

2020 Residential Energy Consumption Survey NRFU Questionnaire Specifications

The 2020 Residential Energy Consumption Survey (RECS) will include a follow-up nonresponse follow-up (NRFU) questionnaire. This questionnaire will be administered by paper only. 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 instrument. 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	
ASK	All respondents
Question Text	
1	Yes
0	No
NEXT	VARIABLE2

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: {TWO DIGITS}. The response sets and ranges are generally consistent between the 2020 RECS main household and NRFU questionnaire.

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

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Burden: 6 minutes

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? 1 Mobile home 2 Single-family house detached from any other house 3 Single-family house attached to one or more other houses (for example: duplex, row house, or townhome) 4 Apartment in a building with 2 to 4 units 5 Apartment in a building with 5 or more units	
NEXT	If TYPEHUQ in(2,3): CELLAR, ATTIC, PRKGPLC1 Else: PRIMRES

CELLAR, ATTIC, PRKGPLC1		
ASK	If TYPEHUQ in(2,3)	
Which of the following areas does your home have?		
	Yes	No
Basement [CELLAR]	1	0
Attic [ATTIC]	1	0
Attached garage [PRKGPLC1]	1	0
NEXT	STORIES	

STORIES	
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	PRIMRES

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PRIMRES	
ASK	All respondents
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

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	BEDROOMS

BEDROOMS	
ASK	All respondents
How many bedrooms are in your home? Include rooms in finished basements and finished attics. <i>If none, please enter "0."</i> _____ Number of bedrooms {ONE DIGIT}	
NEXT	YEARMADERANGE

YEARMADERRANGE	
ASK	All respondents
When was your home built? 1 Before 1950 2 1950 to 1959 3 1960 to 1969 4 1970 to 1979 5 1980 to 1989 6 1990 to 1999 7 2000 to 2009 8 2010 to 2015 9 2016 to 2020	
NEXT	MOVER, MOVE20MON, MOVE21MON

MOVER, MOVE20MON, MOVE21MON	
ASK	All respondents
When did your household move in to this home? 1 2019 or earlier 2 2020 → In what month? _____ [MOVE20MON: Character variable] 3 2021 → In what month? _____ [MOVE21MON: Character variable]	
NEXT	VACANT

VACANT	
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	
ASK	All respondents
<p>What is the square footage of your home?</p> <p>_____ square feet</p> <p>{FIVE DIGITS, COMMA FORMAT}</p> <p>Don't know [SQFTEST_DK: 1 if selected, 0 if not]</p>	
NEXT	If SQFTEST_DK=1: SQFTRANGE Else: NUMFRIG

SQFTRANGE	
ASK	If SQFTEST_DK=1
<p>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.</p> <ol style="list-style-type: none"> 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 <p>-4 Don't know (<i>Select this option only if you are unable to provide a guess</i>)</p>	
NEXT	NUMFRIG

NUMFRIG	
ASK	All respondents
<p>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></p> <p>_____ refrigerators</p> <p>{ONE DIGIT}</p>	
NEXT	NUMMEAL

NUMMEAL	
ASK	All respondents
Which of the categories below best describes how often hot food is usually cooked in your home? <ul style="list-style-type: none"> 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	FUELFOOD
MODE	

FUELFOOD	
ASK	All respondents
What fuel used most for cooking in your home? <ul style="list-style-type: none"> 5 Electricity 1 Natural gas from underground pipes 2 Propane (bottled gas) 	
NEXT	SEPFREEZ, DISHWASH, CWASHER, DRYER
MODE	

SEPFREEZ, DISHWASH, CWASHER, DRYER		
ASK	All respondents	
Which of the following appliances do you have in your home? Do not include community clothes washers or dryers located in the basement or laundry room of an apartment building.		
	Yes	No
Stand-alone freezer [SEPFREEZ]	1	0
Dishwasher [DISHWASH]	1	0
Clothes washer [CWASHER]	1	0
Clothes dryer [DRYER]	1	0
NEXT	DESKTOP, NUMLAPTOP, NUMTABLET, NUMSMPHONE	

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DESKTOP, NUMLAPTOP, NUMTABLET, NUMSMPHONE	
ASK	All respondents
How many of each of the following are used in your home? <i>If none, please enter "0."</i> ____ 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 "smart" phones (for example, iPhone or Android) [NUMSMPHONE] {FOR ALL: TWO DIGITS}	
NEXT	INTERNETYN

INTERNETYN	
ASK	All respondents
In your home, do you or any member of your household have access to the Internet? 1 Yes 0 No	
NEXT	TELLWORK


TELLWORK	
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	TVCOLOR, CABLESAT, COMBODVR, SEPDVR, INTSTREAM, PLAYSTA

TVCOLOR, CABLESAT, COMBODVR, SEPDVR, INSTSTREAM, PLAYSTA	
ASK	All respondents
How many of each of the following are used in your home? <i>If none, please enter "0."</i>	
____ Number of televisions [TVCOLOR]	
____ Number of cable or satellite boxes <u>without</u> DVR [CABLESAT]	
____ Number of cable or satellite boxes <u>with</u> 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) [INSTSTREAM]	
____ Number of video game consoles [PLAYSTA]	
{FOR ALL: TWO DIGITS}	
NEXT	LTGINLED

LG TINLED	
ASK	All respondents
What portion of the light bulbs used <u>inside your home</u> are <u>LED</u> bulbs?	
	
1 All	
2 Most	
3 About half	
4 Some	
0 None	
NEXT	LGTINCFL

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LGTINCFL	
ASK	All respondents
What portion of the light bulbs used <u>inside your home</u> are <u>CFL</u> bulbs?	
	
1 All 2 Most 3 About half 4 Some 0 None	
NEXT	LGTINCAN

LGTINCAN	
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	EQUIPM
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EQUIPM

ASK	All respondents
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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 kerosene
- 8 Wood or pellet stove
- 10 Portable electric heaters
- 99 Other (please specify): [EQUIPM_other]

- 4 Don't know

- 3 Home is not heated

NEXT	FUELHEAT
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FUELHEAT

ASK	All respondents
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[Type here]

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

- 5 Electricity
- 1 Natural gas from underground pipes
- 2 Propane (bottled gas)
- 3 Fuel oil
- 7 Wood or pellets
- 99 Other (please specify): [FUELHEAT_other]

- 4 Don't know

- 3 Home is not heated

NEXT

ACEQUIPM

ACEQUIPM

ASK

All respondents

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

- 3 Home is not air-conditioned

NEXT

TYPETHERM

TYPETHERM

ASK

All respondents

<p>Does your household use a thermostat to control the temperature inside your home?</p> <p>1 Yes, a manual or non-programmable thermostat 2 Yes, a programmable thermostat 3 Yes, a “smart” or Internet-connected thermostat 0 No</p> <p>-4 Don't know</p>	
NEXT	HEATCNTL

HEATCNTL	
ASK	All respondents
<p>Which of the following best describes how your household controls the indoor temperature <u>during the winter</u>?</p> <p>1 Set 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 (please specify): [HEATCNTL_other]</p> <p>-3 Home is not heated</p>	
NEXT	FUELH2O

FUELH2O	
ASK	All respondents
<p>What fuel does your main water heater use?</p> <p>5 Electricity 1 Natural gas from underground pipes 2 Propane (bottled gas) 3 Fuel oil 7 Wood 8 Solar thermal 99 Other (please specify): [FUELH2O_other]</p> <p>-4 Don't know</p>	
NEXT	SOLAR

SOLAR	
ASK	All respondents

[Type here]

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Does your home have a solar or photovoltaic system that generates electricity?	
1 Yes 0 No	
NEXT	ELECVEH

ELECVEH	
ASK	All respondents
Do you or any member of your household own or lease an electric vehicle? Please include both all-electric and plug-in hybrid electric vehicles.	
1 Yes 0 No	
NEXT	HHAGE

HHAGE	
ASK	All respondents
What is your age?	
_____ years old	
{THREE DIGITS}	
NEXT	EMPLOYHH

EMPLOYHH	
ASK	All respondents

[Type here]

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Which best describes your current employment status?	
1 Employed full-time	
2 Employed part-time	
3 Retired	
4 Not employed	
NEXT	NHLSMEM
MODE	

NHSLDMEM	
ASK	All respondents
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	
{TWO DIGITS}	
NEXT	ATHOME

ATHOME	
ASK	All respondents
<p>How many <u>weekdays</u> is someone at home most or all of the day?</p> <p>0 None 1 1 day 2 2 days 3 3 days 4 4 days 5 5 days</p>	
NEXT	MONEYPY5

MONEYPY5	
ASK	All respondents
<p>Including all income sources, which category best describes the total combined income of all household members for the past year, before taxes and deductions?</p> <p>1 Less than \$15,000 2 \$15,000 - \$29,999 3 \$30,000 - \$59,999 4 \$60,000 - \$99,999 5 \$100,000 or more</p>	
NEXT	ELPAY

ELPAY	
ASK	All respondents
<p>Who is responsible for paying for the <u>electricity</u> used in this home?</p> <p>1 Household is responsible for paying for <u>all</u> electricity used in this home 2 All electricity 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 (please specify): [ELPAY_other]</p> <p>-4 Don't know</p>	
NEXT	SCALEB

SCALEB	
ASK	All respondents
<p>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?</p> <p>1 Almost every month 2 Some months 3 1 or 2 months 0 Never</p>	
NEXT	ENERGYASST

ENERGYASST	
ASK	All respondents
<p>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?</p> <p>1 Yes 0 No</p>	
NEXT	NRFUREASON

NRFURECALL	
ASK	All respondents
<p>Do you recall receiving prior requests to complete a similar survey?</p> <p>1 Yes 0 No</p>	
NEXT	If NRFURECALL=1: NRFUREASON Else: COMMENTS

NRFUREASON	
ASK	If NRFURECALL=1
<p>Which of the following best describes why you did not respond to prior requests?</p> <p>1 I did not think the request was legitimate 2 The information requested was too personal 3 It was too much work 4 I did not know the answers to some questions 99 Other (please specify): [NRFUREASON_other]</p>	

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NEXT	COMMENTS
COMMENTS	
ASK	All respondents
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

Please return this questionnaire in the enclosed postage-paid return envelope. If you have questions about this survey, please email or call us. <put appropriate email and phone contact information>