



THE
CADMUS
GROUP, INC.

ASSESSMENT OF ELECTRIC AND NATURAL GAS ENERGY-EFFICIENCY POTENTIAL (2010–2016): APPENDICES

VOLUME II

FINAL REPORT

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A.1 – Residential Appliance Saturation Survey

Ameren IL Residential Appliance Saturation Survey The Cadmus Group

INTRODUCTION

Hello, my name is _____, I'm calling on behalf of Ameren Illinois Utilities which includes CIPS [pronounced "Sips"], CILCO ["Silko"], and IP [say the letters separately, "I" then "P"]

AA. ON-SITE SURVEY INVITATION (Skip for phone survey only)

We are conducting a study about household energy use in Illinois and would like offer you a \$35 prepaid Visa Card to collect information on how energy is used in your home. We are conducting in-person visits of a small sample of homes in your area. These visits are conducted by professionals, and are useful for understanding the different types of energy using equipment in households. The information gathered will be used by Ameren IL to build and refine energy conservation programs for their customers.

- AA1. If you agree, a technician will come to your home to inspect the type of energy using equipment installed in your home. Most visits will last about an hour, and will also include a few questions for you about how you use the equipment. Would you be interested in participating in this study?
- 1 Yes
 - 2 No [**THANK AND TERMINATE**]
- AA2. We will be in your neighborhood the week of _____. Which day and time would work best for you?
_____ [Record appointment preference]
- AA3. If we need to notify you of a schedule change, what phone number is the best way to reach you?
1. PHONE1
 2. PHONE2 [if needed]

You can expect a visit from one of our technicians on _[date]_ at _[time]_. The technician will carry an Ameren IL contractor identification badge and an authentication letter from an Ameren study contact person. If you need to reschedule the visit, please call: _[Nexant contact #]_.

We appreciate your willingness to participate in this study.
[End call]

A. PHONE SURVEY

We are conducting a study about household energy use in Illinois. In order for Ameren IL to design and refine conservation programs for its customers, information is needed about customer preferences and what is currently installed homes. Your participation will help with future decisions regarding energy-efficiency programs for consumers. I'd like to ask you a few questions about the home at [insert address].

[If respondent wants to verify that caller is indeed conducting the study on behalf of Ameren IL, he/she can call: [Dave Costenaro at 314-554-4550]

- A1. Do you have a few minutes to speak now?
- 1 Yes [CONTINUE]
 - 2 No [SCHEDULE CALLBACK]
- A2. First, can I verify that you are one of the people in your household who would be most likely to make decisions concerning your electric and gas utilities for the home at _____?
- 1 Yes [CONTINUE]
 - 2 No, [SCHEDULE CALLBACK FOR DECISION MAKER]

3 Refused [TERMINATE]

A3. Thank you. Do you own or rent this property?

- 1 Own
- 2 Rent
- 3 Other (specify) _____
- 99 Don't know

A4. Does [Ameren] supply both the electricity and the natural gas for your home?

- 1 Yes, both natural **gas** and **electricity** [GO TO B1]
- 2 No, just the **electricity** [Go to A6]
- 3 No, just the **natural gas** [Go to A5]
- DK
- REF

{IF A4=3 ASK A5, OTHERWISE GO TO FILTER BEFORE A6}

A5. Which company supplies the electricity for your home?

_____ (Record Electric provider)

- DK
- REF

_ {IF A4=2 ASK A6, OTHERWISE CONTINUE}

A6. Which company supplies the natural gas for your home?

_____ (Record Natural gas provider)

- DK
- REF

A7. What is your average Ameren Illinois Utilities bill in the summer?

_____ Dollars

A8. What is your average Ameren Illinois Utilities bill in the winter?

_____ Dollars

PRELIMINARY QUESTIONS: ENERGY ATTITUDES

B1. Within the past year, what have you done to reduce energy use in your home? (select all that apply)
[Randomize order]

- 1. Turn off lights when not in use
- 2. Replace light bulbs with Compact Fluorescent Light (CFL) bulbs
- 3. Adjust thermostat setting at night
- 4. Adjust thermostat setting when not at home

5. Reduce thermostat setting in the winter
6. Increase thermostat setting in the summer
7. Installed programmable thermostat
8. Unplug adapters and charging devices when not in use
9. Unplug electronic devices with “instant on” feature
10. Purchase energy efficient appliances/equipment
11. Take shorter showers
12. Increase level of insulation
13. Reduce air infiltration or leaks (by caulking, adding storm windows, etc.)
14. I don't do anything to reduce energy in my home (SKIP TO QUESTION #3)
15. Other [specify]:_____

B2. What is your primary motive to reduce energy use in your home? [*Randomize order*]

- a. To save energy
- b. To save money on utility bill
- c. Reduce pollution/carbon footprint
- d. Other [specify]:_____

B3. Which of the following high-efficiency equipment (eg. ENERGY STAR®) have you installed in your home in the past five years? (select all that apply)

- a) Compact Fluorescent Light Bulb(s) (CFL)
- b) central air conditioner
- c) window/through-the-wall air conditioner
- d) Heat-Pump
- e) Water Heater
- f) refrigerator
- g) dishwasher
- h) clothes washer
- i) Other [specify]:_____
- j) Have not installed any energy efficient equipment in my home

[SURVEYOR READ] *Part of designing new programs that customers find attractive is identifying offerings that match customer needs. The following questions will highlight some of the programs and offerings currently*

under review. Using a scale of 1 to 5, please indicate your perception of the following program elements and/or offerings.

B4. How likely would you be to take the following actions if offered by Ameren Illinois Utilities? Please give a number between 1 to 5, where 1 is 'Very Unlikely' and 5 is 'Very likely.'

1	2	3	4	5
VERY				VERY
UNLIKELY				LIKELY

a. **Have an on-site home energy audit.** An energy audit is an evaluation of home energy efficiency performed by a professional auditor who conducts a visual inspection of your home and diagnostic tests on your heating and cooling system. They identify major air leakage and insulation gaps, look for general energy-saving opportunities, and provide recommendations for energy efficiency upgrades.

A residential energy audit can help homeowners identify the most cost-effective, highest-priority energy efficiency upgrades for their home, which can reduce monthly utility bills and increase comfort.

How likely would you be to pay for an on-site energy audit of your home if the final cost to you was:

1. \$200
2. \$250
3. \$300

b. **Recycle an old Appliance.** You would be paid for somebody to pick-up and recycle your old working refrigerator and/or freezer. [RATING:_____]

[SURVEYOR READ] Generally it costs extra to purchase energy efficient products (such as Energy Star® products) over standard products that are not energy efficient. The next series of questions assess your likelihood to purchase energy efficient products.

[SURVEYOR READ] In the next four questions please tell me how you make your decisions about energy efficiency.

B6. Please rate the level of importance each of the following factors has in your decision to participate in an Ameren sponsored energy efficiency program on a scale from 1 to 5 where 1 is 'not important at all' and 5 is 'extremely important',

1	2	3	4	5
NOT AT ALL				EXTREMELY
IMPORTANT				IMPORTANT

- a. Effect on the value of your home [RATING:_____]
- b. Environmental impact [RATING:_____]
- c. Effect on your monthly electric bill [RATING:_____]
- d. Out-of-pocket cost for new high-efficiency electric equipment/appliances
[RATING:_____]
- e. Level of comfort [RATING:_____]
- f. Payback period from new high-efficiency equipment
[RATING:_____]
- g. Impact on lifestyle/convenience [RATING:_____]

B7. We understand that at times there may be barriers that can prevent you from becoming more energy efficient. Please indicate your level of agreement with the following statements, where 1 is 'Completely Disagree' and 5 is 'Completely Agree.'

1	2	3	4	5
COMPLETELY				COMPLETELY
DISAGREE				AGREE

- a. High-efficiency measures are generally too expensive for me (Cost)
- b. I don't know enough about high-efficiency measures (Information)
- c. I am not responsible for purchasing these items in my household (Not Decision Maker)
- d. I do not know enough about my home's current energy usage (Knowledge)
- e. Energy prices are not high enough to motivate me to take action (Status quo)

B8. What other barriers often prevent you from becoming more energy efficient in your home?

- a. (specify):_____
- b. No other barriers exist

RESIDENCE DESCRIPTION

- C1. Which of the following best describes how the residence is occupied? [Prompt]
- 1 Year-round, full-time
 - 2 Seasonal or part-time use [TERMINATE]
 - 3 Landlord of vacant unit [TERMINATE]
 - 4 Other (specify) _____ [TERMINATE]
 - 99 Don't know [TERMINATE]
- C2. Which of the following best describes your home? [READ IF NECESSARY]
- 1 Single family **detached** house (on a separate lot) not connected to other living units
 - 2 Single family **attached**, such as a duplex, condominium, **row- or townhouse**
(TECH NOTE: If necessary say: "It shares walls, ceiling and/or floor with another residence" **NO MORE THAN 2 UNITS**)
 - 3 A unit in a multifamily **apartment, condominium, row- or townhouse** building that has 3 or more units
(TECH NOTE: If necessary emphasize: "The building has 3 or more attached units.")
 - 4 Manufactured home or house trailer, or
 - 5 Something else (specify) _____
 - 99 Don't know [TERMINATE]
- C3. **[IF C2=3]** How many living units or apartments are in the building where this residence is located? Please answer only for the building that contains this residence; do not consider other buildings that may exist in the complex.
- Number of units: _____
- Don't know **[PROBE FOR GENERAL SIZE]**
- A 3-10 units
 - B 11 – 50 units
 - C 51 – 100 units
 - D more than 100 units
 - 99 Don't know
- C4. **[IF C2 = 1 OR 2]** How many levels or stories are there in this residence? Please do not include an unfinished attic, unfinished basement, garage, or other floors that are never heated and are not used for living space.
- [DO NOT PROMPT.]**
- | | | | |
|---|----------------------------|-----|-------------------------|
| 1 | One story | 6 | More than three stories |
| 2 | One and a half stories | 7 | Other (specify) _____ |
| 3 | Split level or two stories | -99 | Don't know |
| 4 | Two and a half stories | | |
| 5 | Tri-level or three stories | | |

HOME CHARACTERISTICS/WEATHERIZATION / EFFICIENT EQUIPMENT

D1 What is the approximate age of your home?

____ years

-99 Don't know

-88 Refused

- D2. {skipped intentionally to maintain survey instruction sequencing.}
- D3. Is your home?
If different portions of your house have different configurations, please answer based on the largest portion of your home's footprint.
- 1 Above a finished basement
 - 2 Above an unfinished basement
 - 3 On top of a foundation meaning on a concrete slab with no basement or
 - 4 Above a crawl space
 - 99 Don't know
- D4. Approximately what percentage of this residence's windows are **double or triple-pane**?
[RECORD PERCENT:] _____
-99 Don't know
IF D4 = 100%, SKIP TO D6
- D5. Approximately what percentage of your home's windows are equipped with **storm windows**?
[Tech Note: If asked, a storm window is a secondary window, or perhaps a plastic sheet, that you place inside or outside your regular window to protect against the wind and cold. Storm windows are typically put on or pulled down before the winter, and removed or pulled up after the weather warms up each year.]
[RECORD PERCENT:] _____
-99 Don't know
- D6. What is the approximate square footage of **conditioned either heated or cooled floor space** in this residence?
[IF NECESSARY, PROMPT WITH "MAKE A GUESS IF YOU CAN"]
RECORD NUMBER: _____ [SKIP TO D8]
IF ANS > 6000, SHOW: I WANT TO CONFIRM THAT IT IS _____
-99 Don't know [GO TO D7]
- D7. Although you aren't sure about the actual **conditioned either heated or cooled floor space**, can you estimate the square footage of your home using these categories?
[IF Q1=2 OR 3, SHOW: "PLEASE INDICATE THE CATEGORY THAT PERTAINS TO YOUR UNIT ONLY."]
[READ AS NECESSARY]
- 1 Under 1,000 square feet
 - 2 1,000 – 1,500 square feet
 - 3 1,501 – 2,000 square feet
 - 4 2,001 – 2,500 square feet
 - 5 2,501 – 3,000 square feet
 - 6 More than 3,000 square feet [SPECIFY] _____ square feet
 - 99. DON'T KNOW
- D8. How many heated rooms are in this residence?
(Please include all heated areas. Do not include halls or foyers, bathrooms, closets, unheated porches, unheated garages, or unheated basement areas and rooms.)
[RECORD NUMBER:] _____
-99 Don't know
- D9. How many bathrooms are in this home?
Definition:
1 = Full bath - has a bathtub, toilet, and a sink

0.75 = Three quarter bath - has a toilet, shower, and sink
 0.5 = Half bath - has a toilet and a sink
 0.25 = Quarter bath - has a toilet only.

[RECORD NUMBER:] _____
 -99 Don't know

E. HOME HEATING SYSTEM

My next few questions are about the **main heating system** in your home. Please answer the questions about the heating system that is used most.

- E1. What type of heating system do you have? Is it ...?
- 1 Natural gas heating
 - 2 Electric heating
 - 3 Other (specify) _____ (i.e. Wood, Propane)
 - 4 No heating [SKIP TO F0]
 - 5 Combination of types (Specify) _____
 - 99 Don't know
- E2. What is the approximate age of your heating system?
- 1 0-2 years
 - 2 3-9 years
 - 3 10-19 years
 - 4 20 or more years
 - 99 Don't know
- E3. Do you have a service contract for regular maintenance on your heating unit?
- 1 Yes
 - 2 No
 - 99 Don't know
- E4. What was the approximate month and year of the last maintenance on your heating unit?
- Select month: Drop-down Menu
 Select year: Drop-down Menu
- E5. **[SKIP IF C2=1 OR 4]** Does the main heating system serve only this residence or does it serve more than one residence?
- 1 Only this residence
 - 2 More than one residence
 - 99 Don't know
- E6. What is the type of system that is used to heat the majority of your home?
- [ASK AS OPEN END; ACCEPT ONE MENTION.]
 [PROBE FOR SPECIFICS: FOR EXAMPLE, THERE ARE 2 DIFFERENT TYPES OF HEAT PUMPS.]
- 1 Natural gas central forced air furnace
 - 2 Natural gas hot water boiler (with radiators or baseboards) gas hydronic heating
 - 3 Natural gas steam boiler (with radiators)
 - 4 Natural gas radiant floor heating
 - 5 Natural gas fireplace
 - 6 Electric baseboard
 - 7 Electric central forced air furnace
 - 8 Air-Source Heat pump
 - 9 Ground-source heat pump
 - 10 Portable heaters
 - 11 Oil central forced air furnace
 - 12 Oil hot water boiler (with radiators or baseboards)

- 13 Oil steam boiler (with radiators)
- 14 Bottled gas central forced air (propane, butane or kerosene)
- 15 Bottled gas portable heaters (propane, butane, or kerosene)
- 16 Wood stove
- 17 Wood fireplace
- 18 Solar
- 19 Other System & Fuel [SPECIFY]
- 20 None (No heating system)
- 99 Don't know

E7. What type of temperature control is on the **main** heating system?

[IF NECESSARY SAY: "THE ONE USED MOST OFTEN."]

[READ IF NECESSARY]

- 1 Regular thermostat(s) with temperature settings
- 2 Clock or programmable thermostat(s)
- 3 Dial control **without** temperature settings
- 4 Simple on/off switch or no temperature control, or
- 5 Something else (specify) _____
- 99 Don't know

E8. I will read some ways that **heating** systems are used. Please indicate which ones describe how you use the main heating system in your home. Indicate all that apply.

[SELECT ALL THAT APPLY; IF NECESSARY, READ CODES 1-4.]

- 1 The thermostat(s) is kept at a constant setting or temperature
- 2 The thermostat is adjusted when occupants are sleeping
- 3 The thermostat is adjusted when occupants leave the house
- 4 The heater is adjusted only when someone is cold
- 5 Other (specify) _____
- 99 Don't know

E9. When you are **heating** your house, at what temperature do you normally keep your thermostat?

RECORD NUMBER: _____

If response is <50 or >85, say: I want to confirm that you mean Fahrenheit and not Celsius

-99 Don't know

E10-12

When you are heating your house, at what temperature do you normally keep your thermostat set during the following different situations?

E10. When one or more people in your household are at home and everyone is awake?

RECORD NUMBER: _____

If response is <50 or >85, say: I want to confirm that you mean Fahrenheit and not Celsius

-99 Don't know

E11. When one or more people in your household are at home and everyone is asleep?

RECORD NUMBER: _____

If response is <50 or >85, say: I want to confirm that you mean Fahrenheit and not Celsius

-99 Don't know

E12. When no one is at home?

RECORD NUMBER: _____

If response is <50 or >85, say: I want to confirm that you mean Fahrenheit and not Celsius

-99 Don't know

E12a. And, on a typical weekday, for about how many hours is there no one at home?

- A RECORD NUMBER 0 TO 24: _____
- 99 Don't know

E12b. On a typical weekend day, for about how many hours is there no one at home?

- A RECORD NUMBER 0 TO 24: _____
- 99 Don't know

E13-15

My next few questions are about any supplementary heating systems you may have in your home.

E13. Do you have any other heating systems or space heaters in your home? [Select all that apply]

- 1 Yes, secondary system
- 2 Yes, space heater
- 3 Yes, other: _____ (Specify)
- 4 No **[SKIP TO F0]**
- 99 Don't know **[SKIP TO F0]**

E14. **[IF E13=2 (OR INCLUDES 2)]** How many space heaters do you have?

- [RECORD NUMBER:] _____
- 99 Don't know

E15. In what room(s) do you typically use a space heater, and how many days per year do you use a space heater in that room?

IF E14 > 3, SHOW: Let's talk about the 3 space heaters that you use most often.

- A. Record room: _____ AA. Record # of days use: _____
- B. Record room: _____ BB. Record # of days use: _____
- C. Record room: _____ CC. Record # of days use: _____
- 99 Don't know

F. HOME COOLING SYSTEM

F0 Now, moving on to your home's cooling system. Do you have any cooling system or equipment?

- 1. Yes
- 2. No (Indicate K in F1 and then SKIP TO G Intro)

F1. How many of each of the following do you have?

		F1 Enter 0 for None	F2	F4	F5
A	Central air conditioner	F1A	F2A	F4A	F5A
B	Air-source heat pump	F1B	F2B	F4B	F5B
C	Ground-source (geothermal) heat pump	F1C	F2C	F4C	F5C
D	Room air conditioners	F1D	F2D	F4D	
E	Ductless mini-split air conditioner	F1E	F2E	F4E	F5E
F	Portable fans	F1F	F2F		
G	Whole-house fan	F1G	F2G		
H	Ceiling fans	F1H	F2H		
I	Something else (specify) _____	F1I	F2I		
J	No cooling system or equipment	F1J	F2J		

- F2. Which one would you say is your primary or main cooling system (the system that gets used most often)? Is it the
OFFER ONLY A - F AS OPTIONS AND ONLY IF F1 >0
1. Central air conditioner
 2. Air-source heat pump
 3. Ground-source (geothermal) heat pump
 4. Room air conditioners
 5. Ductless mini-split air conditioner
 6. Evaporative cooler (Swamp cooler)
 9. Don't know
- F3. *{eliminated F3, but preserved numbering and skip patterns going forward}*
- F4. **[IF F1=1]** Approximately how old is this _____?
[IF F1>1] Approximately how old are these _____ on average?
[RECORD NUMBER:] _____
-99 Don't know
- F5. **[IF C2 ≠ 1,4]** Does this equipment cool any other units (i.e. apartments) at your location?
- 1 Yes
 - 2 No
 - 99 Don't know
- [IF F1A, F1B, F1C, F1D, F1E & F1F ARE ALL 'NO', SKIP TO G1]**
- F6. Do you have a service contract for regular maintenance on your main (primary) cooling unit?
- 1 Yes
 - 2 No
 - 99 Don't know
- F7. What was the approximate month and year of the last maintenance on your main (primary) cooling unit?
Select month: Drop-down Menu
Select year: Drop-down Menu
- F8. What type of temperature control is on the main (primary) cooling system?
[IF NECESSARY: "THE ONE USED MOST OFTEN."
[IF NECESSARY, READ CODES 1-4]
- 1 Regular thermostat(s) with temperature settings
 - 2 Clock or programmable thermostat(s)
 - 3 Dial control **without** temperature settings
 - 4 Simple on/off switch or no temperature control
 - 5 Other (specify) _____
 - 99 Don't know
- F9. I will read some ways that **cooling** systems are used. Please indicate which ones describe how you use your main cooling system. Indicate all that apply.
[READ CODES 1-5 AND SELECT ALL THAT APPLY.]
- 1 The thermostat(s) is kept at a constant setting or temperature
 - 2 The thermostat is adjusted when occupants are sleeping
 - 3 The thermostat is adjusted when occupants leave the house
 - 4 The cooling system is turned on only when someone is warm
 - 5 We rarely use this cooling system
 - 99. Don't know

- F10. When you are **cooling** your house, at what temperature do you normally keep your thermostat?
 RECORD NUMBER FROM 60 TO 90 DEGREES FAHRENHEIT: _____
 If response is <60 or >90, say: I want to confirm that you mean Fahrenheit and not Celsius
 -99 Don't know
- F11. When one or more people in your household are at home and everyone is awake?
 RECORD NUMBER FROM 60 TO 90 DEGREES FAHRENHEIT: _____
 If response is <60 or >90, say: I want to confirm that you mean Fahrenheit and not Celsius
 -99 Don't know
- F12. When one or more people in your household are at home and everyone is asleep?
 RECORD NUMBER FROM 60 TO 90 DEGREES FAHRENHEIT: _____
 If response is <60 or >90, say: I want to confirm that you mean Fahrenheit and not Celsius
 -99 Don't know
- F13. When no one is at home?
 RECORD NUMBER FROM 60 TO 90 DEGREES FAHRENHEIT: _____
 If response is <60 or >90, say: I want to confirm that you mean Fahrenheit and not Celsius
 -99 Don't know

G. WATER HEATING

Now, I have a few questions about the water heater that you use to heat water for activities like dishwashing and bathing.

- G1. **[SKIP IF C2 = 1 OR 4]** Does the water heater, or the source of the hot water, serve only this residence or does it serve more than one residence?
 1 Only this residence
 2 More than one residence
 3 This residence has no hot water [Skip to H1]
 -99 Don't know
- G2. How many water heaters are at this residence?
 [RECORD NUMBER:] _____
 -99 Don't know

[PROGRAMMING NOTE: FOR QUESTIONS G3 – G11, PLEASE REPEAT THIS SEQUENCE OF QUESTIONS AS NEEDED TO COLLECT THE INFORMATION ON THE TWO MAIN WATER HEATERS IDENTIFIED IN G2. EACH REPETITION SHOULD BE IDENTIFIED WITH AN UNDERSCORE, AND THEN THE SEQUENTIAL UNIT NUMBER (I.E. G3_1, G4_1, ..., G10_1 FOR THE FIRST WATER HEATER; THEN G3_2, ..., G10_2 FOR THE SECOND.)]

- G4. What is the approximate age of this water heater?
 1 0-2 years
 2 3-9 years
 3 10-19 years
 4 20 or more years
 -99 Don't know
- G6. What type of fuel or energy does this water heater use?
 [READ CODES 1 THROUGH 4 AS NECESSARY. RECORD ALL THAT APPLY IF MORE THAN ONE.]
 1 Electricity
 2 Natural gas
 3 Propane or bottled gas (LP, propane, butane),
 4 Solar, or
 5 Something else (specify) _____
 -99 Don't know

- G7. What type of water heater is this? [READ AS NECESSARY]
- 1 Tank-type storage water heater. This is **the most common** type of water heater.
 - 2 Heat pump water heater
 - 3 Indirect water heater that uses the home's boiler as the heat source or an integrated water heater that is also used to heat the home.
 - 4 Solar water heater
 - 5 Tankless hot water heater, also called Demand or instantaneous water heaters
 - 99 Don't know
- G8. **[IF G7 = 4]** What type of system is used in conjunction with your solar water heater?
[READ CODES 1-2, AS NECESSARY.]
- 1 Tank-type water heater (this is the "standard" type, with a water storage tank)
 - 2 Tankless hot water heater, also called Demand or Instantaneous water heaters
 - 99 Don't know
- G9. What is the secondary or back-up type of fuel you use to heat water at this residence?
[READ CODES 1-2.]
- 1 Electricity
 - 2 Natural gas
 - 3 Propane or bottled gas (LP, propane, butane), or
 - 4 Something else [SPECIFY]
 - 99. Don't know
- G10. At what **specific temperature** is this water heater thermostat set?
RECORD NUMBER: _____
- 99 Don't know
- G11. **[ASK ONLY IF G10 = -99 OR 'DOESN'T APPLY', OR 'NO TEMPERATURE SETTING AVAILABLE']** Then which of these statements best describes where your water heater thermostat is set?
[READ CODES 1-5, AS NECESSARY.]
- 1 On the "low" setting
 - 2 Between the "low" and "medium" settings
 - 3 On the "medium" setting
 - 4 Between the "medium" and "high" settings
 - 5 On the "high" setting
 - 99 Don't know

G12-13

Which of the following items do you have for your **main** water heater? Do you have ...

	Yes	No	DK
G12. Either a water heater tank wrap or insulation blanket			
G13. Pipe insulation			
G14. A water heater timer			

H. APPLIANCES & OTHER EQUIPMENT

In this section, I'll ask about the appliances and other equipment you have in your home.

- H1. How many refrigerators are in your home? These can be anywhere in your home, but please only count the ones that are used regularly.

[RECORD NUMBER:] _____

-99 Don't know

- H2. IF H1 > 3, SHOW: Let's talk about the 2 refrigerators that you use most often. What is the approximate age of your (primary / second) refrigerator?
[RECORD NUMBER:] _____
-99 Don't know
- [IF H2 = 99] Is it ...**
- 1 6 or less years old
 - 2 7 to 14 years old
 - 3 15 or more years old
 - 99 Don't know
- H4. How many stand-alone freezers are in your home?
[RECORD NUMBER:] _____
-99 Don't know
- H5. IF H4 > 1, SHOW: Let's talk about the 1 that you use most often. How many years old is your stand-alone freezer?
[READ CODES 1-3]
- 1 6 or less years old
 - 2 7 to 14 years old
 - 3 15 or more years old
 - 99 Don't know
- H6. How many dishwashers are in your home?
[RECORD NUMBER:] _____
-99 Don't know
- H7. Please describe your clothes washer. Is it...?
- 1. Used only by the people in your household?
 - 2. Shared among other units in the residence? **[SKIP TO H9]**
 - 3. Exclusively off-site—either a laundry service, drycleaner, or Laundromat? **[SKIP TO H9]**
 - 99 Don't know
- H8. Which of the following best describes the type of clothes washer(s) in your residence?
[READ CODES 1-2.]
- 1 Front Load Washing Machine
 - 2 Top Load Washing Machine
 - 3 Other (specify) _____
 - 99 Don't know
- In an average week, how many loads of laundry does your household wash?
[RECORD NUMBER:] _____
-99 Don't Know
- H9. Please describe your clothes dryer. **[CLARIFY IF NEEDED: 'ONE YOU USE AT ALL, EVEN IF NOT FREQUENT']**
- 1. Used only by the people in your household?
 - 2. Shared among other units in the residence? **[SKIP TO H11]**
 - 3. Exclusively off-site—either a laundry service, drycleaner, or Laundromat? **[SKIP TO H11]**
 - 99 Don't know
- H10. What fuel or energy source do you use for your clothes dryer(s)?
[READ CODES 1-4, AS NECESSARY.]
- 1 Electricity
 - 2 Natural gas

- 3 Propane or bottled gas (LP, propane, butane)
- 4 Something else (specify) _____
- 99 Don't know

- H11. Do you use a dehumidifier?
- 1 Yes
 - 2 No → **[SKIP TO H13]**
 - 99 Don't know → **[SKIP TO H13]**

H12. {intentionally skipped to preserve numbering and skip patterns}

- H13. Does your residence have a swimming pool?
- 1 Yes
 - 2 No → **[SKIP TO H18]**
 - 99 Don't know → **[SKIP TO H18]**

- H14. Is the pool...?
- 1 Your own private outdoor pool
 - 2 Your own private indoor pool
 - 3 Shared outdoor pool
 - 4 Shared indoor pool
 - 5 Other
 - 99 Don't know

- H15. Most pools have two main energy using devices, the heater and the pumps. While the pump is always electric, the heater can be natural gas, electric, or sometimes something else. What fuel or energy source is used to **heat** your swimming pool?
[READ CODES 1-5, AS NECESSARY.]
- 1 Electricity
 - 2 Natural gas
 - 3 Solar
 - 4 Propane or bottled gas (LP, propane, butane)
 - 5 Not heated
 - 6 Something else (specify) _____
 - 99 Don't know

- H16. **[SKIP IF H14 = 3 OR 4]** When do you operate your pool pump and filtration system?
[READ CODES 1-2, AS NECESSARY.]
- 1 All day and all night
 - 2 Turned off at night
 - 3 Something else (specify) _____
 - 99 Don't know

- H17. **[SKIP IF H14 = 3 OR 4]** Do you use an insulating cover for your pool?
- 1 Yes
 - 2 No
 - 99 Don't know

- H18. Do you have a hot tub or spa at your residence?
- 1 Yes
 - 2 No **[SKIP TO H20]**
 - 99 Don't know **[SKIP TO H20]**

H19. What fuel or energy source is used to heat your hot tub or spa?

[READ CODES 1-3, AS NECESSARY.]

- 1 Electricity
- 2 Natural gas
- 3 Propane or bottled gas (LP, propane, butane)
- 4 Something else (specify) _____
- 99 Don't know

H20-21. {skipped intentionally}

Next, I'd like to ask about your cooking equipment. Some people have cook-tops that are separate from their ovens. Others have a range where the cook-top and oven are contained in one appliance. For the next few questions, please think of your cook-top and oven as two separate items.

H22. What fuel or energy source do you use for your cook-top(s)?

[READ CODES 1-4, AS NECESSARY.]

- 1 Electricity
- 2 Natural gas
- 3 Propane or bottled gas (LP, propane, butane)
- 4 Something else (specify) _____
- 99 Don't know

H23. How many cook-top units do you have?

[RECORD NUMBER:] _____

IF MORE THAN TWO: "NOTE THAT YOU MAY HAVE MULTIPLE BURNERS IN YOUR COOK-TOP, BUT ONLY ONE UNIT" – RECODE AS NECESSARY.

- 99 Don't know

H24. What fuel or energy source do you use for your oven(s)?

[READ CODES 1-4, AS NECESSARY.]

- 1 Electricity
- 2 Natural gas
- 3 Propane or bottled gas (LP, propane, butane)
- 4 Something else (specify) _____
- 99 Don't know

H25. How many ovens do you have?

[RECORD NUMBER:] _____

- 99 Don't know

H26. How many microwave ovens do you have?

[RECORD NUMBER:] _____

- 99 Don't know

H28. Have you heard of Compact Fluorescent Lights – also known as CFLs?

- 1 Yes [Skip to H29]
- 2 No **[Go To H28B]**
- 99 Don't know **[SKIP TO H28B]**

H28B. Compact fluorescent light bulbs – also known as CFLs – usually do not look like regular incandescent bulbs. The most common type of CFL is made with a glass tube bent into a spiral, resembling a soft-serve ice cream, and it fits in a regular light bulb socket. Before today, were you familiar with CFLs?

- 1 Yes
- 2 No **[SKIP TO H31]**
- 8 DON'T KNOW **[SKIP TO H31]**
- 9 REFUSED **[SKIP TO H31]**

H29. Do you have any CFLs installed either inside or outside of your home?

- 1 Yes
- 2 No **[SKIP TO H31]**
- 99 Don't know **[SKIP TO H31]**

H30. Approximately how many CFLs would you estimate are installed in your home?

[RECORD NUMBER FROM] _____

- 99 Don't know

H31. Do you have any hard wired, non-solar outdoor security lighting?

- 1 Yes
- 2 No **[SKIP TO SECTION I]**
- 99 Don't know **[SKIP TO SECTION I]**

H32. Approximately how many outdoor security lights do you have?

[RECORD NUMBER:] _____

- 99 Don't know

H33. **[ASK ONLY IF H32 =1 OR MORE]** Are these outdoor security lights....

- 1 Operated by a manual switch
- 2 On a timer
- 3 On a photo sensor which means they automatically activate when it gets dark
- 4 Motion activated
- 5 A combination of motion and photo sensor activated which means they automatically activate when it senses motion after dark
- 6 Other (specify) _____
- 99 Don't know

I. AUDIO-VISUAL EQUIPMENT

Now, to get an idea of the way your home is using energy, I'd like to ask about your audio/video equipment and your home office equipment. For each piece of equipment I mention, please tell me how many of each you have in your home. What is the total number of the following: **[RECORD 0 FOR NONE]**

I1.	Televisions, of all types	
I2.	Of those, how many are large flat screen TVs over 32 inches?	
I2B	[SKIP IF I2 = 0] How many of your large TVs are plasma TVs? (As opposed to LCD, DLP or other projection)	
I3.	Game console (Playstation, Wii, Nintendo, xbox, Game Cube, etc)	
I4.	Combination VCR and DVD unit	
I5.	Standalone VCRs or DVD players	
I6.	Stand-alone DVR (not TIVO)	
I7.	TIVO, Cable or satellite TV set-top boxes or receivers	
I9.	Computer monitors	
I10.	Personal computers, including laptops	

I17. Are there any other electric powered equipment in your home for any home businesses or shop tools that you use more than once a month?

- 1 Yes →[Please specify what type of equipment: _____]
- 2 No
- 99 Don't know

J. OCCUPANCY CHARACTERISTICS

The next set of questions asks about demographic characteristics of your household. These characteristics are very helpful in understanding energy usage among our customers.

J1. Which of the following best describes your age?

- 1 Less than 18 years old
- 2 18-24 years old
- 3 25-34 years old
- 4 35-44 years old
- 5 45-54 years old
- 6 55-64 years old
- 7 65 or older
- 99 DON'T KNOW
- 88 REFUSED

J2. Including yourself, how many people usually live in this residence at least six months of the year? Please include all members of your household whether or not they are related to you, but do not include anyone who is just visiting or children who may be away at college or in the military.

[RECORD NUMBER:] _____
-99 Refused

J2B. How many of them are under 18?

[RECORD NUMBER:] _____
-99 Refused

J2C. How many of them are retired?

[RECORD NUMBER:] _____
-99 Refused

J3. What is the highest level of education attained by a head of the household?

[DO NOT PROMPT UNLESS NEEDED]

- 1 High School or GED
- 2 Junior College or Vocational
- 3 Undergraduate Degree / Bachelors
- 4 Masters
- 5 Doctorate/PhD
- 6 Other (specify) _____
- 8 Don't know
- 9 Refused

J4. Would you please tell me what your **total family income** was in **2008** before taxes (and including Social Security or other payments)? Just stop me when I read the correct category. **[READ**

CODES AS NECESSARY]

- 1 Less than \$15,000
- 2 \$15,000 to \$24,999
- 3 \$25,000 to \$34,999
- 4 \$35,000 to \$49,999
- 5 \$50,000 to \$59,999
- 6 \$60,000 to \$74,999
- 7 \$75,000 to \$99,999
- 8 \$100,000 to \$149,999
- 9 \$150,000 or more
- 99 Don't know
- 88 Refused

J5. RECORD GENDER OF RESPONDENT **[DO NOT ASK]**

- 1 Male
- 2 Female
- 99 DON'T KNOW

“Thank you very much for your cooperation and assistance!”

A.2 – Residential On-Site Survey

RESIDENTIAL ON-SITE SURVEY

Survey ID #: _____
 Name: _____
 Address: _____
 Phone: _____
 Check Number: _____

Date: _____
 On-Site Inspector: _____

RASS #	Response from phone svy	MEASURE	1	2	3	4	5	Don't Know	Photo	Other/Notes
C2		TYPE OF RESIDENCE	SF Detached	SF Attached	Condo/Apt	MH/Trailer		DK/-99	<input type="checkbox"/>	
D3		FOUNDATION TYPE	Finished basement	Unfinished basement	Slab	Crawl Space		DK/-99		
N/A		ROOF COLOR	Light/White	Dark				DK/-99		
C3		NUM OF UNITS IN BLDG.		(Record Number)				DK/-99		
N/A		NUM LED EXIT SIGNS - (MF Common Area ONLY)		(Record Number)				DK/-99	<input type="checkbox"/>	
N/A		NUM CFL EXIT SIGNS - (MF Common Area ONLY)		(Record Number)				DK/-99		
N/A		NUM INCANDESCENT EXIT SIGNS - (MF Common Area ONLY)		(Record Number)				DK/-99		
N/A		SECURITY SYSTEM	Yes	No				DK/-99		
H31		OUTDOOR SECURITY LIGHTING – (HARD WIRED / NON-SOLAR)	Yes	No				DK/-99		
H33		OUTDOOR SECURITY LIGHTING – ACTIVATION	Manual	Timer	Photo sensor	Motion sensor	Combination	DK/-99		
D6/D7		SQ FT LIVING SPACE		(Record Number)				DK/-99		
C4		NUM OF LEVELS OR STORIES		(Record Number)				DK/-99		
N/A		NUM WINDOWS		(Record Number)				DK/-99	<input type="checkbox"/>	
N/A		NUM SINGLE PANE		(Record Number)				DK/-99		
D4		NUM DOUBLE PANE		(Record Number)				DK/-99		
NA		NUM TRIPLE PANE		(Record Number)				DK/-99		
D5		NUM STORM WINDOWS (VERIFY FRAMES)		(Record Number)				DK/-99		
N/A		NUM INSULATED BLINDS		(Record Number)				DK/-99		
N/A		WEATHERSTRIPPING	Yes	No				DK/-99		
N/A		ATTIC TYPE	Heat/Cond.	Uncond.				DK/-99		
N/A		ATTIC INSULATION		(Record R-value)				DK/-99	<input type="checkbox"/>	

RASS #	Response from phone svy	MEASURE	1	2	3	4	5	Don't Know	Photo	Other/Notes
N/A		SIDE WALL INSULATION (if accessible)		(Record R-value)				DK/-99		
N/A		CRAWL SPACE INSULATION		(Record R-value)				DK/-99		
N/A		BASEMENT WALL INSULATION (if accessible)		(Record R-value)				DK/-99		
N/A		BASEMENT TYPE	Heat/cond.	Uncond.				DK/-99		
N/A		WALL FRAMING	2x4 wood	2x6 wood	2x4 metal	2x6 metal		DK/-99		
N/A		DUCT LOCATION - % IN CONDITIONED SPACE		(Record Number)				DK/-99		
N/A		DUCT INSULATION	Yes	No				DK/-99		
Heating --collect Heating system detail (after system type)										
E5		SHARED HEATING (ANOTHER RES) - (MF ONLY)	Yes	No				DK/-99	<input type="checkbox"/>	
E6		HEAT SYS TYPE (ATTACHED - TABLE 1)		(Record Number)				DK/-99	<input type="checkbox"/>	
NA		HEAT SYSTEM MAKE/MODEL - PRIMARY		(Record type)				DK/-99		
E2		HEAT SYSTEM AGE-MFG DATE - PRIMARY		(Record year)				DK/-99		
F3		SECONDARY HEATING SYSTEM TYPE (ATTACHED - TABLE 1)		(Record Number or N/A)				DK/-99		
E4		HEAT SYS MAINTENANCE	Annual	Every 2 yrs	Every 3-5 yrs	Repair only/never		DK/-99		
E9		TEMPERATURE CONTROL - MAIN HEAT	Regular Temp	Clock/ Programmable	Dial w/o temp	Switch/ none	Other	DK/-99		
E10		AWAKE TEMP - HEAT		(Record Number)				DK/-99		
E11		SLEEP TEMP - HEAT		(Record Number)				DK/-99		
E12		AWAY TEMP - HEAT		(Record Number)				DK/-99		
Cooling										
F5		SHARED COOLING (ANOTHER RES) - (MF ONLY)	Yes	No				DK/-99	<input type="checkbox"/>	
F1		COOLING SYSTEM TYPE (ATTACHED - TABLE 2)		(Record Number)				DK/-99	<input type="checkbox"/>	
N/A		COOLING SYSTEM EFFICIENCY - PRIMARY		(Record Number; Usually SEER)				DK/-99		
N/A		COOLING SYSTEM MAKE/MODEL - PRIMARY		(Record Type)				DK/-99		
F4		COOLING SYSTEM AGE - MFG DATE - PRIMARY		(Record Year)				DK/-99		
F7		COOLING SYSTEM MAINTENANCE	Annual	Every 2 yrs	Every 3-5 yrs	Repair only/never		DK/-99		
F10		TEMPERATURE CONTROL - MAIN COOL	Regular Temp	Clock setting/ Programmable	Dial w/o temp	Switch/ none	Other	DK/-99		
F11		AWAKE TEMP - COOL		(Record Number)				DK/-99		
F12		SLEEP TEMP - COOL		(Record Number)				DK/-99		
F13		AWAY TEMP - COOL		(Record Number)				DK/-99		
F3		SECONDARY COOLING SYSTEM TYPE (ATTACHED - TABLE 2)		(Record Number)				DK/-99		

RASS #	Response from phone svy	MEASURE	1	2	3	4	5	Don't Know	Photo	Other/Notes
F1H		WHOLE HOUSE FAN	Yes	No				DK/-99		
F1I		NUM CEILING FAN		(Record Number)				DK/-99		
Water Heater – collect detail (after fuel type)										
G1		SHARED WATER HEAT (ANOTHER RES) - (MF ONLY)	Yes	No				DK/-99	<input type="checkbox"/>	
G7		TYPE OF WH (ATTACHED TABLE 3)		(Record Number)				DK/-99	<input type="checkbox"/>	
G6		FUEL TYPE FOR PRIMARY WH	Electricity	Nat Gas	Propane/ Bottled			DK/-99		
G8		[IF WH = SOLAR] ALT OR B/U WH TYPE	Standard Storage	Tankless				DK/-99		
G2		QTY WATER HEATERS		(Record Number)				DK/-99		
G10		WATER HEATER TEMP - 1		(Record Number)				DK/-99		
G11		WH NO TEMP - L/M/H - 1	Low	Med - Low	Med	Med - High	High	DK/-99		
N/A		WH EFFICIENCY -1		(Record Number)				DK/-99		
N/A		WH MAKE/MODEL -1		(Record Type)				DK/-99		
G4		WH AGE - MFG DATE - PRIMARY		(Record Year)				DK/-99		
N/A		WH SIZE - GAL - PRIMARY		(Record Number)				DK/-99		
G12		WH BLANKET/WRAP ON MAIN WH	Yes	No				DK/-99		
G14		WH TIMER	Yes	No				DK/-99		
N/A		DRAIN HEAT RECOVERY	Yes	No				DK/-99		
Laundry / Bathroom										
H9		CLOTHES DRYER	Private	Shared	None			DK/-99	<input type="checkbox"/>	
N/A		NUM CLOTHES DRYERS		(Record Number)				DK/-99	<input type="checkbox"/>	
NA		CLOTHES DRYER MAKE/MODEL - PRIMARY		(Record Type)				DK/-99		
NA		CLOTHES DRYER AGE - MFG DATE - PRIMARY		(Record Year)				DK/-99		
H10		CLOTHES DRYER FUEL	Electricity	Nat Gas	Propane/ Bottled			DK/-99		
N/A		NUM CLOTHES DRYER - W/ MOISTURE SENSOR		(Record Number)				DK/-99		
H7		CLOTHES WASHER	Private	Shared	None			DK/-99	<input type="checkbox"/>	
H8		NUM CLOTHES WASHER (Vertical Axis)		(Record Number)				DK/-99	<input type="checkbox"/>	
H8		NUMCLOTHES WASHER (Horizontal Axis)		(Record Number)				DK/-99		
N/A		CLOTHES WASHER EFFICIENCY	Energy Star	Non Energy Star				DK/-99		
N/A		LOW-FLOW SHOWERHEADS (GPM ≤ 2.5)		(Record Number)				DK/-99		
N/A		TOTAL NUM SHOWERS		(Record Number)				DK/-99		

RASS #	Response from phone svy	MEASURE	1	2	3	4	5	Don't Know	Photo	Other/Notes
N/A		LOW-FLOW AIRATORS (GPM ≤ 2.5)		(Record Number)				DKJ-99		
N/A		TOTAL NUM SINKS		(Record Number)				DKJ-99		
Cooking / Kitchen										
H25		NUM OVENS		(Record Number)				DKJ-99		
H24		OVEN FUEL – PRIMRY	Electricity	Nat Gas	Propane/ Bottled			DKJ-99		
N/A		CONVECTION OVEN – PRIMARY	Yes	No				DKJ-99		
H23		NUM COOKING STOVES		(Record Number)				DKJ-99		
H24		COOKING STOVE FUEL	Electricity	Nat Gas	Propane/ Bottled			DKJ-99		
H1		NUM REFRIGERATORS		(Record Number)				DKJ-99	<input type="checkbox"/>	
NA		REFRGERATOR MAKE/MODEL - PRIMARY		(Record name)				DKJ-99	<input type="checkbox"/>	
H2		AGE PRIMARY REFRIGERATOR	6 or less	7 to 14	15+			DKJ-99		
N/A		REFRIGERATOR EFFICIENCY	Energy Star	Non Energy Star				DKJ-99		
H4		NUM STAND-ALONE FREEZERS		(Record Number)				DKJ-99	<input type="checkbox"/>	
NA		STAND-ALONE FREEZER MAKE/MODEL		Record name)				DKJ-99	<input type="checkbox"/>	
H5		AGE PRIMARY STAND-ALONE FREEZER	6 or less	7 to 14	15+			DKJ-99		
N/A		FREEZER EFFICIENCY	Energy Star	Non Energy Star				DKJ-99		
H6		NUM DISHWASHERS		(Record Number)				DKJ-99	<input type="checkbox"/>	
NA		DISHWASHER MAKE/MODEL		(Record name)				DKJ-99	<input type="checkbox"/>	
NA		AGE DISHWASHER		(Record year)				DKJ-99		
N/A		DISHWASHER EFFICIENCY	Energy Star	Non Energy Star				DKJ-99		
H26		NUM MICROWAVES		(Record Number)				DKJ-99		
H11		DEHUMIDIFIER	Yes	No				DKJ-99	<input type="checkbox"/>	
NA		DEHUMIDIFIER MAKE/MODEL		(Record name)				DKJ-99	<input type="checkbox"/>	
NA		DEHUMIDIFIER AGE		(Record year)				DKJ-99		
N/A		DEHUMIDIFIER EFFICIENCY	Energy Star	Non Energy Star				DKJ-99		
Recreational Equipment										
H14		SWIMMING POOL	Private	Shared (MF)	None			DKJ-99	<input type="checkbox"/>	
H15		SWIMMING POOL HEATING FUEL	Electricity	Nat Gas	Propane/ Bottled			DKJ-99		
N/A		SWIMMING POOL – TIMER – ON		(Record Time)				DKJ-99		
N/A		SWIMMING POOL – TIMER – OFF		(Record Time)				DKJ-99		

<u>RASS #</u>	<u>Response from phone svy</u>	<u>MEASURE</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>Don't Know</u>	<u>Photo</u>	<u>Other/Notes</u>
N/A		SWIMMING POOL – TIMER – ON – 2		<i>(Record Time)</i>				DK/-99		
N/A		SWIMMING POOL – TIMER – OFF – 2		<i>(Record Time)</i>				DK/-99		
H18		HOT TUB/SPA	Private	Shared	None			DK/-99	<input type="checkbox"/>	
H19		HOT TUB/SPA FUEL	Electricity	<i>Nat Gas</i>	Propane/ Bottled			DK/-99		
H20		SAUNA	Private	Shared	None			DK/-99	<input type="checkbox"/>	
H21		SAUNA FUEL	Electricity	<i>Nat Gas</i>	Propane/ Bottled			DK/-99		

Lighting* [Auditors, please note unusual or high bulb count fixtures such as candelabra fixtures with more than 20 bulbs.]									
Room	Screw Based Lamps			Pin Based Lamps			TOTAL Bulbs	Canned lighting (top floor only)	
	# Incandescent	# CFL	# Halogen	# Florescent	# CFL	# Halogen		# of canned light sockets in top floor	% sealed
Bathroom 1									
Bathroom 2									
Bathroom 3									
Bedroom 1									
Bedroom 2									
Bedroom 3									
Bedroom 4									
Bedroom 5									
Closet 1									
Closet 2									
Closet 3									
Closet 4									
Closet 5									
Formal/Separate Dining Room									
Garage									
Hallway/Entry 1									
Hallway/Entry 2									
Hallway/Entry 3									
Kitchen/Dining Area									
Laundry/Utility Room									
Office/Den									
Other/Secondary Living Space									
Outside Lamps									
Primary Living Space (LR or Family Room where residents spend most time)									
Unconditioned Basement									
Total Installed									
In Storage (Not Installed)									

Total # of rooms in home:	
Notes:	

Table 1 - Heating Equipment

Code	Equipment Description
1	Natural gas central forced air furnace Natural gas hot water boiler (with radiators or baseboards); also called natural gas hydronic heating
2	Natural gas steam boiler (with radiators)
3	Natural gas radiant floor heating
4	Natural gas fireplace
5	Electric Baseboard
6	Electric central forced air furnace
7	Air-source Heat pump (ELEC)
8	Ground-source heat pump (ELEC)
9	Portable heaters (ELEC)
10	Oil central forced air furnace Oil hot water boiler ((with radiators or baseboards); also called oil hydronic heating)
11	Oil steam boiler (with radiators)
12	Bottled gas central forced air (propane, butane, or kerosene)
13	Bottled gas portable heaters (propane, butane, or kerosene)
14	Wood stove
15	Wood fireplace
16	Solar
17	Other System & Fuel [SPECIFY]
18	None (No heating system)
-99	DK
-99	REF

Table 2 - Cooling Equipment

Code	Equipment Description
1	Central air conditioner
2	Air-source heat pump
3	Ground-source heat pump
4	Room air conditioners
5	Ductless mini-split air conditioner
6	Evaporative cooler (Swamp cooler)
7	Portable fans
8	Whole-house fan, or
9	Ceiling fans
10	Something else [SPECIFY]
11	No cooling system
-99	DK
-99	REF

Table 1 – Water Heating Equipment

Code	Equipment Description
1	Tank type storage water heater.
2	Heat pump water heater Indirect water heater that uses the home's boiler as the heat source or an integrated water heater that is also used to heat the home.
3	Solar water heater Tankless hotwater heater, also called Demand or instantaneous water heaters
4	DK
5	REF
-99	DK
-99	REF

B1. Within the past year, what have you done to reduce energy use in your home? (select all that apply) [In field, circle letters of affirmative responses. *For data entry, enter 1 for each affirmative response*]

- a. Turn off lights when not in use
- b. Replace light bulbs with Compact Fluorescent Light (CFL) bulbs
- c. Adjust thermostat setting at night
- d. Adjust thermostat setting when not at home
- e. Reduce thermostat setting in the winter
- f. Increase thermostat setting in the summer
- g. Installed programmable thermostat
- h. Unplug adapters and charging devices when not in use
- i. Unplug electronic devices with “instant on” feature
- j. Purchase energy efficient appliances/equipment
- k. Take shorter showers
- l. Increase level of insulation
- m. Reduce air infiltration or leaks (by caulking, adding storm windows, etc.)
- n. I don't do anything to reduce energy in my home (SKIP TO QUESTION B3)
- o. Other [specify]:_____

B2. What is your primary motive to reduce energy use in your home? [*Randomize order*]

- a. To save energy
- b. To save money on utility bill
- c. Reduce pollution/carbon footprint
- d. Other [specify]:_____

B3. Which of the following high-efficiency equipment (eg. ENERGY STAR®) have you installed in your home in the past five years? (select all that apply)

- a) Compact Fluorescent Light Bulb(s) (CFL)
- b) central air conditioner
- c) window/through-the-wall air conditioner
- d) Heat-Pump
- e) Water Heater
- f) refrigerator
- g) dishwasher

- h) clothes washer
- i) Other [specify]:
- j) Have not installed any energy efficient equipment in my home

[SURVEYOR READ] *Part of designing new programs that customers find attractive is identifying offerings that match customer needs. The following questions will highlight some of the programs and offerings currently under review. Using a scale of 1 to 5, please indicate your perception of the following program elements and/or offerings.*

B4. How likely would you be to take the following actions if offered by Ameren Illinois Utilities? Please give a number between 1 to 5, where 1 is 'Very Unlikely' and 5 is 'Very likely.'

a. **Have an on-site home energy audit.** An energy audit is an evaluation of home energy efficiency performed by a professional auditor who conducts a visual inspection of your home and diagnostic tests on your heating and cooling system. They identify major air leakage and insulation gaps, look for general energy-saving opportunities, and provide recommendations for energy efficiency upgrades.

A residential energy audit can help homeowners identify the most cost-effective, highest-priority energy efficiency upgrades for their home, which can reduce monthly utility bills and increase comfort.

How likely would you be to pay for an on-site energy audit of your home if the final cost to you was:

1. \$200 [RATING 1-5] _____
2. \$250 [RATING 1-5] _____
3. \$300 [RATING 1-5] _____

b. **Recycle an old Appliance.** You would be paid for somebody to pick-up and recycle your old working refrigerator and/or freezer. [RATING: _____]

[SURVEYOR READ] Generally it costs extra to purchase energy efficient products (such as Energy Star® products) over standard products that are not energy efficient. The next series of questions assess your likelihood to purchase energy efficient products.

B5. For each measure option in the table below please rate your likelihood to purchase the following items by assigning a number between 1 to 5, where 1 is 'Not at all likely' and 5 is 'Extremely likely.'

Options	A	B	C	Initial Cost Difference [for surveyor use, read as necessary]
	Without a utility incentive, how likely would you be to install energy efficient [Option] in the next five years? [If response 1-4, continue to B]	What if Ameren paid 50% of the cost to upgrade to the energy efficiency model? [If response 1-4, continue to C] [If necessary, provide the related approximate incremental cost]	How about if the incentive were 75% of the cost to upgrade? [If necessary, provide the related approximate incremental cost]	
B5A. Energy Efficient Lighting (CFLs)				\$3 for 19W CFL (equivalent to 75W incandescent bulb)
B5B. Air Conditioning (central)				\$550 for Central A/C; \$50 for Room A/C
B5C. Space Heating (gas furnace)				\$320 for gas furnace
B5D. Appliances (refrigerator)				\$30 for top-mount refrigerator w/o ice dispenser
B5E. Electronics (TV, computer)				\$100 for HDTV or \$80 for computer
B5F. Weatherization (energy efficient insulation)				\$400 for insulation

[SURVEYOR READ] In the next four questions please tell me how you make your decisions about energy efficiency.

B6. Please rate the level of importance each of the following factors has in your decision to participate in an Ameren sponsored energy efficiency program on a scale from 1 to 5 where 1 is 'not important at all' and 5 is 'extremely important',

- a. Effect on the value of your home [RATING:_____]
- b. Environmental impact [RATING:_____]
- c. Effect on your monthly electric bill [RATING:_____]

- d. Out-of-pocket cost for new high-efficiency electric equipment/appliances [RATING:_____]
- e. Level of comfort [RATING:_____]
- f. Payback period from new high-efficiency equipment [RATING:_____]
- g. Impact on lifestyle/convenience [RATING:_____]

B7. We understand that at times there may be barriers that can prevent you from becoming more energy efficient. Please indicate your level of agreement with the following statements, where 1 is 'Completely Disagree' and 5 is 'Completely Agree.'

- a. High-efficiency measures are generally too expensive for me (Cost)
- b. I often need more information about high-efficiency measures (Information)
- c. I am not responsible for purchasing these items in my household (Not Decision Maker)
- d. I do not know enough about my home's current energy usage (Knowledge)
- e. Energy prices are not high enough to motivate me to take action (Status quo)

B8. What other barriers often prevent you from becoming more energy efficient in your home?

- a. (specify):_____
- b. No other barriers exist

A.3 – Commercial On-Site Survey

Ameren Commercial On-Site Survey

****Confidential: All data collected on this form is confidential and may only be used for this study.*

1. General Building Information

Site Name			
Site Address			
City/State/Zip			

Primary Contact for Site Visit

Contact 1		Title			
Address		City		State	Zip
Phone 1a		Phone		Email	

Alternate Contact for Site Visit

Contact 2		Title			
Address		City		State	Zip
Phone 2a		Phone		Email	

General Building/Complex Information

NAICS code		
Is this site a Single building or a Multiple building complex?	S	M
Economic use of the building/complex? (Table 1)		
Total Bldg. GROSS Floor Area (SqFt) including enclosed parking		<input type="checkbox"/> Est?
Primary Heating Fuel Type (Table 2)		
No. of Floors above grade		
No. of Floors below grade		
Are there areas within bldg. with dedicated server room(s)?	Y	N
Back-Up Generation (kW)		

Table 1-Economic Use	
1 Food Service	7 Fabricated Metals
2 Food Stores	8 Food & Kindred Products
3 Office Building	9 Rubber & Misc Plastics
4 Retail	10 Warehouse
5 Health Services	11 Other
6 Educational	

Table 2-Fuel Type
1 Electricity
2 Natural Gas
3 Fuel Oil
4 Propane
5 Other

Comments:

Utility Information

Electric Accounts	E1	E2	E3
Electric Utility Name:			
Meter #			

Gas Accounts	G1	G2	G3
Gas Utility Name:			
Meter #			

General Space Information	Primary Space	Secondary Space	Tertiary Space	Common Space	Indoor Parking
Functional Use (Table 1)					
% Of Total Building Area					
Space Cooled?	Y N	Y N	Y N	Y N	
After Hours Shutoff/Setup?	Y N	Y N	Y N	Y N	
Space Heated?	Y N	Y N	Y N	Y N	
After Hours Shutoff/Setback?	Y N	Y N	Y N	Y N	

Table 1 – Space Type Functional Use	
1 Assembly / Recreation	7 Office
2 Classroom	8 Sales
3 Dining	9 Storage (Low bay)
4 Guest room	10 Vacant
5 Kitchen	11 Warehouse (High bay)
6 Laundry / Housekeeping	12 Process (Industrial only)

2. Business Hours of Operation

Hours of Operation - Primary Space

Day Type	Hours (01-24)	Closed All Day?	Open 24 Hours?
Weekday	From _____ To_____	<input type="checkbox"/>	<input type="checkbox"/>
Saturday	From _____ To_____	<input type="checkbox"/>	<input type="checkbox"/>
Sunday	From _____ To_____	<input type="checkbox"/>	<input type="checkbox"/>

Hours of Operation - Secondary Space

Day Type	Hours (01-24)	Closed All Day?	Open 24 Hours?
Weekday	From _____ To_____	<input type="checkbox"/>	<input type="checkbox"/>
Saturday	From _____ To_____	<input type="checkbox"/>	<input type="checkbox"/>
Sunday	From _____ To_____	<input type="checkbox"/>	<input type="checkbox"/>

Hours of Operation - Tertiary Space

Day Type	Hours (01-24)	Closed All Day?	Open 24 Hours?
Weekday	From _____ To_____	<input type="checkbox"/>	<input type="checkbox"/>
Saturday	From _____ To_____	<input type="checkbox"/>	<input type="checkbox"/>
Sunday	From _____ To_____	<input type="checkbox"/>	<input type="checkbox"/>

Hours of Operation - Common Space

Day Type	Hours (01-24)	Closed All Day?	Open 24 Hours?
Weekday	From _____ To_____	<input type="checkbox"/>	<input type="checkbox"/>
Saturday	From _____ To_____	<input type="checkbox"/>	<input type="checkbox"/>
Sunday	From _____ To_____	<input type="checkbox"/>	<input type="checkbox"/>

Hours of Operation – Indoor Parking

Day Type	Hours (01-24)	Closed All Day?	Open 24 Hours?
Weekday	From _____ To_____	<input type="checkbox"/>	<input type="checkbox"/>
Saturday	From _____ To_____	<input type="checkbox"/>	<input type="checkbox"/>
Sunday	From _____ To_____	<input type="checkbox"/>	<input type="checkbox"/>

3. Building Envelope

EXTERNAL WALLS	North	East	South	West
Surface Type: B = Brick	B	B	B	B
C = Concrete	C	C	C	C
CB = Concrete Block	CB	CB	CB	CB
F = Wood	F	F	F	F
M = Metal	M	M	M	M
AW = Adjoining Wall	AW	AW	AW	AW

WINDOWS

(Predominant window type by direction)

	North	East	South	West
Window Area (% of wall area)				
# Panes of Glass	1 2 3	1 2 3	1 2 3	1 2 3
Glazing Material: C = Clear, O = Opaque R = Reflective, T = Tinted	C O R T	C O R T	C O R T	C O R T
Frame Type: M = Metal V = Vinyl W = Wood	M V W	M V W	M V W	M V W

ROOFS

Roof Type: F = Flat P = Pitched	F P
Surface Material: B = Built-up C = Cool Roof E = Membrane M = Metal S = Shingles/Felt	B C E M S
Roof Area (SF): [Flat Roof Only]	

FLOORS

Floor Type: B = Basement C = Crawl S = Slab U = Unconditioned	B C S U
--	---------

SKYLIGHTS

Skylights?	Y N
Skylight Area: (SF)	
Lighting Dimming Control?	Y N

4. Unitary HVAC System

Packaged System ID:	PS1			PS2			PS3		
Space ID (s) Served	1	2	3	1	2	3	1	2	3
	C			C			C		
Packaged HVAC System Type (Table 1)									
Number of Units									
Age of Unit (Years)									
Manufacturer									
Model Name/Number									
Rated Cooling Capacity (Tons)									
Performance Rating (Circle one)	<i>EER</i>	<i>SEER</i>		<i>EER</i>	<i>SEER</i>		<i>EER</i>	<i>SEER</i>	
Performance Rating Value									
Temperature Control Type (Table 2)									
Supply Fan: Volume Control: [VAV only] Discharge Damper Inlet Vane VFD	D	I	V	D	I	V	D	I	V
Return Fan?	Y	N		Y	N		Y	N	
Economizer: Air Water None	A	W	N	A	W	N	A	W	N
Primary Heating Type (Table 3)									
Primary Heating Fuel Type (Table 4)									
Supplemental Heating Type (Heat Pump only) (Table 3)									
Supplemental Heating Fuel Type (Heat Pump only) (Table 4)									

Table 1-Packaged HVAC System Type	
0 - Packaged Single Zone – HEAT only	7 - Heat Pump, ground source
1 - Packaged Single Zone – A/C only	8 - Heat pump, water source
2 - Packaged Single Zone – A/C w/ heat	9 - Split System
3 - Packaged Multi Zone	10 - Unit Heater
4 - Packaged VAV	11 - Unit Ventilator
5 - Evaporative Cooler	12 - Window / Wall A/C unit
6 - Heat Pump, air source	13 - Window / Wall Heat Pump

Table 2-Temperature Control Type
1 - Thermostat – Programmable
2 - Thermostat - Manual
3 - EMS
4 - Always On
5 - Manual on/off
6 - Time clock

Table 3-Heating Type
1 - Forced Air
2 - Resistance
3 - Central Boiler
4 - Heat Pump
5 – Other

Table 4–Fuel Type
1 - Electricity
2 - Natural Gas
3 - Fuel Oil
4 - Propane
5 – Other

5a. Central HVAC System – Air Distribution

Air Handler ID:	AH1	AH2	AH3
Air Distribution System Type (Table 1)			
Temperature Control Type (Table 2)			
Age of Air Handler (Years)			
Supply Fans: Volume Control: None Inlet Vane VFD	N I V	N I V	N I V
Supply Fan Motor HP			
Motor Efficiency (% or S, H, P)			
Return Fans?	Y N	Y N	Y N
Return Fan Motor HP			
Motor Efficiency (% or S, H, P)			
Economizer?	Y N	Y N	Y N
Terminal Reheat: Electric Hot Water Steam None	E H S N	E H S N	E H S N

Table 1-Air Distribution System Type	
1 - CV Single Zone	8 - VAV Terminal Reheat
2 - CV Multi Zone	9 - VAV Dual Duct
3 - CV Dual Duct	10 - Fan Coil
4 - CV Terminal Reheat	11 - Baseboard
5 - FPS Fan Powered VAV - Series	12 - Heat & Vent
6 - FPP Fan Powered VAV - Parallel	13 - Hydronic Heat Pump
7 - VAV Cooling Only	14 - Induction

Table 2-Temperature Control Type
1-Thermostat – Programmable
2-Thermostat - Manual
3-EMS
4-Always On
5-Manual on/off
6-Time clock

5b. Central HVAC System – BOILER

Boiler ID:		B1	B2	B3
Boiler Service:	Hot Water Steam	S H	S H	S H
Number of Boilers				
Age of Boiler(s) (years)				
Fuel Type (Table 1)				
Manufacturer				
Model Name/Number				
Input Capacity (kW or kBtu/hr)				
EMS Control?		Y N	Y N	Y N

HOT WATER PUMPS

Quantity			
Motor HP			
Motor Efficiency (% or S, H, P)			
Capacity Control: 1 speed 2 speed Variable	1 2 V	1 2 V	1 2 V
EMS Control?	Y N	Y N	Y N

Table 1 – Fuel Type
1 - Electricity
2 - Natural Gas
3 - Fuel Oil
4 - Propane
5 – Other

5c. Central HVAC System - CHILLER

Chiller ID:	C1	C2	C3
Chiller Type (Table 1)			
Number of Chillers			
Age of Chiller(s) (Years)			
Manufacturer			
Model Name/Number			
Rated Cooling Capacity (Tons)			
Full Load kW			
EMS Control?	Y N	Y N	Y N

HEAT REJECTION SYSTEM

Condenser Type (Table 2)			
Fan Control: Constant Cycle Pony motor Two-Speed Variable Speed	CO CY P T V	CO CY P T V	CO CY P T V
Condenser Fans: Quantity			
Total Motor HP			
EMS Control?	Y N	Y N	Y N

CHILLED WATER PUMPS

Pump Use: Primary Secondary	P S	P S	P S
Quantity			
Total Motor HP			
Motor Efficiency (% or S, H, P)			
Capacity Control: 1 speed 2 speed Variable	1 2 V	1 2 V	1 2 V
EMS Control?	Y N	Y N	Y N

CONDENSER WATER PUMPS

Quantity			
Total Motor HP			
Motor Efficiency (% or S, H, P)			
Capacity Control: 1 speed 2 speed Variable			
EMS Control?			

Table 1-Chiller Type	Table 2-Condenser Type
1 - Centrifugal 2 - Reciprocating 3 - Rotary 4 - Absorption, hot water 5 - Absorption, natural gas 6 - Absorption, steam	1 - Air Cooled Condenser 2 - Cooling Tower 3 - Evaporative Cooler 4 - Other

6. Domestic Water Heating

Water Heater ID:		WH1	WH2	WH3	WH4
Water Heater Type	(Table 1)				
Fuel Type	(Table 2)				
Number of Units					
Age of Water Heater	(years)				
Tank Capacity	(gallons)				
Input Capacity	(kW or kBtu/hr)				
Tank Wrap?		Y N	Y N	Y N	Y N
Recirculation Pump?		Y N	Y N	Y N	Y N

Table 1 – Water Heater Type
1 - Heat Pump
2 - Heat Recovery
3 - Instantaneous (tankless)
4 - Self-Contained
5 - Storage Tank (central boiler)
6 - Solar
7 - Other

Table 2 – Fuel Type
1 - Electricity
2 - Natural Gas
3 - Fuel Oil
4 - Propane
5 - Other

10. Miscellaneous Equipment

Economic Use Type	Equipment	
Food Service (Restaurant)	Meals per day	(#)
	Kitchen – Full Service	(1=Yes, 0=No)
	Kitchen – Warming	(1=Yes, 0=No)
Food Stores (Grocery)	Point-of-use terminals	(#)
	Food Prep – Meat Dept.	(1=Yes, 0=No)
	Food Prep – Deli	(1=Yes, 0=No)
Office Buildings	PCs	(#)
Retail	Point-of-use terminals	(#)
Misc. Retail (Lodging)	Rooms	(#)
	Annual Average occupancy	(%)
	Kitchen – Full Service	(1=Yes, 0=No)
	Kitchen – Warming	(1=Yes, 0=No)
	Laundry Facility	(1=Yes, 0=No)
Health Services	Beds	(#)
	Laundry Facility	(1=Yes, 0=No)
Educational	Classrooms	(#)
	PCs	(#)
	Kitchen – Full Service	(1=Yes, 0=No)
	Kitchen – Warming	(1=Yes, 0=No)
	Laundry Facility	(1=Yes, 0=No)
Warehouses	Forklifts (electric only)	(#)

Food Service Equipment		Electric	Gas
If Kitchen–Full Service	Broilers / Fryer	(#)	
	Griddle / Grill	(#)	
	Oven	(#)	
	Range	(#)	
	Hot Boxes	(#)	
	Conveyor Toasters	(#)	
	Heat Lamps	(#)	
	Door-type dishwasher	(#)	
	Conveyor dishwashers	(#)	
	Flight dishwashers	(#)	
	Dishwasher Booster	(#)	
	If Laundry	Clothes Dryer–Commercial	(#)
Clothes Dryer–Residential		(#)	

11. Refrigeration Equipment

COMPRESSORS			ID #:	Cp-1	Cp-2	Cp-3	Cp-4	Cp-5
Type:	Reciprocating	Screw		R S	R S	R S	R S	R S
Temp:	Low	(0 to -10 °F)		L M H	L M H	L M H	L M H	L M H
	Medium	(30 to 40 °F)						
	High	(50 to 55 °F)						
Total Motor HP:								
Quantity:								
VSD compressors?				Y N	Y N	Y N	Y N	Y N
Heat Recovery?				Y N	Y N	Y N	Y N	Y N

CONDENSERS			ID #:	Cn-1	Cn-2	Cn-3	Cn-4	Cn-5
Type:	Air-cooled	Water-cooled		A W	A W	A W	A W	A W
Total Fan HP:			(all types)					
Fan VSD?				Y N	Y N	Y N	Y N	Y N
Pump Motor HP			(water-cooled only)					
Pump VSD?				Y N	Y N	Y N	Y N	Y N

REFRIGERATED DISPLAY CASES

	Enclosed	Open	Other
Case Length:	(LF)		
Anti-sweat heater control?	Y N		
Lighting Type:	T12 T8 T5 LED	T12 T8 T5 LED	T12 T8 T5 LED
Lamp Length:	(Foot)		
Total number of lamps:			

PACKAGED REFRIGERATION EQUIPMENT	Count
Vending Machines	
Beverage Merchandisers	
Ice Machines	
Reach-in upright Refrigerator	
Reach-in upright Freezer	
Reach-in under-counter Refrigerator	
Reach-in under-counter Freezer	
Walk-in Cooler	
Walk-in Freezer	

12. Server Rooms

Hardware in Use:	Count	Energy Star	
Servers		Y	N
Total Floor Area: (sf)			
Separate electric meter?	Y		N
Does space have its own cooling system?	Y		N
Cooling capacity: (tons)			
Is power management system installed?	Y		N

A.4 – HVAC Trade Ally Survey

The Cadmus Group

AIU – HVAC Trade Ally Survey

A. RESPONDENT'S CONTACT INFORMATION (COMPLETE BEFORE INTERVIEW)

Dealer Name: _____ Survey Date: _____
 Contact Name: _____ Interviewer Initials: _____
 Contact Phone Number: _____ Contact Title: _____

B. INTRODUCTION

Hello, my name is _____ and I work for The Cadmus Group. I'm calling on behalf of **Ameren Illinois Utilities**.

We are conducting a study with HVAC dealers and distributors regarding the marketability of energy efficient products and ways the Utilities might help increase sales of the most efficient equipment. If you have a few minutes, I'd like to ask you some questions about your experience in the industry.

B1. Are you the person who is most familiar with the product lines you carry, and the products for which there are energy efficient or ENERGY STAR models available?

- 1 Yes → Go to B2
- 2 **IF NO, ASK**, Can you provide me with a contact name and phone number for a person at your store who might be more familiar with the energy efficient products you carry? *[WRITE NAME AND NUMBER IN SPACE BELOW.]*

Name: _____

Phone: (____) _____ ext. _____

[THANK AND REPEAT WITH NEW CONTACT]

B2. Would you have a few minutes to speak now?

- 1 Yes → Go to C1
- 2 No → Can I schedule a time to call back?

IF YES, WRITE IN SCHEDULED DATE AND TIME. IF NO, THANK & TERMINATE.

C. INTRODUCTORY QUESTIONS

- C1 First, I'd just like to confirm that you sell air conditioners, heat pumps, boilers or furnaces to the residential market. Is this correct?
- 1 Yes
 - 2 No → **CONFIRM NON-RESIDENTIAL ONLY**
 - 99 Don't Know → Go to 0
- C2 Do you sell unitary AC systems to the non-residential market?
- 1 Yes
 - 2 No
 - 99 Don't Know
- C2.b. What is the type of your company?
- 1 Retailer
 - 2 Distributor
 - 3 Manufacturer
 - 4 Contractor
 - 5 Maintenance
 - 6 Other
 - 99 Don't know
- C3 In the past 12 months, have you done any advertising or promotions regarding rebates that are available for high efficiency central air conditioning systems, heat pumps, or furnaces?
- ENTER ALL THAT APPLY.**
- a. Print ads → Go to
 - b. Radio ads
 - c. TV ads
 - d. Circulars/Direct mail
 - e. Other [SPECIFY: _____]
 - f. No (Did not promote incentives)
 - 99 Don't Know → Continue
- C4 Why have you not promoted the rebates?
- 1 Not enough money/budget
 - 2 Utility's job
 - 3 Other [SPECIFY: _____]
 - 99 Don't Know
- C5 In the past 12 months, have you sold any central air conditioning units or heat pumps for which the customer received an incentive or rebate from a utility?
- 1 Yes
 - 2 No
 - 99 Don't Know → Go to 0

D. AIR CONDITIONER MARKET SHARE

For the next several questions, I am going to ask about the percent of units that you sell to each the existing home new equipment market, the existing home replacement equipment, the new construction and the non-residential markets. The following questions are specific to equipment used or installed within Ameren Illinois' Service Territory. Ameren's service territory covers the southern part of Illinois from Peoria to the southern border.

ENTER RESPONSES FOR THE FOLLOWING QUESTIONS INTO TABLE 1, OVERALL.

D1A – D4A

In the past 12 months for all cooling systems that your company has sold what percent would you estimate {Measure}?

D2B – D7B

In the past 12 months for all heating systems that your company has sold what percent would you estimate {Measure}?

D1C – D5E

In the past 12 months for all cooling systems that your company sold that were {Measure}, what percent were sold to the {SECTOR} market?

D2F – D7H

In the past 12 months for all heating systems that your company sold that were {Measure}, what percent were sold to the {SECTOR} market?

ENTER RESPONSES FOR THE FOLLOWING QUESTIONS INTO TABLE 2, RESIDENTIAL NEW CONSTRUCTION.

D1I – D5I

What is the average size in (**TONS** –for central ac/heat Pumps / **Btu** – for electric furnaces) for {MEASURE} that you sell to the residential new construction market?

D1J – D4M

Of the {MEASURE} that you sell to the residential new construction market, what percent are rated {EFFICIENCY – Baseline through Advanced}?

ENTER RESPONSES FOR THE FOLLOWING QUESTIONS INTO TABLE 3, RESIDENTIAL EXISTING HOMES.

D1N – D4N

What is the average size in (**TONS** –for central ac/heat Pumps / **Btu** – for electric furnaces) for {MEASURE} that you sell to the residential existing home market?

D1O – D4R

Of the {MEASURE} that you sell to the residential existing home market, what percent are rated {EFFICIENCY – Baseline through Advanced}?

***ENTER RESPONSES FOR THE FOLLOWING QUESTIONS INTO
TABLE 4, NON-RESIDENTIAL***

D1S – D6S

What is the average size in (**TONS** –for central ac/heat Pumps / **Btu** – for electric furnaces or boilers) for {MEASURE} that you sell to the non-residential market?

D1T – D6W

Of the {MEASURE} that you sell to the non-residential market, what percent are rated {EFFICIENCY – Baseline through Advanced}?

D9. In the past 12 months how many electric heating systems in total would you estimate that your company has sold?

_____ Number of units

D10. In the past 12 months how many cooling systems in total would you estimate that your company has sold?

_____ Number of units

D11. In what percent of the residential buildings in which you have worked is the ductwork located within conditioned spaces?

_____ Percent

E. CONCLUSION

That is all of the questions I have for you; however I would like to ask one favor: if I have a quick follow-up question at a later date would it be alright if I was to call back at that time?

- 1 Yes
- 2 No
- 99 Don't Know

Unless you have any questions or comments for me, I think that is all. Thank you again for your time.

Table1. Overall

Measure	A	B	Cooling (Percent of column A)			Heating (Percent of Column B)		
	Share of Cooling Equipment (column total should come close to 100%)	Share of Heating Equipment (column total should come close to 100%)	Residential New Construction	Residential Existing Homes	Non-Residential	Residential New Construction	Residential Existing Homes	Non-Residential
1 Central Air Conditioners								
2 Air Source Heat Pumps								
3 Open Loop Ground Source (geothermal) Heat Pumps								
4 Closed Loop Ground Source (geothermal) Heat Pumps								
5 Chiller								
6 Electric Furnaces								
7 Gas Heating								

Table 2. Residential New Construction

Measure	Average Size (Tons/BTUs)	Residential New Construction Efficiency Levels									
		I		J		K		L		M	
		Baseline Efficient	%	High Efficient	%	Premium Efficient	%	Advanced Efficient	%		
1 Central Air Conditioners		13 SEER		14 or 15 SEER		16 or 17 SEER		Over 17 SEER			
2 Air Source Heat Pumps		13 SEER & 7.7 – 8.4 HSPF		14 - 15 SEER & 8.5 - 8.7 HSPF		16 - 7 SEER & 8.8 - 8.9 HSPF		18 SEER & 9.0 HSPF or greater			
3 Open Loop Ground Source (geothermal) Heat Pumps		EER = 16.2, COP = 3.6		EER = 17, COP = 4.0							
4 Closed Loop Ground Source (geothermal) Heat Pumps		EER = 13.4, COP = 3.1		EER = 14.1, COP = 3.3		EER = 16.2, COP = 4.1					

Table 3. Residential Existing Homes

Measure		N	O		P		Q		R		
		Residential Existing Homes Efficiency Levels									
		Average Size (Tons/BTUs)	Baseline Efficient	%	High Efficient	%	Premium Efficient	%	Advanced Efficient	%	
1	Central Air Conditioners		13 SEER		14 or 15 SEER		16 or 17 SEER		Over 17 SEER		
2	Air Source Heat Pumps		13 SEER & 7.7 – 8.4 HSPF		14 - 15 SEER & 8.5 - 8.7 HSPF		16 - 7 SEER & 8.8 - 8.9 HSPF		18 SEER & 9.0 HSPF or greater		
3	Open Loop Ground Source (geothermal) Heat Pumps		EER = 16.2, COP = 3.6		EER = 17, COP = 4.0						
4	Closed Loop Ground Source (geothermal) Heat Pumps		EER = 13.4, COP = 3.1		EER = 14.1, COP = 3.3		EER = 16.2, COP = 4.1				

Table 4. Non-Residential

Measure		<u>S</u>	<u>T</u>		<u>U</u>		<u>V</u>		<u>W</u>		
		Non-Residential Efficiency Levels									
		Average Size (Tons/BTUs)	Baseline Efficient	%	High Efficient	%	Premium Efficient	%	Advanced Efficient	%	
1	DX Unit (direct expansion – unitary)		10.3 EER		11 EER		11.5 EER		12 EER		
2	Air Source Heat Pumps		10.1 EER & 3.2 COP		EER=11.0, COP=3.5		EER=11.5, COP=3.8		12 EER & 4.0 COP or greater		
3	Chiller (air-cooled)		1.13 kW/TON		1.04 kW/TON		0.95 kW/TON				
4	Chiller (water-cooled)		0.72 kW/TON		0.57 kW/TON		0.54 kW/TON		0.49 kW/TON		
5	Open Loop Ground Source (geothermal) Heat Pumps		EER = 16.2, COP = 3.6		EER = 17, COP = 4.0						
6	Closed Loop Ground Source (geothermal) Heat Pumps		EER = 13.4, COP = 3.1		EER = 14.1, COP = 3.3		EER = 16.2, COP = 4.1				

A.5 – Premium Efficiency Motors Survey

The Cadmus Group

AIU – Premium Efficiency Motors Survey

A. Respondent's Contact Information (Complete before interview)

Company Name: _____ Survey Date: _____

Contact Name: _____ Interviewer Initials: _____

Contact Phone Number: _____ Contact Title: _____

B. Introduction

Hello, my name is _____ and I work for a research firm called the Cadmus Group. I'm calling on behalf of **Ameren Illinois Utilities**.

We are conducting a study with manufacturers, distributors and installers of [MEASURE]. If you have a few minutes, I'd like to ask you some questions about the products you distribute or install.

This research effort will take approximately 20 minutes to complete.

1. Do you want to proceed by phone now? [IF YES PROCEED ON TO NEXT PAGE, IF NO GO TO BELOW]
2. Schedule another time? [If yes, write in scheduled date and time]

C. Awareness of / Participation in AIU Programs

1. Are you familiar with AIU's energy efficiency programs for business customers called "ActOnEnergy?"
 - 1) Yes → Continue
 - 2) No → Skip to 2
 - 99) Don't Know → Skip to 2
2. To the best of your knowledge, has your company received an incentive for efficient motors from AIU in the past year either as a program participant, or on behalf of one of your customers?
 - 1) Yes
 - 2) No
 - 99) Don't Know
3. In the past five years, have you sold any NEMA Premium[®] motors?
 - 1) Yes
 - 2) No
 - 99) Don't Know

4. In the past five years, have you sold any advanced motor controls such as VFDs and ASDs?
 - 1) Yes
 - 2) No
 - 99) Don't Know

D. Awareness of and Demand for Energy Efficiency

5. How would you say that your customer's awareness of, and familiarity with NEMA Premium[®] motors changed over the past five years? Has it... **[Read List]**
 - 1) Decreased significantly
 - 2) Decreased somewhat
 - 3) Stayed the same
 - 4) Increased somewhat
 - 5) Increased significantly
 - 99) Don't Know

6. How would you say that your customer's awareness of, and familiarity with advanced motor controls (ASDs, VFDs...) has changed over the past five years? Has it... **[Read List]**
 - 1) Decreased significantly
 - 2) Decreased somewhat
 - 3) Stayed the same
 - 4) Increased somewhat
 - 5) Increased significantly
 - 99) Don't Know

7. Thinking back over the past five years, would you say market demand for NEMA Premium[®] motors has . . . ?
 - 1) Decreased significantly
 - 2) Decreased somewhat
 - 3) Stayed the same
 - 4) Increased somewhat
 - 5) Increased significantly
 - 99) Don't Know

8. Thinking back over the past five years, would you say market demand for advanced motor controls (ASDs, VFDs...) has . . . ?
 - 1) Decreased significantly
 - 2) Decreased somewhat
 - 3) Stayed the same
 - 4) Increased somewhat
 - 5) Increased significantly
 - 99) Don't Know

9. **[IF ANY QUESTION 5-8 ≠ 3 or -99]** To what do you attribute these trends in demand, sales and competition? **[After attributions provided, clarify if type of influence is positive or negative and then rate the strength of impact]** How would you rate the impact of these factors, using a scale of 0 to 10, where 10 = very large impact and 0 = very small impact?

Factor (Do Not Prompt - Check all that Apply)	Direction of Influence (+ = Increased Sales...; - = Decreased)	Rate [Rate after all factors are recorded] (10 = very large impact; 0 = very small impact)
a) Energy prices	a1) + / -	a2) _____
b) Environmental awareness/concerns	b1) + / -	b2) _____
c) Overall Economic conditions	c1) + / -	c2) _____
d) Customer demand	d1) + / -	d2) _____
e) Manufacturer rebates	e1) + / -	e2) _____
f) AIU	f1) + / -	f2) _____
g) Other Gov't programs [Specify] : _____	g1) + / -	g2) _____
h) Other 1 [Specify] _____	h1) + / -	h2) _____
i) Other 2 [Specify] _____	i1) + / -	i2) _____
Enter Total Number of Factors to Right → →	→ → → →	j2) _____

10. **[IF FAMILIAR WITH AIU (Q1=1)]** In your opinion, has AIU or the **Motors** program had any impact on these trends in market demand, sales, competition, and/or motor price differentials?

F. Market Share

Questions 122-15

11. Approximately how many electric motors did your organization sell during the past 12 months in Illinois?

Record number _____ (Don't know/Refused = -99) **[IF Refused, Probe for range or share of IL market (Less LI) and Note Below]**

NOTE: _____

[ASK PARTS a-c ONLY IF Q3=1 (Sold NEMA Premium Motors in Past 5 Years)]

- a. What percent of your **Total** replacement motor sales for {APPLICATION} are NEMA Premium®?
 _____% **[Insert numerical response into table below]**

- b. What percent of your replacement motor sales for {APPLICATION} are **Eligible** to be NEMA Premium®? **[IF NEEDED]** By eligible, I mean would result in lifecycle cost savings (saving when operating costs are factored in).
 _____% **[Insert numerical response into table below]**

- c. **[IF FAMILIAR WITH AIU (Q1=1)]** In your opinion, what percent of your organization’s total motor sales for {APPLICATION} would have been NEMA Premium® if AIU/Motors had NOT been operating any programs in Illinois?
 _____% **[Insert numerical response into table below]**

[ASK PARTS d - f ONLY IF Q4=1 (Sold Advanced Motor Controls in Past 5 Years)]

- d. What percent of your replacement motor sales for {APPLICATION} include advanced motor controls such as VFDs or ASDs?
 _____% **[Insert numerical response into table below]**

- e. What percent of your replacement motor sales for {APPLICATION} are **Eligible** to include advanced motor controls such as VFDs or ASDs?
 _____% **[Insert numerical response into table below]**

- f. Over the past five years, has the percent of your total replacement motor sales for {APPLICATION} that included advanced motor controls such as VFDs or ASDs increased, decreased, or stayed the same? **[IF INCREASED OR DECREASED]** significantly or just somewhat?
 - 1) Decreased significantly
 - 2) Decreased somewhat
 - 3) Stayed the same
 - 4) Increased somewhat
 - 5) Increased significantly
 - 99) Don’t Know**[Insert coded response into table below]**

Responses for Questions 12-15

{APPLICATION}	a % of Sales NPEM	b % Eligible to be NPEMs	c % NPEM w/o AIU incentive	d % of Sales Include Controls	e % Eligible to Incorporate Controls	f Incr. /Decr. 1-5 / -99
12. any use						
13. use in HVAC equipment						
14. use in compressors						
15. use in horizontal						

pumps						
-------	--	--	--	--	--	--

16. **[IF any Q122-15 PARTS c or f = 1, 2, 4, or 5]** In your opinion, what are the most important factors contributing to the change in sales of NEMA Premium[®] motors and advanced motor controls by your organization?

Factor (Do Not Prompt - Check all that Apply)	Direction of Impact (+ = Increases NEMA Sales; - = Decreases)	Rate Strength of Impact (10 = very large impact; 0 = very small impact)
a. Higher energy costs	a1) + / -	a2) _____
b. Reduced price differential between EPAct and NEMA Premium [®] motors	b1) + / -	b2) _____
c. Greater awareness of NEMA Premium [®] motors among customers	c1) + / -	c2) _____
d. Greater availability of NEMA Premium [®] models	d1) + / -	d2) _____
e. Fuller product line for NEMA Premium [®] motors	e1) + / -	e2) _____
f. Promotion by manufacturers	f1) + / -	f2) _____
g. Programs/promotion by AIU	g1) + / -	g2) _____
h. AIU vendor incentives (currently education and sales support)	h1) + / -	h2) _____
i. AIU end user incentives (financial, education, motor inventories)	i1) + / -	i2) _____
j. Other 1 (specify) _____	j1) + / -	j2) _____
k. Other 2 (specify) _____	k1) + / -	k2) _____
l. Other 3 (specify) _____	l1) + / -	l2) _____
m. Other 4 (specify) _____	m1) + / -	m2) _____
Enter Total Number of Factors to Right → → →	→ → → →	n2) _____

17. Looking ahead to the coming year, do you expect that the percentage of NEMA Premium[®] motors sold by your organization will increase, decrease, or stay the same?

- 1) Decrease significantly
- 2) Decrease somewhat
- 3) Stay the same
- 4) Increase somewhat
- 5) Increase significantly
- 99) Don't Know

18. **[IF FAMILIAR WITH AIU (Q1=1)]** How would you expect the percentage of NEMA Premium[®] motors sold by your organization would change next year if AIU/ **Motors** programs were discontinued?

- 1) Decrease significantly
- 2) Decrease Somewhat
- 3) Stay the same
- 4) Increase somewhat
- 5) Increase significantly
- 99) Don't Know

19. **[IF Q3=1 (Sold NEMA Premium Motors in Past 5 Years)]** What percent of your current motor inventory is NEMA Premium®?
_____%
20. **[IF Q3=1 (Sold NEMA Premium Motors in Past 5 Years)]** What percent of NEMA Premium® eligible applications receive EPAct motors instead of NEMA Premium® because the NEMA Premium® motors are not available in an acceptable timeframe?
_____%
21. **[IF Q3=1 (Sold NEMA Premium Motors in Past 5 Years)]** Over the past five years, has the percent of these NEMA Premium® eligible applications that end up receiving EPAct motors increased, decreased, or stayed the same? **[IF INCREASED OR DECREASED]** significantly or just somewhat?
- 1) Decrease significantly
 - 2) Decrease somewhat
 - 3) Stay the same
 - 4) Increase somewhat
 - 5) Increase significantly
 - 99) Don't Know

Z. Firmographic Information

I just have a few additional questions about your organization...

22. How many locations does your organization have in Illinois?
- 1) One
 - 2) 2 to 5
 - 3) 6 to 10
 - 4) 11 to 20
 - 5) More than 20
 - 99) Don't Know
23. Approximately how many full time employees or full time equivalents does your organization have at this facility?
- 1) Fewer than 5
 - 2) 5 to 9
 - 3) 10 to 19
 - 4) 20 to 49
 - 5) 50 to 99
 - 6) 100 to 249
 - 7) 250 or More
 - 99) Don't Know

This concludes the questions I have for you. Thank you very much for your time.

A.6 – Non-Residential Builders and A&E Firms Survey

The Cadmus Group AIU – Non-Residential Builders and A&E Firms

A. RESPONDENT'S CONTACT INFORMATION (COMPLETE BEFORE INTERVIEW)

Respondent Name: _____ Survey Date: _____

Contact Name: _____ Interviewer Initials: _____

Contact Phone Number: _____ Contact Title: _____

Respondent is with an **A: Architecture/Engineering Firm** or is a **B: Builder** (Check One)

B. INTRODUCTION

Hello, my name is _____ and I work for The Cadmus Group. I'm calling on behalf of **Ameren Illinois Utilities**.

We are conducting a study with {IF **A** → architecture and engineering firms, IF **B** → builders} regarding the marketability of energy efficient products and ways the Utilities might help increase sales of the most efficient equipment. If you have a few minutes, I'd like to ask you some questions about your experience in the industry.

B1. Are you the person who is most familiar with the product lines you carry, and the products for which there are energy efficient or ENERGY STAR models available?

1 Yes → Go to B2

2 ***IF NO, ASK,*** Can you provide me with a contact name and phone number for a person at your store who might be more familiar with the energy efficient products you carry? ***[WRITE NAME AND NUMBER IN SPACE BELOW.]***

Name: _____

Phone: (____) _____ ext. _____

[THANK AND REPEAT WITH NEW CONTACT]

B2. Would you have a few minutes to speak now?

1 Yes → Go to C1

2 No → Can I schedule a time to call back?

IF YES, WRITE IN SCHEDULED DATE AND TIME. IF NO, GO TO B3.

- B3. As another option, we can e-mail or FAX the survey for you to fill out over the next week. Would you like to complete the survey this way instead?

IF NO, THANK AND TERMINATE.

IF E-MAIL IS DESIRED, WRITE RESPONDENT'S E-MAIL ADDRESS:

_____ ***OR***

IF FAX IS DESIRED, WRITE RESPONDENT'S FAX # _____

THANK AND TERMINATE.

C. INTRODUCTORY QUESTIONS

- C1. In the past 12 months, have you participated in any program for which you or a customer received an incentive or rebate from a utility? *[Clarify nongovernment if needed.]*

- 1 Yes
2 No
-99 Don't Know

The following questions are specific to equipment used or installed within Ameren Illinois service territory. Ameren service territory covers the southern part of Illinois from Peoria to the southern border.

D. MARKET SHARE – GAS WATER HEATERS

D1-10A

Do you {IF **A** → design, IF **B** → build (include remodel, retrofit, additions)} {Sector}? [IF Description ≠ ∅] By {Sector} I mean {Description}.

- 1 Yes
RECORD ANSWER IN APPROPRIATE CELL OF COLUMN A OF TABLE 1 AND PROCEED.
- 2 No
RECORD ANSWER IN APPROPRIATE CELL OF COLUMN A OF TABLE AND REPEAT QUESTION FOR NEXT MEASURE.
- 99 Don't Know, Refused
RECORD ANSWER IN APPROPRIATE CELL OF COLUMN A OF TABLE 1 AND REPEAT QUESTION FOR NEXT MEASURE.

D1-10B

In the past 5 years, approximately how many fully constructed square feet of {Sector} would you estimate that you have {IF **A** → designed, IF **B** → built}?

RECORD NUMBER IN APPROPRIATE CELL OF COLUMN B OF TABLE 1 AND PROCEED.

-99 Don't Know, Refused [*If unable to provide by sector, ask average sq. ft total*]

RECORD ANSWER IN APPROPRIATE CELL OF COLUMN B OF TABLE 1 AND REPEAT QUESTION FOR NEXT MEASURE.

D1-10C

How many buildings (projects) would you say that represents? [IF NEEDED: How many buildings combined to equal the {Read D1-8B Sq Ft response just given} square feet of {Sector}??]

RECORD NUMBER IN APPROPRIATE CELL OF COLUMN C OF TABLE 1 AND THEN AND RESTART AT D1-8A FOR NEXT MEASURE. PROCEED TO NEXT QUESTION AFTER PARTS A, B, AND C HAVE BEEN ANSWERED FOR ALL MEASURES.

-99 Don't Know, Refused

RECORD ANSWER IN APPROPRIATE CELL OF COLUMN C OF TABLE 1 AND THEN AND RESTART AT D1-11A FOR NEXT MEASURE.

PROCEED TO NEXT QUESTION AFTER PARTS A, B, AND C HAVE BEEN ANSWERED FOR ALL MEASURES.

E1A-E100

Of the {D1-10, Sector} you said that you have {IF **A** → designed, IF **B** → built}, how many had {Measure}? (*Count what applied to the project—if addition, count only new part*)

1 ***RECORD NUMBER IN APPROPRIATE CELL OF TABLE 2 AND PROCEED.***

-99 Don't Know, Refused

RECORD ANSWER IN APPROPRIATE CELL OF TABLE 2 AND PROCEED.

E1P-E10R

Of the {D1-10, Sector} you said that you have {IF **A** → designed, IF **B** → built}, what was the average {Measure}?

1 ***RECORD NUMBER IN APPROPRIATE CELL OF TABLE 2 AND PROCEED.***

-99 Don't Know, Refused

RECORD ANSWER IN APPROPRIATE CELL OF TABLE 2 AND PROCEED.

E1-E10S

Of {Sector} you said that you have {IF **A** → designed, IF **B** → built}, what percent of the windows were {Measure}?

- 1 ***RECORD NUMBER IN APPROPRIATE CELL OF TABLE 2 AND PROCEED.***
- 99 Don't Know, Refused
- RECORD ANSWER IN APPROPRIATE CELL OF TABLE 2 AND PROCEED.***

E1T-E10Z

Of the lighting installed in the {B1-10} square feet of {Sector} you said that you have {IF **A** → designed, IF **B** → built}, what percent would you estimate were illuminated with {Measure}?

- 1 ***RECORD NUMBER IN APPROPRIATE CELL OF TABLE 2 AND PROCEED.***
- 99 Don't Know, Refused
- RECORD ANSWER IN APPROPRIATE CELL OF TABLE 2 AND PROCEED.***

F. CONCLUSION

That is all of the questions I have for you; however I would like to ask one favor: if I have a quick follow-up question at a later date would it be alright if I was to call back at that time?

- 1 Yes
- 2 No
- 99 Don't Know

Unless you have any questions or comments for me, I think that is all. Thank you again for your time.

Table 1: ‘D’ Questions

	Sector	Description	<u>A</u>	<u>B</u>	<u>C</u>
			Yes (1), No (2), DK/Ref (- 99)	Sq Ft of Type in past 5 yrs	Number of buildings/projects Sq Ft represents
1	Education	School Buildings, colleges & universities			
2	Food Store	Grocery, convenience store buildings			
3	Health Services	Hospitals, Healthcare clinic, nursing home			
4	Lodging	Hotels, motels			
5	Office				
6	Restaurants				
7	Retail				
8	Warehouses	Refrigerated or non-refrigerated			
9	Other: _____ (specify primary use); (specify- industrial <input type="checkbox"/> or commercial <input type="checkbox"/>)	Buildings that don't fit into any of the previously mentioned categories			
-99	Don't Know				

Alternative: D10A. # of buildings per year _____ Total Square ft per year _____
 D10B. # of buildings /year _____ Average Square ft of all buildings: _____

Table 1: “E” Questions

			1	2	3	4	5	6	7	8	9
	Measure	Measure Descr	Education	Grocery	Health	Lodging	Office	Restaurants	Retail	Warehouse	Other: _____(specify primary use); (specify <input type="checkbox"/> industrial or <input type="checkbox"/> commercial)
A	ENERGY STAR Windows	EFF = 0.35 or less									
A2	Energy Efficient Non-Energy Star Windows	EFF = 0.35 or less									
B	Cool Roofs	Light color/white roof									
C	Green Roofs	Vegetation on roof									
D	Ducts in conditioned spaces (<i>within building envelope</i>)										
E	Insulated ducts										
F	Sealed ducts										
G	Occupancy Sensors	Lighting Only									
H	Daylighting controls										
I	Hot Water Pipe Insulation										
J	Point-of-Use Water Heaters										
K	Tankless Water Heaters										
L	Energy efficient chillers										
M	Energy efficient rooftop units										
N	Other energy efficient cooling equipment	Pumps, cooling towers, etc.									
O	HVAC controls	EMS, programmable thermostats									
P	Designed Air Changes per Hour										
Q	R-Value for wall insulation										

R	R-Value for ceiling insulation										
S	Operable windows	Natural ventilation									
T	T-12 lights										
U	T-8 lights										
V	T-5 HO lights	High Output T5									
W	Standard T-5 lights										
X	Incandescent lights										
Y	Pulse start electric ballast metal halide lights										
Z	CFLs	Compact Fluorescent Bulbs									

A.7 – Compressed Air Service Provider Survey

The Cadmus Group

AIU– Compressed Air Service Provider Survey

A. RESPONDENT'S CONTACT INFORMATION (COMPLETE BEFORE INTERVIEW)

Company Name: _____ Survey Date: _____
 Contact Name: _____ Interviewer Initials: _____
 Contact Phone Number: _____ Contact Title: _____

B. INTRODUCTION

Hello, my name is _____ and I work for The Cadmus Group. I'm calling on behalf of **Ameren Illinois Utilities**.

We are conducting a study with compressed air vendors and service providers regarding the marketability of energy efficient products and ways the Utilities might help increase the presence of energy efficient practices in the business. If you have a few minutes, I'd like to ask you some questions about your experience in the industry.

B1. Are you the person who is most familiar with the product lines you carry and the equipment's technical specifications?

- 1 Yes → Go to B2
- 2 ***IF NO, ASK,*** Can you provide me with a contact name and phone number for a person at your store who might be more familiar with the products you carry? ***[WRITE NAME AND NUMBER IN SPACE BELOW.]***

Name: _____

Phone: (____) _____ ext. _____

[THANK AND REPEAT WITH NEW CONTACT]

B2. Would you have a few minutes to speak now?

- 1 Yes → Go to C1
- 2 No → Can I schedule a time to call back?

IF YES, WRITE IN SCHEDULED DATE AND TIME. IF NO, THANK & TERMINATE.

C. INTRODUCTORY QUESTIONS

- C1. What is the type of your company?
- 1 Retailer
 - 2 Distributor
 - 3 Manufacturer
 - 4 Contractor
 - 5 Maintenance Company
 - 6 Other (*SPECIFY*) _____
 - 99 Don't Know

- C2. What is your role in the company?
- 1 Owner
 - 2 Project Manager
 - 3 Project Engineer
 - 4 Administrative Assistant
 - 5 Other (*SPECIFY*) _____)

- C3. What is the market area for your company?
- 1 Local
 - 2 Regional
 - 3 National
 - 4 Global
 - 99 Don't Know

These questions are specific to equipment used or installed within Ameren Illinois Service Territory. This includes the southern part of Illinois from Peoria to the southern border.

- C4. How many employees are currently employed in Illinois:
- 1 *RECORD NUMBER (OR RANGE):* _____
 - 99 Don't Know

- C5. What are your Annual Sales (or range of sales) in Illinois:
- 1 *RECORD NUMBER (OR RANGE):* _____
 - 99 Don't Know

(IF NEEDED USE CATEGORIES: <500K; 501K-1 MILLION; 1M – 10M; 11M – 50M; >50M)

- C6. What percent of 2008 revenues accounted for by the following services?
IF UNSURE OF SHARE OF REVENUES, SIMPLY CHECK THOSE SERVICES THAT WERE PROVIDED.

Service	Percent of 2008 Revenues
Compressed air equipment sales	
Compressed air parts sales	
Compressed air equipment service	
Compressed air system design	
Compressed air efficiency services (leak detection, compressed air system audits, system optimization, controls)	
Other compressed air related services (Specify _____)	

C7. What are the industries or building types that account for most of your customers (list a maximum of five) and the number (or range) of customers for those industries / building types?

(INDUSTRY EXAMPLES: FOOD PROCESSING, LUMBER/WOOD PRODUCTS, TEXTILE MILL PRODUCTS, PAPER MFG, CHEMICAL MFG, PETROLEUM REFINING, STONE/CLAY/GLASS PRODUCTS, PRIMARY METAL MFG, FABRICATED METAL MFG, INDUSTRIAL MACHINERY, ELECTRONIC EQUIPMENT MFG, TRANSPORTATION EQUIPMENT MFG, MINING, IRRIGATION, MISCELLANEOUS MFG, WATER, WASTEWATER)

(BUILDING TYPES: LARGE OFFICE, SMALL OFFICE, LARGE RETAIL, SMALL RETAIL, LODGING, HEALTH, EDUCATION, RESTAURANT, GROCERY, CONVENIENCE STORE, WAREHOUSE, OTHER COMM)

Industry / Building Type	Number (or range) of Customers
1)	
2)	
3)	
4)	
5)	

C8. What percent of your work is performed for new construction (that is, not tied into an existing building or system)?

- 1 **RECORD % OF WORK ON NEW CONSTRUCTION:** _____
- 99 Don't Know

D. EFFICIENCY SERVICES

D1-3.

- 1 Which of the efficiency services listed below do you offer?
- 2 In what year did you first offer the service?
- 3 Is the service offered as:
 - a. Part of a service contract (Serv)?
 - b. A freestanding engineering service (Eng)?
 - c. Part of equipment sales (Eqpt)?
- 99 Don't Know → Skip to D4

Table D1-3: (Indicate all that apply)

Service	1	2	3		
	Offered? (Enter 1 for Yes)	Year First Offered	Serv.	Eng.	Eqpt.
Example	1	2001	1	1	
A. Measurement of system flow and pressure					
B. Assessment of system efficiency					
C. Leak Management service					
D. Ultrasonic leak detection					
E. Provide a detailed inventory of all compressed air end uses					
F. Analysis of end-use reduction opportunities					
G. Other (specify _____)					

D4. Has the volume of efficiency services you sell increased, decreased or remained about the same over the past year?

- 1 Increased
- 2 Decreased
- 3 Remained about the same
- 99 Don't Know

D5. How often do you conduct a compressed air needs assessment and/or estimate as part of a system sales order or bid response?

- 1 In all sales and bid situations
- 2 In most sales and bid situations
- 3 In some sales and bid situations
- 4 In relatively few sales and bid situations
- 5 Never
- 99 Don't Know

D6. How often are you personally able to influence the energy efficiency level of the compressed air system?

- 1 Always
- 2 Almost Always
- 3 Sometimes
- 4 Almost Never
- 5 Never

E. CUSTOMERS CHARACTERISTICS

E1. Based on your experience, please provide estimates of the percentage of your customers who own each compressor type below and average number for compressors per customer.

Table E1:

Type of compressor	Percent of customers	Average number of units per customer
A. Screw		
B. Reciprocating		
C. Centrifugal		

E2 Based on your experience, please provide estimates of the percentage of your customers who own compressors in each size category and the average number for compressors in each category per customer.

Table E2:

Size of compressor	Percent of customers	Average number of units per customer
A. Small (<50 HP)		
B. Medium (50 – 150 HP)		
C. Large (>150 HP)		

E3. Please provide percentage estimates of the principle compressor-control strategy type for the compressed air system you service.

Table E3:

Compressor Control Strategy	Percent of customers
A. Start/Stop	
B. Load/Unload	
C. Modulating controls	
D. Multi-step controls	
E. Variable speed drives	
F. Variable Displacement	
G. Dual control system	
H. Other (Specify)	
I. Don't Know	

E4. Based on your experience, what percentage of your customers have a leak-prevention routine or program in place at their facility?

1 *PERCENTAGE ESTIMATE* _____
 -99 Don't Know.

E5. Based on your experience, in the past 4 years what percent of your customers have contracted for a study of how to make their compressed air system as a whole more energy efficient?

1 *PERCENTAGE ESTIMATE* _____
-99 Don't Know.

F. CONCLUSION

F1. Those are all of the questions I have for you; however I would like to ask one favor: if I have a quick follow-up question at a later date would it be alright if I was to call back at that time?

1 Yes
2 No
-99 Don't Know

Unless you have any questions or comments for me, I think that is all. Thank you again for your time.

A.8 – Non-Residential Lighting Wholesalers and Vendors Survey

The Cadmus Group AIU Non-Residential Lighting Wholesalers and Vendors

A. RESPONDENT'S CONTACT INFORMATION (COMPLETE BEFORE INTERVIEW)

Respondent Name: _____ Survey Date: _____
 Contact Name: _____ Interviewer Initials: _____
 Contact Phone Number: _____ Contact Title: _____

B. INTRODUCTION

Hello, my name is _____ and I work for The Cadmus Group. I am calling on behalf of **Ameren Illinois Utilities**.

We are conducting a study with lighting systems wholesalers/vendors/contractors regarding the marketability of energy efficient products and ways the Utilities might help increase the presence of energy efficient equipment in the business. If you have a few minutes, I'd like to ask you some questions about your experience in the industry.

B1. Are you the person who is most familiar with the product lines you carry, and the products for which there are energy efficient or ENERGY STAR models available?

1 Yes → Go to B2

2 ***IF NO, ASK***, Can you provide me with a contact name and phone number for a person at your store who might be more familiar with the energy efficient products you carry? [***WRITE NAME AND NUMBER IN SPACE BELOW.***]

Name: _____

Phone: (____) _____ ext. _____

B2. Would you have a few minutes to speak now?

1 Yes → Go to C1

2 No → Can I schedule a time to call back?

IF YES, WRITE IN SCHEDULED DATE AND TIME. IF NO, GO TO B3.

B3. As another option, we can e-mail or FAX the survey for you to fill out over the next week. Would you like to complete the survey this way instead? [If YES, write in fax or email information below.

IF NO, THANK AND TERMINATE.

IF E-MAIL IS DESIRED, WRITE RESPONDENT'S E-MAIL ADDRESS:

_____ ***OR***

IF FAX IS DESIRED, FAX # _____

Thank and terminate.

C. INTRODUCTORY QUESTIONS

- C1. In the past 12 months, have you participated in any program for which you or a customer received an incentive or rebate from a utility?
- 1 Yes
 - 2 No
 - 99 Don't Know
- C2. What objections do you encounter most frequently when trying to sell energy efficient lighting equipment and controls? (check all that apply)
- 1 Customer thinks the equipment costs too much
 - 2 Customer is skeptical about savings
 - 3 Customer has aesthetic objections
 - 4 Customer has technical/sizing constraints
 - 5 Other (specify _____)
 - 99 Don't Know
- C3. How important is your offering energy efficient lighting equipment and controls in establishing the competitive position of your company?
- 1 Not important
 - 2 Somewhat important
 - 3 Very important
 - 99 Don't Know

C4. Please specify the building types which make up the majority of your customers (list up to five) and list the number of your customers in each building type:

	Sector	Description	Number (range) of Customers
1	Education	School Buildings, colleges & universities	
2	Grocery	Grocery, convenience, food store buildings	
3	Health	Hospitals, Healthcare clinic, nursing home	
4	Lodging	Hotels, motels	
5	Office		
6	Restaurants		
7	Retail		
8	Warehouses	Refrigerated or non-refrigerated	
9	Other: _____ (specify primary use); (specify- industrial <input type="checkbox"/> or commercial <input type="checkbox"/>)	Buildings that don't fit into any of the previously mentioned categories	
-99	Don't Know		

D. MARKET SHARE – LIGHTING EQUIPMENT

D1: Table 1 - Lighting Equipment Saturations

We are trying to estimate the percentage of customers with certain types of lighting equipment installed and are especially interested in the high efficiency lighting systems. The following questions are specific to lighting and equipment used or installed within Ameren Illinois Service Territory. Ameren's service territory covers the southern part of Illinois from Peoria to the southern border. Based on your industry experience, could you please estimate the percentage of commercial and industrial lighting currently supplied by the following equipment (after your project) (for the top two building types specified in C2)?

FOR EACH ROW A-O IN TABLE 1, GO THROUGH COLUMNS 1-8, RECORD THE ANSWER IN APPROPRIATE CELL, AND PROCEED.

D2: Table 2 - Lighting Efficiency Measures

We are also trying to estimate the installed base of energy efficient lighting controls. Based on your industry experience, could you please estimate the percentage of lighting systems with the following measures in place (after your project) (for the top two building types specified in C2)?

***FOR EACH ROW A-F IN TABLE 2, GO THROUGH COLUMNS 1-8,
RECORD THE ANSWER IN APPROPRIATE CELL, AND PROCEED.***

E. CONCLUSION

Those are all of the questions I have for you; however I would like to ask one favor: if I have a quick follow-up question at a later date would it be alright if I was to call back at that time?

- 1 Yes
- 2 No
- 99 Don't Know

Unless you have any questions or comments for me, I think that is all. Thank you again for your time.

Table 1: Lighting Equipment Saturations (% of installed systems)

		1	2	3	4	5	6	7	8	9
	Equipment	Education	Grocery	Health	Lodging	Office	Restaurants	Retail	Warehouse	Other: _____ (specify primary use); (specify- industrial <input type="checkbox"/> or commercial <input type="checkbox"/>)
A	Standard T12 Lighting									
B	Standard T8 Lighting (32 watts or more)									
C	Premium or High Performance T8 Lighting (28 watts or less)									
D	High Performance T5 Lighting									
E	High Bay Lighting w/ T5 or T8 lamps									
F	High Bay Lighting w/ CFLs									
G	Metal Halide w/ Magnetic Ballast									
H	Metal Halide w/ Electronic Ballast									

	Equipment	Education	Grocery	Health	Lodging	Office	Restaurants	Retail	Warehouse	Other: _____ (specify primary use); (specify- industrial <input type="checkbox"/> or commercial <input type="checkbox"/>)
I	High Pressure Sodium Lamps									
J	Incandescent Lamps									
K	Incandescent Exit Sign									
L	CFL Exit Sign									
M	LED Exit Sign									
N	LED Lighting									
O	Task Lighting									

Table 2: Lighting Efficiency Measures

		1	2	3	4	5	6	7	8	11
	Equipment	Education	Grocery	Health	Lodging	Office	Restaurants	Retail	Warehouse	Other: _____ ____ (specify primary use); (specify- industrial <input type="checkbox"/> or commercial <input type="checkbox"/>)
A	Dual-level Switches									
B	Day-lighting Controls									
C	Time Clocks									
D	Occupancy Sensors									
E	Digital Control Systems									

A.9 – Non-Residential Mechanical Contractors Survey

The Cadmus Group AIU Non-Residential Mechanical Contractors

A. RESPONDENT'S CONTACT INFORMATION (Complete before interview)

Respondent Name: _____ Survey Date: _____
 Contact Name: _____ Interviewer Initials: _____
 Contact Phone Number: _____ Contact Title: _____

B. INTRODUCTION

Hello, my name is _____ and I work for The Cadmus Group. I am calling on behalf of **Ameren Illinois Utilities**.

We are conducting a study with mechanical systems contractors regarding the marketability of energy efficient products and ways the utilities might help increase the presence of energy efficient equipment in the business. If you have a few minutes, I'd like to ask you some questions about your experience in the industry.

B1. Are you the person who is most familiar with the product lines you carry, and the products for which there are energy efficient or ENERGY STAR models available?

1 Yes → Go to B2

2 ***IF NO, ASK***, Can you provide me with a contact name and phone number for a person at your store who might be more familiar with the energy efficient products you carry? ***[WRITE NAME AND NUMBER IN SPACE BELOW.]***

Name: _____

Phone: (____) _____ ext. _____

[THANK AND REPEAT WITH NEW CONTACT]

B2. Would you have a few minutes to speak now?

1 Yes → Go to C1

2 No → Can I schedule a time to call back?

IF YES, WRITE IN SCHEDULED DATE AND TIME. IF NO, THANK & TERMINATE.

C. INTRODUCTORY QUESTIONS

- C1. What is the type of your company? (*example list will vary by survey topic*)
- 1 Retailer
 - 2 Distributor
 - 3 Manufacturer
 - 4 Contractor
 - 5 Maintenance Company
 - 6 Other (*SPECIFY*) _____
 - 99 Don't Know
- C2. In the past 12 months, have you participated in any program for which you or a customer received an incentive or rebate from a utility? (*clarify utility and not government agency if necessary*)
- 1 Yes
 - 2 No
 - 99 Don't Know
- C3. What objections do you encounter most frequently when trying to sell energy efficient equipment? (*CHECK ALL THAT APPLY.*)
- 1 Customer thinks the equipment costs too much
 - 2 Customer is skeptical about savings
 - 3 Other (*SPECIFY*) _____)
 - 99 Don't Know
- C4. How important do you think your offering energy efficient equipment is in establishing the competitive position of your company?
- 1 Not important
 - 2 Somewhat important
 - 3 Very important
 - 99 Don't Know

C5. Please specify the building types which make up the majority of your customers (list up to five) and list the number of your customers in each building type:

	Sector	Description	Number (range) or customers
A	Education	School Buildings, colleges & universities	
B	Grocery	Grocery, convenience store buildings	
C	Health	Hospitals, Healthcare clinic, nursing home	
D	Lodging	Hotels, motels	
E	Office		
F	Restaurants		
G	Retail		
H	Warehouse		
I	Other: _____ (specify primary use); (specify <input type="checkbox"/> industrial or <input type="checkbox"/> commercial)	Buildings that don't fit into any of the previously mentioned categories	
-99.	Don't Know		

D. MARKET SHARE – HVAC EQUIPMENT

D1: Table 1

We are trying to estimate the percentage of customers with certain types of HVAC equipment installed. The following questions are specific to equipment used or installed within Ameren's Service Territory. Ameren's service territory covers the southern part of Illinois from Peoria to the southern border. Based on your experience in the industry, (for the top two building types specified in question C2) could you please estimate the percentage of customers with the following equipment installed?

FOR EACH ROW A-H IN TABLE 1, GO THROUGH COLUMNS 1-8 RECORD THE ANSWER IN APPROPRIATE CELL, AND PROCEED.

D2: Table 2

Within each equipment segment we are trying to determine the installed base of high efficiency units. Based on your experience in the industry, could you please estimate the percentage of units in each category that are higher efficiency units, or have higher efficiency equipment modifications?

FOR EACH ROW A-N IN TABLE 2, GO THROUGH THE LISTED MEASURE, RECORD THE ANSWER IN APPROPRIATE CELL, AND PROCEED.

D3: Table 3

We're also trying to gauge how many commercial and industrial customers have advanced controls capabilities and strategies for optimizing their energy usage. Could you please estimate the percentage of customers with the following control (for the top two building types specified in C5)?

IF YES, WRITE IN SCHEDULED DATE AND TIME. IF NO, GO TO E

E. CONCLUSION

Those are all of the questions I have for you; however I would like to ask one favor: if I have a quick follow-up question at a later date would it be alright if I was to call back at that time?

- 1 Yes
- 2 No
- 99 Don't Know

Unless you have any questions or comments for me, that is all. Thank you again for your time.

Table 1: HVAC Equipment Saturations

		1	2	3	4	5	6	7	8	11
	Equipment	Education	Grocery	Health	Lodging	Office	Restaurants	Retail	Warehouse	Other: _____ ____ (specify primary use); (specify- industrial <input type="checkbox"/> or commercial <input type="checkbox"/>)
A	Water-Cooled Chillers									
B	Air-Cooled Chillers									
C	Packaged Air-Conditioner									
D	Packaged Heat Pump									
E	Split System Air-Conditioner									
F	Split System Heat Pump									
G	Ground Source Heat Pump									
H	Gas Heating (% that have)									

Table 2: Efficient HVAC Equipment Penetration

	EQUIPMENT	DESCRIPTION	PERCENT OF INSTALLED BASE
	Water-Cooled Chillers		
A	High Efficiency Reciprocating Chiller	≤ 0.63 kW/ton	
B	Premium Efficiency Reciprocating Chiller	≤ 0.56 kW/ton	
C	High Efficiency Screw Chiller	≤ 0.57 kW/ton	
D	Premium Efficiency Screw Chiller	≤ 0.50 kW/ton	
E	High Efficiency Centrifugal Chiller (1 to 300 Tons)	≤ 0.54 kW/ton	
F	Premium Efficiency Centrifugal Chiller (1 to 300 Tons)	≤ 0.48 kW/ton	
G	High Efficiency Centrifugal Chiller (≥ 300 Tons)	≤ 0.49 kW/ton	
H	Premium Efficiency Centrifugal Chiller (≥ 300 Tons)	≤ 0.44 kW/ton	
	Air-Cooled Chillers		
I	High Efficiency Air-Cooled Chiller	≤ 1.04 kW/ton	
J	Premium Efficiency Air-Cooled Chiller	≤ 0.95 kW/ton	
	Air-Conditioning Equipment		
K	High Efficiency Packaged Air-Conditioner	≥ 11.0 EER	
L	Premium Efficiency Packaged Air-Conditioner	≥ 12.0 EER	
M	High Efficiency Heat Pump	≥ 11.0 EER, 3.4 COP	
N	Premium Efficiency Heat Pump	≥ 11.5 EER, 3.8 COP	

Table 3: Control Equipment Penetration

		1	2	3	4	5	6	7	8	11
	Equipment	Education	Grocery	Health	Lodging	Office	Restaurants	Retail	Warehouse	Other: _____ (specify primary use); (specify- industrial <input type="checkbox"/> or commercial <input type="checkbox"/>)
A	Programmable Thermostats									
B	Centralized EMS									
C	Centralized EMS – optimized for energy performance									
D	Economizers									
E	Demand-controlled Ventilation									
F	Exhaust air heat recovery									
G	Advanced chilled water system strategies (e.g. optimized setpoints, cond and chilled water reset, fan and pump VFDs)									

A.10 – Plumber Trade Ally Survey

The Cadmus Group

AIU– Plumber Trade Ally Survey

A. RESPONDENT'S CONTACT INFORMATION (COMPLETE BEFORE INTERVIEW)

Dealer Name: _____ Survey Date: _____
 Contact Name: _____ Interviewer Initials: _____
 Contact Phone Number: _____ Contact Title: _____

B. INTRODUCTION

Hello, my name is _____ and I work for The Cadmus Group. I'm calling on behalf of **Ameren Illinois Utilities**.

We are conducting a study with plumbers regarding the marketability of energy efficient products and ways the Utilities might help increase sales of the most efficient equipment. If you have a few minutes, I'd like to ask you some questions about your experience in the industry.

B1. Are you the person who is most familiar with the product lines you carry, and the products for which there are energy efficient or ENERGY STAR models available?

- 1 Yes → Go to B2
- 2 **IF NO, ASK**, Can you provide me with a contact name and phone number for a person at your store who might be more familiar with the energy efficient products you carry? **[WRITE NAME AND NUMBER IN SPACE BELOW.]**

Name: _____

Phone: (____) _____ ext. _____

[THANK AND REPEAT WITH NEW CONTACT]

B2. Would you have a few minutes to speak now?

- 1 Yes → Go to C1
- 2 No → Can I schedule a time to call back?

IF YES, WRITE IN SCHEDULED DATE AND TIME. IF NO, THANK & TERMINATE.

-99 Don't Know → Go to B2

C. INTRODUCTORY QUESTIONS

C1. First, I'd just like to confirm that you sell and/or install electric water heaters, electric tankless water heaters, kitchen or bathroom fixtures to the residential market. Is this correct?

- 1 Yes → Go to 3
- 2 No → ***CONFIRM NON-RESIDENTIAL ONLY***
- 99 Don't Know → Go to 5

C2. Do you sell residential sized water heating systems to the non-residential market?

- 1 Yes
- 2 No
- 99 Don't Know

C3. What is the type of your company?

- 1. Retailer
- 2. Distributor
- 3. Manufacturer
- 4. Contractor
- 5. Maintenance
- 6. Other
- 99. Don't know

C4. In the past 12 months, have you sold any equipment for which you or your customer received an incentive or rebate from a utility?

- 1 Yes [Skip to C6]
- 2 No
- 99 Don't Know.

C5. [Skip if C4 = 1] Why have you not promoted the rebates?

- 1 Not enough money/budget
- 2 Utility's job
- 3 Other [SPECIFY: _____]

-99 Don't Know.

C6. In the past 12 months, have you done any advertising to promote rebates that are available for high efficiency water heating or water saving devices?

ENTER ALL THAT APPLY.

- 1 Print ads
- 2 Radio ads
- 3 TV ads
- 4 Circulars/Direct mail
- 5 Other [SPECIFY: _____]
- 6 No (Did not promote incentives) [Skip to C5]
- 99 Don't Know.

D. MARKET SHARE – GAS WATER HEATERS

For the next several questions, I am going to ask about the percent of units that you sell to each the existing home market, the new construction and the non-residential markets. The following questions are specific to equipment used or installed within Ameren Illinois Utilities Service Territory. This includes the southern part of Illinois from Peoria to the southern border.

- ***COMPLETE FOR ENTIRE COLUMN BEFORE PROCEEDING.***
- ***REPEAT FOR EACH MEASURE AND INDICATE RESPONSE IN COLUMN A OF TABLE ON PAGE 5.***
- ***IF MEASURE NOT SOLD/INSTALLED ENTER 0%.***
- ***IF RESPONDENT DOESN'T KNOW, ENTER = -99.***
- ***FOR EACH ITEM THAT HAS A NUMBER GREATER THAN 0% IN COLUMN A, ASK THE FOLLOWING FULL SERIES OF QUESTIONS BEFORE PROCEEDING TO THE NEXT MEASURE.***
- ***ENTER ALL RESPONSES IN TABLE BELOW.***
- ***IF RESPONDENT DOESN'T KNOW OR REFUSED, ENTER = -99.***

D1A – D7A What percent of all of the electric water heaters that you have installed and/or sold in the past year were {MEASURE}?

D#B. What percent of (the) {MEASURE} that you installed or sold were installed in newly constructed homes?

D#C. What percent of (the) {MEASURE} that you installed or sold were installed as replacement equipment or installed in existing homes?

D#D. What percent of (the) {MEASURE} that you installed or sold were installed in non-residential buildings?

D#E. Of the {MEASURE} that you installed or sold which were installed in newly constructed homes, what percent were rated with an efficiency rating of {EFFICIENCY}?

D#F. Of the {MEASURE} that you installed or sold which were installed as replacement equipment or installed in existing homes, what percent were rated with an efficiency rating of {EFFICIENCY}?

D#G. Of the {MEASURE} that you installed or sold which were installed in non-residential buildings, what percent were rated with an efficiency rating of {EFFICIENCY}?

D#H. In total, how many {MEASURE} would you estimate that you sold or installed in the past 12 months?

E. CONCLUSION

That is all of the questions I have for you; however I would like to ask one favor: if I have a quick follow-up question at a later date would it be alright if I was to call back at that time?

- 1 Yes
- 2 No
- 99 Don't Know

Unless you have any questions or comments for me, I think that is all. Thank you again for your time.

Measure		<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>					<u>F</u>	<u>G</u>	<u>H</u>
		Type (0% if not sold/ installed)	Percent of Water Heater Sales			Efficiency Level						Unit Sales	
			Residential New Construction	Residential Existing Homes	Non- Residential	Residential New Construction	% (or More Efficient)	Residential Existing Homes	% (or More Efficient)	Non- Residential	% (or More Efficient)		
1	Any Type of Water Heater (all combined)	100%											
2	Electric Tankless Water Heaters					EF = 0.98		EF = 0.98		EF = 0.98			
3	Gas Tankless Water Heaters					EF = 0.98		EF = 0.98		EF = 0.98			
4	Heat Pump Water Heaters					EF = 2.9		EF = 2.9		EF = 2.9			
5	Traditional Electric Storage Tank Water Heaters					EF = 0.95		EF = 0.95		EF = 0.95			
6	Gas water heaters					EF = 0.95		EF = 0.95		EF = 0.95			
7	Showerheads	100%				2.0 or less GPM		2.0 or less GPM		2.0 or less GPM			
8	Faucets	100%				2.0 or less GPM		2.0 or less GPM		2.0 or less GPM			

A.11 – Refrigeration Specialist Survey

The Cadmus Group

AIU – Refrigeration Specialist Survey

A. RESPONDENT'S CONTACT INFORMATION (COMPLETE BEFORE INTERVIEW)

Company Name: _____ Survey Date: _____
 Contact Name: _____ Interviewer Initials: _____
 Contact Phone Number: _____ Contact Title: _____

B. INTRODUCTION

Hello, my name is _____ and I work for The Cadmus Group. I'm calling on behalf of **Ameren Illinois Utilities**.

We are conducting a study with refrigeration specialists, vendors, and service providers regarding the marketability of energy efficient products and ways the Utilities might help increase the presence of energy efficient practices in the business. If you have a few minutes, I'd like to ask you some questions about your experience in the industry.

B1. Are you the person who is most familiar with the product lines you carry, and the products for which there are energy efficient or ENERGY STAR models available?

- 1 Yes → Go to B2
- 2 **IF NO, ASK**, Can you provide me with a contact name and phone number for a person at your store who might be more familiar with the energy efficient products you carry? **[WRITE NAME AND NUMBER IN SPACE BELOW.]**

Name: _____

Phone: (____) _____ ext. _____

[THANK AND REPEAT WITH NEW CONTACT]

B2. Would you have a few minutes to speak now?

- 1 Yes → Go to C1
- 2 No → Can I schedule a time to call back?

IF YES, WRITE IN SCHEDULED DATE AND TIME. IF NO, THANK & TERMINATE.

C. INTRODUCTORY QUESTIONS

C1. What is the type of company?

What is the type of your company?

- 1 Retailer
- 2 Equipment Distributor
- 3 Manufacturer
- 4 Contractor
- 5 Maintenance
- 6 Other
- 99 Don't know

C2. What is your job title?

- 1 Owner
- 2 Project Manager
- 3 Project Engineer
- 4 Administrative Assistant
- 5 Other (Specify _____)

C3. What is the market area for your company?

- 1 Local
- 2 Regional
- 3 National
- 4 Global
- 99 Don't Know

These questions are specific to equipment used or installed within Ameren Illinois' Service Territory. Ameren's service territory covers the southern part of Illinois from Peoria to the southern border.

C4. How many employees are currently employed in Ameren's service territory: ***[IF THEY ARE NOT SURE, ASK IF THEY KNOW HOW MANY EMPLOYEES ARE IN ILLINOIS AND INDICATE STATEWIDE IN RESPONSE.]***

- 1 ***RECORD NUMBER (OR RANGE):*** _____
- 99 Don't Know

C5. What are your Annual Sales (or range of sales) in Ameren's service territory: ***[IF THEY ARE NOT SURE, ASK IF THEY KNOW ANNUAL SALES FOR ILLINOIS AND INDICATE STATEWIDE IN RESPONSE.]***

- 1 ***RECORD NUMBER OF DOLLARS (OR RANGE):*** _____
- 99 Don't Know

[IF NEEDED, USE THE FOLLOWING CATEGORIES: <500K; 501K-1M; 1-10M; 11-50M; 51-100M; >100M]

C6. What percent of your work is performed for new construction (i.e. not tied into an existing building or system)?

- 1 Record % work on new construction: _____
- 99 Don't know

C7. Record percent of 2008 revenues accounted for by services listed below (if unsure of share of revenues, simply check those services that were provided)

Table C7:

Service	Percent of 2008 Revenues
A. Refrigeration equipment sales	
B. Refrigeration parts sales	
C. Refrigeration equipment service	
D. Refrigeration system design	
E. Refrigeration efficiency services (refrigeration system audits, system optimization, controls)	
F. Other refrigeration related services (Specify) _____	

C8. Specify the industries or building types that account for most of your customers (list a maximum of five) and the number (or range) of customers for those industries / building types.

(INDUSTRY EXAMPLES: FOOD PROCESSING, LUMBER/WOOD PRODUCTS, TEXTILE MILL PRODUCTS, PAPER MFG, CHEMICAL MFG, PETROLEUM REFINING, STONE/CLAY/GLASS PRODUCTS, PRIMARY METAL MFG, FABRICATED METAL MFG, INDUSTRIAL MACHINERY, ELECTRONIC EQUIPMENT MFG, TRANSPORTATION EQUIPMENT MFG, MINING, IRRIGATION, MISCELLANEOUS MFG, WATER, WASTEWATER)

(BUILDING TYPES: OFFICE, FOOD SERVICE (RESTAURANT), FOOD STORE (GROCERY), RETAIL, HEALTH SERVICES, EDUCATION, FABRICATED METALS, FOOD & KINDRED PRODUCTS, RUBBER & MISCELLANEOUS PLASTICS, OTHER (SPECIFY PRIMARY USE; SPECIFY INDUSTRIAL OR COMMERCIAL))

Industry / Building Type	Number (or range) of Customers
A)	
B)	
C)	
D)	
E)	

D. EFFICIENCY SERVICES

D1. Has the volume of efficiency services you sell increased, decreased, or remained about the same over the past year?

- 1 Increased
- 2 Decreased
- 3 Remained about the same
- 99 Don't Know

D2. How often do you conduct a refrigeration system assessment and /or estimate as part of a system sales order or bid response?

- 1 In all sales and bid situations
- 2 In most sales and bid situations
- 3 In some sales and bid situations
- 4 In relatively few sales and bid situations
- 5 Never
- 99 Don't Know

D3-4. Specify what kind of businesses appear to be most receptive to purchasing refrigeration efficiency services?

Table D3-4:

D3. Size of company (Large, medium, small)
A.
B.
D4. Size / complexity of refrigeration system (e.g. over 200 HP)
A.
B.
C.

D5. How often are you personally able to influence customers' decisions to install or upgrade to a higher energy-efficient refrigeration system?

- 1 Always
- 2 Almost Always
- 3 Sometimes
- 4 Almost Never
- 5 Never

E. CUSTOMERS CHARACTERISTICS

E1. Based on your experience, what percentage of your customers (in each of your top three industries or building types from Table C8) have installed the following energy efficiency measures to make their refrigeration system as a whole more energy efficient?

Table E1: (estimate percentage of customers)

	Energy Efficiency Measure	Industry or Building Type #1 Specify:	Industry or Building Type #2 Specify:	Industry or Building Type #3 Specify:
A	Floating Head Pressure Control (set/reset minimum head pressure)			
B	VSD on Compressor			
C	VSD on Evaporator Fans			
D	VSD on Condenser Fans			
E	Refrigeration System Optimization (compressor sequencing/controls, suction pressure opt, cond selection, etc.)			
F	Digital Controls			
G	Advanced/ improved defrost controls			
H	Heat Recovery for Water Heating or other end-use			
I	Strip Curtains for Walk-ins			
J	Pulse Modulating Anti-Sweat Controller			
K	Night Covers for Display Cases			
L	Load Management / Reduction			
M	Sub-cooling (ambient or			
N	Premium efficiency motors			
O	New high-efficiency refrigerated case installation			
P	High-efficiency lighting for display cases or reach-ins			
Q	Other : _____			

E2. Based on your experience, in the past 4 years what percentage of your customers have contracted for a study/in-depth investigation of how to make their refrigeration system as a whole more energy efficient?

1 **PERCENTAGE ESTIMATE** _____
 -99 Don't Know.

F. CONCLUSION

F1. Those are all of the questions I have for you; however I would like to ask one favor: if I have a quick follow-up question at a later date would it be alright if I was to call back at that time?

- 1 Yes
- 2 No
- 99 Don't Know

Unless you have any questions or comments for me, I think that is all. Thank you again for your time.

A.12 – Residential New Home Builders Survey

The Cadmus Group AIU – Residential Builders

A. RESPONDENT'S CONTACT INFORMATION (COMPLETE BEFORE INTERVIEW)

Company Name: _____ Survey Date: _____
 Contact Name: _____ Interviewer Initials: _____
 Contact Phone Number: _____ Contact Title: _____

B. INTRODUCTION

Hello, my name is _____ and I work for The Cadmus Group. I'm calling on behalf of **Ameren Illinois Utilities**.

We are conducting a study with home builders regarding the marketability of energy efficient products and ways the Utilities might help increase sales of the most efficient equipment. If you have a few minutes, I'd like to ask you some questions about your experience in the industry.

B1. Are you the person most familiar with the efficiency levels of equipment and the amount of insulation installed in the houses built by your company?

- 1 Yes
 2 No → Is there someone else at your company with whom I could speak regarding these types of questions?

RECORD NAME: _____

RECORD PHONE (____)-_____ ext. _____

-99 Don't Know.

B2. Do you have a few minutes to speak now?

- 1 Yes → Go to C1
 2 No → Can I schedule a time to call back?

IF YES, WRITE IN SCHEDULED DATE AND TIME. IF NO, GO TO B3.

B3. As another option, we can e-mail or FAX the survey for you to fill out over the next week. Would you like to complete the survey this way instead?

IF NO, THANK AND TERMINATE.

IF E-MAIL IS DESIRED, WRITE RESPONDENT'S E-MAIL ADDRESS:

_____ *OR*

IF FAX IS DESIRED, WRITE RESPONDENT'S FAX # _____

THANK AND TERMINATE.

These questions are specific to equipment used or installed within Ameren's Service Territory. Ameren's service territory covers the southern part of Illinois from Peoria to the southern border.

C. INTRODUCTORY QUESTIONS

C1. In the past 12 months, has your company participated in any program for which you or a customer received an incentive or rebate from a utility?

- 1 Yes
- 2 No
- 99 Don't Know

C2. In the past 12 months, how many new homes (whole single-family, multi-family, attached, detached buildings) has your company built? [**Buildings, NOT Units**]

1 RECORD NUMBER _____
IF HESITANT OR REFUSED, ASK FOR RANGE OR CLOSEST 10 OR 50.

- 99 Don't Know

C3. In the past 12 months, how many Retrofits, reconstruction or additions has your company built?

1 RECORD NUMBER _____
IF HESITANT OR REFUSED, ASK FOR RANGE OR CLOSEST 10 OR 50.

- 99 Don't Know

C4. What percent of the homes that your company built in the past 12 months were **single family**, buildings?

[INCLUDE SF DETACHED AND ATTACHED; MAX=2 UNITS]

- 1 *RECORD PERCENT* _____ %
- 99 Don't Know

C5. What percent of the homes that you built in the past 12 months were **multi-family** buildings?

[MULTIFAMILY= 3 OR MORE ATTACHED UNITS]

1 **RECORD PERCENT** _____%

[NOTE: RESPONSES TO C4-C5 SHOULD TOTAL 100%. IF NOT, PROBE]

-99 Don't Know

For the rest of my questions I am going to be focusing on the home type you have built the most often over the past 12 months, {Read building type from greatest of C4 – C5}.

C10. What is the average size of the {Read building type from greatest of C4 – C8} that you have built in the past 12 months (in square feet)?

1 **RECORD NUMBER:** _____ *IF HESITANT OR REFUSED, ASK FOR RANGE OR CLOSEST 500 SQ FT AS A BEST GUESS.*

-99 Don't Know/Refused

D. MARKET SHARES

D1. In the past 12 months, what is the percentage of heating equipment have you typically had installed in the homes that you built?

1. READ LIST.

2. NOTE THAT THE NUMBERS IN “{ }” ARE CODES USED IN QUESTIONS D2 AND D3. THUS, DO NOT READ THESE NUMBERS.

- 1 Electric Baseboard {EFF LEVEL = N/A} _____%
- 2 Electric central forced air furnace {EFF LEVEL = N/A} _____%
- 3 Air-source Heat pump (ELEC) {EFF LEVEL = 7.7 HSPF} _____%
- 4 Ground-source heat pump (ELEC) {EFF LEVEL = N/A} _____%
- 5 Portable or unit heaters (ELEC) {EFF LEVEL = N/A} _____%
- 6 Natural gas space heating _____%
- 7 Oil space heating _____%
- 8 Solar space heating (solar hydronic heating) { EFF LEVEL = N/A} _____%
- 9 Other space heating (propane, butane, kerosene, wood, etc.) _____%
- 10 None (No heating system) _____%
- 99 Don't Know/Refused

D2. In the past 12 months, what has been the average efficiency for these heating units installed in the homes you built?

1 **RECORD EFFICIENCY:** _____

-99 Don't Know/Refused

D3. [IF D2 < EFF LEVEL for measure] What percent have had an efficiency greater than or equal to [EFF LEVEL for measure]?

1 **RECORD PERCENT:** _____%

-99 Don't Know/Refused

D4. [IF D1 = 1,7,8,9,11 or 14] What percent of the ducts for the {Response to D1} in the homes you build are located in conditioned spaces (within the interior envelope of the building)?

- 1 **RECORD PERCENT:** _____ %
 -99 Don't Know/Refused

D5. In the past 12 months, what percentage of cooling equipment have you typically had installed in the homes that you built?

1. READ LIST.

2. NOTE THAT THE NUMBERS IN “{ }” ARE CODES USED IN QUESTIONS D6 AND D7. THUS, DO NOT READ THESE NUMBERS.

- 1 Central air conditioner {EFF LEVEL = 13 SEER} _____ %
 2 Air-source heat pump {EFF LEVEL = 13 SEER } _____ %
 3 Ground-source heat pump {EFF LEVEL = 13 SEER } _____ %
 4 Room air conditioners {EFF LEVEL = 9.7 EER } _____ %
 5 Ductless mini-split air conditioner {EFF LEVEL = 13 SEER } _____ %
 6 Ceiling fans { EFF LEVEL = N/A } _____ %
 7 Whole-house fan {EFF LEVEL = N/A } _____ %
 8 Something else [SPECIFY]: _____ %
 -99 Don't Know/Refused

D6. In the past 12 months, what has been the average efficiency for these cooling units installed in the new homes you built?

- 1 **RECORD EFFICIENCY:** _____
 -99 Don't Know/Refused

D7. [IF D6 < EFF LEVEL for measure selected in D5] What percent have had an efficiency greater than or equal to [EFF LEVEL for measure]?

- 1 **[RECORD PERCENT]** _____ %
 -99 Don't Know/Refused

D8. IF D5 = 1 AND D4 NOT ANSWERED, ASK, What percent of the ducts for the central air conditioners in the homes you build are located in conditioned spaces? **[CONDITIONED SPACES ARE WITHIN THE BUILDING ENVELOP—HEATED OR COOLED SPACES]**

- 1 **[RECORD PERCENT]** _____ %
 -99 Don't Know/Refused

D9. In the past 12 months, what percentage of water heating equipment have you typically had installed in the homes that you built? **READ LIST.**

- 1 Electric storage water heater _____ %
 ➔ **[RECORD AVERAGE SIZE IN GALLONS]:** _____
 2 Electric demand or instantaneous water heater _____ %
 3 Heat pump water heater _____ %
 4 Gas water heater (storage or tankless) _____ %
 5 Indirect water heater that uses the home's boiler as the heat source or an integrated water heater that is also used to heat the home. _____ %
 6 Solar water heater _____ %

7 Something else *[SPECIFY]*: _____ %
-99 Don't Know/Refused

D10. In the past 12 months, what has been the average efficiency for these water heating units installed in the new homes you built?

- 1 **[RECORD EFFICIENCY]:** _____
 -99 Don't Know/Refused

D11. What percent of the following types of windows do you install in the homes you build?

- 1 ENERGY STAR (by ENERGY STAR, I mean Low-E Argon U=0.35 or less) →
 _____%
 2 Other Low-E → _____%
 3 Standard 2-pane → _____%
 4 Other (Specify): _____ → _____%
 -99 Don't Know/Refused

D12. What percent of the lights installed in the new homes that you built over the past 12 months were...

- 1 Compact Fluorescent Bulbs (CFLs)? [Record Percent]: _____%
 2 Other Fluorescent Bulbs? [Record Percent]: _____%
 3 Incandescent Bulbs? [Record Percent]: _____%
 4 Halogen Bulbs [Record Percent]: _____%
 5 Other Bulbs? [Record Percent]: _____%

[NOTE: SHOULD TOTAL 100%]

D13. What percent of your homes you built over the past 12 months had ...

- 1 2x6 wood framing _____% in roof _____% in walls
 2 2x4 wood framing _____% in roof _____% in walls
 3 2x4 metal framing _____% in roof _____% in walls
 4 2x6 metal framing _____% in roof _____% in walls
 5 Other (Specify): _____ %
 -99 Don't Know/Refused

D14. On average, how much insulation did you have installed in the ceilings of the new homes built over the past 12 months?

- 1 **RECORD R-VALUE:** _____
 -99 Don't Know/Refused

D15. On average, how much insulation did you have installed in the walls of the new homes built over the past 12 months?

- 1 **RECORD R-VALUE:** _____
 -99 Don't Know/Refused

D16. What percent of the homes that you built over the past 12 months had conditioned basements?

- 1 **RECORD PERCENT:** _____%
 -99 Don't Know/Refused

D17. What percent of the homes that you built over the past 12 months had un-conditioned basements?

- 1 **RECORD PERCENT:** _____%
 -99 Don't Know/Refused

D18. What percent of the homes that you built over the past 12 months had swimming pools installed?

- 1 **RECORD PERCENT:** _____ %
-99 Don't Know/Refused

D19. [**SKIP IF D18=0, OR DK**] What percent of homes with pools installed had electric heat pumps?

1. **RECORD PERCENT:** _____ %
-99 Don't Know/Refused

D20. [**SKIP IF C2=0; DID NOT BUILD NEW HOMES**] Is your company involved directly with installing larger kitchen appliances? (Prompt if needed: refrigerators, ovens, cooking range, stand alone freezers)

1. yes (any involvement)
2. No [**SKIP TO E1**]
-99 Don't Know/Refused

D21. [Skip if D20=2 or -99] What percent of homes you have built in the past 12 months have energy efficient (Energy Star) kitchen appliances installed?

1. **RECORD PERCENT:** _____ %
-99 Don't Know/Refused

E. CONCLUSION

E1. That is all of the questions I have for you; however I would like to ask one favor: if I have a quick follow-up question at a later date would it be alright if I was to call back at that time?

- 1 Yes
2 No
99 Don't Know

Unless you have any questions or comments for me, I think that is all. Thank you again for your time.

A.13 – Retailer Survey

The Cadmus Group AIU - Retailer Survey

A. RESPONDENT'S CONTACT INFORMATION (COMPLETE BEFORE INTERVIEW)

Retailer Name: _____ Survey Date: _____
 Contact Name: _____ Interviewer Initials: _____
 Contact Phone Number: _____ Contact Title: _____
 National ENERGY STAR Partner: Yes No

Retailer Segment

- Department or discount department store (e.g., Dollar, Target, Wal-Mart, Costco)
 Drug store (e.g., CVS, Walgreens)
 Electronics (Radio Shack, Best Buy, Ultimate Electronics)
 Furniture or home furnishing store (e.g., Bed Bath & Beyond, Ikea)
 Grocery store (e.g., Jewel, Dominicks...)
 Hardware store (e.g., Ace, True Value)
 Home improvement store (e.g., Home Depot, Lowe's)
 Lighting specialty store
 Other (e.g., online retailers): _____

B. INTRODUCTION

Hello, my name is _____ and I work for The Cadmus Group. I'm calling on behalf of **Ameren Illinois Utilities**.

We are conducting a study with retailers about energy efficient products. If you have a few minutes, I'd like to ask you some questions about your store and the products you carry.

- B1. Are you the person who is most familiar with the product lines you carry, and the products for which there are energy efficient or ENERGY STAR models available?
- 1 Yes → Go to B2
 - 2 ***IF NO, ASK***, Can you provide me with a contact name and phone number for a person at your store who might be more familiar with the energy efficient products you carry? ***[WRITE NAME AND NUMBER IN SPACE BELOW.]***

Name: _____

Phone: (____) _____ ext. _____

[THANK AND REPEAT WITH NEW CONTACT]

The information we'll be discussing will be used to determine the opportunity for the Utilities in Illinois to improve their energy efficiency programs, and help consumers save more on their bills. As an independent research firm, we do not intend to report your responses in any way that would reveal your identity or the identity of your company.

B2. This research effort will take approximately 15 minutes to complete. Do you have a few minutes so that we can proceed over the phone now?

- 1 Yes → Go to C1
- 2 No → Can I schedule a time to call back?

IF YES, WRITE IN SCHEDULED DATE AND TIME. IF NO, GO TO B3.

B3. As another option, we can e-mail or FAX the survey for you to fill out over the next week. Would you like to complete the survey this way instead?

IF NO, THANK AND TERMINATE.

IF E-MAIL IS DESIRED, WRITE RESPONDENT'S E-MAIL ADDRESS:

_____ ***OR***

IF FAX IS DESIRED, WRITE RESPONDENT'S FAX # _____

THANK AND TERMINATE.

C. INTRODUCTORY QUESTIONS

C1. Of all the products you sell for which energy-efficient models are available, which one or two do you believe customers are the least aware of, and would benefit the most from increased education, advertising, or other promotions?

C2. Of all the products you sell for which energy efficient models are available, which one or two do you believe customers are the most aware of or most likely to purchase without any additional incentive, advertising or other promotions?

C3. Are you aware of energy efficient models on the market that your store does not currently offer to customers?

1. Yes
2. No
- 99 Don't know/Refused

C4. [**SKIP IF C3 = 2 OR -99**] Why are these models not currently offered to customers in your store?

C5. How often do you recommend higher energy efficient options to customers?

1. Never
2. Rarely
3. Sometimes
4. Often
5. Always

C6. What types of incentives are most effective for increasing energy efficiency sales in your store? (Offer examples if needed: customer rebates, incentives to the retailer, national level Energy Star promotions)

C7. What types of programs or incentives do you think Ameren should implement in order to make energy efficient appliances or equipment more attractive to your customers?

D. RETAILER AWARENESS AND KNOWLEDGE

I am going to ask you a series of questions about which products you sell, who buys them and when customers do purchase that item, how likely they are to purchase the more efficient versions of the product. These questions are specific to equipment used or installed within Ameren Illinois Service Territory. Ameren's service territory covers the southern part of Illinois from Peoria to the southern border.

D1A – D26A. Which of the following items do you sell?

- **READ MEASURES AND INDICATE RESPONSE IN COLUMN A OF TABLE BELOW.**
- **FOR EACH ITEM MARKED AS “1” IN COLUMN A, ASK THE FOLLOWING FULL SERIES OF QUESTIONS BEFORE PROCEEDING TO THE NEXT MEASURE.**
- **ENTER ALL RESPONSES IN TABLE BELOW.**
- **USE -99 IF RESPONDENT DOESN'T KNOW OR REFUSES.**

D#B. What percent of your {MEASURE} sales are for residential use?

D#C. Of the {MEASURE} that you sell for residential use, what percent are {EFFICIENCY LEVEL} or better?

D#D. What percent of your {MEASURE} sales are for non-residential use?
SHOULD TOTAL 100% - COLUMN B. IF NOT, PROBE.

D#E. Of the {MEASURE} that you sell for non-residential use, what percent are {EFFICIENCY LEVEL} or better?

D#F. In the past 12 months, how many {MEASURE} would you estimate that your store sold?
[IF REFUSED, ATTEMPT TO GET A RANGE TO NEAREST 50 OR 100.]

E. CONCLUSION

That is all of the questions I have for you; however I would like to ask one favor: if I have a quick follow-up question at a later date would it be alright if I was to call back at that time?

- 1 Yes
- 2 No
- 99 Don't Know

Unless you have any questions or comments for me, I think that is all. Thank you again for your time

Measure		<u>A</u>	<u>B</u>	<u>C</u>		<u>D</u>	<u>E</u>		<u>F</u>
		Sell Item N (0), Y (1), DK (-99)	Percent sold for residential use	Percent Meeting Efficiency		Percent sold for non- residential use	Percent Meeting Efficiency		Unit Sales
				Efficiency Level	%		Efficiency Level	%	
1	Programmable Thermostats			ENERGY STAR			ENERGY STAR		
2	Water Heaters - Electric			EF = 0.95			EF = 0.95		
3	Tankless Water Heaters - Electric			EF = 0.98			EF = 0.98		
4	Water Heaters - Gas								
5	Tankless Water Heaters - Gas								
6	Clothes Washers			ENERGY STAR – MEF = 1.72			ENERGY STAR – MEF = 1.72		
7	Clothes Dryers - Electric			High Eff w/ Moisture Sensor			High Eff w/ Moisture Sensor		
8	Clothes Dryers - Gas								
9	Refrigerators			ENERGY STAR			ENERGY STAR		
10	Freezers			ENERGY STAR			ENERGY STAR		
11	Dishwashers			ENERGY STAR			ENERGY STAR		
12	CFL bulbs			ENERGY STAR			ENERGY STAR		
13	CFL lighting fixtures			ENERGY STAR			ENERGY STAR		
14	LED bulbs			Any			Any		
15	Dehumidifiers			ENERGY STAR			ENERGY STAR		
16	Room ACs			ENERGY STAR			ENERGY STAR		
17	Ceiling fans			ENERGY STAR			ENERGY STAR		
18	Attic Fans			Any			Any		
19	Televisions			ENERGY STAR			ENERGY STAR		
20	HDTVs			ENERGY STAR			ENERGY STAR		
21	DVD Players			ENERGY STAR			ENERGY STAR		
22	Set-Top Receivers			ENERGY STAR			ENERGY STAR		
23	Monitors			ENERGY STAR			ENERGY STAR		
24	Printers			ENERGY STAR			ENERGY STAR		
25	Faucet Aerators			2.0 GPM			2.0 GPM		
26	Showerheads			2.0 GPM			2.0 GPM		
27	Windows			U = 0.35			U = 0.35		

28	Doors			U = 0.35 or R5			U = 0.35 or R5		
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Appendix B: Summary of Findings from Primary Data Collection

B.1 – Residential Appliance Saturation Survey (RASS) Telephone Survey1

B.2 – Residential On-Site Survey..... 144

B.3 – Commercial On-Site Survey 270

B.1 – Residential Appliance Saturation Survey (RASS) – Telephone Survey

Table B.1.1

bName	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Multi_Family	32	8.10	32	8.10
Single_Family	363	91.90	395	100.00

Table B.1.2

	bName					
	Multi_Family		Single_Family			
2.1 Which of the following best describes how the residence is occupied? (Q2_1)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Year-round, full-time	31	97%	360	99%	391	99%
(2) Seasonal or part-time use	1	3%	2	1%	3	1%
	32	100%	362	100%	394	100%

Table B.1.3

2.2 Within the past year, what have you done to reduce energy use in your home? (Q2_2) (Multiple responses possible)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Turn off lights when not in use	22	25%	243	28%	265	28%
(2) Replace light bulbs with Compact Fluorescent Light (CFL) bulbs	18	20%	215	25%	233	24%
(3) Adjust thermostat setting at night	7	8%	49	6%	56	6%
(4) Adjust thermostat setting when not at home	7	8%	38	4%	45	5%
(5) Reduce thermostat setting in the winter	8	9%	33	4%	41	4%
(6) Increase thermostat setting in the summer	9	10%	28	3%	37	4%
(7) Installed programmable thermostat	3	3%	31	4%	34	4%
(8) Unplug adapters and charging devices when not in use	2	2%	14	2%	16	2%
(9) Unplug electronic devices with "instant on" feature	3	3%	8	1%	11	1%
(10) Purchase energy efficient appliances/equipment	.	.	36	4%	36	4%
(11) Take shorter showers	3	3%	11	1%	14	1%
(12) Increase level of insulation	.	.	31	4%	31	3%
(13) Reduce air infiltration or leaks (by caulking, adding storm windows, etc.)	1	1%	56	6%	57	6%
(14) I don't do anything to reduce energy in my home	2	2%	16	2%	18	2%
(15) Continue to question 2.3 below	.	.	1	0%	1	0%
(16) Other (specify)	3	3%	64	7%	67	7%
	88	100%	874	100%	962	100%

Table B.1.4

	bName					
	Multi_Family		Single_Family			
2.2-Specify Within the past year, what have you done to reduce energy use in your home? (Q2_2_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
Ajustable Thermostat	.	.	1	1%	1	1%
All Appliances Are Energy Star	.	.	1	1%	1	1%
Bought Three New Appliances, Insulation	.	.	1	1%	1	1%
Change Filters	.	.	1	1%	1	1%
Cok Windows And Doors	.	.	1	1%	1	1%
Don't Use Washer, Dryer, Window Ac	.	.	1	1%	1	1%
Dryer	.	.	1	1%	1	1%
Energy Star Roof, Instillation, Corn Burner	.	.	1	1%	1	1%
Furnace	.	.	1	1%	1	1%
Furnace, Windows	.	.	1	1%	1	1%
Furnace, windows, Storm Doors And Caulking The Windows	.	.	1	1%	1	1%
Gas Fireplace	.	.	1	1%	1	1%
Gone To Geothermal, And Preparing To Put In More Insulation,	.	.	1	1%	1	1%
Hung Up Draperies	.	.	1	1%	1	1%
Installed Geo Thermal Furnace	.	.	1	1%	1	1%
Installed New Furnace And Air	.	.	1	1%	1	1%
Insulating, Roof And New Furnace	.	.	1	1%	1	1%
Insulation	.	.	1	1%	1	1%
Keep Temperture Low	.	.	1	1%	1	1%
New Ac/Windows	.	.	1	1%	1	1%
New Air And Furnace	.	.	1	1%	1	1%

2.2-Specify Within the past year, what have you done to reduce energy use in your home? (Q2_2_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
New Air Conditioner	.	.	1	1%	1	1%
New Doors	.	.	1	1%	1	1%
New Doors, Insul	.	.	1	1%	1	1%
New Doors/Windows	.	.	1	1%	1	1%
New Furnace	.	.	1	1%	1	1%
New Furnace, A/C	.	.	1	1%	1	1%
New Furnace, New A/C	.	.	1	1%	1	1%
New Heating, Hang Dry Clothes	.	.	1	1%	1	1%
New Insulation	.	.	1	1%	1	1%
New Meter	.	.	1	1%	1	1%
New Roof	.	.	4	6%	4	6%
New Windows, And Put Plastic On Windows.	.	.	1	1%	1	1%
Open Windows	.	.	1	1%	1	1%
Plastic Over Windows In The Winter	.	.	1	1%	1	1%
Programmable Thermostat	.	.	1	1%	1	1%
Repl Furn, A/C, And Ceiling Fan	.	.	1	1%	1	1%
Repl Roof With Lighter Color	.	.	1	1%	1	1%
Replace Ac	.	.	1	1%	1	1%
Replaced Boiler	.	.	1	1%	1	1%
Replaced Furnace And Windows	.	.	1	1%	1	1%
Roof Insulation, Replaced Water Heater	.	.	1	1%	1	1%
Sealed Wondows And Doors	.	.	1	1%	1	1%
Siding, Insulation	.	.	1	1%	1	1%
Solid Doors	.	.	1	1%	1	1%

	bName					
	Multi_Family		Single_Family			
2.2-Specify Within the past year, what have you done to reduce energy use in your home? (Q2_2_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
Stand Up Fans	1	25%	.	.	1	1%
Stated He Already Did All This 5 Years Ago	.	.	1	1%	1	1%
Storm Windows, Sealed Doors	.	.	1	1%	1	1%
Sun Tubes	.	.	1	1%	1	1%
Thermostat	.	.	1	1%	1	1%
Turn Thermostat Down In The Summer	.	.	1	1%	1	1%
Unplug Tv	1	25%	.	.	1	1%
Use Fan Instead Of Ac,	1	25%	.	.	1	1%
Vinyl Curtains	1	25%	.	.	1	1%
Water Heater	.	.	1	1%	1	1%
Water Heater Blanket	.	.	1	1%	1	1%
We Put In New Windows	.	.	1	1%	1	1%
When They Run Washer, And Careful About Air Filters, And How High The Thermostat Is.	.	.	1	1%	1	1%
Widnow, Roof, Insulation	.	.	1	1%	1	1%
Window Repair	.	.	1	1%	1	1%
Windows	.	.	7	10%	7	10%
Windows, Furnace	.	.	1	1%	1	1%
Wood Stove	.	.	1	1%	1	1%
	4	100%	68	100%	72	100%

Table B.1.5

	bName					
	Multi_Family		Single_Family			
2.3 What is your primary motive to reduce energy use in your home? (Q2_3) (Multiple responses possible)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) To save energy	14	29%	115	24%	129	24%
(2) To save money on utility bill	27	56%	319	65%	346	64%
(3) Reduce pollution/carbon footprint	5	10%	48	10%	53	10%
(4) Other (specify)	2	4%	7	1%	9	2%
	48	100%	489	100%	537	100%

Table B.1.6

	bName					
	Multi_Family		Single_Family			
2.3-Specify What is your primary motive to reduce energy use in your home? (Q2_3_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
All	.	.	4	36%	4	33%
All Of The Above	.	.	1	9%	1	8%
And 2	.	.	1	9%	1	8%
Being Comfortable	.	.	1	9%	1	8%
Can't Do Anything	.	.	1	9%	1	8%
Money	.	.	1	9%	1	8%
Money And Energy	.	.	1	9%	1	8%

	bName					
	Multi_Family		Single_Family			
2.3-Specify What is your primary motive to reduce energy use in your home? (Q2_3_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
Na	.	.	1	9%	1	8%
Social Security	1	100%	.	.	1	8%
	1	100%	11	100%	12	100%

Table B.1.7

	bName					
	Multi_Family		Single_Family			
2.4 Which of the following high-efficiency equipment (e.g., ENERGY STAR) have you installed in your home in the past five years? Please check all that apply. (Q2_4) (Multiple responses possible)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Compact Fluorescent Light Bulb(s) (CFL)	19	48%	215	30%	234	31%
(2) Central air conditioner	4	10%	81	11%	85	11%
(3) Window/through-the-wall air conditioner	.	.	12	2%	12	2%
(4) Heat-pump	.	.	6	1%	6	1%
(5) Water heater	.	.	69	10%	69	9%
(6) Refrigerator	1	3%	95	13%	96	13%
(7) Dishwasher	1	3%	64	9%	65	9%
(8) Clothes washer	2	5%	64	9%	66	9%
(9) Other (specify)	4	10%	61	8%	65	9%

	bName					
	Multi_Family		Single_Family			
2.4 Which of the following high-efficiency equipment (e.g., ENERGY STAR) have you installed in your home in the past five years? Please check all that apply. (Q2_4) (Multiple responses possible)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(10) Have not installed any energy efficient equipment in my home	9	23%	52	7%	61	8%
	40	100%	719	100%	759	100%

Table B.1.8

	bName					
	Multi_Family		Single_Family			
2.4-Specify Which of the following high-efficiency equipment (e.g., ENERGY STAR) have you installed in your home in the past five years? Please check all that apply. (Q2_4_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
Air Conditioner	.	.	1	1%	1	1%
All (New Home)	.	.	1	1%	1	1%
Ceiling Fan, A/C, Furn	.	.	1	1%	1	1%
Clothed Dryer	.	.	1	1%	1	1%
Clothes Dryer	.	.	1	1%	1	1%
Dishwasher And Microwave	.	.	1	1%	1	1%
Dryer	.	.	8	11%	8	11%
Dryer And Microwave	1	25%	.	.	1	1%
Dryer, Stove	.	.	1	1%	1	1%
Dryer, Stove, Microwave	.	.	1	1%	1	1%

2.4-Specify Which of the following high-efficiency equipment (e.g., ENERGY STAR) have you installed in your home in the past five years? Please check all that apply. (Q2_4_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Dryer`	.	.	1	1%	1	1%
Electric Stove, Dryer, Tvs	.	.	1	1%	1	1%
Energy Efficient Spaceheater	.	.	1	1%	1	1%
Everything Is	.	.	1	1%	1	1%
Fans	.	.	1	1%	1	1%
Fireplace	.	.	1	1%	1	1%
Freezer	.	.	2	3%	2	3%
Furn And Water Heater	.	.	1	1%	1	1%
Furnace	.	.	19	27%	19	26%
Furnace, Dehumidifier	.	.	1	1%	1	1%
Furnace, Stove	.	.	1	1%	1	1%
Gas Stove	.	.	1	1%	1	1%
Greener Laptop	1	25%	.	.	1	1%
Hot Water Heater	.	.	1	1%	1	1%
Na	.	.	1	1%	1	1%
New Deep Freeze	.	.	1	1%	1	1%
None	1	25%	.	.	1	1%
Oven	1	25%	.	.	1	1%
Repl Furn	.	.	1	1%	1	1%
Replaced Door	.	.	1	1%	1	1%
Roof	.	.	1	1%	1	1%
Roof, Computer & Printer, Tv, Dishwasher	.	.	1	1%	1	1%

	bName					
	Multi_Family		Single_Family			
2.4-Specify Which of the following high-efficiency equipment (e.g., ENERGY STAR) have you installed in your home in the past five years? Please check all that apply. (Q2_4_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
Stove	.	.	4	6%	4	5%
Stove, Tv	.	.	1	1%	1	1%
Stove, Water Softener, Microwave, Washer, Dryer, Freezer	.	.	1	1%	1	1%
Stove/Frrezer/ Microwave Doors	.	.	1	1%	1	1%
Thermostat	.	.	1	1%	1	1%
Tv, Computer, Monitors	.	.	1	1%	1	1%
Vents	.	.	1	1%	1	1%
Washing Machine	.	.	2	3%	2	3%
Window, Stone	.	.	1	1%	1	1%
Windows	.	.	2	3%	2	3%
Windows, Doors And Furnace	.	.	1	1%	1	1%
	<i>4</i>	<i>100%</i>	<i>70</i>	<i>100%</i>	<i>74</i>	<i>100%</i>

Table B.1.9

	bName					
	Multi_Family		Single_Family			
2.5A. On a scale of 1 to 5, where 1 is Very Unlikely and 5 is Very Likely, how likely would you be to pay for an on-site energy audit of your home if the final cost to you was: \$200 (Q2_5A)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	23	72%	282	79%	305	79%
(2) 2	2	6%	19	5%	21	5%
(3) 3	1	3%	22	6%	23	6%
(4) 4	1	3%	14	4%	15	4%
(5) 5 - Very likely	5	16%	18	5%	23	6%
	32	100%	355	100%	387	100%

Table B.1.10

	bName					
	Multi_Family		Single_Family			
2.5B. On a scale of 1 to 5, where 1 is Very Unlikely and 5 is Very Likely, how likely would you be to pay for an on-site energy audit of your home if the final cost to you was: \$250 (Q2_5B)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	24	75%	295	83%	319	83%
(2) 2	1	3%	17	5%	18	5%
(3) 3	2	6%	23	6%	25	6%
(4) 4	3	9%	8	2%	11	3%

	bName					
	Multi_Family		Single_Family			
2.5B. On a scale of 1 to 5, where 1 is Very Unlikely and 5 is Very Likely, how likely would you be to pay for an on-site energy audit of your home if the final cost to you was: \$250 (Q2_5B)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(5) 5 - Very likely	2	6%	11	3%	13	3%
	32	100%	354	100%	386	100%

Table B.1.11

	bName					
	Multi_Family		Single_Family			
2.5C. On a scale of 1 to 5, where 1 is Very Unlikely and 5 is Very Likely, how likely would you be to pay for an on-site energy audit of your home if the final cost to you was: \$300 (Q2_5C)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	24	75%	307	87%	331	86%
(2) 2	1	3%	12	3%	13	3%
(3) 3	5	16%	21	6%	26	7%
(4) 4	.	.	4	1%	4	1%
(5) 5 - Very likely	2	6%	10	3%	12	3%
	32	100%	354	100%	386	100%

Table B.1.12

2.5D. On a scale of 1 to 5, where 1 is Very Unlikely and 5 is Very Likely, how likely would you be to recycle an old appliance if you were paid to recycle an old appliance (Q2_5D)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	12	40%	97	27%	109	28%
(2) 2	.	.	14	4%	14	4%
(3) 3	3	10%	41	12%	44	11%
(4) 4	2	7%	51	14%	53	14%
(5) 5 - Very likely	13	43%	151	43%	164	43%
	30	100%	354	100%	384	100%

Table B.1.13

2.6A On a scale of 1 to 5, where 1 is Very Unlikely and 5 is Very Likely, how likely would you be to install energy efficient Lighting without a utility incentive rebate? (Q2_6A)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	12	38%	82	23%	94	24%
(2) 2	1	3%	24	7%	25	6%
(3) 3	3	9%	39	11%	42	11%
(4) 4	1	3%	38	11%	39	10%

	bName					
	Multi_Family		Single_Family			
2.6A On a scale of 1 to 5, where 1 is Very Unlikely and 5 is Very Likely, how likely would you be to install energy efficient Lighting without a utility incentive rebate? (Q2_6A)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(5) 5 - Very likely	15	47%	178	49%	193	49%
	32	100%	361	100%	393	100%

Table B.1.14

	bName					
	Multi_Family		Single_Family			
2.6B On a scale of 1 to 5, where 1 is Very Unlikely and 5 is Very Likely, how likely would you be to install energy efficient Air Conditioning without a utility incentive rebate? (Q2_6B)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	16	50%	134	37%	150	38%
(2) 2	1	3%	27	8%	28	7%
(3) 3	3	9%	57	16%	60	15%
(4) 4	3	9%	25	7%	28	7%
(5) 5 - Very likely	9	28%	117	33%	126	32%
	32	100%	360	100%	392	100%

Table B.1.15

2.6C On a scale of 1 to 5, where 1 is Very Unlikely and 5 is Very Likely, how likely would you be to install energy efficient Space Heating (gas furnace) without a utility incentive rebate? (Q2_6C)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	17	55%	149	42%	166	43%
(2) 2	1	3%	24	7%	25	6%
(3) 3	4	13%	51	14%	55	14%
(4) 4	3	10%	30	8%	33	8%
(5) 5 - Very likely	6	19%	104	29%	110	28%
	31	100%	358	100%	389	100%

Table B.1.16

2.6D On a scale of 1 to 5, where 1 is Very Unlikely and 5 is Very Likely, how likely would you be to install energy efficient Appliances (refrigerator) without a utility incentive rebate? (Q2_6D)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	15	47%	120	33%	135	34%
(2) 2	.	.	32	9%	32	8%
(3) 3	4	13%	61	17%	65	17%
(4) 4	5	16%	38	11%	43	11%

	bName					
	Multi_Family		Single_Family			
2.6D On a scale of 1 to 5, where 1 is Very Unlikely and 5 is Very Likely, how likely would you be to install energy efficient Appliances (refrigerator) without a utility incentive rebate? (Q2_6D)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(5) 5 - Very likely	8	25%	110	30%	118	30%
	32	100%	361	100%	393	100%

Table B.1.17

	bName					
	Multi_Family		Single_Family			
2.6E On a scale of 1 to 5, where 1 is Very Unlikely and 5 is Very Likely, how likely would you be to install energy efficient Electronics (TV, Computer) without a utility incentive rebate? (Q2_6E)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	13	41%	129	36%	142	36%
(2) 2	1	3%	36	10%	37	9%
(3) 3	4	13%	66	18%	70	18%
(4) 4	4	13%	37	10%	41	10%
(5) 5 - Very likely	10	31%	93	26%	103	26%
	32	100%	361	100%	393	100%

Table B.1.18

	bName					
	Multi_Family		Single_Family			
2.6F On a scale of 1 to 5, where 1 is Very Unlikely and 5 is Very Likely, how likely would you be to install energy efficient Weatherization (energy efficient insulation) without a utility incentive rebate? (Q2_6F)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	17	55%	128	35%	145	37%
(2) 2	.	.	34	9%	34	9%
(3) 3	5	16%	42	12%	47	12%
(4) 4	4	13%	36	10%	40	10%
(5) 5 - Very likely	5	16%	121	34%	126	32%
	<i>31</i>	<i>100%</i>	<i>361</i>	<i>100%</i>	<i>392</i>	<i>100%</i>

Table B.1.19

	bName					
	Multi_Family		Single_Family			
2.7A What if Ameren paid 50% of the cost to upgrade to the energy efficient: Lighting (Q2_7A)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	6	19%	34	11%	40	12%
(2) 2	1	3%	16	5%	17	5%
(3) 3	3	10%	39	13%	42	13%
(4) 4	3	10%	53	17%	56	17%
(5) 5 - Very likely	18	58%	163	53%	181	54%
	<i>31</i>	<i>100%</i>	<i>305</i>	<i>100%</i>	<i>336</i>	<i>100%</i>

Table B.1.20

	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
2.7B What if Ameren paid 50% of the cost to upgrade to the energy efficient: Air Conditioning (Q2_7B)						
(1) 1 - Very unlikely	10	32%	59	19%	69	20%
(2) 2	1	3%	21	7%	22	6%
(3) 3	5	16%	44	14%	49	14%
(4) 4	.	.	55	18%	55	16%
(5) 5 - Very likely	15	48%	131	42%	146	43%
	<i>31</i>	<i>100%</i>	<i>310</i>	<i>100%</i>	<i>341</i>	<i>100%</i>

Table B.1.21

	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
2.7C What if Ameren paid 50% of the cost to upgrade to the energy efficient: Space Heating (gas furnace) (Q2_7C)						
(1) 1 - Very unlikely	11	38%	70	23%	81	24%
(2) 2	1	3%	21	7%	22	7%
(3) 3	3	10%	45	15%	48	14%
(4) 4	2	7%	50	16%	52	15%

	bName					
	Multi_Family		Single_Family			
2.7C What if Ameren paid 50% of the cost to upgrade to the energy efficient: Space Heating (gas furnace) (Q2_7C)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(5) 5 - Very likely	12	41%	122	40%	134	40%
	29	100%	308	100%	337	100%

Table B.1.22

	bName					
	Multi_Family		Single_Family			
2.7D What if Ameren paid 50% of the cost to upgrade to the energy efficient: Appliances (refrigerator) (Q2_7D)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	9	29%	53	17%	62	18%
(2) 2	1	3%	17	5%	18	5%
(3) 3	3	10%	45	14%	48	14%
(4) 4	2	6%	64	21%	66	19%
(5) 5 - Very likely	16	52%	132	42%	148	43%
	31	100%	311	100%	342	100%

Table B.1.23

2.7E What if Ameren paid 50% of the cost to upgrade to the energy efficient: Electronics (TV, Computer) (Q2_7E)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	8	26%	54	17%	62	18%
(2) 2	1	3%	17	6%	18	5%
(3) 3	3	10%	46	15%	49	14%
(4) 4	3	10%	66	21%	69	20%
(5) 5 - Very likely	16	52%	126	41%	142	42%
	<i>31</i>	<i>100%</i>	<i>309</i>	<i>100%</i>	<i>340</i>	<i>100%</i>

Table B.1.24

2.7F What if Ameren paid 50% of the cost to upgrade to the energy efficient: Weatherization (energy efficient insulation) (Q2_7F)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	10	33%	57	19%	67	20%
(2) 2	2	7%	21	7%	23	7%
(3) 3	3	10%	39	13%	42	13%
(4) 4	1	3%	49	16%	50	15%
(5) 5 - Very likely	14	47%	139	46%	153	46%
	<i>30</i>	<i>100%</i>	<i>305</i>	<i>100%</i>	<i>335</i>	<i>100%</i>

Table B.1.25

2.8A How about if the incentive were 75% of the cost to upgrade the: Lighting (Q2_8A)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	6	20%	32	12%	38	13%
(2) 2	1	3%	8	3%	9	3%
(3) 3	1	3%	22	8%	23	8%
(4) 4	2	7%	30	11%	32	11%
(5) 5 - Very likely	20	67%	181	66%	201	66%
	30	100%	273	100%	303	100%

Table B.1.26

2.8B How about if the incentive were 75% of the cost to upgrade the: Air Conditioning (Q2_8B)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	10	33%	53	19%	63	21%
(2) 2	1	3%	13	5%	14	5%
(3) 3	3	10%	21	8%	24	8%
(4) 4	1	3%	29	11%	30	10%

	bName					
	Multi_Family		Single_Family			
2.8B How about if the incentive were 75% of the cost to upgrade the: Air Conditioning (Q2_8B)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(5) 5 - Very likely	15	50%	158	58%	173	57%
	30	100%	274	100%	304	100%

Table B.1.27

	bName					
	Multi_Family		Single_Family			
2.8C How about if the incentive were 75% of the cost to upgrade the: Space Heating (gas furnace) (Q2_8C)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	11	38%	58	21%	69	23%
(2) 2	1	3%	11	4%	12	4%
(3) 3	2	7%	26	10%	28	9%
(4) 4	3	10%	28	10%	31	10%
(5) 5 - Very likely	12	41%	149	55%	161	53%
	29	100%	272	100%	301	100%

Table B.1.28

	bName					
	Multi_Family		Single_Family			
2.8D How about if the incentive were 75% of the cost to upgrade the: Appliances (refrigerator) (Q2_8D)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	9	30%	44	16%	53	17%
(2) 2	1	3%	8	3%	9	3%
(3) 3	2	7%	31	11%	33	11%
(4) 4	2	7%	33	12%	35	12%
(5) 5 - Very likely	16	53%	157	58%	173	57%
	30	100%	273	100%	303	100%

Table B.1.29

	bName					
	Multi_Family		Single_Family			
2.8E How about if the incentive were 75% of the cost to upgrade the: Electronics (TV, Computer) (Q2_8E)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	7	23%	45	16%	52	17%
(2) 2	1	3%	9	3%	10	3%
(3) 3	3	10%	30	11%	33	11%
(4) 4	3	10%	30	11%	33	11%
(5) 5 - Very likely	16	53%	160	58%	176	58%
	30	100%	274	100%	304	100%

Table B.1.30

2.8F How about if the incentive were 75% of the cost to upgrade the: Weatherization (energy efficient insulation) (Q2_8F)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	9	32%	51	19%	60	20%
(2) 2	2	7%	10	4%	12	4%
(3) 3	2	7%	24	9%	26	9%
(4) 4	2	7%	29	11%	31	10%
(5) 5 - Very likely	13	46%	157	58%	170	57%
	28	100%	271	100%	299	100%

Table B.1.31

2.9A On a scale of 1 to 5, where 1 is not likely and 5 is Very likely, rate the following based on whether you would participate in an Ameren energy efficiency program if it: Affected the value of your home. (Q2_9A)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	11	37%	74	20%	85	22%
(2) 2	.	.	18	5%	18	5%
(3) 3	7	23%	81	22%	88	23%
(4) 4	4	13%	79	22%	83	21%

	bName					
	Multi_Family		Single_Family			
2.9A On a scale of 1 to 5, where 1 is not likely and 5 is Very likely, rate the following based on whether you would participate in an Ameren energy efficiency program if it: Affected the value of your home. (Q2_9A)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(5) 5 - Very likely	8	27%	109	30%	117	30%
	30	100%	361	100%	391	100%

Table B.1.32

	bName					
	Multi_Family		Single_Family			
2.9B On a scale of 1 to 5, where 1 is not likely and 5 is Very likely, rate the following based on whether you would participate in an Ameren energy efficiency program if it: Impacted the environment (Q2_9B)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	7	23%	58	16%	65	17%
(2) 2	1	3%	27	7%	28	7%
(3) 3	5	16%	86	24%	91	23%
(4) 4	8	26%	84	23%	92	23%
(5) 5 - Very likely	10	32%	106	29%	116	30%
	31	100%	361	100%	392	100%

Table B.1.33

2.9C On a scale of 1 to 5, where 1 is not likely and 5 is Very likely, rate the following based on whether you would participate in an Ameren energy efficiency program if it: Affected your monthly electric bill (Q2_9C)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	5	16%	35	10%	40	10%
(2) 2	.	.	17	5%	17	4%
(3) 3	5	16%	55	15%	60	15%
(4) 4	6	19%	73	20%	79	20%
(5) 5 - Very likely	15	48%	181	50%	196	50%
	31	100%	361	100%	392	100%

Table B.1.34

2.9D On a scale of 1 to 5, where 1 is not likely and 5 is Very likely, rate the following based on whether you would participate in an Ameren energy efficiency program if it: Affected the cost for new high-efficiency electric equipment appliances (Q2_9D)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	9	29%	50	14%	59	15%
(2) 2	2	6%	29	8%	31	8%

2.9D On a scale of 1 to 5, where 1 is not likely and 5 is Very likely, rate the following based on whether you would participate in an Ameren energy efficiency program if it: Affected the cost for new high-efficiency electric equipment appliances (Q2_9D)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(3) 3	6	19%	82	23%	88	23%
(4) 4	6	19%	83	23%	89	23%
(5) 5 - Very likely	8	26%	116	32%	124	32%
	31	100%	360	100%	391	100%

Table B.1.35

2.9E On a scale of 1 to 5, where 1 is not likely and 5 is Very likely, rate the following based on whether you would participate in an Ameren energy efficiency program if it: Affected your level of comfort (Q2_9E)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	7	23%	42	12%	49	13%
(2) 2	2	6%	24	7%	26	7%
(3) 3	4	13%	79	22%	83	21%
(4) 4	7	23%	84	23%	91	23%
(5) 5 - Very likely	11	35%	132	37%	143	36%
	31	100%	361	100%	392	100%

Table B.1.36

2.9F On a scale of 1 to 5, where 1 is not likely and 5 is Very likely, rate the following based on whether you would participate in an Ameren energy efficiency program if it: Affected the payback period from new high-efficiency equipment (Q2_9F)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	9	29%	60	17%	69	18%
(2) 2	.	.	25	7%	25	6%
(3) 3	9	29%	77	21%	86	22%
(4) 4	5	16%	75	21%	80	20%
(5) 5 - Very likely	8	26%	123	34%	131	34%
	31	100%	360	100%	391	100%

Table B.1.37

2.9G On a scale of 1 to 5, where 1 is not likely and 5 is Very likely, rate the following based on whether you would participate in an Ameren energy efficiency program if it: Impacted your lifestyle convenience (Q2_9G)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Very unlikely	8	26%	53	15%	61	16%
(2) 2	1	3%	31	9%	32	8%

	bName					
	Multi_Family		Single_Family			
2.9G On a scale of 1 to 5, where 1 is not likely and 5 is Very likely, rate the following based on whether you would participate in an Ameren energy efficiency program if it: Impacted your lifestyle convenience (Q2_9G)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(3) 3	5	16%	78	22%	83	21%
(4) 4	5	16%	82	23%	87	22%
(5) 5 - Very likely	12	39%	116	32%	128	33%
	<i>31</i>	<i>100%</i>	<i>360</i>	<i>100%</i>	<i>391</i>	<i>100%</i>

Table B.1.38

	bName					
	Multi_Family		Single_Family			
2.10A Where 1 is Completely Disagree and 5 is Completely Agree, please indicate your level of agreement with the following statement: High-efficiency measures are generally too expensive for me (Cost) (Q2_10A)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Completely disagree	5	16%	69	19%	74	19%
(2) 2	3	9%	37	10%	40	10%
(3) 3	7	22%	83	23%	90	23%
(4) 4	4	13%	48	13%	52	13%
(5) 5 - Completely agree	13	41%	124	34%	137	35%
	<i>32</i>	<i>100%</i>	<i>361</i>	<i>100%</i>	<i>393</i>	<i>100%</i>

Table B.1.39

2.10B Where 1 is Completely Disagree and 5 is Completely Agree, please indicate your level of agreement with the following statement: : I don't know enough about high-efficiency measures (Information) (Q2_10B)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Completely disagree	8	25%	86	24%	94	24%
(2) 2	3	9%	61	17%	64	16%
(3) 3	4	13%	86	24%	90	23%
(4) 4	3	9%	46	13%	49	12%
(5) 5 - Completely agree	14	44%	83	23%	97	25%
	32	100%	362	100%	394	100%

Table B.1.40

2.10C Where 1 is Completely Disagree and 5 is Completely Agree, please indicate your level of agreement with the following statement: : I am not responsible for purchasing these items in my household (Not Decision Maker) (Q2_10C)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Completely disagree	14	44%	248	69%	262	66%

	bName					
	Multi_Family		Single_Family			
2.10C Where 1 is Completely Disagree and 5 is Completely Agree, please indicate your level of agreement with the following statement: : I am not responsible for purchasing these items in my household (Not Decision Maker) (Q2_10C)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(2) 2	1	3%	27	7%	28	7%
(3) 3	4	13%	28	8%	32	8%
(4) 4	1	3%	7	2%	8	2%
(5) 5 - Completely agree	12	38%	52	14%	64	16%
	32	100%	362	100%	394	100%

Table B.1.41

	bName					
	Multi_Family		Single_Family			
2.10D Where 1 is Completely Disagree and 5 is Completely Agree, please indicate your level of agreement with the following statement: : I do not know enough about my home's current energy usage (Knowledge) (Q2_10D)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Completely disagree	11	34%	151	42%	162	41%
(2) 2	4	13%	49	14%	53	13%
(3) 3	4	13%	69	19%	73	19%
(4) 4	3	9%	33	9%	36	9%
(5) 5 - Completely agree	10	31%	60	17%	70	18%
	32	100%	362	100%	394	100%

Table B.1.42

2.10E Where 1 is Completely Disagree and 5 is Completely Agree, please indicate your level of agreement with the following statement: : Energy prices are not high enough to motivate me to take action (Status quo) (Q2_10E)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 1 - Completely disagree	15	47%	190	53%	205	52%
(2) 2	4	13%	51	14%	55	14%
(3) 3	4	13%	56	16%	60	15%
(4) 4	2	6%	27	7%	29	7%
(5) 5 - Completely agree	7	22%	37	10%	44	11%
	32	100%	361	100%	393	100%

Table B.1.43

2.11 What other barriers often prevent you from becoming more energy efficient in your home? (Q2_11)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Specify	9	32%	96	34%	105	33%

2.11 What other barriers often prevent you from becoming more energy efficient in your home? (Q2_11)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(2) No other barriers exist	19	68%	190	66%	209	67%
	28	100%	286	100%	314	100%

Table B.1.44

2.11-Specify What other barriers often prevent you from becoming more energy efficient in your home? (Q2_11_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Age Of Home	.	.	1	1%	1	1%
Allergies Requires Her To Use Her Air All The Time.	.	.	1	1%	1	1%
Apt Living/	1	11%	.	.	1	1%
Availability Of Vendors / Cost	.	.	1	1%	1	1%
Being Disorganized	.	.	1	1%	1	1%
Cash	.	.	1	1%	1	1%
Convenience, Cost	.	.	1	1%	1	1%
Convenience, Someone To Help	.	.	1	1%	1	1%
Cost	1	11%	25	24%	26	23%
Cost Limited Income	.	.	1	1%	1	1%
Cost Too Much	.	.	1	1%	1	1%
Cost, Knowing Good Suppliers	.	.	1	1%	1	1%

2.11-Specify What other barriers often prevent you from becoming more energy efficient in your home? (Q2_11_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Cost/Economy	.	.	1	1%	1	1%
Doesn't Own The Home	.	.	1	1%	1	1%
Economy	.	.	1	1%	1	1%
Elderly	.	.	1	1%	1	1%
Expense	.	.	2	2%	2	2%
Finances	.	.	1	1%	1	1%
Fixed Income	.	.	1	1%	1	1%
Funds	.	.	1	1%	1	1%
Income	1	11%	2	2%	3	3%
Knowledge	1	11%	1	1%	2	2%
Lack Of Knowledge Of New Products And Durability	.	.	1	1%	1	1%
Manufacture Flawws	.	.	1	1%	1	1%
Money	2	22%	36	35%	38	34%
Money, Elderly	.	.	1	1%	1	1%
Na	.	.	1	1%	1	1%
New Home, Cost	.	.	1	1%	1	1%
No Money	.	.	1	1%	1	1%
No Need	.	.	1	1%	1	1%
None	.	.	1	1%	1	1%
Not Enough Pay Back	.	.	1	1%	1	1%
Not Home Owner	.	.	1	1%	1	1%
Not Staying In Home	.	.	1	1%	1	1%
Old Home	.	.	1	1%	1	1%

2.11-Specify What other barriers often prevent you from becoming more energy efficient in your home? (Q2_11_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Older Home, Turns Into Monster Project	.	.	1	1%	1	1%
Rent	1	11%	1	1%	2	2%
Rent, Friends	.	.	1	1%	1	1%
Rent, Keeping Your Lightbulbs	1	11%	.	.	1	1%
Rental Property	.	.	1	1%	1	1%
Renter	1	11%	.	.	1	1%
Single W/Child	.	.	1	1%	1	1%
The Economy	.	.	1	1%	1	1%
Time	.	.	1	1%	1	1%
Unemployed	.	.	1	1%	1	1%
	9	100%	103	100%	112	100%

Table B.1.45

3.1 Which of the following best describes your home? (Q3_1)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Single family detached house (on a separate lot) not connected to other living units	.	.	326	90%	326	83%
(2) Single family attached, such as a duplex, condominium, row or townhouse	.	.	21	6%	21	5%

	bName					
	Multi_Family		Single_Family			
3.1 Which of the following best describes your home? (Q3_1)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(3) A unit in a multifamily apartment, condominium, row or townhouse building that has 3 or more units	32	100%	.	.	32	8%
(4) Manufactured home or house trailer	.	.	16	4%	16	4%
	32	100%	363	100%	395	100%

Table B.1.46

	bName					
	Multi_Family		Single_Family			
3.1-Specify Which of the following best describes your home? (Q3_1_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
Duplex	.	.	2	5%	2	4%
Four- Plex	.	.	1	2%	1	2%
Home, Changed Into Apartments	1	25%	.	.	1	2%
Mobile Home	.	.	2	5%	2	4%
Multi-Family Apartment	3	75%	.	.	3	6%
Na	.	.	1	2%	1	2%
Single Family	.	.	1	2%	1	2%
Single Family Condo	.	.	1	2%	1	2%
Single Family- Detached	.	.	35	80%	35	73%
Town House	.	.	1	2%	1	2%
	4	100%	44	100%	48	100%

Table B.1.47

3.2 How many living units or apartments are in the building where this residence is located? (Q3_2)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Don't know (probe for general size)	5	17%	14	58%	19	36%
(2) 3 - 10 units	7	24%	5	21%	12	23%
(3) 11 - 50 units	6	21%	3	13%	9	17%
(4) 51 - 100 units	5	17%	2	8%	7	13%
(5) More than 100 units	3	10%	.	.	3	6%
(6) Don't know	3	10%	.	.	3	6%
	29	100%	24	100%	53	100%

Table B.1.48

3.2-Specify How many living units or apartments are in the building where this residence is located? (Q3_2_Specify)	bName			
	Multi_Family			
	Frequency	Percent	Frequency	Percent
(3) Three	1	100%	1	100%
	1	100%	1	100%

Table B.1.49

3.3 How many levels or stories are there in this residence? (Q3_3)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) One story	9	33%	194	59%	203	57%
(2) One and a half stories	.	.	20	6%	20	6%
(3) Split level or two stories	10	37%	74	23%	84	24%
(4) Two and a half stories	1	4%	19	6%	20	6%
(5) Tri-level or three stories	3	11%	16	5%	19	5%
(6) More than three stories	1	4%	4	1%	5	1%
(7) Other (specify)	1	4%	1	0%	2	1%
(8) Don't know	2	7%	.	.	2	1%
	27	100%	328	100%	355	100%

Table B.1.50

3.3-Specify How many levels or stories are there in this residence? (Q3_3_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	.	.	2	4%	2	4%
1 Story	.	.	20	43%	20	39%
1 Story w/ basement	.	.	3	7%	3	6%
1 and a half stories	.	.	2	4%	2	4%

3.3-Specify How many levels or stories are there in this residence? (Q3_3_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1 story	.	.	1	2%	1	2%
2 Stories w/ basement	.	.	2	4%	2	4%
2 Stories, w/ half finished basement	.	.	1	2%	1	2%
2 Story	3	60%	10	22%	13	25%
2+ basement	.	.	1	2%	1	2%
3 Stories	.	.	1	2%	1	2%
4 Storys	.	.	1	2%	1	2%
6	1	20%	.	.	1	2%
MOBILE HOME	1	20%	.	.	1	2%
RANCH	.	.	1	2%	1	2%
Two and a Half Stories	.	.	1	2%	1	2%
	5	100%	46	100%	51	100%

Table B.1.51

4.1 What is the approximate age of your home? (Q4_1)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Less than 2 Years	10	33%	30	8%	40	10%
2-10 Years	4	13%	33	9%	37	10%
10-20 Years	3	10%	41	11%	44	11%
20-30 Years	8	27%	40	11%	48	12%

	bName					
	Multi_Family		Single_Family			
4.1 What is the approximate age of your home? (Q4_1)	Frequency	Percent	Frequency	Percent	Frequency	Percent
30-40 Years	2	7%	37	10%	39	10%
40-50 Years	1	3%	48	13%	49	13%
More than 50 Years	2	7%	130	36%	132	34%
	30	100%	359	100%	389	100%

Table B.1.52

	bName					
	Multi_Family		Single_Family			
4.2 If different portions of your house have different configurations, please answer based on the largest portion of your home's footprint. Is your home: (Q4_2)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Above a finished basement	6	22%	89	26%	95	25%
(2) Above an unfinished basement	1	4%	115	33%	116	31%
(3) On top of a foundation meaning on a concrete slab with no basement	7	26%	54	16%	61	16%
(4) Above a crawl space	.	.	79	23%	79	21%
(5) Don't know	13	48%	9	3%	22	6%
	27	100%	346	100%	373	100%

Table B.1.53

4.3 Approximately what percentage of this residence's windows are double or triple-pane? (Q4_3)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
None	10	33%	38	10%	48	12%
Less than 10%	1	3%	6	2%	7	2%
10-20%	.	.	4	1%	4	1%
20-30%	.	.	6	2%	6	2%
30-40%	.	.	4	1%	4	1%
40-50%	1	3%	16	4%	17	4%
50-60%	.	.	7	2%	7	2%
60-70%	.	.	4	1%	4	1%
70-80%	.	.	10	3%	10	3%
80-90%	1	3%	11	3%	12	3%
90-100%	13	43%	240	66%	253	64%
Don't know	4	13%	17	5%	21	5%
	<i>30</i>	<i>100%</i>	<i>363</i>	<i>100%</i>	<i>393</i>	<i>100%</i>

Table B.1.54

	bName					
	Multi_Family		Single_Family			
4.4 Approximately what percentage of your home's windows are equipped with storm windows? (Q4_4)	Frequency	Percent	Frequency	Percent	Frequency	Percent
None	17	55%	125	38%	142	39%
Less than 10%	.	.	5	2%	5	1%
10-20%	.	.	8	2%	8	2%
20-30%	.	.	4	1%	4	1%
30-40%	.	.	2	1%	2	1%
40-50%	1	3%	17	5%	18	5%
50-60%	.	.	3	1%	3	1%
60-70%	.	.	3	1%	3	1%
70-80%	.	.	11	3%	11	3%
80-90%	1	3%	4	1%	5	1%
90-100%	9	29%	138	42%	147	40%
Don't know	3	10%	12	4%	15	4%
	<i>31</i>	<i>100%</i>	<i>332</i>	<i>100%</i>	<i>363</i>	<i>100%</i>

Table B.1.55

	bName					
	Multi_Family		Single_Family			
4.5 What is the approximate square footage of the heated or cooled living space in this residence? (Q4_5)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) See 4.5-Specify	9	32%	219	64%	228	61%
(3) Don't know	19	68%	125	36%	144	39%
	28	100%	344	100%	372	100%

Table B.1.56

	bName					
	Multi_Family		Single_Family			
4.5-Specify What is the approximate square footage of the heated or cooled living space in this residence? (Q4_5_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
Less than 500 square feet	1	11%	1	0%	2	1%
500 to 1000 square feet	7	78%	26	12%	33	14%
1000 to 1500 square feet	1	11%	64	29%	65	29%
1500 to 2000 square feet	.	.	64	29%	64	28%
2000 to 2500 square feet	.	.	31	14%	31	14%
2500 to 3000 square feet	.	.	17	8%	17	7%
3000 to 3500 square feet	.	.	7	3%	7	3%
3500 to 4000 square feet	.	.	5	2%	5	2%
4000 to 4500 square feet	.	.	1	0%	1	0%

	bName					
	Multi_Family		Single_Family			
4.5-Specify What is the approximate square footage of the heated or cooled living space in this residence? (Q4_5_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
4500 to 5000 square feet	.	.	2	1%	2	1%
More than 5000 square feet	.	.	1	0%	1	0%
	9	100%	219	100%	228	100%

Table B.1.57

	bName					
	Multi_Family		Single_Family			
4.6 Although you aren't sure about the actual heated or cooled living space, can you estimate the square footage of your home using the following categories? (Q4_6)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Under 1,000 square feet	4	21%	15	11%	19	12%
(2) 1,000 – 1,500 square feet	3	16%	27	20%	30	19%
(3) 1,501 – 2,000 square feet	1	5%	21	16%	22	14%
(4) 2,001 – 2,500 square feet	.	.	7	5%	7	5%
(5) 2,501 – 3,000 square feet	.	.	4	3%	4	3%
(6) More than 3,000 square feet (Specify) _____ square feet	.	.	4	3%	4	3%
(7) Don't know	11	58%	57	42%	68	44%
	19	100%	135	100%	154	100%

Table B.1.58

4.7 How many heated rooms are in this residence? (Q4_7)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) See 4.7-Specify	32	100%	355	99%	387	99%
(2) Don't know	.	.	2	1%	2	1%
	32	100%	357	100%	389	100%

Table B.1.59

4.7-Specify How many heated rooms are in this residence? (Q4_7_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	.	.	1	0%	1	0%
(1) One	.	.	1	0%	1	0%
(2) Two	3	9%	3	1%	6	2%
(3) Three	11	34%	14	4%	25	6%
(4) Four	15	47%	36	10%	51	13%
(5) Five	1	3%	89	25%	90	23%
(6) Six	1	3%	60	17%	61	16%
(7+) Seven or more	1	3%	157	43%	158	40%
	32	100%	361	100%	393	100%

Table B.1.60

	bName					
	Multi_Family		Single_Family			
4.8 How many bathrooms are in this home? (Q4_8)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) See 4.8-Specify	30	94%	344	96%	374	95%
(2) Don't know	2	6%	15	4%	17	4%
3	.	.	1	0%	1	0%
	32	100%	360	100%	392	100%

Table B.1.61

	bName					
	Multi_Family		Single_Family			
4.8-Specify How many bathrooms are in this home? (Q4_8_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	27	90%	124	36%	151	41%
1.25	.	.	1	0%	1	0%
1.5	1	3%	19	6%	20	5%
1.75	.	.	1	0%	1	0%
2	2	7%	128	37%	130	35%
2 full and 2 half	.	.	2	1%	2	1%
2.5	.	.	19	6%	19	5%

4.8-Specify How many bathrooms are in this home? (Q4_8_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
3	.	.	34	10%	34	9%
3.5	.	.	8	2%	8	2%
4	.	.	5	1%	5	1%
5	.	.	1	0%	1	0%
	30	100%	342	100%	372	100%

Table B.1.62

5.1 What type of heating system do you have? Is it ...? (Q5_1) (Multiple responses possible)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Natural gas heating	7	23%	273	75%	280	71%
(2) Electric heating	21	68%	69	19%	90	23%
(3) Other (specify) _____ (i.e., wood, propane)	.	.	18	5%	18	5%
(4) No heating	.	.	1	0%	1	0%
(5) Combination of types (Specify) _____	.	.	1	0%	1	0%
(6) Don't know	3	10%	3	1%	6	2%
(7) Don't have one (Skip to section 6)	.	.	1	0%	1	0%
	31	100%	366	100%	397	100%

Table B.1.63

5.1-Specify What type of heating system do you have? Is it ...? (Q5_1_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	.	.	1	2%	1	1%
Baseboard	.	.	1	2%	1	1%
Boiler	.	.	1	2%	1	1%
Electric	3	75%	12	19%	15	22%
Forced Air And Radiant Floor Heating	.	.	1	2%	1	1%
Gas Fireplace	.	.	1	2%	1	1%
Geothermal	.	.	3	5%	3	4%
Heating Oil	.	.	1	2%	1	1%
Liquid Patroleum	.	.	1	2%	1	1%
Na	.	.	1	2%	1	1%
Natural Gas	1	25%	29	46%	30	45%
Natural Gas, Space Heater	.	.	1	2%	1	1%
Propane	.	.	9	14%	9	13%
Space Heaters	.	.	1	2%	1	1%
	4	100%	63	100%	67	100%

Table B.1.64

5.2 What is the approximate age of your heating system? (Q5_2)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 0-2 years	2	6%	60	17%	62	16%
(2) 3-9 years	4	13%	107	30%	111	28%
(3) 10-19 years	2	6%	92	26%	94	24%
(4) 20 or more years	4	13%	63	18%	67	17%
(5) Don't know	19	61%	38	11%	57	15%
	<i>31</i>	<i>100%</i>	<i>360</i>	<i>100%</i>	<i>391</i>	<i>100%</i>

Table B.1.65

5.3 Do you have a service contract for regular maintenance on your heating unit? (Q5_3)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes	10	34%	101	29%	111	29%
(2) No	6	21%	240	68%	246	64%
(3) Don't know	13	45%	13	4%	26	7%
	<i>29</i>	<i>100%</i>	<i>354</i>	<i>100%</i>	<i>383</i>	<i>100%</i>

Table B.1.66

5.4-Month When was the last time maintenance was performed on your heating unit? (Q5_4_Month)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) January	1	6%	15	6%	16	6%
(2) February	.	.	7	3%	7	3%
(3) March	.	.	10	4%	10	4%
(4) April	1	6%	17	6%	18	6%
(5) May	.	.	13	5%	13	5%
(6) June	.	.	14	5%	14	5%
(7) July	.	.	11	4%	11	4%
(8) August	4	24%	47	18%	51	18%
(9) September	1	6%	30	11%	31	11%
(10) October	.	.	23	9%	23	8%
(11) November	.	.	9	3%	9	3%
(12) December	1	6%	25	10%	26	9%
(98) Don't know	9	53%	42	16%	51	18%
	17	100%	263	100%	280	100%

Table B.1.67

	bName					
	Multi_Family		Single_Family			
5.4-Year How many years ago was the last maintenance performed on your heating unit? (Q5_4_Year)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	.	.	2	1%	2	1%
(1) One	.	.	1	0%	1	0%
(3) Three	.	.	2	1%	2	1%
(4) Four	.	.	2	1%	2	1%
(5) Five	.	.	1	0%	1	0%
(6) Six	.	.	7	2%	7	2%
(7+) Seven or more	8	53%	230	81%	238	80%
(98) Don't Know	7	47%	39	14%	46	15%
	15	100%	284	100%	299	100%

Table B.1.68

	bName					
	Multi_Family		Single_Family			
5.5 NOTE: Skip if question 5.2 above was “1” or “4.” Does the main heating system serve only this residence or does it serve more than one residence? (Q5_5)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Only this residence	21	68%	311	97%	332	95%
(2) More than one residence	8	26%	3	1%	11	3%

	bName					
	Multi_Family		Single_Family			
5.5 NOTE: Skip if question 5.2 above was “1” or “4.” Does the main heating system serve only this residence or does it serve more than one residence? (Q5_5)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(3) Don't know	2	6%	5	2%	7	2%
	31	100%	319	100%	350	100%

Table B.1.69

	bName					
	Multi_Family		Single_Family			
5.6 What is the type of system that is used to heat the majority of your home? (Q5_6) (Multiple responses possible)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Natural gas central forced air furnace	8	27%	275	75%	283	71%
(2) Natural gas hot water boiler (with radiators or baseboards) gas hydronic heating	.	.	4	1%	4	1%
(3) Natural gas steam boiler (with radiators)	1	3%	1	0%	2	1%
(4) Natural gas radiant floor heating	.	.	2	1%	2	1%
(5) Natural gas fireplace	.	.	1	0%	1	0%
(6) Electric baseboard	7	23%	10	3%	17	4%
(7) Electric central forced air furnace	9	30%	29	8%	38	10%
(8) Air-Source Heat pump	.	.	2	1%	2	1%
(9) Ground-source heat pump	.	.	4	1%	4	1%
(10) Portable heaters	.	.	6	2%	6	2%

5.6 What is the type of system that is used to heat the majority of your home? (Q5_6) (Multiple responses possible)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(11) Oil central forced air furnace	.	.	1	0%	1	0%
(12) Oil hot water boiler (with radiators or baseboards)	.	.	1	0%	1	0%
(13) Oil steam boiler (with radiators)	.	.	1	0%	1	0%
(14) Bottled gas central forced air (propane, butane or kerosene)	.	.	7	2%	7	2%
(15) Bottled gas portable heaters (propane, butane, or kerosene)	.	.	1	0%	1	0%
(16) Wood stove	.	.	1	0%	1	0%
(17) Wood fireplace	.	.	2	1%	2	1%
(18) Solar	.	.	1	0%	1	0%
(19) Other System & Fuel (specify_____)	.	.	3	1%	3	1%
(21) Don't know	5	17%	14	4%	19	5%
	30	100%	366	100%	396	100%

Table B.1.70

5.6-Specify What is the type of system that is used to heat the majority of your home? (Q5_6_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
14	.	.	1	2%	1	2%
2-radiant heat	.	.	1	2%	1	2%
ELEC WALL UNITS	.	.	1	2%	1	2%
ELECTRIC CEILING	.	.	1	2%	1	2%
Electric Baseboard	1	25%	1	2%	2	3%
Electric Central forced air	2	50%	9	15%	11	17%
Electric forced air	.	.	1	2%	1	2%
Forced Gas Air	.	.	1	2%	1	2%
GEOTHERMAL	.	.	1	2%	1	2%
Geo Thermal	.	.	1	2%	1	2%
Geothermal	.	.	2	3%	2	3%
NA	.	.	1	2%	1	2%
Nat gas forced air	.	.	5	8%	5	8%
PROPANE	.	.	2	3%	2	3%
PROPANE HEATED RADIANT FLOOR	.	.	1	2%	1	2%
Steam Boiler	.	.	1	2%	1	2%
air duct	.	.	1	2%	1	2%
heat pump	.	.	1	2%	1	2%
nat gas forced air	1	25%	22	37%	23	37%
nat gas, hot water boiler	.	.	1	2%	1	2%
natural gas forced air	.	.	1	2%	1	2%

	bName					
	Multi_Family		Single_Family			
5.6-Specify What is the type of system that is used to heat the majority of your home? (Q5_6_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
propane	.	.	3	5%	3	5%
	4	100%	59	100%	63	100%

Table B.1.71

	bName					
	Multi_Family		Single_Family			
5.7 What type of temperature control is on the main heating system? (Q5_7)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Regular thermostat(s) with temperature settings	18	60%	174	49%	192	49%
(2) Clock or programmable thermostat(s)	3	10%	157	44%	160	41%
(3) Dial control without temperature settings	3	10%	16	4%	19	5%
(4) Simple on/off switch or no temperature control	4	13%	5	1%	9	2%
(5) Something else (specify) _____	1	3%	2	1%	3	1%
(6) Don't know	1	3%	4	1%	5	1%
	30	100%	358	100%	388	100%

Table B.1.72

5.7-Specify What type of temperature control is on the main heating system? (Q5_7_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	1	17%	.	.	1	2%
Dial Control	1	17%	6	14%	7	14%
Digital, regular thermostat	.	.	2	5%	2	4%
NA	.	.	1	2%	1	2%
Regular Thermostat	3	50%	9	20%	12	24%
WOOD	.	.	1	2%	1	2%
no switch	1	17%	.	.	1	2%
programmable thermostat	.	.	25	57%	25	50%
	6	100%	44	100%	50	100%

Table B.1.73

5.8 I will read some ways that heating systems are used. Please indicate which ones describe how you use the main heating system in your home. Indicate all that apply. (Q5_8) (Multiple responses possible)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) The thermostat(s) is kept at a constant setting or temperature	15	33%	216	40%	231	40%
(2) The thermostat is adjusted when occupants are sleeping	7	16%	140	26%	147	25%

	bName					
	Multi_Family		Single_Family			
5.8 I will read some ways that heating systems are used. Please indicate which ones describe how you use the main heating system in your home. Indicate all that apply. (Q5_8) (Multiple responses possible)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(3) The thermostat is adjusted when occupants leave the house	12	27%	127	24%	139	24%
(4) The heater is adjusted only when someone is cold	8	18%	50	9%	58	10%
(5) Other (specify) _____	2	4%	3	1%	5	1%
(6) Don't know	1	2%	1	0%	2	0%
	45	100%	537	100%	582	100%

Table B.1.74

	bName					
	Multi_Family		Single_Family			
5.8-Specify I will read some ways that heating systems are used. Please indicate which ones describe how you use the main heating system in your home. Indicate all that apply. (Q5_8_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
ONLY ON WHEN COLD	1	33%	.	.	1	13%
adjusted when someone is cold	.	.	1	20%	1	13%
constant	1	33%	4	80%	5	63%
n/a	1	33%	.	.	1	13%
	3	100%	5	100%	8	100%

Table B.1.75

5.9 When you are heating your house, at what temperature do you normally keep your thermostat? (Q5_9)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) See 5.9-Specify	22	85%	315	98%	337	97%
(2) Don't know	4	15%	6	2%	10	3%
	26	100%	321	100%	347	100%

Table B.1.76

5.9-Specify When you are heating your house, at what temperature do you normally keep your thermostat? (Q5_9_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
50	.	.	1	0%	1	0%
55	.	.	1	0%	1	0%
60	.	.	6	2%	6	2%
62	.	.	3	1%	3	1%
64	.	.	1	0%	1	0%
65	2	8%	15	4%	17	5%
65-70	.	.	1	0%	1	0%
66	1	4%	7	2%	8	2%
67	.	.	10	3%	10	3%

5.9-Specify When you are heating your house, at what temperature do you normally keep your thermostat? (Q5_9_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
68	2	8%	84	24%	86	23%
68-70	.	.	1	0%	1	0%
69	1	4%	16	5%	17	5%
70	8	33%	56	16%	64	17%
71	1	4%	8	2%	9	2%
72	.	.	60	17%	60	16%
73	.	.	9	3%	9	2%
74	.	.	16	5%	16	4%
75	4	17%	21	6%	25	7%
76	.	.	10	3%	10	3%
77	.	.	4	1%	4	1%
78	3	13%	11	3%	14	4%
79	.	.	1	0%	1	0%
80	1	4%	4	1%	5	1%
81	.	.	1	0%	1	0%
84	1	4%	.	.	1	0%
90	.	.	2	1%	2	1%
	24	100%	349	100%	373	100%

Table B.1.77

	bName					
	Multi_Family		Single_Family			
5.10 When you are heating your house, at what temperature do you normally keep your thermostat set during the following different situations: When one or more people in your household are at home and everyone is awake? (Q5_10)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) See 5.10-Specify	23	85%	305	98%	328	97%
(2) Don't know	4	15%	6	2%	10	3%
	27	100%	311	100%	338	100%

Table B.1.78

	bName					
	Multi_Family		Single_Family			
5.10-Specify When you are heating your house, at what temperature do you normally keep your thermostat set during the following different situations: When one or more people in your household are at home and everyone is awake? (Q5_10_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
Less than 60F	.	.	8	2%	8	2%
60-65F	3	13%	19	6%	22	6%
65-70F	10	42%	171	50%	181	49%
70-75F	6	25%	112	33%	118	32%

	bName					
	Multi_Family		Single_Family			
5.10-Specify When you are heating your house, at what temperature do you normally keep your thermostat set during the following different situations: When one or more people in your household are at home and everyone is awake? (Q5_10_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
75-80F	4	17%	29	8%	33	9%
More than 80F	1	4%	3	1%	4	1%
	24	100%	342	100%	366	100%

Table B.1.79

	bName					
	Multi_Family		Single_Family			
5.11 When you are heating your house, at what temperature do you normally keep your thermostat set during the following different situations: When one or more people in your household are at home and everyone is asleep? (Q5_11)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) See 5.11-Specify	23	85%	304	98%	327	97%
(2) Don't know	4	15%	7	2%	11	3%
	27	100%	311	100%	338	100%

Table B.1.80

5.11-Specify When you are heating your house, at what temperature do you normally keep your thermostat set during the following different situations: When one or more people in your household are at home and everyone is asleep? (Q5_11_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Less than 60F	.	.	25	7%	25	7%
60-65F	3	13%	63	18%	66	18%
65-70F	10	42%	140	41%	150	41%
70-75F	7	29%	83	24%	90	25%
75-80F	3	13%	24	7%	27	7%
More than 80F	1	4%	6	2%	7	2%
	24	100%	341	100%	365	100%

Table B.1.81

5.12 When you are heating your house, at what temperature do you normally keep your thermostat set during the following different situations: When no one is at home? (Q5_12)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) See 5.12-Specify	23	85%	298	97%	321	96%

	bName					
	Multi_Family		Single_Family			
5.12 When you are heating your house, at what temperature do you normally keep your thermostat set during the following different situations: When no one is at home? (Q5_12)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(2) Don't know	4	15%	10	3%	14	4%
	27	100%	308	100%	335	100%

Table B.1.82

	bName					
	Multi_Family		Single_Family			
5.12-Specify When you are heating your house, at what temperature do you normally keep your thermostat set during the following different situations: When no one is at home? (Q5_12_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
Less than 60F	1	4%	44	13%	45	13%
60-65F	2	8%	66	20%	68	19%
65-70F	7	29%	122	37%	129	36%
70-75F	6	25%	76	23%	82	23%
75-80F	5	21%	20	6%	25	7%
More than 80F	3	13%	5	1%	8	2%
998	.	.	1	0%	1	0%
	24	100%	334	100%	358	100%

Table B.1.83

5.13-Specify And, on a typical weekday, for about how many hours is there no one at home? (Q5_13_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	7	26%	136	41%	143	40%
1	1	4%	13	4%	14	4%
2	3	11%	24	7%	27	8%
3	1	4%	16	5%	17	5%
4	1	4%	30	9%	31	9%
5	1	4%	10	3%	11	3%
6	.	.	12	4%	12	3%
7	1	4%	4	1%	5	1%
8	5	19%	35	11%	40	11%
9	1	4%	10	3%	11	3%
10	4	15%	18	5%	22	6%
11	.	.	3	1%	3	1%
12	1	4%	5	2%	6	2%
13	.	.	2	1%	2	1%
14	.	.	1	0%	1	0%
15	.	.	3	1%	3	1%
16	.	.	1	0%	1	0%
18	.	.	1	0%	1	0%
20	.	.	1	0%	1	0%
23	.	.	2	1%	2	1%
24	.	.	1	0%	1	0%

	bName					
	Multi_Family		Single_Family			
5.13-Specify And, on a typical weekday, for about how many hours is there no one at home? (Q5_13_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
40	.	.	1	0%	1	0%
45	.	.	1	0%	1	0%
98	1	4%	.	.	1	0%
	27	100%	330	100%	357	100%

Table B.1.84

	bName					
	Multi_Family		Single_Family			
5.14 On a typical weekend day, for about how many hours is there no one at home? (Q5_14)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) See 5.14-Specify	22	88%	237	88%	259	88%
(2) Don't know	3	12%	33	12%	36	12%
	25	100%	270	100%	295	100%

Table B.1.85

	bName					
	Multi_Family		Single_Family			
5.14-Specify On a typical weekend day, for about how many hours is there no one at home? (Q5_14_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	8	31%	160	51%	168	49%
1	.	.	9	3%	9	3%
2	3	12%	29	9%	32	9%
3	2	8%	23	7%	25	7%
4	2	8%	25	8%	27	8%
5	3	12%	17	5%	20	6%
6	3	12%	12	4%	15	4%
7	.	.	1	0%	1	0%
8	1	4%	13	4%	14	4%
9	1	4%	1	0%	2	1%
10	1	4%	8	3%	9	3%
12	1	4%	2	1%	3	1%
13	1	4%	1	0%	2	1%
14	.	.	1	0%	1	0%
15	.	.	3	1%	3	1%
16	.	.	2	1%	2	1%
20	.	.	3	1%	3	1%
22	.	.	1	0%	1	0%
24	.	.	2	1%	2	1%
48	.	.	1	0%	1	0%
	26	100%	314	100%	340	100%

Table B.1.86

5.15 Do you have any other heating systems or space heaters in your home? (Q5_15) (Multiple responses possible)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes, secondary system	1	3%	12	3%	13	3%
(2) Yes, space heater	6	19%	75	21%	81	21%
(3) Yes, other: (Specify) _____	.	.	24	7%	24	6%
(4) No (Proceed to section 6 below)	23	74%	244	69%	267	69%
(5) Don't know (Proceed to section 6 below)	1	3%	1	0%	2	1%
	31	100%	356	100%	387	100%

Table B.1.87

5.15-Specify Do you have any other heating systems or space heaters in your home? (Q5_15_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	.	.	1	3%	1	3%
4	.	.	1	3%	1	3%
Electric Fireplace	.	.	1	3%	1	3%
Fire Places	.	.	1	3%	1	3%
Fireplace	.	.	5	17%	5	17%

5.15-Specify Do you have any other heating systems or space heaters in your home? (Q5_15_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Furnace	.	.	1	3%	1	3%
Furnace In Garage	.	.	1	3%	1	3%
Gas Fireplace	.	.	3	10%	3	10%
Gas Furnace	.	.	1	3%	1	3%
Gas Heater	.	.	1	3%	1	3%
Infrared Heater	.	.	1	3%	1	3%
Kerosene	.	.	1	3%	1	3%
Na	.	.	1	3%	1	3%
Natural Gas Fireplace	.	.	2	7%	2	7%
Propane 3 Units	.	.	1	3%	1	3%
Radiator System	1	100%	.	.	1	3%
Secondary Furnace And 2 Fireplaces	.	.	1	3%	1	3%
Space Hear	.	.	1	3%	1	3%
Wall Gas Heater	.	.	1	3%	1	3%
Wall Unit In Sun Room	.	.	1	3%	1	3%
Wood Buring Fireplace	.	.	1	3%	1	3%
Wood Burning Fireplace	.	.	1	3%	1	3%
Wood Burning Stove	.	.	1	3%	1	3%
	1	100%	29	100%	30	100%

Table B.1.88

5.16 How many space heaters do you have? (Q5_16)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) See 5.16-Specify	10	100%	113	98%	123	98%
(2) Don't know	.	.	2	2%	2	2%
	<i>10</i>	<i>100%</i>	<i>115</i>	<i>100%</i>	<i>125</i>	<i>100%</i>

Table B.1.89

5.16-Specify How many space heaters do you have? (Q5_16_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	6	60%	31	30%	37	32%
(1) One	2	20%	54	52%	56	49%
(2) Two	2	20%	11	11%	13	11%
(3) Three	.	.	7	7%	7	6%
(4) Four	.	.	1	1%	1	1%
	<i>10</i>	<i>100%</i>	<i>104</i>	<i>100%</i>	<i>114</i>	<i>100%</i>

Table B.1.90

	bName					
	Multi_Family		Single_Family			
5.17A1 Let's talk about the space heaters that you use most often. Record room: (Q5_17A1)	Frequency	Percent	Frequency	Percent	Frequency	Percent
Attic	.	.	1	1%	1	1%
Basement	.	.	6	9%	6	9%
Basement Bedroom	.	.	1	1%	1	1%
Basement Shower	.	.	1	1%	1	1%
Bathroom	1	33%	14	21%	15	21%
Bathroom Bsmt	.	.	1	1%	1	1%
Bedroom	2	67%	8	12%	10	14%
Comp Room	.	.	1	1%	1	1%
Dining Room	.	.	1	1%	1	1%
Don't Know	.	.	1	1%	1	1%
Don't Use Them Often Enough	.	.	1	1%	1	1%
Family	.	.	1	1%	1	1%
Family Room	.	.	2	3%	2	3%
Front Room	.	.	1	1%	1	1%
Garage	.	.	2	3%	2	3%
High	.	.	2	3%	2	3%
Living	.	.	1	1%	1	1%
Living Room	.	.	8	12%	8	11%
Livingroom	.	.	1	1%	1	1%
Low	.	.	4	6%	4	6%
Medium	.	.	3	4%	3	4%

	bName					
	Multi_Family		Single_Family			
5.17A1 Let's talk about the space heaters that you use most often. Record room: (Q5_17A1)	Frequency	Percent	Frequency	Percent	Frequency	Percent
Sewing	.	.	1	1%	1	1%
Sewing Room	.	.	2	3%	2	3%
Sun Room	.	.	1	1%	1	1%
Up Hall	.	.	1	1%	1	1%
Utility	.	.	1	1%	1	1%
	3	100%	67	100%	70	100%

Table B.1.91

	bName					
	Multi_Family		Single_Family			
5.17A2 Let's talk about the space heaters that you use most often. Record # of days use: (Q5_17A2)	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	.	.	2	3%	2	3%
2	1	50%	5	7%	6	8%
3	.	.	11	15%	11	15%
4	.	.	7	10%	7	9%
5	.	.	5	7%	5	7%
6	.	.	2	3%	2	3%
7	.	.	11	15%	11	15%
10	.	.	4	5%	4	5%

	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
5.17A2 Let's talk about the space heaters that you use most often. Record # of days use: (Q5_17A2)						
14	.	.	1	1%	1	1%
15	.	.	1	1%	1	1%
16	.	.	2	3%	2	3%
30	.	.	5	7%	5	7%
35	.	.	1	1%	1	1%
40	1	50%	1	1%	2	3%
45	.	.	1	1%	1	1%
60	.	.	3	4%	3	4%
72	.	.	1	1%	1	1%
90	.	.	6	8%	6	8%
250	.	.	1	1%	1	1%
300	.	.	1	1%	1	1%
365	.	.	2	3%	2	3%
	2	100%	73	100%	75	100%

Table B.1.92

	bName			
	Single_Family			
	Frequency	Percent	Frequency	Percent
5.17B1 Let's talk about the space heaters that you use most often. Record room: (Q5_17B1)				
Bathroom	1	10%	1	10%

	bName			
	Single_Family			
5.17B1 Let's talk about the space heaters that you use most often. Record room: (Q5_17B1)	Frequency	Percent	Frequency	Percent
Bedroom	3	30%	3	30%
Down Living	1	10%	1	10%
Family Room In Basement	1	10%	1	10%
Glass Room	1	10%	1	10%
Kitchen	1	10%	1	10%
Living Room	1	10%	1	10%
Low	1	10%	1	10%
	<i>10</i>	<i>100%</i>	<i>10</i>	<i>100%</i>

Table B.1.93

	bName			
	Single_Family			
5.17B2 Let's talk about the space heaters that you use most often. Record # of days use: (Q5_17B2)	Frequency	Percent	Frequency	Percent
1	1	10%	1	10%
2	2	20%	2	20%
3	2	20%	2	20%
4	1	10%	1	10%
7	1	10%	1	10%
30	1	10%	1	10%
90	1	10%	1	10%

	bName			
	Single_Family			
5.17B2 Let's talk about the space heaters that you use most often. Record # of days use: (Q5_17B2)	Frequency	Percent	Frequency	Percent
250	1	10%	1	10%
	10	100%	10	100%

Table B.1.94

	bName			
	Single_Family			
5.17C1 Let's talk about the space heaters that you use most often. Record room: (Q5_17C1)	Frequency	Percent	Frequency	Percent
Basement	1	33%	1	33%
Bedroom	1	33%	1	33%
Low	1	33%	1	33%
	3	100%	3	100%

Table B.1.95

	bName			
	Single_Family			
5.17C2 Let's talk about the space heaters that you use most often. Record # of days use: (Q5_17C2)	Frequency	Percent	Frequency	Percent
3	1	33%	1	33%
4	1	33%	1	33%

	bName			
	Single_Family			
5.17C2 Let's talk about the space heaters that you use most often. Record # of days use: (Q5_17C2)	Frequency	Percent	Frequency	Percent
90	1	33%	1	33%
	3	100%	3	100%

Table B.1.96

	bName					
	Multi_Family		Single_Family			
6.0 Now, moving on to your home's cooling system. Do you have any cooling system or equipment? (Q6_0)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes	30	97%	347	97%	377	97%
(2) No	1	3%	12	3%	13	3%
	31	100%	359	100%	390	100%

Table B.1.97

	bName					
	Multi_Family		Single_Family			
6.1A How many of each of the following do you have? Central air conditioning (Q6_1A)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	2	8%	22	7%	24	7%
(1) One	22	92%	277	90%	299	90%

	bName					
	Multi_Family		Single_Family			
6.1A How many of each of the following do you have? Central air conditioning (Q6_1A)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(2) Two	.	.	6	2%	6	2%
(3) Three	.	.	1	0%	1	0%
(4) Four	.	.	1	0%	1	0%
	24	100%	307	100%	331	100%

Table B.1.98

	bName					
	Multi_Family		Single_Family			
6.1B How many of each of the following do you have? Air-source heat pump (Q6_1B)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	9	100%	126	98%	135	98%
(1) One	.	.	2	2%	2	1%
(2) Two	.	.	1	1%	1	1%
	9	100%	129	100%	138	100%

Table B.1.99

6.1C How many of each of the following do you have? Ground-source (geothermal) heat pump (Q6_1C)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	9	100%	124	96%	133	96%
(1) One	.	.	4	3%	4	3%
(3) Three	.	.	1	1%	1	1%
	9	100%	129	100%	138	100%

Table B.1.100

6.1D How many of each of the following do you have? Room air conditioners (Q6_1D)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	7	47%	109	66%	116	64%
(1) One	6	40%	35	21%	41	23%
(2) Two	2	13%	14	8%	16	9%
(3) Three	.	.	5	3%	5	3%
(4) Four	.	.	2	1%	2	1%
(5) Five	.	.	1	1%	1	1%
	15	100%	166	100%	181	100%

Table B.1.101

6.1E How many of each of the following do you have? Ductless mini-split air conditioner (Q6_1E)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	9	100%	117	91%	126	92%
(1) One	.	.	7	5%	7	5%
(2) Two	.	.	3	2%	3	2%
(3) Three	.	.	1	1%	1	1%
	9	100%	128	100%	137	100%

Table B.1.102

6.1F How many of each of the following do you have? Portable fans (Q6_1F)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	4	22%	75	36%	79	35%
(1) One	7	39%	49	24%	56	25%
(2) Two	3	17%	49	24%	52	23%
(3) Three	2	11%	22	11%	24	11%
(4) Four	2	11%	10	5%	12	5%
(5) Five	.	.	3	1%	3	1%
	18	100%	208	100%	226	100%

Table B.1.103

6.1G How many of each of the following do you have? Whole-house fans (Q6_1G)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	8	89%	118	88%	126	88%
(1) One	1	11%	8	6%	9	6%
(2) Two	.	.	1	1%	1	1%
(3) Three	.	.	2	1%	2	1%
(4) Four	.	.	2	1%	2	1%
(5) Five	.	.	1	1%	1	1%
(7+) Seven or more	.	.	2	1%	2	1%
	9	100%	134	100%	143	100%

Table B.1.104

6.1H How many of each of the following do you have? Ceiling fans (Q6_1H)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	5	33%	29	10%	34	12%
(1) One	7	47%	31	11%	38	13%
(2) Two	2	13%	54	19%	56	19%

	bName					
	Multi_Family		Single_Family			
6.1H How many of each of the following do you have? Ceiling fans (Q6_1H)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(3) Three	1	7%	43	15%	44	15%
(4) Four	.	.	44	16%	44	15%
(5) Five	.	.	38	14%	38	13%
(6) Six	.	.	20	7%	20	7%
(7+) Seven or more	.	.	19	7%	19	6%
	15	100%	278	100%	293	100%

Table B.1.105

	bName					
	Multi_Family		Single_Family			
6.1I How many of each of the following do you have? Something else (specify) (Q6_1I)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	9	28%	118	33%	127	32%
(1) One	23	72%	245	67%	268	68%
	32	100%	363	100%	395	100%

Table B.1.106

	bName					
	Multi_Family		Single_Family			
6.1A How many of each of the following do you have? No cooling system or equipment (Q6_1J)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	9	100%	101	99%	110	99%
(1) One	.	.	1	1%	1	1%
	9	100%	102	100%	111	100%

Table B.1.107

	bName					
	Multi_Family		Single_Family			
6.1-Specify How many of each of the following do you have? (Q6_1_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
1 Ceiling Exhaust Fan	.	.	1	25%	1	17%
Attic Fan	.	.	1	25%	1	17%
Cooling Unit Built In With Geo Thermal	.	.	1	25%	1	17%
Stand Up Fans	1	50%	.	.	1	17%
Window Aire	.	.	1	25%	1	17%
Window Fan	1	50%	.	.	1	17%
	2	100%	4	100%	6	100%

Table B.1.108

	bName					
	Multi_Family		Single_Family			
6.2 Which one would you say is your primary or main cooling system (the system that gets used most often)? Is it the (Q6_2)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Central air conditioner	22	73%	279	80%	301	79%
(2) Air-source heat pump	.	.	4	1%	4	1%
(3) Ground-source (geothermal) heat pump	.	.	6	2%	6	2%
(4) Room air conditioners	8	27%	44	13%	52	14%
(5) Ductless mini-split air conditioner	.	.	7	2%	7	2%
(7) Don't know	.	.	1	0%	1	0%
(8) Don't have a cooling system (skip to section 7 below)	.	.	8	2%	8	2%
	30	100%	349	100%	379	100%

Table B.1.109

	bName					
	Multi_Family		Single_Family			
6.3 If 6.1 above is "1" (Q6_3)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Approximately how old is this ____?	12	46%	250	85%	262	82%
(2) Approximately how old are these ____ on average?	.	.	3	1%	3	1%

	bName					
	Multi_Family		Single_Family			
6.3 If 6.1 above is “1” (Q6_3)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(3) Don't know	14	54%	42	14%	56	17%
	26	100%	295	100%	321	100%

Table B.1.110

	bName					
	Multi_Family		Single_Family			
6.3-Specify If 6.1 above is “1” (Q6_3_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	.	.	5	2%	5	2%
Less than 2 Years	7	50%	52	19%	59	20%
2-10 Years	4	29%	146	53%	150	52%
10-20 Years	2	14%	59	22%	61	21%
20-30 Years	.	.	9	3%	9	3%
30-40 Years	1	7%	3	1%	4	1%
	14	100%	274	100%	288	100%

Table B.1.111

6.4 Does this equipment cool any other units (i.e., apartments) at your location? (Q6_4)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes	10	32%	89	27%	99	28%
(2) No	19	61%	231	71%	250	70%
(3) Refused	2	6%	4	1%	6	2%
	<i>31</i>	<i>100%</i>	<i>324</i>	<i>100%</i>	<i>355</i>	<i>100%</i>

Table B.1.112

6.5 Do you have a service contract for regular maintenance on your main (primary) cooling unit? (Q6_5)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes	8	29%	98	29%	106	29%
(2) No	13	46%	226	68%	239	66%
(3) Refused	7	25%	10	3%	17	5%
	<i>28</i>	<i>100%</i>	<i>334</i>	<i>100%</i>	<i>362</i>	<i>100%</i>

Table B.1.113

6.6-Month When was maintenance last done on your main (primary) cooling unit? (Q6_6_Month)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	4	27%	28	12%	32	13%
(1) January	.	.	10	4%	10	4%
(2) February	.	.	1	0%	1	0%
(3) March	.	.	12	5%	12	5%
(4) April	1	7%	31	13%	32	13%
(5) May	1	7%	37	15%	38	15%
(6) June	.	.	33	14%	33	13%
(7) July	.	.	15	6%	15	6%
(8) August	3	20%	28	12%	31	12%
(9) September	1	7%	16	7%	17	7%
(10) October	.	.	6	3%	6	2%
(12) December	1	7%	10	4%	11	4%
(98) Don't know	4	27%	12	5%	16	6%
	15	100%	239	100%	254	100%

Table B.1.114

6.6-Year When was maintenance last done on your main (primary) cooling unit? (Q6_6_Year)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	4	29%	28	11%	32	12%
(4) Four	.	.	4	2%	4	1%
(5) Five	.	.	1	0%	1	0%
(6) Six	.	.	5	2%	5	2%
(7+) Seven or more	7	50%	208	82%	215	80%
(98) Don't Know	3	21%	8	3%	11	4%
	14	100%	254	100%	268	100%

Table B.1.115

6.7 What type of temperature control is on the main (primary) cooling system? (Q6_7) (Multiple responses possible)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Regular thermostat(s) with temperature settings	19	63%	143	41%	162	43%
(2) Clock or programmable thermostat(s)	4	13%	154	45%	158	42%
(3) Dial control without temperature settings	4	13%	17	5%	21	6%
(4) Simple on/off switch or no temperature control	3	10%	28	8%	31	8%

	bName					
	Multi_Family		Single_Family			
6.7 What type of temperature control is on the main (primary) cooling system? (Q6_7) (Multiple responses possible)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(5) Other (specify) _____	.	.	2	1%	2	1%
(6) Don't know	.	.	2	1%	2	1%
	30	100%	346	100%	376	100%

Table B.1.116

	bName					
	Multi_Family		Single_Family			
6.7-Specify What type of temperature control is on the main (primary) cooling system? (Q6_7_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	.	.	1	2%	1	2%
2	.	.	1	2%	1	2%
Dial Control	1	25%	4	9%	5	10%
Digital, Regular Thermostat	.	.	2	4%	2	4%
Na	.	.	1	2%	1	2%
Only On If Above 90	.	.	1	2%	1	2%
Programmable Thermostat	.	.	26	55%	26	51%
Regular Thermostat	3	75%	8	17%	11	22%
Simple On/Off Switch	.	.	2	4%	2	4%
Use Windows	.	.	1	2%	1	2%
	4	100%	47	100%	51	100%

Table B.1.117

	bName					
	Multi_Family		Single_Family			
6.8 I will read some ways that cooling systems are used. Please indicate which ones describe how you use your main cooling system. Indicate all that apply. (Q6_8) (Multiple responses possible)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) The thermostat(s) is kept at a constant setting or temperature	19	40%	203	41%	222	41%
(2) The thermostat is adjusted when occupants are sleeping	10	21%	99	20%	109	20%
(3) The thermostat is adjusted when occupants leave the house	10	21%	105	21%	115	21%
(4) The cooling system is turned on only when someone is warm	6	13%	55	11%	61	11%
(5) We rarely use this cooling system	3	6%	28	6%	31	6%
(6) Don't know	.	.	2	0%	2	0%
	48	100%	492	100%	540	100%

Table B.1.118

	bName					
	Multi_Family		Single_Family			
6.9 When you are cooling your house, at what temperature do you normally keep your thermostat? (Q6_9)	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	.	.	1	0%	1	0%
(1) Temperature: _____	19	83%	205	94%	224	93%

	bName					
	Multi_Family		Single_Family			
6.9 When you are cooling your house, at what temperature do you normally keep your thermostat? (Q6_9)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(2) Don't know	4	17%	13	6%	17	7%
	23	100%	219	100%	242	100%

Table B.1.119

	bName					
	Multi_Family		Single_Family			
6.9-Specify When you are cooling your house, at what temperature do you normally keep your thermostat? (Q6_9_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
Less than 60F	4	15%	4	1%	8	2%
60-65F	.	.	6	2%	6	2%
65-70F	3	12%	66	20%	69	20%
70-75F	13	50%	141	44%	154	44%
75-80F	6	23%	101	31%	107	31%
More than 80F	.	.	4	1%	4	1%
	26	100%	322	100%	348	100%

Table B.1.120

6.10 When one or more people in your household are at home and everyone is awake? (Q6_10)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	.	.	1	0%	1	0%
(1) Temperature: _____	18	82%	204	94%	222	93%
(2) Don't know	4	18%	13	6%	17	7%
	22	100%	218	100%	240	100%

Table B.1.121

6.10-Specify When one or more people in your household are at home and everyone is awake? (Q6_10_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Less than 60F	4	15%	4	1%	8	2%
60-65F	.	.	5	2%	5	1%
65-70F	3	12%	62	20%	65	19%
70-75F	15	58%	135	44%	150	45%
75-80F	4	15%	101	33%	105	31%
More than 80F	.	.	2	1%	2	1%
	26	100%	309	100%	335	100%

Table B.1.122

6.11 When one or more people in your household are at home and everyone is asleep? (Q6_11)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	.	.	1	0%	1	0%
(1) Temperature: _____	18	90%	203	95%	221	94%
(2) Don't know	2	10%	10	5%	12	5%
	20	100%	214	100%	234	100%

Table B.1.123

6.11-Specify When one or more people in your household are at home and everyone is asleep? (Q6_11_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Less than 60F	3	13%	4	1%	7	2%
60-65F	1	4%	7	2%	8	3%
65-70F	2	8%	61	21%	63	20%
70-75F	14	58%	116	41%	130	42%
75-80F	4	17%	93	33%	97	31%
More than 80F	.	.	4	1%	4	1%
	24	100%	285	100%	309	100%

Table B.1.124

6.12 When no one is at home? (Q6_12)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	.	.	1	0%	1	0%
(1) Temperature: _____	18	86%	199	93%	217	92%
(2) Don't know	3	14%	15	7%	18	8%
	21	100%	215	100%	236	100%

Table B.1.125

6.12-Specify When no one is at home? (Q6_12_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Less than 60F	3	13%	7	3%	10	3%
60-65F	.	.	5	2%	5	2%
65-70F	2	9%	53	20%	55	19%
70-75F	12	52%	100	38%	112	39%
75-80F	6	26%	87	33%	93	32%
More than 80F	.	.	14	5%	14	5%
	23	100%	266	100%	289	100%

Table B.1.126

	bName					
	Multi_Family		Single_Family			
7.1 Does the water heater, or the source of the hot water, serve only this residence or does it serve more than one residence? (Q7_1)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Only this residence	23	74%	358	99%	381	97%
(2) More than one residence	6	19%	.	.	6	2%
(3) This residence has no hot water (proceed to section 8 below)	.	.	1	0%	1	0%
(4) Don't know	2	6%	1	0%	3	1%
	<i>31</i>	<i>100%</i>	<i>360</i>	<i>100%</i>	<i>391</i>	<i>100%</i>

Table B.1.127

	bName					
	Multi_Family		Single_Family			
7.2 How many water heaters are at this residence? (Q7_2)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) One	25	81%	358	99%	383	98%
(2) Two	6	19%	3	1%	9	2%
	<i>31</i>	<i>100%</i>	<i>361</i>	<i>100%</i>	<i>392</i>	<i>100%</i>

Table B.1.128

7.2-Specify How many water heaters are at this residence? (Q7_2_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Water heaters _____	22	96%	296	96%	318	96%
(2) Don't know	.	.	10	3%	10	3%
3	1	4%	2	1%	3	1%
	23	100%	308	100%	331	100%

Table B.1.129

7.3 What is the approximate age of this water heater? (Q7_3) (Multiple responses possible)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 0-2 years	6	17%	94	22%	100	22%
(2) 3-9 years	4	11%	145	35%	149	33%
(3) 10-19 years	3	9%	108	26%	111	25%
(4) 20 or more years	2	6%	26	6%	28	6%
(5) Don't know	20	57%	45	11%	65	14%
	35	100%	418	100%	453	100%

Table B.1.130

7.4A What type of fuel or energy does this water heater use? (Q7_4A)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Electricity	17	57%	106	30%	123	32%
(2) Natural gas	7	23%	232	65%	239	62%
(3) Propane or bottled gas (LP, propane, butane)	1	3%	10	3%	11	3%
(4) Solar	.	.	3	1%	3	1%
(6) Don't know	5	17%	7	2%	12	3%
	30	100%	358	100%	388	100%

Table B.1.131

7.4A-Specify What type of fuel or energy does this water heater use? (Q7_4A_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Electric	1	25%	7	17%	8	17%
Lp	.	.	1	2%	1	2%
Natural Gas	2	50%	31	74%	33	72%
Not Sure	1	25%	1	2%	2	4%
Propane	.	.	2	5%	2	4%
	4	100%	42	100%	46	100%

Table B.1.132

7.4B What type of fuel or energy does this water heater use? (Q7_4B)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Electricity	2	100%	12	75%	14	78%
(2) Natural gas	.	.	3	19%	3	17%
(6) Don't know	.	.	1	6%	1	6%
	2	100%	16	100%	18	100%

Table B.1.133

7.5 What type of water heater is this? (Q7_5) (Multiple responses possible)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Tank-type storage water heater. This is the most common type of water heater.	27	84%	368	95%	395	94%
(2) Heat pump water heater	.	.	1	0%	1	0%
(5) Tankless hot water heater, also called Demand or instantaneous water heaters	.	.	7	2%	7	2%
(6) Don't know	5	16%	10	3%	15	4%
	32	100%	386	100%	418	100%

Table B.1.134

	bName					
	Multi_Family		Single_Family			
7.6 NOTE: Ask only if the answer to question 7.5 above is “4.” What type of system is used in conjunction with your solar water heater? (Q7_6) (Multiple responses possible)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Tank-type water heater (this is the “standard” type, with a water storage tank)	14	70%	150	96%	164	93%
(2) Tankless hot water heater, also called Demand or Instantaneous water heaters	.	.	2	1%	2	1%
(3) Don’t know	6	30%	5	3%	11	6%
	20	100%	157	100%	177	100%

Table B.1.135

	bName					
	Multi_Family		Single_Family			
7.7A What is the secondary or back-up type of fuel you use to heat water at this residence? (Q7_7A)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Electricity	5	31%	26	16%	31	18%
(2) Natural gas	1	6%	30	19%	31	18%
(3) Propane or bottled gas (LP, propane, butane)	.	.	3	2%	3	2%
(4) Something else (specify) _____	2	13%	46	29%	48	27%

	bName					
	Multi_Family		Single_Family			
7.7A What is the secondary or back-up type of fuel you use to heat water at this residence? (Q7_7A)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(5) Don't know	8	50%	56	35%	64	36%
	16	100%	161	100%	177	100%

Table B.1.136

	bName			
	Single_Family			
7.7A-Specify What is the secondary or back-up type of fuel you use to heat water at this residence? (Q7_7A_Specify)	Frequency	Percent	Frequency	Percent
Electric	1	33%	1	33%
Geo thermal	1	33%	1	33%
N/A	1	33%	1	33%
	3	100%	3	100%

Table B.1.137

	bName			
	Single_Family			
7.7B What is the secondary or back-up type of fuel you use to heat water at this residence? (Q7_7B)	Frequency	Percent	Frequency	Percent
(1) Electricity	2	50%	2	50%

	bName			
	Single_Family			
7.7B What is the secondary or back-up type of fuel you use to heat water at this residence? (Q7_7B)	Frequency	Percent	Frequency	Percent
(2) Natural gas	1	25%	1	25%
(5) Don't know	1	25%	1	25%
	4	100%	4	100%

Table B.1.138

	bName					
	Multi_Family		Single_Family			
7.8A At what specific temperature is this water heater thermostat set? (Q7_8A)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Temperature: _____	1	4%	50	18%	51	17%
(2) Don't know	24	96%	233	82%	257	83%
	25	100%	283	100%	308	100%

Table B.1.139

	bName					
	Multi_Family		Single_Family			
7.8A-Specify At what specific temperature is this water heater thermostat set? (Q7_8A_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
Less than 60F	.	.	5	7%	5	7%
65-70F	.	.	1	1%	1	1%
70-75F	.	.	1	1%	1	1%

	bName					
	Multi_Family		Single_Family			
7.8A-Specify At what specific temperature is this water heater thermostat set? (Q7_8A_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
80-100F	.	.	1	1%	1	1%
100	.	.	4	6%	4	6%
100-120F	1	100%	41	59%	42	59%
120-140F	.	.	11	16%	11	15%
140-160F	.	.	3	4%	3	4%
160-180F	.	.	1	1%	1	1%
More than 180F	.	.	2	3%	2	3%
	<i>1</i>	<i>100%</i>	<i>70</i>	<i>100%</i>	<i>71</i>	<i>100%</i>

Table B.1.140

	bName					
	Multi_Family		Single_Family			
7.8B At what specific temperature is this water heater thermostat set? (Q7_8B)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Temperature: _____	.	.	4	25%	4	24%
(2) Don't know	1	100%	12	75%	13	76%
	<i>1</i>	<i>100%</i>	<i>16</i>	<i>100%</i>	<i>17</i>	<i>100%</i>

Table B.1.141

	bName					
	Multi_Family		Single_Family			
7.9 NOTE: Ask only if question 7.8 = 99 or ‘doesn’t apply’ or ‘no temperature setting available’ Then which of these statements best describes where your water heater thermostat is set? (Q7_9) (Multiple responses possible)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) On the “low” setting	1	4%	16	6%	17	6%
(2) Between the “low” and “medium” settings	2	8%	19	8%	21	8%
(3) On the “medium” setting	3	13%	106	43%	109	40%
(4) Between the “medium” and “high” settings	7	29%	45	18%	52	19%
(5) On the “high” setting	3	13%	27	11%	30	11%
(6) Don’t know	8	33%	36	14%	44	16%
	24	100%	249	100%	273	100%

Table B.1.142

	bName					
	Multi_Family		Single_Family			
7.10 Which of the following items do you have for your main water heater? Do you have: Either a water heater tank wrap or insulation blanket? (Q7_10)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes	4	14%	84	24%	88	23%
(2) No	16	55%	252	71%	268	69%

	bName					
	Multi_Family		Single_Family			
7.10 Which of the following items do you have for your main water heater? Do you have: Either a water heater tank wrap or insulation blanket? (Q7_10)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(3) Don't know	9	31%	21	6%	30	8%
	29	100%	357	100%	386	100%

Table B.1.143

	bName					
	Multi_Family		Single_Family			
7.11 Which of the following items do you have for your main water heater? Do you have: Pipe insulation? (Q7_11)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes	9	32%	136	38%	145	38%
(2) No	9	32%	191	54%	200	52%
(3) Don't know	10	36%	30	8%	40	10%
	28	100%	357	100%	385	100%

Table B.1.144

	bName					
	Multi_Family		Single_Family			
7.12 Which of the following items do you have for your main water heater? Do you have: A water heater timer? (Q7_12)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes	3	11%	21	6%	24	6%
(2) No	10	36%	299	84%	309	80%
(3) Don't know	15	54%	37	10%	52	14%
	28	100%	357	100%	385	100%

Table B.1.145

	bName					
	Multi_Family		Single_Family			
8.1 How many refrigerators are in your home? These can be anywhere in your home, but please only count the ones that are used regularly. (Q8_1)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Refrigerators: _____	32	100%	347	96%	379	96%
(2) Don't know	.	.	12	3%	12	3%
3	.	.	2	1%	2	1%
	32	100%	361	100%	393	100%

Table B.1.146

	bName					
	Multi_Family		Single_Family			
8.1-Specify How many refrigerators are in your home? These can be anywhere in your home, but please only count the ones that are used regularly. (Q8_1_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) One	31	97%	260	75%	291	77%
(2) Two	1	3%	82	24%	83	22%
(3) Three	.	.	6	2%	6	2%
	32	100%	348	100%	380	100%

Table B.1.147

	bName					
	Multi_Family		Single_Family			
8.2A If question 8.1 is greater than 3: Let's talk about the 2 refrigerators that you use most often. What is the approximate age of your primary refrigerator? (Q8_2A)	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	.	.	2	1%	2	1%
Less than 2 Years	10	63%	75	40%	85	42%
2-10 Years	4	25%	79	42%	83	41%
10-20 Years	.	.	23	12%	23	11%
20-30 Years	.	.	4	2%	4	2%

	bName					
	Multi_Family		Single_Family			
8.2A If question 8.1 is greater than 3: Let's talk about the 2 refrigerators that you use most often. What is the approximate age of your primary refrigerator? (Q8_2A)	Frequency	Percent	Frequency	Percent	Frequency	Percent
More than 50 Years	2	13%	4	2%	6	3%
	16	100%	187	100%	203	100%

Table B.1.148

	bName					
	Multi_Family		Single_Family			
8.2B If question 8.1 is greater than 3: Let's talk about the 2 refrigerators that you use most often. What is the approximate age of your secondary refrigerator? (Q8_2B)	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	.	.	2	3%	2	3%
Less than 2 Years	.	.	10	13%	10	13%
2-10 Years	1	100%	29	38%	30	39%
10-20 Years	.	.	29	38%	29	38%
20-30 Years	.	.	3	4%	3	4%
30-40 Years	.	.	1	1%	1	1%
More than 50 Years	.	.	2	3%	2	3%
	1	100%	76	100%	77	100%

Table B.1.149

8.3 If question 8.2 greater than 1, is it: (Q8_3)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) 6 or less years old	8	50%	68	52%	76	52%
(2) 7 to 14 years old	2	13%	41	32%	43	29%
(3) 15 or more years old	.	.	16	12%	16	11%
(4) Don't know	6	38%	5	4%	11	8%
	16	100%	130	100%	146	100%

Table B.1.150

8.4 How many stand-alone freezers are in your home? (Q8_4)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Freezers: _____	29	100%	330	94%	359	94%
(2) Don't know	.	.	21	6%	21	6%
	29	100%	351	100%	380	100%

Table B.1.151

8.4-Specify How many stand-alone freezers are in your home? (Q8_4_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	26	90%	145	47%	171	50%
(1) One	3	10%	148	48%	151	45%
(2) Two	.	.	13	4%	13	4%
(3) Three	.	.	4	1%	4	1%
	29	100%	310	100%	339	100%

Table B.1.152

8.6 How many dishwashers are in your home? (Q8_6)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Dishwashers: _____	24	83%	337	95%	361	94%
(2) Don't know	5	17%	17	5%	22	6%
	29	100%	354	100%	383	100%

Table B.1.153

8.6-Specify How many dishwashers are in your home? (Q8_6_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	16	67%	119	39%	135	41%
(1) One	8	33%	190	61%	198	59%
	24	100%	309	100%	333	100%

Table B.1.154

8.7 Please describe your washing machine. Is it... (Q8_7)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Used only by the people in your household?	13	43%	331	98%	344	93%
(2) Shared among other units in the residence? If yes skip to question 8.10 below	8	27%	3	1%	11	3%
(3) Exclusively off-site—either a laundry service, drycleaner, or Laundromat?	9	30%	4	1%	13	4%
	30	100%	338	100%	368	100%

Table B.1.155

	bName					
	Multi_Family		Single_Family			
8.8 Which of the following best describes the type of clothes washer(s) in your residence? (Q8_8)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Front Load Washing Machine	1	5%	65	18%	66	18%
(2) Top Load Washing Machine	18	86%	285	80%	303	81%
(3) Other (specify) _____	1	5%	1	0%	2	1%
(4) Don't know	1	5%	4	1%	5	1%
	21	100%	355	100%	376	100%

Table B.1.156

	bName					
	Multi_Family		Single_Family			
8.8-Specify Which of the following best describes the type of clothes washer(s) in your residence? (Q8_8_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	.	.	1	2%	1	2%
2	.	.	1	2%	1	2%
4	.	.	1	2%	1	2%
BOTH	1	20%	.	.	1	2%
Front Load	1	20%	7	15%	8	15%
NA	.	.	1	2%	1	2%

8.8-Specify Which of the following best describes the type of clothes washer(s) in your residence? (Q8_8_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
NONE	.	.	1	2%	1	2%
Top Load	3	60%	20	42%	23	43%
Top load	.	.	15	31%	15	28%
none	.	.	1	2%	1	2%
	5	100%	48	100%	53	100%

Table B.1.157

8.9 In an average week, how many loads of laundry does your household wash? (Q8_9)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Loads: _____	20	91%	341	97%	361	97%
(2) Don't know	2	9%	10	3%	12	3%
	22	100%	351	100%	373	100%

Table B.1.158

8.9-Specify In an average week, how many loads of laundry does your household wash? (Q8_9_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	.	.	2	1%	2	1%
(1) One	2	11%	26	8%	28	8%
(2) Two	4	22%	40	12%	44	12%
(3) Three	7	39%	56	16%	63	17%
(4) Four	3	17%	51	15%	54	15%
(5) Five	1	6%	43	13%	44	12%
(6) Six	1	6%	28	8%	29	8%
(7+) Seven or more	.	.	97	28%	97	27%
	18	100%	343	100%	361	100%

Table B.1.159

8.10 Please describe your clothes dryer. (Q8_10)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Used only by the people in your household?	9	29%	341	97%	350	91%
(2) Shared among other units in the residence? If yes skip to question 8.11 below	12	39%	3	1%	15	4%
(3) Exclusively off-site—either a laundry service, drycleaner, or Laundromat?	10	32%	5	1%	15	4%

	bName					
	Multi_Family		Single_Family			
8.10 Please describe your clothes dryer. (Q8_10)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(4) Don't know	.	.	3	1%	3	1%
	<i>31</i>	<i>100%</i>	<i>352</i>	<i>100%</i>	<i>383</i>	<i>100%</i>

Table B.1.160

	bName					
	Multi_Family		Single_Family			
8.11 What fuel or energy source do you use for your clothes dryer(s)? (Q8_11)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Electricity	18	82%	251	71%	269	71%
(2) Natural gas	2	9%	93	26%	95	25%
(3) Propane or bottled gas (LP, propane, butane)	.	.	6	2%	6	2%
(5) Don't know	2	9%	6	2%	8	2%
	<i>22</i>	<i>100%</i>	<i>356</i>	<i>100%</i>	<i>378</i>	<i>100%</i>

Table B.1.161

	bName					
	Multi_Family		Single_Family			
8.11-Specify What fuel or energy source do you use for your clothes dryer(s)? (Q8_11_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	.	.	1	2%	1	2%
2	.	.	1	2%	1	2%
Electric	3	75%	29	63%	32	64%
LAUNDROMAT	.	.	1	2%	1	2%
LP	.	.	1	2%	1	2%
Natural Gas	1	25%	11	24%	12	24%
OFF SITE	.	.	1	2%	1	2%
Propane	.	.	1	2%	1	2%
	4	100%	46	100%	50	100%

Table B.1.162

	bName					
	Multi_Family		Single_Family			
8.12 Do you use a dehumidifier? (Q8_12)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes	3	10%	95	26%	98	25%
(2) No	27	90%	263	73%	290	75%
(3) Don't know	.	.	1	0%	1	0%
	30	100%	359	100%	389	100%

Table B.1.163

8.13 Does your residence have a swimming pool? (Q8_13)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes	3	10%	32	10%	35	10%
(2) No	27	90%	295	90%	322	90%
	30	100%	327	100%	357	100%

Table B.1.164

8.14 Is the pool...? (Q8_14)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Your own private outdoor pool	.	.	27	77%	27	69%
(2) Your own private indoor pool	1	25%	6	17%	7	18%
(3) Shared outdoor pool	3	75%	2	6%	5	13%
	4	100%	35	100%	39	100%

Table B.1.165

	bName			
	Single_Family			
8.14-Specify Is the pool...? (Q8_14_Specify)	Frequency	Percent	Frequency	Percent
NA	1	25%	1	25%
Outdoor Shared Pool	1	25%	1	25%
Private Outdoor	1	25%	1	25%
Private outdoor	1	25%	1	25%
	4	100%	4	100%

Table B.1.166

	bName					
	Multi_Family		Single_Family			
8.15 NOTE: Skip if question 8.14 = 3 or 4. What fuel or energy source is used to heat your swimming pool? (Q8_15)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Electricity	.	.	7	25%	7	24%
(2) Natural gas	.	.	2	7%	2	7%
(3) Solar	.	.	2	7%	2	7%
(5) Not heated	.	.	17	61%	17	59%
(7) Don't know	1	100%	.	.	1	3%
	1	100%	28	100%	29	100%

Table B.1.167

	bName			
	Single_Family			
8.15-Specify NOTE: Skip if question 8.14 = 3 or 4. What fuel or energy source is used to heat your swimming pool? (Q8_15_Specify)	Frequency	Percent	Frequency	Percent
Not Heated	1	33%	1	33%
Not heated	1	33%	1	33%
solar blanket	1	33%	1	33%
	3	100%	3	100%

Table B.1.168

	bName					
	Multi_Family		Single_Family			
8.16 NOTE: Skip if question 8.14 = 3 or 4. When do you operate your pool pump and filtration system? (Q8_16)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) All day and all night	.	.	9	36%	9	35%
(2) Turned off at night	.	.	6	24%	6	23%
(3) Something else (specify) _____	.	.	7	28%	7	27%
(4) Don't know	1	100%	3	12%	4	15%
	1	100%	25	100%	26	100%

Table B.1.169

	bName			
	Single_Family			
8.16-Specify NOTE: Skip if question 8.14 = 3 or 4. When do you operate your pool pump and filtration system? (Q8_16_Specify)	Frequency	Percent	Frequency	Percent
2 hours per day	1	13%	1	13%
5 hours/day	1	13%	1	13%
8 HRS A DAY	1	13%	1	13%
8HRS/DAY	1	13%	1	13%
TIMER	2	25%	2	25%
Turned off at night	1	13%	1	13%
timer	1	13%	1	13%
	8	100%	8	100%

Table B.1.170

	bName					
	Multi_Family		Single_Family			
8.17 NOTE: Skip if question 8.14 = 3 or 4. Do you use an insulating cover for your pool? (Q8_17)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes	.	.	13	50%	13	48%
(2) No	.	.	13	50%	13	48%

	bName					
	Multi_Family		Single_Family			
8.17 NOTE: Skip if question 8.14 = 3 or 4. Do you use an insulating cover for your pool? (Q8_17)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(3) Don't know	1	100%	.	.	1	4%
	1	100%	26	100%	27	100%

Table B.1.171

	bName					
	Multi_Family		Single_Family			
8.18 Do you have a hot tub or spa at your residence? (Q8_18)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes	.	.	14	4%	14	4%
(2) No	24	100%	307	96%	331	96%
	24	100%	321	100%	345	100%

Table B.1.172

	bName					
	Multi_Family		Single_Family			
8.19 What fuel or energy source is used to heat your hot tub or spa? (Q8_19)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Electricity	1	50%	18	64%	19	63%
(2) Natural gas	1	50%	9	32%	10	33%

	bName					
	Multi_Family		Single_Family			
8.19 What fuel or energy source is used to heat your hot tub or spa? (Q8_19)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(5) Don't know	.	.	1	4%	1	3%
	2	100%	28	100%	30	100%

Table B.1.173

	bName			
	Single_Family			
8.19-Specify What fuel or energy source is used to heat your hot tub or spa? (Q8_19_Specify)	Frequency	Percent	Frequency	Percent
1	2	40%	2	40%
Electric	3	60%	3	60%
	5	100%	5	100%

Table B.1.174

	bName					
	Multi_Family		Single_Family			
8.20-Specify What fuel or energy source do you use for your cook-top(s)? (Q8_20_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	.	.	4	8%	4	8%
2	.	.	2	4%	2	4%

	bName					
	Multi_Family		Single_Family			
8.20-Specify What fuel or energy source do you use for your cook-top(s)? (Q8_20_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
Electric	3	75%	16	33%	19	36%
LP	.	.	1	2%	1	2%
NA	.	.	1	2%	1	2%
Natural Gas	1	25%	23	47%	24	45%
Propane	.	.	2	4%	2	4%
	4	100%	49	100%	53	100%

Table B.1.175

	bName					
	Multi_Family		Single_Family			
8.21 How many cook-top units do you have? (Q8_21)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Cook-top units: _____	31	100%	353	99%	384	99%
(2) Don't know	.	.	5	1%	5	1%
	31	100%	358	100%	389	100%

Table B.1.176

	bName					
	Multi_Family		Single_Family			
8.21-Specify How many cook-top units do you have? (Q8_21_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) One	21	78%	203	70%	224	71%
(2) Two	.	.	10	3%	10	3%
(3) Three	.	.	2	1%	2	1%
(4) Four	6	22%	68	24%	74	23%
(5) Five	.	.	4	1%	4	1%
(7+) Seven or more	.	.	1	0%	1	0%
	27	100%	288	100%	315	100%

Table B.1.177

	bName					
	Multi_Family		Single_Family			
8.22 What fuel or energy source do you use for your oven(s)? (Q8_22) (Multiple responses possible)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Electricity	27	75%	200	51%	227	53%
(2) Natural gas	9	25%	179	45%	188	44%
(3) Propane or bottled gas (LP, propane, butane)	.	.	15	4%	15	3%
	36	100%	394	100%	430	100%

Table B.1.178

8.22-Specify What fuel or energy source do you use for your oven(s)? (Q8_22_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	24	96%	283	96%	307	96%
2	.	.	5	2%	5	2%
4	.	.	1	0%	1	0%
Electric	1	4%	3	1%	4	1%
Natural Gas	.	.	3	1%	3	1%
	25	100%	295	100%	320	100%

Table B.1.179

8.23 How many ovens do you have? (Q8_23)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Ovens: _____	28	100%	293	95%	321	95%
(2) Don't know	.	.	16	5%	16	5%
	28	100%	309	100%	337	100%

Table B.1.180

8.23-Specify How many ovens do you have? (Q8_23_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	.	.	1	0%	1	0%
(1) One	30	100%	345	97%	375	98%
(2) Two	.	.	8	2%	8	2%
	30	100%	354	100%	384	100%

Table B.1.181

8.24 How many microwave ovens do you have? (Q8_24)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Microwave Ovens: _____	27	100%	300	97%	327	97%
(2) Don't know	.	.	10	3%	10	3%
	27	100%	310	100%	337	100%

Table B.1.182

	bName					
	Multi_Family		Single_Family			
8.24-Specify How many microwave ovens do you have? (Q8_24_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	1	3%	3	1%	4	1%
(1) One	30	97%	334	94%	364	94%
(2) Two	.	.	15	4%	15	4%
(3) Three	.	.	3	1%	3	1%
	31	100%	355	100%	386	100%

Table B.1.183

	bName					
	Multi_Family		Single_Family			
8.25 Before today, were you familiar with CFLs? (Q8_25)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes	24	75%	313	90%	337	88%
(2) No	8	25%	33	9%	41	11%
(3) Don't know	.	.	3	1%	3	1%
	32	100%	349	100%	381	100%

Table B.1.184

8.26 Do you have any CFLs installed either inside or outside of your home? (Q8_26)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes	26	93%	308	93%	334	93%
(2) No	2	7%	22	7%	24	7%
(3) Don't know	.	.	1	0%	1	0%
	28	100%	331	100%	359	100%

Table B.1.185

8.27 Approximately how many CFLs would you estimate are installed in your home? (Q8_27)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) CFLs: _____	26	90%	315	92%	341	91%
(2) Don't know	3	10%	29	8%	32	9%
	29	100%	344	100%	373	100%

Table B.1.186

	bName					
	Multi_Family		Single_Family			
8.27-Specify Approximately how many CFLs would you estimate are installed in your home? (Q8_27_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	2	7%	10	3%	12	3%
(1) One	3	11%	19	6%	22	6%
(2) Two	7	26%	29	9%	36	10%
(3) Three	2	7%	15	5%	17	5%
(4) Four	1	4%	19	6%	20	6%
(5) Five	2	7%	13	4%	15	4%
(6) Six	2	7%	22	7%	24	7%
(7+) Seven or more	8	30%	193	60%	201	58%
	27	100%	320	100%	347	100%

Table B.1.187

	bName					
	Multi_Family		Single_Family			
8.28 Do you have any hard wired, non-solar outdoor security lighting? (Q8_28)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes	10	59%	189	83%	199	81%
(2) No	6	35%	38	17%	44	18%
(3) Don't know	1	6%	1	0%	2	1%
	17	100%	228	100%	245	100%

Table B.1.188

8.29 Approximately how many outdoor security lights do you have? (Q8_29)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Outdoor Security Lights: _____	6	86%	88	87%	94	87%
(2) Don't know	1	14%	13	13%	14	13%
	7	100%	101	100%	108	100%

Table B.1.189

8.29-Specify Approximately how many outdoor security lights do you have? (Q8_29_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	1	11%	19	12%	20	12%
(1) One	5	56%	59	38%	64	39%
(2) Two	2	22%	25	16%	27	17%
(3) Three	.	.	14	9%	14	9%
(4) Four	.	.	14	9%	14	9%
(5) Five	.	.	8	5%	8	5%
(6) Six	.	.	4	3%	4	2%

	bName					
	Multi_Family		Single_Family			
8.29-Specify Approximately how many outdoor security lights do you have? (Q8_29_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(7+) Seven or more	1	11%	11	7%	12	7%
	9	100%	154	100%	163	100%

Table B.1.190

	bName					
	Multi_Family		Single_Family			
8.30 NOTE: Ask only if question 8.28 = 1 or more. Are these outdoor security lights: (Q8_30) (Multiple responses possible)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Operated by a manual switch	6	50%	72	37%	78	37%
(2) On a timer	1	8%	15	8%	16	8%
(3) On a photo sensor which means they automatically activate when it gets dark	2	17%	43	22%	45	22%
(4) Motion activated	2	17%	51	26%	53	25%
(5) A combination of motion and photo sensor activated which means they automatically activate when it senses motion after dark	.	.	10	5%	10	5%
(6) Other (specify) _____	.	.	2	1%	2	1%
(7) Don't know	1	8%	4	2%	5	2%
	12	100%	197	100%	209	100%

Table B.1.191

8.30-Specify NOTE: Ask only if question 8.28 = 1 or more. Are these outdoor security lights: (Q8_30_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	.	.	2	8%	2	7%
4	.	.	1	4%	1	4%
ALWAYS ON	.	.	1	4%	1	4%
Manual Switc	.	.	11	42%	11	39%
Motion Activ	1	50%	4	15%	5	18%
Motioned Act	.	.	1	4%	1	4%
Photo Sensor	.	.	3	12%	3	11%
Timer	1	50%	1	4%	2	7%
Timer and Mo	.	.	1	4%	1	4%
solar	.	.	1	4%	1	4%
	2	100%	26	100%	28	100%

Table B.1.192

9.1 Televisions, of all types (Q9_1)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	2	6%	3	1%	5	1%
(1) One	11	34%	58	16%	69	18%

9.1 Televisions, of all types (Q9_1)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(2) Two	16	50%	130	36%	146	37%
(3) Three	2	6%	86	24%	88	22%
(4) Four	.	.	47	13%	47	12%
(5) Five	1	3%	20	6%	21	5%
(6) Six	.	.	13	4%	13	3%
(7+) Seven or more	.	.	3	1%	3	1%
	32	100%	360	100%	392	100%

Table B.1.193

9.2 Of those, how many are large flat screen TVs over 32 inches? (Q9_2)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	20	67%	174	52%	194	53%
(1) One	7	23%	114	34%	121	33%
(2) Two	3	10%	35	10%	38	10%
(3) Three	.	.	9	3%	9	2%
(4) Four	.	.	2	1%	2	1%
(5) Five	.	.	2	1%	2	1%
(6) Six	.	.	1	0%	1	0%
	30	100%	337	100%	367	100%

Table B.1.194

9.3 NOTE: Skip if 9.2 = 0. How many of your large TVs are plasma TVs? (As opposed to LCD, DLP or other projection) (Q9_3)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	22	88%	237	81%	259	82%
(1) One	2	8%	36	12%	38	12%
(2) Two	1	4%	14	5%	15	5%
(3) Three	.	.	3	1%	3	1%
(4) Four	.	.	2	1%	2	1%
	25	100%	292	100%	317	100%

Table B.1.195

9.4 Game console (Playstation, Wii, Nintendo, xbox, Game Cube, etc.) (Q9_4)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	22	73%	202	60%	224	61%
(1) One	4	13%	83	25%	87	24%
(2) Two	2	7%	27	8%	29	8%
(3) Three	.	.	20	6%	20	5%
(4) Four	1	3%	2	1%	3	1%

	bName					
	Multi_Family		Single_Family			
9.4 Game console (Playstation, Wii, Nintendo, xbox, Game Cube, etc.) (Q9_4)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(5) Five	1	3%	3	1%	4	1%
(6) Six	.	.	1	0%	1	0%
	30	100%	338	100%	368	100%

Table B.1.196

	bName					
	Multi_Family		Single_Family			
9.5 Combination VCR and DVD unit (Q9_5)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	18	60%	175	53%	193	53%
(1) One	10	33%	110	33%	120	33%
(2) Two	2	7%	37	11%	39	11%
(3) Three	.	.	10	3%	10	3%
(7+) Seven or more	.	.	1	0%	1	0%
	30	100%	333	100%	363	100%

Table B.1.197

9.6 Standalone VCRs or DVD players (Q9_6)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	13	43%	115	33%	128	34%
(1) One	8	27%	112	32%	120	32%
(2) Two	7	23%	84	24%	91	24%
(3) Three	1	3%	25	7%	26	7%
(4) Four	1	3%	7	2%	8	2%
(5) Five	.	.	3	1%	3	1%
(6) Six	.	.	1	0%	1	0%
(7+) Seven or more	.	.	1	0%	1	0%
	30	100%	348	100%	378	100%

Table B.1.198

9.7 Stand-alone DVR (not TIVO) (Q9_7)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	26	84%	250	76%	276	77%
(1) One	5	16%	64	19%	69	19%
(2) Two	.	.	13	4%	13	4%
(3) Three	.	.	1	0%	1	0%

	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
9.7 Stand-alone DVR (not TIVO) (Q9_7)						
(4) Four	.	.	1	0%	1	0%
	31	100%	329	100%	360	100%

Table B.1.199

	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
9.8 TIVO, Cable or satellite TV set-top boxes or receivers (Q9_8)						
(0) Zero	16	52%	101	30%	117	31%
(1) One	12	39%	143	42%	155	42%
(2) Two	2	6%	67	20%	69	18%
(3) Three	1	3%	12	4%	13	3%
(4) Four	.	.	16	5%	16	4%
(5) Five	.	.	2	1%	2	1%
(6) Six	.	.	1	0%	1	0%
	31	100%	342	100%	373	100%

Table B.1.200

9.9 Computer monitors (Q9_9)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	25	83%	117	34%	142	38%
(1) One	3	10%	184	53%	187	50%
(2) Two	2	7%	38	11%	40	11%
(3) Three	.	.	2	1%	2	1%
(4) Four	.	.	1	0%	1	0%
(5) Five	.	.	1	0%	1	0%
(7+) Seven or more	.	.	1	0%	1	0%
	30	100%	344	100%	374	100%

Table B.1.201

9.10 Personal computers, including laptops (Q9_10)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	20	67%	158	46%	178	47%
(1) One	7	23%	130	38%	137	36%
(2) Two	3	10%	38	11%	41	11%
(3) Three	.	.	13	4%	13	3%
(4) Four	.	.	5	1%	5	1%
(5) Five	.	.	1	0%	1	0%

	bName					
	Multi_Family		Single_Family			
9.10 Personal computers, including laptops (Q9_10)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(6) Six	.	.	1	0%	1	0%
	30	100%	346	100%	376	100%

Table B.1.202

	bName					
	Multi_Family		Single_Family			
9.11 Are there any other electric powered equipment in your home for any home businesses or shop tools that you use more than once a month? (Q9_11)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Yes	2	8%	65	21%	67	20%
(2) No	23	92%	238	78%	261	79%
(3) Don't know	.	.	1	0%	1	0%
	25	100%	304	100%	329	100%

Table B.1.203

	bName					
	Multi_Family		Single_Family			
9.11-Specify Are there any other electric powered equipment in your home for any home businesses or shop tools that you use more than once a month? (Q9_11_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
2 Printers, 20 Photo Lights	.	.	1	1%	1	1%

9.11-Specify Are there any other electric powered equipment in your home for any home businesses or shop tools that you use more than once a month? (Q9_11_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
3 Sewing Machines	.	.	1	1%	1	1%
4 Sewing Machines, Power Tools	.	.	1	1%	1	1%
Air Compressor	.	.	1	1%	1	1%
Air Compressor, Saw, Drills, Grinder	.	.	1	1%	1	1%
Bandsaw, Drill Press, Table Saw	.	.	1	1%	1	1%
Cd Player	.	.	1	1%	1	1%
Coffee Maker	.	.	1	1%	1	1%
Coffee Pot,	.	.	1	1%	1	1%
Coffemaker	1	50%	.	.	1	1%
Comp Keybrd	.	.	1	1%	1	1%
Compressor, Saws, Drills	.	.	1	1%	1	1%
Copier/Printer (1)	.	.	1	1%	1	1%
Desk Top Pc	.	.	1	1%	1	1%
Digital Converter Box	.	.	1	1%	1	1%
Drills	.	.	1	1%	1	1%
Drills, Compressor	.	.	1	1%	1	1%
Drills, Saws	.	.	1	1%	1	1%
Fax Machine	.	.	2	3%	2	3%
Fax Machine And Complete Metal Shop In Basement	.	.	1	1%	1	1%
Fax,copy, Fish Pond Pump And Heater)	.	.	1	1%	1	1%
Na	.	.	1	1%	1	1%
Nebulizer	.	.	1	1%	1	1%

9.11-Specify Are there any other electric powered equipment in your home for any home businesses or shop tools that you use more than once a month? (Q9_11_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
No	.	.	4	6%	4	6%
O2 Concentrator	.	.	1	1%	1	1%
Police Scanner	.	.	1	1%	1	1%
Power Saw, Table Saw, Midor Saw	.	.	1	1%	1	1%
Power Tools	.	.	2	3%	2	3%
Power Tools In The Garage	.	.	1	1%	1	1%
Printer	.	.	5	7%	5	7%
Printer, Scanner	.	.	1	1%	1	1%
Printer/Fax Machine	.	.	2	3%	2	3%
Radio	.	.	2	3%	2	3%
Radon System	.	.	1	1%	1	1%
Router, And Wookworking Tools In The Garage.	.	.	1	1%	1	1%
Sanders, Grinders, Saws	.	.	1	1%	1	1%
Saw	.	.	1	1%	1	1%
Saw, Drills, Compressors	.	.	1	1%	1	1%
Saws	.	.	1	1%	1	1%
Saws, Drills	.	.	1	1%	1	1%
Sewing Machine	.	.	4	6%	4	6%
Stereo Receiver	.	.	1	1%	1	1%
Stereo Systems	.	.	1	1%	1	1%
Table Saw	.	.	1	1%	1	1%
Table Saw, Air Compressor, Weldor Including Other Shop Tools.	.	.	1	1%	1	1%

9.11-Specify Are there any other electric powered equipment in your home for any home businesses or shop tools that you use more than once a month? (Q9_11_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Tablesaw	.	.	2	3%	2	3%
Vacume	.	.	2	3%	2	3%
Vacume Cleaner	.	.	1	1%	1	1%
Vacume, Power Tools	.	.	1	1%	1	1%
Vacuum	.	.	2	3%	2	3%
Vacuum, Phone, Clock	1	50%	.	.	1	1%
Welder, Table Saw, Drill Press, Air Compressor	.	.	1	1%	1	1%
Wireless Internet, Printer/Fax, Vacume, Stereos, Shredder, Pizza Maker, Toaster Oven, Coffee Maker	.	.	1	1%	1	1%
	2	100%	68	100%	70	100%

Table B.1.204

10.1 Which of the following best describes your age? (Q10_1)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(2) 18-24 years old	7	22%	8	2%	15	4%
(3) 25-34 years old	3	9%	42	12%	45	11%
(4) 35-44 years old	6	19%	43	12%	49	13%
(5) 45-54 years old	3	9%	53	15%	56	14%
(6) 55-64 years old	4	13%	80	22%	84	21%

	bName					
	Multi_Family		Single_Family			
10.1 Which of the following best describes your age? (Q10_1)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(7) 65 or older	8	25%	127	35%	135	34%
(8) Don't know	.	.	1	0%	1	0%
(9) Refused	1	3%	6	2%	7	2%
	32	100%	360	100%	392	100%

Table B.1.205

	bName					
	Multi_Family		Single_Family			
10.2 Including yourself, how many people usually live in this residence at least six months of the year? (Q10_2)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) People: _____	31	97%	334	94%	365	95%
(2) Refused	1	3%	20	6%	21	5%
	32	100%	354	100%	386	100%

Table B.1.206

	bName					
	Multi_Family		Single_Family			
10.2-Specify Including yourself, how many people usually live in this residence at least six months of the year? (Q10_2_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	.	.	5	2%	5	1%

	bName					
	Multi_Family		Single_Family			
10.2-Specify Including yourself, how many people usually live in this residence at least six months of the year? (Q10_2_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) One	14	52%	79	24%	93	26%
(2) Two	8	30%	130	39%	138	39%
(3) Three	4	15%	46	14%	50	14%
(4) Four	.	.	40	12%	40	11%
(5) Five	1	4%	19	6%	20	6%
(6) Six	.	.	8	2%	8	2%
(7+) Seven or more	.	.	3	1%	3	1%
	27	100%	330	100%	357	100%

Table B.1.207

	bName					
	Multi_Family		Single_Family			
10.3 How many of them are under 18? (Q10_3)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) People: _____	26	100%	279	97%	305	97%
(2) Refused	.	.	10	3%	10	3%
	26	100%	289	100%	315	100%

Table B.1.208

10.3-Specify How many of them are under 18? (Q10_3_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	17	65%	183	65%	200	65%
(1) One	4	15%	44	16%	48	16%
(2) Two	4	15%	34	12%	38	12%
(3) Three	.	.	15	5%	15	5%
(4) Four	1	4%	4	1%	5	2%
	26	100%	280	100%	306	100%

Table B.1.209

10.4 How many of them are retired? (Q10_4)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) People: _____	27	100%	257	93%	284	94%
(2) Refused	.	.	19	7%	19	6%
	27	100%	276	100%	303	100%

Table B.1.210

10.4-Specify How many of them are retired? (Q10_4_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(0) Zero	17	68%	110	45%	127	47%
(1) One	7	28%	86	35%	93	34%
(2) Two	1	4%	49	20%	50	18%
(3) Three	.	.	1	0%	1	0%
	25	100%	246	100%	271	100%

Table B.1.211

10.5 What is the highest level of education attained by a head of the household? (Q10_5)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) High School or GED	11	35%	118	35%	129	35%
(2) Junior College or Vocational	9	29%	87	26%	96	26%
(3) Undergraduate Degree / Bachelors	6	19%	63	19%	69	19%
(4) Masters	1	3%	44	13%	45	12%
(5) Doctorate/PhD	1	3%	13	4%	14	4%
(6) Other (specify) _____	2	6%	8	2%	10	3%
(7) Don't know	.	.	2	1%	2	1%

	bName					
	Multi_Family		Single_Family			
10.5 What is the highest level of education attained by a head of the household? (Q10_5)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(8) Refused	1	3%	3	1%	4	1%
	31	100%	338	100%	369	100%

Table B.1.212

	bName					
	Multi_Family		Single_Family			
10.5-Specify What is the highest level of education attained by a head of the household? (Q10_5_Specify)	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	.	.	2	4%	2	3%
2	.	.	1	2%	1	2%
2nd Year Of High School	.	.	1	2%	1	2%
3 Yrs College	.	.	1	2%	1	2%
4	.	.	1	2%	1	2%
8th	1	14%	.	.	1	2%
8th Grade	.	.	1	2%	1	2%
9th Grade	1	14%	.	.	1	2%
Bachelors	1	14%	5	10%	6	10%
Batchelors	.	.	1	2%	1	2%
College Degree	.	.	1	2%	1	2%
College Post Grad	.	.	1	2%	1	2%
Ged	.	.	1	2%	1	2%

10.5-Specify What is the highest level of education attained by a head of the household? (Q10_5_Specify)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Grade School	.	.	1	2%	1	2%
High School	1	14%	10	20%	11	19%
Masters	1	14%	6	12%	7	12%
Na	.	.	1	2%	1	2%
No Highschool Or Ged	1	14%	.	.	1	2%
Nurse School	.	.	1	2%	1	2%
Phd	.	.	3	6%	3	5%
Professional	.	.	1	2%	1	2%
Some College	.	.	8	16%	8	14%
Some High School	.	.	2	4%	2	3%
Trade School	.	.	1	2%	1	2%
Undergrad Degree	.	.	1	2%	1	2%
Undergraduate Degree	1	14%	.	.	1	2%
	7	100%	51	100%	58	100%

Table B.1.213

	bName					
	Multi_Family		Single_Family			
10.6 Would you please tell me what your total family income was in 2008 before taxes (and including Social Security or other payments)? (Q10_6)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Less than \$15,000	10	31%	28	8%	38	10%
(2) \$15,000 to \$24,999	4	13%	31	9%	35	9%
(3) \$25,000 to \$34,999	1	3%	25	7%	26	7%
(4) \$35,000 to \$49,999	1	3%	37	11%	38	10%
(5) \$50,000 to \$59,999	1	3%	19	6%	20	5%
(6) \$60,000 to \$74,999	.	.	24	7%	24	6%
(7) \$75,000 to \$99,999	.	.	30	9%	30	8%
(8) \$100,000 to \$149,999	1	3%	24	7%	25	7%
(9) \$150,000 or more	.	.	10	3%	10	3%
(10) Don't know	11	34%	50	15%	61	16%
(11) Refused	3	9%	64	19%	67	18%
	32	100%	342	100%	374	100%

Table B.1.214

	bName					
	Multi_Family		Single_Family			
10.7 Record gender of respondent. (Q10_7)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(1) Male	8	26%	118	35%	126	34%

	bName					
	Multi_Family		Single_Family			
10.7 Record gender of respondent. (Q10_7)	Frequency	Percent	Frequency	Percent	Frequency	Percent
(2) Female	23	74%	222	65%	245	66%
	31	100%	340	100%	371	100%

B.2 – Residential On-Site

Table B.2.1

bName	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Multi_Family	5	10.20	5	10.20
Single_Family	44	89.80	49	100.00

Table B.2.2

Type of Residence	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Condo/Apt	5	100%	.	.	5	10%
SF Attached	.	.	11	25%	11	22%
SF Detached	.	.	33	75%	33	67%
	5	100%	44	100%	49	100%

Table B.2.3

Foundation Type	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Crawl Space	1	20%	11	25%	12	24%
Finished Basement	.	.	17	39%	17	35%
NA	2	40%	2	5%	4	8%
Slab	2	40%	5	11%	7	14%
Unfinished Basement	.	.	9	20%	9	18%
	5	100%	44	100%	49	100%

Table B.2.4

Roof Color	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Dark	3	60%	39	89%	42	86%
Light/White	.	.	5	11%	5	10%
NA	2	40%	.	.	2	4%
	5	100%	44	100%	49	100%

Table B.2.5

Number of Units in Building	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	.	.	2	7%	2	6%
1	1	25%	21	75%	22	69%
12	1	25%	.	.	1	3%
2	.	.	4	14%	4	13%
34	1	25%	.	.	1	3%
4	1	25%	1	4%	2	6%
	4	100%	28	100%	32	100%

Table B.2.6

Number of LED Exit Signs - (Multi-Family Common Area Only)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	1	100%	6	100%	7	100%
	1	100%	6	100%	7	100%

Table B.2.7

Number of CFL Exit Signs - (Multi-Family Common Area Only)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	1	100%	6	100%	7	100%
	1	100%	6	100%	7	100%

Table B.2.8

Number of Incandescent Exit Signs - (Multi-Family Common Area Only)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	1	100%	6	100%	7	100%
	1	100%	6	100%	7	100%

Table B.2.9

Security System	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	.	.	6	14%	6	13%
No	3	75%	35	80%	38	79%

Security System	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Yes	1	25%	3	7%	4	8%
	4	100%	44	100%	48	100%

Table B.2.10

Outdoor Security Lighting - (Hard Wired or Non-Solar)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	.	.	6	14%	6	13%
No	4	100%	9	21%	13	28%
Yes	.	.	27	64%	27	59%
	4	100%	42	100%	46	100%

Table B.2.11

Outdoor Security Lighting - Activation	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	.	.	2	6%	2	5%
Manual	.	.	15	42%	15	38%

Outdoor Security Lighting - Activation	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Motion Sensor	.	.	7	19%	7	18%
NA	3	100%	7	19%	10	26%
Photo Sensor	.	.	3	8%	3	8%
Timer	.	.	2	6%	2	5%
	3	100%	36	100%	39	100%

Table B.2.12

Square Feet of Living Space	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1000	1	25%	.	.	1	3%
1100	.	.	1	3%	1	3%
1150	.	.	1	3%	1	3%
1200	.	.	5	16%	5	14%
1281	.	.	1	3%	1	3%
1400	.	.	2	6%	2	6%
1500	.	.	3	10%	3	9%
1600	.	.	1	3%	1	3%
1700	.	.	2	6%	2	6%
1750	.	.	1	3%	1	3%
1768	.	.	1	3%	1	3%
1800	.	.	1	3%	1	3%

Square Feet of Living Space	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1970	.	.	1	3%	1	3%
2000	.	.	2	6%	2	6%
2300	.	.	1	3%	1	3%
2500	.	.	2	6%	2	6%
2880	.	.	1	3%	1	3%
2900	.	.	1	3%	1	3%
3000	.	.	1	3%	1	3%
3300	.	.	1	3%	1	3%
3500	.	.	1	3%	1	3%
700	2	50%	.	.	2	6%
800	.	.	1	3%	1	3%
950	1	25%	.	.	1	3%
	4	100%	31	100%	35	100%

Table B.2.13

Number of Levels or Stories	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
> three	1	20%	.	.	1	2%
NA	1	20%	.	.	1	2%
One	3	60%	20	48%	23	49%
Split level or two	.	.	19	45%	19	40%

	bName					
	Multi_Family		Single_Family			
Number of Levels or Stories	Frequency	Percent	Frequency	Percent	Frequency	Percent
Tri-level or three	.	.	3	7%	3	6%
	5	100%	42	100%	47	100%

Table B.2.14

	bName					
	Multi_Family		Single_Family			
Number of Windows	Frequency	Percent	Frequency	Percent	Frequency	Percent
10	.	.	3	7%	3	6%
11	.	.	1	2%	1	2%
12	.	.	2	5%	2	4%
13	.	.	1	2%	1	2%
14	.	.	2	5%	2	4%
15	.	.	5	11%	5	10%
17	.	.	2	5%	2	4%
18	.	.	2	5%	2	4%
19	.	.	2	5%	2	4%
2	2	40%	.	.	2	4%
20	.	.	2	5%	2	4%
21	.	.	1	2%	1	2%
23	.	.	3	7%	3	6%
24	.	.	1	2%	1	2%
3	2	40%	.	.	2	4%

Number of Windows	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
30	.	.	1	2%	1	2%
35	.	.	1	2%	1	2%
4	1	20%	1	2%	2	4%
5	.	.	1	2%	1	2%
6	.	.	4	9%	4	8%
7	.	.	3	7%	3	6%
8	.	.	4	9%	4	8%
9	.	.	2	5%	2	4%
	5	100%	44	100%	49	100%

Table B.2.15

Number of Single Pane Windows	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	1	100%	1	5%	2	9%
10	.	.	1	5%	1	5%
100	.	.	7	33%	7	32%
12	.	.	1	5%	1	5%
16	.	.	1	5%	1	5%
16%	.	.	1	5%	1	5%
2	.	.	1	5%	1	5%
3	.	.	1	5%	1	5%

Number of Single Pane Windows	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
31	.	.	1	5%	1	5%
4	.	.	1	5%	1	5%
6	.	.	1	5%	1	5%
67	.	.	1	5%	1	5%
70	.	.	1	5%	1	5%
8	.	.	2	10%	2	9%
	<i>1</i>	<i>100%</i>	<i>21</i>	<i>100%</i>	<i>22</i>	<i>100%</i>

Table B.2.16

Number of Double Pane Windows	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	.	.	1	3%	1	2%
1	.	.	2	6%	2	5%
100	3	60%	14	39%	17	41%
12	.	.	1	3%	1	2%
14	.	.	1	3%	1	2%
15	.	.	3	8%	3	7%
16	.	.	1	3%	1	2%
17	.	.	1	3%	1	2%
20	.	.	1	3%	1	2%
23	.	.	1	3%	1	2%

Number of Double Pane Windows	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
3	2	40%	.	.	2	5%
30	.	.	1	3%	1	2%
33	.	.	1	3%	1	2%
4	.	.	1	3%	1	2%
50	.	.	1	3%	1	2%
6	.	.	1	3%	1	2%
7	.	.	2	6%	2	5%
74%	.	.	1	3%	1	2%
75	.	.	1	3%	1	2%
90	.	.	1	3%	1	2%
	5	100%	36	100%	41	100%

Table B.2.17

Number of Triple Pane Windows	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	1	100%	2	67%	3	75%
100	.	.	1	33%	1	25%
	1	100%	3	100%	4	100%

Table B.2.18

Number of Storm Windows (Verify Frames)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	1	100%	4	33%	5	38%
100	.	.	2	17%	2	15%
11	.	.	1	8%	1	8%
13	.	.	1	8%	1	8%
25	.	.	1	8%	1	8%
50	.	.	1	8%	1	8%
6	.	.	1	8%	1	8%
8	.	.	1	8%	1	8%
	<i>1</i>	<i>100%</i>	<i>12</i>	<i>100%</i>	<i>13</i>	<i>100%</i>

Table B.2.19

Number of Insulated Blinds	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	1	100%	5	42%	6	46%
10	.	.	1	8%	1	8%
15	.	.	1	8%	1	8%
18	.	.	1	8%	1	8%
20	.	.	1	8%	1	8%
4	.	.	1	8%	1	8%

Number of Insulated Blinds	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
5	.	.	1	8%	1	8%
9	.	.	1	8%	1	8%
	<i>1</i>	<i>100%</i>	<i>12</i>	<i>100%</i>	<i>13</i>	<i>100%</i>

Table B.2.20

Weatherstripping	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	1	20%	.	.	1	2%
No	1	20%	13	32%	14	30%
Yes	3	60%	28	68%	31	67%
	<i>5</i>	<i>100%</i>	<i>41</i>	<i>100%</i>	<i>46</i>	<i>100%</i>

Table B.2.21

Attic Type	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	.	.	1	3%	1	2%
Heat/Cond.	.	.	1	3%	1	2%

Attic Type	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
NA	2	50%	3	8%	5	12%
Uncond	2	50%	33	87%	35	83%
	4	100%	38	100%	42	100%

Table B.2.22

Attic Insulation	bName			
	Single_Family			
	Frequency	Percent	Frequency	Percent
0	1	10%	1	10%
10	1	10%	1	10%
12	1	10%	1	10%
14.8	1	10%	1	10%
18	1	10%	1	10%
19	2	20%	2	20%
20	1	10%	1	10%
21	1	10%	1	10%
38	1	10%	1	10%
	10	100%	10	100%

Table B.2.23

	bName					
	Multi_Family		Single_Family			
Side Wall Insulation (if accessible)	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	.	.	2	20%	2	18%
12	.	.	2	20%	2	18%
13	.	.	2	20%	2	18%
4 inches	1	100%	.	.	1	9%
5	.	.	1	10%	1	9%
6	.	.	1	10%	1	9%
9	.	.	2	20%	2	18%
	<i>1</i>	<i>100%</i>	<i>10</i>	<i>100%</i>	<i>11</i>	<i>100%</i>

Table B.2.24

	bName			
	Single_Family			
Crawl Space Insulation	Frequency	Percent	Frequency	Percent
0	5	100%	5	100%
	5	<i>100%</i>	5	<i>100%</i>

Table B.2.25

	bName			
	Single_Family			
Basement Wall Insulation	Frequency	Percent	Frequency	Percent
0	4	57%	4	57%
None	3	43%	3	43%
	7	100%	7	100%

Table B.2.26

	bName					
	Multi_Family		Single_Family			
Basement Type (if accessible)	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	4	80%	28	76%	32	76%
1	.	.	8	22%	8	19%
2	1	20%	1	3%	2	5%
	5	100%	37	100%	42	100%

Table B.2.27

Wall Framing	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
2x4 wood	3	75%	27	73%	30	73%
2x6 wood	.	.	4	11%	4	10%
DK/-99	1	25%	6	16%	7	17%
	4	100%	37	100%	41	100%

Table B.2.28

Duct Location (% in Conditioned Space)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	1	33%	11	34%	12	34%
100	1	33%	17	53%	18	51%
50	.	.	2	6%	2	6%
80	1	33%	2	6%	3	9%
	3	100%	32	100%	35	100%

Table B.2.29

Duct Insulation	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	1	25%	6	15%	7	16%
NA	.	.	2	5%	2	4%
No	2	50%	27	66%	29	64%
Yes	1	25%	6	15%	7	16%
	4	100%	41	100%	45	100%

Table B.2.30

Shared Heating (Another Residence) - MF Only	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
More than one Residence	1	20%	.	.	1	3%
NA	.	.	8	27%	8	23%
Only this Residence	4	80%	22	73%	26	74%
	5	100%	30	100%	35	100%

Table B.2.31

Primary Heating System Type	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Central forced air gas furnace	1	20%	38	86%	39	80%
DK/-99	1	20%	.	.	1	2%
Electric central forced air furnace	2	40%	1	2%	3	6%
Electric hot water boiler	.	.	1	2%	1	2%
Natural gas Boiler with radiators	.	.	2	5%	2	4%
Other System & Fuel	1	20%	2	5%	3	6%
	5	100%	44	100%	49	100%

Table B.2.32

Primary Heating System Make	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
AMANA	.	.	1	3%	1	2%
Amana	.	.	1	3%	1	2%
Bard	.	.	1	3%	1	2%
Borg Warner	.	.	1	3%	1	2%
COMFORT MAKER	.	.	1	3%	1	2%
Carrier	1	33%	2	5%	3	7%
Coleman	.	.	2	5%	2	5%

Primary Heating System Make	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Comfort Maker	.	.	1	3%	1	2%
Comfortmaker	.	.	2	5%	2	5%
Evcon	.	.	1	3%	1	2%
GE	.	.	1	3%	1	2%
GOODMAN	.	.	1	3%	1	2%
HEIL	.	.	1	3%	1	2%
INTERTEMP	.	.	1	3%	1	2%
INTERTHERM	.	.	1	3%	1	2%
Janitrol	.	.	1	3%	1	2%
Kenmore	.	.	1	3%	1	2%
Lennox	.	.	4	10%	4	9%
Luxair	.	.	1	3%	1	2%
Meyer	1	33%	.	.	1	2%
N-G, American Assoc	.	.	1	3%	1	2%
RHEEM	.	.	1	3%	1	2%
Rheem	1	33%	.	.	1	2%
STANDARD	.	.	1	3%	1	2%
Sears	.	.	1	3%	1	2%
Siegler	.	.	1	3%	1	2%
TRANE	.	.	3	8%	3	7%
Tempstar	.	.	1	3%	1	2%
Trane	.	.	3	8%	3	7%
WEIL MCLAIN	.	.	1	3%	1	2%
York	.	.	1	3%	1	2%

Primary Heating System Make	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
payne	.	.	1	3%	1	2%
	3	100%	40	100%	43	100%

Table B.2.33

Primary Heating System Age	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0 to 2 years	2	67%	2	5%	4	9%
10 to 19 years	.	.	9	22%	9	20%
20 or more years	1	33%	11	27%	12	27%
3 to 9 years	.	.	15	37%	15	34%
DK/-99	.	.	4	10%	4	9%
	3	100%	41	100%	44	100%

Table B.2.34

Secondary Heating System Type	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Central forced air gas furnace	.	.	1	6%	1	5%
Electric portable heaters	.	.	2	11%	2	11%

Secondary Heating System Type	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
NA	1	100%	12	67%	13	68%
Other System & Fuel	.	.	3	17%	3	16%
	1	100%	18	100%	19	100%

Table B.2.35

Temperature Control - Main Heat	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Clock/Prog	.	.	21	51%	21	47%
DK/-99	.	.	1	2%	1	2%
NA	.	.	1	2%	1	2%
Regular Temp	4	100%	18	44%	22	49%
	4	100%	41	100%	45	100%

Table B.2.36

Awake Temp - Heat	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
67	.	.	2	5%	2	5%

Awake Temp - Heat	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
68	.	.	7	18%	7	16%
69	.	.	4	10%	4	9%
70	3	75%	11	28%	14	32%
71	.	.	3	8%	3	7%
72	.	.	2	5%	2	5%
73	.	.	1	3%	1	2%
74	.	.	5	13%	5	11%
75	.	.	3	8%	3	7%
76	1	25%	1	3%	2	5%
78	.	.	1	3%	1	2%
	4	100%	40	100%	44	100%

Table B.2.37

Sleep Temp - Heat	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
62	.	.	1	3%	1	2%
63	.	.	1	3%	1	2%
64	.	.	1	3%	1	2%
65	.	.	4	10%	4	9%
67	.	.	1	3%	1	2%
68	.	.	13	33%	13	30%

Sleep Temp - Heat	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
69	.	.	2	5%	2	5%
70	3	75%	6	15%	9	20%
71	.	.	2	5%	2	5%
72	.	.	1	3%	1	2%
73	.	.	1	3%	1	2%
74	.	.	2	5%	2	5%
75	.	.	3	8%	3	7%
76	1	25%	1	3%	2	5%
off	.	.	1	3%	1	2%
	4	100%	40	100%	44	100%

Table B.2.38

Away Temp - Heat	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
55	.	.	1	3%	1	2%
60	1	25%	4	10%	5	12%
61	.	.	1	3%	1	2%
63	.	.	1	3%	1	2%
65	.	.	2	5%	2	5%
67	.	.	1	3%	1	2%
68	.	.	8	21%	8	19%

Away Temp - Heat	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
69	.	.	2	5%	2	5%
70	3	75%	6	15%	9	21%
71	.	.	2	5%	2	5%
72	.	.	3	8%	3	7%
73	.	.	1	3%	1	2%
74	.	.	2	5%	2	5%
75	.	.	3	8%	3	7%
76	.	.	1	3%	1	2%
off	.	.	1	3%	1	2%
	4	100%	39	100%	43	100%

Table B.2.39

Shared Cooling (Another Residence) - MF Only	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Air-source heat pump	.	.	1	3%	1	3%
Central AC	1	20%	6	18%	7	18%
NA	4	80%	26	79%	30	79%
	5	100%	33	100%	38	100%

Table B.2.40

Primary Cooling System Efficiency	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
10	.	.	1	5%	1	5%
10 SEER	.	.	7	37%	7	33%
10.5 SEER	.	.	1	5%	1	5%
11.5 EER	1	50%	.	.	1	5%
11.5 SEER	.	.	1	5%	1	5%
12	.	.	3	16%	3	14%
12 SEER	.	.	2	11%	2	10%
13 SEER	.	.	2	11%	2	10%
14 SEER	.	.	1	5%	1	5%
9.7	.	.	1	5%	1	5%
9.7 EER	1	50%	.	.	1	5%
	2	100%	19	100%	21	100%

Table B.2.41

Primary Cooling System Make Model	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Amana	.	.	2	5%	2	5%
American Standard	.	.	1	3%	1	2%

Primary Cooling System Make Model	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
COMFORT MAKER	.	.	1	3%	1	2%
CROSLEY	.	.	1	3%	1	2%
Carrier	1	25%	3	8%	4	10%
Coleman	.	.	1	3%	1	2%
Comfort Maker	.	.	1	3%	1	2%
FREIDRICH	.	.	1	3%	1	2%
Fedders	.	.	2	5%	2	5%
GOODMAN	.	.	2	5%	2	5%
Goodman	.	.	1	3%	1	2%
HEIL	.	.	1	3%	1	2%
INTERTHERM	.	.	1	3%	1	2%
Lennox	.	.	5	14%	5	12%
Magic Chef	1	25%	.	.	1	2%
PAYNE	.	.	1	3%	1	2%
Payne	.	.	1	3%	1	2%
Pelonis	1	25%	.	.	1	2%
RHEEM	.	.	1	3%	1	2%
Rheem	1	25%	.	.	1	2%
STANDARD	.	.	1	3%	1	2%
TRANE	.	.	3	8%	3	7%
Trane	.	.	3	8%	3	7%
Westinghouse	.	.	1	3%	1	2%
YORK	.	.	1	3%	1	2%

Primary Cooling System Make Model	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
York	.	.	2	5%	2	5%
	4	100%	37	100%	41	100%

Table B.2.42

Primary Cooling System Age	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	.	.	1	4%	1	4%
10	.	.	1	4%	1	4%
11	.	.	2	9%	2	8%
13	.	.	1	4%	1	4%
14	.	.	1	4%	1	4%
16 years	.	.	1	4%	1	4%
18 years	.	.	1	4%	1	4%
2	.	.	1	4%	1	4%
20 years	.	.	1	4%	1	4%
2001	.	.	1	4%	1	4%
2007	1	50%	.	.	1	4%
25	1	50%	.	.	1	4%
3	.	.	3	13%	3	12%
4 yrs old	.	.	1	4%	1	4%

Primary Cooling System Age	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
4-5 years	.	.	1	4%	1	4%
5	.	.	2	9%	2	8%
6 years	.	.	1	4%	1	4%
8 years	.	.	1	4%	1	4%
8 years.	.	.	1	4%	1	4%
9	.	.	1	4%	1	4%
9 years	.	.	1	4%	1	4%
	2	100%	23	100%	25	100%

Table B.2.43

Cooling System Maintenance	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	.	.	1	2%	1	2%
NA	.	.	2	5%	2	4%
No	2	50%	13	30%	15	32%
Yes	2	50%	27	63%	29	62%
	4	100%	43	100%	47	100%

Table B.2.44

Temperature Control - Main Cooling	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Clock/Prog	.	.	21	48%	21	43%
DK/-99	.	.	2	5%	2	4%
Dial w/o temp	.	.	1	2%	1	2%
NA	.	.	1	2%	1	2%
Regular Temp	4	80%	18	41%	22	45%
Switch/none	1	20%	1	2%	2	4%
	5	100%	44	100%	49	100%

Table B.2.45

Awake Temp - Cool	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
67	.	.	1	2%	1	2%
68	.	.	1	2%	1	2%
70	.	.	3	7%	3	7%
72	1	33%	6	15%	7	16%
73	.	.	3	7%	3	7%
74	.	.	3	7%	3	7%
75	.	.	8	20%	8	18%

Awake Temp - Cool	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
76	1	33%	3	7%	4	9%
77	.	.	1	2%	1	2%
78	1	33%	7	17%	8	18%
79	.	.	2	5%	2	5%
80	.	.	1	2%	1	2%
81	.	.	1	2%	1	2%
on	.	.	1	2%	1	2%
	3	100%	41	100%	44	100%

Table B.2.46

Sleep Temp - Cool	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
67	.	.	1	2%	1	2%
68	.	.	1	2%	1	2%
70	.	.	3	7%	3	7%
72	1	33%	7	17%	8	18%
73	.	.	4	10%	4	9%
74	.	.	2	5%	2	5%
75	.	.	6	15%	6	14%
76	1	33%	3	7%	4	9%
77	.	.	2	5%	2	5%

Sleep Temp - Cool	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
78	1	33%	5	12%	6	14%
79	.	.	1	2%	1	2%
80	.	.	1	2%	1	2%
81	.	.	1	2%	1	2%
83	.	.	1	2%	1	2%
OFF	.	.	2	5%	2	5%
on	.	.	1	2%	1	2%
	3	100%	41	100%	44	100%

Table B.2.47

Away Temp - Cool	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
67	.	.	1	3%	1	3%
68	.	.	1	3%	1	3%
70	.	.	2	5%	2	5%
72	1	33%	7	19%	8	20%
73	.	.	4	11%	4	10%
74	.	.	2	5%	2	5%
75	.	.	6	16%	6	15%
76	.	.	2	5%	2	5%
77	.	.	2	5%	2	5%

Away Temp - Cool	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
78	1	33%	3	8%	4	10%
79	.	.	1	3%	1	3%
81	.	.	1	3%	1	3%
82	.	.	1	3%	1	3%
83	.	.	1	3%	1	3%
85	1	33%	.	.	1	3%
OFF	.	.	2	5%	2	5%
on	.	.	1	3%	1	3%
	3	100%	37	100%	40	100%

Table B.2.48

Central AC Quantity	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	3	100%	30	100%	33	100%
	3	100%	30	100%	33	100%

Table B.2.49

	bName			
	Single_Family			
Air-Source Heat Pump Quantity	Frequency	Percent	Frequency	Percent
1	4	80%	4	80%
2	1	20%	1	20%
	5	100%	5	100%

Table B.2.50

	bName			
	Single_Family			
Geothermal Heat Pump Quantity	Frequency	Percent	Frequency	Percent
1	1	100%	1	100%
	1	100%	1	100%

Table B.2.51

	bName					
	Multi_Family		Single_Family			
Room AC Quantity	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	.	.	4	44%	4	40%

Room AC Quantity	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
2	1	100%	4	44%	5	50%
3	.	.	1	11%	1	10%
	<i>1</i>	<i>100%</i>	<i>9</i>	<i>100%</i>	<i>10</i>	<i>100%</i>

Table B.2.52

Portable Fans Quantity	bName			
	Single_Family			
	Frequency	Percent	Frequency	Percent
2	1	100%	1	100%
	<i>1</i>	<i>100%</i>	<i>1</i>	<i>100%</i>

Table B.2.53

Whole House Fans Quantity	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	1	100%	4	50%	5	56%
1	.	.	4	50%	4	44%
	<i>1</i>	<i>100%</i>	<i>8</i>	<i>100%</i>	<i>9</i>	<i>100%</i>

Table B.2.54

Ceiling Fans Quantity	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	1	50%	2	9%	3	12%
12	.	.	1	4%	1	4%
2	1	50%	3	13%	4	16%
3	.	.	6	26%	6	24%
4	.	.	3	13%	3	12%
5	.	.	3	13%	3	12%
7	.	.	3	13%	3	12%
8	.	.	1	4%	1	4%
9	.	.	1	4%	1	4%
	2	100%	23	100%	25	100%

Table B.2.55

Shared Water Heat (Another Residence) - MF Only	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
More than one residence	1	20%	1	3%	2	5%
NA	.	.	10	31%	10	27%

	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Shared Water Heat (Another Residence) - MF Only						
Only this residence	4	80%	21	66%	25	68%
	5	100%	32	100%	37	100%

Table B.2.56

	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Type of Water Heating						
NA	1	20%	.	.	1	2%
Tank type storage water heater.	4	80%	43	98%	47	96%
Tankless hotwater heater	.	.	1	2%	1	2%
	5	100%	44	100%	49	100%

Table B.2.57

	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Fuel Type for Primary Water Heating						
DK/-99	1	20%	1	2%	2	4%
Electricity	3	60%	8	19%	11	23%
Natural gas	1	20%	33	77%	34	71%

Fuel Type for Primary Water Heating	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Propane/bottled gas	.	.	1	2%	1	2%
	5	100%	43	100%	48	100%

Table B.2.58

[IF WH = SOLAR] ALT OR B U WH TYPE	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	1	33%	.	.	1	5%
NA	1	33%	11	58%	12	55%
Standard Storage	1	33%	8	42%	9	41%
	3	100%	19	100%	22	100%

Table B.2.59

Water Heaters Quantity	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	4	100%	43	98%	47	98%

Water Heaters Quantity	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
2	.	.	1	2%	1	2%
	4	100%	44	100%	48	100%

Table B.2.60

Water Heater Temperature	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
120	.	.	3	43%	3	38%
125 F	.	.	2	29%	2	25%
130	.	.	1	14%	1	13%
140	.	.	1	14%	1	13%
160 F	1	100%	.	.	1	13%
	1	100%	7	100%	8	100%

Table B.2.61

WH NO TEMP - L M H -1	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	2	40%	3	7%	5	11%

WH NO TEMP - L M H -1	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
High	1	20%	10	24%	11	24%
Low	.	.	3	7%	3	7%
Med	1	20%	9	22%	10	22%
Med - High	1	20%	10	24%	11	24%
Med - Low	.	.	5	12%	5	11%
NA	.	.	1	2%	1	2%
	5	100%	41	100%	46	100%

Table B.2.62

WH EFFICIENCY -1	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
.80	.	.	3	19%	3	18%
0.54	.	.	1	6%	1	6%
0.55	.	.	1	6%	1	6%
0.58	.	.	1	6%	1	6%
0.59 EF	.	.	3	19%	3	18%
0.61	.	.	1	6%	1	6%
0.9 EF	.	.	1	6%	1	6%
0.92 EF	1	100%	1	6%	2	12%

WH EFFICIENCY -1	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
263 THERMS/YR (ENERGYGUIDE)	.	.	1	6%	1	6%
57	.	.	1	6%	1	6%
80%	.	.	2	13%	2	12%
	1	100%	16	100%	17	100%

Table B.2.63

WH MAKE MODEL -1	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
A O Smith	.	.	1	3%	1	2%
A.O Smith	.	.	1	3%	1	2%
A.O Smitth	.	.	1	3%	1	2%
A.O. SMITH	.	.	4	10%	4	9%
A.O. Smith	1	25%	1	3%	2	5%
AMERICAN	.	.	2	5%	2	5%
AO Smith	.	.	1	3%	1	2%
Ambassador	1	25%	.	.	1	2%
American	.	.	1	3%	1	2%
BRADFORD WHITE	.	.	1	3%	1	2%
Bradford White Corporation	.	.	1	3%	1	2%
Envirotemp	.	.	2	5%	2	5%

WH MAKE MODEL -1	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
General Electric	.	.	1	3%	1	2%
Kenmore	.	.	1	3%	1	2%
Maytag	.	.	1	3%	1	2%
NA	.	.	1	3%	1	2%
RELIANCE	.	.	1	3%	1	2%
RICHMOND	.	.	2	5%	2	5%
Reliance	1	25%	2	5%	3	7%
Rheem	.	.	1	3%	1	2%
Richmond	.	.	2	5%	2	5%
Richmond Miser	.	.	2	5%	2	5%
Rinnai	.	.	1	3%	1	2%
STATE	.	.	1	3%	1	2%
Sears	.	.	2	5%	2	5%
State	1	25%	.	.	1	2%
State Censible	.	.	1	3%	1	2%
State Industries	.	.	1	3%	1	2%
WHIRLPOOL	.	.	1	3%	1	2%
Whirlpool	.	.	2	5%	2	5%
	4	100%	39	100%	43	100%

Table B.2.64

WH AGE - MFG DATE - PRIMARY	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0 to 2 years	2	40%	9	23%	11	24%
10 to 19 years	.	.	6	15%	6	13%
20 or more years	1	20%	3	8%	4	9%
3 to 9 years	1	20%	19	48%	20	44%
DK/-99	1	20%	3	8%	4	9%
	5	100%	40	100%	45	100%

Table B.2.65

WH SIZE - GAL - PRIMARY	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
30	1	33%	5	13%	6	14%
31.9	.	.	1	3%	1	2%
40	1	33%	22	56%	23	55%
42	1	33%	.	.	1	2%
50	.	.	10	26%	10	24%
52	.	.	1	3%	1	2%
	3	100%	39	100%	42	100%

Table B.2.66

WH BLANKET WRAP ON MAIN WH	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	1	20%	1	2%	2	4%
NA	.	.	1	2%	1	2%
No	4	80%	38	88%	42	88%
Yes	.	.	3	7%	3	6%
	5	100%	43	100%	48	100%

Table B.2.67

WH TIMER	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	2	40%	1	2%	3	6%
NA	.	.	1	2%	1	2%
No	3	60%	42	95%	45	92%
	5	100%	44	100%	49	100%

Table B.2.68

DRAIN HEAT RECOVERY	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	1	20%	.	.	1	2%
NA	.	.	1	2%	1	2%
No	4	80%	41	95%	45	94%
Yes	.	.	1	2%	1	2%
	5	100%	43	100%	48	100%

Table B.2.69

CLOTHES DRYER	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
None	1	20%	2	5%	3	6%
Private	2	40%	41	95%	43	90%
Shared	2	40%	.	.	2	4%
	5	100%	43	100%	48	100%

Table B.2.70

NUM CLOTHES DRYERS	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	3	75%	39	95%	42	93%
2	.	.	1	2%	1	2%
4	1	25%	.	.	1	2%
`	.	.	1	2%	1	2%
	4	100%	41	100%	45	100%

Table B.2.71

CLOTHES DRYER MAKE MODEL – PRIMARY	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Electricity	3	75%	29	69%	32	70%
NA	.	.	1	2%	1	2%
Nat Gas	1	25%	12	29%	13	28%
	4	100%	42	100%	46	100%

Table B.2.72

CLOTHES DRYER AGE – MFG DATE – PRIMARY	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	.	.	1	3%	1	2%
AMANA	.	.	1	3%	1	2%
ELTROLUX	.	.	1	3%	1	2%
FISHER & PAYKEL	.	.	1	3%	1	2%
Fisher & Paykel	.	.	1	3%	1	2%
Frigidaire	1	25%	2	5%	3	7%
GE	2	50%	2	5%	4	10%
KENMORE	.	.	4	11%	4	10%
Kenmore	.	.	4	11%	4	10%
MAYTAG	.	.	4	11%	4	10%
Maytag	.	.	8	21%	8	19%
RCA	.	.	1	3%	1	2%
Roper	.	.	1	3%	1	2%
WHIRLPOOL	.	.	2	5%	2	5%
Whirlpool	1	25%	4	11%	5	12%
White-Westinghouse	.	.	1	3%	1	2%
	4	100%	38	100%	42	100%

Table B.2.73

CLOTHES DRYER FUEL	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	.	.	1	3%	1	3%
1	.	.	3	9%	3	8%
1 year	.	.	1	3%	1	3%
10	.	.	1	3%	1	3%
15	.	.	1	3%	1	3%
15 years	.	.	1	3%	1	3%
15-20	.	.	1	3%	1	3%
16	.	.	1	3%	1	3%
18	.	.	1	3%	1	3%
2 years	1	50%	.	.	1	3%
20	.	.	1	3%	1	3%
20+	.	.	3	9%	3	8%
20-30	.	.	1	3%	1	3%
2002	.	.	1	3%	1	3%
2007	1	50%	.	.	1	3%
2008	.	.	2	6%	2	5%
23	.	.	1	3%	1	3%
25 years	.	.	1	3%	1	3%
28	.	.	1	3%	1	3%
3	.	.	2	6%	2	5%
4	.	.	1	3%	1	3%
4 years	.	.	1	3%	1	3%

CLOTHES DRYER FUEL	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
5	.	.	2	6%	2	5%
6	.	.	3	9%	3	8%
6 years	.	.	1	3%	1	3%
6 yrs old	.	.	1	3%	1	3%
6-7 yrs	.	.	1	3%	1	3%
8 years.	.	.	1	3%	1	3%
	2	100%	35	100%	37	100%

Table B.2.74

NUM CLOTHES DRYER – W MOISTURE SENSOR	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	3	100%	11	35%	14	41%
1	.	.	20	65%	20	59%
	3	100%	31	100%	34	100%

Table B.2.75

CLOTHES WASHER	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
None	1	20%	1	2%	2	4%
Private	2	40%	42	98%	44	92%
Shared	2	40%	.	.	2	4%
	5	100%	43	100%	48	100%

Table B.2.76

NUM CLOTHES WASHER (Vertical Axis)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	2	67%	36	100%	38	97%
3	1	33%	.	.	1	3%
	3	100%	36	100%	39	100%

Table B.2.77

NUMCLOTHES WASHER (Horizontal Axis)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Front Load	1	25%	3	7%	4	9%

	bName					
	Multi_Family		Single_Family			
NUMCLOTHES WASHER (Horizontal Axis)	Frequency	Percent	Frequency	Percent	Frequency	Percent
NA	.	.	1	2%	1	2%
Top Load	3	75%	39	91%	42	89%
	4	100%	43	100%	47	100%

Table B.2.78

	bName			
	Single_Family			
h33_outdoor_security_lighting_0	Frequency	Percent	Frequency	Percent
DK/-99	1	8%	1	8%
Manual	3	23%	3	23%
NA	9	69%	9	69%
	13	100%	13	100%

Table B.2.79

	bName			
	Single_Family			
h33_outdoor_security_lighting_3	Frequency	Percent	Frequency	Percent
DK/-99	1	8%	1	8%
Manual	2	17%	2	17%

	bName			
	Single_Family			
	Frequency	Percent	Frequency	Percent
h33_outdoor_security_lighting_3				
NA	9	75%	9	75%
	12	100%	12	100%

Table B.2.80

	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
na_clothes_washer_age						
0	.	.	1	6%	1	6%
1	.	.	2	13%	2	12%
10 years	.	.	1	6%	1	6%
15 years	.	.	1	6%	1	6%
16	.	.	1	6%	1	6%
18	.	.	1	6%	1	6%
2 years	1	100%	.	.	1	6%
20+	.	.	3	19%	3	18%
20-30	.	.	1	6%	1	6%
30	.	.	1	6%	1	6%
4 years	.	.	2	13%	2	12%
6	.	.	1	6%	1	6%
6 years	.	.	1	6%	1	6%
	1	100%	16	100%	17	100%

Table B.2.81

CLOTHES WASHER EFFICIENCY	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	.	.	1	3%	1	2%
Energy Star	1	25%	6	16%	7	17%
NA	.	.	1	3%	1	2%
Non Energy Star	3	75%	29	78%	32	78%
	4	100%	37	100%	41	100%

Table B.2.82

LOW-FLOW SHOWERHEADS (GPM ? 2.5)	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	.	.	13	57%	13	50%
1	2	67%	3	13%	5	19%
2	1	33%	6	26%	7	27%
3	.	.	1	4%	1	4%
	3	100%	23	100%	26	100%

Table B.2.83

	bName					
	Multi_Family		Single_Family			
TOTAL NUM SHOWERS	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	2	50%	23	53%	25	53%
2	2	50%	17	40%	19	40%
3	.	.	3	7%	3	6%
	4	100%	43	100%	47	100%

Table B.2.84

	bName					
	Multi_Family		Single_Family			
LOW-FLOW AIRATORS (GPM ? 2.5)	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	1	33%	15	54%	16	52%
1	1	33%	3	11%	4	13%
2	1	33%	5	18%	6	19%
3	.	.	3	11%	3	10%
6	.	.	1	4%	1	3%
7	.	.	1	4%	1	3%
	3	100%	28	100%	31	100%

Table B.2.85

TOTAL NUM SINKS	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	1	25%	7	16%	8	17%
2	1	25%	7	16%	8	17%
3	2	50%	15	35%	17	36%
4	.	.	10	23%	10	21%
5	.	.	1	2%	1	2%
7	.	.	2	5%	2	4%
8	.	.	1	2%	1	2%
	4	100%	43	100%	47	100%

Table B.2.86

NUM OVENS	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	5	100%	42	95%	47	96%
2	.	.	2	5%	2	4%
	5	100%	44	100%	49	100%

Table B.2.87

OVEN FUEL – PRIMRY	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Electricity	5	100%	29	67%	34	71%
Nat Gas	.	.	14	33%	14	29%
	5	100%	43	100%	48	100%

Table B.2.88

CONVECTION OVEN – PRIMARY	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	.	.	2	5%	2	4%
No	3	60%	32	73%	35	71%
Yes	2	40%	10	23%	12	24%
	5	100%	44	100%	49	100%

Table B.2.89

NUM COOKING STOVES	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	5	100%	41	95%	46	96%
2	.	.	1	2%	1	2%
4	.	.	1	2%	1	2%
	5	100%	43	100%	48	100%

Table B.2.90

COOKING STOVE FUEL	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Electricity	5	100%	26	60%	31	65%
Nat Gas	.	.	17	40%	17	35%
	5	100%	43	100%	48	100%

Table B.2.91

NUM REFRIGERATORS	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	5	100%	34	77%	39	80%
2	.	.	9	20%	9	18%
4	.	.	1	2%	1	2%
	5	100%	44	100%	49	100%

Table B.2.92

REFRGERATOR MAKE MODEL - PRIMARY	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
ADMIRAL	.	.	1	2%	1	2%
AMANA	.	.	2	5%	2	4%
Amana	.	.	2	5%	2	4%
ELECTROLUX	.	.	1	2%	1	2%
ESTATE	.	.	1	2%	1	2%
Frigidaire	1	20%	4	9%	5	10%
GALAXY	.	.	1	2%	1	2%
GE	.	.	5	11%	5	10%
General Electric	.	.	2	5%	2	4%
Gibson	.	.	1	2%	1	2%

REFRGERATOR MAKE MODEL - PRIMARY	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Haier	1	20%	.	.	1	2%
Hotpoint	1	20%	.	.	1	2%
JENN-AIR	.	.	1	2%	1	2%
KELVINATOR	.	.	1	2%	1	2%
KENMORE	.	.	4	9%	4	8%
Kenmore	.	.	4	9%	4	8%
MAYTAG	.	.	1	2%	1	2%
Magic Chef	.	.	1	2%	1	2%
Maytag	.	.	2	5%	2	4%
Roper	1	20%	1	2%	2	4%
WHIRLPOOL	.	.	1	2%	1	2%
Whirlpool	1	20%	7	16%	8	16%
White-Westinghouse	.	.	1	2%	1	2%
	5	100%	44	100%	49	100%

Table B.2.93

AGE PRIMARY REFRIGERATOR	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
15+	1	20%	9	21%	10	21%
6 or less	4	80%	16	38%	20	43%

AGE PRIMARY REFRIGERATOR	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
7 to 14	.	.	16	38%	16	34%
DK/-99	.	.	1	2%	1	2%
	5	100%	42	100%	47	100%

Table B.2.94

REFRIGERATOR EFFICIENCY	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	.	.	4	9%	4	8%
Energy Star	1	20%	4	9%	5	10%
Non Energy Star	4	80%	35	81%	39	81%
	5	100%	43	100%	48	100%

Table B.2.95

NUM STAND-ALONE FREEZERS	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	3	75%	9	33%	12	39%
1	1	25%	15	56%	16	52%

NUM STAND-ALONE FREEZERS	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
2	.	.	3	11%	3	10%
	4	100%	27	100%	31	100%

Table B.2.96

STAND-ALONE FREEZER MAKE MODEL	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
ABSOCOLD	.	.	1	6%	1	6%
ADMIRAL	.	.	1	6%	1	6%
Borg-Warner	.	.	1	6%	1	6%
Coronado	.	.	1	6%	1	6%
Frigidaire	.	.	4	25%	4	24%
GE	.	.	1	6%	1	6%
KENMORE	.	.	1	6%	1	6%
Kenmore	.	.	4	25%	4	24%
Marquetts	.	.	1	6%	1	6%
Sears	.	.	1	6%	1	6%
White Consolidated	1	100%	.	.	1	6%
	1	100%	16	100%	17	100%

Table B.2.97

AGE PRIMARY STAND-ALONE FREEZER	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
15+	.	.	8	38%	8	35%
6 or less	.	.	5	24%	5	22%
7 to 14	1	50%	5	24%	6	26%
NA	1	50%	3	14%	4	17%
	2	100%	21	100%	23	100%

Table B.2.98

FREEZER EFFICIENCY	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	.	.	2	10%	2	9%
Energy Star	.	.	2	10%	2	9%
NA	1	50%	3	14%	4	17%
Non Energy Star	1	50%	14	67%	15	65%
	2	100%	21	100%	23	100%

Table B.2.99

NUM DISHWASHERS	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	1	20%	3	8%	4	10%
1	4	80%	34	92%	38	90%
	5	100%	37	100%	42	100%

Table B.2.100

DISHWASHER MAKE MODEL	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	.	.	1	3%	1	3%
Amana	.	.	1	3%	1	3%
Frigidaire	1	25%	2	6%	3	8%
GE	.	.	3	9%	3	8%
General Electric	.	.	1	3%	1	3%
Hotpoint	1	25%	.	.	1	3%
KENMORE	.	.	3	9%	3	8%
KITCHEN AID	.	.	2	6%	2	5%
Kenmore	.	.	5	15%	5	14%
Kitchenaid	.	.	1	3%	1	3%
MAYTAG	.	.	1	3%	1	3%

DISHWASHER MAKE MODEL	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Maytag	.	.	3	9%	3	8%
WHIRLPOOL	.	.	3	9%	3	8%
Whirlpool	2	50%	6	18%	8	22%
kitchen aid	.	.	1	3%	1	3%
	4	100%	33	100%	37	100%

Table B.2.101

AGE DISHWASHER	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
0	.	.	1	3%	1	3%
10	.	.	1	3%	1	3%
10 years	.	.	1	3%	1	3%
10+	.	.	1	3%	1	3%
13	.	.	2	7%	2	6%
15	.	.	2	7%	2	6%
15+	.	.	1	3%	1	3%
16	.	.	1	3%	1	3%
19	.	.	1	3%	1	3%
2	.	.	1	3%	1	3%
2 years	1	33%	1	3%	2	6%

AGE DISHWASHER	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
20+	.	.	1	3%	1	3%
2005	.	.	1	3%	1	3%
2006	.	.	1	3%	1	3%
2007	1	33%	1	3%	2	6%
2008	.	.	1	3%	1	3%
25	.	.	1	3%	1	3%
3	.	.	3	10%	3	9%
3 years	.	.	1	3%	1	3%
30	.	.	1	3%	1	3%
30 years	1	33%	.	.	1	3%
5	.	.	1	3%	1	3%
5 years	.	.	1	3%	1	3%
6 years	.	.	1	3%	1	3%
8 years	.	.	1	3%	1	3%
8 years.	.	.	1	3%	1	3%
DS603I	.	.	1	3%	1	3%
	3	100%	30	100%	33	100%

Table B.2.102

DISHWASHER EFFICIENCY	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	.	.	3	9%	3	8%
Energy Star	1	25%	10	30%	11	30%
NA	.	.	1	3%	1	3%
Non Energy Star	3	75%	19	58%	22	59%
	4	100%	33	100%	37	100%

Table B.2.103

NUM MICROWAVES	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1	5	100%	38	90%	43	91%
2	.	.	4	10%	4	9%
	5	100%	42	100%	47	100%

Table B.2.104

DEHUMIDIFIER	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
NA	.	.	1	3%	1	2%
No	4	80%	21	58%	25	61%
Yes	1	20%	14	39%	15	37%
	5	100%	36	100%	41	100%

Table B.2.105

DEHUMIDIFIER MAKE MODEL	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
COOLERATOR	.	.	1	11%	1	10%
Comfort Care	1	100%	.	.	1	10%
Coolerator	.	.	1	11%	1	10%
GE	.	.	1	11%	1	10%
JCPENNY	.	.	1	11%	1	10%
Kenmore	.	.	1	11%	1	10%
Little Giant	.	.	1	11%	1	10%
Sears	.	.	1	11%	1	10%

DEHUMIDIFIER MAKE MODEL	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Whirlpool	.	.	2	22%	2	20%
	1	100%	9	100%	10	100%

Table B.2.106

DEHUMIDIFIER AGE	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1 year	1	100%	.	.	1	11%
10 yrs old	.	.	1	13%	1	11%
15	.	.	1	13%	1	11%
20 years	.	.	1	13%	1	11%
25	.	.	1	13%	1	11%
3 years	.	.	1	13%	1	11%
4	.	.	1	13%	1	11%
7 - 8	.	.	1	13%	1	11%
8	.	.	1	13%	1	11%
	1	100%	8	100%	9	100%

Table B.2.107

DEHUMIDIFIER EFFICIENCY	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DK/-99	1	50%	3	14%	4	17%
Energy Star	.	.	3	14%	3	13%
NA	1	50%	8	38%	9	39%
Non Energy Star	.	.	7	33%	7	30%
	2	100%	21	100%	23	100%

Table B.2.108

na_heat_system_model_primary	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
2TGB3F25A1000AB	.	.	1	3%	1	2%
58SXC080-JG	.	.	1	3%	1	2%
AGF 08C 05000	1	25%	.	.	1	2%
AZ28E12DAEM1	1	25%	.	.	1	2%
Air Command 90	.	.	1	3%	1	2%
BLU06E93640	.	.	1	3%	1	2%
BWV730A100D2	.	.	1	3%	1	2%
C23-41W-1	.	.	1	3%	1	2%
C8MPN100J20A1	.	.	1	3%	1	2%

na_heat_system_model_primary	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
CCJ-125-D3	.	.	1	3%	1	2%
CUB080A938C2	.	.	1	3%	1	2%
DGRT070AUA	.	.	1	3%	1	2%
EVCON	.	.	1	3%	1	2%
EXECUTIVE HE	.	.	1	3%	1	2%
Elite G26R3/4-125-5	.	.	1	3%	1	2%
FE4ANF003000AAAA	.	.	1	3%	1	2%
FF1ENP018	1	25%	.	.	1	2%
G20q3/4e-100	.	.	1	3%	1	2%
G3RA144A-20	.	.	1	3%	1	2%
GM9S060B12DH11H	.	.	1	3%	1	2%
GMV95	.	.	1	3%	1	2%
GUX090X35B	.	.	1	3%	1	2%
H8MPV100J20A1	.	.	1	3%	1	2%
M/N IL115D48A	.	.	1	3%	1	2%
MDE24-F10D21F-3	1	25%	.	.	1	2%
MG-055A	.	.	1	3%	1	2%
N9MP1	.	.	1	3%	1	2%
NA	.	.	2	5%	2	5%
NDGG100DF03	.	.	1	3%	1	2%
NTC5100BFE1	.	.	1	3%	1	2%
P2CGD08N06501A	.	.	1	3%	1	2%
PCCU-LD08N080B	.	.	1	3%	1	2%
PCG-5R	.	.	1	3%	1	2%

na_heat_system_model_primary	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
PG8MAA042090	.	.	1	3%	1	2%
RGTA10EZAJS	.	.	1	3%	1	2%
Sieglermatic 777	.	.	1	3%	1	2%
TG95080B12MP11A	.	.	1	3%	1	2%
TUX080C942C2	.	.	1	3%	1	2%
TXC043C4HPCO	.	.	1	3%	1	2%
XE80	.	.	1	3%	1	2%
	4	100%	37	100%	41	100%

Table B.2.109

na_cooling_system_model_primary	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
2TTB3024A1	.	.	1	3%	1	3%
38TRA036	.	.	1	3%	1	3%
7B0023B100A1	.	.	1	3%	1	3%
A6Y18F7A-L	.	.	1	3%	1	3%
AZ28E12DABM1	1	25%	.	.	1	3%
BTD730A100B0	.	.	1	3%	1	3%
CA5530VKD2	.	.	1	3%	1	3%
CAC236AKA4	.	.	1	3%	1	3%
CKJ3P-1B	.	.	1	3%	1	3%

na_cooling_system_model_primary	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
CM 24-41 T	.	.	1	3%	1	3%
Consaire	1	25%	.	.	1	3%
Cool Zone	.	.	1	3%	1	3%
ES036S1ANBSSB	.	.	1	3%	1	3%
Evcon (cooler 10)	.	.	1	3%	1	3%
FF1ENP018	1	25%	.	.	1	3%
GSC130301AE	.	.	1	3%	1	3%
GSC14	.	.	1	3%	1	3%
H1DA030506A	.	.	1	3%	1	3%
H2RA036S06A	.	.	1	3%	1	3%
HS26-036-2P	.	.	1	3%	1	3%
HS29 048 IP	.	.	1	3%	1	3%
HS29-030-1P	.	.	1	3%	1	3%
HS29-411-1P	.	.	1	3%	1	3%
M/N A6D18E7A	.	.	1	3%	1	3%
M/N HS23-411-1P	.	.	1	3%	1	3%
MWF1	1	25%	.	.	1	3%
NAC236AKC3	.	.	1	3%	1	3%
NAC248GKC3	.	.	1	3%	1	3%
PA10JA036-C	.	.	1	3%	1	3%
PA12NA030	.	.	1	3%	1	3%
RAMB036JAZ	.	.	1	3%	1	3%
RCC42A2B	.	.	1	3%	1	3%
SP023AM	.	.	1	3%	1	3%

na_cooling_system_model_primary	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
TTD730B100A1	.	.	1	3%	1	3%
TTP030D100A0	.	.	1	3%	1	3%
TTR030C100A4	.	.	1	3%	1	3%
TTR036C100A1	.	.	1	3%	1	3%
	4	100%	33	100%	37	100%

Table B.2.110

na_wh_model_1	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
153.332441	.	.	1	3%	1	3%
153.335550	.	.	1	3%	1	3%
5V30S-2	.	.	1	3%	1	3%
5V40-36F	.	.	1	3%	1	3%
5V40-7	.	.	1	3%	1	3%
5V50-2	.	.	1	3%	1	3%
630DOLS	1	50%	.	.	1	3%
640NORT	.	.	1	3%	1	3%
650NORT	.	.	1	3%	1	3%
6G40S-3671	.	.	1	3%	1	3%
8MV40-2D	.	.	1	3%	1	3%
BFG6140T403N0V	.	.	1	3%	1	3%

na_wh_model_1	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
DRV 40 NORTO	.	.	1	3%	1	3%
E1F50RD045V	.	.	1	3%	1	3%
E62-40H-045DV	.	.	1	3%	1	3%
ECS 40 20	1	50%	.	.	1	3%
ECS 50 200	.	.	1	3%	1	3%
FCG 40 246	.	.	1	3%	1	3%
FCG40246	.	.	1	3%	1	3%
FCG40248	.	.	1	3%	1	3%
FG1J404073NOV	.	.	1	3%	1	3%
G1F4033S3NV	.	.	1	3%	1	3%
G51-40S33-3NV	.	.	1	3%	1	3%
GCV40200	.	.	2	6%	2	6%
GG40T6A	.	.	1	3%	1	3%
GIF5040T3NV	.	.	1	3%	1	3%
HN4X50X960	.	.	1	3%	1	3%
MI30S6EN10	.	.	1	3%	1	3%
MI30T6FBN4	.	.	1	3%	1	3%
NA	.	.	1	3%	1	3%
PR640NORS	.	.	1	3%	1	3%
PV5210RS70	.	.	1	3%	1	3%
Power Miser 9	.	.	1	3%	1	3%
R75LS	.	.	1	3%	1	3%
	2	100%	33	100%	35	100%

Table B.2.111

na_clothes_dryer_model	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
110.66642500	.	.	1	3%	1	3%
110.67422600	.	.	1	3%	1	3%
110.76975830	.	.	1	3%	1	3%
110.87475130	.	.	1	3%	1	3%
110.88090600	.	.	1	3%	1	3%
111	.	.	1	3%	1	3%
86082110	.	.	1	3%	1	3%
ALE866SAC	.	.	1	3%	1	3%
Atlantis MDG6200AWW	.	.	1	3%	1	3%
DCCB330EG4WC	1	33%	.	.	1	3%
DE400KDW-4	.	.	1	3%	1	3%
DRL448SBLWW	.	.	1	3%	1	3%
FDGB23RGS0	.	.	1	3%	1	3%
FGR231AS4	.	.	1	3%	1	3%
Heavy Duty SE1000	.	.	1	3%	1	3%
Kenmore	.	.	1	3%	1	3%
LE02152H50	.	.	1	3%	1	3%
LEQ8000J013	.	.	1	3%	1	3%
LER5624DQO	.	.	1	3%	1	3%
LGR5620KQ1	.	.	1	3%	1	3%
LSE1000	.	.	1	3%	1	3%

na_clothes_dryer_model	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
LSG9900	.	.	1	3%	1	3%
MD0942919	.	.	1	3%	1	3%
MDE2301AYW	.	.	1	3%	1	3%
MDE2600AYW	.	.	1	3%	1	3%
MDE3500AYW	.	.	1	3%	1	3%
MDG9206AWW	.	.	1	3%	1	3%
MED5600TQ0	.	.	1	3%	1	3%
MEDB700VQO	.	.	1	3%	1	3%
NA	1	33%	1	3%	2	6%
RES7745RQ0	.	.	1	3%	1	3%
WSM2700HAWW	1	33%	.	.	1	3%
	3	100%	30	100%	33	100%

Table B.2.112

na_clothes_washer_model	bName			
	Single_Family			
	Frequency	Percent	Frequency	Percent
ALW480DAC	1	11%	1	11%
Bravo Quiet	1	11%	1	11%
FWS833AS2	1	11%	1	11%
LSG9900	1	11%	1	11%
MAH6500AWW	1	11%	1	11%

	bName			
	Single_Family			
na_clothes_washer_model	Frequency	Percent	Frequency	Percent
MAV3905AWW	1	11%	1	11%
MTW5600TQ1	1	11%	1	11%
NA	2	22%	2	22%
	9	100%	9	100%

Table B.2.113

	bName					
	Multi_Family		Single_Family			
na_refrigerator_model	Frequency	Percent	Frequency	Percent	Frequency	Percent
106.55622500	.	.	1	3%	1	3%
106.59439800	.	.	1	3%	1	3%
106.70204990	.	.	1	3%	1	3%
106.77297790	.	.	1	3%	1	3%
253.68979801	.	.	1	3%	1	3%
596.53462300	.	.	1	3%	1	3%
ATB1710DRW	.	.	1	3%	1	3%
ATB2232MRW01	.	.	1	3%	1	3%
ED20TKXDN01	.	.	1	3%	1	3%
ED22DQA1	.	.	1	3%	1	3%
ED2FHAXS004	.	.	1	3%	1	3%
ET1FTTXKQO2	.	.	1	3%	1	3%
ET20DKXBW00	.	.	1	3%	1	3%

na_refrigerator_model	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
ETICHEXVQ00	.	.	1	3%	1	3%
FRT18S6JS4	.	.	1	3%	1	3%
GLRT183TDBD	.	.	1	3%	1	3%
GS55HAXJB01	.	.	1	3%	1	3%
GSS22VGMCWW	.	.	1	3%	1	3%
GTS18JBPRRCC	.	.	1	3%	1	3%
HTS18BBPWLWW	1	25%	.	.	1	3%
HTV15WNCWW	1	25%	.	.	1	3%
JRSD246	.	.	1	3%	1	3%
NA	.	.	1	3%	1	3%
No Frost TBF19ZC	.	.	1	3%	1	3%
PTB21530RW	.	.	1	3%	1	3%
R817KA-1A	.	.	1	3%	1	3%
RT14DKXAW00	1	25%	.	.	1	3%
RT18AKXQ09	.	.	1	3%	1	3%
RTD1900DAE	.	.	1	3%	1	3%
TBX18IIZKRWW	.	.	1	3%	1	3%
TBX18PGB	.	.	1	3%	1	3%
TBXW19ZP	.	.	1	3%	1	3%
TFXW24RMA	.	.	1	3%	1	3%
TG21VW	.	.	1	3%	1	3%
THI18TW	.	.	1	3%	1	3%
TPK180JNOD	.	.	1	3%	1	3%
TS22AFXKQ05	.	.	1	3%	1	3%

na_refrigerator_model	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
TT14DKXST00	1	25%	.	.	1	3%
TX21VW	.	.	1	3%	1	3%
WRT21NRB	.	.	1	3%	1	3%
	4	100%	36	100%	40	100%

Table B.2.114

na_freezer_model	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
106625220	.	.	1	13%	1	11%
253.29111990	.	.	1	13%	1	11%
253.9103281	.	.	1	13%	1	11%
253.9209381	.	.	1	13%	1	11%
FFC15C3AWO	.	.	1	13%	1	11%
HF18T	.	.	1	13%	1	11%
M/N AFFC1526DW3	.	.	1	13%	1	11%
MFC05M1FW1	1	100%	.	.	1	11%
MFU20F3GWS	.	.	1	13%	1	11%
	1	100%	8	100%	9	100%

Table B.2.115

na_dishwasher_model	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1514591	.	.	1	4%	1	3%
1779299	.	.	1	4%	1	3%
363.16129100	.	.	1	4%	1	3%
587.160792201	.	.	1	4%	1	3%
665.16029402	.	.	1	4%	1	3%
665.17352300	.	.	1	4%	1	3%
66513122k700	.	.	1	4%	1	3%
Custom 300	1	33%	.	.	1	3%
DU915PWPT2	.	.	1	4%	1	3%
DU930PWPQ2	.	.	1	4%	1	3%
DU930PWPQO	.	.	1	4%	1	3%
DU9400X	.	.	1	4%	1	3%
DU940QWDQ3	.	.	1	4%	1	3%
DU945PW02	.	.	1	4%	1	3%
DUB550X	.	.	1	4%	1	3%
Fisher & Paykel	.	.	1	4%	1	3%
GSD3435FOOWW	.	.	1	4%	1	3%
GSD5124D02BB	.	.	1	4%	1	3%
GSD5700G00WW	.	.	1	4%	1	3%
GSD980T-02	.	.	1	4%	1	3%
GU2200XTSB3	.	.	1	4%	1	3%
HDA 3400G02WW	1	33%	.	.	1	3%
KUD1220T2	.	.	1	4%	1	3%

na_dishwasher_model	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
KUDJ230YWH3	.	.	1	4%	1	3%
M/N ADB2500AWB	.	.	1	4%	1	3%
MDB6000AWA	.	.	1	4%	1	3%
MDB61004WW	.	.	1	4%	1	3%
MDB9100AWW	.	.	1	4%	1	3%
PLD4375RFC3	.	.	1	4%	1	3%
RUD3000KB1	1	33%	.	.	1	3%
kudm220t2	.	.	1	4%	1	3%
	3	100%	28	100%	31	100%

Table B.2.116

na_dehumidifier_model	bName					
	Multi_Family		Single_Family			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
A52500XV	.	.	1	20%	1	17%
AD40JO	.	.	1	20%	1	17%
AK2500XZ	.	.	1	20%	1	17%
BHD-301-B	1	100%	.	.	1	17%
NA	.	.	1	20%	1	17%
VCMA-15ULS	.	.	1	20%	1	17%
	1	100%	5	100%	6	100%

Table B.2.117

	bName			
	Single_Family			
f4_age_of_air_source_heat_pump	Frequency	Percent	Frequency	Percent
20 years	1	25%	1	25%
20+	1	25%	1	25%
40+ years	1	25%	1	25%
8 years	1	25%	1	25%
	4	100%	4	100%

Table B.2.118

	bName					
	Multi_Family		Single_Family			
f4_age_of_room_ac	Frequency	Percent	Frequency	Percent	Frequency	Percent
15 years	1	100%	.	.	1	25%
4 yrs old	.	.	1	33%	1	25%
6	.	.	1	33%	1	25%
7 years	.	.	1	33%	1	25%
	1	100%	3	100%	4	100%

Table B.2.119

	bName			
	Single_Family			
e4_month_last_maintenance	Frequency	Percent	Frequency	Percent
July	1	33%	1	33%
October	1	33%	1	33%
annual	1	33%	1	33%
	3	100%	3	100%

Table B.2.120

	bName			
	Single_Family			
e4_year_last_maintenance	Frequency	Percent	Frequency	Percent
2007	1	11%	1	11%
2008	2	22%	2	22%
2009	4	44%	4	44%
3-5 YRS	1	11%	1	11%
Annual Maintenance	1	11%	1	11%
	9	100%	9	100%