

# APPENDIX C. SURVEY INSTRUMENT

This appendix presents the survey script used during the NYSERDA 2019 Residential Building Stock Assessment (RBSA), for which in-depth surveys were completed with 2,419 occupants of single-family homes throughout the 10 Economic Development Regions of New York State.

The key objectives of the survey were to provide up-to-date, self-reported estimates of equipment types, fuel types and uses, vintages, and efficiencies, as well as information about building characteristics, demographics, homeowner energy consumption attitudes and behaviors, participation in energy efficiency programs, and willingness to pay for different types of efficient equipment. Additionally, the surveys were used to recruit households for site visits.

The RBSA online and phone survey collected data from September 28, 2018, through December 3, 2018. Using input from the New York State Energy Research and Development Authority's (NYSERDA) evaluation and program staff, Cadmus designed the survey to closely align with the 2015 RSBS baseline survey to ensure that results could be compared. The survey and survey programming were reviewed and approved by NYSERDA prior to the launch.

Questions added for the 2019 RBSA collected information about several details:

- Connected devices
- Smart thermostats
- Number of ductless mini-split heat pumps installed
- Supplemental heating systems
- Willingness to pay at various levels for high-efficiency equipment
- Utility bill payment and assistance

The project team recruited participants to complete this survey either online or by telephone using a multimode approach. The process began with mailing postcards to a random sample of single-family households. These postcards encouraged recipients to complete the survey in English or Spanish using a link to an online version or by calling a field agent using a toll-free number.

Postcards were sent in batches. Approximately 10 days after each mailing, the project team followed up with telephone calls to non-responders for each record where a telephone number was matched to the sampled address. Additionally, NYSERDA followed up these attempts with an email reminder to a subset of non-responders where email addresses were available.

The survey asked respondents whether they would be interested in participating in a site visit, and respondents who said yes made up the sample frame for recruiting site visit participants. The RBSA provided an incentive of \$20 to participants who completed the survey and an additional \$100 to participants who completed a site visit.

## NYSERDA RESIDENTIAL BUILDING STOCK ASSESSMENT – SINGLE FAMILY/TENANT CODEBOOK

The question included several survey modules:

- Introduction
- Screener
- Building Shell (Section B)
- ENERGY STAR® Awareness (Section E)
- Kitchen Appliances (Section K)
- Heating and Cooling (Section H)
- Water Heating (Section WH)
- Clothes Washing and Drying (Section C)
- Home Lighting (Section L)
- Pool and Spa (Section P)
- Small Household Appliances (Section A)
- Miscellaneous Equipment (Section M)
- Internet Enabled Devices (Section I)
- Utility Company (Section U)
- Energy Efficiency (Section F)
- Purchase Decisions (W)
- Demographics and Recruitment (Section D)

### NOTE:

- A code of (-8) means don't know.
- A code of (-9) means Prefer not to answer.
- Questions were asked of all respondents unless indicated otherwise.
- Categories were read to respondents.
- Respondents were allowed to leave questions blank to move forward in the survey. If a respondent answered some of the categories, then the empty categories were assumed to be zero.

## Introduction

INTRO\_1 (web) Thank you for taking time out of your busy schedule to provide information on your household's energy use. The first eight questions will confirm your eligibility. If you are eligible and complete the survey, as a token of our appreciation, we will send you a \$20 electronic Amazon gift card upon completion of the survey.

If you would like to complete the survey by phone, please call (844) 756-2858 or send an email to [NYSERDASurvey@honeywell.com](mailto:NYSERDASurvey@honeywell.com).

If you experience any technical difficulties, please contact Amanda McLeod by emailing [Amanda.McLeod@Cadmusgroup.com](mailto:Amanda.McLeod@Cadmusgroup.com) or calling (617) 673-7115.

You may exit the survey at any time and your answers will be saved. Re-enter the same ID to come back and complete your survey.

For answers to frequently asked questions, click [here](#) (a new window will open).

If you have any questions about the content or use of this survey, you can visit the research study website at [www.nyserda.ny.gov/2018-RBSA](http://www.nyserda.ny.gov/2018-RBSA) or by calling (844) 756-2858.

INTRO\_2 (web) We are surveying residential customers on behalf of the New York State Energy Research and Development Authority (NYSERDA) to learn more about household energy using equipment and opinions on energy use.

Please be assured that the information you provide will be kept confidential to the extent permitted by law. NYSERDA will only use summary-level data and will not identify individual respondents. This information will be used to design energy efficiency programs to help households throughout New York State increase energy efficiency and reduce energy consumption.

INTRO\_3 (WEB) Please enter the survey ID from the NYSERDA postcard in the box below and click the arrow button to enter the survey.

INTRO (phone) Hello, my name is \_\_\_\_\_ and I'm calling on behalf of the New York State Energy Research and Development Authority, or NYSERDA. May I please speak with [FIRST NAME] [LAST NAME]?

This is not a sales call. You may have recently received a postcard regarding an important energy study NYSERDA is conducting to learn more about households' energy using equipment. Our records show that your survey has not been completed and we would like to complete the survey over the phone.

The first eight questions will confirm your eligibility. If you are eligible and complete the survey, as a token of our appreciation, we will send you a \$20 electronic Amazon gift card upon completion of the survey. Our records show that your survey has not been completed, and we would like to complete the survey over the phone. The survey will take between 15 and 30 minutes depending on your responses.

This information will be used to design energy efficiency programs to help households throughout New York State increase energy efficiency and reduce energy consumption.

The results of the study will only be reported at the summary level, that is, aggregated (combined) with the results of similar homes. Your answers and information will be kept confidential to the extent permitted by law and will not be identified with you or your home address. For quality assurance and training purposes this call will be recorded.

Do you have time today to help me with this important research study? [IF YES, CONTINUE. IF NOT, ASK FOR A TIME TO CALLBACK AND SCHEDULE A CALLBACK TIME]

[IF NEEDED: If you have any questions about the content or use of this survey, you can visit the research study website at [www.nyserda.ny.gov/2018-RBSA](http://www.nyserda.ny.gov/2018-RBSA).]

## Screenener

S0. The address we have on file is [\${e://Field/mailling\_address}, \${e://Field/city}, \${e://Field/state} \${e://Field/zip}]. Is this correct?

1. Yes
2. No [TERMINATE]
- 9. Prefer not to answer [TERMINATE]

S1. Which utility company provides electric service to your home at [SERVICE ADDRESS]? (Check one)

1. Central Hudson
2. Con Edison (ConEd)
3. Long Island Power Authority (LIPA)
4. National Grid
5. New York State Electric and Gas (NYSEG)
6. Orange & Rockland (O&R)
7. Rochester Gas & Electric (RG&E)
8. Other [PLEASE SPECIFY]
9. None of the above – I no longer live at that address [TERMINATE]
10. Prefer not to answer

[TERMINATE SCRIPT] Thank you for your help but unfortunately your household does not qualify for this survey. Have a nice day!

S2. Do you occupy this home at least part of the year, or did you build this home with the intent to sell it?

1. Occupy this home at least part of the year
2. Built the home with the intent to sell [TERMINATE]
- 8. I don't know [TERMINATE]
- 9. Prefer not to answer [TERMINATE]

[TERMINATE: Thank you for your help but unfortunately your household does not qualify for this survey. Have a nice day!]

## Building Shell

B1. The size of your home, the number and type of appliances you own, and the number of people living in your home all affects the way you use energy. In this first set of questions, we would like to get some general information about your home at [SERVICE ADDRESS]. Do you own or rent this home? (Check one)

1. Own or mortgaged
2. Rent
4. Other, specify
- 9. Prefer not to answer

o\_B1. [ASK IF B1=4] Description of other type of ownership.

B2. How many months per year is this home usually occupied? (Enter months below)

\_\_ # of months [0-12]

- 8. Don't know
- 9. Prefer not to answer

B2b. [ASK IF B2 <= 9 months] During which seasons of the year is this home usually occupied? (Select all that apply)

For B2bc1 through B2bc5

- 0. Not mentioned
- 1. Mentioned
- 9. Prefer not to answer

- B2bc1. Spring
- B2bc2. Summer
- B2bc3. Fall
- B2bc4. Winter
- B2bc5. Varies (SPECIFY)

o\_B2b.[ASK IF B2bc5=1] Description of occupation time period.

B3. Which of the following best describes this home? (Check one)



- 1. Mobile or manufactured home
- 2. Single family detached house
- 3. Single family attached house such as a duplex, townhouse, or rowhouse
- 4. Apartment building or condominium with 2 to 4 units
- 5. Apartment building or condominium with 5 or more units [THANK AND TERMINATE]
- 6. Other [SPECIFY] [THANK AND TERMINATE]
- 8. Don't know [THANK AND TERMINATE]
- 9. Prefer not to answer [THANK AND TERMINATE]

[TERMINATE SCRIPT] Thank you for your help but unfortunately your household does not qualify for this survey. Have a nice day!

B3a. [ASK IF B3=3] Including your unit, how many individual housing units are in this attached rowhouse/townhouse? (Enter number of units below)

\_\_\_\_\_ # of units [1-4] [THANK AND TERMINATE IF MORE THAN 4]

- 8. Don't know [THANK AND TERMINATE]
- 9. Prefer not to answer [THANK AND TERMINATE]

B3a2. [ASK IF B3=4] Including your unit, how many individual housing units are in your apartment or condominium building? (Enter number of units below)

\_\_\_\_ # of units [1-2000] [THANK AND TERMINATE IF MORE THAN 4]

-8. Don't know [THANK AND TERMINATE]

-9. Prefer not to answer [THANK AND TERMINATE]

[TERMINATE SCRIPT] Thank you for your help but unfortunately your household does not qualify for this survey. Have a nice day!

B3b. Not counting the basement, how many stories are there in this [SELECTED HOME TYPE]? (Enter number of stories below)

\_\_\_\_ # of stories [1-4]

-8. Don't know

-9. Prefer not to answer

B3c. [SKIP TO B4 IF B3<> 4 ] Aside from the building you live in, are there other buildings in this apartment or condominium complex with housing units? (Check one)

1. Yes

2. No

-9. Prefer not to answer

B3d. [ASK IF B3c <> 1 or 2] In total, how many apartment or condominium buildings are at this location? (Enter number of buildings below)

\_\_ # of buildings [1-75]

-9. Prefer not to answer

B3e. [ASK IF B3=2] Which style best describes your home? Is it a ...

1. A-Frame

2. Cape Cod

3. Colonial

4. Contemporary

5. Gothic

6. Ranch

7. Split level

8. Victorian

9. Other [SPECIFY]

10. Don't know

-9. Prefer not to answer

B4. How many bedrooms are there in your home? Include bedrooms currently used for other purposes. (Enter number of bedrooms below)



\_\_\_ # of bedrooms [0-8]  
-9. Prefer not to answer

B5. Not counting an unfinished basement, about how large is your home in square feet? (Enter square footage of home below)

\_\_\_\_\_ square feet [100-12,000]  
2. Nonsensical answer  
-8. Don't know  
-9. Prefer not to answer

B5a. [ASK IF B5=-8] Approximately how large is your home in square feet? Please do not include unfinished basements. (Check one)

1. Less than 1,000 square feet
2. 1,000 to less than 1,500 square feet
3. 1,500 to less than 2,000 square feet
4. 2,000 to less than 2,500 square feet
5. 2,500 to less than 3,000 square feet
6. 3,000 to less than 4,000 square feet
7. 4,000 or more square feet
- 8. Don't know
- 9. Prefer not to answer

B6. [ASK IF B3 <> 4] Does your home have a heated or unheated basement? (Check one)

1. Yes, a heated basement
2. Yes, a partly heated basement
3. Yes, an unheated basement
4. No basement
- 8. Don't know
- 9. Prefer not to answer



B7. In approximately what year was your home built? (Check one)

1. 1939 or earlier
2. 1940 to 1949
3. 1950 to 1959
4. 1960 to 1969
5. 1970 to 1979
6. 1980 to 1989
7. 1990 to 1999
8. 2000 to 2009
9. 2010
10. 2011
11. 2012
12. 2013
13. 2014
14. 2015
15. 2016
16. 2017
17. 2018
- 8. Don't know
- 9. Prefer not to answer

B8. Has your home undergone any major renovations or additions in the past five years? A major renovation or addition means construction activities like adding a room, or increasing the size of your home's living space, or reconstruction due to flooding or hurricane. (Check one)

1. Yes
2. No [SKIP TO B9]
- 8. Don't know [SKIP TO B9]
- 9. Prefer not to answer

B8spe. In what year was this renovation or addition completed? (Enter year below)

\_\_\_\_\_ year of renovation [2012-2018]

- 9. Prefer not to answer

B9. [SKIP TO E1 IF B3=3 OR 4] Do you have more than one electric meter at this address? (Check one)


1. Yes
2. No [SKIP TO E1]
- 9. Prefer not to answer

o\_B9b. What equipment or building is hooked up to this other electric meter? (Please specify other equipment or building below)

## ENERGY STAR Awareness

E1. Before asking about the energy using equipment in your home, we would like to ask about your familiarity with the ENERGY STAR® logo. The ENERGY STAR logo is usually a blue and white sticker on an appliance that says “ENERGY STAR” on it.



[PROGRAMMING NOTE: Display the logo  on the screen.]

Equipment having the ENERGY STAR logo meets strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy. Before now, were you *not at all familiar*, *somewhat familiar*, or *very familiar* with ENERGY STAR or the ENERGY STAR logo? (Check one)

1. Not at all familiar
2. Somewhat familiar
3. Very familiar
- 9. Prefer not to answer

E2. [ASK IF B7=14-17] Is your home an ENERGY STAR Certified Home, or does it have any other energy efficiency rating?

1. Yes, ENERGY STAR rated
2. Yes, Home Energy Rating System (HERS) score
3. Yes, Home Energy Score (HES)
4. Yes, other energy efficiency rating
5. No, does not have an energy efficiency rating
6. Don't know if it has an energy efficiency rating
- 9. Prefer not to answer



[PROGRAMMING NOTE: Display the logo  on the screen.]

E2a. [ASK IF E2=4] Please describe the energy efficiency rating below.

E2b. [ASK IF E2=2] What is the HERS index score for your home?

E2c. [ASK IF E2=3] What is the Home Energy Score for your home?

## Kitchen Appliances

Please think about your kitchen appliances for this next set of questions.



\*icon type pending team's approval\*

K1. How many of each of the following do you use in your home? (If none, please enter zero)

For K1a through K1d

\_\_ # of units [0-9]

-9 Prefer not to answer

- K1a. Microwave ovens
- K1b. Ovens with burners on top
- K1c. Separate stove tops
- K1d. Separate oven units (wall or cabinet)

K2. [SKIP IF K1b=0 OR -9] What type of fuel does your oven(s) with burners on top use? (Select all that apply)

For K2c1 through K2c4

0. Not mentioned

1. Mentioned

-8. Don't know

-9. Prefer not to answer

- K2c1. Electricity
- K2c2. Natural gas from underground pipes
- K2c3. Propane
- K2c4. Some other fuel [SPECIFY]

o\_K2. [ASK IF K2c4=1] Description of other type of fuel.

K3. [SKIP IF K1c=0 OR -9] What type of fuel does your separate stove top(s) use? (Select all that apply)

For K3c1 through K3c4

0. Not mentioned

1. Mentioned

-8. Don't know

-9. Prefer not to answer

K3c1. Electricity

K3c2. Natural gas from underground pipes

K3c3. Propane

K3c4. Some other fuel [SPECIFY]

o\_K3. [ASK IF K3c4=1] Description of other type of fuel.

K4. [SKIP IF K1d=0 OR -9] What type of fuel does your separate oven(s) use? (Select all that apply)

For K4c1 through K4c4

0. Not mentioned

1. Mentioned

-8. Don't know

-9. Prefer not to answer

K4c1. Electricity

K4c2. Natural gas from underground pipes

K4c3. Propane

K4c4. Some other fuel [SPECIFY]

o\_K4. [ASK IF K4c4=1] Description of other type of fuel.

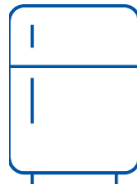
K5. Which of the following best describes your primary full-sized refrigerator? Please do not include wine or keg coolers.



1. Full-sized, four doors: two refrigerator doors and two freezer doors on bottom (French style)
2. Full-sized, three doors: two refrigerator doors and a freezer door on bottom (French style)
3. Full-size with two doors, freezer next to the refrigerator (side by side)
4. Full-size with two doors, bottom freezer
5. Full-size with two doors, top freezer
6. Full-size with one door
7. Half-size or compact
8. Other [SPECIFY]
- 9. Prefer not to answer

o\_K5. [ASK IF K5=8] Description of other type refrigerator.

K6. About how old is your primary refrigerator? (Check one)



1. Less than 2 years old
2. 2 to 4 years old
3. 5 to 9 years old
4. 10 to 14 years old
5. 15 to 19 years old
6. 20 years old or more
- 8. Don't know
- 9. Prefer not to answer

K7. [SKIP IF (E1 <> 2 AND 3) OR (K6 =4, 5, OR 6)] Is this refrigerator ENERGY STAR rated (e.g. Does it have the ENERGY STAR logo on it)? (Check one)



- 1. Yes
- 2. No
- 8. Don't know
- 9. Prefer not to answer

K8. Do you have any other full-size or compact refrigerators plugged in and running in your home? Please do not include wine chillers. (Check one)



- 1. Yes
- 2. No [SKIP TO K11]
- 9. Prefer not to answer

K9. How many other refrigerators do you have plugged in and running in your home? (If none, please enter zero)



For K9 through K9a

\_ # of units [0-9]

- 9. Prefer not to answer

K9. Full size refrigerators  
K9a. Compact refrigerators

K10a. [SKIP TO K11 IF (K9+K9a)=0 OR -18] About how old is this second refrigerator? (Check one)



1. Less than 2 years old
2. 2 to 4 years old
3. 5 to 9 years old
4. 10 to 14 years old
5. 15 to 19 years old
6. 20 years old or more
- 8. Don't know
- 9. Prefer not to answer

K10b. [SKIP TO K11 IF (K9+K9a)=1 OR -8] About how old is this third refrigerator? (Check one)



1. Less than 2 years old
2. 2 to 4 years old
3. 5 to 9 years old
4. 10 to 14 years old
5. 15 to 19 years old
6. 20 years old or more
- 8. Don't know
- 9. Prefer not to answer

K10c. [SKIP TO K11 IF (K9+K9a)=2 OR -7] About how old is this fourth refrigerator? (Check one)



1. Less than 2 years old
2. 2 to 4 years old
3. 5 to 9 years old
4. 10 to 14 years old
5. 15 to 19 years old
6. 20 years old or more
- 8. Don't know
- 9. Prefer not to answer

K11. How many wine chillers/coolers do you have plugged in and running in your home? (If none, please enter 0) (Enter number of wine chillers/coolers below)

- \_ # of units [0-9]
- 9. Prefer not to answer

K11a. [SKIP IF (E1 <> 2 AND 3) AND (K11=0 OR >1 OR MISSING)] Is this wine chiller ENERGY STAR rated? (e.g. Does it have the ENERGY STAR logo on it?) (Check one)



1. Yes
3. No
- 4. Interviewer/respondent error
- 8. Don't know
- 9. Prefer not to answer



K11b. [SKIP IF (E1<>2 OR 3) OR (K11=0 OR 1 OR MISSING)] Are these wine chillers ENERGY STAR rated? (e.g. Do they have the ENERGY STAR on them?) (Check one)



- 1. Yes, all
- 2. Yes, some
- 3. No
- 8. Don't know
- 9. Prefer not to answer

K13. Does your household have a stand-alone freezer plugged in and running, one that is not part of a refrigerator? (Check one)



- 1. Yes
- 2. No [SKIP TO H1]
- 9. Prefer not to answer

K14. How many stand-alone freezers do you have plugged in and running in your home? (Enter number of freezers below)



- \_ # of units [1-9]
- 9. Prefer not to answer

K15at. [ASK IF K14 >= 1]What type of freezer is this first stand-alone freezer? (Check one)



- 1. Chest
- 2. Upright
- 9. Prefer not to answer

K15a. [ASK IF K14>=1] And what is the approximate age of this first stand-alone freezer?  
(Please round to the nearest whole number, for an age less than one year please enter 0)



\_\_\_ # of years [0-100]  
-8. Don't know  
-9. Prefer not to answer

K15bt. [SKIP TO K17a IF K14=1] What type of freezer is this second stand-alone freezer?  
(Check one)



1. Chest  
2. Upright  
-9. Prefer not to answer

K15b. And what is the approximate age of this second stand-alone freezer? (Please round to the nearest whole number, for an age less than one year please enter 0)



\_\_\_ # of years [0-100]  
-8. Don't know  
-9. Prefer not to answer

K15ct. [SKIP TO K17b IF K14=2] What type of freezer is this third stand-alone freezer? (Check one)



1. Chest  
2. Upright  
-9. Prefer not to answer

K15c. And what is the approximate age of this third stand-alone freezer? (Please round to the nearest whole number, for an age less than one year please enter 0)



- \_\_\_ # of years [0-100]  
-8. Don't know  
-9. Prefer not to answer

K17a. [ASK IF K14=1 AND (E1=2 OR 3) AND (K15a<=9 OR K15a=-8)] Is this stand-alone freezer ENERGY STAR rated? (e.g. Does it have the ENERGY STAR® logo on it?) (Check one)



1. Yes  
3. No  
-8. Don't know  
-9. Prefer not to answer

K17b. [SKIP IF K14=1 OR (E1 <> 2 AND 3) OR (AND K15a>9 AND K15a<>-8 AND K15b>9 AND K15b<>-8) OR (K14>2 AND K15a>9 AND K15a<>-8 AND K15b>9 AND K15b<>-8 AND K15c>9 AND K15c<>-8) ] Are these stand-alone freezers ENERGY STAR rated? (e.g. Does it have the ENERGY STAR logo on it?)



1. Yes, all  
2. Yes, some  
3. No  
-8. Don't know  
-9. Prefer not to answer

## Heating and Cooling

Now, thinking about your home's heating and cooling system, please answer the following questions.

H1. [ASK IF B3=4] Do you receive your primary heat from a central heating system that is used by other families in your apartment building or condominium building? (Check one)

1. Yes [SKIP TO H7a]
2. No
- 8. Don't know [SKIP TO H7a]
- 9. Prefer not to answer

H2. What is the primary type of fuel used for heating your home? (Check one) What additional types of fuel are used in your home?

1. Electricity
2. Natural gas from underground pipes
3. Propane (bottled gas)
4. District steam
5. Fuel oil
6. Kerosene
7. Wood
8. Wood pellets
9. Solar
10. Other [SPECIFY]
- 8. Don't know
- 9. Prefer not to answer

o\_H2. [ASK IF H2=10] Description of other type of primary fuel type.

- H3. What type of primary heating system do you have in your home? (Check one)
1. Central forced air furnace with ducts to individual rooms
  2. Steam/hot water system with radiators or pipes in each room (central boiler)
  3. District steam with radiators or pipes in each room
  4. Ducted air source heat pump
  5. Ground source heat pump
  6. Ductless mini-split heat pump
  7. Baseboard heat
  8. Heating stove burning wood
  9. Heating stove burning coal
  10. Wood pellet stove
  11. Fireplace
  12. Portable electric heater
  13. Portable kerosene heater
  14. Other [SPECIFY]
  - 8. Don't know
  - 9. Prefer not to answer

o\_H3. [ASK IF H3=12] Description of other type of primary heating system.

- H3a. [ASK IF H3=6] Thinking about your ductless mini-split heat pump system, how many indoor units do you have in your home?
- \_\_\_ # (range 0-5)
- 8. Don't know
- 9. Prefer not to answer

- H3b. [ASK IF H3=6] How many outdoor units does your home have?
- \_\_\_ # (range 0-5)
- 9. Prefer not to answer

- H4. About how old is your primary heating system? (Check one)
1. Less than 2 years old
  2. 2 to 4 years old
  3. 5 to 9 years old
  4. 10 to 14 years old
  5. 15 to 19 years old
  6. 20 years old or more
  - 8. Don't know
  - 9. Prefer not to answer

H5. [ASK IF E1=2 OR 3 AND H4 <> 4, 5, AND 6] Is your primary heating system ENERGY STAR rated? (e.g. Does it have the ENERGY STAR logo on it?)



1. Yes
2. No
- 8. Don't know
- 9. Prefer not to answer

H5a. What type of supplemental heating system do you have in your home? (Check all that apply)

1. Central forced air furnace with ducts to individual rooms
2. Steam/hot water system with radiators or pipes in each room (central boiler)
3. District steam with radiators or pipes in each room
4. Ducted air source heat pump
5. Ground source heat pump
6. Ductless mini-split heat pump
7. Baseboard heat
8. Heating stove burning wood
9. Heating stove burning coal
10. Wood pellet stove
11. Fireplace
12. Portable electric heater
13. Portable kerosene heater
14. Other [SPECIFY]
- 8. Don't know
- 9. Prefer not to answer

H5b. [ASK IF H3=4 and H5a=1] Does this furnace use the same ducting your heat pump system and serve as a backup for that system?

1. Yes
2. No
- 8. Don't know
- 9. Prefer not to answer

H6. Do you usually have a tune-up done on your heating system each year by a heating contractor, by someone in your household or by your landlord? (Check one)

1. Yes, done by a heating contractor
2. Yes, done by someone in the household
5. Yes, done by landlord
3. No
- 8. Don't know
- 9. Prefer not to answer

H7a. How many wood, natural gas, or electric fireplaces do you use in your home on a regular basis in the winter? (If none, please enter zero)



For H7aw through H7ae

\_ # of units [0-9]

-9. Prefer not to answer

- H7aw. Wood fireplaces
- H7ag. Natural gas fireplaces
- H7ap. Propane fireplaces
- H7ae. Electric fireplaces

H7b. How many of the following stoves or heaters do you use in your home on a regular basis in the winter? (If none, please enter zero)

For H7b through H7e

\_ # of units [0-9]

-9. Prefer not to answer

- H7b. Heating stove burning wood
- H7c. Pellet stove
- H7d. Portable electric heaters
- H7e. Portable kerosene heaters

H8. Do you use any other type of heating fuel to heat your home on a regular basis? (Check one)

1. Yes
2. No [SKIP TO H9]
- 9. Prefer not to answer

H8a. What other fuels do you use on a regular basis to heat with? (Select all that apply)

For H8ac1 through H8ac9

- 0. Not mentioned
- 1. Mentioned
- 9. Prefer not to answer

- H8ac1. Electricity
- H8ac2. Natural gas from underground pipes
- H8ac3. Propane (bottled gas)
- H8ac4. District steam
- H8ac5. Fuel oil
- H8ac6. Kerosene
- H8ac7. Wood
- H8AC9. Wood pellets
- H8ac8. Solar
- H8ac9. Other [SPECIFY]

o\_H8a.[ASK IF H8ac9=1] Description of other type of fuel used.

H9. Do you have air conditioning in your home? Please include central air conditioning as well as room or window units. (Check one)



- 1. Yes
- 2. No [SKIP TO H19]
- 8. Don't know
- 9. Prefer not to answer [SKIP to H19]

H10. [ASK IF B3=4] Do you receive your air conditioning from a central cooling system that is used by other families in your apartment or condominium building? (Check one)

- 1. Yes [SKIP TO H15]
- 2. No
- 8. Don't know [SKIP TO H15]
- 9. Prefer not to answer



H11. What is the primary type of air conditioning equipment you use in your home? (Check one)



1. Central air conditioning system
2. Room or window air conditioner
3. Heat pump
4. Other [SPECIFY] [SKIP TO H15]
- 8. Don't know
- 9. Prefer not to answer

o\_H11.[ASK IF H11=4] Description of other type of primary air conditioning equipment.

H12. About how old is your primary air conditioning system? (Check one)



1. Less than 2 years old
2. 2 to 4 years old
3. 5 to 9 years old
4. 10 to 14 years old
5. 15 to 19 years old
6. 20 years old or more
- 8. Don't know
- 9. Prefer not to answer

H13. [ASK IF E1=2 OR 3 AND H12 <> 4, 5, AND 6] Is your primary air conditioning system ENERGY STAR rated? (e.g. Does it have the ENERGY STAR logo on it?) (Check one)



- 1. Yes
- 2. No
- 4. Interviewer/respondent error
- 8. Don't know
- 9. Prefer not to answer

H14. [ASK IF H11=1 OR 3] Do you usually have a tune-up done on your air conditioning system each year by an air conditioning contractor, by someone in your household or by your landlord? (Check one)

- 1. Yes, done by an air conditioning contractor
- 2. Yes, done by someone in the household
- 5. Yes, done by landlord
- 3. No
- 4. Interviewer/respondent error
- 8. Don't know
- 9. Prefer not to answer

H15. Do you use any other type of air conditioning system to cool your home? Please do not include ventilation systems, such as fans. (Check one)



- 1. Yes
- 2. No
- 9. Prefer not to answer

H16. [ASK IF H15=1] What other types of air conditioning systems do you use in your home?  
(Select all that apply)



For H16c1 through H16c4

- 0. Not mentioned
- 1. Mentioned
- 9. Prefer not to answer

- H16c1. Central air conditioning system
- H16c2. Room or window air conditioner
- H16c3. Heat pump
- H16c4. Other [SPECIFY]

o\_H16.[ASK IF H16c4=1] Description of other type of air conditioning systems used.

H17. [ASK IF H11=2 or H16c2=1] In total, how many room or window air conditioners do you use in your home? (Enter number of room air conditioners below)



- \_ # of units [0-9]
- 4. Interviewer/respondent error
- 9. Prefer not to answer

H19. What type of thermostat controls your primary heating and/or cooling equipment? A programmable thermostat can be set to automatically adjust the temperature setting at the times of the day or night that you choose. Or a smart thermostat, which attempts to save energy and/or optimize comfort by automatically adjusting settings based on your behavior, such as when you are home. (Check one)



- 1. Programmable
- 2. Smart
- 3. Manual [SKIP TO H22]
- 8. Don't know
- 9. Prefer not to answer

H19a. [ASK IF H19=2] What brand of smart thermostat controls your primary heating and/or cooling equipment? (Check one)



- 1. Ecobee
- 2. Honeywell Lyric
- 3. Nest
- 4. Other [SPECIFY]
- 8. Don't know
- 9. Prefer not to answer

H20. Is your thermostat typically programmed to automatically change the temperature settings at different times of the day or days of the week, OR do you manually change the temperature as needed? (Check one)



- 1. Programmed to change temperature automatically
- 2. Manually change the temperature
- 3. Both
- 8. I don't know
- 9. Prefer not to answer

H20a. How frequently do you manually change the temperature of your thermostat?



1. Never
2. Rarely
3. Sometimes
4. Frequently
- 9. Prefer not to answer

H18. Does the thermostat that controls your primary heating and/or cooling equipment connect to the internet to allow you change settings using your phone or computer?



1. Yes
2. No
- 8. Don't know
- 9. Prefer not to answer

H22. How many dehumidifiers do you use in your home? (Enter 0 if do not use any)



- \_ # of units [0-9]
- 9. Prefer not to answer

H23. About how old is this ... (Check one)



For H23a through H23d

1. Less than 2 years old
2. 2 to 4 years old
3. 5 to 9 years old
4. 10 to 14 years old
5. 15 to 19 years old
6. 20 years old or more
- 8. Don't know
- 9. Prefer not to answer

H23a. [SKIP TO H26 IF H22=0 OR -9] first dehumidifier?

H23b. [SKIP TO H24a IF H22=1] second dehumidifier

H23c. [SKIP TO H24b IF H22=2] third dehumidifier

H23d. [SKIP TO H24b IF H22=3] fourth dehumidifier

H24a. [SKIP IF H22<>1 OR (E1 <> 2 OR 3) OR (H23a=4, 5, OR 6)] Is this dehumidifier ENERGY STAR rated? (e.g. Does it have the ENERGY STAR logo?) (Check one)



1. Yes
3. No
- 8. Don't know
- 9. Prefer not to answer

H24b. [SKIP IF H22=1 OR (E1 <> 2 OR 3) OR {H22=2 AND (H23a>3 AND H23a<>7 AND H23b>3 AND H23b<>7)} OR {H22=3 AND (H23a>3 AND H23a<>7 AND H23b>3 AND H23b<>7 AND H23c=>3 AND H23c<>7)} OR {H22>3 AND (H23a>3 AND H23a<>7 AND H23b>3 AND H23b<>7 AND H23c=>3 AND H23c<>7 AND H23d>3 AND H23d<>7)} ] Are these dehumidifier(s) ENERGY STAR rated? (e.g. Does they have the ENERGY STAR logo on them?) (Check one)



1. Yes, all
2. Yes, some
3. No
- 8. Don't know
- 9. Prefer not to answer

H26. How many humidifiers do you use in your home? (Enter 0 if you do not have any)

- \_\_ # of units [0-9]  
-9. Prefer not to answer

H27. How many of the following types of ventilation equipment do you have in your home... (If none, please enter zero)

- For H27c through H27a  
\_\_ # of units [0-25]  
-9. Prefer not to answer

- H27c. Ceiling fans?
- H27d. Exhaust fans in the kitchen?
- H27e. Exhaust fans in the bathrooms or another room?
- H27b. An attic fan in your home? An attic fan removes air from the attic only.
- H27a. A whole house fan? A whole-house fan is a type of fan or exhaust system commonly venting into a building's attic, designed to pull hot air out of the building
- H27f. Energy recovery ventilator (ERV) or heat recovery ventilator (HRV)?
- H27g. Fresh-air intake connected to heating and/or cooling system to bring in outside air

## Water Heating

Next, we would like you to think about your home's water heating system.

WH1. [ASK IF B3=4] Do you receive your hot water from a central hot water heating system that is used by other families in your apartment or condominium building? (Check one)

1. Yes [SKIP TO WH6]
2. No
- 8. Don't know [SKIP TO WH6]
- 9. Prefer not to answer

WH2. What type of system do you use as your primary water heating system? (Check one)

1. Heat pump water heater
2. Stand-alone storage tank
3. Tankless or on demand water heater
4. Part of the heating system boiler
5. Other [SPECIFY]
- 8. Don't know
- 9. Prefer not to answer

o\_WH2. [ASK IF WH2=5] Description of other type of primary water heating system used.

WH3. What type of fuel does your primary hot water heater use? (Check one)

1. Electricity
2. Natural gas from underground pipes
3. Propane (bottled gas)
4. District Steam
5. Fuel Oil
6. Kerosene
7. Solar
8. Other [SPECIFY]
- 8. Don't know
- 9. Prefer not to answer

o\_WH3. [ASK IF WH3=8] Description of other type of primary water heating fuel used.



WH4. About how old is your primary water heating system? (Check one)

1. Less than 2 years old
2. 2 to 4 years old
3. 5 to 9 years old
4. 10 to 14 years old
5. 15 to 19 years old
6. 20 years old or more
- 8. Don't know
- 9. Prefer not to answer

WH5. [ASK IF (E1=2 OR 3) AND (WH2=1 OR 4) AND (WH4 <> 4, 5, AND 6)] Is this water heating system ENERGY STAR rated? (e.g. Does it have the ENERGY STAR logo on it?) (Check one)



1. Yes
2. No
4. Interviewer/respondent error
- 8. Don't know
- 9. Prefer not to answer

WH6. [SKIP TO WH8 IF WH2=4] Do you use more than one water heating system in your home? (Check one)

1. Yes
2. No [SKIP TO WH8]
- 8. Don't know [SKIP TO WH8]
- 9. Prefer not to answer

WH7. What other type of system do you use as your primary water heating system? (Check one)

1. Heat pump water heater
2. Stand-alone storage tank
3. Tankless or on demand water heater
4. Part of heating system boiler
5. Other [SPECIFY]
- 9. Prefer not to answer

o\_WH7. [ASK IF WH7=5] Description of other type of water heating system.

WH8. Do you have a dishwasher? (Check one)

1. Yes
2. No [SKIP TO C1a]
- 9. Prefer not to answer

WH9. Approximately how old is your primary dishwasher? (Check one)

1. Less than 2 years old
2. 2 to 4 years old
3. 5 to 9 years old
4. 10 to 14 years old
5. 15 to 19 years old
6. 20 years old or more
- 8. Don't know
- 9. Prefer not to answer

WH10. [ASK IF (E1=2 OR 3) AND WH9 <> 4, 5, OR 6] Is this dishwasher ENERGY STAR rated? (e.g. Does it have the ENERGY STAR logo on it?) (Check one)



1. Yes
2. No
- 8. Don't know
- 9. Prefer not to answer

WH11. Approximately how many loads of dishes does your household wash in a typical week in the dishwasher [IF HOME OCCUPIED<12 MONTHS A YEAR, WHILE THE HOME IS OCCUPIED]? (Enter number of loads below)

- \_\_\_ # of loads [0-35]
- 9. Prefer not to answer

## Clothes Washing and Drying

Please think about your home's washing and drying equipment to answer the next set of questions.

C1a. [SKIP IF B3=4] Do you have a clothes washer in your home?

1. Yes [SKIP TO C3]
2. No [SKIP TO C7a]
- 9. Prefer not to answer

C1b. [ASK IF B3=4] Do you have a clothes washer in your home? Please do not include clothes washers that are located in a laundry room of your apartment or condominium building. (Check one)

1. Yes
2. No [SKIP TO C7a]
- 9. Prefer not to answer

C3. Approximately how many loads of laundry does your household wash in a typical week? (Enter number of loads below)

- \_\_\_ # of loads [0-35]
- 8. Don't know
  - 9. Prefer not to answer

C3b. [IF HOME OCCUPIED<12 MONTHS A YEAR, WHILE THE HOME IS OCCUPIED] Approximately how many loads of laundry does your household wash in a typical week while the home is occupied? (Enter number of loads below)

- \_\_\_ # of loads [0-35]
- 8. Don't know
  - 9. Prefer not to answer

C4. What water temperature setting do you usually use for the wash cycle of your clothes washer? (Check one)

1. Hot
2. Warm
3. Cold
- 8. Don't know
- 9. Prefer not to answer

C5. What water temperature setting do you usually use for the rinse cycle of your clothes washer? (Check one)

1. Hot
2. Warm
3. Cold
- 8. Don't know
- 9. Prefer not to answer

C6. About how old is your primary clothes washer? (Check one)

1. Less than 2 years old
2. 2 to 4 years old
3. 5 to 9 years old
4. 10 to 14 years old
5. 15 to 19 years old
6. 20 years old or more
- 8. Don't know
- 9. Prefer not to answer

C6b. [ASK IF (E1=2 OR 3) AND C6 <> 4, 5, AND 6] Is this clothes washer ENERGY STAR rated? (e.g. Does it have the ENERGY STAR logo on it?) (Check one)



1. Yes
2. No
- 8. Don't know
- 9. Prefer not to answer

C7a. [SKIP IF B3=4] Do you have a clothes dryer in your home? (Check one)

1. Yes [SKIP TO C8]
2. No [SKIP TO L2]
- 9. Prefer not to answer [SKIP TO L2]

C7b. [ASK IF B3=4] Do you have a clothes dryer in your home? Please do not include community clothes dryers that are located in a laundry room of your apartment or condominium building. (Check one)

1. Yes
2. No [SKIP TO L2]
- 9. Prefer not to answer [SKIP TO L2]

C8. What type of fuel does your primary clothes dryer use? (Check one)

1. Electricity
2. Natural gas from underground pipes
3. Propane (bottled gas)
4. Other [SPECIFY]
- 8. Don't know
- 9. Prefer not to answer

o\_C8. [ASK IF C8=4] Description of other type of fuel used for clothes drying.

C9. About how old is your clothes dryer? (Check one)

1. Less than 2 years old
2. 2 to 4 years old
3. 5 to 9 years old
4. 10 to 14 years old
5. 15 to 19 years old
6. 20 years old or more
- 8. Don't know
- 9. Prefer not to answer

C10. Is your clothes dryer a heat pump clothes dryer? A heat pump clothes dryer is a fairly new technology that pulls energy from the air just like a heat pump heating and cooling system. The hot air is not vented but is reused to dry the clothes. They use 50% less energy, but take longer to dry clothes. (Check one)

1. Yes
2. No
- 8. Don't know
- 9. Prefer not to answer

## Home Lighting

Now, we would like to learn a little about your home's lighting equipment.



L2. Do you use any of the following natural lighting in your home during the day? (Select all that apply)

For L2c1 through L2c4

- 0. Not mentioned
- 1. Mentioned
- 9. Prefer not to answer

L2c1. Skylights

L2c2. Tubular skylights, also referred to as solar tubes or sun tunnels (sun tunnels channel sunlight from your roof, down a highly reflective tube into the room below)

L2c3. Large uncovered window areas

L2c4. None of the above

L3. Which of the following types of lighting controls do you use inside or outside your home? (Select all that apply)

For L3c1 through L3c4

- 0. Not mentioned
- 1. Mentioned
- 9. Prefer not to answer

L3c1. Dimmer switch

L3c2. 3-way bulb

L3c3. Occupancy/motion sensor

L3c4. Timer

L3c5. None of the above

- L4. 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 shape and fits in a regular light bulb socket. [Picture of CFL] Before today, were you familiar with CFLs? (Check one)



- 1. Yes
- 2. No
- 9. Prefer not to answer

- L4a. LED light bulbs give off directional light, so the light goes where you aim it. They are also very energy efficient and can work with dimmable switches. [Picture of LED] Before today, were you familiar with LED light bulbs? (Check one)



- 1. Yes
- 2. No
- 9. Prefer not to answer

- L5. How many light bulbs inside your home are typically used two or more hours each day? (Enter number of bulbs below. If none, please enter zero.) Remember to include can lights or other light bulbs in hard to reach places such as tall ceilings or hallways or closets.

For L5a through L5d

\_\_\_ # of bulbs [0-99]

- 8. Don't know
- 9. Prefer not to answer

- L5a. CFL Bulbs
- L5b. LED Bulbs
- L5c. Incandescent Bulbs
- L5d. Other bulbs

- L7. How many light bulbs outside your home are typically used 2 or more hours each day?  
Please include only lights that are controlled from your  
\${q://QID14/ChoiceGroup/SelectedChoices} (Enter number of bulbs below)

\_\_ # of bulbs [0-95]

-9. Prefer not to answer

- L8. [ASK IF (L4 OR L4a=1) AND L7 <> 0 OR -9] How many of the [L7] outdoor lights used two or more hours each day are CFL or LED lights? (Enter number of bulbs below)

\_\_ # of bulbs [0-95]

-8. Don't know

-9. Prefer not to answer

## Pool and Spa

The next set of questions pertain to home pools and spas.

- P1A. [SKIP IF B3=4] Do you have a swimming pool with a filtering system for your use only?  
(Check one)

1. Yes [SKIP TO P2]

2. No [SKIP TO P4a]

-9. Prefer not to answer

- P1B. [ASK IF B3=4] Do you have a swimming pool with a filtering system for your use only?  
Please do not include a pool that is shared with others in your apartment or  
condominium complex. (Check one)

1. Yes

2. No [SKIP TO P4a]

-9. Prefer not to answer

- P2. Do you have a pool pump? (Check one)

1. Yes

2. No

-9. Prefer not to answer



P2b. [SKIP TO P3 IF P2 <> 1] Is the pool pump a high efficiency pool pump? (Check one)

1. Yes
2. No
- 8. Don't know
- 9. Prefer not to answer

P2c. Do you have an automatic timer that controls the time of day that your pool pump operates? (Check one)

1. Yes
2. No
- 9. Prefer not to answer

P3. Do you have a pool heater? (Check one)

1. Yes
2. No [SKIP TO P4a]
- 9. Prefer not to answer [SKIP to P4a]

P3b. What type of fuel does the pool heater use? (Check one)

1. Electricity
2. Natural gas from underground pipes
3. Propane (bottled gas)
4. Solar
5. Other fuel [SPECIFY]
- 8. Don't know
- 9. Prefer not to answer

o\_P3b. [ASK IF P3b=5] Description of other pool heater fuel.

P4a. [SKIP IF B3=4] Do you have a hot tub, spa, or jetted tub/Jacuzzi for your use only? (Check one)

1. Yes [SKIP TO P5]
2. No [SKIP TO S1]
- 9. Prefer not to answer [SKIP to S1]

P4b. [ASK IF B3=4] Do you have a hot tub, spa, or jetted tub/Jacuzzi for your use only?  
Please do not include a community hot tub, spa, or Jacuzzi that is shared with others in your apartment or condominium complex. (Check one)

1. Yes
2. No [SKIP TO S1]
- 9. Prefer not to answer

P5. What type of fuel is used to heat the water in your hot tub, spa, or jetted tub/Jacuzzi?  
(Check one)

1. Electricity
2. Natural gas from underground pipes
3. Propane (bottled gas)
4. Solar
5. Other fuel [SPECIFY]
- 8. Don't know
- 9. Prefer not to answer

o\_P5. [ASK IF P5=5] Description of other type of fuel used for hot tub heating.

## Small Household Appliances

Please think about your home's small appliances or equipment for the next set of questions.



A2. How many televisions used in your home are of each of the following types? (If none, please enter zero.)

For A2a through A2d

\_\_ # of TVs [0-20]

- 5. Programming change
- 8. I'm unsure what type of TV I have
- 9. Prefer not to answer

- A2a. Standard tube TVs
- A2b. Flat screen Plasma TVs
- A2c. Flat screen LCD/LED TVs
- A2e. Flat screen TV of unknown type
- A2d. Rear projection TVs

A3. Of the televisions used in your home, how many are used at least 2 hours every day? (Enter number of televisions below)

For A3a through A3d

\_\_ # of TVs used at least 2 hours every day [0-20]

- 5. Programming change
- 9. Prefer not to answer

- A3a. [SKIP IF A2a=0 OR -9] Standard tube TVs
- A3b. [SKIP IF A2b=0 OR -9] Flat screen Plasma TVs
- A3c. [SKIP IF A2c=0 OR -9] Flat screen LCD/LED TVs
- A3e. [SKIP IF A2e=0 OR -9] Flat screen TV of unknown type
- A3d. [SKIP IF A2d=0 OR -9] Rear Projection TVs

A6. Do you have internet access at home? (Check one)

- 1. Yes
- 2. No
- 9. Prefer not to answer

- A7. How many of each of the following types of computer and home office equipment does your household use? (If none, please enter zero. Please scroll down to see all computers and home office equipment.)

For A7a through A7l

\_\_\_ # of equipment [0-20]

-5. Programming change

-9. Prefer not to answer

A7a. Desktop computer (excluding monitor)

A7d. CRT computer monitor

A7e. LED/LCD flat screen computer monitor

A7b. Laptop computer

A7c. iPads, tablet computers

A7f. eReaders such as a Kindle or Nook

A7h. Printer

A7l. Modems or routers

- A7o. Any other type of computer or home office equipment?

1. Yes [SPECIFY]

2. No [SKIP TO A8]

o\_A7oop. [ASK IF A7o=1] Description of other type of computer or office equipment.

- A8. Do you use a smart strip in your home to turn off computers, printers, and other equipment when not in use? Smart strips are different from regular power strips. They incorporate additional technologies to automatically disconnect power to equipment when not in use. (Check one)

1. Yes

2. No

-8. Don't know

-9. Prefer not to answer

A8a. [ASK IF A8 <> 2 AND -8] Do you have a Tier 1 or Tier 2 smart strip, or both? Tier 1 smart strips are controlled by a master outlet and Tier 2 smart strips are controlled by motion sensing or a timer. (Check one)

1. Tier 1 smart strip that turn off when your computer is powered off or goes to sleep
2. Tier 2 smart strip that turns off when you leave or is programmed to turn off at a certain time of the night or day
3. Both Tier 1 and Tier 2 smart strip
- 8. Don't know
- 9. Prefer not to answer

A9a. [SKIP IF A7a=0 OR -9] About how many hours each day do all residents typically use the desktop computer(s) in your home? (Enter number of hours below)

\_\_ # of hours per day on average, per computer [0-24]

- 4. Interviewer/respondent error
- 9. Prefer not to answer

A9b. [SKIP IF A7b=0 OR -9] About how many hours each day do all residents typically use the laptop computer(s) in your home? (Enter number of hours below)

\_\_ # of hours per day on average, per computer [0-24]

- 4. Interviewer/respondent error
- 9. Prefer not to answer

A11. Does anyone in your household work primarily from home? (Check one)

1. Yes
2. No
- 9. Prefer not to answer

A11a. [Ask if A11=1] Does this household have a home-based business?

1. Yes
2. No
- 9. Prefer not to answer

A11b. [SKIP TO A12A IF A11<>1] Including yourself, how many people work primarily from your home? (Enter number of people below)

\_\_ # of people [1-20]

- 9. Prefer not to answer

o\_A11bb. [Ask if A11=1] What type of business is this? (Please describe below) [RECORD RESPONSE VERBATIM]

A11c. [Ask if A11=1] Other than computers, printers, and copiers, what other types of energy using equipment do you use for your business?

1. No other energy using equipment
2. Specify what types of equipment
- 9. Prefer not to answer

o\_A11c. [ASK IF A11C=2] Please describe the other type of energy using equipment.

A12. How many of each of the following other types of entertainment or telecommunications equipment does your household use? (If none, please enter zero. Please scroll to see all equipment options.)

For A12ab through A12k

\_\_ # of units [0-20]

- 4. Interviewer/respondent error
- 9. Prefer not to answer

- A12ab. Combination cable or satellite set-top box with DVR unit
- A12a. Cable or satellite set-top box (a set-top box is a device that converts video content to analog or digital TV signals)
- A12b. DVR (for example, TiVo)
- A12c. DVD/Blu-Ray player or recorder
- A12d. VCR
- A12e. Digital converter box
- A12f. Video gaming system (for example, PS3, PlayStation, Nintendo, XBOX, Wii)
- A12g. Home theater system
- A12i. Cell phones/Smart phones
- A12j. Cordless telephones
- A12k. Stereo system

A12n. Any other type of entertainment or telecommunications equipment?

1. Yes [SPECIFY]
2. No

o\_A12no. [SKIP IF A12n=2] Description of other type entertainment or telecommunications equipment.

A13. Do any of your equipment have the ENERGY STAR logo? (Check one)



For A13a through A13i

1. Yes
2. No
- 4. Interviewer/respondent error
- 8. Don't know
- 9. Prefer not to answer

- A13a. [ASK IF (E1=2 OR 3) AND (A12c OR A12d <> 0 AND -9) ] VCRs/DVD players
- A13b. [ASK IF (E1=2 OR 3) AND (A2b <> 0 AND -9)] Plasma TV
- A13c. [ASK IF (E1=2 OR 3) AND (A2c <> 0 AND -9)] LCD/LED TV
- A13d. [ASK IF (E1=2 OR 3) AND (A12k <> 0 AND -9)] Stereo equipment
- A13e. [ASK IF (E1=2 OR 3) AND (A7a <> 0 AND -9)] Desktop computer
- A13f. [ASK IF (E1=2 OR 3) AND (A7b <> 0 AND -9)] Laptop computer
- A13g. [ASK IF (E1=2 OR 3) AND (A7e <> 0 AND -9)] LED/LCD computer monitor
- A13h. [ASK IF (E1=2 OR 3) AND (A7g OR A7h OR A7i OR A7k <> 0 AND -9)] Printer, scanner, or all-in-one unit
- A13i. [ASK IF (E1=2 OR 3) AND (A12ab OR A12a <> 0 AND -9)] Set-top/cable boxes

## Miscellaneous Equipment

These questions ask about other miscellaneous equipment you may have in your home.

A12m. Do you have a home security system? This may include a security camera. (Check one)

1. Yes
2. No
- 9. Prefer not to answer

M3. Do you use a generator, including natural gas, solar, or wind to supply your electric needs? (Check one)

1. Yes
2. No
- 9. Prefer not to answer

M4. Do you have a . . . ? (Check one for each)

For M4a through M4f

- 1. Yes
- 2. No
- 8. Don't know
- 9. Prefer not to answer

M4a. Well pump (a water well pump is a pump that is used in extracting water from a water well)

M4b. Sump pump (a sump pump is used to remove water where basement flooding may occur or above the foundation of a home)

M4c. Waterbed heater

M4d. Natural gas grill

M4e. Natural gas fire pit

M4f. Radiant floor heating separate from heating system

M5. Does anyone in your household use any other major appliances or equipment in your home that uses a lot of energy such as exercise equipment, welding equipment or heavy tools, or equipment used for a home business? (Check one)

- 1. Yes [SPECIFY]
- 2. No
- 9. Prefer not to answer

\*M5a. [ASK IF M5=1] Please select all the appliances or equipment that are in your home. .

For M5ac1 through M5ac16

- 0. Not mentioned
- 1. Mentioned

\*M5ac1. Air compressor

\*M5ac4. Exercise equipment (elliptical, treadmill, etc.)

\*M5ac5. Fish tank

\*M5ac7. Heating pad/blanket

\*M5ac8. Musical equipment

\*M5ac9. Power tools

\*M5ac10. Sauna

\*M5ac11. Sewing machine

\*M5ac14. Water pump

\*M5ac15. Welder

\*M5ac16. Miscellaneous



o\_M5a. [ASK IF M5ac16=1] Description of miscellaneous type of other major appliances or equipment.

M6. Does your household use an energy monitoring system? An energy monitoring system provides real-time information on your energy usage and allows you to control temperature settings, turn off lights, and appliances remotely.

1. Yes
2. No
- 9. Prefer not to answer

## Internet-Enabled Devices

The next set of questions are about your home's internet-enabled devices.



I1. Do you have equipment in your home that you can control remotely by using a cell phone, tablet, computer, or smart speaker (such as Amazon Echo or Google Home)? This might include adjusting your thermostat or controlling the lighting in your home.

1. Yes
2. No
- 9. Prefer not to answer

I2. [ASK IF I1=1] Which of the following can be controlled remotely? (Select all that apply)

1. Heating or cooling equipment
2. Thermostat
3. Water heating equipment
4. LEDs or "smart" light bulbs (one to three bulbs)
5. Whole house humidifying system
6. Whole house dehumidifying system
7. Pool pump
8. Security or video monitoring equipment
9. Major appliance
10. Other [SPECIFY]
- 9. Prefer not to answer

I2a. [ASK IF I2=9] Which major appliances can be controlled remotely? (Select all that apply)

1. Clothes washer or dryer
2. Dishwasher
3. Cooktop, stovetop, or range
4. Stand-alone oven
5. Full-sized refrigerator
6. Stand-alone freezer
7. Other appliance [SPECIFY]
- 9. Prefer not to answer

## Utility Company

These questions are about your electricity bill. If you prefer not to answer them, please indicate this.



U1. Is the electric utility bill paid by someone who lives in the home, a landlord, or someone else?

1. Household member/occupant
2. Landlord
3. Homeowners Association (HOA)
4. Someone else [SPECIFY]
- 8. Don't know
- 9. Prefer not to answer

U2. Does your household receive financial assistance to pay a portion or all of your electric utility bill?

1. Yes
2. No
- 8. Don't know
- 9. Prefer not to answer

U3. [ASK IF U2=1] For what share does your household receive assistance for your electric utility bill? [SELECT ONE]

1. Less than 25%
2. Between 26% and 50%
3. Between 51% and 75%
4. Between 76% and 100%
- 8. Don't know
- 9. Refused

U10. Please provide your best estimate of the total electric costs your home paid in the last 12 months. Do not include natural gas or other fuels. (Check one)

1. \$500 or less
2. \$501 - \$1000
3. \$1,001 - \$1,500
4. \$1,501 - \$2,000
5. \$2,001 - \$2,500
6. \$2,501 - \$3,000
7. \$3,001 - \$3,500
8. \$3,501 - \$4,000
9. \$4,000 or more
10. We don't pay electric costs because they are included in our rent or condominium fee
- 8. Don't know
- 9. Prefer not to answer

The next questions are about your natural gas bill. If you prefer not to answer them, please indicate this.

U4. [ASK IF K2c2=1, K3c2=1, K4c2=1, H2=2, H7ag>=1, H8ac2=1, WH3=2, C8=2, P3b=2, OR P5=2] Is the gas bill paid by someone who lives in the home, a landlord, or someone else?

1. Household member/occupant
2. Landlord
3. Homeowners Association (HOA)
4. Someone else [SPECIFY]
- 8. Don't know
- 9. Prefer not to answer

U4b. [ASK IF U4=1 AND K2c2=1, K3c2=1, K4c2=1, H2=2, H7ag>=1, H8ac2=1, WH3=2, C8=2, P3b=2, OR P5=2] What company provides natural gas service to your home? (Check one, scroll down to see all service providers)

1. Bath Electric, Gas & Water System
2. Central Hudson Gas & Electric Corporation
3. Chautauqua Utilities, Inc.
4. Consolidated Edison Company of NY, Inc.
5. Corning Natural Gas Corporation
6. Empire State Pipeline
7. Filmore Gas Company, Inc.
8. Keyspan Energy Delivery (New York)
9. Keyspan Energy Delivery (Long Island)
10. National Fuel Gas Distribution Corporation
11. N.E.A Cross of New York, Inc.
12. New York State Electric & Gas Corporation
13. National Grid
14. Orange and Rockland Utilities, Inc.
15. Reserve Gas Company, Inc.
16. Rochester Gas Company, Inc.
17. St. Lawrence Gas Company, Inc.
18. Valley Energy, Inc.
19. Woodhull Municipal Gas Company
20. Other [SPECIFY]
- 8. Don't know
- 9. Prefer not to answer

o\_U4b.[ASK IF U4b=56] Specify other gas utility.

U5. [ASK IF U4=1 AND K2c2=1, K3c2=1, K4c2=1, H2=2, H7ag>=1, H8ac2=1, WH3=2, C8=2, P3b=2, OR P5=2] Does your household receive financial assistance to pay a portion or all of your gas bill?

1. Yes
2. No
- 8. Don't know
- 9. Prefer not to answer

- U6. [ASK IF U5=1] For what share does your household receive assistance? (Select one)
1. Less than 25%
  2. Between 26% and 50%
  3. Between 51% and 75%
  4. Between 76% and 100%
  - 8. Don't know
  - 9. Refused
- U8. [ASK IF (B3=4) AND HAS FUEL OIL FOR HEATING OR WATER HEATING (H2=5, H8ac5=1, or WH3=5)] Does your household pay for fuel oil directly, or is it included in your rent or condominium fee?
1. Pay directly
  2. Included in rent or condo fee
  - 9. Prefer not to answer
- U9. [ASK IF (B3=4) AND HAS PROPANE FOR HEATING OR WATER HEATING (H2=3, H8ac3=1, or WH3=3)] Does your household pay for propane directly, or is it included in your rent or condominium fee?
1. Pay directly
  2. Included in rent or condo fee
  - 9. Prefer not to answer
- U11. Please provide your best estimate of the total natural gas costs your home paid in the last 12 months. Do not include electricity or other fuels. (Check one)
1. \$500 or less
  2. \$501 - \$1000
  3. \$1,001 - \$1,500
  4. \$1,501 - \$2,000
  5. \$2,001 - \$2,500
  6. \$2,501 - \$3,000
  7. \$3,001 - \$3,500
  8. \$3,501 - \$4,000
  9. \$4,000 or more
  10. We don't pay natural gas costs because they are included in our rent or condominium fee
  - 8. Don't know
  - 9. Prefer not to answer

U12. Please provide your best estimate of the total costs for all fuel types your home paid in the last 12 months. Please include all types of fuel. (Check one)

1. \$500 or less
2. \$501 - \$1000
3. \$1,001 - \$1,500
4. \$1,501 - \$2,000
5. \$2,001 - \$2,500
6. \$2,501 - \$3,000
7. \$3,001 - \$3,500
8. \$3,501 - \$4,000
9. \$4,000 or more
10. We don't pay any fuel costs because they are included in our rent or condominium fee
- 8. Don't know
- 9. Prefer not to answer

U13. Energy bill assistance and weatherization assistance are available based on income criteria. Do you qualify for this or any other kind of assistance?

1. Yes
2. No
- 8. Don't know
- 9. Prefer not to answer

## Energy Efficiency

These questions are about energy efficiency upgrades or improvements to your home.



F1. In the last five years, has your household made any energy-related home improvements such as upgrading thermostats or home insulation, or installed more efficient appliances or more efficient heating and cooling systems?

1. Yes
2. No
- 9. Prefer not to answer

F1a. [ASK IF F1=1] What were your reasons for making these energy-related improvements?  
[RECORD ALL THAT APPLY]

1. Use less energy
2. Save money on utility bills
3. Make home more comfortable
4. Install better/brighter lighting
5. Save money on maintenance costs
6. Receive an incentive or rebate
7. Protect the environment
8. Other [SPECIFY]
- 9. Prefer not to answer

F2. In the past 5 years, has your household participated in any energy efficiency or energy saving programs offered by NYSERDA or your utility company to make your home or appliances more energy efficient? (Check one)

1. Yes
2. No
- 9. Prefer not to answer

F3. [ASK IF F2=1] What type of equipment did you install or recycle through a program?  
(Select all that apply)

For F3c1 through F3c9

0. Not mentioned
1. Mentioned
- 9. Prefer not to answer

- F3c1. Insulation or weatherization measures
- F3c2. Heating equipment
- F3c3. Air conditioning equipment
- F3c4. Lighting
- F3c5. Water heating equipment
- F3c6. Clothes washer
- F3c7. Appliances
- F3c8. Refrigerator or freezer recycling
- F3c9. Other [SPECIFY]

F4. [ASK IF F2=1] Did you receive a tax credit for any of these improvements?

1. Yes
2. No
- 9. Prefer not to answer

F5. [ASK IF F4=1] Was it a federal, state, or local tax credit?

1. Federal
2. State
3. Local
4. Other [SPECIFY]
- 8. Don't know
- 9. Prefer not to answer

F6. [ASK IF F2=2] What do you think are the challenges with participating in energy efficiency programs? (Select all that apply)

For F6c1 through F6c9

0. Not mentioned
1. Mentioned
- 9. Prefer not to answer

- F6c1. Am not aware of any energy efficiency programs
- F6c2. Home does not need energy efficient improvements
- F6c3. Don't know who to contact about programs
- F6c4. Cannot afford to make home improvements
- F6c5. My energy bills are not that high
- F6c6. I rent and cannot make upgrades
- F6c7. Other [SPECIFY]
- F6c8. Too busy to make home improvements
- F6c9. Recently moved into the home

o\_F6. [ASK IF F6c7=1] Description of other reason why household hasn't participated.



- F7. Are you considering replacing or purchasing any of the following in the next five years?  
(Select all that apply)

For F7c1 through F7c7

- 0. Not mentioned
- 1. Mentioned
- 9. Prefer not to answer

- F7c1. Insulation or weatherization measures
- F7c2. Heating equipment
- F7c3. Air conditioning equipment
- F7c4. Water heating equipment
- F7c5. Clothes washer
- F7c6. Appliances
- F7c7. None of the above

- F8. If there was a program available to you that would help pay for part of the cost for purchasing new energy efficient equipment, which of the following would you consider replacing within the next five years? (Select all that apply)

For F8c1 through F8c7

- 0. Not mentioned
- 1. Mentioned
- 9. Prefer not to answer

- F8c1. Insulation or weatherization measures
- F8c2. Heating equipment
- F8c3. Air conditioning equipment
- F8c4. Water heating equipment
- F8c5. Clothes washer
- F8c6. Appliances
- F8c7. None of the above

- F9. How much do you agree or disagree with the statement, "My home is as energy efficient as it could be."

- 1. Strongly agree
- 2. Somewhat agree
- 3. Neither agree nor disagree
- 4. Somewhat disagree
- 5. Strongly disagree
- 9. Prefer not to answer

F9a. [ASK IF F9=1-5] Why do you [INSERT RESPONSE FROM F7] with this statement?  
[RECORD RESPONSE]

F10. [ASK IF B7=14-17 (2015-2018)] When purchasing or building your new home, how important was energy efficiency in your decision?

1. Very important
2. Somewhat important
3. Not too important
4. Not at all important
5. Don't know
6. Prefer not to answer

F11. [ASK IF B7=14-17 (2015-2018)] Thinking about the insulation in your home, does it...  
[SELECT ONE]

1. Exceed values required by code
2. Meet values required by code
3. Not meet values required by code
4. Don't know
5. Prefer not to answer

## Purchase Decisions

It sometimes costs more to purchase energy-efficient products compared to standard products. The next questions ask you about some ways you could save energy in your home.

[RANDOMIZE THE BLOCKS OF QUESTIONS and insert a page break between each block]

### LED

[Persistent or intro text for LED block]

LED is short for Light Emitting Diode, which is a type of energy-saving light. A 10 Watt LED gives the same amount of light as a traditional 60W incandescent bulb, costs about \$2 more than a less-efficient bulb, and often saves \$2 to \$6 annually in energy costs.



W1. How likely are you to install energy-efficient LED light bulbs in the next five years?

1. Very likely
2. Somewhat likely
3. Not too likely
4. Not at all likely
5. I have LEDs in every light fixture and socket in my home already
- 8. Don't know
- 9. Prefer not to answer

[ASK IF W1=2-4]

Suppose the cost of an energy-efficient LED light bulb is \$2 more than a standard light bulb and might save \$2 to \$6 per year in energy costs. Please indicate how likely you would be to upgrade to an energy-efficient, LED light bulb in the next five years if you received an incentive of ...

W2. About **\$0.50 per bulb** or **25%** of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W3. [ASK IF W2=2-4] About **\$1 per bulb** or **50%** of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W4. [ASK IF W3=2-4] About **\$1.50 per bulb** or **75%** of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W5. [ASK IF W4=2-4] **\$2 per light bulb** or **100%** of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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### Central A/C

[ASK ONLY IF PARTICIPANTS HAVE CENTRAL A/C (H11=1)]

[Persistent or intro text for Central A/C block]

Energy-efficient central air conditioning units, such as models with an efficiency rating of 16 SEER, cost roughly \$1,500 more than standard 13 SEER models and often save \$30 to \$100 a year in energy costs in New York State.

W6. Assume your home's central air conditioning unit will need to be replaced within five years. How likely would you be to replace that unit with an **energy-efficient central air conditioner** in the next five years?

1. Very likely
2. Somewhat likely
3. Not too likely
4. Not at all likely
5. I already have the most efficient central air conditioning system available
- 8. Don't know
- 9. Prefer not to answer

[ASK IF W6=2-4]

Suppose the cost of an **energy-efficient central air-conditioner** is \$1,500 more than a standard central air-conditioner and would save \$30 to \$100 a year in energy costs. Please indicate how likely you would be to upgrade to an **energy-efficient central air-conditioner** in the next five years if you received an incentive of ...

W7. About **\$375** or **25%** of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W8. [ASK IF W7=2-4] About **\$750** or **50%** of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W9. [ASK IF W8=2-4] [ASK IF W7=2-4] About **\$750** or **50%** of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W10. [ASK IF W9=2-4] **\$1,500** or **100%** of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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[Persistent or intro text for Heating equipment block]

Energy-efficient heating equipment costs more than standard equipment but reduces energy usage. For example, an energy-efficient gas furnace with an energy efficiency rating of 95% costs roughly \$1,500 more than standard 80% efficiency rated model and often saves \$110 to \$180 a year in energy costs in New York State.

W11. Assume your home has a gas furnace or other heating equipment that will need to be replaced within five years. How likely would you be to upgrade to **energy-efficient heating equipment** in the next five years?

1. Very likely
2. Somewhat likely
3. Not too likely
4. Not at all likely
5. I already have the most energy-efficient heating system available
- 8. Don't know
- 9. Prefer not to answer

[ASK IF W11=2-4]

Suppose the cost of **energy-efficient heating equipment** is \$1,500 more than standard equipment and might save \$110 to \$180 a year in energy costs. Please indicate how likely you would be to upgrade to **energy-efficient heating equipment** in the next five years if you received an incentive of ...

W12. About **\$375** or **25%** of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W13. [ASK IF W12=2-4] About \$750 or 50% of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W14. [ASK IF W13=2-4] [ASK IF W7=2-4] About \$750 or 50% of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W15. [ASK IF W14=2-4] \$1,500 or 100% of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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## Appliances

[PERSISTENT OR INTRO TEXT FOR APPLIANCES BLOCK]

Energy-efficient appliances cost more than standard models but provide significant energy savings. For example, an energy-efficient ENERGY STAR [PROGRAMMING NOTE: SEQUENTIALLY SELECT FROM: (**refrigerator, dishwasher, clothes washer, or clothes dryer**)] costs roughly \$50 more than a standard model and might save \$8 to \$12 a year in energy costs.

[PROGRAMMING NOTE: APPLIANCE SELECTED SHOULD BE STORED IN A DATA FIELD CALLED "APPLIANCE". ONLY SELECT ONE APPLIANCE PER SURVEY. ROTATE THE SELECTION.]

W16. Assume your home's [APPLIANCE] will need to be replaced within five years. How likely would you be to replace it with an energy-efficient, ENERGY STAR model in the next five years?

1. Very likely
2. Somewhat likely
3. Not too likely
4. Not at all likely
- 8. Don't know
- 9. Prefer not to answer

[ask if W16=2-4]

Suppose the cost of an energy-efficient [APPLIANCE] is \$50 more than a standard [APPLIANCE] and might save \$8 to \$12 a year in energy costs. Please indicate how likely you would be to upgrade to an energy-efficient [APPLIANCE] in the next five years if you received an incentive of ...

W17. About \$13 or 25% of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W18. [ASK IF W17=2-4] About \$25 or 50% of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W19. [ASK IF W18=2-4] [ASK IF W7=2-4] About \$750 or 50% of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W20. [ASK IF W19=2-4] \$50 or 100% of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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### Water Heater

[ASK IF WH3=1 (PRIMARY FUEL FOR HWH IS ELECTRICITY)]

[Persistent or intro text for water heater block]

Energy-efficient water heaters cost more than standard models but offer significant energy savings. For example, a 50-gallon energy efficient ENERGY STAR heat pump water heater costs roughly \$750 more than a conventional electric water heater and might save \$330 to \$370

a year in energy costs.

W21. Assume your home's water heater will need to be replaced within five years. How likely would you be to upgrade to an energy-efficient, **ENERGY STAR heat pump water heater** in the next five years?

1. Very likely
2. Somewhat likely
3. Not too likely
4. Not at all likely
5. I already have the most energy-efficient water heating system available
- 8. Don't know
- 9. Prefer not to answer

[ASK IF W21=2-4]

Suppose the cost of an **energy-efficient, ENERGY STAR heat pump water heater** is \$750 more than a standard water heater and might save \$330 to \$370 a year in energy costs. Please indicate how likely you would be to upgrade to an **energy-efficient, ENERGY STAR heat pump water heater** in the next five years if you received an incentive of ...

W22. About \$185 or 25% of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W23. [ASK IF W22=2-4] About \$375 or 50% of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W24. [ASK IF W23=2-4] About \$560 or 75% of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W25. [ASK IF W24=2-4] \$750 or 100% of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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### Weatherization Measures

[ASK IF B1=1 (OWN HOME)]

[Persistent or intro text for weatherization measures]

Weatherizing your home by improving insulation, reducing air leakage, and installing windows often improves comfort and lowers energy bills. The cost and the savings depend on many

factors, including how much insulation you start with, what type of heating system you use, and how much you heat and cool your home.

W26. Assume that **improving air sealing and insulation** in your attic would cost \$2,000 and save about \$200 a year in heating and cooling costs. How likely would you be to make this improvement in the next five years?

1. Very likely
2. Somewhat likely
3. Not too likely
4. Not at all likely
5. I don't have an attic
- 8. Don't know
- 9. Prefer not to answer

[ASK IF W26=2-4]

Suppose the cost to weatherize your home by improving air sealing and insulation in your home's attic was \$2,000, please indicate how likely you would be to weatherize your home in the next five years if you received an incentive of ...

W27. About \$500 or 25% of the initial cost to improve air sealing and insulation in your home's attic?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W28. [ASK IF W27=2-4] About \$1,000 or 50% of the initial cost to improve air sealing and insulation in your home's attic?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W29. [ASK IF W28=2-4] About \$1,500 or 75% of the initial cost to improve air sealing and insulation in your home's attic?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
--------------------	------------------------	-----------------------	--------------------------	--------------------	------------------------------

W30. [ASK IF W29=2-4] \$2,000 or the full cost to improve air sealing and insulation in your home's attic?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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### Fuel Conversion/Electrification

[ASK IF B1 = 1]



Assume that your current space heating system uses natural gas or other non-electric heating fuel and that it will fail in the next five years. Converting to an electric heating source such as an air-source heat pump, ductless mini-split heat pump, or ground-source heat pump would cost between \$1,000 and \$3,000 more than simply replacing the old system. This conversion may decrease your natural gas or other non-electric heating fuel bill and may increase your electric bill while creating a more environmentally-friendly, energy-efficient home heating system.

W31. Given the cost of converting, how likely would you be to convert to electric space heating for your home in the next five years?

1. Very likely
2. Somewhat likely
3. Not too likely
4. Not at all likely
5. Already have it/have done it
- 8. Don't know
- 9. Refused

[ASK IF 0=2-4]

Suppose the cost of converting to an electric air-source heat pump, ductless mini-split, or ground-source heat pump is \$1,000 to \$3,000 more than standard electric heating system. Please indicate how likely you would be to upgrade to one of these heat pump **heating and cooling systems** in the next five years if you received an incentive of ...

W32. Between \$250 and \$750, or 25% of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W33. [ASK IF W32=2-4] Between \$500 and \$1,500, or 50% of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W34. [ASK IF W33=2-4] [ASK IF W7=2-4] About \$750 or 50% of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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W35. [ASK IF W34=2-4] Between \$1,000 and \$3,000, or 100% of the difference in cost?

Very likely (1)	Somewhat likely (2)	Not too likely (3)	Not at all likely (4)	Don't know (-8)	Prefer not to answer (-9)
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## Demographics

Last, we have a few demographic questions about your household. If you prefer not to answer, please indicate this.



- D2. Some background information about the people living in your household will also help us understand how you use energy. All of your answers will be kept strictly confidential to the extent permitted by law. Including yourself, how many people currently living in your home year-round are in the following age groups? Please exclude anyone who is just visiting, children who may be away at college or those deployed in the military. (If none, please enter zero)

For D2\_5 through D2\_65

\_\_ # of people [0-25]

-9. Prefer not to answer

- D2\_5. Less than 5 years old
- D2\_6. 6-17 years old
- D2\_18. 18-24 years old
- D2\_25. 25-34 years old
- D2\_35. 35-44 years old
- D2\_45. 45-54 years old
- D2\_55. 55-64 years old
- D2\_65. 65 or older

- D3. What is the highest level of education a person still living in your household has completed? (Check one)

- 1. Less than high school
- 2. Some high school
- 3. High school graduate or equivalent (e.g., GED)
- 4. Trade or technical school
- 5. Some college, no degree
- 6. College degree (e.g. Bachelor's degree)
- 7. Some graduate school
- 8. Graduate degree (e.g. Master's or Doctorate degree)
- 9. Prefer not to answer

D4. For classification purposes only, which of the following best describes your household's total income in 2017? (Check one)

1. Less than \$25,000
2. \$25,000–less than \$30,000
3. \$30,000–less than \$35,000
4. \$35,000–less than \$50,000
5. \$50,000–less than \$75,000
6. \$75,000–less than \$100,000
7. \$100,000–less than \$150,000
8. \$150,000–less than \$200,000
9. \$200,000 or more
- 9. Prefer not to answer

D5. What is your gender?

1. Male
2. Female
- 9. Prefer not to answer

D7. NYSERDA is offering select households an additional \$100 electronic Amazon gift card to allow a certified and trained technician to visit their home to gather more detailed information about the home's energy usage. The visit should take about two to three hours depending on the size, age, and complexity of your home and tests to be performed. By saying yes, you are simply agreeing to be re-contacted within the next couple weeks to hear more details about the visit and set up an appointment. The information gathered will only be reported in aggregate with data from other homes to evaluate and improve energy efficiency programs offered by NYSERDA and your utility. Would you be interested in being a part of this type of home site visit for an additional \$100 electronic Amazon gift card? This would be for your home at [SERVICE ADDRESS]. (Check one)

1. Yes
2. Possibly, but I need more information
3. No
- 9. Prefer not to answer

D8. [ASK IF D7=1 OR 2] Please provide your contact information and address so we can have someone call you to schedule a home site visit. The fields in red are required to schedule your home site visit.

D8. First and Last name of person to ask for

D8b. Address

Apartment or unit number

D8c. City

D8h. State

D8d. ZIP Code (enter 5-digit ZIP code)

D8e. Main telephone number (XXX) XXX-XXXX

D8f. Secondary telephone number (XXX) XXX-XXXX

D8g. Email

D9. You will receive your \$20 Amazon gift card through your email address. To ensure your \$20 gift card arrives please enter your email address.

1. [ENTER EMAIL ADDRESS]

2. Do not have an email address or want the card mailed to my home

3. Do not want a gift card [SKIP TO D10]

D9a. [ASK IF D9=1 AND D7=3 OR -9] Thank you. In case there are delivery problems, please provide a phone number where you can be reached and your name.

[ENTER PHONE NUMBER] (XXX) XXX-XXXX

[ENTER NAME]

Thank you. Your Amazon gift card, valued at \$20, will be emailed to you within two weeks. If you have any questions or problems, please contact Amanda McLeod by emailing [Amanda.McLeod@CadmusGroup.com](mailto:Amanda.McLeod@CadmusGroup.com) or calling (617) 673-7115. [SKIP TO D10]

D9AA. [ASK IF D9=1 AND D7=1] Thank you. Your Amazon gift card, valued at \$20, will be emailed to you within two weeks. If you have any questions or problems, please contact Amanda McLeod by emailing [Amanda.McLeod@CadmusGroup.com](mailto:Amanda.McLeod@CadmusGroup.com) or calling (617) 673-7115.

D9b. [ASK IF D9=2 AND D7=3 OR -9] Please enter your mailing address and a telephone number in case there are any delivery problems.

D9c. Name

D9d. Street Address

Apartment or unit number

D9e. City

D9f. State

D9g. ZIP code (enter 5-digit ZIP code)

D9h. Phone number(XXX) XXX-XXXX

D9h. [ASK IF D9=2] Thank you. Your Amazon gift card, valued at \$20, will be mailed to you within three weeks. If you have any questions or problems, please contact Amanda McLeod by emailing [Amanda.McLeod@CadmusGroup.com](mailto:Amanda.McLeod@CadmusGroup.com) or calling (617) 673-7115.

D10. Additional studies are planned in the near future to gain a better understanding of residential energy use and energy decision making. The goal of these studies is to improve the effectiveness of energy programs to serve New Yorkers. Would you be interested in participating in future energy-related studies? By saying yes, you are simply agreeing to be re-contacted to learn more about these studies.

1. Yes

2. Possibly, but I need more information

3. No

-9. Prefer not to answer

D11. Thank you for your help with this important study. Do you have any additional comments that you would like to share?

1. Yes [SPECIFY]

2. No comment [END SURVEY]

-9. Prefer not to answer

o\_D11.[ASK IF D11=1] Comments from the respondent [END SURVEY]

[OVER-QUOTA CLOSE] Thank you for your interest in the NYSERDA Residential Building Stock Assessment Study. We have completed data collection in your area. For more information on this important study or information on energy efficiency programs in your area, please visit <http://www.nyserda.ny.gov/2018-RBSA>

Attempted survey after region closed [END SURVEY]

[FOR PEOPLE WHO COMPLETE SURVEY] Thank you for your completing this survey. For more information on this important study or information on energy efficiency programs in your area, please visit <http://www.nyserda.ny.gov/2018-RBSA>.