡺 E50 [Power usage effectiveness]  OTHERWISE 🡺 E51 [Computer areas] |

|  |  |
| --- | --- |
| **E50** | Power usage effectiveness {PUE} *PUE* |
| ASK | IF CBECS Activity = Data center |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the power usage effectiveness or PUE of this data center? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 1.00 to 9.99 | PUE | 1.00 to 9.99 |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK **X** Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 E54 [Other equipment types] |

|  |  |
| --- | --- |
| **E51** | Computer areas {ComputerAreas} *see below* |
| ASK | IF (Desktop computers OR Laptop computers OR Servers IN  E38 [Computing equipment]) & **NOT** CBECS Activity = Data center |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD E6 |
| **Question Text** | Please look at Show Card E6. Which of these types of computer areas are found in this {Structure}? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | Which of these types of computer areas are found in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Server closet |  | *SRVRCLST* |
| 2. Data center |  | *DATACNTR* |
| 3. Computer-based training room  *(Room used for hands-on computer training, where every person or every two people have their own computer)* |  | *TRNGRM* |
| 4. Student or public computer center  *(Such as at a school, library, hotel, or community center)* |  | *STDNRM* |
| 5. Trading floor  *(Large, open area with computers and electronic equipment that is used for trading stocks or other securities in financial markets)* |  | *TRDFLR* |
| 6. None of these types |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Data center selected 🡺 E52 [Data center square footage]  OTHERWISE 🡺 E54 [Other equipment types] |

|  |  |
| --- | --- |
| **E52** | Data center square footage {DataCenterSqft} *DCNTRSF* |
| ASK | IF Data center IN E51 [Computer areas] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the square footage of the data center? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 10 to 999,999,999 |

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| NONRESPONSE | Explicit DK **X** Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 E53 [Data center characteristics] |

|  |  |
| --- | --- |
| **E53** | Data center characteristics {DataCenterChars} *see below* |
| ASK | IF Data center IN E51 [Computer areas] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD E7 |
| **Question Text** | Please look at Show Card E7. Which of these characteristics describe the data center space in this {Structure}? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | Which of these characteristics describe the data center space in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Raised floor |  | *DCRSDFLR* |
| 2. Separate cooling system |  | *DCSEPCL* |
| 3. Humidity control |  | *DCHMCNTL* |
| 4. Uninterruptible power supply (UPS) |  | *DCUPS* |
| 5. Controlled access |  | *DCCNTLAC* |
| 6. None of these |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 E54 [Other equipment types] |

|  |  |
| --- | --- |
| **E54** | Other equipment types {OfficeEquipment} *see below* |
| ASK | IF (Electricity used OR Electricity generated)  & **NOT** (B25 [Completely vacant] = Yes & C18 [Months in use] = 0)  & **NOT** Establishment Activity = Vacant |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD E8 |
| **Question Text** | Please look at Show Card E8. Which of these equipment types are used in this {Structure}? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | Which of these equipment types are used in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Large floor-standing office devices (any combination of printer/copier/scanner/FAX machine) |  | *LGOFFDEV* |
| 2. Smaller desktop office devices (any combination of printer/copier/scanner/FAX machine) |  | *SMOFFDEV* |
| 3. Interactive whiteboards |  | *WBOARDS* |
| 4. Televisions or video displays |  | *TVVIDEO* |
| 5. Point-of-sales devices or cash registers |  | *RGSTR* |
| 6. None of these types |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Large floor-standing office devices selected  🡺 E55 [Number of large office devices]  IF Smaller desktop office devices selected 🡺 E56 [Number of small office devices]  IF Interactive whiteboards selected 🡺 E57 [Number of interactive whiteboards]  IF Televisions or video displays selected 🡺 E58 [Number of TV or video displays]  IF Point-of-sales devices or cash registers selected  🡺 E59 [Number of cash registers]  OTHERWISE:  IF B5 [Office type] OR B11 [Retail type] OR  B15 [Service type] = Bank or other financial institution  🡺 E60 [Number of ATMs]  IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

|  |  |
| --- | --- |
| **E55** | Number of large office devices {NumLrgOffDev} *LGOFFDEVN* |
| ASK | IF Large floor-standing office devices IN E54 [Other equipment types] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E55 – E59 (as applicable, if the type was selected) are on one screen, with this introduction:  About how many of the following types of equipment are used in this {Structure}? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Large floor-standing office devices (any combination of printers, copiers, scanners, or FAX machines) |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 1 to 9,999,999 |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Smaller desktop office devices IN E54 [Other equipment types]  🡺 E56 [Number of small office devices]  IF Interactive whiteboards IN E54 [Other equipment types]  🡺 E57 [Number of interactive whiteboards]  IF Televisions or video displays IN E54 [Other equipment types]  🡺 E58 [Number of TV or video displays]  IF Point-of-sales devices or cash registers IN E54 [Other equipment types]  🡺 E59 [Number of cash registers]  IF B5 [Office type] OR B11 [Retail type] OR  B15 [Service type] = Bank or other financial institution  🡺 E60 [Number of ATMs]  IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

|  |  |
| --- | --- |
| **E56** | Number of small office devices {NumSmlOffDev} *SMOFFDEVN* |
| ASK | IF Smaller desktop office devices IN E54 [Other equipment types] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E55 – E59 (as applicable, if the type was selected) are on one screen, with this introduction:  About how many of the following types of equipment are used in this {Structure}? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Small desktop office devices (any combination of printers, copiers, scanners, or FAX machines) |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 1 to 9,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Interactive whiteboards IN E54 [Other equipment types]  🡺 E57 [Number of interactive whiteboards]  IF Televisions or video displays IN E54 [Other equipment types]  🡺 E58 [Number of TV or video displays]  IF Point-of-sales devices or cash registers IN E54 [Other equipment types]  🡺 E59 [Number of cash registers]  IF B5 [Office type] OR B11 [Retail type] OR  B15 [Service type] = Bank or other financial institution  🡺 E60 [Number of ATMs]  IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

|  |  |
| --- | --- |
| **E57** | Number of interactive whiteboards {NumIntWhiteBoards} *WBOARDSN* |
| ASK | IF Interactive whiteboards IN E54 [Other equipment types] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E55 – E59 (as applicable, if the type was selected) are on one screen, with this introduction:  About how many of the following types of equipment are used in this {Structure}? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Interactive whiteboards |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 1 to 999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Televisions or video displays IN E54 [Other equipment types]  🡺 E58 [Number of TV or video displays]  IF Point-of-sales devices or cash registers IN E54 [Other equipment types]  🡺 E59 [Number of cash registers]  IF B5 [Office type] OR B11 [Retail type] OR  B15 [Service type] = Bank or other financial institution  🡺 E60 [Number of ATMs]  IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

|  |  |
| --- | --- |
| **E58** | Number of TV or video displays {NumTVVideoDisplays} *TVVIDEON* |
| ASK | IF Televisions or video displays IN E54 [Other equipment types] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{RetailFill}**  IF CBECS Activity = Retail OR Establishment Activity = Retail store = “(include demonstration or floor models if they are turned on)”  OTHERWISE = BLANK |
| INTRO TEXT | E55 – E59 (as applicable, if the type was selected) are on one screen, with this introduction:  About how many of the following types of equipment are used in this {Structure}? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Televisions or video displays {RetailFill} |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 1 to 9,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Point-of-sales devices or cash registers IN E54 [Other equipment types]  🡺 E59 [Number of cash registers]  IF B5 [Office type] OR B11 [Retail type] OR  B15 [Service type] = Bank or other financial institution  🡺 E60 [Number of ATMs]  IF C31 [No operating hours] = Correct, no operating hours OR  C32[Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

|  |  |
| --- | --- |
| **E59** | Number of cash registers {NumRegister} *RGSTRN* |
| ASK | IF Point-of-sales devices or cash registers IN E54 [Other equipment types] |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E55 – E59 (as applicable, if the type was selected) are on one screen, with this introduction:  About how many of the following types of equipment are used in this {Structure}? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Point-of-sales devices or cash registers |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | none | 1 to 9,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF B5 [Office type] OR B11 [Retail type] OR  B15 [Service type] = Bank or other financial institution  🡺 E60 [Number of ATMs]  IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

|  |  |
| --- | --- |
| **E60** | Number of ATMs {NumATM} *ATMN* |
| ASK | IF (Electricity used OR Electricity generated)  & **NOT** (B25 [Completely vacant] = Yes & C18 [Months in use] = 0)  & (B5 [Office type] OR B11 [Retail type] OR  B15 [Service type] = Bank or other financial institution) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many ATMs does this bank building have? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | ATMs | 0 to 99 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E64 [Percent lit when open] |

|  |  |
| --- | --- |
| **E61** | Vacant estab lit {VacantEstabLit} *VCTLIT* |
| ASK | IF (Electricity used OR Electricity generated) & Establishment Activity = Vacant |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Does this vacant establishment use any lighting at all? Do not consider outside lighting in this response. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 E62 [Percent lit no hours]  OTHERWISE 🡺 E83 [Window glass type] |

|  |  |
| --- | --- |
| **E62** | Percent lit no hours {PctLitNoHours} *LTZHRP* |
| ASK | IF (Electricity used OR Electricity generated)  & ((C31 [No operating hours] = Correct, no operating hours  OR C32 [Total hours open per week] = 0) OR E61 [Vacant estab lit] = Yes) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{LightingIntro}**  IF E61 [Vacant estab lit] was **NOT** asked =  “The next questions are about lighting inside the {Structure}.”  OTHERWISE = BLANK  **{SqFt}**  IF A6 [Square footage] known = “A6 [Square footage] square feet”  IF A6 [Square footage] = DK/RF = “square footage” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {LightingIntro}  What percentage of the {SqFt} is usually lit? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
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| NONRESPONSE | **X** Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF DK/Missing 🡺 E63 [Lit no hours category]  IF 1 to 100 🡺 E69 [Lighting types]  IF 0 THEN:  IF Building interview 🡺 E79 [Percent of exterior lighted]  IF Establishment interview 🡺 E83 [Window glass type] |

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| **E63** | Lit no hours category {PctLitNoHoursCat} *LZHRPC* |
| ASK | IF E62 [Percent lit no hours] = DK/Missing |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD E9 |
| **Question Text** | Looking at Show Card E9, what is your best estimate of the percentage of the {Structure} that is usually lit? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | What is your best estimate of the percentage of the {Structure} that is usually lit? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. 1 to 25 percent |  |  |
| 2. 26 to 50 percent |  |  |
| 3. 51 to 75 percent |  |  |
| 4. 76 to 100 percent |  |  |
| 5. Not lit at all |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Not lit THEN:  IF Building interview 🡺 E79 [Percent of exterior lighted]  IF Establishment interview 🡺 E83 [Window glass type]  OTHERWISE 🡺 E69 [Lighting types] |

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| **E64** | Percent lit when open {PctLitOpen} *LTOHRP* |
| ASK | IF (Electricity used OR Electricity generated)  & **NOT** Establishment activity = Vacant  & **NOT** C31 [No operating hours] = Correct, no operating hours  & **NOT** C32 [Total hours open per week] = 0 |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{SqFt}**  IF A6 [Square footage] known = “A6 [Square footage] square feet”  IF A6 [Square footage] = DK/RF = “square footage” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | The next questions are about the lighting inside the {Structure}.  What percentage of the {SqFt} in this {Structure} is lit when it is normally open? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
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| **Watermark** | **Label** | **Range** |
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| NONRESPONSE | **X** Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF DK/Missing 🡺 E65 [Lit when open category]  IF Percent given & (C28 [Open 24 hours a day] = Yes OR  C32 [Total hours open per week] = 168 OR C33 [Weekly hours category] = 168)  🡺 E66 [Lights off during 24 hours]  OTHERWISE 🡺 E67 [Percent lit off hours] |

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| **E65** | Lit when open category {PctLitOpCat} *LOHRPC* |
| ASK | IF E64 [Percent lit when open] = DK/Missing |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD E9 |
| **Question Text** | Looking at Show Card E9, what is your best estimate of the percentage of the square feet in this {Structure} that is lit when it is normally open? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | What is your best estimate of the percentage of the square feet in this {Structure} that is lit when it is normally open? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. 1 to 25 percent |  |  |
| 2. 26 to 50 percent |  |  |
| 3. 51 to 75 percent |  |  |
| 4. 76 to 100 percent |  |  |
| 5. Not lit at all when it is normally open |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building interview & (C28 [Open 24 hours a day] = Yes OR  C32 [Total hours open per week] = 168 OR C33 [Weekly hours category]) = 168  🡺 E66 [Lights off during 24 hours]  OTHERWISE 🡺 E67 [Percent lit off hours] |

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| **E66** | Lights off during 24 hours {ReduceLight24Hrs} *LTNR24* |
| ASK | IF (Electricity used OR Electricity generated) & (C28 [Open 24 hours a day] = Yes  OR C32 [Total hours open per week] = 168 OR  C33 [Weekly hours category] = 168) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Are there any periods during a normal 24-hour day when some of the lights are turned off? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 E67 [Percent lit off hours]  IF No OR Missing:  IF E64 [Percent lit when open] > 0 OR E65 [Lit when open category] ≠ Not lit  🡺 E69 [Lighting types]  OTHERWISE 🡺 E79 [Percent of exterior lighted] |

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| **E67** | Percent lit off hours {PctLitClosed} *LTNHRP* |
| ASK | IF (Electricity used OR Electricity generated) &  & (E66 [Lights off during 24 hours] = Yes  OR (**NOT** (C28 [Open 24 hours a day] = Yes OR  C31 [No operating hours] = Correct, no operating hours OR  C32 [Total hours open per week] = 0 OR 168 OR  C33 [Weekly hours category] =168 OR Establishment Activity = Vacant))) |
| FILL | **{SqFt}**  IF A6 [Square footage] known = “A6 [Square footage] square feet”  IF A6 [Square footage] = DK/RF = “square footage”  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{OffHours}**  IF C28 [Open 24 hours a day] = Yes OR C32 [Total hours open per week] OR  C33 [Weekly hours category] = 168 = “the time during a 24-hour period when  some lights are turned off”  OTHERWISE = “the hours when the {Structure} is not normally open” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What percentage of the {SqFt} is lit during off hours, that is {OffHours}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
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| NONRESPONSE | **X** Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF DK/Missing 🡺 E68 [Lit off hours category]  IF 1 – 100 🡺 E69 [Lighting types]  IF 0 & (E64 [Percent lit when open] > 0 OR E65 [Lit when open category] ≠ Not lit)  🡺 E69 [Lighting types]  OTHERWISE:  IF Building interview 🡺 E79 [Percent of exterior lighted]  IF Establishment interview 🡺 E83 [Window glass type] |

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| **E68** | Lit off hours category {PctLitClCat} *LNHRPC* |
| ASK | IF E67 [Percent lit off hours] = DK/Missing |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD E9 |
| **Question Text** | Looking at Show Card E9, what is your best estimate of the percentage lit during off hours? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | What is your best estimate of the percentage lit during off hours? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. 1 to 25 percent |  |  |
| 2. 26 to 50 percent |  |  |
| 3. 51 to 75 percent |  |  |
| 4. 76 to 100 percent |  |  |
| 5. Not lit at all during off hours |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Any response except Not lit OR (Not lit & (E64 [Percent lit when open] > 0 OR  E65 [Lit when open category] ≠ Not lit)) 🡺 E69 [Lighting types]  OTHERWISE:  IF Building interview 🡺 E79 [Percent of exterior lighted]  IF Establishment interview 🡺 E83 [Window glass type] |

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| **E69** | Lighting types {BulbTypes} *see below* |
| ASK | IF E62 [Percent lit no hours} > 0 OR E63 [Lit no hours category] ≠ Not lit OR  E64 [Percent lit when open] > 0 OR E65 [Lit when open category] ≠ Not lit OR  E67 [Percent lit off hours] > 0 OR E68 [Lit off hours category] ≠ Not lit |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD E10 |
| **Question Text** | Looking at Show Card E10, what types of lighting were used to light any of the space in this {Structure}? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | What types of lighting were used to light any of the space in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Fluorescent lighting other than compact fluorescent bulbs |  | *FLUOR* |
| 2. Compact fluorescent (CFL) bulbs |  | *CFLR* |
| 3. Incandescent light bulbs, other than halogen bulbs |  | *BULB* |
| 4. Halogen bulbs |  | *HALO* |
| 5. High intensity discharge (HID) lights such as high pressure sodium, metal halide, or mercury vapor |  | *HID* |
| 6. Light-emitting diode (LED) lights |  | *LED* |
| 7. Other type of lighting |  | *OTLT* |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other type of lighting selected 🡺 E70 [Other bulb type]  IF More than one type selected THEN:  IF Fluorescent lighting selected 🡺 E71 [Percent lit by fluorescent]  IF CFL bulbs selected 🡺 E72 [Percent lit by compact fluorescent]  IF Incandescent light bulbs selected 🡺 E73 [Percent lit by incandescent]  IF Halogen bulbs selected 🡺 E74 [Percent lit by halogen]  IF HID lights selected 🡺 E75 [Percent lit by HID]  OTHERWISE 🡺 E78 [Lighting controls] |

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| **E70** | Other bulb type {BulbSpec} *OTLTX* |
| ASK | IF Other type of lighting IN E69 [Lighting types] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** | |
| ***String Text*** | |
| **Watermark** | |
| Briefly describe the other type of lighting |  |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Fluorescent lighting IN E69 [Lighting types] 🡺 E71 [Percent lit by fluorescent]  IF CFL bulbs IN E69 [Lighting types] 🡺 E72 [Percent lit by compact fluorescent]  IF Incandescent light bulbs IN E69 [Lighting types]  🡺 E73 [Percent lit by incandescent]  IF Halogen bulbs IN E69 [Lighting types] 🡺 E74 [Percent lit by halogen]  IF HID lights IN E69 [Lighting types] 🡺 E75 [Percent lit by HID]  IF LED lights IN E69 [Lighting types] 🡺 E76 [Percent lit by LED]  OTHERWISE 🡺 E78 [Lighting controls] |

|  |  |
| --- | --- |
| E71 | **Percent lit by fluorescent** {FluorPct} *FLUORP* |
| ASK | IF More than one type & Fluorescent lighting IN E69 [Lighting types] |
| FILL | **{Explanation}**  IF E64 [Percent lit when open] ≠ 100 = “We are talking only about the lighted  portion of the floorspace, so these percentages must add up to at least 100, but  since more than one type of bulb can light the same area, it is also possible for  them to add up to more than 100.”  IF E64 [Percent lit when open] = 100 = “These percentages must add up to at  least 100, but since more than one type of bulb can light the same area, it is  also possible for them to add up to more than 100.”  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E71 – E77 (as applicable, if the lighting type was selected) are on one screen, with this introduction:  The next questions are about the percentage of floorspace lit by each type of lighting. Please keep in mind: {Explanation}  What percentage of the lighted area in this {Structure} is lit by each of the following bulb types? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Fluorescent lighting |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF CFL bulbs IN E69 [Lighting types] 🡺 E72 [Percent lit by compact fluorescent]  IF Incandescent light bulbs IN E69 [Lighting types]  🡺 E73 [Percent lit by incandescent]  IF Halogen bulbs IN E69 [Lighting types] 🡺 E74 [Percent lit by halogen]  IF HID lights IN E69 [Lighting types] 🡺 E75 [Percent lit by HID]  IF LED lights IN E69 [Lighting types] 🡺 E76 [Percent lit by LED]  IF Other type of lighting IN E69 [Lighting types]  🡺 E77 [Percent lit by other lighting]  OTHERWISE 🡺 E78 [Lighting controls] |

|  |  |
| --- | --- |
| E72 | **Percent lit by compact fluorescent** {CFlrPct} *CFLRP* |
| ASK | IF More than one type & CFL bulbs IN E69 [Lighting types] |
| FILL | **{Explanation}**  IF E64 [Percent lit when open] ≠ 100 = “We are talking only about the lighted  portion of the floorspace, so these percentages must add up to at least 100, but  since more than one type of bulb can light the same area, it is also possible for  them to add up to more than 100.”  IF E64 [Percent lit when open] = 100 = “These percentages must add up to at  least 100, but since more than one type of bulb can light the same area, it is  also possible for them to add up to more than 100.”  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E71 – E77 (as applicable, if the lighting type was selected) are on one screen, with this introduction:  The next questions are about the percentage of floorspace lit by each type of lighting. Please keep in mind: {Explanation}  What percentage of the lighted area in this {Structure} is lit by each of the following bulb types? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Compact fluorescent (CFL) bulbs |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Incandescent light bulbs IN E69 [Lighting types]  🡺 E73 [Percent lit by incandescent]  IF Halogen bulbs IN E69 [Lighting types] 🡺 E74 [Percent lit by halogen]  IF HID lights IN E69 [Lighting types] 🡺 E75 [Percent lit by HID]  IF LED lights IN E69 [Lighting types] 🡺 E76 [Percent lit by LED]  IF Other type of lighting IN E69 [Lighting types]  🡺 E77 [Percent lit by other lighting]  OTHERWISE 🡺 E78 [Lighting controls] |

|  |  |
| --- | --- |
| E73 | **Percent lit by incandescent** {IncPct} *BULBP* |
| ASK | IF More than one type & Incandescent light bulbs IN E69 [Lighting types] |
| FILL | **{Explanation}**  IF E64 [Percent lit when open] ≠ 100 = “We are talking only about the lighted  portion of the floorspace, so these percentages must add up to at least 100, but  since more than one type of bulb can light the same area, it is also possible for  them to add up to more than 100.”  IF E64 [Percent lit when open] = 100 = “These percentages must add up to at  least 100, but since more than one type of bulb can light the same area, it is  also possible for them to add up to more than 100.”  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E71 – E77 (as applicable, if the lighting type was selected) are on one screen, with this introduction:  The next questions are about the percentage of floorspace lit by each type of lighting. Please keep in mind: {Explanation}  What percentage of the lighted area in this {Structure} is lit by each of the following bulb types? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Incandescent light bulbs |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 0 to 100 | % | 0 to 100 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Halogen bulbs IN E69 [Lighting types] 🡺 E74 [Percent lit by halogen]  IF HID lights IN E69 [Lighting types] 🡺 E75 [Percent lit by HID]  IF LED lights IN E69 [Lighting types] 🡺 E76 [Percent lit by LED]  IF Other type of lighting IN E69 [Lighting types]  🡺 E77 [Percent lit by other lighting]  OTHERWISE 🡺 E78 [Lighting controls] |

|  |  |
| --- | --- |
| E74 | **Percent lit by halogen** {HaloPct} *HALOP* |
| ASK | IF More than one type & Halogen bulbs IN E69 [Lighting types] |
| FILL | **{Explanation}**  IF E64 [Percent lit when open] ≠ 100 = “We are talking only about the lighted  portion of the floorspace, so these percentages must add up to at least 100, but  since more than one type of bulb can light the same area, it is also possible for  them to add up to more than 100.”  IF E64 [Percent lit when open] = 100 = “These percentages must add up to at  least 100, but since more than one type of bulb can light the same area, it is  also possible for them to add up to more than 100.”  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E71 – E77 (as applicable, if the lighting type was selected) are on one screen, with this introduction:  The next questions are about the percentage of floorspace lit by each type of lighting. Please keep in mind: {Explanation}  What percentage of the lighted area in this {Structure} is lit by each of the following bulb types? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Halogen bulbs |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF HID lights IN E69 [Lighting types] 🡺 E75 [Percent lit by HID]  IF LED lights IN E69 [Lighting types] 🡺 E76 [Percent lit by LED]  IF Other type of lighting IN E69 [Lighting types]  🡺 E77 [Percent lit by other lighting]  OTHERWISE 🡺 E78 [Lighting controls] |

|  |  |
| --- | --- |
| E75 | **Percent lit by HID** {HIDPct} *HIDP* |
| ASK | IF More than one type & HID lights IN E69 [Lighting types] |
| FILL | **{Explanation}**  IF E64 [Percent lit when open] ≠ 100 = “We are talking only about the lighted  portion of the floorspace, so these percentages must add up to at least 100, but  since more than one type of bulb can light the same area, it is also possible for  them to add up to more than 100.”  IF E64 [Percent lit when open] = 100 = “These percentages must add up to at  least 100, but since more than one type of bulb can light the same area, it is  also possible for them to add up to more than 100.”  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E71 – E77 (as applicable, if the lighting type was selected) are on one screen, with this introduction:  The next questions are about the percentage of floorspace lit by each type of lighting. Please keep in mind: {Explanation}  What percentage of the lighted area in this {Structure} is lit by each of the following bulb types? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | High intensity discharge (HID) lights |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF LED lights IN E69 [Lighting types] 🡺 E76 [Percent lit by LED]  IF Other type of lighting IN E69 [Lighting types]  🡺 E77 [Percent lit by other lighting]  OTHERWISE 🡺 E78 [Lighting controls] |

|  |  |
| --- | --- |
| E76 | **Percent lit by LED** {LEDPct} *LEDP* |
| ASK | IF More than one type & LED lights IN E69 [Lighting types] |
| FILL | **{Explanation}**  IF E64 [Percent lit when open] ≠ 100 = “We are talking only about the lighted  portion of the floorspace, so these percentages must add up to at least 100, but  since more than one type of bulb can light the same area, it is also possible for  them to add up to more than 100.”  IF E64 [Percent lit when open] = 100 = “These percentages must add up to at  least 100, but since more than one type of bulb can light the same area, it is  also possible for them to add up to more than 100.”  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E71 – E77 (as applicable, if the lighting type was selected) are on one screen, with this introduction:  The next questions are about the percentage of floorspace lit by each type of lighting. Please keep in mind: {Explanation}  What percentage of the lighted area in this {Structure} is lit by each of the following bulb types? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | LED lights |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 0 to 100 | % | 0 to 100 |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other type of lighting IN E69 [Lighting types]  🡺 E77 [Percent lit by other lighting]  OTHERWISE 🡺 E78 [Lighting controls] |

|  |  |
| --- | --- |
| **E77** | Percent lit by other lighting {OthPct} *OTLTP* |
| ASK | IF More than one type & Other type of lighting IN E69 [Lighting types] |
| FILL | **{Explanation}**  IF E64 [Percent lit when open] ≠ 100 = “We are talking only about the lighted  portion of the floorspace, so these percentages must add up to at least 100, but  since more than one type of bulb can light the same area, it is also possible for  them to add up to more than 100.”  IF E64 [Percent lit when open] = 100 = “These percentages must add up to at  least 100, but since more than one type of bulb can light the same area, it is  also possible for them to add up to more than 100.”  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| INTRO TEXT | E71 – E77 (as applicable, if the lighting type was selected) are on one screen, with this introduction:  The next questions are about the percentage of floorspace lit by each type of lighting. Please keep in mind: {Explanation}  What percentage of the lighted area in this {Structure} is lit by each of the following bulb types? If you’re not sure, please provide your best estimate. |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Other lighting type |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 0 to 100 | % | 0 to 100 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 E78 [Lighting controls] |

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| --- | --- |
| **E78** | Lighting controls {LightingControls} *see below* |
| ASK | IF E62 [Percent lit no hours} > 0 OR E63 [Lit no hours category] ≠ Not lit OR  E64 [Percent lit when open] > 0 OR E65 [Lit when open category] ≠ Not lit OR  E67 [Percent lit off hours] > 0 OR E68 [Lit off hours category] ≠ Not lit |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD E11 |
| **Question Text** | Please look at Show Card E11. Which of these lighting controls or lighting control strategies, if any, are used in this {Structure}? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | Which of these lighting controls or lighting control strategies, if any, are used in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Scheduling  *(Lights are automatically dimmed or turned off at certain times of the day.)* |  | *SCHED* |
| 2. Occupancy sensors that reduce lighting when rooms are unoccupied  *(Sensors that automatically turn off or dim lights when a person leaves a room or space.)* |  | *OCSN* |
| 3. Multi-level lighting or dimming  *(Control devices that adjust lighting power by continuous dimming, stepped dimming, or stepped switching.)* |  | *DIM* |
| 4. Daylight harvesting  *(A lighting control and shade system that automatically dims light fixtures when natural light is available, and/or adjusts shades so that the combination of natural light and artificial light combine to provide the desired level of lighting.)* |  | *DAYHARV* |
| 5. High-end trimming or light-level tuning  *(High-end trimming sets the maximum level of lighting to less than 100%. Light-level tuning sets the level even lower if a room or space needs less light.)* |  | *TRIM* |
| 6. Plug-load control  *(Device that automatically turns off wall plugs and lights when a person leaves a room or space.)* |  | *PLGCTRL* |
| 7. Demand responsive lighting  *(Reduces lighting at times of peak electricity pricing.)* |  | *DRLGHT* |
| 8. None of these |  |  |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building interview 🡺 E79 [Percent of exterior lighted]  IF Establishment interview 🡺 E83 [Window glass type] |

|  |  |
| --- | --- |
| **E79** | Percent of exterior lighted {PctExteriorLighted} *LTEXPC* |
| ASK | IF (Electricity used OR Electricity generated) & Building interview |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What percentage of all the exterior building wall surfaces is lit? Is it less than 10 percent, 10 to 25, 25 to 50, or more than 50 percent of the total building façade that is lit? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | What percentage of all the exterior building wall surfaces is lit? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Less than 10 percent |  |  |
| 2. 10 to 25 percent |  |  |
| 3. 25 to 50 percent |  |  |
| 4. More than 50 percent |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 E80 [Lighted parking area] |

|  |  |
| --- | --- |
| **E80** | Lighted parking area {LightedParking} *PKLT* |
| ASK | IF (Electricity used OR Electricity generated) & Building interview |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is there an indoor or outdoor parking area associated with the building that is lit with fixtures powered through the building’s electrical service? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 E81 [Indoor or outdoor lighted parking]  IF No OR Missing 🡺 E83 [Window glass type] |

|  |  |
| --- | --- |
| **E81** | Indoor or outdoor lighted parking {ParkingInOrOut} *PKLTINOUT* |
| ASK | IF E80 [Lighted parking area] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is this lighted parking area part of the building, such as an indoor parking level, is it separate, such as an outdoor parking lot or parking garage, or does this building have both of these types of lighted parking areas? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Part of the building (indoor) |  |  |
| 2. Outdoor parking (lot or garage) |  |  |
| 3. Both indoor and outdoor parking |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Answer given 🡺 E82 [Vehicle parking capacity]  IF Missing 🡺 E83 [Window glass type] |

|  |  |
| --- | --- |
| **E82** | Vehicle parking capacity {VehicleCapacity} *PKLTN* |
| ASK | IF E81 [Indoor or outdoor lighted parking] given |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many parking spaces are in this lighted parking area? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | parking spaces | 1 to 999,999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 E83 [Window glass type] |

|  |  |
| --- | --- |
| **E83** | Window glass type {WindowPanes} *WINTYP* |
| ASK | IF Building OR Establishment interview |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Do the exterior windows in this {Structure} contain single-layer glass, multi-layer glass, or a combination of both of these types? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Single-layer glass |  |  |
| 2. Multi-layer glass |  |  |
| 3. Combination of both |  |  |
| 4. No windows |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Single-layer, Multi-layer, OR Combination 🡺 E84 [Daylighting features]  IF No windows OR Missing 🡺 FRT [Section F Routing] |

|  |  |
| --- | --- |
| **E84** | Daylighting features {DaylightFeatures} *see below* |
| ASK | IF E83 [Window glass type] = Single-layer, Multi-layer, OR Combination |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD E12 |
| **Question Text** | Please look at the list on Show Card E12. Which of these daylighting or conservation features, if any, are present in this {Structure}? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | Which of these daylighting or conservation features, if any, are present in this {Structure}? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Tinted window glass |  | *TINT* |
| 2. Reflective window glass |  | *REFL* |
| 3. External overhangs or awnings |  | *AWN* |
| 4. Skylights or atriums designed to provide light |  | *SKYLT* |
| 5. None of these |  |  |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 E85 [Percent daylight] |

|  |  |
| --- | --- |
| **E85** | Percent daylight {Daylight} *DAYLTN* |
| ASK | IF E83 [Window glass type] = Single-layer, Multi-layer, OR Combination |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What percentage of the {Structure} receives enough outside light so that the interior lights do not need to be turned on? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| 0 to 100 | % | 0 to 100 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 FRT [Section F Routing] |

**Section F: Electricity**

|  |  |
| --- | --- |
| **FRT** | Section F Routing |
| IF Electricity used🡺 F1 [Provide electricity figures]  OTHERWISE 🡺 GRT [Section G Routing] | |

|  |  |
| --- | --- |
| **F1** | Provide electricity figures {ProvideElFigs} *ELFIGS* |
| ASK | IF Electricity used |
| FILL | **{Structure}**  IF interview = Building = “building”  IF interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | The next questions are about electricity usage in this {Structure} during calendar year 2018. Are you able to provide the total annual electricity usage for this {Structure} for 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes & (D17 [Type of solar] = Solar panels used to generate electricity OR  (Solar panels used to generate electricity OR Wind turbines IN  D140 [Generation technologies]) OR (Wind turbines IN  D142 [Generation technologies other than solar]) OR  D146 [Use of generated electricity] = Whenever electricity was used)  🡺 F3 [Report generated electricity]  IF No OR Missing:  IF Establishment interview 🡺 F2 [Electricity included in rent]  IF Building interview 🡺 F23 [Number electricity suppliers]  OTHERWISE 🡺 F4 [Electricity consumption] |

|  |  |
| --- | --- |
| **F2** | Electricity included in rent {ElInRent} *ELNRENT* |
| ASK | IF Establishment interview & F1 [Provide electricity figures] = No OR Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is the cost of the electricity used in this establishment included in the rent? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 F24 [Electricity suppliers]  IF No/Missing 🡺 F23 [Number electricity suppliers] |

|  |  |
| --- | --- |
| **F3** | Report generated electricity {GenElIncl} *ELGENREP* |
| ASK | IF F1 [Provide electricity figures] = Yes & (D17 [Type of solar] = Solar panels used  to generate electricity OR (Solar panels used to generate electricity OR Wind  turbines IN D140 [Generation technologies]) OR (Wind turbines IN  D142 [Generation technologies other than solar]) OR  D146 [Use of generated electricity] = Whenever electricity was used) |
| FILL | **{Structure}**  IF interview = Building = “building”  IF interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Earlier you reported that this {Structure} has on-site electricity generation. If possible, we would like to collect the combined purchased and generated electricity usage for this {Structure}. Are you able to report the combined purchased and generated electricity usage, or are you able to report only the purchased electricity usage? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Earlier in the survey, you reported that this {Structure} has on-site electricity generation. If possible, please report the combined purchased and generated electricity for this {Structure}. Are you able to report the combined purchased and generated electricity usage, or are you able to report only the purchased electricity usage? |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Can report combined purchased and generated electricity usage |  |  |
| 2. Can report only purchased electricity usage |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Can report combined purchased and generated OR Missing  🡺 F4 [Electricity consumption]  IF Can report only purchased 🡺 F6 [Purchased electricity consumption] |

|  |  |
| --- | --- |
| **F4** | Electricity consumption {ElCons} *ELCNS* |
| ASK | IF F1 [Provide electricity figures] = Yes  & **NOT** F3 [Reported generated electricity] = Can report only purchased |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the total kilowatthours of electricity used in calendar year 2018. |
| **Interviewer Instructions** | Kilowatthours may be referred to as kWh |
| **QUESTION TEXT – web** | |
| **Question Text** | How many total kilowatthours (kWh) of electricity were used in calendar year 2018? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | kWh | 1-99,999,999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Missing 🡺 F23 [Number electricity suppliers]  IF F3 [Report generated electricity] = Can report combined purchased and generated 🡺 F5 [Able to report purchased electricity]  OTHERWISE 🡺 F7 [Electricity expenditures] |

|  |  |
| --- | --- |
| **F5** | Able to report purchased electricity {ReportPurchEl} *REPSUP* |
| ASK | IF F3 [Report generated electricity] = Can report combined purchased and generated & F4 [Electricity consumption] given |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Are you able to report how much of this total electricity was purchased from a supplier, not including what was generated on-site? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 F6 [Purchased electricity consumption]  IF No OR Missing 🡺 F7 [Electricity expenditures] |

|  |  |
| --- | --- |
| **F6** | Purchased electricity consumption {ElConsFromSupplier} *ELCNSSUP* |
| ASK | IF F3 [Report generated electricity] = Can report only purchased OR F5 [Able to report purchased electricity] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the total kilowatthours of electricity purchased in 2018. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | How many total kilowatthours of electricity were purchased in 2018? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | kWh | 1-99,999,999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Missing & F3 [Report generated electricity] = Can report only purchased  🡺 F23 [Number electricity suppliers]  OTHERWISE 🡺 F7 [Electricity expenditures] |

|  |  |
| --- | --- |
| **F7** | Electricity expenditures {ElExp} *ELEXP* |
| ASK | IF F4 [Electricity consumption] given OR  F6 [Purchased electricity consumption] given |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the total dollars spent on electricity in 2018. This should include state and local taxes and all charges such as: fuel adjustment, system, distribution, and demand. |
| **Interviewer Instructions** | Do not enter cents |
| **QUESTION TEXT – web** | |
| **Question Text** | How much was spent on electricity in 2018? This should include state and local taxes and all charges such as: fuel adjustment, system, distribution, and demand. |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter dollar amount | None | 0-999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 F8 [Starting date for electricity figures] |

|  |  |
| --- | --- |
| **F8** | Starting date for electricity figures {ElStartDate} *ELSTDAT* |
| ASK | IF F4 [Electricity consumption] given OR  F6 [Purchased electricity consumption] given |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the starting date for these electricity usage figures? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric String Text **X** Date |

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| **RESPONSE OPTIONS** | | |
| ***Date*** | | |
| **Watermark** |  |  |
| mm/dd/yyyy |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 F9 [Ending date for electricity figures] |

|  |  |
| --- | --- |
| **F9** | Ending date for electricity figures {ElEndDate} *ELENDAT* |
| ASK | IF F4 [Electricity consumption] given OR  F6 [Purchased electricity consumption] given |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the ending date for these electricity usage figures? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric String Text **X** Date |

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| **RESPONSE OPTIONS** | | |
| ***Date*** | | |
| **Watermark** |  |  |
| mm/dd/yyyy |  |  |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building interview & (C5 [Number of businesses] > 1 OR  C6 [Number of businesses category] ≠ Zero OR One) THEN:  IF CBECS Activity ≠ Enclosed mall 🡺 F10 [All occupants electricity included]  IF CBECS Activity = Enclosed mall 🡺 F12 [Electricity covers whole mall]  OTHERWISE 🡺 F16 [Other bldgs electricity included] |

|  |  |
| --- | --- |
| **F10** | All occupants electricity included {AllOccEl1} *ELALL* |
| ASK | IF Building interview & (F4 [Electricity consumption] given OR  F6 [Purchased electricity consumption] given & (C5 [Number of businesses] >1  OR C6 [Number of businesses category] ≠ Zero OR One)  & CBECS Activity ≠ Enclosed mall |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Do these figures include the electricity for all of the businesses or organizations in this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF No 🡺 F11 [Sq ft not included]  OTHERWISE 🡺 F16 [Other bldgs electricity included] |

|  |  |
| --- | --- |
| **F11** | Sq ft not included {NonElSqFt1} *ELNISF* |
| ASK | IF F10 [All occupants electricity included] = No |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the space in the building that is not included in these figures? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1 to 999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| **NEXT** | 🡺 F18 [Include other major electricity] |

|  |  |
| --- | --- |
| **F12** | Electricity covers whole mall {ElMallInclude} *ELMALLINC* |
| ASK | IF (F4 [Electricity consumption] given OR  F6 [Purchased electricity consumption] given & (C5 [Number of businesses] >1  OR C6 [Number of businesses category] ≠ Zero OR One)  & CBECS Activity = Enclosed mall |
| FILL | **{FoodCourt}**  IF B41 [Food court] = Yes = “food court,”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Do these figures include the energy for the entire mall building, including the anchor stores, {FoodCourt} common areas, and individual stores? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF No 🡺 F13 [Not included in mall electricity]  OTHERWISE 🡺 F16 [Other bldgs electricity included] |

|  |  |
| --- | --- |
| **F13** | Not included in mall electricity {WhatElMallExclude} *see below* |
| ASK | IF F12 [Electricity covers whole mall] = No |
| FILL | **{FoodCourt}**  IF B41 [Food court] = Yes = “Food court”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Which areas are not included? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Anchor stores |  | *ELMLLANC* |
| 2. {FoodCourt} |  | *ELMLLFC* |
| 3. Common areas |  | *ELMLLCOM* |
| 4. Individual stores |  | *ELMLLST* |
| 5. Other |  | *ELMLLOT* |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other selected 🡺 F14 [Other not included in mall electricity]  OTHERWISE 🡺 F15 [Mall sq ft not included] |

|  |  |
| --- | --- |
| **F14** | Other not included in mall electricity {OtherElMallExclude} *ELMLLOTX* |
| ASK | If Other IN F13 [Not included in mall electricity] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of area that is not included |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 F15 [Mall sq ft not included] |

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| --- | --- |
| **F15** | Mall sq ft not included {NonElMallSqFt1} *ELNMLLSF* |
| ASK | IF F12 [Electricity covers whole mall] = No |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the space in the building that is not included in these figures? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1-999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 F18 [Include other major electricity] |

|  |  |
| --- | --- |
| **F16** | Other bldgs electricity included {OthElBldgs1} *ELOTBD* |
| ASK | IF (F4 [Electricity consumption] given OR F6 [Purchased electricity consumption]  given & **NOT** (F10 [All occupants electricity included] = No OR  F12 [Electricity covers whole mall] = No) |
| FILL | **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is any consumption from other {Structures} included in these figures? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 F17 [Sq ft of other included]  OTHERWISE 🡺 F18 [Include other major electricity] |

|  |  |
| --- | --- |
| **F17** | Sq ft of other included {OthElSqFt1} *ELOTSF* |
| ASK | IF F16 [Other bldgs electricity included] = Yes |
| FILL | **{Structures}**  IF interview = Building = “buildings”  IF interview = Establishment = “establishments” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the other {Structures} that are included in these figures? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1-999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 F18 [Include other major electricity] |

|  |  |
| --- | --- |
| **F18** | Include other major electricity {OthElUse1} *ELOTUS* |
| ASK | IF F4 [Electricity consumption] given OR  F6 [Purchased electricity consumption] given |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Do these figures include charges for any other major electricity usage outside the {Structure}, such as electric vehicle charging stations, parking lot lights, exterior lights, signs or billboards, large pumps, or swimming pools? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 F19 [Outside uses included in electricity]  IF No OR DK/Missing THEN:  IF Building interview 🡺 F21 [Anything unusual about electricity use]  IF Establishment interview 🡺 F23 [Number electricity suppliers] |

|  |  |
| --- | --- |
| **F19** | Outside uses included in electricity {WhatElUse1} *see below* |
| ASK | IF F18 [Include other major electricity] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD F1 |
| **Question Text** | Looking at the list on Show Card F1, please tell me which of these outside uses is included in the electricity figures. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these outside uses is included in the electricity figures? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Electric vehicle charging stations |  | *ELOUTVELV* |
| 2. Parking lot lights |  | *ELOUTPRK* |
| 3. Exterior lights |  | *ELOUTLTS* |
| 4. Signs or billboards |  | *ELOUTSGN* |
| 5. Large pumps |  | *ELOUTPMP* |
| 6. Swimming pools |  | *ELOUTSWM* |
| 7. Other |  | *ELOUTOT* |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other selected 🡺 F20 [Other type of outside electricity use]  OTHERWISE:  IF Building interview 🡺 F21 [Anything unusual about electricity use]  IF Establishment interview 🡺 F23 [Number electricity suppliers] |

|  |  |
| --- | --- |
| **F20** | Other type of outside electricity use {OtherElUse1} *ELOUTOTX* |
| ASK | If Other IN F19 [Outside uses included in electricity] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe this other type of outside electricity use |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Building interview 🡺 F21 [Anything unusual about electricity use]  IF Establishment interview 🡺 F23 [Number electricity suppliers] |

|  |  |
| --- | --- |
| **F21** | Anything unusual about electricity use {AnythingUnusualElUse} *ELUNUSUAL* |
| ASK | IF Building interview & (F4 [Electricity consumption] given OR  F6 [Purchased electricity consumption] given) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is there anything about this building that would make the electricity consumption higher or lower than average? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 F22 [What is unusual about electricity use]  OTHERWISE 🡺 F23 [Number electricity suppliers] |

|  |  |
| --- | --- |
| **F22** | What is unusual about electricity use {WhatUnusualElUse} *ELUNUSUALX* |
| ASK | IF F21 [Anything unusual about electricity use] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Describe what is unusual about the building. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 F23 [Number electricity suppliers] |

|  |  |
| --- | --- |
| **F23** | Number electricity suppliers {NumElSupplier} *ELNUMSP* |
| ASK | IF (Building interview & Electricity used) OR (Establishment interview &  (F1 [Provide electricity figures] = Yes OR  F2 [Electricity included in rent] = No/Missing)) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{SuppliersIntro}**  IF F1 [Provide electricity figures] = No OR Missing OR  F4 [Electricity consumption] = Missing OR  F6 [Purchased electricity consumption] = Missing = “It may be possible to obtain this information directly from your electricity supplier.”  OTHERWISE =  “The next questions are about your electricity supplier or suppliers.” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {SuppliersIntro}  How many different companies supplied electricity to this {Structure} during calendar year 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | Suppliers | 1-4 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF 1 to 4 🡺 F24 [Electricity suppliers]  IF Missing 🡺 F26 [Electricity bill available] |

|  |  |
| --- | --- |
| **F24** | Electricity suppliers {ElSupplier} *EL1LKP-EL4LKP* |
| ASK | IF F23 [Number electricity suppliers] = 1 to 4 OR  F2 [Electricity included in rent] = Yes |
| FILL | **{SuppliersIntro}**  IF F2 [Electricity included in rent] = Yes = “It may be possible to obtain this  Information directly from your electricity supplier.”  OTHERWISE = BLANK  **{FirstNext}**  IF Only one supplier OR F2 [Electricity included in rent] = Yes = BLANK  IF First supplier given = “first”  OTHERWISE = “next” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {SuppliersIntro}  What is the name of the {FirstNext} supplier that provided electricity in 2018? |
| **Interviewer Instructions** | Start by typing a few letters of the supplier name in the search line. If you find a match in the list, select that line.   If you don’t find a match, select the “Other” box, then type in the supplier name. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| Look-up table of electricity suppliers |  |  |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other box selected 🡺 F25 [Supplier name]  IF Supplier selected & F2 [Electricity included in rent] = Yes  🡺 GRT [Section G Routing]  IF Missing 🡺 F33 [Electricity bill available]  OTHERWISE 🡺 F27 [Number electricity accounts] |

|  |  |
| --- | --- |
| **F25** | Supplier name {NewElSup} *EL1NEW-EL4NEW* |
| ASK | IF Other box selected in F24 [Electricity suppliers] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Enter the name of the supplier |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Name given & F2 [Electricity included in rent] = Yes  🡺 GRT [Section G Routing]  IF Missing 🡺 F33 [Electricity bill available]  OTHERWISE 🡺 F27 [Number electricity accounts] |

|  |  |
| --- | --- |
| **F26** | Electricity bill available {ElBillAvailDKNumSup} *ELBILLDK1* |
| ASK | IF F23 [Number electricity suppliers] = Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Can you provide a copy of one electricity bill? There is information on some utility bills that may help energy researchers who use these data. |
| **Interviewer Instructions** | If available, directions for scanning or uploading the bill will be provided at the end of the interview. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 GRT [Section G Routing] |

|  |  |
| --- | --- |
| **F27** | Number electricity accounts {NumElAccts} *EL1NAC-EL4NAC* |
| ASK | IF (Supplier found in F24 [Electricity suppliers] look-up table OR  F25 [Supplier name] given) & **NOT** F2 [Electricity included in rent] = Yes |
| FILL | **{Structure}**  IF interview = Building = “building”  IF interview = Establishment = “establishment”  **{Supplier}** = Supplier name from F24 [Electricity suppliers] look-up table OR  F25 [Supplier name] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many different electricity accounts does this {Structure} have with {Supplier}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | electricity accounts | 1-999 |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF 1 to 10 🡺 F28 [Electricity account number]  IF More than 10 OR DK/Missing 🡺 F32 [Electricity bill available] |

|  |  |
| --- | --- |
| **F28** | Electricity account number {ElAcctNums} *EL1AC1-EL4AC10* |
| ASK | IF F27 [Number electricity accounts] = 1 to10 |
| FILL | **{Number}**  IF Only one account = “number”  OTHERWISE = “numbers”  **{Supplier}** = Supplier name from F24 [Electricity suppliers] look-up table OR  F25 [Supplier name]  **{IsAre]**  IF Only one account = “is”  OTHERWISE = “are” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the electricity account {Number} for {Supplier}. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | What {IsAre} the electricity account {Number} for {Supplier}? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

|  |
| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Enter electricity account number |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF F1 [Provide electricity figures] = No OR Missing) OR  F4 [Electricity consumption] = Missing OR  F6 [Purchased electricity consumption] = Missing  🡺 F29 [Bills cover only building]  OTHERWISE 🡺 F32 [Electricity bill available] |

|  |  |
| --- | --- |
| **F29** | Bills cover only building {OthElBldgs3} *EL1OTB-EL4OTB* |
| ASK | IF F27 [Number electricity accounts] = 1 to 10  & ((F1 [Provide electricity figures] = No OR Missing) OR  F4 [Electricity consumption] = Missing OR  F6 [Purchased electricity consumption] = Missing |
| FILL | **{Bills}**  IF Only one account = “Does the bill or statement”  IF 2 to 10 accounts = “Do the bills or statements”  **{Supplier}** = Supplier name from F24 [Electricity suppliers] look-up table OR  F25 [Supplier name]  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments”  **{Structure(s)}**  IF Interview = Building = “building(s)”  IF Interview = Establishment = “establishment(s)” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {Bills} from {Supplier} cover just this {Structure} or are other {Structures} covered as well? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Just this {Structure} |  |  |
| 2. Other {Structure(s)} |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other {Structure(s)} 🡺 F30 [Sq ft of others included]  IF Just this {Structure} OR Missing 🡺 F31 [Include other major electricity] |

|  |  |
| --- | --- |
| **F30** | Sq ft of others included {OthElSqFt3} *EL1OTS-EL4OTS* |
| ASK | IF F29 [Bills cover only building] = Other {Structure(s)} |
| FILL | **{Bills}**  IF Only one account = “bill or statement”  IF 2 to 10 accounts = “bills or statements”  **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the other {Structures} included on the {Bills}? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1-999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺F31 [Include other major electricity] |

|  |  |
| --- | --- |
| **F31** | Include other major electricity {OthElUse3} *EL1OTU-EL4OTU* |
| ASK | IF F27 [Number electricity accounts] = 1 to 10  & ((F1 [Provide electricity figures] = No OR Missing) OR  F4 [Electricity consumption] = Missing OR  F6 [Purchased electricity consumption] = Missing |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{Bills}**  IF Only one account = “Does the bill or statement”  IF 2 to 10 accounts = “Do the bills or statements” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {Bills} include charges for any other major electricity usage outside the {Structure}, such as electric vehicle charging stations, parking lot lights, exterior lights, signs or billboards, large pumps or swimming pools? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 F32 [Electricity bill available] |

|  |  |
| --- | --- |
| **F32** | Electricity bill available {ElBillsAvailable} *EL1BILL-EL4BILL* |
| ASK | IF F23 [Number electricity suppliers] = 1 to 4 |
| FILL | **{Supplier}**  IF F24 [Electricity suppliers] given = “F24 [Electricity suppliers]”  IF F25 [Supplier name] given = “F25 [Supplier name]”  IF F25 [Supplier name] = Missing = “this supplier” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Can you provide a copy of one electricity bill from {Supplier}? There is information on some utility bills that may help energy researchers who use these data. |
| **Interviewer Instructions** | If available, directions for scanning or uploading the bill will be provided at the end of the interview. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes, bill available |  |  |
| 2. No, will not be able to provide bill |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF More suppliers left to answer for 🡺 Back to F24 [Electricity suppliers] for next supplier  OTHERWISE 🡺 GRT [Section G Routing] |

|  |  |
| --- | --- |
| **F33** | Electricity bill available {ElBillAvailDKSupName} *ELBILLDK2* |
| ASK | IF F24 [Electricity suppliers] = Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Can you provide a copy of one electricity bill? There is information on some utility bills that may help energy researchers who use these data. |
| **Interviewer Instructions** | If available, directions for scanning or uploading the bill will be provided at the end of the interview. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes, bill available |  |  |
| 2. No, will not be able to provide bill |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 GRT [Section G Routing] |

**Section G: Natural Gas**

|  |  |
| --- | --- |
| **GRT** | Section G Routing |
| IF Natural gas used🡺 G1 [Provide natural gas figures]  OTHERWISE 🡺 HRT [Section H Routing] | |

|  |  |
| --- | --- |
| **G1** | Provide natural gas figures {ProvideNGFigs} *NGFIGS* |
| ASK | IF Natural gas used |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | The next questions are about natural gas usage in this {Structure} during calendar year 2018. Are you able to provide the total annual natural gas usage for this {Structure} for 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 G3 [Units for natural gas]  IF No OR Missing:  IF Establishment interview 🡺 G2 [Natural gas included in rent]  IF Building interview 🡺 G23 [Number natural gas suppliers] |

|  |  |
| --- | --- |
| **G2** | Natural gas included in rent {NGInRent} *NGNRENT* |
| ASK | IF Establishment interview & G1 [Provide natural gas figures] = No OR Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is the cost of the natural gas used in this establishment included in the rent? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 G24 [Natural gas suppliers]  IF No/Missing 🡺 G23 [Number natural gas suppliers] |

|  |  |
| --- | --- |
| **G3** | Units for natural gas {NGUnits} *NGUNIT* |
| ASK | IF G1 [Provide natural gas figures] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD G1 |
| **Question Text** | Please look at Show Card G1 and tell me the units in which your natural gas is measured. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | In which of the following units is your natural gas measured? |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Hundred cubic feet (Ccf) |  |  |
| 2. Therms |  |  |
| 3. Thousand cubic feet (Mcf) |  |  |
| 4. Dekatherms |  |  |
| 5. Cubic feet (cf) |  |  |
| 6. Million Btu (MMBtu) |  |  |
| 7. Some other units |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other units 🡺 G4 [Other natural gas units]  OTHERWISE 🡺 G5 [Natural gas consumption] |

|  |  |
| --- | --- |
| **G4** | Other natural gas units {NGOthUnits} *NGUNITX* |
| ASK | IF G3 [Units for natural gas] = Some other units |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

|  |
| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Enter other units |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 G5 [Natural gas consumption] |

|  |  |
| --- | --- |
| **G5** | Natural gas consumption {NGCons}  *NGCNS* |
| ASK | IF G1 [Provide natural gas figures] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the total amount of natural gas used in calendar year 2018. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | What was the total amount of natural gas used in calendar year 2018? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | units of natural gas | 1-99,999,999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Missing 🡺 G23 [Number natural gas suppliers]  OTHERWISE 🡺 G6 [Natural gas expenditures] |

|  |  |
| --- | --- |
| **G6** | Natural gas expenditures {NGExp} *NGEXP* |
| ASK | IF G5 [Natural gas consumption] given |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the total dollars spent on natural gas in 2018. This should include state and local taxes and all charges such as: fuel adjustment, system, demand, and distribution. |
| **Interviewer Instructions** | Do not enter cents |
| **QUESTION TEXT – web** | |
| **Question Text** | How much was spent on natural gas in 2018? This should include state and local taxes and all charges such as: fuel adjustment, system, demand, and distribution. |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter dollar amount | None | 0-999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 G7 [Starting date for natural gas figures] |

|  |  |
| --- | --- |
| **G7** | Starting date for natural gas figures {NGStartDate} *NGSTDAT* |
| ASK | IF G5 [Natural gas consumption] given |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the starting date for these natural gas usage figures? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric String Text **X** Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Date*** | | |
| **Watermark** |  |  |
| mm/dd/yyyy |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 G8 [Ending date for natural gas figures] |

|  |  |
| --- | --- |
| **G8** | Ending date for natural gas figures {NGEndDate} *NGENDAT* |
| ASK | IF G5 [Natural gas consumption] given |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the ending date for these natural gas usage figures? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric String Text **X** Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Date*** | | |
| **Watermark** |  |  |
| mm/dd/yyyy |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building interview & (C5 [Number of businesses] > 1 OR  C6 [Number of businesses category] ≠ Zero OR One) THEN:  IF CBECS Activity ≠ Enclosed mall 🡺 G9 [All occupants natural gas included]  IF CBECS Activity = Enclosed mall 🡺 G11 [Natural gas covers whole mall]  OTHERWISE 🡺 G15 [Other bldgs natural gas included] |

|  |  |
| --- | --- |
| **G9** | All occupants natural gas included {AllOccNG1} *NGALL* |
| ASK | IF Building interview & G5 [Natural gas consumption] given &  (C5 [Number of businesses] >1 OR C6 [Number of businesses category] ≠ Zero  OR One) & CBECS Activity ≠ Enclosed mall |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Do these figures include the natural gas for all of the businesses or organizations in this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF No 🡺 G10 [Sq ft not included]  OTHERWISE 🡺 G15 [Other bldgs natural gas included] |

|  |  |
| --- | --- |
| **G10** | Sq ft not included {NonNGSqFt1} *NGNISF* |
| ASK | IF G9 [All occupants natural gas included] = No |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the space in the building that is not included in these figures? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1 to 999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| **NEXT** | 🡺 G18 [Include other major natural gas] |

|  |  |
| --- | --- |
| **G11** | Natural gas covers whole mall {NGMallInclude} *NGMLLINC* |
| ASK | IF G5 [Natural gas consumption] given & (C5 [Number of businesses] >1 OR  C6 [Number of businesses category] ≠ Zero OR One)  & CBECS Activity = Enclosed mall |
| FILL | **{FoodCourt}**  IF B41 [Food court] = Yes = “food court,”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Do these figures include the natural gas for the entire mall building, including the anchor stores, {FoodCourt} common areas, and individual stores? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF No 🡺 G12 [Not included in mall natural gas]  OTHERWISE 🡺 G15 [Other bldgs natural gas included] |

|  |  |
| --- | --- |
| **G12** | Not included in mall natural gas {WhatNGMallExclude} *see below* |
| ASK | IF G11 [Natural gas covers whole mall] = No |
| FILL | **{FoodCourt}**  IF B41 [Food court] = Yes = “Food court”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Which areas are not included? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Anchor stores |  | *NGMLLANC* |
| 2. {FoodCourt} |  | *NGMLLFC* |
| 3. Common areas |  | *NGMLLCOM* |
| 4. Individual stores |  | *NGMLLST* |
| 5. Other |  | *NGMLLOT* |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other selected 🡺 G13 [Other not included in mall natural gas]  OTHERWISE 🡺 G14 [Mall sq ft not included] |

|  |  |
| --- | --- |
| **G13** | Other not included in mall natural gas {OtherNGMallExclude} *NGMLLOTX* |
| ASK | If Other IN G12 [Not included in mall natural gas] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Briefly describe the other type of area that is not included |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 G14 [Mall sq ft not included] |

|  |  |
| --- | --- |
| **G14** | Mall sq ft not included {NonNGMallSqFt1} *NGNMLLSF* |
| ASK | IF G11 [Natural gas covers whole mall] = No |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the space in the building that is not included in these figures? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1-999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 G18 [Include other major natural gas] |

|  |  |
| --- | --- |
| **G15** | Other bldgs natural gas included {OthNGBldgs1} *NGOTBD* |
| ASK | IF (Establishment interview & G5 [Natural gas consumption] given) OR  (Building interview & G5 [Natural gas consumption] given  & G9 [All occupants natural gas included] ≠ No  & G11 [Natural gas covers whole mall] ≠ No) |
| FILL | **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is any consumption from other {Structures} included in these figures? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 G16 [Sq ft of other included]  IF No OR Missing:  IF B50 [Central physical plant] = Yes & B55 [Central plant in building] = In another building 🡺 G17 [Central plant natural gas included]  OTHERWISE 🢂 G18 [Include other major natural gas] |

|  |  |
| --- | --- |
| **G16** | Sq ft of other included {OthNGSqFt1} *NGOTSF* |
| ASK | IF G15 [Other bldgs natural gas included] = Yes |
| FILL | **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the other {Structures} that are included in these figures? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1-999,999,999 |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF B50 [Central physical plant] = Yes & B55 [Central plant in building] = In another  building 🡺 G17 [Central plant natural gas included]  OTHERWISE 🢂 G18 [Include other major natural gas] |

|  |  |
| --- | --- |
| **G17** | Central plant natural gas included {PlantNGIncl} *PLTNGINC* |
| ASK | IF G5 [Natural gas consumption] given & G9 [All occupants natural gas included] ≠ No & G11 [Natural gas covers whole mall] ≠ No  & B50 [Central physical plant] = Yes  & B55 [Central plant in building] = In another building |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Earlier you reported that there is a central plant on this campus. Do these figures include any natural gas that was used in the central plant? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 G18 [Include other major natural gas] |

|  |  |
| --- | --- |
| **G18** | Include other major natural gas {OthNGUse1} *NGOTUS* |
| ASK | IF G5 [Natural gas consumption] given |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Do these figures include charges for any other major natural gas usage outside the {Structure}, such as kilns, gas space heaters, exterior or decorative lighting, compressed natural gas vehicles, or pumps not used in the {Structure}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes & Building interview 🡺 G19 [Outside uses included in natural gas]  IF No OR Missing/DK & Building interview  🡺 G21 [Anything unusual about natural gas use]  IF Establishment interview 🡺 G23 [Number natural gas suppliers] |

|  |  |
| --- | --- |
| **G19** | Outside uses included in natural gas {WhatNGUse} *see below* |
| ASK | IF G18 [Include other major natural gas] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD G2 |
| **Question Text** | Looking at the list on Show Card G2, please tell me which of these outside uses is included in the natural gas figures. |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | Which of these outside uses is included in the natural gas figures? |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Kilns |  | *NGOUTKLN* |
| 2. Gas space heaters |  | *NGOUTHTR* |
| 3. Exterior decorative lights |  | *NGOUTLTS* |
| 4. Compressed natural gas vehicles |  | *NGOUTVEH* |
| 5. Pumps not used in the building |  | *NGOUTPMP* |
| 6. Other |  | *NGOUTOT* |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other selected 🡺 G20 [Other type of outside natural gas use]  OTHERWISE 🡺 G21 [Anything unusual about natural gas use] |

|  |  |
| --- | --- |
| **G20** | Other type of outside natural gas use {OtherNGUse1} *NGOUTOTX* |
| ASK | If Other IN G19 [Outside uses included in natural gas] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** | |
| ***String Text*** | |
| **Watermark** |  |
| Briefly describe this other type of outside natural gas use | |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 G21 [Anything unusual about natural gas use] |

|  |  |
| --- | --- |
| **G21** | Anything unusual about natural gas use {AnythingUnusualNGUse}*NGUNUSUAL* |
| ASK | IF Building interview & G5 [Natural gas consumption] given |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is there anything about this building that would make the natural gas consumption higher or lower than average? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 G22 [What is unusual about natural gas use]  OTHERWISE 🡺 G23 [Number natural gas suppliers] |

|  |  |
| --- | --- |
| **G22** | What is unusual about natural gas use {WhatUnusualNGUse} *NGUNUSUALX* |
| ASK | IF G21 [Anything unusual about natural gas use] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Describe what is unusual about the building. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 G23 [Number natural gas suppliers] |

|  |  |
| --- | --- |
| **G23** | Number natural gas suppliers {NumNGSupplier} *NGNUMSP* |
| ASK | IF (Building interview & Natural gas used) OR (Establishment interview &  (G1 [Provide natural gas figures] = Yes OR G2 [Natural gas included in rent] = No/Missing) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{SuppliersIntro}**  IF G1 [Provide natural gas figures] = No OR Missing OR  G5 [Natural gas consumption] = Missing = “It may be possible to obtain this  information directly from your natural gas supplier.”  OTHERWISE =  “The next questions are about your natural gas supplier or suppliers.” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {SuppliersIntro}  How many different companies supplied natural gas to this {Structure} during calendar year 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | suppliers | 1-4 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF 1 to 4 🡺 G24 [Natural gas suppliers]  IF Missing 🡺 G26 [Natural gas bill available] |

|  |  |
| --- | --- |
| **G24** | Natural gas suppliers {NGSupplier} *NG1LKP-NG4LKP* |
| ASK | IF G23 [Number natural gas suppliers] = 1 to 4 OR  (Establishment interview & G2 [Natural gas included in rent] = Yes) |
| FILL | **{FirstNext}**  IF Only one supplier OR (Establishment interview  & G2 [Natural gas included in rent] = Yes) = BLANK  IF First supplier given = “first”  OTHERWISE = “next”  **{SuppliersIntro}**  IF Establishment interview & G2 [Natural gas included in rent] = Yes = “It may be  possible to obtain this information directly from your natural gas supplier.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the name of the {FirstNext} supplier that provided natural gas during 2018? |
| **Interviewer Instructions** | Start by typing a few letters of the supplier name in the search line. If you find a match in the list, select that line.  If you don’t find a match, select the “Other” box, then type in the supplier name. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| Look-up table of natural gas suppliers |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other box selected 🡺 G25 [Supplier name]  IF Supplier selected & G2 [Natural gas included in rent] = Yes  🡺 HRT [Section H Routing]  IF Missing 🡺 G33 [Natural gas bill available]  OTHERWISE 🡺 G27 [Number natural gas accounts] |

|  |  |
| --- | --- |
| **G25** | Supplier name {NewNGSup} *NG1NEW-NG4NEW* |
| ASK | IF Other box selected in G24 [Natural gas suppliers] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Enter the name of the supplier |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Name given & G2 [Natural gas included in rent] = Yes  🡺 HRT [Section H Routing]  IF Missing 🡺 G32 [Natural gas bill available]  OTHERWISE 🡺 G27 [Number natural gas accounts] |

|  |  |
| --- | --- |
| **G26** | Natural gas bill available {NGBillAvailDKNumSup} *NGBILLDK1* |
| ASK | IF G23 [Number natural gas suppliers] = Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Can you provide a copy of one natural gas bill? There is information on some utility bills that may help energy researchers who use these data. |
| **Interviewer Instructions** | If available, directions for scanning or uploading the bill will be provided at the end of the interview. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes, bill available |  |  |
| 2. No, will not be able to provide bill |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 HRT [Section H Routing] |

|  |  |
| --- | --- |
| **G27** | Number natural gas accounts {NumNGAccts} *NG1NAC-NG4NAC* |
| ASK | IF Supplier found in G24 [Natural gas suppliers] look-up table OR  G25 [Supplier name] given & G2 [Natural gas included in rent] ≠ Yes |
| FILL | **{Supplier}** = Supplier name from G24 [Natural gas suppliers] look-up table OR  G25 [Supplier name]  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many different natural gas accounts does this {Structure} have with {Supplier}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | natural gas accounts | 1-999 |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF 1 to 10 accounts 🡺 G28 [Natural gas account number]  IF More than 10 accounts OR DK/Missing 🡺 G32 [Natural gas bill available] |

|  |  |
| --- | --- |
| **G28** | Natural gas account number {NGAcctNums} *NG1AC1-NG4AC10* |
| ASK | IF G27 [Number natural gas accounts] = 1 to 10 |
| FILL | **{Number}**  IF Only one account = “number”  OTHERWISE = “numbers”  **{Supplier}** = Supplier name from G24 [Natural gas suppliers] look-up table OR  G25 [Supplier name]  **{IsAre]**  IF Only one account = “is”  OTHERWISE = “are” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the natural gas account {Number} for {Supplier}. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | What {IsAre} the natural gas account {Number} for {Supplier}? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

|  |
| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Enter natural gas account number |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF G1 [Provide natural gas figures] = No OR Missing OR  G5 [Natural gas consumption] = Missing 🡺 G29 [Bills cover only building]  OTHERWISE 🡺 G32 [Natural gas bill available] |

|  |  |
| --- | --- |
| **G29** | Bills cover only building {OthNGBldgs3} *NG1OTB-NG4OTB* |
| ASK | IF G27 [Number natural gas accounts] = 1 to 10 &  ((G1 [Provide natural gas figures] = No OR Missing) OR G5 [Natural gas  consumption] = Missing) |
| FILL | **{Bills}**  IF Only one account = “Does the bill or statement”  IF 2 to 10 accounts = “Do the bills or statements”  **{Supplier}** = Supplier name from G24 [Natural gas suppliers] look-up table OR G25 [Supplier name]  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments”  **{Structure(s)}**  IF Interview = Building = “building(s)”  IF Interview = Establishment = “establishment(s)” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {Bills} from {Supplier} cover just this {Structure} or are other {Structures} covered as well? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Just this {Structure} |  |  |
| 2. Other {Structure(s)} |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other {Structure(s)} 🡺 G30 [Sq ft of others included]  IF Just this {Structure} OR Missing 🡺 G31 [Include other major natural gas] |

|  |  |
| --- | --- |
| **G30** | Sq ft of others included {OthNGSqFt3} *NG1OTS-NG4OTS* |
| ASK | IF G29 [Bills cover only building] = Other {Structure(s)} |
| FILL | **{Bills}**  IF Only one account = “bill or statement”  IF 2 to 10 accounts = “bills or statements”  **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the other {Structures} included on the {Bills}? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1-999,999,999 |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺G31 [Include other major natural gas] |

|  |  |
| --- | --- |
| **G31** | Include other major natural gas {OthNGUse3} *NG1OTU-NG4OTU* |
| ASK | IF G27 [Number natural gas accounts] = 1 to 10  & ((G1 [Provide natural gas figures] = No OR Missing) OR  G5 [Natural gas consumption] = Missing) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{Bills}**  IF Only one account = “Does the bill or statement”  IF 2 to 10 accounts = “Do the bills or statements” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {Bills} include charges for any other major natural gas usage outside the {Structure}, such as for kilns, gas space heaters, exterior or decorative lighting, compressed natural gas vehicles, or pumps not used in the {Structure}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺G32 [Natural gas bill available] |

|  |  |
| --- | --- |
| **G32** | Natural gas bill available {NGBillAvailable} *NG1BILL-NG4BILL* |
| ASK | IF G23 [Number natural gas suppliers] = 1 to 4 |
| FILL | **{Supplier}**  IF G24 [Natural gas suppliers] given = “G24 [Natural gas suppliers]”  IF G25 [Supplier name] given = “G25 [Supplier name]”  IF G25 [Supplier name] = Missing = “this supplier” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Can you provide a copy of one natural gas bill from {Supplier}? There is information on some utility bills that may help energy researchers who use these data. |
| **Interviewer Instructions** | If available, directions for scanning or uploading the bill will be provided at the end of the interview. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes, bill available |  |  |
| 2. No, will not be able to provide bill |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF More suppliers left to answer for 🡺 Back to G24 [Natural gas suppliers] for next supplier  OTHERWISE 🡺 HRT [Section H Routing] |

|  |  |
| --- | --- |
| **G33** | Natural gas bill available {NGBillAvailDKSupName} *NGBILLDK2* |
| ASK | IF G24 [Natural gas suppliers] = Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Can you provide a copy of one natural gas bill? There is information on some utility bills that may help energy researchers who use these data. |
| **Interviewer Instructions** | If available, directions for scanning or uploading the bill will be provided at the end of the interview. |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes, bill available |  |  |
| 2. No, will not be able to provide bill |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 HRT [Section H Routing] |

**Section H: Fuel Oil/Diesel/Kerosene**

|  |  |
| --- | --- |
| **HRT** | Section H Routing |
| IF Fuel oil used🡺 H1 [Provide fuel oil figures]  OTHERWISE 🡺 IRT [Section I Routing] | |

**Note:** In ASK and NEXT instructions in this section, “Fuel oil” refers to fuel oil, diesel, or kerosene.

|  |  |
| --- | --- |
| **H1** | Provide fuel oil figures {ProvideFOFigs} *FKFIGS* |
| ASK | IF Fuel oil used |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | The next questions are about {FuelOilType} purchases for this {Structure} during calendar year 2018. Are you able to report how much {FuelOilType} was purchased for this {Structure} during 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 H2 [Fuel oil purchases]  IF No OR Missing:  IF Fuel oil IN D22 [Source for main heating] OR  D23 [Other source for main heating] OR D131 [Sources for water heating] OR  D132 [Other water heating source] OR  (D145 [Sources for electricity generation] = Fuel oil  & D146 [Use of generated electricity] = Whenever electricity was used)  🡺 H14 [Number fuel oil suppliers]  OTHERWISE 🡺 IRT [Section I Routing] |

|  |  |
| --- | --- |
| **H2** | Fuel oil purchases {FOCons}  *FKCNS* |
| ASK | IF H1 [Provide fuel oil figures] = Yes |
| FILL | **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the total number of gallons of {FuelOilType} purchased in calendar year 2018. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | What was the total number of gallons of {FuelOilType} purchased in calendar year 2018? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | gallons | 0-99,999,999,999,999 |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 H3 [Fuel oil expenditures] |

|  |  |
| --- | --- |
| **H3** | Fuel oil expenditures {FOExp} *FKEXP* |
| ASK | IF H1 [Provide fuel oil figures] = Yes |
| FILL | **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the total dollars spent on {FuelOilType} in 2018, including state and local taxes. |
| **Interviewer Instructions** | Do not enter cents |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | How much was spent on {FuelOilType} in 2018, including state and local taxes? |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter dollar amount | None | 0-999,999,999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF (H2 [Fuel oil purchases] = 0 OR Missing) &  (H3 [Fuel oil expenditures] = 0 OR Missing) 🡺 H4 [Purchased before 2018]  OTHERWISE 🡺 H5 [Starting date for fuel oil figures] |

|  |  |
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| **H4** | Purchased before 2018 {FOPurchPast} *FKSTORD* |
| ASK | IF (H2 [Fuel oil purchases] = 0 OR Missing) & (H3 [Fuel oil expenditures] = 0 OR Missing) |
| FILL | **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Was any of the {FuelOilType} that was used in 2018 purchased or delivered in 2017 or before? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 IRT [Section I Routing] |

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| **H5** | Starting date for fuel oil figures {FOStartDate} *FKSTDAT* |
| ASK | IF H2 [Fuel oil purchases] > 0 OR H3 [Fuel oil expenditures] > 0 |
| FILL | **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the first delivery date for these {FuelOilType} purchases? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric String Text **X** Date |

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| **RESPONSE OPTIONS** | | |
| ***Date*** | | |
| **Watermark** |  |  |
| mm/dd/yyyy |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 H6 [Ending date for fuel oil figures] |

|  |  |
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| **H6** | Ending date for fuel oil figures {FOEndDate} *FKENDAT* |
| ASK | IF H2 [Fuel oil purchases] > 0 OR H3 [Fuel oil expenditures] > 0 |
| FILL | **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the last delivery date for these {FuelOilType} purchases? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric String Text **X** Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Date*** | | |
| **Watermark** |  |  |
| mm/dd/yyyy |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building interview & (C5 [Number of businesses] >1 OR  C6 [Number of businesses category] ≠ Zero OR One)  🡺 H7 [All occupants fuel oil included]  OTHERWISE 🡺 H9 [Other bldgs fuel oil included] |

|  |  |
| --- | --- |
| **H7** | All occupants fuel oil included {AllOccFO1} *FKALL* |
| ASK | IF Building interview  & (H2 [Fuel oil purchases] > 0 OR H3 [Fuel oil expenditures] > 0)  & (C5 [Number of businesses] > 1 OR C6 [Number of businesses category] ≠  Zero OR One) |
| FILL | **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Do these figures include the {FuelOilType} for all of the businesses or organizations in this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
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| NONRESPONSE | **X**  Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF No 🡺 H8 [Sq ft not included]  OTHERWISE 🡺 H9 [Other bldgs fuel oil included] |

|  |  |
| --- | --- |
| **H8** | Sq ft not included {NonFOSqFt1} *FKNISF* |
| ASK | IF H7 [All occupants fuel oil included] = No |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the space in the building that is not included in these figures? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1 to 999,999,999 |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| **NEXT** | 🡺 H11 [Include other major fuel oil] |

|  |  |
| --- | --- |
| **H9** | Other bldgs fuel oil included {OthFOBldgs1} *FKOTBD* |
| ASK | IF (H2 [Fuel oil purchases] > 0 OR H3 [Fuel oil expenditures] > 0)  & (Establishment interview  OR Building interview & NOT H7 [All occupants fuel oil included] = No) |
| FILL | **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is any consumption from other {Structures} included in these figures? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 H10 [Sq ft of other included]  OTHERWISE 🡺 H11 [Include other major fuel oil] |

|  |  |
| --- | --- |
| **H10** | Sq ft of other included {OthFOSqFt1} *FKOTSF* |
| ASK | IF H9 [Other bldgs fuel oil included] = Yes |
| FILL | **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the other {Structures} that are included in these figures? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1-999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🢂 H11 [Include other major fuel oil] |

|  |  |
| --- | --- |
| **H11** | Include other major fuel oil {OthFOUse1} *FKOTUS* |
| ASK | IF H2 [Fuel oil purchases] > 0 OR H3 [Fuel oil expenditures] > 0 |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Do these figures include charges for any other major {FuelOilType} usage outside the {Structure}, such as kilns, welding, pumps or motors? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building interview 🡺 H12 [Anything unusual about fuel oil use]  IF Establishment interview & (Fuel oil IN D22 [Source for main heating] OR  D23 [Other source for main heating] OR D131 [Sources for water heating] OR  D132 [Other water heating source] OR (D145 [Sources for electricity generation]  = Fuel oil & D146 [Use of generated electricity] = Whenever electricity was  used) 🡺 H14 [Number fuel oil suppliers]  OTHERWISE 🡺 IRT [Section I Routing] |

|  |  |
| --- | --- |
| **H12** | Anything unusual about fuel oil use {FOUnusual} *FKUNUSUAL* |
| ASK | IF Building interview  & (H2 [Fuel oil purchases] > 0 OR H3 [Fuel oil expenditures] > 0) |
| FILL | **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is there anything about this building that would make the {FuelOilType} consumption higher or lower than average? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 H13 [What is unusual about fuel oil use]  OTHERWISE:  IF Fuel oil IN D22 [Source for main heating] OR  D23 [Other source for main heating] OR D131 [Sources for water heating] OR  D132 [Other water heating source] OR  (D145 [Sources for electricity generation] = Fuel oil  & D146 [Use of generated electricity] = Whenever electricity was used)  🡺 H14 [Number fuel oil suppliers]  OTHERWISE 🡺 IRT [Section I Routing] |

|  |  |
| --- | --- |
| **H13** | What is unusual about fuel oil use {WhatUnusualFOUse} *FKUNUSUALX* |
| ASK | IF H12 [Anything unusual about fuel oil use] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Describe what is unusual about the building. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| ***String Text*** |
| **Watermark** |
| None |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | IF Fuel oil IN D22 [Source for main heating] OR  D23 [Other source for main heating] OR D131 [Sources for water heating] OR  D132 [Other water heating source] OR (D145 [Sources for electricity generation]  = Fuel oil & D146 [Use of generated electricity] = Whenever electricity was  used) 🡺 H14 [Number fuel oil suppliers]  OTHERWISE 🡺 IRT [Section I Routing] |

|  |  |
| --- | --- |
| **H14** | Number fuel oil suppliers {NumFOSupplier} *FKNUMSP* |
| ASK | IF Fuel oil IN D22 [Source for main heating] OR  D23 [Other source for main heating] OR D131 [Sources for water heating] OR  D132 [Other water heating source] OR (D145 [Sources for electricity generation]  = Fuel oil & D146 [Use of generated electricity] = Whenever electricity was used)  & NOT ((H2 [Fuel oil purchases] = 0 OR Missing) & (H3 [Fuel oil expenditures] =  0 OR Missing)) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{SuppliersIntro}**  IF H1 [Provide fuel oil figures] = No OR Missing = “It may be possible to obtain this information directly from your supplier.”  OTHERWISE = “The next questions are about your supplier or suppliers.”  **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {SuppliersIntro}  How many different companies supplied {FuelOilType} to this {Structure} during calendar year 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | suppliers | 1-4 |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF 1 to 4 🡺 H15 [Fuel oil supplier name]  IF Missing 🡺 H16 [Fuel oil bill available] |

|  |  |
| --- | --- |
| **H15** | Fuel oil supplier name {FOSupName} *FK1SUP-FK4SUP* |
| ASK | IF H14 [Number fuel oil suppliers] = 1 to 4 |
| FILL | **{FirstNext}**  IF Only one supplier = BLANK  IF First supplier given = “first”  OTHERWISE = “next”  **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the name of the {FirstNext} supplier that provided {FuelOilType} during 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Enter the name of the supplier |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Name given 🡺 H17 [Street address]  IF Missing 🡺 H28 [Fuel oil bill available] |

|  |  |
| --- | --- |
| **H16** | Fuel oil bill available {FOBillAvailDKNumSup} *FKBILL* |
| ASK | IF H14 [Number fuel oil suppliers] = Missing |
| FILL | **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene] |
| DISPLAY INSTRUCTIONS | N/A |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Can you provide a copy of one {FuelOilType} bill? There is information on some utility bills that may help energy researchers who use these data. |
| **Interviewer Instructions** | If available, directions for scanning or uploading the bill will be provided at the end of the interview. |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes, bill available |  |  |
| 2. No, will not be able to provide bill |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 IRT [Section I Routing] |

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| --- | --- |
| **H17** | Street address {FOSupAddr1} *FK1AD1-FK4AD1* |
| ASK | IF Name given in H15 [Fuel oil supplier name] |
| FILL | **{Supplier}** = H15 [Fuel oil supplier name] |
| DISPLAY | H17-H21 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the address for {Supplier}, beginning with the street address?  Street address: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | What is the address for {Supplier}?  Street address: |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 H18 [P.O. Box or Suite] |

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| --- | --- |
| **H18** | P.O. Box or Suite {FOSupAddr2} *FK1AD2-FK4AD2* |
| ASK | IF Name given in H15 [Fuel oil supplier name] |
| FILL | N/A |
| DISPLAY | H17-H21 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | P.O. Box or suite number: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 H19 [City] |

|  |  |
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| **H19** | City {FOSupCity}  *FK1CTY-FK4CTY* |
| ASK | IF Name given in H15 [Fuel oil supplier name] |
| FILL | N/A |
| DISPLAY | H17-H21 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | City: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 H20 [State abbreviation] |

|  |  |
| --- | --- |
| **H20** | State abbreviation {FOSupState} *FK1STA-FK4STA* |
| ASK | IF Name given in H15 [Fuel oil supplier name] |
| DISPLAY | H17-H21 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | State: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| State drop-down list with “Select a state” as watermark. Alphabetic order by state name, beginning with state abbreviation. Example : AL - ALABAMA |  |  |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 H21 [ZIP code] |

|  |  |
| --- | --- |
| **H21** | ZIP code {FOSupZip} *FK1ZIP-FK4ZIP* |
| ASK | IF Name given in H15 [Fuel oil supplier name] |
| DISPLAY | H17-H21 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | ZIP code: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| None | None | 00000-99999 |

|  |  |
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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 H22 [Number fuel oil accounts] |

|  |  |
| --- | --- |
| **H22** | Number fuel oil accounts {NumFOAccts} *FK1NAC-FK4NAC* |
| ASK | IF Name given in H15 [Fuel oil supplier name] |
| FILL | **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene]  **{Supplier}** = “H15 [Fuel oil supplier name]”  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many different {FuelOilType} accounts does this {Structure} have with {Supplier}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | accounts | 1-999 |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF 1 to 10 accounts 🡺 H23 [Fuel oil account number]  IF More than 10 accounts OR DK/Missing 🡺 H27 [Fuel oil bill available] |

|  |  |
| --- | --- |
| **H23** | Fuel oil account number {FOAcctNums} *FK1AC1-FK4AC10* |
| ASK | IF H22 [Number of fuel oil accounts] = 1 to 10 |
| FILL | **{Number}**  IF Only one account = “number”  OTHERWISE = “numbers”  **{Supplier}** = Supplier name from H15 [Fuel oil supplier name]  **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene]  **{IsAre]**  IF Only one account = “is”  OTHERWISE = “are” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the {FuelOilType} account {Number} for {Supplier}. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | What {IsAre} the {FuelOilType} account {Number} for {Supplier}? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Enter account number |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF H1 [Provide fuel oil figures] = No OR Missing 🡺 H24 [Bills cover only building]  OTHERWISE 🡺 H27 [Fuel oil bill available] |

|  |  |
| --- | --- |
| **H24** | Bills cover only building {OthFOBldgs3} *FK1OTB-FK4OTB* |
| ASK | IF H22 [Number fuel oil accounts] = 1 to 10 & (H1 [Provide fuel oil figures] = No OR Missing) |
| FILL | **{Bills}**  IF Only one account = “Does the bill or statement”  IF 2 to 10 accounts = “Do the bills or statements”  **{Supplier}** = H15 [Fuel oil supplier name]  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments”  **{Structure(s)}**  IF Interview = Building = “building(s)”  IF Interview = Establishment = “establishment(s)” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {Bills} from {Supplier} cover just this {Structure} or are other {Structures} covered as well? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Just this {Structure} |  |  |
| 2. Other {Structure(s)} |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other {Structure(s)} 🡺 H25 [Sq ft of others included]  IF Just this {Structure} OR Missing 🡺 H26 [Include other major fuel oil] |

|  |  |
| --- | --- |
| **H25** | Sq ft of others included {OthFOSqFt3} *FK1OTS-FK4OTS* |
| ASK | IF H24 [Bills cover only building] = Other {Structure(s)} |
| FILL | **{Bills}**  IF Only one account = “bill or statement”  IF 2 to 10 accounts = “bills or statements”  **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the other {Structures} included on the {Bills}? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1-999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺H26 [Include other major fuel oil] |

|  |  |
| --- | --- |
| **H26** | Include other major fuel oil {OthFOUse3} *FK1OTU-FK4OTU* |
| ASK | IF H22 [Number fuel oil accounts] = 1 to 10 & (H1 [Provide fuel oil figures] = No OR Missing) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{Bills}**  IF Only one account = “Does the bill or statement”  IF 2 to 10 accounts = “Do the bills or statements”  **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene] |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {Bills} include charges for any other major {FuelOilType} usage outside the {Structure}, such as for kilns, welding, pumps, or motors? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺H27 [Fuel oil bill available] |

|  |  |
| --- | --- |
| **H27** | Fuel oil bill available {FOBillAvailable} *FK1BILL-FK4BILL* |
| ASK | IF H14 [Number fuel oil suppliers] = 1 to 4 & NOT H15 [Fuel oil supplier name] = Missing |
| FILL | **{FuelOilType}** = Type or types specified in D16 [Fuel oil, diesel, or kerosene]  **{Supplier}** = “H15 [Fuel oil supplier name]” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Can you provide a copy of one {FuelOilType} bill from {Supplier}? There is information on some utility bills that may help energy researchers who use these data. |
| **Interviewer Instructions** | If available, directions for scanning or uploading the bill will be provided at the end of the interview. |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required. |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes, bill available |  |  |
| 2. No, will not be able to provide bill |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF More suppliers left to answer for 🡺 Back to H15 [Fuel oil supplier name] for next supplier  OTHERWISE 🡺 IRT [Section I Routing] |

|  |  |
| --- | --- |
| **H28** | Fuel oil bill available {FkBillAvailDKSupName} *FKBILLDK2* |
| ASK | IF H15 [Fuel oil suppliers] = Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Can you provide a copy of one natural gas bill? There is information on some utility bills that may help energy researchers who use these data. |
| **Interviewer Instructions** | If available, directions for scanning or uploading the bill will be provided at the end of the interview. |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes, bill available |  |  |
| 2. No, will not be able to provide bill |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 IRT [Section I Routing] |

**Section I: District Steam**

|  |  |
| --- | --- |
| **IRT** | Section I Routing |
| IF District steam used &  NOT (D27 [Where does steam come from] = From a boiler inside this building OR  D64 [Where does steam come from] = From a boiler inside this building)  🡺 I1 [Provide district steam figures]  OTHERWISE 🡺 JRT [Section J Routing] | |

|  |  |
| --- | --- |
| **I1** | Provide district steam figures {ProvideStFigs} *STFIGS* |
| ASK | IF District steam used &  NOT (D27 [Where does steam come from] = From a boiler inside this building  OR D64 [Where does steam come from] = From a boiler inside this building) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | The next questions are about district steam usage in this {Structure} during calendar year 2018. Are you able to report how much district steam was used in this {Structure} during 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 I2 [Units for district steam]  IF No OR Missing:  IF D18 [From central plant] ≠ Yes OR  D27 [Where does steam come from] = From a district steam utility OR  D64 [Where does steam come from] = From a district steam utility  🡺 I12 [District steam supplier name]  OTHERWISE 🡺 JRT [Section J Routing] |

|  |  |
| --- | --- |
| **I2** | Units for district steam {StUnits} *STUNIT* |
| ASK | IF I1 [Provide district steam figures] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | SHOW CARD I1 |
| **Question Text** | Please look at Show Card I1 and tell me the units in which your district steam is measured. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | In which of the following units is your district steam is measured? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Thousand pounds |  |  |
| 2. Pounds |  |  |
| 3. Million Btu (MMBtu) |  |  |
| 4. Some other units |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Some other units 🡺 I3 [Other district steam units]  OTHERWISE 🡺 I4 [District steam consumption] |

|  |  |
| --- | --- |
| **I3** | Other district steam units {StOthUnits} *STUNITX* |
| ASK | IF I2 [Units for district steam] = Some other units |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | N/A – other specify box – see watermark |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

|  |
| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Enter other units |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 I4 [District steam consumption] |

|  |  |
| --- | --- |
| **I4** | District steam consumption {StCons}  *STCNS* |
| ASK | IF I1 [Provide district steam figures] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the total amount of district steam used in calendar year 2018. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | What was the total amount of district steam used in calendar year 2018? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | units of steam | 1-99,999,999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Missing THEN:  IF D18 [From central plant] ≠ Yes OR  D27 [Where does steam come from] = From a district steam utility OR  D64 [Where does steam come from] = From a district steam utility  🡺 I12 [District steam supplier name]  OTHERWISE 🡺 JRT [Section J Routing]  OTHERWISE 🡺 I5 [District steam expenditures] |

|  |  |
| --- | --- |
| **I5** | District steam expenditures {StExp} *STEXP* |
| ASK | IF I4 [District steam consumption] given |
| FILL | N/A |
| DISPLAY INSTRUCTIONS | N/A |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the total dollars spent on district steam in 2018, including state and local taxes. |
| **Interviewer Instructions** | Do not enter cents |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | How much was spent on district steam in 2018, including state and local taxes? |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter dollar amount | None | 0-999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 I6 [Starting date for district steam figures] |

|  |  |
| --- | --- |
| **I6** | Starting date for district steam figures {StStartDate} *STSTDAT* |
| ASK | IF I4 [District steam consumption] given |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the starting date for these district steam usage figures? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric String Text **X** Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Date*** | | |
| **Watermark** |  |  |
| mm/dd/yyyy |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 I7 [Ending date for district steam figures] |

|  |  |
| --- | --- |
| **I7** | Ending date for district steam figures {StEndDate} *STENDAT* |
| ASK | IF I4 [District steam consumption] given |
| FILL | N/A |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the ending date for these district steam usage figures? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric String Text **X** Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Date*** | | |
| **Watermark** |  |  |
| mm/dd/yyyy |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building interview & (C5 [Number of businesses] > 1 OR  C6 [Number of businesses category] ≠ Zero OR One)  🡺 I8 [All occupants steam included]  OTHERWISE 🡺 I10 [Other bldgs steam included] |

|  |  |
| --- | --- |
| **I8** | All occupants steam included {AllOccSt1} *STALL* |
| ASK | IF Building interview & I4 [District steam consumption] given  & (C5 [Number of businesses] > 1 OR C6 [Number of businesses category] ≠  Zero OR One) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Do these figures include the district steam for all of the businesses or organizations in this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF No 🡺 I9 [Sq ft not included]  OTHERWISE 🡺 I10 [Other bldgs steam included] |

|  |  |
| --- | --- |
| **I9** | Sq ft not included {NonStSqFt1} *STNISF* |
| ASK | IF I8 [All occupants steam included] = No |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the space in the building that is not included in these figures? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1 to 999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| **NEXT** | IF D18 [From central plant] ≠ Yes OR  D27 [Where does steam come from] = From a district steam utility OR  D64 [Where does steam come from] = From a district steam utility  🡺 I12 [District steam supplier name]  OTHERWISE 🡺 JRT [Section J Routing] |

|  |  |
| --- | --- |
| **I10** | Other bldgs steam included {OthStBldgs1} *STOTBD* |
| ASK | IF I4 [District steam consumption] given & (Establishment interview OR  (Building interview & NOT I8 [All occupants steam included] = No)) |
| FILL | **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is any consumption from other {Structures} included in these figures? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 I11 [Sq ft of other included]  OTHERWISE:  IF D18 [From central plant] ≠ Yes OR  D27 [Where does steam come from] = From a district steam utility OR  D64 [Where does steam come from] = From a district steam utility  🡺 I12 [District steam supplier name]  OTHERWISE 🡺 JRT [Section J Routing] |

|  |  |
| --- | --- |
| **I11** | Sq ft of other included {OthStSqFt1} *STOTSF* |
| ASK | IF I10 [Other bldgs steam included] = Yes |
| FILL | **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the other {Structures} that are included in these figures? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1-999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF D18 [From central plant] ≠ Yes OR  D27 [Where does steam come from] = From a district steam utility OR  D64 [Where does steam come from] = From a district steam utility  🡺 I12 [District steam supplier name]  OTHERWISE 🡺 JRT [Section J Routing] |

|  |  |
| --- | --- |
| **I12** | District steam supplier name {StSupName} *STSUP* |
| ASK | IF (Establishment interview & District steam used) OR (Building interview  & District steam used & (D18 [From central plant] ≠ Yes OR  D27 [Where does steam come from] = From a district steam utility OR  D64 [Where does steam come from] = From a district steam utility)) |
| FILL | **{SuppliersIntro}**  IF (I1 [Provide district steam figures] = No OR Missing) OR I4 [District steam consumption] = Missing = “It may be possible to obtain this information directly from your district steam supplier.”  OTHERWISE = “The next questions are about your district steam supplier.” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {SuppliersIntro}  What is the name of the supplier that provided district steam in calendar year 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

|  |
| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Enter the name of the supplier |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Name given 🡺 I14 [Street address]  IF Missing 🡺 I13 [District steam bill available] |

|  |  |
| --- | --- |
| **I13** | District steam bill available {StBillAvailableDKSupName} *STBILLDK* |
| ASK | IF I12 [District steam supplier name] = Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Can you provide a copy of one district steam bill? There is information on some utility bills that may help energy researchers who use these data. |
| **Interviewer Instructions** | If available, directions for scanning or uploading the bill will be provided at the end of the interview. |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes, bill available |  |  |
| 2. No, will not be able to provide bill |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | OTHERWISE 🡺 JRT [Section J Routing] |

|  |  |
| --- | --- |
| **I14** | Street address {StSupAddr1} *STAD1* |
| ASK | IF I12 [District steam supplier name] given |
| FILL | **{Supplier}** = I12 [District steam supplier name] |
| DISPLAY | I14-I18 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the address for {Supplier}, beginning with the street address?  Street address: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | What is the address for {Supplier}?  Street address: |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 I15 [P.O. Box or Suite] |

|  |  |
| --- | --- |
| **I15** | P.O. Box or Suite {StSupAddr2} *STAD2* |
| ASK | IF I12 [District steam supplier name] given |
| DISPLAY | I14-I18 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | P.O. Box or suite number: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 I16 [City] |

|  |  |
| --- | --- |
| **I16** | City {StSupCity} *STCTY* |
| ASK | IF I12 [District steam supplier name] given |
| DISPLAY | I14-I18 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | City: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 I17 [State abbreviation] |

|  |  |
| --- | --- |
| **I17** | State abbreviation {StSupState} *STSTA* |
| ASK | IF I12 [District steam supplier name] given |
| DISPLAY | I14-I18 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | State: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| State drop-down list with “Select a state” as watermark. Alphabetic order by state name, beginning with state abbreviation. Example : AL - ALABAMA |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 I18 [ZIP code] |

|  |  |
| --- | --- |
| **I18** | ZIP code {StSupZip} *STZIP* |
| ASK | IF I12 [District steam supplier name] given |
| DISPLAY | I14-I18 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | ZIP code: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| None | None | 00000-99999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 I19 [Number district steam accounts] |

|  |  |
| --- | --- |
| **I19** | Number district steam accounts {NumStAccts} *STNAC* |
| ASK | IF I12 [District steam supplier name] given |
| FILL | **{Supplier}** = “I12 [District steam supplier name]”  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many different district steam accounts does this {Structure} have with {Supplier}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | district steam accounts | 1-999 |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF 1 to 10 accounts 🡺 I20 [District steam account number]  IF More than 10 accounts OR DK/Missing 🡺 I23 [District steam bill available] |

|  |  |
| --- | --- |
| **I20** | District steam account number {StAcctNums} *STAC1-STAC10* |
| ASK | IF I19 [Number district steam accounts] = 1 to 10 |
| FILL | **{Number}**  IF Only one account = “number”  OTHERWISE = “numbers”  **{Supplier}** = Supplier name from I12 [District steam supplier name]  **{IsAre]**  IF Only one account = “is”  OTHERWISE = “are” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the district steam account {Number} for {Supplier}. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | What {IsAre} the district steam account {Number} for {Supplier}? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

|  |
| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Enter district steam account number |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF (I1 [Provide district steam figures] = No OR Missing) OR  I4 [District steam consumption] = Missing 🡺 I21 [Bills cover only building]  OTHERWISE 🡺 I23 [District steam bill available] |

|  |  |
| --- | --- |
| **I21** | Bills cover only building {OthStBldgs3} *STOTB* |
| ASK | IF I19 [Number district steam accounts] = 1 to 10 &  ((I1 [Provide district steam figures] = No OR Missing) OR  I4 [District steam consumption] = Missing) |
| FILL | **{Bills}**  IF Only one account = “Does the bill or statement”  IF 2 to 10 accounts = “Do the bills or statements”  **{Supplier}** = I12 [District steam supplier name]  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments”  **{Structure(s)}**  IF Interview = Building = “building(s)”  IF Interview = Establishment = “establishment(s)” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {Bills} from {Supplier} cover just this {Structure} or are other {Structures} covered as well? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Just this {Structure} |  |  |
| 2. Other {Structure(s)} |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other {Structure(s)} 🡺 I22 [Sq ft of others included]  IF Just this {Structure} OR Missing 🡺 I23 [District steam bill available] |

|  |  |
| --- | --- |
| **I22** | Sq ft of others included {OthStSqFt3} *STOTS* |
| ASK | IF I21 [Bills cover only building] = Other {Structure(s)} |
| FILL | **{Bills}**  IF Only one account = “bill or statement”  IF 2 to 10 accounts = “bills or statements”  **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the other {Structures} included on the {Bills}? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1-999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺I23 [District steam bill available] |

|  |  |
| --- | --- |
| **I23** | District steam bill available {StBillAvailable} *STBILL* |
| ASK | IF I12 [District steam supplier name] given |
| FILL | **{Supplier}** = “I12 [District steam supplier name]” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Can you provide a copy of one district steam bill from {Supplier}? There is information on some utility bills that may help energy researchers who use these data. |
| **Interviewer Instructions** | If available, directions for scanning or uploading the bill will be provided at the end of the interview. |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes, bill available |  |  |
| 2. No, will not be able to provide bill |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | OTHERWISE 🡺 JRT [Section J Routing] |

**Section J: District Hot Water**

|  |  |
| --- | --- |
| **JRT** | Section J Routing |
| IF District hot water used &  NOT (D29 [Where does hot water come from] = From a boiler inside this building OR  D67 [Where does hot water come from] = From a boiler inside this building)  🡺 J1 [Provide district hot water figures]  OTHERWISE 🡺 KRT [Section K Routing] | |

|  |  |
| --- | --- |
| **J1** | Provide district hot water figures {ProvideHWFigs} *HWFIGS* |
| ASK | IF District hot water used & NOT (D29 [Where does hot water come from] = From  a boiler inside this building OR D67 [Where does hot water come from] = From  a boiler inside this building) |
| FILL | **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | The next questions are about district hot water usage in this {Structure} during calendar year 2018. Are you able to report how much district hot water was used in this {Structure} during 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 J2 [District hot water consumption]  IF No OR Missing:  IF D18 [From central plant] ≠ Yes OR  D29 [Where does hot water come from] = From a district hot water utility OR  D67 [Where does hot water come from] = From a district hot water utility  🡺 J10 [District hot water supplier name]  OTHERWISE 🡺 KRT [Section K Routing] |

|  |  |
| --- | --- |
| **J2** | District hot water consumption {HWCons}  *HWCNS* |
| ASK | IF J1 [Provide district hot water figures] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the total amount, in million Btu, of district hot water used in calendar year 2018. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | What was the total amount, in million Btu, of district hot water used in calendar year 2018? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | MMBtu | 1-99,999,999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Missing THEN:  IF D18 [From central plant] ≠ Yes OR  D29 [Where does hot water come from] = From a district hot water utility OR  D67 [Where does hot water come from] = From a district hot water utility  🡺 J10 [District hot water supplier name]  OTHERWISE 🡺 KRT [Section K Routing]  OTHERWISE 🡺 J3 [District hot water expenditures] |

|  |  |
| --- | --- |
| **J3** | District hot water expenditures {HWExp} *HWEXP* |
| ASK | IF J2 [District hot water consumption] given |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the total dollars spent on district hot water in 2018, including state and local taxes. |
| **Interviewer Instructions** | Do not enter cents |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | How much was spent on district hot water in 2018, including state and local taxes? |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter dollar amount | None | 0-999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 J4 [Starting date for district hot water figures] |

|  |  |
| --- | --- |
| **J4** | Starting date for district hot water figures {HWStartDate} *HWSTDAT* |
| ASK | IF J2 [District hot water consumption] given |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the starting date for these district hot water usage figures? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric String Text **X** Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Date*** | | |
| **Watermark** |  |  |
| mm/dd/yyyy |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 J5 [Ending date for district hot water figures] |

|  |  |
| --- | --- |
| **J5** | Ending date for district hot water figures {HWEndDate} *HWENDAT* |
| ASK | IF J2 [District hot water consumption] given |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the ending date for these district hot water usage figures? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric String Text **X** Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Date*** | | |
| **Watermark** |  |  |
| mm/dd/yyyy |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Building interview & (C5 [Number of businesses] >1 OR  C6 [Number of businesses category] ≠ Zero OR One)  🡺 J6 [All occupants hot water included]  OTHERWISE 🡺 J8 [Other bldgs hot water included] |

|  |  |
| --- | --- |
| **J6** | All occupants hot water included {AllOccHW1}  *HWALL* |
| ASK | IF Building interview & J2 [District hot water consumption] given  & (C5 [Number of businesses] >1 OR C6 [Number of businesses category] ≠  Zero OR One) |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Do these figures include the district hot water for all of the businesses or organizations in this building? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF No 🡺 J7 [Sq ft not included]  OTHERWISE 🡺 J8 [Other bldgs hot water included] |

|  |  |
| --- | --- |
| **J7** | Sq ft not included {NonHWSqFt1} *HWNISF* |
| ASK | IF J6 [All occupants hot water included] = No |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the space in the building that is not included in these figures? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1 to 999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| **NEXT** | IF D18 [From central plant] ≠ Yes OR  D29 [Where does hot water come from] = From a district hot water utility OR  D67 [Where does hot water come from] = From a district hot water utility  🡺 J10 [District hot water supplier name]  OTHERWISE 🡺 KRT [Section K Routing] |

|  |  |
| --- | --- |
| **J8** | Other bldgs hot water included {OthHWBldgs1} *HWOTBD* |
| ASK | IF J2 [District hot water consumption] given & (Establishment interview OR  (Building interview & NOT J6 [All occupants hot water included] = No)) |
| FILL | **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is any consumption from other {Structures} included in these figures? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 J9 [Sq ft of other included]  OTHERWISE:  IF D18 [From central plant] ≠ Yes OR  D29 [Where does hot water come from] = From a district hot water utility OR  D67 [Where does hot water come from] = From a district hot water utility  🡺 J10 [District hot water supplier name]  OTHERWISE 🡺 KRT [Section K Routing] |

|  |  |
| --- | --- |
| **J9** | Sq ft of other included {OthHWSqFt1} *HWOTSF* |
| ASK | IF J8 [Other bldgs hot water included] = Yes |
| FILL | **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the other {Structures} that are included in these figures? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

|  |  |  |
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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1-999,999,999 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF D18 [From central plant] ≠ Yes OR  D29 [Where does hot water come from] = From a district hot water utility OR  D67 [Where does hot water come from] = From a district hot water utility  🡺 J10 [District hot water supplier name]  OTHERWISE 🡺 KRT [Section K Routing] |

|  |  |
| --- | --- |
| **J10** | District hot water supplier name {HWSupName} *HWSUP* |
| ASK | IF (Establishment interview & District hot water used) OR (Building interview &  District hot water used & (D18 [From central plant] ≠ Yes OR  D29 [Where does hot water come from] = From a district hot water utility OR  D67 [Where does hot water come from] = From a district hot water utility)) |
| FILL | **{SuppliersIntro}**  IF (J1 [Provide district hot water figures] = No OR Missing) OR J2 [District hot water consumption] = Missing = “It may be possible to obtain this information directly from your district hot water supplier.”  OTHERWISE = “The next questions are about your district hot water supplier.” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {SuppliersIntro}  What is the name of the supplier that provided district hot water in calendar year 2018? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

|  |  |
| --- | --- |
| **RESPONSE OPTIONS** | |
| ***String Text*** | |
| **Watermark** | |
| Enter the name of the supplier |  |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Name given 🡺 J12 [Street address]  IF Missing 🡺 J11 [District hot water bill available] |

|  |  |
| --- | --- |
| **J11** | District hot water bill available {HWBillAvailableDKSupName} *HWBILLDK* |
| ASK | IF J10 [District hot water supplier name] = Missing |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Can you provide a copy of one district hot water bill? There is information on some utility bills that may help energy researchers who use these data. |
| **Interviewer Instructions** | If available, directions for scanning or uploading the bill will be provided at the end of the interview. |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes, bill available |  |  |
| 2. No, will not be able to provide bill |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 KRT [Section K Routing] |

|  |  |
| --- | --- |
| **J12** | Street address {HWSupAddr1} *HWAD1* |
| ASK | IF J10 [District hot water supplier name] given |
| FILL | **{Supplier}** = J10 [District hot water supplier name] |
| DISPLAY | J12-J16 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the address for {Supplier}, beginning with the street address?  Street address: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | What is the address for {Supplier}?  Street address: |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 J13 [P.O. Box or Suite] |

|  |  |
| --- | --- |
| **J13** | P.O. Box or Suite {HWSupAddr2} *HWAD2* |
| ASK | IF J10 [District hot water supplier name] given |
| FILL | N/A |
| DISPLAY | J12-J16 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | P.O. Box or suite number: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 J14 [City] |

|  |  |
| --- | --- |
| **J14** | City {HWSupCity} *HWCTY* |
| ASK | IF J10 [District hot water supplier name] given |
| DISPLAY | J12-J16 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | City: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 J15 [State abbreviation] |

|  |  |
| --- | --- |
| **J15** | State abbreviation {HWSupState} *HWSTA* |
| ASK | IF J10 [District hot water supplier name] given |
| DISPLAY | J12-J16 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | State: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| State drop-down list with “Select a state” as watermark. Alphabetic order by state name, beginning with state abbreviation. Example : AL - ALABAMA |  |  |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 J16 [ZIP code] |

|  |  |
| --- | --- |
| **J16** | ZIP code {HWSupZip} *HWZIP* |
| ASK | IF J10 [District hot water supplier name] given |
| FILL | N/A |
| DISPLAY | J12-J16 are all on the same screen |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | ZIP code: |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| None | None | 00000-99999 |

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| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🢂 J17 [Number district hot water accounts] |

|  |  |
| --- | --- |
| **J17** | Number district hot water accounts {NumHWAccts} *HWNAC* |
| ASK | IF J10 [District hot water supplier name] given |
| FILL | **{Supplier}** = “J10 [District hot water supplier name]”  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | How many different district hot water accounts does this {Structure} have with {Supplier}? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | district hot water accounts | 1-999 |

|  |  |
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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF 1 to 10 accounts 🡺 J18 [District hot water account number]  IF More than 10 accounts OR DK/Missing 🡺 J21 [District hot water bill available] |

|  |  |
| --- | --- |
| **J18** | District hot water account number {HWAcctNums} *HWAC1-HWAC10* |
| ASK | IF J17 [Number district hot water accounts] = 1 to 10 |
| FILL | **{Number}**  IF Only one account = “number”  OTHERWISE = “numbers”  **{Supplier}** = Supplier name from J10 [District hot water supplier name]  **{IsAre]**  IF Only one account = “is”  OTHERWISE = “are” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Please give me the district hot water account {Number} for {Supplier}. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | What {IsAre} the district hot water account {Number} for {Supplier}? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Enter district hot water account number |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF (J1 [Provide district hot water figures] = No OR Missing) OR  J2 [District hot water consumption] = Missing 🡺 J19 [Bills cover only building]  OTHERWISE 🡺 J21 [District hot water bill available] |

|  |  |
| --- | --- |
| **J19** | Bills cover only building {OthHWBldgs3} *HWOTB* |
| ASK | IF J17 [Number district hot water accounts] = 1 to 10 &  ((J1 [Provide district hot water figures] = No OR Missing) OR  J2 [District hot water consumption] = Missing) |
| FILL | **{Bills}**  IF Only one account = “Does the bill or statement”  IF 2 to 10 accounts = “Do the bills or statements”  **{Supplier}** = J10 [District hot water supplier name]  **{Structure}**  IF Interview = Building = “building”  IF Interview = Establishment = “establishment”  **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments”  **{Structure(s)}**  IF Interview = Building = “building(s)”  IF Interview = Establishment = “establishment(s)” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | {Bills} from {Supplier} cover just this {Structure} or are other {Structures} covered as well? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Just this {Structure} |  |  |
| 2. Other {Structure(s)} |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Other {Structure(s)} 🡺 J20 [Sq ft of others included]  IF Just this {Structure} OR Missing 🡺 J21 [District hot water bill available] |

|  |  |
| --- | --- |
| **J20** | Sq ft of others included {OthHWSqFt3} *HWOTS* |
| ASK | IF J19 [Bills cover only building] = Other {Structure(s)} |
| FILL | **{Bills}**  IF Only one account = “bill or statement”  IF 2 to 10 accounts = “bills or statements”  **{Structures}**  IF Interview = Building = “buildings”  IF Interview = Establishment = “establishments” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the approximate square footage of the other {Structures} included on the {Bills}? If you’re not sure, please provide your best estimate. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | square feet | 1-999,999,999 |

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| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 J21 [District hot water bill available] |

|  |  |
| --- | --- |
| **J21** | District hot water bill available {HWBillAvailable} *HWBILL* |
| ASK | IF J10 [District hot water supplier name] given |
| FILL | **{Supplier}** = “J10 [District hot water supplier name]” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Can you provide a copy of one district hot water bill from {Supplier}? There is information on some utility bills that may help energy researchers who use these data. |
| **Interviewer Instructions** | If available, directions for scanning or uploading the bill will be provided at the end of the interview. |
| **QUESTION TEXT – respondent-administered** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | No changes required |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes, bill available |  |  |
| 2. No, will not be able to provide bill |  |  |

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| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | OTHERWISE 🡺 KRT [Section K Routing] |

**Section K: Tenant Billing and Metering**

|  |  |
| --- | --- |
| **KRT** | **Section K Routing** |
| IF (CBECS Activity = Office OR Retail OR B9 [Warehouse type] = Nonrefrigerated warehouse;  Refrigerated warehouse; OR Distribution or shipping center) & C9 [Number of tenants] > 0 &  (A6 [Square footage] > 10,000 OR A7 [Square footage category] = 10,001 to 25,000 square feet;  25,001 to 50,000 square feet; 50,001 to 100,000 square feet;100,0001 to 200,000 square feet;  200,001 to 500,000 square feet; 500,001 to 1 million square feet; OR Over 1 million square feet)  & Electricity used 🡺 K1 [Electricity billing arrangement]  OTHERWISE 🡺 L1 [Response effort] | |

|  |  |
| --- | --- |
| **K1** | Electricity billing arrangement {ElecBillArrange} *ELBLARR* |
| ASK | IF (CBECS Activity = Office OR Retail OR B9 [Warehouse type] = Nonrefrigerated  warehouse; Refrigerated warehouse; OR Distribution or shipping center) &  C9 [Number of tenants] > 0 & (A6 [Square footage] > 10,000 OR  A7 [Square footage category] = 10,001 to 25,000 square feet; 25,001 to 50,000  square feet; 50,001 to 100,000 square feet;100,0001 to 200,000 square feet;  200,001 to 500,000 square feet; 500,001 to 1 million square feet; OR Over 1  million square feet) & Electricity used |
| FILL | **{Heating}**  IF Electricity used for heating = “space heating, ”  OTHERWISE = BLANK  **{WaterHeating}**  IF Electricity used for water heating = “water heating, ”  OTHERWISE = BLANK  **{Cooling}**  IF Electricity used for cooling = “cooling, ”  OTHERWISE = BLANK  **{Data Center}**  IF Data center IN E51 [Computer areas] = “data center, ”  OTHERWISE = BLANK  **{OfficeExp}**  IF CBECS Activity = Office = “Please remember to include tenants such as food service and retail that lease space in the building.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | We are almost finished. I just have a few questions about energy billing and metering in this building.  Thinking about all of the electricity used by the tenants in this building, including any for lighting, plug load, {Heating}{WaterHeating}{Cooling}{DataCenter} or other uses, how are the costs for this electricity billed? Is the cost for electricity included in the rent, are tenants separately billed for electricity by the landlord or utility, or is it a combination of these arrangements? {OfficeExp} |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | You are almost finished. There are just a few final questions about energy billing and metering in this building.  Thinking about all of the electricity used by the tenants in this building, including any for lighting, plug load, {Heating}{WaterHeating}{Cooling}{DataCenter} or other uses, how are the costs for this electricity billed? {OfficeExp} |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Included in tenants’ rent |  |  |
| 2. Tenants separately billed for electricity (either by the landlord or the utility) |  |  |
| 3. Combination of these arrangements |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Missing/DK 🡺 K5 [Elec tenant info job title]  OTHERWISE 🡺 K2 [Electricity tenant metering] |

|  |  |
| --- | --- |
| **K2** | Electricity tenant metering {ElecTenantMetering} *ELTNMET* |
| ASK | IF K1 [Electricity billing arrangement] given |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Are there meters dedicated to tracking some or all of the electricity used within individual tenant spaces? These meters may be installed by the utility, the building’s management, the tenant, or someone else. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

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| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 K3 [Which electricity uses metered]  IF Missing/DK 🡺 K5 [Elec tenant info job title]  IF No THEN:  IF Natural gas used 🡺 K6 [Natural gas billing arrangement]  OTHERWISE 🡺 L1 [Response effort] |

|  |  |
| --- | --- |
| **K3** | Which electricity uses metered {ElecUsesMetered} *see below* |
| ASK | IF K2 [Electricity tenant metering] = Yes |
| FILL | **{Heating}**  IF Electricity used for heating = “Space heating”  OTHERWISE = BLANK  **{WaterHeating}**  IF Electricity used for water heating = “Water heating”  OTHERWISE = BLANK  **{Cooling}**  IF Electricity used for cooling = “Cooling”  OTHERWISE = BLANK  **{Data Center}**  IF Data center IN E51 [Computer areas] = “Data center”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Which electricity uses are metered within individual tenant spaces? |
| **Interviewer Instructions** | Read choices if necessary  Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Lighting |  | *ELMTLT* |
| 2. Plug load |  | *ELMTPL* |
| 3. {Heating} |  | *ELMTHT* |
| 4. {WaterHeating} |  | *ELMTWH* |
| 5. {Cooling} |  | *ELMTCL* |
| 6. {DataCenter} |  | *ELMTDC* |
| 7. Other |  | *ELMTOT* |

|  |  |
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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 K4 [Metered electricity data access] |

|  |  |
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| **K4** | Metered electricity data access {MeteredElecAccess} *see below* |
| ASK | IF K2 [Electricity tenant metering] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Who has access to the metered electricity data for the tenant spaces: the tenants, the landlord, and/or someone else? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Tenant |  | *ELMTACSTN* |
| 2. Landlord |  | *ELMTACSLL* |
| 3. Someone else |  | *ELMTACSOT* |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Missing/DK 🡺 K5 [Elec tenant info job title]  OTHERWISE:  IF Natural gas used 🡺 K6 [Natural gas billing arrangement]  OTHERWISE 🡺 L1 [Response effort] |

|  |  |
| --- | --- |
| **K5** | Elec tenant info job title {ElecTenantContact} *ELTNJOB* |
| ASK | IF K1 [Electricity billing arrangement] = Missing/DK OR  K2 [Electricity tenant metering] = Missing/DK OR  K4 [Metered electricity data access] = Missing/DK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the job title of the person who has this information? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

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| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Enter job title |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Natural gas used 🡺 K6 [Natural gas billing arrangement]  OTHERWISE 🡺 L1 [Response effort] |

|  |  |
| --- | --- |
| **K6** | Natural gas billing arrangement {NatGasBillArrange} *NGBLARR* |
| ASK | IF (CBECS Activity = Office OR Retail OR B9 [Warehouse type] = Nonrefrigerated  warehouse; Refrigerated warehouse; OR Distribution or shipping center) &  C9 [Number of tenants] > 0 & (A6 [Square footage] > 10,000 OR  A7 [Square footage category] = 10,001 to 25,000 square feet; 25,001 to 50,000  square feet; 50,001 to 100,000 square feet;100,0001 to 200,000 square feet;  200,001 to 500,000 square feet; 500,001 to 1 million square feet; OR Over 1  million square feet) & Electricity used & Natural gas used |
| FILL | **{OfficeExp}**  IF CBECS Activity = Office = “Please remember to include tenants such as food service and retail that lease space in the building.”  OTHERWISE = BLANK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Is the cost for natural gas included in the rent, are tenants separately billed for natural gas by the landlord or utility, or is it a combination of these arrangements? {OfficeExp} |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Thinking about all of the natural gas used by the tenants in this building, how are the costs billed? {OfficeExp} |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Included in tenants’ rent |  |  |
| 2. Tenants separately billed for natural gas (either by the landlord or the utility) |  |  |
| 3. Combination of these arrangements |  |  |

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| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Missing/DK 🡺 K9 [Nat gas tenant info job title]  OTHERWISE 🡺 K7 [Natural gas tenant metering] |

|  |  |
| --- | --- |
| **K7** | Natural gas tenant metering {NatGasTenantMetering} *NGTNMET* |
| ASK | IF K6 [Natural gas billing arrangement] given |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Are there meters dedicated to tracking some or all of the natural gas used within individual tenant spaces? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Yes |  |  |
| 2. No |  |  |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Yes 🡺 K8 [Metered natural gas data access]  IF Missing/DK 🡺 K9 [Nat gas tenant info job title]  IF No 🡺 L1 [Response effort] |

|  |  |
| --- | --- |
| **K8** | Metered natural gas data access {MeteredNatGasAccess} *see below* |
| ASK | IF K7 [Natural gas tenant metering] = Yes |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Who has access to the metered natural gas data for the tenant spaces: the tenants, the landlord, and/or someone else? |
| **Interviewer Instructions** | Enter all that apply |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | Please select all that apply. |
| **ITEM TYPE** | **X** Enumerated Numeric String Text Date |

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| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Enumerated*** | | |
| **Response options** | **Image** | **SAS Name** |
| 1. Tenant |  | *NGMTACSTN* |
| 2. Landlord |  | *NGMTACSLL* |
| 3. Someone else |  | *NGMTACSOT* |

|  |  |
| --- | --- |
| NONRESPONSE | **X** Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | IF Missing/DK 🡺 K9 [Nat gas tenant info job title]  OTHERWISE 🡺 L1 [Response effort] |

|  |  |
| --- | --- |
| **K9** | Nat gas tenant info job title {NatGasTenantContact} *NGTNJOB* |
| ASK | IF K6 [Natural gas billing arrangement] = Missing/DK OR  K7 [Natural gas tenant metering] = Missing/DK OR  K8 [Metered natural gas data access] = Missing/DK |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | What is the job title of the person who has this information? |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | No changes required |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

|  |
| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| Enter job title |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF **X** Missing Item Prompt Box Allow Blank |
| NEXT | 🡺 L1 [Response effort] |

**Section L: Summary Questions**

|  |  |
| --- | --- |
| **L1** | Response effort {ResponseEffort} *REFFORT* |
| ASK | All structures |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Including yourself, please tell me how many people were needed to compile the information for this interview. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Including yourself, how many people were needed to compile the information for this questionnaire? |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated **X** Numeric String Text Date |

|  |  |  |
| --- | --- | --- |
| **RESPONSE OPTIONS** | | |
| ***Numeric*** | | |
| **Watermark** | **Label** | **Range** |
| Enter a number | None | 1 to 99 |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 L2 [Final comments] |

|  |  |
| --- | --- |
| **L2** | Final comments {FinalComments} *FINLCMTS* |
| ASK | All structures |
| FILL | **{Structure}**  IF Interview = Building OR Mall = “building”  IF Interview = Establishment = “establishment” |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | N/A |
| **Question Text** | Thank you for helping us learn about energy use in buildings.  If you have any additional information about this {Structure} or thoughts about the survey, please share them now. |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | Thank you for helping us learn about energy use in buildings.  If you have any additional information about this {Structure} or thoughts about the survey, please enter them here. |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | Enumerated Numeric **X** String Text Date |

|  |
| --- |
| **RESPONSE OPTIONS** |
| ***String Text*** |
| **Watermark** |
| None |

|  |  |
| --- | --- |
| NONRESPONSE | Explicit DK Explicit RF Missing Item Prompt Box **X** Allow Blank |
| NEXT | 🡺 L3 [Finish survey] |

|  |  |
| --- | --- |
| **L3** | Finish survey {FinishSurvey} |
| ASK | All structures |
| **QUESTION TEXT – interviewer-administered** | |
| **Show Card** | To complete the survey, please select the “Finish” button below. |
| **Question Text** | N/A |
| **Interviewer Instructions** | N/A |
| **QUESTION TEXT – web** | |
| **Question Text** | To complete the survey, please select the “Finish” button below. |
| **Respondent Instructions** | N/A |
| **ITEM TYPE** | No space for answer, just Finish button. |
| NONRESPONSE | N/A |
| NEXT | TERMINATE |