

2020 RECS Pretesting - Generic Clearance
Crowdsourcing Protocol (Instrument 1)

Instrument 1 (Crowdsourcing)

This survey is part of a voluntary research study to find out about your household energy use. In addition to asking you questions about your energy use, this web survey includes several open-ended questions specifically asking you to provide comments regarding how you came up with your answers to the questions. Your responses to these open-ended questions will be used to revise the survey questions. There are no right or wrong answers to the open-ended questions. Your feedback is extremely helpful for us to better refine the survey questionnaire. Your responses will be kept private and confidential.

The entire survey should take **about 30 minutes** to complete. You will receive **\$5.00** after you complete the survey and your HIT is approved.

TYPEHUQ	
ASK	All respondents
<p>Which best describes your home?</p> <ul style="list-style-type: none"> 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	BEDROOMS, NCOMBATH, NHAFBATH, OTHROOMS
NOTE	Question is included to satisfy skip logic for heat pump back-up source question (HPBACKUP), wood amount (WOODAMT/PELLETAMT), and air conditioning (ACEQUIPM).
PROBES	None

BEDROOMS, NCOMBATH, NHAFBATH, OTHROOMS	
ASK	All respondents
<p>How many of the following types of rooms are in your home? Include rooms in finished basements and finished attics. If none, please enter "0."</p> <ul style="list-style-type: none"> ___ Bedrooms (BEDROOMS) ___ Full bathrooms (A full bathroom includes a sink with running water, a toilet, and a bath or shower.) (NCOMBATH) ___ Half bathrooms (A half bathroom includes a sink with running water and either a toilet, a bath, or a shower.) (NHAFBATH) ___ Other rooms (Include living or family rooms, kitchens, home offices, etc. Do not include hallways, closets, or rooms you already counted above.) (OTHROOMS) <p>{ALLOW RANGE 0-30 FOR EACH. REQUIRE RESPONSE FOR NUMBER OF BEDROOMS BECAUSE IT TRIGGERS THE SOFT CHECK IN SF2.}</p>	

NEXT	SF1
NOTE	Question is included to trigger the soft check on SF2.
PROBES	None

SF1	
ASK	All respondents
<p>A home's size is typically reported in "square feet." Do you know your home's square footage?</p> <p>1 Yes 0 No</p>	
NEXT	If SF1 = 1: SF2 Else: SF3
NOTE	
PROBES	None

SF2	
ASK	If SF1 = 1
<p>What is the square footage of your home? <i>We would rather you select 'Don't know' than provide a guess.</i></p> <p>_____square feet</p> <p>Don't know</p> <p>"SOFT CHECK" WILL APPEAR FOR ALL RESPONSES OUTSIDE OF THE 25th-75th PERCENTILES BASED ON NUMBER OF BEDROOMS (SHOWN BELOW):</p> <ul style="list-style-type: none"> • 0 BEDROOMS: 450-800 SQ FT • 1 BEDROOM: 600-800 SQ FT • 2 BEDROOMS: 800-1200 SQ FT • 3 BEDROOMS: 1200-2000 SQ FT • 4 BEDROOMS: 1800-2800 SQ FT • 5+ BEDROOMS: 2000-4000 SQ FT <p>HALF WILL RECEIVE SOFT CHECK A: You reported that your home is [FILL] square feet. This number is [larger/smaller] than we expected based on other information about your home. Please verify your response.</p> <p>1 My response is <u>correct</u>. I would like to continue to the next question. 2 My response is <u>incorrect</u>. I would like to edit my response. 3 I am <u>unsure</u>. I would like to change my response to "Don't know."</p> <p>IF SOFT CHECK = 2, ASK FOR SQUARE FOOTAGE AGAIN. INSTRUMENT SHOULD RECORD BOTH ORIGINAL RESPONSE AND UPDATED RESPONSE.</p> <p>HALF WILL RECEIVE SOFT CHECK B: Please verify your response.</p> <p>1 My response is <u>correct</u>. I would like to continue to the next question. 2 My response is <u>incorrect</u>. I would like to edit my response.</p>	

<p>3 I am <u>unsure</u>. I would like to change my response to “Don’t know.”</p> <p>IF SOFT CHECK = 2, ASK FOR SQUARE FOOTAGE AGAIN. INSTRUMENT SHOULD RECORD BOTH ORIGINAL RESPONSE AND UPDATED RESPONSE.</p>	
NEXT	If SF2 = DK, SF3 Else: SF4
NOTE	
PROBES	<ul style="list-style-type: none"> • How accurate do you think your response is? (Extremely accurate, Very accurate, Somewhat accurate, Not very accurate, Not at all accurate) • IF RECEIVED SOFT CHECK A: The survey noted that your original response was [larger/smaller] than we expected based on other information about your home. Please tell us what you thought when you saw this message. • How do you feel about this message?

SF3	
ASK	If SF1 = 0 or SF2 = DK
<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> <p>1 Less than 500 square feet 2 500-999 square feet 3 1,000-1,499 square feet 4 1,500-1,999 square feet 5 2,000-2,499 square feet 6 2,500-2,999 square feet 7 3,000-3,499 square feet 8 3,500-3,999 square feet 9 4,000 square feet or more 10 Don’t know (<i>Select this option only if you are unable to provide a guess.</i>)</p>	
NEXT	IF SF1=1, SF4 ELSE: HEATHOME
NOTE	
PROBES	<ul style="list-style-type: none"> • How did you decide which response to select? Please describe your thought process. • Is anything about this question confusing or unclear? Please explain. • What do you think of the response categories? Do you think they should be changed, or are they okay? Please explain.

SF4	
ASK	If SF1 = 1 & SF2 ≠ DK
<p>What sources of information did you use to determine your home’s square footage? <i>Select all that apply.</i></p> <p>1 I checked my property tax documents 2 I checked my lease or mortgage documents</p>	

	3 I remember from when I leased or bought my home 4 I asked someone else who knows 5 I checked an internet site (e.g., Zillow) 6 Other (please specify): _____
NEXT	HEATHOME
NOTE	
PROBES	None

HEATHOME	
ASK	All respondents
<p>Is your home heated during the winter?</p> <p>1 Yes 2 No, I do not have any heating equipment 3 No, I have heating equipment but do not use it</p>	
NEXT	If HEATHOME=1 and TYPEHUQ in(4,5): APTHEAT If HEATHOME=1 and TYPEHUQ in(1,2,3): EQUIPM Else: AIRCOND
NOTE	Question is included to satisfy skip logic for heat pump back-up source question (HPBACKUP), wood amount (WOODAMT/PELLETAMT), secondary heating equipment (EQUIPAUX), and thermostat (THERMAIN).
PROBES	None

APTHEAT	
ASK	If HEATHOME=1 and TYPEHUQ in(4,5)
<p>Is your main heating equipment located in your apartment unit, or is it located somewhere else in the building?</p> <p>1 In apartment unit 2 Somewhere else in building</p> <p>Don't know</p>	
NEXT	If APTHEAT=1: EQUIPM Else: EQUIPAUX
NOTE	Question is included to satisfy skip logic for heat pump back-up source question (HPBACKUP) and wood amount (WOODAMT/PELLETAMT).
PROBES	None

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

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

- 2 Central furnace
- 4 Central heat pump
- 11 Ductless heat pump, also known as a “mini-split”
- 3 Steam or hot water system with radiators or pipes
- 5 Built-in electric units installed in walls, ceilings, baseboards, or floors
- 6 Built-in room heater burning gas, oil, or kerosene
- 8 Wood or pellet stove
- 10 Portable electric heaters
- 99 Other (please specify)

Don't know

HALF OF THE RESPONDENTS WILL SEE A VERSION OF THE QUESTION THAT DISPLAYS IMAGES.

NEXT	If EQUIPM = 4: HPBACKUP Else: FUELHEAT
NOTE	
PROBES	<ul style="list-style-type: none"> • How confident are you that your response is correct? (Extremely confident, Very confident, Somewhat confident, Not very confident, Not at all confident) • Please indicate your familiarity with each type of equipment. (GRID WITH EQUIPMENT TYPES IN ROWS. COLUMNS: I know exactly what this is; I have an idea of what this is; I don't know what this is) • Are there any other terms you would use to refer to this equipment? If so, please list them below. (LIST EQUIPMENT TYPES WITH A TEXT BOX NEXT TO EACH)

HPBACKUP

ASK	If EQUIPM = 4
<p>Many heat pumps have a backup heating method that can be used when it is very cold. What type of backup heating does your heat pump use?</p> <ul style="list-style-type: none"> 1 Electric backup 2 Natural gas backup (dual-fuel system) 3 No backup <p>Don't know</p>	
NEXT	FUELHEAT
NOTE	
PROBES	<ul style="list-style-type: none"> • How confident are you that your response is correct? (Extremely confident, Very confident, Somewhat confident, Not very confident, Not at all confident) • What other terms would you use to describe “backup heating?”

FUELHEAT	
ASK	If HEATHOME=1 and (TYPEHUQ in(1,2,3) or APTHEAT=1))
<p>What is the fuel used by your main heating equipment?</p> <p>5 Electricity 1 Natural gas from underground pipes 2 Propane (bottled gas) 3 Fuel oil 7 Wood or pellets 9 Other (please specify)</p> <p>Don't know</p>	
NEXT	If FUELHEAT=7: WOODAMT, PELLETAMT Else: EQUIPAUX
NOTE	Question is included to satisfy skip logic for wood amount (WOODAMT/PELLETAMT). Probe is meant to capture additional information related to HPBACKUP.
PROBES	[IF FUELHEAT = 1]: Is your gas bill higher in the winter compared to other times of year? (Yes, No, Don't Know)

WOODAMT/PELLETAMT	
ASK	If FUELHEAT=7
<p>In the past year, about how much wood or pellets did your household use?</p> <p>Total amount of wood logs used in the past year: _____ cords (WOODAMT)</p> <p>Total amount of wood pellets used in the past year: _____ <input type="checkbox"/> 40-pound bags <input type="checkbox"/> tons (PELLETAMT)</p> <p>HALF OF THE RESPONDENTS WILL SEE A VERSION OF THE QUESTION THAT DISPLAYS IMAGES.</p>	
NEXT	EQUIPAUX
NOTE	
PROBES	<ul style="list-style-type: none"> How accurate do you think your response is? (Extremely accurate, Very accurate, Somewhat accurate, Not very accurate, Not at all accurate)

EQUIPAUX	
ASK	If EQUIPAUX>0
<p>VERSION 1</p> <p>In addition to your main heating equipment, does your household also use any of the following as a <u>second source</u> for heating your home? If more than one, select the type most frequently used.</p> <p>0 No other equipment used</p>	

- 1 Portable electric heater
- 2 Wood-burning stove
- 3 Natural gas fireplace
- 4 Wood-burning fireplace
- 9 Other (please specify equipment and fuel)

VERSION 2

In addition to your main heating equipment, does your household also use any of the following as a second source for heating your home? If more than one, select the type most frequently used.

- 0 No other equipment used
- 2 Central furnace
- 4 Central heat pump
- 11 Ductless heat pump, also known as a "mini-split"
- 3 Steam or hot water system with radiators or pipes
- 5 Built-in electric units installed in walls, ceilings, baseboards, or floors
- 6 Built-in room heater burning gas, oil, or kerosene
- 8 Wood or pellet stove
- 9 Fireplace
- 10 Portable electric heaters
- 99 Other (please specify)

Don't know

HALF OF THE RESPONDENTS WILL SEE VERSION 1 AND HALF WILL SEE VERSION 2.

NEXT	AIRCOND
NOTE	
PROBES	For people in apartments that did not get asked EQUIPM: Were you thinking about equipment in your unit or in other parts of the building? (In unit, In other parts of the building)

FUELAUX	
ASK	If EQUIPAUX>0
<p>What is the fuel used by your secondary heating equipment?</p> <ol style="list-style-type: none"> 5 Electricity 1 Natural gas from underground pipes 2 Propane (bottled gas) 3 Fuel oil 7 Wood or pellets 9 Other (please specify) <p>Don't know</p>	
NEXT	NEWEQMAMT
NOTE	
PROBES	<ul style="list-style-type: none"> • Did you have any difficulty with this question? Please explain.

NEWEQMAMT	
ASK	If EQUIPAUX>0
<p>Which of the following best describes how your household uses the [WEB FILL: EQUIPAUX / PAPER: secondary heating equipment] during the heating season?</p> <ol style="list-style-type: none"> 1 Use all or almost all 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 6 Other (please specify) 	
NEXT	OTHHEAT
NOTE	
PROBES	<ul style="list-style-type: none"> • Did you have any difficulty with this question? Please explain.

OTHHEAT	
ASK	If EQUIPAUX>0
<p>Is there any other equipment used for heating your home? If so, please specify the equipment and fuel.</p> <p>Open-ended response</p> <p>No other heating equipment</p>	
NEXT	MOISTURE
NOTE	
PROBES	<ul style="list-style-type: none"> • Did you have any difficulty with this question? Please explain.

MOISTURE	
ASK	All respondents
<p>Humidifiers add moisture to the air and are often used in the winter. Is a humidifier used in your home?</p> <ol style="list-style-type: none"> 1 Yes, a <u>portable</u> humidifier 2 Yes, a <u>whole-home</u> humidifier 0 No 	
NEXT	If MOISTURE>0: USEMOISTURE Else: AIRCOND
NOTE	
PROBES	<ul style="list-style-type: none"> • Is anything about this question confusing or unclear? Please explain.

USEMOISTURE	
ASK	If MOISTURE>0
<p>In the last year, how many months was the humidifier used?</p> <p>_____ months</p> <p>{ALLOW RANGE 0 – 12}</p>	
NEXT	AIRCOND
NOTE	
PROBES	<ul style="list-style-type: none"> How confident are you that your response is correct? (Extremely confident, Very confident, Somewhat confident, Not very confident, Not at all confident)

AIRCOND	
ASK	All respondents
<p>Is any air conditioning equipment used in your home?</p> <p>1 Yes 0 No</p>	
NEXT	If AIRCOND=1 and TYPEHUQ in(4,5): APTCOOL Else if AIRCOND=1 and TYPEHUQ in(1,2,3): ACEQUIPM Else if HEATHOME = 1: THERMAIN Else: ILTUSE
NOTE	Question is included to satisfy skip logic for air conditioning equipment (ACEQUIPM) and thermostat (THERMAIN).
PROBES	None

APTCOOL	
ASK	If TYPEHUQ in(4,5) and AIRCOND=1
<p>Is your main air conditioning equipment located in your apartment unit, or is it located somewhere else in the building?</p> <p>1 In apartment unit 2 Somewhere else in building</p> <p>Don't know</p>	

NEXT	If APTCOOL=1: ACEQUIPM Else: THERMAIN
NOTE	Question is included to satisfy skip logic for air conditioning equipment (ACEQUIPM).
PROBES	None

ACEQUIPM	
ASK	If AIRCOND=1 and (TYPEHUQ in(1,2,3) or APTCOOL=1))
<p>What is the main type of air conditioning equipment used to cool your home?</p> <p>0 Central air conditioner 1 Central heat pump 2 Ductless heat pump, also known as a “mini-split” 3 Window or wall air conditioner 4 Portable air conditioner 5 Evaporative or swamp cooler</p> <p>Don't know</p> <p>HALF OF THE RESPONDENTS WILL SEE A VERSION OF THE QUESTION THAT DISPLAYS IMAGES.</p>	
NEXT	THERMAIN
NOTE	
PROBES	<ul style="list-style-type: none"> • How confident are you that your response is correct? (Extremely confident, Very confident, Somewhat confident, Not very confident, Not at all confident) • Please indicate your familiarity with each type of equipment. (GRID WITH EQUIPMENT TYPES IN ROWS. COLUMNS: I know exactly what this is; I have an idea of what this is; I don't know what this is) • Are there any other terms you would use to refer to this equipment? If so, please list them below. (LIST EQUIPMENT TYPES WITH A TEXT BOX NEXT TO EACH)

NUMCFAN, NUMFLOORFAN	
ASK	All respondents
<p>How many of the following types of fans does your household use? <i>If none, please enter “0.”</i></p> <p>_____ Number of <u>ceiling</u> fans (NUMCFAN) _____ Number of <u>floor or window</u> fans (NUMFLOORFAN)</p> <p>{ALLOW RANGE 0 – 50 FOR ALL}</p>	
NEXT	THERMAIN
NOTE	
PROBES	<ul style="list-style-type: none"> • When does your household use these fans? (For example: How often? For how long? At what time of year? Etc.)

NOTMOIST	
ASK	All respondents
<p>Dehumidifiers remove moisture from the air and are often used in the summer. Is a dehumidifier used in your home?</p> <p>1 Yes, a <u>portable</u> dehumidifier 2 Yes, a <u>whole-home</u> dehumidifier 0 No</p>	
NEXT	If NOTMOIST>0: USENOTMOIST Else: THERMAIN
NOTE	
PROBES	<ul style="list-style-type: none"> Is anything about this question confusing or unclear? Please explain.

USENOTMOIST	
ASK	If NOTMOIST>0
<p>In the last year, how many months was the dehumidifier used?</p> <p>_____ months</p> <p>{ALLOW RANGE 0 – 12}</p>	
NEXT	THERMAIN
NOTE	
PROBES	<ul style="list-style-type: none"> How confident are you that your response is correct? (Extremely confident, Very confident, Somewhat confident, Not very confident, Not at all confident)

THERMAIN	
ASK	If HEATHOME=1 or AIRCOND=1
<p>What kind of thermostat does your household use to control the temperature inside your home?</p> <p>1 Manual or non-programmable thermostat 2 Programmable thermostat 3 “Smart” or internet-connected thermostat 4 Not applicable. Household does not use a thermostat</p> <p>Don't know</p>	

NEXT	If HEATHOME=1: EQUIPMUSE If AIRCOND=1: ACEQUIPMUSE Else if TYPEHUQ = 4 OR 5: APTH20 Else if TYPEHUQ in (1, 2, 3): WHEATSIZ Else: END
NOTE	
PROBES	<ul style="list-style-type: none"> • How easy or difficult was it to answer this question? (Very easy, Somewhat easy, Neither easy nor difficult, Somewhat difficult, Very difficult) • Please explain why this question was easy or difficult to answer.

EQUIPMUSE	
ASK	If HEATHOME=1
<p>Which of the following best describes how your household controls the indoor temperature during the winter?</p> <ol style="list-style-type: none"> 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 equipment 9 Other (please specify) 	
NEXT	If AIRCOND=1: ACEQUIPMUSE Else if TYPEHUQ = 4 OR 5: APTH20 Else if TYPEHUQ in (1, 2, 3): WHEATSIZ Else: END
NOTE	
PROBES	None

ACEQUIPMUSE	
ASK	If AIRCOND=1
<p>Which of the following best describes how your household controls the indoor temperature during the <u>summer</u>?</p> <ol style="list-style-type: none"> 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 equipment 9 Other (please specify) 	

NEXT	If TYPEHUQ = 4 OR 5: APTH20 Else if TYPEHUQ in (1, 2, 3): WHEATSIZ Else: END
NOTE	
PROBES	None

APTH20	
ASK	If TYPEHUQ = 4 OR 5
<p>Is your water heater located in your apartment unit, or is it located somewhere else in the building?</p> <p>1 In apartment unit 2 Somewhere else in building</p> <p>Don't know</p>	
NEXT	If TYPEHUQ in (1, 2, 3) or APTH20=1: WHEATSIZ Else: END
NOTE	Question is included to satisfy skip logic for air water heater questions (WHEATBKT, WHEATHP).
PROBES	None

WHEATSIZ	
ASK	If TYPEHUQ in (1, 2, 3) OR APTH20 = 1
<p>What is the approximate size of your main water heater?</p> <p>1 Small (30 gallons or less) 2 Medium (31 to 49 gallons) 3 Large (50 gallons or more) 4 Tankless or on-demand</p> <p>Don't know</p>	
NEXT	WHEATBKT
NOTE	Question is included to satisfy skip logic for air water heater questions (WHEATBKT, WHEATHP).
PROBES	None

WHEATBKT	
ASK	If WHEATSIZ in (1,2,3)
<p>If your main water heater insulated using a water heater blanket?</p> <p>1 Yes 0 No</p>	

Don't know	
NEXT	WHEATHP
NOTE	
PROBES	<ul style="list-style-type: none"> How confident are you that your response is correct? (Extremely confident, Very confident, Somewhat confident, Not very confident, Not at all confident)

WHEATHP	
ASK	If WHEATSIZ in (1,2,3)
<p>Is your main water heater a hybrid heat pump water heater?</p> <p>1 Yes 0 No</p> <p>Don't know</p>	
NEXT	END
NOTE	
PROBES	None

This is the end of the survey.

This is your MTurk verification code: **[DISPLAY RANDOM 8-DIGIT ALPHANUMERIC STRING]**

Please enter the verification code in your HIT on MTurk to receive approval. Remember to copy your code before you close the current browser tab or window.

Thank you for your participation!