

Independent Statistics & Analysis

U.S. Energy Information Expiration Date: 09/30/2023 Administration Expiration Burden: 32 minutes

OMB No. 1905-0092

Residential Energy Consumption Survey (RECS) Form EIA-457A 2020 Household Questionnaire















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How to Use This Questionnaire

The 2020 Residential Energy Consumption Survey (RECS) will rely on self-administered paper and web instruments. The primary purpose of these specifications is to document the wording of questions and responses seen by respondents, as well as the skip logic that guides respondents through the paper and web instruments. A secondary purpose of these specifications is to document metadata for various RECS project needs – this includes variable names, variable types, response set values, and allowable numeric ranges.

The template for each item in these specifications is as follows:

VARIABLE1	VARIABLE1	
ASK	All respondents	
Question Tex 1 Yes 0 No	xt	
Spanish tran	Spanish translation of question text	
NEXT	VARIABLE2	
MODE	Comments about implementation in paper and/or web instrument	
WEB PROMPT	Type of web prompt (HARD/SOFT), condition, and message displayed	

In the example above, the responses to VARIABLE1 would be stored as values of 1 and 0. For questions that require a numeric response, the allowable range is specified in this format: {WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}. For most numeric items, the allowable ranges for the web and paper instruments are logically consistent.

The following is a list of response set conventions that will generally be used for the 2020 RECS project:

- Yes/No questions: 1 for Yes, 0 for No
- Select-all-that-apply questions: 1 if selected, 0 if not
- Other response: 99
- Not Applicable response: -3
- Explicit Don't Know response: -4
- Illegible responses (paper only): -5
- Multiple responses to single response question (paper only): -6

Introductory Questionnaire Text

If MODE=Web:

Introduction and Consent

We hope you enjoy completing this questionnaire, and appreciate greatly your help in understanding how energy gets consumed in people's homes throughout the United States.

Please remember the following important points:

- You must be age 18 or older to participate.
- Completing this survey should take about 30 minutes.
- Your name will never be connected to the answers you provide, and the data we collect will be used only for statistical purposes.
- Taking part in this survey is entirely voluntary. You can skip any questions you do not wish to answer. There is no penalty if you choose to skip any question or any part of the questionnaire.

If you are age 18 or older and wish to participate, please click the Next button below to begin the survey.

If you do not wish to participate in this study, please close your browser window.

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If MODE=Paper:

We hope you enjoy completing this questionnaire, and appreciate greatly your help in understanding how energy gets consumed in people's homes throughout the United States.

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Your Home

If MODE=Web and mail_type in(1,2,3): Please answer the following questions about the home at [FILL: street address from sample file: "address1" or "address1", address2" (if address2 is non-missing)].

If MODE=Web and mail_type in(4,5): Please answer the following questions about the home associated with the address on the letter you received.

If MODE=Paper: Please answer the following questions about the home associated with the address on the enclosed letter.

TYPEHUQ		
ASK	All respondents	
	Which best describes your home?	
	ile home	
	ple-family house detached from any other house ple-family house attached to one or more other houses (for example: duplex, row house, or	
	nhome)	
	rtment in a building with 2 to 4 units	
, ,,,,,		
NEXT	If TYPEHUQ=1: PRIMRES If TYPEHUQ in(2,3): CELLAR, CRAWL, CONCRETE, BASEOTH If TYPEHUQ in(4,5): BASEAPT	
MODE		
WEB PROMPT	HARD PROMPT IF MISSING: Please provide an answer to this question to continue.	

BASEAPT	
ASK	If TYPEHUQ in(4,5)
Is your aparti 1 Yes 0 No	ment located in the basement of your building?
NEXT	PRIMRES
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>

CELLAR, CRAWL, CONCRETE, BASEOTH (Changed since 2015)				
ASK	If TYPEHUQ in(2,3)			
Is any part o	of your home built over	Yes	No	
A basement? [CELLAR] 1 0 A crawl space? [CRAWL] 1 0 A concrete slab? [CONCRETE] 1 0 Some other foundation? [BASEOTH] 1 0				
NEXT	If CELLAR=1: BASEFIN Else: ATTIC			
MODE				
WEB PROMPT	SOFT PROMPT IF ALL MISSING: D <buttons: answer="" change="" conti<="" th=""><th>•</th><th>to leave this question</th><th>blank?</th></buttons:>	•	to leave this question	blank?

BASEFIN	
ASK	If CELLAR=1
	of your basement finished? For this survey, a "finished" basement has finishing materials on iling, and walls.
NEXT	ATTIC
MODE	Paper – Include skip information before the question: (If any part of your home is built over a basement)
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

ATTIC	
ASK	If TYPEHUQ in(2,3)
An attic is a have an atti 1 Yes 0 No	
NEXT	If ATTIC=1: ATTICFIN Else: STORIES
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

ATTICFIN ASK If ATTIC=1

Is any part of your attic finished? For this survey, a "finished" attic has finishing materials on the floor, ceiling, and walls.

1 Yes

0 No

NEXT	STORIES
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
PROMPT	<pre><buttons: answer="" change="" continue=""></buttons:></pre>

ASK If TYPEHUQ in(2,3)

Not including basements or attics, how many stories does your home have?

- 1 One story
- 2 Two stories
- 3 Three stories
- 4 Four or more stories
- 5 Split-level

NEXT	PRKGPLC1
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
PROMPT	<buttons: answer="" change="" continue=""></buttons:>

PRKGPLC1	
ASK	If TYPEHUQ in(2,3)
Does your h	ome have an attached garage?
NEXT	If PRKGPLC1=1: SIZEOFGARAGE Else: PRIMRES
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>

SIZEOFGAI	SIZEOFGARAGE	
ASK	If PRKGPLC1=1	
1 One 2 Two	size of your attached garage? e-car garage e-car garage ee-or-more-car garage	
NEXT	PRIMRES	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

PRIMRES	
ASK	All respondents

If MODE=Web and mail_type in(1,2,3): Is the home at [FILL: street address from sample file: "address1" or "address2" (if address2 is non-missing)] your primary residence? Your primary residence is the place where you live most of the year. If MODE=Web and mail_type in(4,5): Is the home associated with the address on the letter you received your primary residence? Your primary residence is the place where you live most of the year. If MODE=Paper: Is the home associated with the address on the enclosed letter your primary residence? Your primary residence is the place where you live most of the year.

1 Yes 0 No

NEXT	KOWNRENT
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>
PROMPT	SOFT PROMPT IF PRIMRES=0: Just to confirm, this address is <u>not</u> your primary residence. Is that correct? <buttons: answer="" change="" continue=""></buttons:>

KOWNRENT				
ASK	All respondents			
Is your home 1 Owned by you or someone in your household? 2 Rented? 3 Occupied without payment of rent?				
NEXT	YEARMADE, YEARMADE_DK			
MODE				
WEB SOFT PROMPT IF MISSING: Did you mean to leave this question blank? PROMPT <buttons: answer="" change="" continue=""></buttons:>				

YEARMADE, YEARMADE_DK (New for web/mail; used to be on CAPI)				
ASK	All respondents			
In what year was your home built?				
{WE	B: ALLOW RANGE 1600 – 2021; PAPER: FOUR DIGITS}			
Don	Don't know [YEARMADE_DK: 1 if selected, 0 if not]			
NEXT	If 1600 le YEARMADE le 2021: MOVER, MOVE20MON, MOVE21MON Else: YEARMADERANGE			
MODE				
WEB	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't Know." <buttons: answer="" change="" continue=""></buttons:>			
PROMPT	SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1600 to 2021. <buttons: answer="" change="" continue=""></buttons:>			

YEARMADERANGE			
ASK	If NOT 1600 le YEARMADE le 2021		
	u do not know the exact year your home was built, it is helpful to have an estimate. About our home built?		
1 Befo	ore 1950		
2 195	0 to 1959		
3 196	0 to 1969		
	0 to 1979		
	0 to 1989		
	0 to 1999		
	0 to 2009		
	8 2010 to 2015		
9 201	6 to 2020		
NEXT	MOVER, MOVE20MON, MOVE21MON		
MODE			
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?		
PROMPT	<buttons: answer="" change="" continue=""></buttons:>		

MOVER, MOVE20MON, MOVE21MON (New for 2020)		
ASK	All respondents	
1 201: 2 202:	our household move in to this home? 9 or earlier 0 → In what month? [MOVE20MON: Character variable] 1 → In what month? [MOVE21MON: Character variable]	
NEXT	VACANT	
MODE	Web: Use dropdown menus to select months (i.e. January, February). Do not allow month to be selected until the corresponding year has been selected.	
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

VACANT (Changed since 2015)				
ASK	All respondents			
Was your home vacant for one or more months <u>between January 2020 and now?</u> 1 Yes 0 No				
-4 Don't know				
NEXT	SQFTEST, SQFTEST_DK			
MODE				
WEB PROMPT SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>				

SQFTEST, SQFTEST_DK (Changed since 2015)			
ASK	All respondents		
What is the square footage of your home?			
	square feet		
{WE	B: ALLOW RANGE 0 – 99,999; PAPER: FIVE DIGITS, COMMA FORMAT}		
Don	Don't know [SQFTEST_DK: 1 if selected, 0 if not]		
NEXT	If 0 le SQFTEST le 99,999: SFSOURCE1, SFSOURCE2, SFSOURCE3, SFSOURCE4, SFSOURCE5, SFSOURCE6, SFSOURCE7, SFSOURCE7_other Else: SQFTRANGE		
MODE			
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't Know." <buttons: answer="" change="" continue=""></buttons:>		

SQFTRANGE (New for 2020) ASK If NOT 0 le SQFTEST le 99,999

We understand that you might not know how many square feet your home is. A home's size is closely related to its energy use, so we would like you to <u>provide an estimate</u>. Please tell us which category best describes the square footage of your home.

- 1 Less than 600 square feet
- 2 600 to 799 square feet
- 3 800 to 999 square feet
- 4 1,000 to 1,499 square feet
- 5 1,500 to 1,999 square feet
- 6 2,000 to 2,499 square feet
- 7 2,500 to 2,999 square feet
- 8 3,000 square feet or more
- -4 Don't know (Select this option only if you are unable to provide a guess)

NEXT	If 1 le SQFTRANGE le 8: SFSOURCE1, SFSOURCE2, SFSOURCE3, SFSOURCE4, SFSOURCE5, SFSOURCE6, SFSOURCE7, SFSOURCE7_other Else: BEDROOMS, NCOMBATH, NHAFBATH, OTHROOMS
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

SFSOURCE1, SFSOURCE2, SFSOURCE3, SFSOURCE4, SFSOURCE5, SFSOURCE6, SFSOURCE7, SFSOURCE7_other (New for 2020)	
ASK	If (0 le SQFTEST le 99,999) or (1 le SQFTRANGE le 8)

What sources of information did you use to determine your home's square footage? *Please select all that apply.*

I remember from when I bought or leased my home [SFSOURCE1: 1 if selected, 0 if not] I checked an Internet site (for example: Zillow) [SFSOURCE2: 1 if selected, 0 if not] I checked my property tax documents [SFSOURCE3: 1 if selected, 0 if not] I checked my lease or mortgage documents [SFSOURCE4: 1 if selected, 0 if not] I asked someone else who knows [SFSOURCE5: 1 if selected, 0 if not] I made an estimate [SFSOURCE6: 1 if selected, 0 if not]
Other ([WEB: specify below / PAPER: please specify]) [SFSOURCE7: 1 if selected, 0 if not;

Other ([WEB: specify below / PAPER: please specify]) [SFSOURCE7: 1 if selected, 0 if not; SFSOURCE7_other]

NEXT	SQFTINCB, SQFTINCG
MODE	
WEB	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>
PROMPT	SOFT PROMPT IF SFSOURCE7=1 AND SFSOURCE7_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:>

SQFTINCB, SQFTINCA, SQFTINCG (Changed since 2015)				
ASK	If ((0 le SQFTEST le 99,999) OR (1 le SQFT	RAN	GE le 8))
Are any of the following areas included in your answer of [FILL: <sqftest> square feet / SQFTRANGE]?</sqftest>				
	`	⁄es	No	Don't know
Basement [SQFTINCB]		1	0	-4
Attic [SQFTINCA]		1	0	-4
Attached garage [SQFTINCG] 1 0 -4		-4		
NEXT	BEDROOMS, NCOMBATH, NHAFBATH, OTHROOMS			
MODE	Paper: Use alternate question text – Are any of the following areas included in the square footage you provided?			
WEB	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't Know."			
PROMPT	<buttons: answer="" change="" continue=""></buttons:>			

BEDROOMS, NCOMBATH, NHAFBATH, OTHROOMS				
ASK	All respondents			
How many of the following types of rooms are in your home? [If BASEFIN=1 or ATTICFIN=1: Include rooms in finished basements and finished attics.] <i>If none, please enter "0."</i>				
eithe	Number of bedrooms [BEDROOMS] Number of full bathrooms (A full bathroom includes a sink with running water, a toilet, and a bath or shower.) [NCOMBATH] Number of half bathrooms (A half bathroom includes a sink with running water and either a toilet, a bath, or a shower.) [NHAFBATH] Number of other rooms (Include kitchens, laundry rooms, living or family rooms, home offices, etc. Do not include hallways, closets, or rooms you already counted above.) [OTHROOMS]			
{BEDROOMS/NCOMBATH/NHAFBATH: WEB: ALLOW RANGE 0 – 9; PAPER: ONE DIGIT. OTHROOMS: WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}				
NEXT	WALLTYPE, WALLTYPE_other			
MODE	Paper: Present "include" statement for all respondents.			
WEB PROMPT	I home has none of these inlease enter "() "			

WALLTYPE, WALLTYPE_other (Changed since 2015) ASK All respondents

What type of material is the outside of your home made of? *Select only one*. If more than one material is used, please select the one used the most.

- 1 Brick
- 2 Wood
- 3 Siding (aluminum, fiber cement, vinyl, or steel)
- 4 Stucco
- 5 Shingle (composition)
- 6 Stone
- 7 Concrete block
- 99 Other ([WEB: specify below / PAPER: please specify]) [WALLTYPE_other]
- -4 Don't know

NEXT	ROOFTYPE, ROOFTYPE_other
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>
	SOFT PROMPT IF WALLTYPE=99 AND WALLTYPE_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:>

ROOFTYPE, ROOFTYPE_other ASK All respondents

What type of material is your home's roof made of? *Select only one*. If more than one material is used, please select the one used the most.

- 1 Ceramic or clay tiles
- 2 Wood shingles/shakes
- 3 Metal
- 4 Slate or synthetic slate
- 5 Shingles (composition or asphalt)
- 6 Concrete tiles
- 99 Other ([WEB: specify below / PAPER: please specify]) [ROOFTYPE_other]
- -4 Don't know

PROMPT

NEXT	HIGHCEIL
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>
PROMPT	SOFT PROMPT IF ROOFTYPE=99 AND ROOFTYPE_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:>

HIGHCEIL (Changed since 2015)	
ASK	All respondents
Most ceilings are about 8 feet high, which is about a foot higher than a standard door. Are any of the ceilings in your home higher than 8 feet? 1 Yes 0 No	
NEXT	DOOR1SUM
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this guestion blank?

<BUTTONS: Change Answer / Continue>

DOOR1SUM (Changed since 2015)		
ASK	All respondents	
Thinking only about doors that open to the outside, how many sliding glass doors and French doors does your home have? Count each set of doors as one door. If none, please enter "0." Sliding glass and French doors		
{WEB: ALLOW RANGE 0 – 9; PAPER: ONE DIGIT} NEXT WINDOWS		
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0." <buttons: answer="" change="" continue=""></buttons:>	

WINDOWS	WINDOWS	
ASK	All respondents	
About how many windows does your home have?		
1 1o	r 2 windows	
	2 3 to 5 windows	
	3 6 to 9 windows	
	4 10 to 15 windows	
	5 16 to 19 windows	
	6 20 to 29 windows	
7 30 or more windows		
-4 Don't know		
NEXT	TYPEGLASS	
MODE		
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't	
PROMPT	know the answer you may select "Don't know."	
	SBUTTONS: Change Answer / Continue>	

TYPEGLASS ASK All respondents

Not counting storm windows, which best describes the glass in most of the windows in your home?

- Single-pane glass Double-pane glass
- Triple-pane glass 3
- -4 Don't know

NEXT	ORIGWIN
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

ORIGWIN (New for 2020)	
ASK	All respondents
Are at least built?	half of your home's windows the original windows that were installed when the home was
1 Yes 0 No -4 Don't know	
NEXT	WINFRAME
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

WINFRAME (Changed since 2015)		
ASK	All respondents	
1 Woo 2 Met 3 Viny 4 Con 5 Fibe	3 Vinyl 4 Composite	
-4 Don't know		
NEXT	TREESHAD	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>	

TREESHAD (New for web/mail; used to be on CAPI)		
ASK	All respondents	
Do any large 1 Yes 0 No	e trees shade your home from the afternoon sun?	
NEXT	ADQINSUL	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

ADQINSUL		
ASK	All respondents	
Which of the following best describes the insulation level of your home? 1 Well insulated 2 Adequately insulated 3 Poorly insulated 4 Not insulated		
NEXT	DRAFTY	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

DRAFTY		
ASK	All respondents	
How often do you or other members of your household find your home too drafty? 1 All the time 2 Most of the time 3 Some of the time 4 Never		
NEXT	UGASHERE	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?	

UGASHERE		
ASK	All respondents	
Is natural gas from underground pipes available in your neighborhood?		
1 Yes 0 No		
-4 Don't know		
NEXT	If TYPEHUQ in(1,2,3): SWIMPOOL If TYPEHUQ in(4,5): RECBATH	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>	

SWIMPOOL	
ASK	If TYPEHUQ in(1,2,3)
Does your home have its own swimming pool? 1 Yes 0 No	
NEXT	If SWIMPOOL=1: MONPOOL Else: RECBATH
MODE	Paper: Ask of all respondents.
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

MONPOOL	
ASK	If SWIMPOOL=1
In the past year, how many months was your swimming pool in use?	
	months
{WEB: ALLOW RANGE 0 – 12, PAPER: TWO DIGITS}	
NEXT	If MONPOOL ge 1: POOLPUMP Else: RECBATH
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>
PROMPT	SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 12. <buttons: answer="" change="" continue=""></buttons:>

POOLPUMP (New for 2020)		
ASK	If MONPOOL ge 1	
Does your swimming pool have a variable-speed pump, which uses less energy by adjusting the motor speed?		
1 Yes 0 No -4 Don't know		
NEXT	FUELPOOL, FUELPOOL_other	
MODE	Paper: Ask if SWIMPOOL=1.	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>	

FUELPOOL, FUELPOOL_other (Changed since 2015)			
ASK	If MONPOOL ge 1		
What fuel is	What fuel is used to heat the water in your swimming pool?		
 None, my swimming pool is not heated Electricity Natural gas from underground pipes Propane (bottled gas) Fuel oil Other ([WEB: specify below / PAPER: please specify]) [FUELPOOL_other] Don't know 			
NEXT	RECBATH		
MODE	Paper: Ask if SWIMPOOL=1.		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""> SOFT PROMPT IF FUELPOOL=99 AND FUELPOOL_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:></buttons:>		

RECBATH	
ASK	All respondents
Does your h	ome have its own hot tub, spa, or Jacuzzi, other than a bathtub?
NEXT	If RECBATH=1: MONTUB Else: APPLIANCES SECTION
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>

MONTUB		
ASK	If RECBATH=1	
In the past year, how many months was your hot tub, spa, or Jacuzzi in use?		
	months	
{WEB: ALLOW RANGE 0 – 12, PAPER: TWO DIGITS}		
NEXT	If MONTUB ge 1: FUELTUB, FUELTUB_other Else: APPLIANCES SECTION	
MODE		
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?	

FUELTUB,	FUELTUB, FUELTUB_other (Changed since 2015)		
ASK	If MONTUB ge 1		
What fuel is	What fuel is used to heat the water in your hot tub, spa, or Jacuzzi?		
5 Electricity 1 Natural gas from underground pipes 2 Propane (bottled gas) 3 Fuel oil 99 Other ([WEB: specify below / PAPER: please specify]) [FUELTUB_other] -4 Don't know			
NEXT	APPLIANCES SECTION		
MODE	Paper: Ask if RECBATH=1.		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""> SOFT PROMPT IF FUELTUB=99 AND FUELTUB_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:></buttons:>		

Appliances

WEB MOTIVATIONAL PROMPT #1: Thank you for your participation so far! The next questions are about appliances in your home and will provide valuable information for this study.

NUMFRIG (Changed since 2015)	
ASK	All respondents
How many refrigerators are plugged-in and turned on in your home? Include compact refrigerators and refrigerators in basements or garages, even if they are only used occasionally. <i>If none, please enter "0."</i>	
refrigerators	
{WEB: ALLOW RANGE 0 – 9; PAPER: ONE DIGIT}	
NEXT	If NUMFRIG>0: SIZRFRI1 Else: WINECHILL
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0." <buttons: answer="" change="" continue=""></buttons:>

SIZRFRI1	
ASK	If NUMFRIG>0
What is the size of your [If NUMFRIG>1: most used] refrigerator?	
 Half-size or compact Small (17.5 cubic feet or less) Medium (17.6 to 22.5 cubic feet) Large (22.6 to 29.5 cubic feet) Very large (bigger than 29.5 cubic feet) 	
NEXT	If SIZRFRI1=1: AGEFRI1 Else: TYPERFR1
MODE	Paper: Include "most used" in question text.
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>

TYPERFR1 ASK If SIZRFRI1>1 or missing

Which of the following best describes your [If NUMFRIG>1: most used] refrigerator?

One door

WEB

PROMPT

- 2 Two doors, freezer next to the refrigerator
- Two doors, freezer above the refrigerator
- Two doors, freezer below the refrigerator
- Three or more doors

NEXT	AGERFRI1
MODE	Paper: Include "most used" in question text.
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
PROMPT	<buttons: answer="" change="" continue=""></buttons:>

AGERFRI1	
ASK	If NUMFRIG>0
About how old is your [If NUMFRIG>1: most used] refrigerator? Your best estimate is fine. 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 or more years old	
-4 Don't know	
NEXT	ICE
MODE	Paper: Include "most used" in question text.
WER	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't

know the answer you may select "Don't know."

<BUTTONS: Change Answer / Continue>

ICE	
ASK	If NUMFRIG>0
Does your [If NUMFRIG>1: most used] refrigerator have through-the-door ice service? 1 Yes 0 No	
NEXT	If NUMFRIG>1: SIZRFRI2 Else: WINECHILL
MODE	Paper: Include "most used" in question text.
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? SUTTONS: Change Answer / Continue>

SIZRFRI2		
ASK	If NUMFRIG>1	
What is the	size of your second most used refrigerator?	
	2 Small (17.5 cubic feet or less)	
	3 Medium (17.6 to 22.5 cubic feet)	
	ge (22.6 to 29.5 cubic feet)	
5 Very large (bigger than 29.5 cubic feet)		
	If SIZRFRI2=1: MONRFRI2	
NEXT	Else: TYPERFR2	
MODE	Paper – Include checkpoint before the question: If you have only one refrigerator → Go to #50	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?	
PROMPT	<buttons: answer="" change="" continue=""></buttons:>	

TYPERFR2	
ASK	If SIZRFRI2>1 or missing
1 One 2 Two 3 Two 4 Two	e following best describes your <u>second most used</u> refrigerator? e door doors, freezer <u>next</u> to the refrigerator doors, freezer <u>above</u> the refrigerator doors, freezer <u>below</u> the refrigerator e or more doors
NEXT	MONRFRI2
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

MONRFRI2 (New for web/mail; used to be on CAPI)	
ASK	If NUMFRIG>1
In the past year, how many months was your <u>second most used</u> refrigerator plugged in and turned on?	
	months
{WE	EB: ALLOW RANGE 0 – 12; PAPER: TWO DIGITS}
NEXT	AGERFRI2
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""> SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 12. <buttons: answer="" change="" continue=""></buttons:></buttons:>

AGERFRI2		
ASK	If NUMFRIG>1	
About how o	old is your second most used refrigerator? Your best estimate is fine.	
	2 2 to 4 years old 3 5 to 9 years old	
	,	
6 20 or more years old		
-4 Don't know		
NEXT	LOCRFRI2, LOCRFRI2_other	
MODE		
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't	
PROMPT	know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>	

LOCRFRI2, LOCRFRI2_other (Changed since 2015)	
ASK	If NUMFRIG>1
Where is your second most used refrigerator located?	
1 Basement 2 Garage 3 Outside 4 Main living area 99 Other ([WEB: specify below / PAPER: please specify]) [LOCRFRI2_other]	
NEXT	WINECHILL
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""> SOFT PROMPT IF LOCRFRI2=99 AND LOCRFRI2_other IS MISSING: You selected Other (chasify helpey) as your appropriate provide additional details in the toythey.</buttons:>
	Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:>

WINECHILL (New for 2020)	
ASK	All respondents
Does your h	ome have a wine chiller?
NEXT	NUMFREEZ
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

NUMFREEZ		
ASK	All respondents	
How many s	stand-alone freezers are plugged-in and turned on in your home? <i>If none, please enter "0."</i>	
	freezers	
{WEB: ALLOW RANGE 0 – 9; PAPER: ONE DIGIT}		
NEXT	If NUMFREEZ>0: UPRTFRZR Else: RANGE, COOKTOP, OVEN	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0." <buttons: answer="" change="" continue=""></buttons:>	

UPRTFRZR	
ASK	If NUMFREEZ>0
Which of the	•
NEXT	SIZFREEZ
MODE	Paper: Include "most used" in question text.
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

SIZFREEZ		
ASK	If NUMFREEZ>0	
What is the	size of your [If NUMFREEZ>1: most used] freezer?	
2 Sma 3 Med 4 Larg	3 Medium (17.6 to 22.5 cubic feet) 4 Large (22.6 to 29.5 cubic feet)	
NEXT	FREEZER	
MODE	Paper: Include "most used" in question text.	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

FREEZER (New for web/mail; used to be on CAPI)	
ASK	If NUMFREEZ>0
What type of defrosting does your [If NUMFREEZ>1: most used] freezer have? 1 Manual 2 Automatic	
NEXT	AGEFRZR
MODE	Paper: Include "most used" in question text.
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

AGEFRZR

ASK If NUMFREEZ>0

About how old is your [If NUMFREEZ>1: most used] freezer? Your best estimate is fine.

- 1 Less than 2 years old2 to 4 years old
- 3 5 to 9 years old
- 10 to 14 years old
- 15 to 19 years old
- 20 or more years old
- -4 Don't know

NEXT	RANGE, COOKTOP, OVEN
MODE	Paper: Include "most used" in question text.
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

RANGE, COOKTOP, OVEN (Changed since 2015)

ASK

All respondents







Range

Separate Cooktop

Wall Oven

The next questions are about ranges, separate cooktops, and wall ovens. *Please refer to the images above when answering these questions.*

How many <u>ranges</u> are in your home? A range is a cooktop attached to an oven.

ranges [RANGE]

How many <u>separate cooktops</u> are in your home? Count the entire cooktop, not the number of burners. Do not include cooktops that are part of a range.

_____ separate cooktops [COOKTOP]

How many wall ovens are in your home? Do not include wall ovens that are part of a range.

____ wall ovens [OVEN]

{FOR ALL: WEB: ALLOW RANGE 0 − 9; PAPER: ONE DIGIT}

NEXT	If RANGE>0: RANGEFUEL Else if COOKTOP>0: COOKTOPFUEL Else if OVEN>0: OVENFUEL Else: MICRO
MODE	
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0." <buttons: answer="" change="" continue=""> SOFT PROMPT IF COOKTOP>3: You said you have {COOKTOP} separate cooktops. Is that correct? Please be sure you are not counting each burner separately. <buttons: answer="" change="" continue=""> SOFT PROMPT IF RANGE ge 1 AND COOKTOP ge 1: You said you have both a range and a separate cooktop. Is this correct? <buttons: answer="" change="" continue=""></buttons:></buttons:></buttons:>

RANGEFUEL (Changed since 2015)	
ASK	If RANGE>0
What fuel does your [If RANGE>1: most used] range use?	
5 Electricity 1 Natural gas from underground pipes 2 Propane (bottled gas) 13 Electricity and gas (dual-fuel range)	
NEXT	If RANGEFUEL=5: RANGEINDT Else: RCOOKUSE
MODE	Paper: Include "most used" in question text. Include checkpoint before the question: <i>If</i> your home does <u>not</u> have a <u>range</u> → Go to #63. Include skip information before the question: (<i>If your home has a range</i>)
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>

RANGEINDT (New for 2020)	
ASK	If RANGEFUEL=5
An induction cooktop is a rare type of cooktop that requires specialized magnetic cookware. Does your range have an induction cooktop? 1 Yes 0 No	
NEXT	RCOOKUSE
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

RCOOKUSE (Changed since 2015)		
ASK	If RANGE>0	
About how many times is the cooktop part of your [If RANGE>1: most used] range used per week? If not used, please enter "0."		
times per week		
{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}		
NEXT	ROVENUSE	
MODE	Paper: Include "most used" in question text.	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

ROVENUSE (Changed since 2015)		
ASK	If RANGE>0	
About how many times is the <u>oven part of your [If RANGE>1: most used] range</u> used per week? <i>If not used, please enter "0."</i>		
times per week		
{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}		
NEXT	If COOKTOP>0: COOKTOPFUEL Else if OVEN>0: OVENFUEL Else: MICRO	
MODE	Paper: Include "most used" in question text.	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?	

COOKTOPFUEL	
ASK	If COOKTOP>0
What fuel does your [If COOKTOP>1: most used] separate cooktop use?	
5 Electricity 1 Natural gas from underground pipes 2 Propane (bottled gas)	
NEXT	If COOKTOPFUEL=5: COOKTOPINDT Else: COOKTOPUSE
MODE	Paper: Include "most used" in question text. Include checkpoint before the question: <i>If</i> your home does <u>not</u> have a <u>separate cooktop</u> → Go to #66. Include skip information before the question: (<i>If your home has a separate cooktop</i>)
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>

COOKTOPINDT (New for 2020)		
ASK	If COOKTOPFUEL=5	
	n cooktop is a rare type of cooktop that requires specialized magnetic cookware. Is your oktop an induction cooktop?	
NEXT	COOKTOPUSE	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

COOKTOPUSE		
ASK	If COOKTOP>0	
About how many times is your [If COOKTOP>1: most used] separate cooktop used per week? If not used, please enter "0."		
	times per week	
{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}		
NEXT	If OVEN>0: OVENFUEL Else: MICRO	
MODE	Paper: Include "most used" in question text.	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>	

OVENFUEL (Changed since 2015)	
ASK	If OVEN>0
5 Elec 1 Natu	pes your <u>wall oven</u> use? etricity ural gas from underground pipes pane (bottled gas)
NEXT	OVENUSE
MODE	Include checkpoint before the question: If your home does <u>not</u> have a <u>wall oven</u> \rightarrow Go to #68. Include skip information before the question: (If your home has a wall oven)
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>

OVENUSE (Changed since 2015)	
ASK	If OVEN>0
About how many times is your <u>wall oven</u> used per week? <i>If not used, please enter "0."</i> times per week	
{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}	
NEXT	MICRO
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

MICRO		
ASK	All respondents	
How many microwaves are in your home?		
	microwaves	
{WEB: ALLOW RANGE 0 – 9; PAPER: ONE DIGIT}		
NEXT	If MICRO>0: AMTMICRO Else: OUTGRILLFUEL	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0." <buttons: answer="" change="" continue=""></buttons:>	

AMTMICRO		
ASK	If MICRO>0	
About how many times is your microwave used per week? If not used, please enter "0."		
	times per week	
{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}		
NEXT	OUTGRILLFUEL	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

OUTGRILLFUEL	
ASK	All respondents
Does your household use an outdoor grill? 1 Yes, natural gas grill 2 Yes, propane grill 23 Yes, charcoal grill 0 No	
NEXT	NUMMEAL
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

NUMMEAL

ASK All respondents

Which of the categories below best describes how often hot food is cooked in your home?

- 1 Three or more times a day
- 2 Two times a day
- 3 Once a day
- 4 A few times each week
- 5 About once a week
- 6 Less than once a week
- 0 Never

NEXT	USECOFFEE
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
PROMPT	<buttons: answer="" change="" continue=""></buttons:>

USECOFFEE (New for 2020)

ASK All respondents

How frequently is an electric coffee maker used in your home? Include drip coffee makers, single-serve machines, and espresso machines.

- 1 Every day or almost every day
- 2 A few times each week
- 3 Only occasionally
- 0 Never

NEXT	TOAST, TOASTOVN, CROCKPOT, PRSSCOOK, RICECOOK, BLENDER, APPOTHER, APPOTHER_other
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

TOAST, TOASTOVN, CROCKPOT, PRSSCOOK, RICECOOK, BLENDER, APPOTHER, APPOTHER_other (Changed since 2015)					
ASK	All respondents				
Are any of the following small kitchen appliances <u>used at least once a week</u> in your home?					
		Yes	No		
Toaster [TOAST]		1	0		
Toaster oven [TOASTOVN]		1	0		
Crock-Pot or slow cooker [CROCKPOT]		1	0		
Instant Pot or electric pressure cooker [PRSSCOOK]		1	0		
Rice cooker [RICECOOK]		1	0		
Blender or juicer [BLENDER]		1	0		
Other ([WEB: specify below / PAPER: please specify])					
[APPOTHER, APPOTHER_other]		1	0		
NEXT	DISHWASH				
MODE					
SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?					
14/55	<buttons: answer="" change="" continue=""></buttons:>				
WEB	T COST PROMPT IS APPOTUSED A AND APPOTUSED. III III MICOINIO V				
PROMPT SOFT PROMPT IF APPOTHER=1 AND APPOTHER_other IS MISSING: You se					
Other (specify below) as your answer. Please provide additional details in the textbox.					
	<buttons: answer="" change="" continue=""></buttons:>				

DISHWASH				
ASK	All respondents			
Does your home have a dishwasher? 1 Yes 0 No				
NEXT	If DISHWASH=1: DWASHUSE Else: CWASHER			
MODE				
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>			

DWASHUSE		
ASK	If DISHWASH=1	
About how many times is your dishwasher used per week? If not used, please enter "0."		
	times per week	
{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}		
NEXT	DWCYCLE	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

DWCYCLE (Changed since 2015)	
ASK	If DISHWASH=1
Which cycle is used most of the time when running your dishwasher? 1 Normal cycle without heated dry 2 Normal cycle with heated dry 3 Heavy or "pots and pans" cycle 4 Light or delicate cycle 5 Energy saver cycle 6 Quick cycle	
-4 Don't know	
-3 Dishwasher not used	
NEXT	AGEDW
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

ASK If DISHWASH=1 About how old is your dishwasher? Your best estimate is fine. 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

-4	Don't know
-4	Don't know

6 20 or more years old

NEXT	CWASHER
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

CWASHER	
ASK	All respondents
Does your home have a clothes washer? [If TYPEHUQ in(4,5): Do not include community clothes washers that are located in the basement or laundry room of your apartment building.] 1 Yes 0 No	
NEXT	If CWASHER=1: TOPFRONT Else: DRYER
MODE	Paper: Display modified second sentence for all respondents: "Do not include community clothes washers that are located in the basement or laundry room of an apartment building."
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

TOPFRONT	
ASK	If CWASHER=1
Is your clothes washer top loading or front loading? 1 Top loading 2 Front loading	
NEXT	WASHLOAD
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

WASHLOAD	
ASK	If CWASHER=1
About how many times is your clothes washer used per week? <i>If not used, please enter "0."</i> times per week {WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}	
NEXT	WASHTEMP
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

WASHTEMP	
ASK	If CWASHER=1
What water temperature setting is typically used for the <u>wash</u> cycle of your clothes washer? 1 Hot 2 Warm 3 Cold	
NEXT	AGECWASH
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>

AGECWASH		
ASK	If CWASHER=1	
About how old is your clothes washer? Your best estimate is fine.		
	1 Less than 2 years old	
	3 5 to 9 years old	
	4 10 to 14 years old	
	,	
6 20 or more years old		
-4 Don't know		
1 Bontaion		
NEXT	DRYER	
MODE		
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't	
PROMPT	know the answer you may select "Don't know."	
	<buttons: answer="" change="" continue=""></buttons:>	

DRYER	
ASK	All respondents
Does your home have a clothes dryer? [If TYPEHUQ in(4,5): Do not include community clothes dryers that are located in the basement or laundry room of your apartment building.] 1 Yes 0 No	
NEXT	If DRYER=1: DRYRFUEL Else: ELECTRONICS SECTION
MODE	Paper: Display modified second sentence for all respondents: "Do not include community clothes dryers that are located in the basement or laundry room of an apartment building."
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>

DRYRFUEL	
ASK	If DRYER=1
What fuel does your clothes dryer use? 5 Electricity 1 Natural gas from underground pipes 2 Propane (bottled gas) -4 Don't know	
NEXT	DRYRUSE
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

DRYRUSE		
ASK	If DRYER=1	
About how many times is your clothes dryer used per week? If not used, please enter "0."		
times per week		
{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}		
NEXT	AGECDRYER	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

ASK If DRYER=1 About how old is your clothes dryer? Your best estimate is fine. 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

-4 Don't know

20 or more years old

NEXT	ELECTRONICS SECTION
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

Electronics

TVCOLOR		
ASK	All respondents	
How many televisions are used in your home? If none, please enter "0."		
	televisions	
{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}		
NEXT	If TVCOLOR>0 : TVSIZE1 Else: DESKTOP, NUMLAPTOP, NUMTABLET, ELPERIPH, NUMSMPHONE, CELLPHONE	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0." <buttons: answer="" change="" continue=""></buttons:>	

TVSIZE1	
ASK	If TVCOLOR>0
What is the size of your [If TVCOLOR>1: most used] television? 1 27 inches or less 2 28 to 39 inches 3 40 to 59 inches 4 60 inches or more	
NEXT	TVTYPE1
MODE	Paper: Include "most used" in question text.
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

TVTYPE1 (Changed since 2015)

ASK If TVCOLOR>0

What type of display does your [If TVCOLOR>1: most used] television have?

- 1 LED or OLED
- 2 LCD
- 3 Plasma
- 4 Projection
- 5 Tube (non-flat screen)
- -4 Don't know

NEXT	TVUSE1, TVUSE1_other
MODE	Paper: Include "most used" in question text.
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

TVUSE1, TVUSE1_other (New for 2020)

ASK If TVCOLOR>0

What is the main use of your [If TVCOLOR>1: most used] television?

- 1 Watching live programming
- 2 Watching recorded or on-demand programming from a set-top box
- 3 Streaming content via <u>built-in smart TV apps</u>
- 4 Streaming content via a separate streaming device connected to the television
- 5 Playing video games
- 99 Other ([WEB: specify below / PAPER: please specify]) [TVUSE1_other]

NEXT	TVONWD1, TVONWD1LT1
MODE	Paper: Include "most used" in question text.
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

TVONWD1, TVONWD1LT1 (Changed since 2015)		
ASK	If TVCOLOR>0	
Thinking about your [If TVCOLOR>1: <u>most used]</u> television's use on <u>weekdays</u> , how many hours is it turned on each day? Include the time it is on even if no one is actually watching it.		
	hours per day	
{WE	{WEB: ALLOW RANGE 0 – 24; PAPER: TWO DIGITS}	
Less than one hour [TVONWD1LT1: 1 if selected, 0 if not]		
NEXT	TVONWE1, TVONWE1LT1	
MODE	Paper: Include "most used" in question text.	
WEB	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	
PROMPT	SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 24. BUTTONS: Change Answer / Continue>	

If TVCOLOR>0	
Thinking about your [If TVCOLOR>1: most used] television's use on weekends, how many hours is it turned on each day? Include the time it is on even if no one is actually watching it.	
hours per day	
B: ALLOW RANGE 0 – 24; PAPER: TWO DIGITS}	
Less than one hour [TVONWE1LT1: 1 if selected, 0 if not]	
If TVCOLOR>1: TVSIZE2 Else: CABLESAT, COMBODVR, SEPDVR, PLAYSTA, DVD, VCR, INTSTREAM, TVAUDIOSYS	
Paper: Include "most used" in question text.	
SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	
SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 24. <buttons: answer="" change="" continue=""></buttons:>	

TVSIZE2	
ASK	If TVCOLOR>1
What is the size of your second most used television? 1 27 inches or less 2 28 to 39 inches 3 40 to 59 inches 4 60 inches or more	
NEXT	TVTYPE2
MODE	Paper: Include checkpoint before the question: If you have only one television → Go to #103
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

TVTYPE2 (Changed since 2015)			
ASK	If TVCOLOR>1		
What type of display does your <u>second most used</u> television have?			
	or OLED		
2 LCE			
	3 Plasma		
	4 Projection 5 Tube (non-flat screen)		
o Tube (non-nat soleen)			
-4 Don	-4 Don't know		
NEXT	TVUSE2, TVUSE2_other		
MODE			
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't		
PROMPT	know the answer you may select "Don't know."		
	<buttons: answer="" change="" continue=""></buttons:>		

TVUSE2, TVUSE2_other (New for 2020)	
ASK	If TVCOLOR>1
What is the main use of your second most used television? 1 Watching live programming 2 Watching recorded or on-demand programming from a set-top box 3 Streaming content via built-in smart TV apps 4 Streaming content via a separate streaming device connected to the television 5 Playing video games 99 Other ([WEB: specify below / PAPER: please specify]) [TVUSE2 other]	
NEXT	TVONWD2, TVONWD2LT1
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""> SOFT PROMPT IF TVUSE2=99 AND TVUSE2_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:></buttons:>

TVONWD2, TVONWD2LT1 (Changed since 2015)	
ASK	If TVCOLOR>1
Thinking about your <u>second most used</u> television's use on <u>weekdays</u> , how many hours is it turned on each day? Include the time it is on even if no one is actually watching it.	
	hours per day
{WEB: ALLOW RANGE 0 – 24; PAPER: TWO DIGITS}	
Less than one hour [TVONWD2LT1: 1 if selected, 0 if not]	
NEXT	TVONWE2, TVONWE2LT1
MODE	
WEB	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>
PROMPT	SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 24. <buttons: answer="" change="" continue=""></buttons:>

TVONWE2, TVONWE2LT1 (Changed since 2015)		
ASK	If TVCOLOR>1	
Thinking about your <u>second most used</u> television's use on <u>weekends</u> , how many hours is it turned on each day? Include the time it is on even if no one is actually watching it.		
	hours per day	
{WE	{WEB: ALLOW RANGE 0 – 24; PAPER: TWO DIGITS}	
Less than one hour [TVONWE2LT1: 1 if selected, 0 if not]		
NEXT	If TVCOLOR>2: TVSIZE3 Else: CABLESAT, COMBODVR, SEPDVR, INTSTREAM, PLAYSTA, DVD, VCR, TVAUDIOSYS	
MODE		
WEB	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	
PROMPT	SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 24. <buttons: answer="" change="" continue=""></buttons:>	

TVSIZE3 (New for web/mail; used to be on CAPI)	
ASK	If TVCOLOR>2
What is the size of your third most used television?	
 27 inches or less 28 to 39 inches 40 to 59 inches 60 inches or more 	
NEXT	TVTYPE3
MODE	Paper: Include checkpoint before the question: If you have only two televisions → Go to #103.
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

TVTYPE3 (New for web/mail; used to be on CAPI)		
ASK	If TVCOLOR>2	
What type of display does your third most used television have?		
	or OLED	
2 LCE 3 Plas		
-4 Don't know		
NEXT	TVUSE3, TVUSE3_other	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>	

TVUSE3, TVUSE3_other (New for 2020)		
ASK	If TVCOLOR>2	
What is the	What is the main use of your third most used television?	
 Watching live programming Watching recorded or on-demand programming from a set-top box Streaming content via <u>built-in smart TV apps</u> Streaming content via <u>a separate streaming device connected to the television</u> Playing video games Other ([WEB: specify below / PAPER: please specify]) [TVUSE3_other] 		
NEXT	TVONWD3, TVONWD3LT1	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""> SOFT PROMPT IF TVUSE3=99 AND TVUSE3_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:></buttons:>	

TVONWD3, TVONWD3LT1 (New for web/mail; used to be on CAPI)		
ASK	If TVCOLOR>2	
Thinking about your <u>third most used</u> television's use on <u>weekdays</u> , how many hours is it turned on each day? Include the time it is on even if no one is actually watching it.		
	hours per day	
{WE	B: ALLOW RANGE 0 – 24; PAPER: TWO DIGITS}	
Les	Less than one hour [TVONWD3LT1: 1 if selected, 0 if not]	
NEXT	TVONWE3, TVONWE3LT1	
MODE		
WEB	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?	

TVONWE3, TVONWE3LT1 (New for web/mail; used to be on CAPI)		
ASK	If TVCOLOR>2	
Thinking about your <u>third most used</u> television's use on <u>weekends</u> , how many hours is it turned on each day? Include the time it is on even if no one is actually watching it.		
	hours per day	
{WE	B: ALLOW RANGE 0 – 24; PAPER: TWO DIGITS}	
Less than one hour [TVONWE3LT1: 1 if selected, 0 if not]		
NEXT	CABLESAT, COMBODVR, SEPDVR, INTSTREAM, PLAYSTA, DVD, VCR, TVAUDIOSYS	
MODE		
WEB	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	
PROMPT	SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 24. <buttons: answer="" change="" continue=""></buttons:>	

CABLESAT since 2015	, COMBODVR, SEPDVR, INTSTREAM, PLAYSTA, DVD, VCR, TVAUDIOSYS (Changed	
ASK	If TVCOLOR>0	
How many of each of the following are used in your home? If none, please enter "0."		
	Number of cable or satellite boxes without DVR [CABLESAT] Number of cable or satellite boxes with DVR [COMBODVR] Number of separate DVRs (for example: TIVO) [SEPDVR] Number of Internet streaming devices (for example: Apple TV, Google Chromecast, Amazon Fire TV, or Roku) [INTSTREAM] Number of video game consoles [PLAYSTA] Number of DVD or Blu-ray players [DVD] Number of VCRs [VCR] Number of home theater or audio systems [TVAUDIOSYS] R ALL: WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}	
NEXT	DESKTOP, NUMLAPTOP, NUMTABLET, ELPERIPH, NUMSMPHONE, CELLPHONE	
MODE		
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0." <buttons: answer="" change="" continue=""></buttons:>	
DESKTOP,	NUMLAPTOP, NUMTABLET, ELPERIPH, NUMSMPHONE, CELLPHONE	
ASK	All respondents	
How many of each of the following are used in your home? Include equipment provided by an employer or school for use at home. If none, please enter "0." Number of desktop computers [DESKTOP] Number of laptop computers [NUMLAPTOP] Number of tablet computers or e-readers (for example: iPad or Kindle) [NUMTABLET] Number of printers, scanners, fax machines, or copiers [ELPERIPH] Number of "smart" phones (for example: iPhone or Android) [NUMSMPHONE] Number of other cellular phones [CELLPHONE]		

{FOR ALL: WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}	
NEXT	TELLWORK
MODE	
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0." <buttons: answer="" change="" continue=""></buttons:>

TELLWORK (New for web/mail; used to be on CAPI)		
ASK	All respondents	
Does anyone in your household telework or work from home? Include only work being done for pay. 1 Yes 0 No		
NEXT	If TELLWORK=1: TELLDAYS Else: ONLNEDUC	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?	

TELLDAYS (New for 2020)		
ASK	If TELLWORK=1	
In the past week, on how many days did at least one person in your household telework or work from home?		
	days	
{WE	{WEB: ALLOW RANGE 0 – 7; PAPER: ONE DIGIT}	
NEXT	TLDESKTOP, TLLAPTOP, TLTABLET, TLMONITOR, TLOTHER, TLOTHER_other	
MODE		
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	
PROMPT	SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 0 to 7. <buttons: answer="" change="" continue=""></buttons:>	

TLDESKTOP, TLLAPTOP, TLTABLET, TLMONITOR, TLOTHER, TLOTHER_other (New for 2020)		
ASK	If TELLWORK=1	
In your home, which of the following types of computer equipment are used for teleworking or working from home?		
	Yes No	
Lap Tab Exte Oth [TL0	sktop computer [TLDESKTOP] top computer [TLLAPTOP] top let [TLTABLET] ternal monitor [TLMONITOR] ter ([WEB: specify below / PAPER: please specify]) OTHER, TLOTHER_other] 1 0 1 0 1 1 0 1 1 1 1 1 1	
NEXT	ONLNEDUC	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""> SOFT PROMPT IF TLOTHER=1 AND TLOTHER_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:></buttons:>	er

ONLNEDUC (New for 2020)	
ASK	All respondents
Is anyone in your household receiving online K-12 distance learning or enrolled in online college courses? 1 Yes 0 No	
NEXT	INTERNET
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

INTERNET (Changed since 2015)	
ASK	All respondents
In your home, do you or any member of your household have access to the Internet? 1 Yes, by paying a cell phone company or Internet service provider 2 Yes, without paying a cell phone company or Internet service provider 0 No access to the Internet	
NEXT	If INTERNET=1: INTYPECELL, INTYPEBROAD, INTYPEOTH If INTERNET=2: SMARTSPK Else: SPACE HEATING SECTION
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>

INTYPECELL, INTYPEBROAD, INTYPEOTH (New for 2020)			
ASK	If INTERNET=1		
Do you or any member of your household have access to the Internet using a			
		Yes	No
Cellular data plan for a smartphone or other mobile device? [INTYPECELL] 1 0 Broadband (high speed) Internet service such as cable, fiber optic, or DSL service installed in your home? [INTYPEBROAD] 1 0 Satellite, dial-up, or some other Internet service installed in your home? [INTYPEOTH] 1 0			
NEXT	SMARTSPK		
MODE			
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this que <buttons: answer="" change="" continue=""></buttons:>	estion blan	k?

SMARTSPK (New for 2020)		
ASK	If INTERNET>0	
	How many "smart" or Internet-connected speakers (such as an Amazon Echo, Google Home, or Apple HomePod) are used in your home?	
smart speakers {WEB: ALLOW RANGE 0 – 9, PAPER: ONE DIGIT}		
If SMARTSPK>0: SSLIGHT, SSTEMP, SSSECURE, SSTV, SSOTHER, SSOTHER_other Else: SPACE HEATING SECTION		
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0." <buttons: answer="" change="" continue=""></buttons:>	

SSLIGHT, SSTEMP, SSSECURE, SSTV, SSOTHER, SSOTHER_other (New for 2020)			
ASK	If SMARTSPK>0		
Does your household control any of the following using your smart speaker(s)?			
		Yes	No
Lighting [SSLIGHT] 1 0 Temperature [SSTEMP] 1 0 Security system, cameras, or locks [SSSECURE] 1 0 Television, set-top box, or streaming device [SSTV] 1 0 Other ([WEB: specify below / PAPER: please specify]) [SSOTHER, SSOTHER_other] 1 0		0 0 0	
NEXT	SPACE HEATING SECTION		
MODE			
WEB PROMPT			

Space Heating

WEB MOTIVATIONAL PROMPT #2: Thanks for your participation so far! You are about halfway done. Your responses are very important to the study.

The next questions are about heating and cooling equipment in your home.

HEATHOME		
ASK	All respondents	
1 Yes 2 No,	e heated during the winter? I do not have any heating equipment I have heating equipment but do not use it	
NEXT	If HEATHOME=1 and TYPEHUQ in(4,5): HEATAPT If HEATHOME=1 and TYPEHUQ in(1,2,3): EQUIPM, EQUIPM_other If HEATHOME in(2,3): WHYNOHEAT, WHYNOHEAT_other Else: HUMIDTYPE	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>	

WHYNOHEAT, WHYNOHEAT_other (New for 2020)			
ASK	If HEATHOME in(2,3)		
Which of the	Which of the following best explains why your home is not heated during the winter?		
2 I red 3 My I 4 I do	e in a warm area where heating isn't needed cently moved into this home and have not been here during the winter yet neating equipment is broken or I can't afford to heat my home not live in this home during the winter er ([WEB: specify below / PAPER: please specify]) [WHYNOHEAT_other]		
NEXT	HUMIDTYPE		
MODE			
SOFT PROMPT IF MISSING: Did you mean to leave this question blank? SOFT PROMPT IF WHYNOHEAT=99 AND WHYNOHEAT_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. SOFT PROMPT IF WHYNOHEAT=99 AND WHYNOHEAT_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. SOFT PROMPT IF WHYNOHEAT=99 AND WHYNOHEAT_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.			

HEATAPT (New for 2020) ASK If HEATHOME=1 and TYPEHUQ in(4,5)

Is your apartment primarily heated by equipment that serves multiple units in your building, such as a furnace or boiler located in a basement or mechanical room?

- 1 Yes
- 0 No
- -4 Don't know

NEXT	EQUIPM, EQUIPM_other
MODE	Paper: Include checkpoint before the question: <i>If your home is</i> <u>not</u> heated during the winter → Go to #131. Include skip information before the question: (<i>If you live in an apartment</i>)
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

EQUIPM, **EQUIPM**_other (Changed since 2015)

ASK If HEATHOME=1

What is the main type of heating equipment used to provide heat for your home?

- 3 Central furnace
- 2 Steam or hot water system with radiators or pipes
- 4 Central heat pump
- 13 Ductless heat pump, also known as a "mini-split"
- 5 Built-in electric units installed in walls, ceilings, baseboards, or floors
- 6 Built-in room heater burning gas or oil
- 8 Wood or pellet stove
- 10 Portable electric heaters
- 99 Other ([WEB: specify below / PAPER: please specify]) [EQUIPM_other]
- -4 Don't know

NOTE: Graphics will accompany these response options. On web, they are formatted like this:



NEXT	FUELHEAT, FUELHEAT_other
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

SOFT PROMPT IF EQUIPM=99 AND EQUIPM_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <BUTTONS: Change Answer / Continue>

FUELHEAT, FUELHEAT_other		
ASK	If HEATHOME=1	
What is the	fuel used by your home's main heating equipment?	
1 Natu 2 Prop 3 Fue 7 Woo 99 Othe	ctricity ural gas from underground pipes pane (bottled gas) I oil od or pellets er ([WEB: specify below / PAPER: please specify]) [FUELHEAT_other] 't know	
NEXT	EQUIPAGE	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""> SOFT PROMPT IF FUELHEAT=99 AND FUELHEAT_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:></buttons:>	

EQUIPAGE			
ASK	If HEATHOME=1		
1 Less 2 2 to 3 5 to 4 10 t 5 15 t 6 20 c	old is your home's main heating equipment? Your best estimate is fine. s than 2 years old 4 years old 9 years old o 14 years old o 19 years old or more years old 't know		
	If EQUIPM=4: GEOHP		
NEXT	Else: EQUIPAUXTYPE, EQUIPAUXTYPE_other		
MODE			
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>		

GEOHP (New for 2020)		
ASK	If EQUIPM=4	
Does your h	ome have a geothermal/ground source heat pump?	
1 Yes 0 No -4 Don	't know	
NEXT	BACKUPHP	
MODE Paper: Include checkpoint before the question: Answer #s 119 and 120 if your home main heating equipment is a central heat pump. Otherwise, go to #121. Include skip information before the question: (If your main heating equipment is a central heat pu		
WEB PROMPT	know the answer you may select "I)on't know "	

BACKUPHP (New for 2020)		
ASK	If EQUIPM=4	

Many heat pumps have a backup or emergency heating method that can be used when it is very cold. What type of backup or emergency heating does your heat pump use?

- 1 Electric backup
- 2 Natural gas backup (dual-fuel system)
- 0 No backup/none used
- -4 Don't know

NEXT	EQUIPAUXTYPE, EQUIPAUXTYPE_other
MODE	Paper: Include skip information before the question: (If your main heating equipment is a central heat pump)
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

EQUIPAUXTYPE, **EQUIPAUXTYPE**_other (Changed since 2015)

ASK If HEATHOME=1

In addition to your main heating equipment, which of the following is used as a <u>second source</u> for heating your home? If more than one, select the type most frequently used.

- 0 No other equipment used
- 10 Portable electric heaters
- 9 Fireplace
- 8 Wood or pellet stove
- 5 Built-in electric units installed in walls, ceilings, baseboards, or floors
- 13 Ductless heat pump, also known as a "mini-split"
- 99 Other ([WEB: specify below / PAPER: please specify]) [EQUIPAUXTYPE_other]

NEXT	If EQUIPAUXTYPE>0: FUELAUX, FUELAUX_other Else if FUELHEAT=7: WOODTYPE Else if EQUIPM=10: NUMPORTEL Else if EQUIPM=13: NUMDLHP Else if TYPEHUQ in(2,3): BASEHEAT, ATTCHEAT, GARGHEAT Else: HUMIDTYPE
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""> SOFT PROMPT IF EQUIPAUXTYPE=99 AND EQUIPAUXTYPE_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:></buttons:>

FUELAUX, FUELAUX_other (New for web/mail; used to be on CAPI)

ASK If EQUIPAUXTYPE>0

What is the fuel used by your home's secondary heating equipment?

- 5 Electricity
- 1 Natural gas from underground pipes
- 2 Propane (bottled gas)
- 3 Fuel oil
- 7 Wood or pellets
- 99 Other ([WEB: specify below / PAPER: please specify]) [FUELAUX other]
- -4 Don't know

NEXT	USEEQUIPAUX
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>
	SOFT PROMPT IF FUELAUX=99 AND FUELAUX_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:>

USEEQUIPAUX (New for 2020)

ASK If EQUIPAUXTYPE>0

Which of the following best describes how your household uses the <u>secondary heating equipment</u> during the heating season?

- 1 Use all or almost all of the time
- 2 Use at least once per week
- 3 Use a few times per month
- 4 Use only when it is very cold
- 5 Use only in rare situations, such as when a guest is visiting

NEXT	If FUELHEAT=7 or FUELAUX=7: WOODTYPE Else if EQUIPM=10 OR EQUIPAUXTYPE=10: NUMPORTEL Else if EQUIPAUXTYPE=9: NUMFIREPLC Else if EQUIPM=13 OR EQUIPAUXTYPE=13: NUMDLHP Else if TYPEHUQ in(2,3): BASEHEAT, ATTCHEAT, GARGHEAT Else: HUMIDTYPE
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

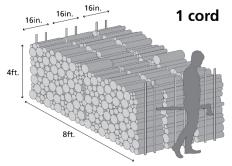
WOODTYPE (New for web/mail; used to be on CAPI) **ASK** If FUELHEAT=7 or FUELAUX=7 You reported that your home is heated with wood or pellets. Which of the following does your household use? Wood logs or split wood 2 Pellets If WOODTYPE=1: NUMCORDS, NUMCORDS other If WOODTYPE=2: PELLETAMT, PELLETUNITS Else if EQUIPM=10 OR EQUIPAUXTYPE=10: NUMPORTEL **NEXT** Else if EQUIPAUXTYPE=9: NUMFIREPLC Else if EQUIPM=13 OR EQUIPAUXTYPE=13: NUMDLHP Else if TYPEHUQ in(2,3): BASEHEAT, ATTCHEAT, GARGHEAT Else: HUMIDTYPE Paper: Include checkpoint before the question: Answer #s 124-126 if your home is heated MODE with wood or pellets. Otherwise, go to #127. Instead of first sentence, include skip information before the question: (If your home is heated with wood or pellets) SOFT PROMPT IF MISSING: Did you mean to leave this question blank? **WEB PROMPT** <BUTTONS: Change Answer / Continue>

NUMCORDS, NUMCORDS_other (Changed since 2015)

ASK

If WOODTYPE=1

In the past year, about how many cords of wood did your household use?



- 1 Half a cord or less
- 2 About one cord
- 3 About two cords
- 4 Three to five cords
- 5 More than five cords (please specify) _____ cords [NUMCORDS_other]

{WEB: ALLOW RANGE 5 – 99, PAPER: TWO DIGITS}

NEXT	If EQUIPM=10 or EQUIPAUXTYPE=10: NUMPORTEL Else if EQUIPAUXTYPE=9: NUMFIREPLC Else if EQUIPM=13 OR EQUIPAUXTYPE=13: NUMDLHP Else if TYPEHUQ in(2,3): BASEHEAT, ATTCHEAT, GARGHEAT Else: HUMIDTYPE
MODE	Paper: Include skip information before the question: (If you use wood logs or split wood)
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""> SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 5 to 99. <buttons: answer="" change="" continue=""></buttons:></buttons:>

PELLETAMT, PELLETUNITS (Changed since 2015)

ASK If WOODTYPE=2

In the past year, about how many pellets did your household use?



_____[PELLETAMT] Select unit: [] 40-pound bags [PELLETUNITS=1]

[] tons [PELLETUNITS=2]

{WEB: ALLOW RANGE 0 – 999, PAPER: THREE DIGITS}

NEXT	If EQUIPM=10 or EQUIPAUXTYPE=10: NUMPORTEL Else if EQUIPAUXTYPE=9: NUMFIREPLC Else if EQUIPM=13 OR EQUIPAUXTYPE=13: NUMDLHP Else if TYPEHUQ in(2,3): BASEHEAT, ATTCHEAT, GARGHEAT
	Else: HUMIDTYPE
MODE	Paper: Include skip information before the question: (If you use pellets)
WEB	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?
PROMPT	<buttons: answer="" change="" continue=""></buttons:>

NUMPORTEL (New for 2020)		
ASK	If EQUIPM=10 or EQUIPAUXTYPE=10	
How many portable electric heaters are used in your home?		
	portable electric heaters	
{VVI	EB: ALLOW RANGE 1 – 9; PAPER: ONE DIGIT}	
NEXT	If EQUIPAUXTYPE=9: NUMFIREPLC Else if EQUIPM=13 OR EQUIPAUXTYPE=13: NUMDLHP Else if TYPEHUQ in(2,3): BASEHEAT, ATTCHEAT, GARGHEAT Else: HUMIDTYPE	
MODE	Paper: Ask all respondents.	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>	
PROMPT	SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 9. <buttons: answer="" change="" continue=""></buttons:>	

NUMFIREPLC (New for 2020)		
ASK	If EQUIPAUXTYPE=9	
How many fireplaces are used in your home?		
fireplaces		
{WEB: ALLOW RANGE 1 – 9; PAPER: ONE DIGIT}		
NEXT	If EQUIPM=13: NUMDLHP Else if TYPEHUQ in(2,3): BASEHEAT, ATTCHEAT, GARGHEAT Else: HUMIDTYPE	
MODE	Paper: Ask all respondents.	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?	

NUMDLHP (New for 2020)		
ASK	If EQUIPM=13 OR EQUIPAUXTYPE=13	
How many ductless heat pump indoor units or "heads" are used to heat your home?		
indoor units		
{WEB: ALLOW RANGE 1 – 9; PAPER: ONE DIGIT}		
NEXT	If TYPEHUQ in(2,3): BASEHEAT, ATTCHEAT, GARGHEAT Else: HUMIDTYPE	
MODE	Paper: Include checkpoint before the question: Continue to #129 if your home is heated with a ductless heat pump or "mini split." Otherwise, go to #130. Include skip information before the question: (If your home is heated with a ductless heat pump or "mini split")	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""> SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1</buttons:>	
	to 9. Selection of the first angle of the selection of	

BASEHEAT, ATTCHEAT, GARGHEAT (Changed since 2015)

ASK If HEATHOME=1 and TYPEHUQ in(2,3)

Are the following spaces in your home heated?

Basement [BASEHEAT]

- 1 Yes
- 0 No
- -3 Not applicable (my home does not have this space)

Attic [ATTCHEAT)]

- 1 Yes
- 0 No
- -3 Not applicable (my home does not have this space)

Attached garage [GARGHEAT]

- 1 Yes
- 0 No

PROMPT

-3 Not applicable (my home does not have this space)

NEXT	HUMIDTYPE
MODE	Paper: Ask all respondents.
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?

HUMIDTYPE (New for 2020)	
ASK	All respondents
1 Yes	add moisture to the air and are often used in the winter. Is a humidifier used in your home? , a <u>portable</u> humidifier , a <u>whole-home</u> humidifier
NEXT	If HUMIDTYPE=1: NUMPORTHUM If HUMIDTYPE=2: USEHUMID, USEHUMID_other Else: AIR CONDITIONING SECTION
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

NUMPORTHUM (New for 2020)	
ASK	If HUMIDTYPE=1
How many portable humidifiers are used in your home?	
portable humidifiers	
{WEB: ALLOW RANGE 1 – 9; PAPER: ONE DIGIT}	
NEXT	USEHUMID, USEHUMID_other
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

USEHUMID, USEHUMID_other (New for 2020)		
ASK	If HUMIDTYPE>0	
Which of the following best describes how your household uses the humidifier? 1 Use only occasionally, such as when someone in the household is sick		
Use only during winter months Use about half of the year Use all or almost all of the year Other ([WEB: specify below / PAPER: please specify]) [USEHUMID_other]		
NEXT	AIR CONDITIONING SECTION	
MODE		
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>	
PROMPT	SOFT PROMPT IF USEHUMID=99 AND USEHUMID_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:>	

Air Conditioning

AIRCOND	
ASK	All respondents
Is any air co	nditioning equipment used in your home?
NEXT	If AIRCOND=1 and TYPEHUQ in(4,5): COOLAPT If AIRCOND=1 and TYPEHUQ in(1,2,3): ACEQUIPM Else: NUMCFAN, NUMFLOORFAN
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

COOLAPT (New for 2020)	
ASK	If AIRCOND=1 and TYPEHUQ in(4,5)
Is your apartment primarily cooled by equipment that serves multiple units in your building? 1 Yes 0 No -4 Don't know	
NEXT	ACEQUIPM
MODE	Paper: Include skip information before the question: (If you live in an apartment)
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

ACEQUIPM (New for 2020)

ASK If AIRCOND=1

What is the main type of air conditioning equipment used to cool your home?

- 1 Central air conditioner
- 2 Central heat pump
- 3 Ductless heat pump, also known as a "mini-split"
- 4 Window or wall air conditioner
- 5 Portable air conditioner
- 6 Evaporative or swamp cooler
- -4 Don't know

NEXT	ACEQUIPAGE
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

ACEQUIPAGE (New for 2020)

ASK If AIRCOND=1

About how old is your home's main air conditioning equipment? Your best estimate is fine.

- 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 or more years old
- -4 Don't know

NEXT	ACEQUIPAUXTYPE
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

ACEQUIPAUXTYPE (New for 2020)	
ASK	If AIRCOND=1
In addition to your main air conditioning equipment, which of the following is used as a second source for cooling your home? If more than one, select the type most frequently used. O No other equipment used Central air conditioner Central heat pump Ductless heat pump, also known as a "mini-split" Window or wall air conditioner Portable air conditioner Evaporative or swamp cooler	
NEXT	If ACEQUIPM=3 or ACEQUIPAUXTYPE=3: NUMDLHPAC Else if ACEQUIPM=4 or ACEQUIPAUXTYPE=4: NUMWWAC Else if ACEQUIPM=5 or ACEQUIPAUXTYPE=5: NUMPORTAC Else if TYPEHUQ in(2,3): BASECOOL, ATTCCOOL, GARGCOOL Else: NUMCFAN, NUMFLOORFAN
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>

NUMDLHPAC (New for 2020)	
ASK	If ACEQUIPM=3 or ACEQUIPAUXTYPE=3
How many ductless heat pump indoor units or "heads" are used to cool your home?	
indoor units	
{WEB: ALLOW RANGE 1 – 9; PAPER: ONE DIGIT}	
	If ACEQUIPM=4 or ACEQUIPAUXTYPE=4: NUMWWAC Else if ACEQUIPM=5 or ACEQUIPAUXTYPE=5: NUMPORTAC
NEXT	Else if TYPEHUQ in (2,3): BASECOOL, ATTCCOOL, GARGCOOL Else: NUMCFAN, NUMFLOORFAN
MODE	Paper: Include checkpoint before the question: Answer #139 if your home is cooled with a ductless heat pump or "mini split." Otherwise, go to #140. Include skip information before the question: (If your home is cooled with a ductless heat pump or "mini split")
	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
WEB	<pre><buttons: answer="" change="" continue=""></buttons:></pre>
PROMPT	SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 9.
	<buttons: answer="" change="" continue=""></buttons:>

NUMWWAC (Changed since 2015)	
ASK	If ACEQUIPM=4 or ACEQUIPAUXTYPE=4
How many window or wall air conditioners are used in your home?	
window or wall air conditioners	
{WEB: ALLOW RANGE 1 – 9; PAPER: ONE DIGIT}	
NEXT	Else if ACEQUIPAUXTYPE=5 OR ACEQUIPM=5: NUMPORTAC Else if TYPEHUQ in(2,3): BASECOOL, ATTCCOOL, GARGCOOL Else: NUMCFAN, NUMFLOORFAN
MODE	Paper: Include checkpoint before the question: Answer #140 if a window or wall air conditioner is used in your home. Otherwise, go to #141. Include skip information before the question: (If a window or wall air conditioner is used in your home)
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""> SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 9. <buttons: answer="" change="" continue=""></buttons:></buttons:>

NUMPORTAC (New for 2020)	
ASK	If ACEQUIPM=5 or ACEQUIPAUXTYPE=5
How many portable air conditioners are used in your home?	
portable air conditioners	
{WEB: ALLOW RANGE 1 – 9; PAPER: ONE DIGIT}	
NEXT	If TYPEHUQ in (2,3): BASECOOL, ATTCCOOL, GARGCOOL Else: NUMCFAN, NUMFLOORFAN
MODE	Paper: Include checkpoint before the question: Answer #141 if a portable air conditioner is used in your home. Otherwise, go to #142. Include skip information before the question: (If a portable air conditioner is used in your home)
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>
PROMPT	SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 9. <buttons: answer="" change="" continue=""></buttons:>

BASECOOL, ATTCCOOL, GARGCOOL (Changed since 2015)	
ASK	If AIRCOND=1 and TYPEHUQ in(2,3)
Are the following spaces in your home air-conditioned?	
Basement [E 1 Yes 0 No	BASECOOL]
	applicable (my home does not have this space)
1 Yes 0 No	•
-3 Not applicable (my home does not have this space) Attached garage [GARGCOOL]	
1 Yes 0 No -3 Not	applicable (my home does not have this space)
NEXT	NUMCFAN, NUMFLOORFAN
MODE	Paper: Ask all respondents.
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>

NUMCFAN, NUMFLOORFAN	
ASK	All respondents
How many of the following types of fans does your household use? If none, please enter "0."	
Number of <u>ceiling</u> fans [NUMCFAN] Number of <u>floor or window</u> fans [NUMFLOORFAN]	
{FOR ALL: WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}	
NEXT	If NUMCFAN>0: USECFAN, USECFAN_other Else if TYPEHUQ in(2,3): HOUSEFAN, ATTICFAN Else: DEHUMTYPE
MODE	
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If your home has none of these, please enter "0." <buttons: answer="" change="" continue=""></buttons:>

USECFAN, USECFAN_other (New for web/mail; used to be on CAPI) ASK If NUMCFAN>0

Thinking about the [If NUMCFAN>1: <u>most used</u>] <u>ceiling fan</u>, which of the following best describes how your household uses this fan?

- 1 Use only occasionally, such as when it is very hot or when guests are over
- 2 Use only during summer months to stay cool
- 3 Use about half of the year
- 4 Use all or almost all of the year, such as for white noise or air circulation
- 99 Other ([WEB: specify below / PAPER: please specify]) [USECFAN_other]

NEXT	If TYPEHUQ in(2,3): HOUSEFAN, ATTICFAN
NEXI	Else: DEHUMTYPE
	Paper: Include "most used" in question text. Include checkpoint before the question: If no
MODE	ceiling fans are used → Go to #145. Include skip information before the question: (If
	ceiling fans are used)
	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
	<buttons: answer="" change="" continue=""></buttons:>
WEB	
PROMPT	SOFT PROMPT IF USECFAN=99 AND USECFAN_other IS MISSING: You selected
	Other (specify below) as your answer. Please provide additional details in the textbox.
	<buttons: answer="" change="" continue=""></buttons:>

HOUSEFAN, ATTICFAN (Changed since 2015)		
ASK	If TYPEHUQ in(2,3)	
Are the following used in your home?		
	Yes No	
Whole house cooling fan [HOUSEFAN] 1 0 Attic exhaust fan [ATTICFAN] 1 0		
NEXT	DEHUMTYPE	
MODE	Paper: Ask of all respondents.	
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

DEHUMTYPE (New for 2020)	
ASK	All respondents
Dehumidifiers remove moisture from the air and are often used in the summer. Is a dehumidifier used in your home?	
 1 Yes, a <u>portable</u> dehumidifier 2 Yes, a <u>whole-home</u> dehumidifier 0 No 	
NEXT	If DEHUMTYPE=1: NUMPORTDEHUM If DEHUMTYPE=2: USEDEHUM, USEDEHUM_other Else: THERMOSTATS AND TEMPERATURES SECTION
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>

NUMPORTDEHUM (New for 2020)		
ASK	If DEHUMTYPE=1	
How many portable dehumidifiers are used in your home?		
	portable dehumidifiers	
{WEB: ALLOW RANGE 1 – 9; PAPER: ONE DIGIT}		
NEXT	USEDEHUM, USEDEHUM_other	
MODE		
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	
PROMPT	SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 9. <buttons: answer="" change="" continue=""></buttons:>	

USEDEHUM, USEDEHUM_other (New for 2020)

ASK If DEHUMTYPE>0

Which of the following best describes how your household uses the dehumidifier?

- 1 Use only occasionally, such as when someone in the household is suffering from allergies
- 2 Use only during summer months
- 3 Use about half of the year
- 4 Use all or almost all of the year
- 99 Other ([WEB: specify below / PAPER: please specify]) [USEDEHUM_other]

NEXT	THERMOSTATS AND TEMPERATURES SECTION
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

Thermostats and Temperatures

TYPETHERM (New for 2020)	
ASK	If HEATHOME=1 or AIRCOND=1
Does your household use a thermostat to control the temperature inside your home? 1 Yes, a manual or non-programmable thermostat 2 Yes, a programmable thermostat 3 Yes, a "smart" or Internet-connected thermostat 0 No -4 Don't know	
NEXT	If HEATHOME=1: HEATCNTL, HEATCNTL_other If AIRCOND=1: COOLCNTL, COOLCNTL_other Else: WATER HEATING SECTION
MODE	Paper: Ask of all respondents.
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know."

HEATCNTL, HEATCNTL_other (New for 2020)	
ASK	If HEATHOME=1
Which of the during the w	e following best describes how your household controls the indoor temperature vinter?
Set one temperature and leave it there most of the time Manually adjust the temperature Programmable or smart thermostat automatically adjusts the temperature Turn equipment on or off as needed Our household does not have control over the temperature Other ([WEB: specify below / PAPER: please specify]) [HEATCNTL_other]	
NEXT	TEMPHOME, TEMPGONE, TEMPNITE
MODE	Paper: Ask of all respondents. Include additional response option – "Do not heat my home". Use response code of "-3" for this response option.
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>
PROMPT	SOFT PROMPT IF HEATCNTL=99 AND HEATCNTL other IS MISSING: You selected

Other (specify below) as your answer. Please provide additional details in the textbox.

<BUTTONS: Change Answer / Continue>

<BUTTONS: Change Answer / Continue>

TEMPHOME, TEMPGONE, TEMPNITE (Changed since 2015)		
ASK	If HEATHOME=1	
The next questions are about the temperature inside your home during the <u>winter</u> . If you have a thermostat, think about where your household sets the temperature for your main heating equipment. If you do not have a thermostat, your best estimate about the temperature is fine.		
During the w	vinter, what is your home's typical indoor temperature	
When someone is home during the day? degrees [TEMPHOME] When no one is inside your home during the day? degrees [TEMPGONE] Inside your home at night? degrees [TEMPHOME] {FOR ALL: WEB: ALLOW RANGE 50 – 90; PAPER: TWO DIGITS}		
NEXT	If AIRCOND=1: COOLCNTL, COOLCNTL_other Else: WATER HEATING SECTION	
MODE	Paper: Ask of all respondents.	
WEB	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>	
PROMPT	SOFT PROMPT IF ANY OUT OF RANGE: Your response was outside the expected range of 50 to 90. <buttons: answer="" change="" continue=""></buttons:>	

COOLCNTL, COOLCNTL_other (New for 2020)	
ASK	If AIRCOND=1
Which of the following best describes how your household controls the indoor temperature during the summer?	
	one temperature and leave it there most of the time
2 Manually adjust the temperature 3 Programmable or smart thermostat automatically adjusts the temperature 4 Turn equipment on or off as needed 5 Our household does not have control over the temperature 99 Other ([WEB: specify below / PAPER: please specify]) [COOLCNTL_other]	
NEXT	TEMPHOMEAC, TEMPGONEAC, TEMPNITEAC
MODE	Paper: Ask of all respondents. Include additional response option – "Do not air-condition my home". Use response code of "-3" for this response option.
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>
PROMPT	SOFT PROMPT IF COOLCNTL=99 AND COOLCNTL_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:>

TEMPHOMEAC, TEMPGONEAC, TEMPNITEAC (Changed since 2015)		
ASK	If AIRCOND=1	
The next questions are about the temperature inside your home during the <u>summer</u> . If you have a thermostat, think about where your household sets the temperature for your main airconditioning equipment. If you do not have a thermostat, your best estimate about the temperature is fine.		
During the s	During the summer, what is your home's typical indoor temperature	
When someone is home during the day? degrees [TEMPHOMEAC] When no one is inside your home during the day? degrees [TEMPGONEAC] Inside your home at night? degrees [TEMPNITEAC] {FOR ALL: WEB: ALLOW RANGE 50 – 90; PAPER: TWO DIGITS}		
NEXT	WATER HEATING SECTION	
MODE	Paper: Ask of all respondents.	
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""> SOFT PROMPT IF ANY OUT OF RANGE: Your response was outside the expected range of 50 to 90. <buttons: answer="" change="" continue=""></buttons:></buttons:>	

Water Heating

H2OAPT (New for 2020)		
ASK	If TYPEHUQ in(4,5)	
Does your hot water come from a water heater that serves multiple units in your building? 1 Yes 0 No -4 Don't know		
NEXT	WHEATSIZ	
MODE	Paper: Include checkpoint before the question: If you live in a single-family house or a mobile home → Go to #155. Include skip information before the question: (If you live in an apartment)	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>	

H2OMAIN, H2OMAIN_other (Changed since 2015)		
ASK	If TYPEHUQ in(1,2,3)	
Where is the main water heating equipment for your home located?		
 1 Main living space 2 Basement 3 Garage 4 Outside 99 Other ([WEB: specify below / PAPER: please specify]) [H2OMAIN_other] 		
NEXT	WHEATSIZ	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""> SOFT PROMPT IF H2OMAIN=99 AND H2OMAIN_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:></buttons:>	

WHEATSIZ	WHEATSIZ	
ASK	All respondents	
What is the approximate size of your main water heater? 1 Small (30 gallons or less) 2 Medium (31 to 49 gallons) 3 Large (50 gallons or more) 4 Tankless or on-demand -4 Don't know		
NEXT	If WHEATSIZ in(1,2,3): WHEATBKT Else: WHEATAGE	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>	

WHEATBKT (New for web/mail; used to be on CAPI)		
ASK	If WHEATSIZ in(1,2,3)	
Is your main 1 Yes 0 No	water heater insulated using a water heater blanket?	
NEXT	WHEATAGE	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

WHEATAGE ASK All respondents About how old is your main water heater? Your best estimate is fine.

- 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 or more years old
- -4 Don't know

NEXT	FUELH2O, FUELH2O_other
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

FUELH2O, FUELH2O_other (Changed since 2015)	
ASK	All respondents

What fuel does your main water heater use?

- 5 Electricity
- 1 Natural gas from underground pipes
- 2 Propane (bottled gas)
- 3 Fuel oil
- 7 Wood
- 8 Solar thermal
- 99 Other ([WEB: specify below / PAPER: please specify]) [FUELH2O_other]
- -4 Don't know

NEXT	MORETHAN1H2O
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>
PROMPT	SOFT PROMPT IF FUELH2O=99 AND FUELH2O_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:>

MORETHAN1H2O	
ASK	All respondents
Do you have more than one water heater?	
1 Yes 0 No -4 Don't know	
NEXT	If MORETHAN1H2O=1: FUELH2O2, FUELH2O2_other Else: LIGHTING SECTION
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

FUELH2O2, FUELH2O2_other (Changed since 2015)		
ASK	If MORETHAN1H2O=1	
What fuel does your second water heater use?		
 5 Electricity 1 Natural gas from underground pipes 2 Propane (bottled gas) 3 Fuel oil 7 Wood 8 Solar thermal 99 Other ([WEB: specify below / PAPER: please specify]) [FUELH2O2_other] -4 Don't know 		
NEXT	LIGHTING SECTION	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""> SOFT PROMPT IF FUELH2O2=99 AND FUELH2O2_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox.</buttons:>	
	Street (specify below) as your answer. Please provide additional details in the textbox.Street (specify below) as your answer. Please provide additional details in the textbox.	

Lighting

LGTIN1TO4	LGTIN1TO4, LGTIN4TO8, LGTINMORE8 (New for 2020)	
ASK	All respondents	
The next questions are about light bulbs inside your home. For fixtures with multiple bulbs, count each bulb separately.		
Thinking abo	out the light bulbs <u>inside your home</u> , how many are turned on…	
Between 1 and 4 hours per day? light bulbs [LGTIN1TO4] Between 4 and 8 hours per day? light bulbs [LGTIN4TO8] More than 8 hours per day? light bulbs [LGTINMORE8] {FOR ALL: WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}		
NEXT	LGTINLED	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>	

LGTINLED (Changed since 2015) ASK All respondents

What portion of the light bulbs used inside your home are LED bulbs?



- 1 All
- 2 Most
- 3 About half
- 4 Some
- 0 None

NEXT	LGTINCFL
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
PROMPT	<buttons: answer="" change="" continue=""></buttons:>

LGTINCFL (Changed since 2015)

ASK All respondents

What portion of the light bulbs used $\underline{\text{inside your home}}$ are $\underline{\text{CFL}}$ bulbs?



- ΑII
- 2 Most
- 3 4 0 About half
- Some
- None

NEXT	LGTINCAN
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
PROMPT	<buttons: answer="" change="" continue=""></buttons:>

LGTINCAN (Changed since 2015)

ASK All respondents

What portion of the light bulbs used inside your home are incandescent or halogen bulbs?



- 1 All
- 2 Most
- 3 About half
- 4 Some
- 0 None

NEXT	LGTOUTANY
MODE	
	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
PROMPT	<buttons: answer="" change="" continue=""></buttons:>

LGTOUTANY (New for 2020) ASK All respondents

The next questions are about outside light bulbs. [If TYPEHUQ in (4,5): For apartments, only include light bulbs connected to your unit.]

Does your home have any <u>outside light bulbs</u> that are typically left on all night? Do not include light bulbs controlled by motion detectors or solar lights that do not use electricity.

- 1 Yes
- 0 No

NEXT	If LGTOUTANY=1: LGTOUTNITE Else: ENERGY BILLS SECTION
MODE	Paper: Display second sentence for all respondents.
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

LGTOUTNITE (New for web/mail; used to be on CAPI)			
ASK	If LGTOUTANY=1		
How many <u>outside light bulbs</u> are typically left on all night?			
	light bulbs		
{WE	{WEB: ALLOW RANGE 1 – 99; PAPER: TWO DIGITS}		
NEXT	LGTOUTLED, LGTOUTCFL, LGTOUTCAN		
MODE			
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?		

LGTOUTLED, LGTOUTCFL, LGTOUTCAN (Changed since 2015)			
ASK	If LGTOUTANY=1		
Which of the following types of light bulbs are typically left on all night <u>outside your home</u> ?			
		Yes	No
LEC	LED bulbs [LGTOUTLED] 1 0		0
CFL bulbs [LGTOUTCFL]		1	0
Incandescent or halogen bulbs [LGTOUTCAN] 1 0		0	
NEXT	ENERGY BILLS SECTION		
MODE			
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>		

Energy Bills

ELPAY, **ELPAY**_other **ASK** All respondents Who is responsible for paying for the electricity used in this home? Household is responsible for paying for all electricity used in this home All electricity used in this home is included in the rent or condo fee Some is paid by the household, some is included in the rent or condo fee 99 Other ([WEB: specify below / PAPER: please specify]) [ELPAY_other] -4 Don't know **NEXT** NGPAY, NGPAY_other **MODE** SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <BUTTONS: Change Answer / Continue> **WEB PROMPT** SOFT PROMPT IF ELPAY=99 AND ELPAY_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <BUTTONS: Change Answer / Continue>

NGPAY, NGPAY_other (Changed since 2015)		
ASK	All respondents	
Who is responsible for paying for the <u>natural gas</u> used in this home? 1 Household is responsible for paying for <u>all</u> natural gas used in this home 2 All natural gas used in this home is included in the rent or condo fee 3 Some is paid by the household, some is included in the rent or condo fee 99 Other ([WEB: specify below / PAPER: please specify]) [NGPAY_other] -4 Don't know -3 Do not use natural gas		
NEXT	LPGPAY, LPGPAY_other	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""> SOFT PROMPT IF NGPAY=99 AND NGPAY_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:></buttons:>	

LDODAY LDODAY other (Observed since 0045)			
•	PAY, LPGPAY_other (Changed since 2015)		
ASK	All respondents		
Who is resp	Who is responsible for paying for the <u>propane</u> used in this home?		
 Household is responsible for paying for <u>all</u> propane used in this home All propane used in this home is included in the rent or condo fee Some is paid by the household, some is included in the rent or condo fee Other ([WEB: specify below / PAPER: please specify]) [LPGPAY_other] 			
-4 Don	-4 Don't know		
-3 Do not use propane			
NEXT	FOPAY, FOPAY_other		
MODE			
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>		
PROMPT	SOFT PROMPT IF LPGPAY=99 AND LPGPAY_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:>		

FOPAY, FO	FOPAY, FOPAY_other (Changed since 2015)		
ASK	All respondents		
Who is responsible for paying for the <u>fuel oil</u> used in this home? 1 Household is responsible for paying for <u>all</u> fuel oil used in this home 2 All fuel oil used in this home is included in the rent or condo fee 3 Some is paid by the household, some is included in the rent or condo fee 99 Other ([WEB: specify below / PAPER: please specify]) [FOPAY_other] -4 Don't know -3 Do not use fuel oil			
NEXT	KFUELOT		
MODE			
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""> SOFT PROMPT IF FOPAY=99 AND FOPAY_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:></buttons:>		

KFUELOT (Changed since 2015)

ASK All respondents

Do any of your household energy bills include costs for energy used for non-household purposes, such as farm buildings or machinery, a small business, or another house or apartment?

1 Yes

0 No

NEXT	If KFUELOT=1: BILLEL, BILLUG, BILLLPG, BILLFK Else: SMARTMETER
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

BILLEL, BILLUG, BILLLPG, BILLFK

ASK If KFUELOT=1

Which of your household's energy bills include costs for energy used for non-household purposes? *Please select all that apply.*

Electricity [BILLEL: 1 if selected, 0 if not]

Natural gas from underground pipes [BILLUG: 1 if selected, 0 if not]

Propane (bottled gas) [BILLLPG: 1 if selected, 0 if not]

Fuel oil [BILLFK: 1 if selected, 0 if not]

NEXT	SMARTMETER
MODE	
WEB	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?
PROMPT	<buttons: answer="" change="" continue=""></buttons:>

SMARTMETER

ASK All respondents

Does your home have a "smart meter," which records electricity usage in short time intervals and automatically transmits it to your utility company?

1 Yes

0 No

-4 Don't know

NEXT	If SMARTMETER=1: INTDATAACC Else: MEDICALDEV
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>

INTDATAA	INTDATAACC (Changed since 2015)		
ASK	If SMARTMETER=1		
Have you or home's sma 1 Yes 0 No			
NEXT	MEDICALDEV		
MODE			
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>		

MEDICALDEV (New for web/mail; used to be on CAPI)		
ASK	ASK All respondents	
Are any med 1 Yes 0 No	dical devices used in your home, such as ventilators, nebulizers, or CPAP machines?	
NEXT	POWEROUT	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

POWEROUT (New for 2020)			
ASK	All respondents		
During the past year, has your entire home had a power outage lasting at least 24 hours?			
1 Yes 0 No	1 Yes 0 No		
-4 Don	't know		
NEXT	If POWEROUT=1: WHYPOWEROUT, WHYPOWEROUT_other Else: BACKUP		
MODE			
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't know." <buttons: answer="" change="" continue=""></buttons:>		

WHYPOWEROUT, WHYPOWEROUT_other (New for 2020)

ASK If POWEROUT=1

Which of the following best describes why this power outage occurred? If you experienced multiple power outages during the past year, please select the reason for the longest outage.

- 1 Natural disaster or weather event
- 2 Unable to pay electric bills
- 3 Electric utility had a planned or unplanned blackout
- 99 Other ([WEB: specify below / PAPER: please specify]) [WHYPOWEROUT_other]

NEXT	BACKUP
MODE	
	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""></buttons:>
WEB PROMPT	SOFT PROMPT IF WHYPOWEROUT=99 AND WHYPOWEROUT_other IS MISSING: You selected Other (specify below) as your answer. Please provide additional details in the textbox. <buttons: answer="" change="" continue=""></buttons:>

BACKUP				
ASK	All respondents			
	household have a back-up generator that can be used for generating electricity in case of a ge or emergency?			
1 Ye 0 No	S			

NEXT	NOGEN, SOLAR, WIND, COMBINED
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

NOGEN, SOLAR, WIND, COMBINED (Changed since 2015)

ASK All respondents

Not including back-up generators, does your home have any of these on-site systems that generate electricity? *Please select all that apply.*

No on-site generation system [NOGEN: 1 if selected, 0 if not] Solar or photovoltaic system [SOLAR: 1 if selected, 0 if not]

Small wind turbine [WIND: 1 if selected, 0 if not]

Combined heat and power system [COMBINED: 1 if selected, 0 if not]

NEXT	If SOLAR=1: PVINSTALL, PVINSTALL_DK Else if TYPEHUQ in(1,2,3,4): OUTLET Else if TYPEHUQ=5: APTEVCHG
MODE	
WEB	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?
PROMPT	<buttons: answer="" change="" continue=""></buttons:>

PVINSTALL, PVINSTALL_DK (New for 2020)

ASK If SOLAR=1

In what year was your solar or photovoltaic system installed?

{WEB: ALLOW RANGE 1950 - 2021, PAPER: FOUR DIGITS}

Don't know [PVINSTALL_DK: 1 if selected, 0 if not]

NEXT	PVCAPACITY, PVCAPACITY_DK		
MODE	Paper: Include checkpoint before the question: <i>If your home does not have a solar or photovoltaic system → Go to #184.</i> Include skip information before the question: (<i>If your home has a solar or photovoltaic system</i>)		
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't Know." <buttons: answer="" change="" continue=""> SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1950 to 2021. <buttons: answer="" change="" continue=""></buttons:></buttons:>		

PVCAPACITY, PVCAPACITY_DK (New for 2020)		
ASK	If SOLAR=1	
What is the capacity of your solar or photovoltaic system in kW (kilowatts)?		
kW		
{WEB: ALLOW RANGE 0 – 99; PAPER: TWO DIGITS}		
Don't know [PVCAPACITY_DK: 1 if selected, 0 if not]		
NEXT	If TYPEHUQ in(1,2,3,4): OUTLET If TYPEHUQ=5: APTEVCHG	
MODE	Paper: Include skip information before the question: (If your home has a solar or photovoltaic system)	
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? If you don't know the answer you may select "Don't Know "	

OUTLET		
ASK	If TYPEHUQ in(1,2,3,4)	
Is there an electrical outlet within 20 feet of where you or any member of your household park a vehicle? 1 Yes 0 No		
NEXT	ELECVEH	
MODE	Paper: Ask of all respondents.	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

APTEVCHG (New for 2020)		
ASK If TYPEHUQ=5		
Do you have access to an electric vehicle charger at your apartment building or complex? 1 Yes 0 No -4 Don't know		
NEXT	ELECVEH	
MODE Paper: Ask if TYPEHUQ in(4,5). Include skip information before the question: (in an apartment)		
WEB PROMPT SOFT PROMPT IF MISSING: Did you mean to leave this question blank? If know the answer you may select "Don't know." < BUTTONS: Change Answer / Continue>		

ELECVEH (Changed since 2015)		
ASK	All respondents	
	any member of your household own or lease an electric vehicle? Please include both all- nd plug-in hybrid electric vehicles.	
1 `	es	
1 0	0	

NEXT	If ELECVEH=1: EVMAKE, EVMODEL, EVYEAR Else: OTHFUELUSE, OTHFUELUSE_NA	
MODE		
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?	
PROMPT	<buttons: answer="" change="" continue=""></buttons:>	

EVMAKE, EVMODEL, EVYEAR (New for 2020)		
ASK	If ELECVEH=1	
What is the make, model, and year of your electric vehicle?		
Make: [EVMAKE: Open-ended response] Model: [EVMODEL: Open-ended response] Year: [EVYEAR] {WEB: ALLOW RANGE 1950 – 2021; PAPER: FOUR DIGITS}		
NEXT	EVCHRGHOME, EVCHRGAPT, EVCHRGWKS, EVCHRGBUS, EVCHRGMUNI, EVCHRGDLR, EVCHRGHWY, EVCHRGOTH	
MODE		
WEB	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	
PROMPT	SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1950 to 2021. <buttons: answer="" change="" continue=""></buttons:>	

EVCHRGHOME, EVCHRGAPT, EVCHRGWKS, EVCHRGBUS, EVCHRGMUNI, EVCHRGDLR, EVCHRGHWY, EVCHRGOTH (New for 2020)			
ASK	If ELECVEH=1		
At which of the following places do you typically charge your electric vehicle?			
		Yes	No
You	Your home [EVCHRGHOME] 1 0		
You	r apartment building or complex [EVCHRGAPT]	1	0
	r workplace or school [EVCHRGWKS]	1	0
	opping center or business you frequent [EVCHRGBUS]	1	0
	Municipal parking lot or building, including libraries		
and post offices [EVCHRGMUNI] 1 0		0	
		0	
		0	
Some other type of public charging station [EVCHRGOTH] 1 0		0	
NEXT	If EVCHRGHOME=1: EVHOMEAMT Else: EVWKMILES		
MODE			
WEB	SOFT PROMPT IF ALL MISSING: Did you mean to leav	e this ques	stion blank?
PROMPT	<buttons: answer="" change="" continue=""></buttons:>	•	

EVHOMEAMT (New for 2020)		
ASK	If EVCHRGHOME=1	
About how much of the charging for your electric vehicle is typically done at your home? 1 All at home (100%) 2 Almost all at home (80% - 99%) 3 Most at home (60% - 79%) 4 About half at home (40% - 59%) 5 Some at home (20% - 39%) 6 Very little or none at home (0% - 19%)		
NEXT	EVCHRGTYPE	
MODE Paper: Ask if ELECVEH=1		
WEB SOFT PROMPT IF MISSING: Did you mean to leave this question blank? PROMPT <buttons: answer="" change="" continue=""></buttons:>		

EVCHRGTYPE (New for 2020)	
ASK	If EVCHRGHOME=1
Which best describes the electric vehicle charger used at your home? 1 Level 1 charger (typical household 120 volt outlet) 2 Level 2 charger (higher-powered 240 volt outlet)	
NEXT	EVWKMILES
MODE	Paper: Ask if ELECVEH = 1. Include additional response option – "Do not have or use charger at home". Use response code of "-3" for this response option.
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

EVWKMILES (New for 2020)	
ASK	If ELECVEH=1
About how many total miles are driven in your electric vehicle per week? Open-ended response miles per week	
NEXT	OTHFUELUSE, OTHFUELUSE_NA
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

1 NOM 1 DO 1 ONG. Change 7 nower 7 Continues		
OTHFUELU	OTHFUELUSE, OTHFUELUSE_NA	
ASK	All respondents	
list the fuel(s	ny other fuels used in your home that you have not already answered about? If so, please s) and how they are used. en-ended response not use any other fuel [OTHFUELUSE_NA:1 if selected, 0 if not]	
NEXT	OTHACT, OTHACT_NA	
MODE		

OTHACT, OTHACT_NA

ASK

All respondents

Are there any other devices used in your home that use a lot of energy that you have not already answered about? Examples include air purifiers, water softeners, sump pumps, well pumps, engine block heaters, power tools, woodworking or hobby equipment, aquariums, etc.

Open-ended response

No other high energy use devices [OTHACT_NA:1 if selected, 0 if not]

NEXT	HOUSEHOLD CHARACTERISTICS SECTION
MODE	

Household Characteristics

WEB MOTIVATIONAL PROMPT #3: You're almost there! Next, we have a few questions about you and your household.

HHSEX	
ASK	All respondents
What is you 1 Fem 2 Male	nale
NEXT	HHAGE
MODE	

HHAGE	
ASK	All respondents
What is you {WE	r age? years old :B: ALLOW RANGE 18 – 110; PAPER: THREE DIGITS}
NEXT	EMPLOYHH
MODE	
WEB PROMPT	SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 18 to 110. <buttons: answer="" change="" continue=""></buttons:>

EMPLOYHH	
ASK	All respondents
Which best describes your current employment status? 1 Employed full-time 2 Employed part-time 3 Retired 4 Not employed	
NEXT	EDUCATION
MODE	

EDUCATION

ASK All respondents

What is the highest degree or level of school you have completed?

- 1 Less than high school diploma or GED
- 2 High school diploma or GED
- 3 Some college or Associate's degree
- 4 Bachelor's degree (for example: BA, BS)
- 5 Master's, Professional, or Doctoral degree (for example: MA, MS, MBA, MD, JD, PhD)

NEXT	SDESCENT
MODE	

SDESCENT

ASK All respondents

Are you Hispanic or Latino?

1 Yes

0 No

NEXT	RACE_WHITE, RACE_BLACK, RACE_AIAN, RACE_ASIAN, RACE_NHPI, RACE_OTH, RACE_OTH_other
MODE	

RACE_WHITE, RACE_BLACK, RACE_AIAN, RACE_ASIAN, RACE_NHPI, RACE_OTH,

RACE_OTH_other

ASK All respondents

What is your race? Please select all that apply.

White [RACE_WHITE: 1 if selected, 0 if not]

Black or African-American [RACE_BLACK: 1 if selected, 0 if not]

American Indian or Alaska Native [RACE_AIAN: 1 if selected, 0 if not]

Asian [RACE_ASIAN: 1 if selected, 0 if not]

Native Hawaiian or Other Pacific Islander [RACE_NHPI: 1 if selected, 0 if not]

Other ([WEB: specify below / PAPER: please specify]) [RACE OTH: 1 if selected, 0 if not;

RACE_OTH_other]

NEXT	NHSLDMEM
MODE	

NHSLDMEM		
ASK	All respondents	
those away	Including yourself, how many people live in this home? Do not include anyone who is just visiting, those away in the military, or children who are away at college. household members	
{***	{WEB: ALLOW RANGE 1 – 20; PAPER: TWO DIGITS}	
NEXT	NUMCHILD, NUMADULT1, NUMADULT2	
MODE		
WEB	SOFT PROMPT IF OUT OF DANGE Verment and to leave this question blank? SOFT PROMPT IF OUT OF DANGE Verment and the prompt of	
PROMPT	SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 20. <buttons: answer="" change="" continue=""></buttons:>	

NUMCHILD, NUMADULT1, NUMADULT2 (Changed since 2015)		
ASK	All respondents	
How many members of your household are in the following age categories?		
0 to 17 years old [NUMCHILD] household members		
18 to 64 years old [NUMADULT1] household members		
65 years or older [NUMADULT2] household members		
{FOR ALL: WEB: ALLOW RANGE 0 – 20; PAPER: TWO DIGITS}		
NEXT	ATHOME	
MODE		
WEB PROMPT	SOFT PROMPT IF ANY OUT OF RANGE: Your response was outside the expected range of 0 to 20. <buttons: answer="" change="" continue=""></buttons:>	

ATHOME		
ASK	All respondents	
	veekdays is someone at home most or all of the day?	
	0 None 1 1 day	
2 2 da		
	,	
	4 4 days	
5 5 days		
NEXT	MONEYPY	
MODE		
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?	
PROMPT	<buttons: answer="" change="" continue=""></buttons:>	

MONEYPY (Changed since 2015)	
ASK	All respondents
household n	income sources, which category best describes the total combined income of all nembers for the past year, before taxes and deductions?
2 \$5,0 3 \$7,5 4 \$10 5 \$12 6 \$15	000 - \$7,499 000 - \$9,999 ,000 - \$12,499 ,500 - \$14,999 ,000 - \$19,999 ,000 - \$24,999
8 \$25,000 - \$29,999 9 \$30,000 - \$34,999 10 \$35,000 - \$39,999 11 \$40,000 - \$49,999 12 \$50,000 - \$59,999 13 \$60,000 - \$74,999	
14 \$75,000 - \$99,999 15 \$100,000 - \$149,999 16 \$150,000 or more	
MODE	ENERGY ASSISTANCE SECTION

Energy Assistance

SCALEB

ASK All respondents

The following questions are about challenges your household may have had paying energy bills or maintaining heating and cooling in your home.

In the past year, how many months did your household reduce or forego expenses for basic household necessities, such as medicine or food, in order to pay an energy bill?

- 1 Almost every month
- 2 Some months
- 3 1 or 2 months
- 0 Never

NEXT	SCALEG
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

SCALEG

ASK All respondents

In the past year, how many months did your household keep your home at a temperature that you felt was unsafe or unhealthy?

- 1 Almost every month
- 2 Some months
- 3 1 or 2 months
- 0 Never

NEXT	SCALEE
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
PROMPT	<buttons: answer="" change="" continue=""></buttons:>

SCALEE ASK All respondents

In the past year, how many months did your household receive a disconnection notice, shut off notice, or nondelivery notice for an energy bill?

- 1 Almost every month
- 2 Some months
- 3 1 or 2 months
- 0 Never

NEXT	If SCALEE in(1,2,3): PAYHELP Else: NOHEATBROKE, NOHEATEL, NOHEATNG, NOHEATBULK, NOHEATNONE
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

PAYHELP	
ASK	If SCALEE in(1,2,3)
When you received that notice, did your household apply for and receive home energy assistance to help pay your energy bill? 1 Yes 0 No	
NEXT	NOHEATBROKE, NOHEATEL, NOHEATNG, NOHEATBULK, NOHEATNONE
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

NOHEATBROKE, NOHEATEL, NOHEATNG, NOHEATBULK, NOHEATNONE **ASK** All respondents In the past year, was there ever a time your household was unable to use your main source of heat because any of the following events happened? Please select all that apply. Your heating equipment was broken and you couldn't afford to pay for the repair or replacement [NOHEATBROKE: 1 if selected, 0 if not] You couldn't pay for electricity and it was disconnected [NOHEATEL: 1 if selected, 0 if not] You couldn't pay for natural gas and it was disconnected [NOHEATNG: 1 if selected, 0 if not] You ran out of fuel oil, propane, wood, or pellets because you couldn't afford a delivery [NOHEATBULK: 1 if selected, 0 if not] None of these happened [NOHEATNONE:1 if selected, 0 if not] If NOHEATBROKE=1 or NOHEATEL=1 or NOHEATNG=1 or NOHEATBULK=1: **NOHEATDAYS NEXT** Else: COLDMA **MODE**

SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?

<BUTTONS: Change Answer / Continue>

NOHEATDAYS		
ASK	If NOHEATBROKE=1 or NOHEATEL=1 or NOHEATNG=1 or NOHEATBULK=1	
About how many days was your household without heat?		
days		
{WEB: ALLOW RANGE 1 – 366, PAPER: THREE DIGITS}		
NEXT	NOHEATHELP	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? <buttons: answer="" change="" continue=""> SOFT PROMPT IF OUT OF RANGE: Your response was outside the expected range of 1 to 366.</buttons:>	
	<buttons: answer="" change="" continue=""></buttons:>	

WEB

PROMPT

NOHEATHELP		
ASK	If NOHEATBROKE=1 or NOHEATEL=1 or NOHEATNG=1 or NOHEATBULK=1	
When that h your heating 1 Yes 0 No		
NEXT	COLDMA	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

COLDMA	
ASK	All respondents
In the past y cold? 1 Yes 0 No	ear, did anyone in your household need medical attention because your home was too
NEXT	NOACBROKE, NOACEL, NOACNONE
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

NOACBRO	NOACBROKE, NOACEL, NOACNONE	
ASK	All respondents	
In the past year, was there ever a time your household was unable to use your air conditioner or other cooling equipment because any of the following events happened? Please select all that apply. Your air conditioning equipment or other cooling equipment was broken and you couldn't afford to pay for the repair or replacement [NOACBROKE: 1 if selected, 0 if not] You couldn't pay for electricity and it was disconnected [NOACEL: 1 if selected, 0 if not] None of these happened [NOACNONE:1 if selected, 0 if not]		
NEXT	If NOACBROKE=1 or NOACEL=1: NOACDAYS Else: HOTMA	
MODE		
WEB PROMPT	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

NOACDAYS	
ASK	If NOACBROKE=1 or NOACEL=1
About how many days was your household without air conditioning?	
	days
{WE	EB: ALLOW RANGE 1 – 366, PAPER: THREE DIGITS}
NEXT	NOACHELP
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?

NOACHELP	
ASK	If NOACBROKE=1 or NOACEL=1
When that happened, did your household apply for and receive home energy assistance to help restore your cooling? 1 Yes 0 No	
NEXT	НОТМА
MODE	
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>

НОТМА		
ASK	All respondents	
In the past y hot? 1 Yes 0 No	ear, did anyone in your household need medical attention because your home was too	
NEXT	ENERGYASST	
MODE		
WEB PROMPT	SOFT PROMPT IF MISSING: Did you mean to leave this question blank? BUTTONS: Change Answer / Continue>	

ENERGYASST (Changed since 2015)

ASK All respondents

Including times when you received assistance for heating and cooling bills, has your household participated in a home energy assistance program that helps to pay energy bills or fix broken equipment?

1 Yes

0 No

NEXT	If ENERGYASST=1: ENERGYASST20, ENERGYASST19, ENERGYASST18, ENERGYASST17, ENERGYASST16, ENERGYASSTOTH Else: FINAL QUESTIONS SECTION
MODE	
WEB	SOFT PROMPT IF MISSING: Did you mean to leave this question blank?
PROMPT	<buttons: answer="" change="" continue=""></buttons:>

ENERGYASST20, ENERGYASST19, ENERGYASST18, ENERGYASST17, ENERGYASST16, ENERGYASSTOTH

ASK If ENERGYASST=1

In which of the following years did your household participate in a home energy assistance program? *Please select all that apply.*

2020 [ENERGYASST20: 1 if selected, 0 if not]

2019 [ENERGYASST19: 1 if selected, 0 if not]

2018 [ENERGYASST18: 1 if selected, 0 if not]

2017 [ENERGYASST17: 1 if selected, 0 if not] 2016 [ENERGYASST16: 1 if selected, 0 if not]

Some other year(s) [ENERGYASSTOTH: 1 if selected, 0 if not]

NEXT FINAL QUESTIONS SECTION

MODE

WEB SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?

PROMPT SUTTONS: Change Answer / Continue>

Final Questions

WEB MOTIVATIONAL PROMPT #4: Thank you for participating! Only a few final questions remain. Please click "Next" to continue.

ELSUPPNAME, ELACCT, NGSUPPNAME, NGACCT, LPSUPPNAME, LPACCT, FKSUPPNAME, FKACCT (Changed since 2015)

ASK All respondents

An important part of this study is to link the information you've provided in this survey to your actual energy use. The study's findings are less valuable without this information, as it helps us learn exactly how much energy your household used in the past year.

To keep the survey as short as possible, we would like to access this information on your behalf. Please provide the names of your energy supplier(s) and the account number for each fuel used by your household. Providing your account number ensures we get the correct energy use data. All data collected as part of the Residential Energy Consumption Survey, including energy use data, is used only for statistical purposes and will remain strictly confidential.

Electricity

Supplier: [ELSUPPNAME]
Account Number: [ELACCT]

Natural Gas

Supplier: [NGSUPPNAME]
Account Number: [NGACCT]

Propane

Supplier: [LPSUPPNAME]
Account Number: [LPACCT]

Fuel Oil

Supplier: [FKSUPPNAME] Account Number: [FKACCT]

NEXT	If mail_type in(4,5): OWGMSTADD, OWGMCITY, OWGMSTATE, OWGMZIP If MODE=Web and TYPEHUQ=5: MFNAME, MFCONTACT, MFROLE, MFPHONE, MFEMAIL Else: COMMENTS
MODE	
WEB	SOFT PROMPT IF ALL MISSING: Did you mean to leave this question blank?
PROMPT	<buttons: answer="" change="" continue=""></buttons:>

2020)		
ASK	If mail_type in(4,5)	
It is helpful to know the physical address of each home in this study to understand the impact of local weather conditions on home energy use.		
Please provide your home's physical address below.		
Street Address: [OWGMSTADD1]		
[OWGMSTADD1] City:		
{OWGMZIP: WEB: ALLOW RANGE 0 – 99999, PAPER: FIVE DIGITS. OWGMZIP4: WEB: ALLOW RANGE 0 – 9999, PAPER: FOUR DIGITS}		
NEXT	If MODE=Web and TYPEHUQ=5: MFNAME, MFCONTACT, MFROLE, MFPHONE, MFEMAIL Else: COMMENTS	
MODE	Web: Use dropdown menu of state names for OWGMSTATE. Paper: Ask of all respondents. Instead of second sentence, use alternate text: "If your household received this mailing at a P.O. Box, please provide your home's physical address below." Collect 2-character postal code for state.	
WEB PROMPT		
MFNAME, N	MFCONTACT, MFROLE, MFPHONE, MFEMAIL (New for 2020)	
ASK	If MODE=Web and TYPEHUQ=5	
We would like to contact someone knowledgeable about your entire building or complex to ask some questions about energy use in common areas.		
Please provide the following information. Your survey responses are confidential, and we will NOT share any of your responses.		
Building, Community, or Development Name: [MFNAME] Building Contact Person: [MFCONTACT] Building Contact Title (for example: landlord, building owner, HOA president, office manager): [MFROLE] Contact Phone Number: [MFPHONE] Contact Email: [MFEMAIL]		
NEXT	COMMENTS	
MODE		
WEB PROMPT		

OWGMSTADD1, OWGMSTADD2, OWGMCITY, OWGMSTATE, OWGMZIP, OWGMZIP4 (New for

COMMENTS ASK All respondents

Thank you for helping us learn how Americans use energy in their homes. We greatly appreciate your help!

If you have any additional thoughts about any of the survey topics or the survey itself, please share them here:

Open-ended response

NEXT	End of survey
MODE	Web: Display following text after the open-ended response, followed by a Finish button:
	To complete the survey, please click "Finish" below. Once you click "Finish" you will receive your cash thank you in about 3 weeks. If you have questions about this survey, please email us at