



Appendix A

Residential Sector Telephone Survey

Choose one option—()
Multiple responses allowed—[]

GDS POTENTIAL STUDY IN NEW HAMPSHIRE
Residential Telephone Survey
5-28-08 V11

Hi, my name is ____ and I'm calling on behalf of _____ and the state of New Hampshire Public Utilities Commission. I would like to ask you some questions about your use of energy and participation in energy efficiency programs.

May I speak with the person responsible for making decisions about energy use in your household?

[WHEN THE PERSON IS REACHED]

[Hi, my name is ____ and I'm calling on behalf of _____ and the state of New Hampshire Public Utilities Commission. I would like to ask you some questions about your use of energy and participation in energy efficiency programs]

The information you provide will be used by the Public Utilities Commission to help save energy in New Hampshire. This is not a sales call, and no sales call will result from our conversation and your name will not be passed on to anyone. These questions are strictly for research purposes. This survey should take about 20 minutes of your time.

[IF REQUESTED]

For further questions about this survey, you can contact Tom Franz at the New Hampshire Public Utilities Commission, either by calling or going to its website. The phone number is (603) 271-2431 and the website is www.puc.state.nh.us.

Home Characteristics

HC1. Is this address, [ADDRESS IN THE LIST], permanent or seasonal residence?

- Permanent
- Seasonal
- DK

All of our questions today will refer to this address.

HC2. What type of home is this residence? Is it...?

- Single family detached house
- Townhouse, duplex, or row house

- an apartment or condo with 3-4 units
- an apartment or condo with 5 or more units
- Mobile home
- Other (specify)

HC3. Do you own this home?

- Yes
- No
- DON'T KNOW

HC4. About when did you move in to this home? [DO NOT READ LIST, BUT PROBE TO CODE]

- Before 1950
- 1950 to 1979
- 1980 to 1989
- 1990 to 1999
- 2000 to 2004
- 2005
- 2006
- 2007
- 2008
- DON'T KNOW

HC5. About when was this residence built? [DO NOT READ LIST, BUT PROBE TO CODE]

- Before 1950
- 1950 to 1979
- 1980 to 1989
- 1990 to 1999
- 2000 to 2004
- 2005 to 2008
- DON'T KNOW

HC6. How many rooms are there in this residence? Please count only kitchen, living rooms, and bedrooms, and do not count bathrooms, halls, garages, porches or unfinished rooms.

_____ # OF ROOMS

HC7. Approximately how many square feet of living space are there in this residence?

- _____ SQUARE FEET
- DON'T KNOW

Building Envelope - Windows/Doors and Insulation

BE1. Which of the following types of windows does this home have? [READ LIST]

- Single pane glass windows without storm windows
- Single pane glass windows with storm windows
- Double-pane glass windows without storm windows
- Double-pane glass windows with storm windows
- DON'T KNOW

[IF BE1~=DON'T KNOW, SKIP TO BE2]

BE1a. Do you have storm windows?

- Yes
- No
- DON'T KNOW

BE2. How drafty would you say this house is? Would you say it is....?

- Very drafty
- Somewhat drafty
- Not too drafty
- Not drafty at all
- DON'T KNOW

BE3. Have you ever added insulation to this home?

- Yes
- No
- DON'T KNOW

Space Heating

[IF HC3=YES, SKIP TO SH2]

SH1. Do you pay for the fuel used to heat this home?

- Yes
- No
- DON'T KNOW

[ALL]

SH2. What is the main fuel you use to heat this home? [DO NOT READ LIST]

- Natural gas purchased from [INSERT: UTILITY NAME] [CONFIRM: IS IT PIPED AND METERED?]
- Electricity [SKIP TO SH4]
- Bottled gas or propane: [CONFIRM: DELIVERED BY TRUCK?]
- Oil
- Kerosene
- Wood [SKIP TO SH5]
- Solar [SKIP TO SH6]

- Geothermal [SKIP TO SH6]
- Other (please specify: _____) [SKIP TO SH6]
- DON'T KNOW [SKIP TO SH6]
- REF [SKIP TO SH6]

SH3. What type of heating system is your main source of heat? [DO NOT READ LIST, PROBE TO CODE]

- Furnace: central forced air furnace (fan circulates air through ducts)
- Boiler + Radiator + Hot Water (aka "forced hot water")
- Boiler + Baseboard + Hot Water (aka "forced hot water"), OR JUST "BASEBOARD"
- Boiler + Radiator + Steam
- Radiator + DK (i.e., other components unknown)
- Other (please specify: _____)
- DON'T KNOW
- REF

[IF SH2~=ELECTRICITY, SKIP TO SH5]

SH4. What type of heating system is your main source of heat? [DO NOT READ LIST, PROBE TO CODE]

- Resistance (baseboard/ceiling/floor/wall)
- Furnace: central forced air furnace (fan circulates air through ducts)
- Heat Pump + Central + Air
- Heat Pump + Central + Geothermal
- Heat Pump + Wall (aka "through-the-wall"; look like room AC, but also provides heat)
- Portable heaters
- Other system type (please specify: _____)
- DON'T KNOW
- REF

[IF SH2~=WOOD, SKIP TO SH6]

SH5. Do you use cord wood or pellets?

- Cord wood
- Pellets
- DON'T KNOW
- REF

SH6. When was the last time you had a tune-up or maintenance done on your main heating system?

[DO NOT READ LIST, PROBE TO CODE]

- Within this past year
- About 1 to 2 years ago
- 2 to 3 years ago
- More than 3 years ago
- DON'T KNOW

SH7. About how old is your main heating system? If it's helpful, I can read some categories for you to choose from. Please note we are looking for the age of the main part, the part that generates the heat, and not any motors, fans, starters, etc.

- Under 5 years old
- 5 to 10 years old (installed in the late 1990s to early 2000s)
- 10 to 25 years old (say about 1980 to the late 1990s)
- 25 to 40 years old (say about 1965 through 1980)
- more than 40 years old (say before 1965)
- DON'T KNOW

[IF SH7="UNDER 5 YRS" OR "5-10 YRS"]

SH8. So the system is fairly new. Did you specifically request that the new equipment be energy efficient?

- Yes
- No
- Not applicable—someone else installed the equipment
- DON'T KNOW

SH9. Is this system we've been talking about the only way you heat this home?

- Yes [SKIP TO SH14]
- No
- DON'T KNOW

[IF SH9=NO]

SH10. What type of fuel does the secondary heating system use?

- Natural gas purchased from [INSERT: UTILITY NAME] [CONFIRM: IS IT PIPED AND METERED?]
- Electric [SKIP TO SH12]
- Bottled gas or propane: [CONFIRM: DELIVERED BY TRUCK?]
- Oil
- Kerosene
- Wood [SKIP TO SH13]
- Solar [SKIP TO SH14]
- Geothermal [SKIP TO SH14]
- Other (please specify: _____) [SKIP TO SH14]
- DON'T KNOW [SKIP TO SH14]
- REF [SKIP TO SH14]

SH11. What type of heating system is your secondary source of heat? [DO NOT READ LIST, PROBE TO CODE]

- Furnace: central forced air furnace (fan circulates air through ducts)
- Boiler + Radiator + Hot Water (aka "forced hot water")
- Boiler + Baseboard + Hot Water (aka "forced hot water")

- Boiler + Radiator + Steam
- Radiator + DK (i.e., other components unknown)
- Baseboard
- Other (please specify: _____)
- DON'T KNOW
- REF

[IF SH10~=ELECTRICITY, SKIP TO SH13]]

SH12. What type of heating system is your secondary source of heat? [DO NOT READ LIST, PROBE TO CODE]

- Resistance (baseboard/ceiling/floor/wall)
- Furnace: central forced air furnace (fan circulates air through ducts)
- Heat Pump + Central + Air
- Heat Pump + Central + Geothermal
- Heat Pump + Wall (aka "through-the-wall"; look like room AC, but also provides heat)
- Portable heaters
- Other system type (please specify: _____)
- DON'T KNOW
- REF

[IF SH10~=WOOD, SKIP TO SH14]]

SH13. Do you use cord wood or pellets?

- Cord wood
- Pellets
- DON'T KNOW
- REF

SH14. Do you have a programmable thermostat? [PROGRAMMABLE has digital readout and buttons that allow you to program temperature settings and on/off times]

- Yes
- No
- DON'T KNOW

SH15. In the winter, what temperature do you typically set your thermostat to when you are at home?

- _____ Fahrenheit [# OR ALPHA ACCEPTABLE]
- DON'T KNOW

SH16. Do you turn down the temperature at times such as at night or when you are not at home?

- Yes
- No
- DON'T KNOW

Space Cooling

SC1. Do you have central air conditioning?

- Yes
- No [SKIP TO SC7]
- DON'T KNOW [SKIP TO SC7]

SC2. About how many of the days during the summer are you running your central air conditioner?
Would you say... [READ LIST]?

- Every day or most days
- Several days a week most weeks
- Just the hottest days of the summer
- DON'T KNOW

SC3. In the summer, what temperature do you typically set your cooling thermostat to when you are at home?

_____ Fahrenheit [# OR ALPHA ACCEPTABLE]
 DON'T KNOW

SC4. Do you turn up the temperature at times such as at night or when you are not at home?

- Yes
- No
- DON'T KNOW

SC5. Have you ever had a tune-up or maintenance done on your central air conditioning system?

- Yes
- No
- DON'T KNOW

[IF SC5~=YES, SKIP TO SC7]

SC6. When was the last time you had a tune-up or maintenance done?

- Within this past year
- The year before that
- 2 to 3 years ago
- More than 3 years ago
- DON'T KNOW

SC7. How many room air conditioners do you typically have plugged in, if any?

_____ # OF ROOM AIR CONDITIONERS

[IF SC7=0, SKIP TO "WATER HEATING"]

SC8. What is the typical temperature setting for you room air conditioner(s) when you are at home?

_____ Fahrenheit [# OR ALPHA ACCEPTABLE]

DON'T KNOW

-8 = NOT APPLICABLE - CANNOT SET TEMPERATURE

SC9. About how many of the days during the summer are you running your room air conditioners?

Would you say. . .[READ LIST]?

Every day or most days

Several days a week or most weeks

Just the hottest days of the summer

DON'T KNOW

WATER HEATING

WH1. What is the main fuel you use to heat water? [DO NOT READ LIST]

Natural gas [CONFIRM: IS IT PIPED AND METERED?]

Electric

Oil

Kerosene

Propane or bottled gas [CONFIRM: DELIVERED BY TRUCK?]

Solar

Other (please specify: _____)

DON'T KNOW

REF

WH2. What type of system is your main water heater? Would you say it is a ...[READ LIST]

Traditional water heater tank

Whole house tankless system running off boiler

Whole house on-demand system, where the water is heated centrally as you use it

Point-of-use, where the water is heated at the tap as you use it, such as for kitchen use or in a remote bathroom

or something else? (specify)

DON'T KNOW

REF

WH3. When running hot water only, can you hold your hand under the hot water for more than a moment without being scalded?

Yes

No

DON'T KNOW

WH4. Are you using water-saving devices such as faucet aerators in this home? [IF NECESSARY:
Aerators screw into the faucet to reduce the volume of water by mixing in air]

- Yes
- No
- DON'T KNOW

WH5. Does this home have indoor Jacuzzi or spa-type tub?

- Yes
- No
- DON'T KNOW

[IF WH5~=YES, SKIP TO "CLOTHES WASHING"]

WH6. Approximately how many times a month do you use the Jacuzzi or spa tub?
_____ # PER MONTH [# OR ALPHA ACCEPTABLE]

Clothes Washing

CW1. Do you own a clothes washer?

- Yes
- No [SKIP TO CW3]
- DON'T KNOW [SKIP TO CW3]

CW2. Is your clothes washer a top loading or front loading model?

- Top loading
- Front loading
- DON'T KNOW

CW3. Do you own a clothes dryer?

- Yes
- No [SKIP TO CW5]
- DON'T KNOW [SKIP TO CW5]

CW4. Is that an electric dryer or a gas dryer?

- Electricity
- Gas
- DON'T KNOW

[IF CW1~=YES AND CW3~=YES, SKIP TO REFRIGERATORS]

CW5. About how many loads of laundry per week do you typically do?
_____ # LOADS OF LAUNDRY PER WEEK [# OR ALPHA ACCEPTABLE]

DON'T KNOW

CW6. How often do you use line drying throughout the year? Would you say...

Never

Rarely

Occasionally

Most of the time

Always or almost always

DON'T KNOW

Refrigerators

R1. How many refrigerators do you have plugged in?

_____ # OF REFRIGERATORS [# OR ALPHA ACCEPTABLE]

DON'T KNOW

R2. How many stand-alone freezers do you have plugged in?

_____ # OF STAND-ALONE FREEZERS [# OR ALPHA ACCEPTABLE]

DON'T KNOW

Dishwasher

D1. Do you have a dishwasher?

Yes

No [SKIP TO "DEHUMIDIFIERS"]

D2. How many loads of dishes per week do you typically do?

_____ # LOADS OF DISHES PER WEEK [# OR ALPHA ACCEPTABLE]

DON'T KNOW

Dehumidifiers

DH1. How many dehumidifiers do you have plugged in, if any?

_____ # OF DEHUMIDIFIERS [# OR ALPHA ACCEPTABLE]

DON'T KNOW

[IF DH1=0, SKIP TO "HOT TUBS"]

DH2. About what percentage of the year would you say you use your dehumidifier?

[IF NECESSARY: For example, if you use it mostly May through September that would be about 40%]

[CHEAT SHEET: May-Aug or Jun-Sep =33%; Jun-Aug = 25%]

_____ % OF YEAR [# OR ALPHA ACCEPTABLE]

DON'T KNOW

[IF HC2~=SINGLE FAMILY HOME, SKIP TO "TELEVISIONS/COMPUTERS"]

Hot Tubs

HT1. Do you have an outdoor hot tub at this home?

Yes

No [SKIP TO "TELEVISIONS/COMPUTERS"]

HT2. How often do you heat the hot tub water in the winter? Would you say...?

It's continually heated

It's never heated

It's heated 1 or 2 times a month

3 to 8 times a month

9 or more times a month

DON'T KNOW

HT3. What fuel do you use to heat the hot tub?

Standard Electric heater

Natural gas

Bottled gas or propane

Solar and electricity

Solar and natural gas

Electric heat pump

Or something else (specify)

DON'T KNOW

HT4. Do you heat the water on a timer?

Yes

No

DON'T KNOW

HT5. Do you use a hot tub cover?

Yes

No

DON'T KNOW

HT6. Does this home have a heated pool?

Yes

No

DON'T KNOW

[IF HT6~=YES, SKIP TO TELEVISIONS/COMPUTERS]

HT7. What fuel do you use to heat the pool?

- Electric heat pump
- Standard electric heater
- Natural gas
- Bottled gas or propane
- Solar and electricity
- Solar and natural gas
- Or something else (specify)
- DON'T KNOW

Televisions/ Computers

TC1. I'm going to read a list of three types of TVs. Please tell me how many you have of each type.

a. Conventional TV, that's a CRT with either a flat screen display or the conventional "rounded" screen
_____ [# OR ALPHA ACCEPTABLE]

DON'T KNOW

b. Plasma screen—a flat panel, typically large display where light is emitted from gases held between two panels of glass _____ [# OR ALPHA ACCEPTABLE]

DON'T KNOW

c. LCD or liquid-crystal display screen—also a flat panel, typically large display, and also used as computer screens _____ [# OR ALPHA ACCEPTABLE]

DON'T KNOW

TC2. How many computers do you have plugged in on a typical day?

_____ # OF COMPUTERS

TC3. Which of the following describe what usually happens when you are done using a computer. Do you usually...[READ LIST, CHECK ALL THAT APPLY]?

- leave it on so it will be ready the next time you want to use it
- put it in sleep mode
- power down the computer
- turn off the monitor of a personal computer
- plug in if a laptop
- DON'T KNOW

Lighting

L1. Are you familiar with a compact fluorescent light bulb, sometimes referred to as a CFL bulb?

Yes

No

DON'T KNOW

[IF L1=YES, SKIP TO L3]

L2. Well, CFL bulbs are small fluorescent bulbs that fit into regular light bulb sockets. Some people call them twisty or swirly bulbs because they have thin tubes of glass bent into spirals or loops. Does this sound like something you've seen?

Yes

No

DON'T KNOW

[IF L1~=YES AND L2~=YES, SKIP TO "PAST PURCHASES/PRACTICES"]

L3. Do you currently have any of these bulbs installed in this home?

Yes

No [SKIP TO "PAST PURCHASES/PRACTICES"]

DON'T KNOW [SKIP TO "PAST PURCHASES/PRACTICES"]

L4. About how many of these bulbs are currently installed in this home? You can answer with a number or a percentage, whichever you are more comfortable with.

_____ # OR % OF CFLs [# OR ALPHA ACCEPTABLE; SURVEYOR TO RECORD UNITS (E.G., # OR %)]

DON'T KNOW

L5. When you purchased the CFL, did you...

receive an in store rebate

purchase it from NHSaves Lighting Catalog

none of the above

DON'T KNOW

Past Purchases/Practices

PP1. Have you remodeled any portion of this home in the last five years?

Yes

No

DON'T KNOW

[IF PP1~=YES, SKIP TO PP3]

PP2. Did you specifically consider or include energy efficient features?

Yes

- No
- DON'T KNOW

PP3. Do you plan on remodeling any portion of this home in the next 12 months?

- Yes
- No
- DON'T KNOW

[IF PP3~=YES, SKIP TO PP5]

PP4. Do you specifically plan to include energy efficient features when remodeling?

- Yes
- No
- DON'T KNOW

PP5. How much attention would you say you and your household pays to controlling energy costs through general energy efficiency operational practices such as adjusting room temperatures when not occupied, shutting computers and lights off at night, etc.? Would you say you pay.....

- Substantial attention to these matters
- Some attention
- Very little attention
- No attention at all
- DON'T KNOW
- REFUSED

PP6. Are you familiar with the Energy Star logo? It has the word "Energy" with a star symbol, and the federal government uses the logo to designate high efficiency equipment.

- Yes
- No
- DON'T KNOW

PP7. I am going to read a list of equipment. Let me know if you have purchased any of them for this home in the last five years. [IF PP8=YES, SAY: Also, tell me whether the equipment you currently have has an Energy Star logo, regardless when you purchased them.]

PP7_a. Did you purchase your [EQUIPMENT] in the last five years?

[IF PP7_a=YES, ASK] [IF PP6~=YES, SKIP PP7_b SERIES]

PP7_b. Does your [EQUIPMENT] has an Energy Star logo?

SKIP ITEM IF:	PP7	PP7_a	PP7_b
SC1~=YES	Central air conditioning	<input type="checkbox"/>	<input type="checkbox"/>

SC7=0	Room air conditioning unit	<input type="checkbox"/>	<input type="checkbox"/>
	Water heater	<input type="checkbox"/>	<input type="checkbox"/>
R1=0	Refrigerator	<input type="checkbox"/>	<input type="checkbox"/>
R2=0	Stand-alone Freezer	<input type="checkbox"/>	<input type="checkbox"/>
CW1~=YES	Clothes washer	<input type="checkbox"/>	<input type="checkbox"/>
CW3~=YES	Clothes dryer	<input type="checkbox"/>	<input type="checkbox"/>
DH1=0	Dehumidifier	<input type="checkbox"/>	<input type="checkbox"/>
D1~=YES	Dishwasher	<input type="checkbox"/>	<input type="checkbox"/>
	Windows	<input type="checkbox"/>	<input type="checkbox"/>
	Computers or other home office equipment	<input type="checkbox"/>	<input type="checkbox"/>

PP8. In the last five years have you purchased any other equipment or appliances that you specifically requested be energy efficient or that you purchased to reduce your home energy costs?

- Yes
- No
- DON'T KNOW

[IF PP8~=YES, SKIP TO ATTITUDES]

PP9. What did you purchase? PROBE: Anything else? CHECK ALL THAT APPLY. [NOTE TO SURVEYOR. CODE THE ITEMS AS SPECIFICALLY AS POSSIBLE. USE 'APPLIANCES' ONLY IF THAT IS VERBATIM]

- appliances
- fluorescent light fixtures
- insulation (walls, ceiling, attic, basement, crawl spaces, spot insulation)
- insulation on ducts and pipes
- microwave
- oven
- storm windows, door
- stove or cook top
- thermostat, programmable thermostat
- timers
- weatherstripping, caulking, sealing, "the thing that goes around the door to keep the heat in"
- window insulation, wrap, coverings, insulating draperies
- wood stove
- other (specify) _____

Attitudes

Now I have some questions about your attitudes towards purchasing energy efficient equipment for this home. I am referring to new equipment specifically designed to be more energy efficient than other *new* models. Energy efficient models typically cost more than other models, perhaps 20-30% more.

AT1. Now using a 5-point scale, with 5 being “extremely likely” and 1 being “not at all likely”, how likely you would be to purchase energy efficient equipment *instead of standard equipment...*

[RANDOMIZE]

- a. if your monthly energy bill would be less than it would be with the standard equipment?
- b. if it increased the level of comfort in this home more than standard equipment would?
- c. if you felt you were helping to protect the environment?
- d. if it increased the value of this home more than standard equipment would?
- e. if you received a rebate for the energy efficient equipment?
- f. if your sales person recommended it?

AT2. In general, what do you see as the primary reasons you might not purchase energy efficient equipment or make energy efficiency home improvements?

Don't know

Refused

Program Participation and Satisfaction

PS1. Are you aware that your utility, [INSERT: UTILITY NAME], has energy efficiency programs or products that offer incentives or rebates?

Yes

No [SKIP TO “DEMOGRAPHICS”]

DON'T KNOW[SKIP TO “DEMOGRAPHICS”]

PS2. Have you participated in any utility energy efficiency program or purchased any of the promoted products?

Yes

No

DON'T KNOW

[IF PS2~=YES, SKIP TO PS5]

PS3. Would you participate in the program again or purchase the promoted products again should you have the opportunity?

Yes [SKIP TO "DEMOGRAPHICS"]

No

DON'T KNOW

PS4. Why do you say that?

Program incentives were not enough

It wasn't worth the hassle (describe) _____

Other (specify) _____

[IF PS 2=YES, SKIP TO DEMOGRAPHICS]

PS5. I am going to read a list of possible reasons for not participating in an energy efficiency program. Please indicate for each reason whether it is true for you.

I didn't know I was eligible

I have not recently purchased any of the items we have talked about in this survey

I have purchased items but they were not energy efficient

I don't know how to find out more about the programs

Salesperson didn't talk to me about any programs

Program incentives were not enough

It wasn't worth the hassle (describe) _____

Other(specify) _____

Demographics

DE1. Just three last questions that will help us compare your answers with those of others. For each age group, including yourself, please tell me how many people are living in this home.

a. 5 years old and under

b. 6-18 years old

c. 19-34 years old

d. 35-54 years old

e. 55-64 years old

f. 65 years old and over

DE2. What is the highest level of education you have completed? Would you say... [READ LIST]?

Not a high school graduate

High school graduate or GED (high school equivalency)

- Some college/trade/vocational school
- College graduate
- Postgraduate degree
- REF

DE3. Please stop me when I get the range of your household's total before tax annual income:

- Less than \$50,000
- \$50,000 - \$109,999, or [SKIP TO DE3_b]
- More than \$110,000? [SKIP TO DE3_c]
- REF [TERMINATE]

DE3_a. Is it...

- Less than \$9,999 [SKIP TO THANK AND TERMINATE]
- \$10,000 - \$29,999 [SKIP TO THANK AND TERMINATE]
- \$30,000 - \$49,999 [SKIP TO THANK AND TERMINATE]
- RFD

DE3_b. Is it...

- \$50,000 - \$69,999 [SKIP TO THANK AND TERMINATE]
- \$70,000 - \$89,999 [SKIP TO THANK AND TERMINATE]
- \$90,000 - \$109,999 [SKIP TO THANK AND TERMINATE]
- RFD

DE3_c. Is it...

- \$110,000 - \$149,999
- \$149,000 - \$199,999
- \$200,000 or more
- RFD

That's all the questions I have for you. I really appreciate you taking the time to answer them. Thank you and have a nice day!