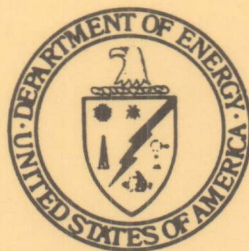


This survey is voluntary and authorized under the Federal Energy Administration Act of 1974 (Public Law 93-275) as amended. Information about specific households will be kept strictly confidential. The data will be summarized within large groupings for statistical purposes.

1990 Residential Energy Consumption Survey



**Energy Information Administration
U.S. Department of Energy**

Location # _____
Housing Unit # _____

111-116

117-118

Section A: Housing Type

A-1. INTERVIEWER: CIRCLE TYPE OF BUILDING IN WHICH RESPONDENT LIVES.

- 1 MOBILE HOME OR TRAILER --> [A-3]
- 2 ONE-FAMILY DETACHED 119
- 3 ONE-FAMILY ATTACHED (TOWNHOUSE, DUPLEX, OR ROWHOUSE)
- 4 HOUSE OR BUILDING WITH 2 TO 4 APARTMENT UNITS --> [A-3]
- 5 HOUSE OR BUILDING WITH 5 OR MORE APARTMENT UNITS --> [A-3]

INTERVIEWER: MARK FOLDOUT PAGE FOR TYPE OF BUILDING IN WHICH RESPONDENT LIVES.

IF ONE-FAMILY, RECORD

A-2. INTERVIEWER: CIRCLE STYLE OF SINGLE-FAMILY HOME OR TOWNHOUSE BASED ON GENERAL APPEARANCE FROM OUTSIDE.

- 1 ONE STORY
- 2 TWO STORY 120
- 3 THREE STORY
- 4 SPLIT-LEVEL
- 5 OTHER (SPECIFY: _____)

A-3. I'll ask a few questions about your household first so that I can better understand your responses to the home energy use questions that come next.

First, does any other family or unrelated person share this (house/apartment) with you?

- 1 YES
- 0 NO --> [A-5] 121

IF "YES" ON Q. A-3, ASK:

A-4. Does the additional family (or unrelated person) . . .

- a. Live and eat separately from other persons in the apartment or building?
- b. Have direct access from outside the building or through a common hall?

- 1 YES 122
- 0 NO
- 1 YES 123
- 0 NO

INTERVIEWER: IF THE ANSWERS IN A-4 ARE BOTH YES, THIS IS CONSIDERED SEPARATE LIVING QUARTERS. MAKE SURE THAT THE SPACE AND OCCUPANTS OF THE ADDITIONAL FAMILY ARE EXCLUDED FROM THIS INTERVIEW. SEPARATE LIVING QUARTERS SHOULD BE LISTED SEPARATELY ON YOUR HOUSING UNIT ADDRESS LIST. SEE SAMPLING INSTRUCTIONS AS TO WHETHER AN ADDITIONAL INTERVIEW SHOULD BE COMPLETED. IF NO ADDITIONAL INTERVIEW, BE SURE THAT THE MEMBERS OF THE SECOND FAMILY ARE INCLUDED IN THE LIST OF HOUSEHOLD MEMBERS IN Q. K-1.

A-5. Do you or members of your household own your home, or do you rent?

- 1 OWN (BUYING) 124
- 2 RENT
- 3 OCCUPIED WITHOUT PAYMENT OF RENT

INTERVIEWER: MARK FOLDOUT PAGE FOR TENURE

INTERVIEWER: IF RESPONDENT HAS TROUBLE REMEMBERING DATES, PROBE FOR:

- SEASON
- MAJOR LIFE EVENT
- MAJOR NEWS STORY OR POLITICAL EVENT HAPPENING AT THIS TIME.

THEN, ASK FOR YEAR (AND MONTH) AGAIN.

A-6. In what year was this (house/building) built? Just your estimate.

- 01 BEFORE 1940
- 02 1940-1949
- 03 1950-1959
- 04 1960-1969
- 05 1970-1979
- 06 1980-1984 125-126
- 07 1985-1986
- 08 1987
- 09 1988
- 10 1989
- 11 1990
- 12 1991

A-7. In what year did your family move into this (house/apartment)?

- 01 BEFORE 1940
 - 02 1940-1949
 - 03 1950-1959
 - 04 1960-1969
 - 05 1970-1979
 - 06 1980-1984
 - 07 1985-1986
- > [A-9] 127-128
- 08 1987
 - 09 1988
 - 10 1989
 - 11 1990
 - 12 1991

INTERVIEWER: MARK FOLD-OUT PAGE

IF "1987" OR LATER, ASK:

A-8. In which month did you move in? (SPECIFY MONTH)

- 01 JAN 07 JUL
- 02 FEB 08 AUG 129-
- 03 MAR 09 SEP 130
- 04 APR 10 OCT
- 05 MAY 11 NOV
- 06 JUN 12 DEC

INTERVIEWER: MARK FOLDOUT PAGE

INTERVIEWER: HAND RESPONDENT EXHIBIT BOOK AND SAY: Throughout this interview I am going to ask you to refer to different exhibits in this booklet to help you better answer my questions.

A-9. Please open the booklet to **Exhibit 1**. How much longer do you plan to live in this home?

01	LESS THAN 1 YEAR	
02	1-2 YEARS	
03	3-5 YEARS	131-
04	6-10 YEARS	132
05	MORE THAN 10 YEARS	
06	REST OF MY LIFE/AS LONG AS I CAN	
96	NOT SURE	

Section B. Space Heating

B-1. Is gas from underground pipes (natural gas) available in this neighborhood?

- 1 YES 133
- 0 NO
- 6 DON'T KNOW

B-2. Please turn to **Exhibit 2**. What is the one main heating fuel used for heating your home?

- 01 GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD
- 02 BOTTLED GAS (LPG OR PROPANE)
- 03 FUEL OIL
- 04 KEROSENE OR COAL OIL
- 05 ELECTRICITY 134-
- 06 COAL OR COKE 135
- 07 WOOD
- 08 SOLAR COLLECTORS
- 21 OTHER (SPECIFY): _____

- 00 NO FUELS USED --> [C-1]
- 96 DON'T KNOW

INTERVIEWER: CIRCLE ONLY ONE RESPONSE (IF TWO MAIN FUELS USED: THE MAIN ONE IS THE ONE THAT PROVIDES MOST OF THE HEAT FOR THE HOME.)

INTERVIEWER: MARK FOLD-OUT PAGE FOR MAIN HEATING FUEL

B-3. Thinking back to the winter three years ago -- about November of 1987 -- was the main heating fuel used to heat this (house/apartment) the same as it is now? (Even if you didn't live here then, make your best guess.)

- 1 YES --> [B-6] 136
- 0 NO
- 5 HOUSE NOT BUILT IN 1987->[B-6]
- 6 DON'T KNOW --> [B-6]

IF "NO" ON Q. B-3, ASK:

B-4. Looking at **Exhibit 2** again, what was the main fuel used to heat this (house/apartment) in November of 1987?

- 01 GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD
- 02 BOTTLED GAS (LPG OR PROPANE)
- 03 FUEL OIL
- 04 KEROSENE OR COAL OIL
- 05 ELECTRICITY 137-
- 06 COAL OR COKE 138
- 07 WOOD
- 08 SOLAR COLLECTORS
- 21 OTHER (SPECIFY): _____

- 00 NO FUELS USED
- 96 DON'T KNOW

B-5. In what month and year was the main heating fuel changed?

- MONTH: 139-140
- YEAR: 08 1987
 09 1988
 10 1989 141-142
 11 1990
 96 DON'T KNOW

SUPPLEMENTARY HEATING FUELS

B-6. Please look at **Exhibit 2** again. You mentioned that your **main heating fuel** is (FUEL FROM Q. B-2). What other fuels are used to heat your home -- including those used to provide heat just occasionally? Don't forget to include fuels that run portable heaters if you use them.

- 01 GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD
- 02 BOTTLED GAS (LPG OR PROPANE)
- 03 FUEL OIL
- 04 KEROSENE OR COAL OIL 143-
- 05 ELECTRICITY 148
- 06 COAL OR COKE
- 07 WOOD
- 08 SOLAR COLLECTORS
- 21 OTHER (SPECIFY): _____

INTERVIEWER: CIRCLE ALL MENTIONED

- 00 NO OTHER FUELS USED --> [B-9]
- 96 DON'T KNOW --> [B-9]

149-159:b

IF ADDITIONAL FUELS MENTIONED IN Q. B-6, ASK:

B-7. Going back to your **main heating fuel**--(FUEL FROM Q. B-2)--does this fuel provide all or almost all of the heat for your home, about three-fourths, or closer to half of the heat for your home?

- 1 ALL OR ALMOST ALL (95% OR MORE)
 - 2 ABOUT THREE-FOURTHS (67-94%)
 - 3 CLOSER TO HALF (66% OR LESS)
- 160

B-8. If your main space-heating fuel were not available, could you heat your home to the comfort level that you desire using (FUELS MENTIONED IN B-6)?

- 1 YES
 - 0 NO
 - 6 DON'T KNOW
- 161

MAIN HEATING EQUIPMENT

B-9. Please look at Exhibit 3. What is the main heating equipment used with your main heating fuel?--that is (FUEL NAMED IN Q. B-2)?

INTERVIEWER: CIRCLE ONLY ONE

- 01 HOT WATER PIPES RUNNING THROUGH A SLAB FLOOR (RADIANT HEATING) --> [B-13]
- 02 STEAM OR HOT WATER SYSTEM WITH RADIATORS/CONVECTORS
- 03 CENTRAL WARM-AIR FURNACE WITH DUCTS TO INDIVIDUAL ROOMS (NOT HEAT PUMP) --> [B-10]
- 04 HEAT PUMP --> [B-11]
- 05 BUILT-IN ELECTRIC UNITS (PERMANENTLY INSTALLED IN WALL, CEILING, OR BASEBOARD)
- 06 FLOOR, WALL, OR PIPELESS FURNACE
- 07 ROOM HEATER BURNING GAS, OIL, KEROSENE -- NOT PORTABLE
- 08 HEATING STOVE BURNING WOOD, COAL, COKE
- 09 FIREPLACE(S) --> [B-13]
- 10 PORTABLE ELECTRIC HEATER(S)
- 11 PORTABLE KEROSENE HEATER(S)
- 12 COOKING STOVE, RANGE, OR OVEN (USED TO HEAT HOME AS WELL AS FOR COOKING) 162-
- 21 OTHER (SPECIFY): _____ 163
- 96 DON'T KNOW EQUIPMENT

IF "CENTRAL WARM-AIR FURNACE" ("03" in B-9), ASK:

B-10. For the central warm-air furnace, is the warm air forced through the ducts by a fan?

- 1 YES 164
- 0 NO
- 6 DON'T KNOW

IF "HEAT PUMP" ("04" IN B-9), ASK:

B-11. Is the heat pump a central system, or is it a window or wall unit?

- 1 CENTRAL SYSTEM 165
- 2 WINDOW OR WALL UNIT --> [B-13]
- 3 OTHER (DESCRIBE): _____ --> [B-13]

IF "CENTRAL SYSTEM" IN B-11, ASK:

B-12. Please look at Exhibit 4. What is the backup fuel used in the central heat pump system?

- 01 GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD
- 02 BOTTLED GAS (LPG OR PROPANE)
- 03 FUEL OIL
- 04 KEROSENE OR COAL OIL 166-
- 05 ELECTRICITY 167
- 06 COAL OR COKE
- 07 WOOD
- 08 SOLAR COLLECTORS
- 21 OTHER (SPECIFY): _____
- 00 NO BACKUP FUEL
- 96 DON'T KNOW

B-13. Please look at **Exhibit 5**.
 How old is your **main heating equipment**, just approximately?
 (INTERVIEWER: PROBE FOR BEST GUESS.)

- 01 LESS THAN 2 YEARS OLD
- 02 2-4 YEARS OLD
- 03 5-9 YEARS OLD
- 04 10-19 YEARS OLD 168-
- 05 20 YEARS OLD OR OLDER 169
- 06 AS OLD AS THE HOUSE/ORIGINAL EQUIPMENT
- 96 DON'T KNOW

B-14. Does the main equipment for heating your home also heat one or more other apartments, condos, households, businesses, or farm buildings?

- 1 YES --> [B-17]
- 0 NO, HOME HEATING EQUIPMENT IS FOR RESPONDENT'S HOME ONLY.
 [IF HOMEOWNER] --> [B-15]; 170
 [IF NOT HOMEOWNER] --> [B-17]
- 6 DON'T KNOW --> [B-17]

B-15. If your main heating equipment had to be replaced, would you replace it with one that uses the same fuel?

- 1 YES --> [B-17]
- 0 NO 171
- 6 DON'T KNOW --> [B-17]

IF "NO" ON Q. B-15, ASK:

B-16. Please look at **Exhibit 6**. What new fuel would you choose?

- 01 GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD
- 02 BOTTLED GAS (LPG OR PROPANE)
- 03 FUEL OIL
- 04 KEROSENE OR COAL OIL 172-
- 05 ELECTRICITY 173
- 06 COAL OR COKE
- 07 WOOD
- 08 SOLAR COLLECTORS
- 21 OTHER (SPECIFY): _____
- 96 DON'T KNOW

SUPPLEMENTARY HEATING EQUIPMENT

207-208:02

B-17. Please look at Exhibit 7. What other kinds of equipment if any, are used to heat your home, including those that are used to heat your home just occasionally?

INTERVIEWER: CIRCLE ALL THAT APPLY

- 01 HOT WATER PIPES RUNNING THROUGH A SLAB FLOOR (RADIANT HEATING) --> [B-21]
- 02 STEAM OR HOT WATER SYSTEM WITH RADIATORS/CONVECTORS
- 03 CENTRAL WARM-AIR FURNACE WITH DUCTS TO INDIVIDUAL ROOMS (NOT HEAT PUMP) --> [B-18]
- 04 HEAT PUMP --> [B-19]
- 05 BUILT-IN ELECTRIC UNITS (PERMANENTLY INSTALLED IN WALL, CEILING, OR BASEBOARD) 210-
- 06 FLOOR, WALL, OR PIPELESS FURNACE 217
- 07 ROOM HEATER BURNING GAS, OIL, KEROSENE -- NOT PORTABLE
- 08 HEATING STOVE BURNING WOOD, COAL, COKE
- 09 FIREPLACE(S) --> [B-21]
- 10 PORTABLE ELECTRIC HEATER(S)
- 11 PORTABLE KEROSENE HEATER(S)
- 12 COOKING STOVE, RANGE, OR OVEN (USED TO HEAT HOME AS WELL AS FOR COOKING)
- 21 OTHER (SPECIFY): _____
- 96 DON'T KNOW EQUIPMENT 218-
- 00 NO ADDITIONAL EQUIPMENT 232:b

IF "CENTRAL WARM AIR FURNACE" ("03" IN B-17), ASK:

- | | | |
|--------------------------------------------------------------------------------------------|--------------|-----|
| B-18. For the central warm-air furnace, is the warm air forced through the ducts by a fan? | 1 YES | |
| | 0 NO | |
| | 6 DON'T KNOW | 233 |

IF "HEAT PUMP" ("04" IN B-17), ASK:

- | | | |
|--------------------------------------------------------------------------|----------------------------------------------------------------------------|-----|
| B-19. Is the heat pump a central system, or is it a window or wall unit? | 1 CENTRAL SYSTEM | 234 |
| | 2 WINDOW OR WALL UNIT --> [B-21] | |
| | 3 OTHER (DESCRIBE): _____ --> [B-21] | |

IF "CENTRAL SYSTEM" IN B-19, ASK:

- | | | |
|-----------------------------------------------------------------------------------------------|---------------------------------|------|
| B-20. Please look at Exhibit 8. What is the backup fuel used in the central heat pump system? | 01 GAS FROM UNDERGROUND PIPES | |
| | 02 BOTTLED GAS (LPG OR PROPANE) | |
| | 03 FUEL OIL | |
| | 04 KEROSENE OR COAL OIL | 235- |
| | 05 ELECTRICITY | 236 |
| | 06 COAL OR COKE | |
| | 07 WOOD | |
| | 08 SOLAR COLLECTORS | |
| | 21 OTHER (SPECIFY): _____ | |
| | 00 NO BACKUP FUEL | |
| | 96 DON'T KNOW | |

WOOD

B-21. We may have covered this before, but please tell me -- Has any wood been burned in your home in the past 12 months?

237

1 YES
0 NO --> [B-26]

IF "YES" ON Q. B-21, ASK:

B-22. Where was the wood burned -- in a wood heating stove, in a fireplace, or in a fireplace insert? (CIRCLE ALL THAT APPLY.)

238

1 WOOD HEATING STOVE
2 FIREPLACE
3 FIREPLACE INSERT

239
240

B-23. Please turn to **Exhibit 9**. This exhibit illustrates amounts of wood. Using the pictures as general reference points, please tell me approximately how much wood your household burned in the past 12 months.

241

1 A FEW LOGS OR SCRAPS
2 1/4 TO 1/3 OF A CORD
3 ABOUT 1/2 CORD
4 MORE THAN 1/2 CORD BUT LESS THAN ONE FULL CORD
5 ONE CORD OR MORE

242-244

WRITE IN AMOUNT HERE: CORDS

INTERVIEWER: Q. B-23 -- PROBE FOR RESPONDENT'S BEST ESTIMATE OF NUMBER OF CORDS BURNED. RECORD ANSWER TO NEAREST CORD, OR CORD PLUS FRACTION, (FOR EXAMPLE: 1, 1½, 4, 10, 12, AND SO ON).

B-24. Which of the following best describes how many hours per day or per week you use your fireplace/ woodstove during the heating season (winter)?

245

1 Almost continuously
2 Not continuously, but average use exceeds 4 hours per day
3 Average between 1 and 4 hours per day
4 Average less than 1 hour per day but more than 1 hour per week
5 Average less than 1 hour per week

B-25. Did you purchase any firewood for your home in the last 12 months?

246

1 YES
0 NO

TEMPERATURE

B-26. At what temperature do you usually keep your home in the wintertime...?

a. During the day, when someone is at home? DEGREES 247-
 FAHRENHEIT: 248
 95 HEAT TURNED OFF

b. During the day, when no one is at home? DEGREES 249-
 FAHRENHEIT: 250
 95 HEAT TURNED OFF

c. During sleeping hours? DEGREES 251-
 FARENHEIT: 252
 95 HEAT TURNED OFF

INTERVIEWER: IF RESPONDENT KEEPS DIFFERENT SECTIONS OF THE HOUSE AT DIFFERENT TEMPERATURES, WE WANT TO KNOW THE TEMPERATURE IN THE PART OF THE HOUSE WHERE THE PEOPLE ARE. IF, FOR EXAMPLE, THE HEAT IS TURNED OFF UPSTAIRS DURING THE DAY BECAUSE THE FAMILY IS DOWNSTAIRS, WE WANT THE DOWNSTAIRS TEMPERATURE.

IF THE RESPONDENT DOESN'T KNOW TEMPERATURE, BUT DOES KNOW THERMOSTAT SETTING, RECORD THERMOSTAT SETTING. OTHERWISE, PROBE FOR BEST ESTIMATE.

B-27. Are the usual temperatures in your home during the winter the ones that you personally would prefer, or would you prefer it warmer or cooler?

- 1 TEMPERATURE PREFERRED ---> [C-1]
- 2 WOULD LIKE WARMER
- 3 WOULD LIKE COOLER 253

IF "WARMER" OR "COOLER," ON Q. B-27, ASK:

B-28. Why can't you have your home the temperature you prefer? (CIRCLE ALL THAT APPLY.)

- 01 HEATING SYSTEM PROBLEM
- 02 LANDLORD CONTROLS THE TEMPERATURE 254-
259
- 03 DIFFERENCE OF OPINION IN FAMILY
- 04 FUEL SHORTAGE
- 05 HIGH COST OF FUEL
- 06 POOR CONSTRUCTION
- 96 NOT SURE
- 21 OTHER (SPECIFY): _____

Section C. Water Heating

C-1. Do you have hot running water in your home?

1 YES --> [C-3] 260
0 NO

IF "NO," ON Q. C-1, ASK:

C-2. Do you have some way to heat water for washing or bathing?

1 YES 261
0 NO --> [D-1]

C-3. Please turn to **Exhibit 10**. Which fuel is used most for heating water for washing or bathing?

01 GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD
02 BOTTLED GAS (LPG OR PROPANE)
03 FUEL OIL
04 KEROSENE OR COAL OIL 262-
05 ELECTRICITY 263
06 COAL OR COKE
07 WOOD
08 SOLAR COLLECTORS
21 OTHER (SPECIFY): _____
96 DON'T KNOW

INTERVIEWER: HEATING WATER USED FOR WASHING, BATHING, ETC., NOT FOR HEATING TEA, COFFEE. **CIRCLE ONLY ONE.**

C-4. Does the main equipment for heating water for your home also heat water for other buildings or housing units?

1 YES --> [C-8]
0 NO, HOT WATER EQUIPMENT IS FOR RESPONDENT'S HOME ONLY
6 DON'T KNOW --> [C-8] 264

IF "NO" ON Q. C-4, ASK:

C-5. Please turn to **Exhibit 11**. About how old is your water heater, just approximately?
(INTERVIEWER: PROBE FOR BEST GUESS.)

01 LESS THAN 2 YEARS
02 2-4 YEARS
03 5-9 YEARS
04 10-19 YEARS 265-
05 20 YEARS OR MORE 266
06 AS OLD AS THE HOUSE/ORIGINAL EQUIPMENT
96 DON'T KNOW
00 NO SEPARATE WATER HEATER

C-6. Please turn To **Exhibit 12**. How large is your water heater tank?

1 SMALL (30 GALLONS OR LESS)
2 MEDIUM (31 TO 49 GALLONS)
3 LARGE (50 GALLONS OR MORE)
6 DON'T KNOW 267

C-7. Is the water heater located in a place that is heated in the winter?

1 YES
0 NO 268
6 DON'T KNOW

C-8. Please look at **Exhibit 13**. In addition to (FUEL FROM C-3), do you use any other fuel for heating water for washing or bathing?

1 YES
0 NO --> [D-1] 269

IF "YES" ON Q. C-8, ASK:

C-9. What is this additional fuel?

- 01 GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD
- 02 BOTTLED GAS (LPG OR PROPANE)
- 03 FUEL OIL
- 04 KEROSENE OR COAL OIL
- 05 ELECTRICITY
- 06 COAL OR COKE 270-
- 07 WOOD 271
- 08 SOLAR COLLECTORS
- 21 OTHER (SPECIFY): _____
- 96 DON'T KNOW

Section D. Air Conditioning

307-308:03

D-1. Does your (house/apartment) have any air conditioning equipment (central and/or wall/window unit)?

1 YES 310
0 NO --> [D-13]

311-312

D-2. How many rooms are usually cooled by your air conditioning (central or window/wall units) during the times you use it?

NUMBER OF ROOMS:

95 OR ENTIRE HOUSE/APARTMENT

INTERVIEWER: SEE AIR-CONDITIONED ROOMS IN GLOSSARY

D-3. Does your (house/apartment) have central air conditioning equipment?

1 YES 313
0 NO --> [D-8]

IF "YES" ON Q. D-3, ASK:

D-4. What kind of fuel does it use -- gas from underground pipes, bottled gas, or electricity?

01 GAS FROM UNDERGROUND PIPES
02 BOTTLED GAS, LPG, OR PROPANE
05 ELECTRICITY 314-
96 DON'T KNOW 315

D-5. Please look at Exhibit 14. Which of the statements on this Exhibit best describes the way you used your central air conditioner(s) last summer?

0 DID NOT USE AT ALL
1 TURNED ON ONLY A FEW DAYS OR NIGHTS WHEN REALLY NEEDED
2 TURNED ON QUITE A BIT 316
3 TURNED ON JUST ABOUT ALL SUMMER
5 OTHER (SPECIFY): _____

D-6. Does the air conditioning equipment that cools your home also cool other apartments, condos, houses, businesses, or farm buildings?

1 YES, A/C COOLS ONE OR MORE OTHER APARTMENTS, HOUSES, OR BUSINESSES --> [D-8] 317
0 NO, A/C IS FOR RESPONDENT'S HOME ONLY
6 DON'T KNOW --> [D-8]

IF "NO" ON Q. D-6, ASK:

D-7. Please turn to Exhibit 15. About how old is your central air conditioning equipment?

01 LESS THAN 2 YEARS OLD
02 2-4 YEARS OLD
03 5-9 YEARS OLD 318-
04 10-19 YEARS OLD 319
05 20 YEARS OR OLDER
06 AS OLD AS THE HOUSE/ORIGINAL EQUIPMENT
96 DON'T KNOW

INTERVIEWER: SEE FOLDOUT PAGE. IF CENTRAL AIR CONDITIONING AND ONE-FAMILY HOME, SAY: "At the end of the interview, with your permission, I will want to look at the central air conditioning unit that is outside your home." REMEMBER TO RECORD IN Q. P-14.

D-8. Do you have any **wall** or **window** unit air conditioners? 1 YES 320
 0 NO --> [D-13]

IF "YES" ON Q. D-8, ASK:
 D-9. How many do you have? NUMBER OF WINDOW/WALL UNITS: 321-322

The next three questions are about the window or wall air conditioning unit that you use the most.

D-10. Please turn to **Exhibit 16**. How would you describe the size of your **most used** window/wall unit?
 1 SMALL (8,999 BTU/HR OR LESS)
 2 MEDIUM (9,000-16,999 BTU/HR) 323
 3 LARGE (17,000 BTU/HR OR MORE)
 6 DON'T KNOW

D-11. Please turn to **Exhibit 17**. About how old is your **most used** unit?
 1 LESS THAN 2 YEARS
 2 2-4 YEARS
 3 5-9 YEARS 324
 4 10-19 YEARS
 5 20 YEARS OR OLDER
 6 DON'T KNOW

D-12. Please look at **Exhibit 18**. Which of the statements on this exhibit best describes the way you used your most used unit last summer?
 0 DID NOT USE AT ALL
 1 TURNED ON ONLY A FEW DAYS OR NIGHTS WHEN REALLY NEEDED 325
 2 TURNED ON QUITE A BIT
 3 TURNED ON JUST ABOUT ALL SUMMER
 5 OTHER (SPECIFY): _____

INTERVIEWER: READ AND CIRCLE "YES" OR "NO" FOR EACH ITEM.

D-13. Please look at **Exhibit 19**. As I read each item from the list, tell me if you use it here in your (house/apartment).

<u>ITEM</u>	<u>YES</u>	<u>NO</u>	<u>DON'T KNOW</u>	
a. Evaporative Cooler (Swamp Cooler).....	1	0	6	326
b. "Whole house" cooling fan (in the attic or the entrance to the attic).....	1	0	6	327
c. Exhaust fan (INCLUDE BATHROOM, KITCHEN OR BASEMENT EXHAUST FANS HERE).....	1	0	6	328
d. Window or ceiling fan.....	1	0	6	329
e. Portable table or floor fan.....	1	0	6	330

D-14. Please look at **Exhibit 20**. Which of the following help to keep your home cool in the summer?

a. Large tree(s) that shade the roof.....	1	0	6	331
b. Large tree(s) that shade the windows.....	1	0	6	332
c. Shutters or awnings.....	1	0	6	333
d. Blinds or insulated (thermal) drapes.....	1	0	6	334
e. Reflective film on windows.....	1	0	6	335

Section E. Cooking and Lighting

E-1. Now turn to **Exhibit 21**. What fuel is used **most** for cooking in your house/apartment?

- 01 GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD
- 02 BOTTLED GAS (LPG OR PROPANE)
- 03 FUEL OIL 336-
- 04 KEROSENE OR COAL OIL 337
- 05 ELECTRICITY
- 06 COAL OR COKE
- 07 WOOD
- 21 OTHER (SPECIFY): _____
- 00 NO COOKING DONE --> [E-5]

E-2. Please look at **Exhibit 22** and tell me which of these are used for cooking here in your (house/apartment):

INTERVIEWER: FOR STANDARD COMBINATION OVEN AND STOVETOP UNITS, RECORD BOTH AS "YES."

INTERVIEWER: READ AND CIRCLE "YES" OR "NO" FOR EACH ITEM

GAS

- a. Gas stovetop or burners?..... 1 YES 0 NO 338
- b. Gas oven?..... 1 YES 0 NO 339

ELECTRIC (CONVENTIONAL)

- c. Electric stovetop or burners?..... 1 YES 0 NO 340
- d. Electric oven (not microwave or toaster oven) 1 YES 0 NO 341

OUTDOOR GRILLS

- e. Gas grill that uses bottled gas, LPG, or propane?..... 1 YES 0 NO 342
- f. Gas grill that uses gas from underground pipes?..... 1 YES 0 NO 343

E-3. Do you use a microwave oven?

- 1 YES
- 0 NO --> [E-5] 344

IF "YES" ON Q. E-3, ASK:

E-4. Please turn to **Exhibit 23**. How much of your food is cooked in the microwave?

- 1 MOST OR ALL
- 2 ABOUT HALF 345
- 3 SOME OR VERY LITTLE
- 4 USED ONLY FOR SNACKS OR DEFROSTING FOOD
- 6 DON'T KNOW

LIGHTS

E-5. How many lights do you usually have turned on more than 12 hours per day? Include lights inside and outside your home.

NUMBER OF LIGHTS: 00 NO LIGHTS --> [E-8]

346-347

IF LIGHTS ON MORE THAN 12 HOURS, ASK:

E-6. How many of these lights (Q. E-5) are floodlights?

FLOODLIGHTS:

348-349

E-7. How many of these lights (Q. E-5) are fluorescent?

FLUORESCENT LIGHTS:

350-351

INTERVIEWER: THE TOTAL NUMBER OF LIGHTS [E-6 PLUS E-7] SHOULD BE EQUAL TO OR LESS THAN THE NUMBER IN E-5.

E-8. How many lights do you usually have turned on from 4 to 12 hours per day inside or outside your home?

NUMBER OF LIGHTS:

352-353

Section F. Appliances

These next questions are about household appliances.

F-1. First, please tell me how many refrigerators in your home are used either regularly or occasionally?

1	ONE	
2	TWO	354
3	THREE OR MORE	
0	NONE --> [F-9]	

We would like to get some information about the refrigerator(s) you use.

(IF MORE THAN ONE IN Q. F-1, READ: Let's start with the one you use most often.) ASK F-2 THROUGH F-8 FOR EACH OF THE TWO MOST-USED REFRIGERATORS.

F-2. First, please look at **Exhibit 24**. Approximately how old is the refrigerator?

	<u>MOST-USED REFRIGERATOR</u>	<u>SECOND MOST-USED REFRIGERATOR</u>	
--	-------------------------------	--------------------------------------	--

INTERVIEWER:
IF "DO NOT
KNOW" PROBE
FOR BEST
ESTIMATE

LESS THAN 2 YEARS	1	.....	1	
2-4 YEARS	2	.....	2	
5-9 YEARS	3	.....	3	355-
10-19 YEARS	4	.....	4	356
20 YEARS OR MORE	5	.....	5	
DON'T KNOW	6	.....	6	

F-3. Please look at **Exhibit 25** and tell me what type of refrigerator it is.

HALF-SIZE OR QUARTER	1	.....	1	
REGULAR WITH SINGLE DOOR	2	.....	2	
TWO DOORS - TOP AND BOTTOM	3	.....	3	357-
TWO DOORS - SIDE BY SIDE	4	.....	4	358
OTHER (SPECIFY:) _____	5	.....	5	

F-4. Please look at **Exhibit 26**. What is the size of your refrigerator in cubic feet?

10 CUBIC FEET OR LESS	1	.....	1	
11-14 CUBIC FEET	2	.....	2	
15-18 CUBIC FEET	3	.....	3	359-
19-22 CUBIC FEET	4	.....	4	360
23 CUBIC FEET OR MORE	5	.....	5	
DON'T KNOW	6	.....	6	

F-5. Has the refrigeration unit (the <u>cooling equipment</u>) been repaired in the past year?	<u>MOST-USED REFRIGERATOR</u>	<u>SECOND MOST-USED REFRIGERATOR</u>	
YES	1	1	
NO	0	0	361-
NOT SURE	6	6	362

F-6. Look at Exhibit 27 . Which best describes the freezer or ice cube section, if any, in your refrigerator?			
MANUAL DEFROST	1	1	
FROST-FREE (AUTOMATIC DEFROST)	2	2	363- 364
NO WORKING FREEZER SECTION	3	3	

F-7. Do you use this refrigerator all year round?			
YES	1	1	
NO	0	0	365- 366

IF "NO" ON Q. F-7, ASK:

F-8. How many months out of the year do you use it?

1-3 MONTHS	1	1	
4-6 MONTHS	2	2	367- 368
7-9 MONTHS	3	3	
10-12 MONTHS	4	4	

INSTRUCTIONS: REPEAT SERIES FOR NEXT REFRIGERATOR OR, IF NO OTHER REFRIGERATOR, GO TO F-9.

F-9. Do you use a separate freezer unit, that is, a freezer that is not part of a refrigerator?

1 YES
0 NO --> [F-13] 369

IF "YES" ON Q. F-9, ASK FOR THE MOST USED FREEZER:

F-10. Is that a manual-defrost or frost-free freezer?

1 MANUAL DEFROST
2 FROST-FREE 370

F-11. Is the freezer an upright or chest-type model?

1 UPRIGHT (VERTICAL CABINET)
2 CHEST-TYPE (HORIZONTAL CABINET) 371

F-12. Please turn to **Exhibit 28**. About how old is your freezer?

1 LESS THAN 2 YEARS OLD
2 2-4 YEARS
3 5-9 YEARS
4 10-19 YEARS 372
5 20 YEARS OR OLDER
6 DON'T KNOW

F-13. Now, I'd like to know about other appliances that you use here in your (house/apartment).

INTERVIEWER: READ AND CIRCLE "YES" OR "NO" FOR EACH ITEM

Please look at **Exhibit 29**. As I read each item from the list, tell me if you use it here in your (house/apartment).

<u>ITEM</u>	<u>YES</u>	<u>NO</u>	
a. Clothes Washer.....	1	0	373
b. Electric Dishwasher.....	1	0	374
c. Electric Clothes Dryer.....	1	0	375
d. Gas Clothes Dryer.....	1	0	376
e. Outdoor Gas Light.....	1	0	377
f. Electric Dehumidifier.....	1	0	378
g. Personal Computer.....	1	0	379
h. Electric Pump For Well Water.....	1	0	380

F-14. Please look at **Exhibit 30**.
 In the past 2 years, have
 you **purchased** any of these
 items for yourself?

INTERVIEWER: READ EACH,
 CIRCLE "YES" OR "NO".

<u>ITEM</u>	<u>YES</u>	<u>NO</u>	
a. Refrigerator.....	1	0	410
b. Central Air Conditioner.....	1	0	411
c. Window Air Conditioner.....	1	0	412
d. Freezer.....	1	0	413
e. Heat Pump.....	1	0	414
f. Central Furnace (Other than Heat Pump).....	1	0	415
g. Water Heater.....	1	0	416
h. Automobile.....	1	0	417

418

F-15. How many black and white
 television sets do you use
 here in your home?

NUMBER:

INTERVIEWER:
 IF NONE,
 WRITE IN "0"
 DO NOT LEAVE
 BLANK

F-16. How many **color** television
 sets do you use here in your
 home?

NUMBER:

419

F-17. Do you use any water bed
heaters?

1 YES
 0 NO --> [INSTRUCTION
 BEFORE [G-1]] 420

IF "YES" ON Q. F-17, ASK:

F-18. How many water bed
 heaters do you use?

NUMBER:

421

Section G. Pools and Other Equipment

INTERVIEWER CHECK FOLD OUT PAGE: IF 2 OR MORE APARTMENT UNITS IN BUILDING, SKIP TO H-1. OTHERWISE, CONTINUE.

G-1. Do you have a swimming pool solely for the use of your household? (DO NOT COUNT CHILDREN'S WADING POOL AS A SWIMMING POOL).

1 YES
0 NO --> [G-4] 422

IF "YES" ON Q. G-1, ASK:

G-2. Is it a heated pool?

1 YES, HEATED
0 NO --> [G-4] 423

IF HEATED, ASK:

G-3. Please look at Exhibit 31 and tell me the one fuel that is used most often to heat the water?

01 GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD
02 BOTTLED GAS (LPG OR PROPANE GAS)
03 FUEL OIL
04 KEROSENE OR COAL OIL 424-
05 ELECTRICTY 425
06 COAL OR COKE
07 WOOD
08 SOLAR COLLECTORS
21 OTHER (SPECIFY): _____

INTERVIEWER: IF MORE THAN ONE FUEL USED, CHECK FUEL USED MOST OFTEN.

96 DON'T KNOW

G-4. Do you have a hot tub, spa, or jacuzzi?

1 YES
0 NO --> [G-6] 426

IF "YES" ON Q. G-4, ASK:

G-5. Look at Exhibit 31 again and tell me the one fuel that is used most often to heat the water?

01 GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD
02 BOTTLED GAS (LPG OR PROPANE GAS)
03 FUEL OIL
04 KEROSENE OR COAL OIL 427-
05 ELECTRICTY 428
06 COAL OR COKE
07 WOOD
08 SOLAR COLLECTORS
21 OTHER (SPECIFY): _____

96 DON'T KNOW

G-6. Do you have any other kinds of equipment that use a lot of energy that we have not mentioned? We don't mean VCRs or hair-dryers. We want you to think of equipment that uses a lot of energy.

1 YES
0 NO --> [H-1]

429

IF "YES" ON Q. G-6, ASK:

G-7. Please describe the equipment and how you use it.

ITEM	USE
_____	_____
_____	_____
_____	_____
_____	_____

430-432

Section H. Fuel Summary

H-1. In the past 12 months, have you participated in any energy program sponsored by your gas or electric company?

- 1 YES
- 0 NO --> [H-3] 433
- 6 DON'T KNOW --> [H-3]

IF "YES" ON Q. H-1, ASK:

H-2. Please look at Exhibit 32. Which of these types of programs did you participate in? (CIRCLE ALL THAT APPLY.)

- 1 REBATE
- 2 LOAD CONTROL 434-
- 3 ENERGY AUDIT 438
- 4 CONSERVATION
- 5 OTHER (SPECIFY): _____

H-3. Please turn to Exhibit 33. We may have covered some of these points before, but just to be sure, I'm going to ask you about which fuels are used for certain purposes in your household.

INTERVIEWER: READ EACH ITEM (A-W) ON FOLDOUT PAGE AND CIRCLE "USED" OR "NOT USED" FOR EACH. RECORD ALL ANSWERS FOR Q. H-3 AND H-4 ON FOLDOUT PAGE.

FOR EACH FUEL USED IN Q. H-3, ASK:

H-4. Is that paid for by your household, included in your rent, or do you get it some other way?

INTERVIEWER: CHECK FOLDOUT PAGE. IF USE OF ANY FUEL IS "PAID BY HOUSEHOLD" IN Q. H-4, CONTINUE TO BOX BELOW. IF NO FUELS PAID BY HOUSEHOLD, SKIP TO INSTRUCTION BEFORE Q. J-1.

INTERVIEWER: SEE FOLDOUT PAGE. IF HOUSEHOLD LIVED HERE LESS THAN 1 YEAR, SKIP TO Q. I-1.

INTERVIEWER: SEE FOLDOUT PAGE. IF HOUSEHOLD PAYS FOR FUEL OIL (Q. H-4 ITEMS "R" - "T"), ASK Q. H-5. OTHERWISE, SKIP TO INSTRUCTIONS BEFORE Q. H-9.

FUEL OIL

H-5. Is fuel oil **delivered** to your (home/apartment)?

1 YES		
0 NO --> [H-8]		
6 DON'T KNOW --> [H-8]		439

IF "YES" ON Q. H-5, ASK:

H-6. About how many deliveries does your household <u>usually</u> get in a year?	NUMBER OF DELIVERIES: 	440- 441
----------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------	-------------

H-7. How many different fuel companies delivered fuel oil to you in the last 12 months?	1 ONE 2 TWO 3 THREE OR MORE 6 DON'T KNOW	442
-----------------------------------------------------------------------------------------	---------------------------------------------------	-----

H-8. Please turn to Exhibit 34 . About how much fuel oil does your household use in a year, just approximately? (PROBE FOR BEST ESTIMATE.)	1 LESS THAN 100 GALLONS 2 100-499 GALLONS PER YEAR 3 500-999 GALLONS PER YEAR 4 1,000 OR MORE GALLONS PER YEAR	443
---------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------	-----

INTERVIEWER: SEE FOLDOUT PAGE. IF HOUSEHOLD PAYS FOR BOTTLED GAS/LPG/PROPANE (SEE Q. H-4 ITEMS "L" - "Q"), ASK Q. H-9. OTHERWISE, SKIP TO INSTRUCTION BEFORE Q. H-12.

BOTTLED GAS/LPG/PROPANE

H-9. Is LPG delivered to your (home/apartment)?	1 YES 0 NO 6 DON'T KNOW	444
	} --> INSTRUCTIONS BEFORE [H-12]	

IF "YES" ON Q. H-9, ASK:

H-10. About how many deliveries does your household <u>usually</u> get in a year?	NUMBER OF DELIVERIES: 	445- 446
-----------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------	-------------

H-11. How many different companies delivered LPG to you in the last 12 months?	1 ONE 2 TWO 3 THREE OR MORE 6 DON'T KNOW	447
--------------------------------------------------------------------------------	---------------------------------------------------	-----

INTERVIEWER: SEE FOLDOUT PAGE. IF HOUSEHOLD PAYS FOR KEROSENE (SEE Q. H-4, ITEMS "U" THROUGH "W"), ASK Q. H-12. OTHERWISE, SKIP TO QUESTION I-1.

KEROSENE

H-12. Is kerosene delivered to your (home/apartment)?

1 YES	
0 NO --> [H-15]	448
6 DON'T KNOW --> [H-15]	

IF "YES" ON Q. H-12, ASK:

<p>H-13. About how many deliveries does your household usually get in a year?</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">NUMBER OF DELIVERIES:</td> <td style="width: 30%; border: 1px solid black; text-align: center;"> </td> <td style="width: 20%;"></td> </tr> <tr> <td></td> <td></td> <td style="text-align: right;">449-450</td> </tr> </table>	NUMBER OF DELIVERIES:					449-450
NUMBER OF DELIVERIES:							
		449-450					

<p>H-14. How many different fuel companies or stores delivered kerosene to you in the last 12 months?</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">1 ONE</td> <td style="width: 50%;"></td> </tr> <tr> <td>2 TWO</td> <td></td> </tr> <tr> <td>3 THREE OR MORE</td> <td style="text-align: right;">451</td> </tr> <tr> <td>6 DON'T KNOW</td> <td></td> </tr> </table>	1 ONE		2 TWO		3 THREE OR MORE	451	6 DON'T KNOW	
1 ONE									
2 TWO									
3 THREE OR MORE	451								
6 DON'T KNOW									

<p>H-15. Do you buy kerosene and bring it home, that is, cash and carry?</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">1 YES</td> <td style="width: 50%;"></td> </tr> <tr> <td>0 NO --> [I-1]</td> <td style="text-align: right;">452</td> </tr> </table>	1 YES		0 NO --> [I-1]	452
1 YES					
0 NO --> [I-1]	452				

IF "YES" ON Q. H-15, ASK:

<p>H-16. How many times in the past 12 months did you buy kerosene and bring it home?</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">NUMBER OF TIMES:</td> <td style="width: 30%; border: 1px solid black; text-align: center;"> </td> <td style="width: 20%;"></td> </tr> <tr> <td></td> <td></td> <td style="text-align: right;">453-454</td> </tr> <tr> <td></td> <td style="text-align: center;">6 NOT SURE</td> <td></td> </tr> </table>	NUMBER OF TIMES:					453-454		6 NOT SURE	
NUMBER OF TIMES:										
		453-454								
	6 NOT SURE									

<p>H-17. Please look at Exhibit 35 -- it shows the most common sizes for kerosene containers. On average, how much kerosene did you buy and bring home each time?</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">1 1 GALLON</td> <td style="width: 50%;"></td> </tr> <tr> <td>2 3 GALLONS</td> <td></td> </tr> <tr> <td>3 5 GALLONS</td> <td></td> </tr> <tr> <td>4 55 GALLONS</td> <td style="text-align: right;">455</td> </tr> <tr> <td>5 OTHER: _____</td> <td></td> </tr> <tr> <td>6 NOT SURE</td> <td></td> </tr> </table>	1 1 GALLON		2 3 GALLONS		3 5 GALLONS		4 55 GALLONS	455	5 OTHER: _____		6 NOT SURE	
1 1 GALLON													
2 3 GALLONS													
3 5 GALLONS													
4 55 GALLONS	455												
5 OTHER: _____													
6 NOT SURE													

<p>H-18. About how much per gallon did you pay for kerosene, on the average?</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">\$ _____ PER GALLON --> [I-1]</td> <td style="width: 50%;"></td> </tr> <tr> <td>6 NOT SURE</td> <td style="text-align: right;">456-458</td> </tr> </table>	\$ _____ PER GALLON --> [I-1]		6 NOT SURE	456-458
\$ _____ PER GALLON --> [I-1]					
6 NOT SURE	456-458				

IF "NOT SURE" ON Q. H-18, ASK:

<p>H-19. About how much did you pay for kerosene each time you bought it?</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">\$ _____ IN TOTAL</td> <td style="width: 50%;"></td> </tr> <tr> <td>6 NOT SURE</td> <td style="text-align: right;">459-463</td> </tr> </table>	\$ _____ IN TOTAL		6 NOT SURE	459-463
\$ _____ IN TOTAL					
6 NOT SURE	459-463				

Section I: Fuel Bills

INTERVIEWER: IF USE OF ANY FUEL IS PAID BY HOUSEHOLD (Q. H-4 ON FOLDOUT PAGE), CONTINUE WITH SECTION I.

I-1. A budget plan is a plan under which the utility company or fuel dealer and household will agree that the household will pay the same amount for fuel each month for a number of months.

Is your household on a budget plan for the main fuel used to heat your home?

- 1 YES
- 0 NO 464
- 6 DON'T KNOW

I-2. Please turn to **Exhibit 36**. Do any of your household fuel bills include fuel used for purposes other than for your own living quarters, such as for farm buildings or machinery, the house or apartment of another household, a business or office, or anything else?

- 1 YES -- PAYS FOR NON-HH PURPOSES
- 0 NO --> [I-10]
- 6 DON'T KNOW --> [I-10] 465

IF "YES" ON Q. I-2, ASK:

I-3. For which of the purposes listed on the exhibit are costs of fuel included in your household fuel bills? (INTERVIEWER: CIRCLE ALL THAT APPLY.)

- 1 FARM BUILDINGS OR MACHINERY
- 2 THE HOUSE OR APARTMENT OF ANOTHER HOUSEHOLD 466-469
- 3 A BUSINESS OR OFFICE
- 4 OTHER PURPOSES (SPECIFY): _____

I-4. Please turn to **Exhibit 37**. Which fuel bills include costs of fuel used for purposes other than your own living quarters? (INTERVIEWER: CIRCLE ALL THAT APPLY.)

- 01 GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD 470-475
- 02 BOTTLED GAS (LPG OR PROPANE) --> [I-6]
- 03 FUEL OIL --> [I-7]
- 04 KEROSENE OR COAL OIL --> [I-8]
- 05 ELECTRICITY --> [I-9]

INTERVIEWER: ASK THE FOLLOWING QUESTIONS FOR EACH FUEL CIRCLED IN Q. I-4.

IF "GAS FROM UNDERGROUND PIPES"
ON Q. I-4, ASK:

507-508:05

I-5. Please refer to **Exhibit 38**. When you get your bill for gas, approximately what portion of the bill is for non-household uses?

0 VERY LITTLE (LESS THAN 5%)
1 1/4 (5-33%)
2 1/2 (34-66%)
3 3/4 (67-95%)
4 ALL (96-100%)

510

IF "BOTTLED GAS" ON Q. I-4,
ASK:

I-6. Please refer to **Exhibit 38**. When you get your bill for bottled gas, approximately what portion of the bill is for non-household uses?

0 VERY LITTLE (LESS THAN 5%)
1 1/4 (5-33%)
2 1/2 (34-66%)
3 3/4 (67-95%)
4 ALL (96-100%)

511

IF "FUEL OIL" ON Q. I-4, ASK:

I-7. Please refer to **Exhibit 38**. When you get your bill for fuel oil, approximately what portion of the bill is for non-household uses?

0 VERY LITTLE (LESS THAN 5%)
1 1/4 (5-33%)
2 1/2 (34-66%)
3 3/4 (67-95%)
4 ALL (96-100%)

512

IF "KEROSENE OR COAL OIL" ON
Q. I-4, ASK:

I-8. Please refer to **Exhibit 38**. When you get your bill for kerosene, approximately what portion of the bill is for non-household uses?

0 VERY LITTLE (LESS THAN 5%)
1 1/4 (5-33%)
2 1/2 (34-66%)
3 3/4 (67-95%)
4 ALL (96-100%)

513

IF "ELECTRICITY" ON Q. I-4, ASK:

I-9. Please refer to **Exhibit 38**. When you get your bill for electricity, approximately what portion of the bill is for non-household uses?

0 VERY LITTLE (LESS THAN 5%)
1 1/4 (5-33%)
2 1/2 (34-66%)
3 3/4 (67-95%)
4 ALL (96-100%)

514

AUTHORIZATION FORM

I-10. In addition to the types of fuel you use, we are interested in the quantities used and in the amount that people pay for electricity, gas, fuel oil, or kerosene in different parts of the United States.

I have a form that would authorize the companies that supply fuel to your household to provide that information to Response Analysis Corporation, who is conducting this survey for the Department of Energy. The authorization applies to the period from September 1989 through December 1993.

Since this study is being done nationwide, it will give a good picture of the differences in fuel cost and usage all over the country. The information is needed to help establish important national energy policies. All information is kept confidential.

INTERVIEWER: REMOVE THE AUTHORIZATION FORM FROM THE QUESTIONNAIRE AND HAND TO RESPONDENT.

EITHER YOU OR RESPONDENT SHOULD FILL IN THE NAME(S) OF COMPANIES. IF MORE THAN ONE LPG OR FUEL OIL OR KEROSENE COMPANY HAS BEEN USED SINCE SEPTEMBER 1, 1989, FILL IN ADDITIONAL COMPANY NAMES ON OTHER SIDE OF FORM. PLEASE PRINT.

- 1 AUTHORIZATION FORM SIGNED 515
 - 0 AUTHORIZATION FORM NOT SIGNED--INTERVIEWER, EXPLAIN BELOW:
-
-

INTERVIEWER

THE AUTHORIZATION FORM IS TO BE FILLED OUT AT THIS POINT IN THE INTERVIEW. USE THE SEPARATE FORM (YELLOW PAGE) THAT IS INSERTED IN THE QUESTIONNAIRE.

IF AUTHORIZATION FORM IS SIGNED, CONTINUE WITH Q. I-11. OTHERWISE, SKIP TO INSTRUCTION BEFORE Q. J-1.

I-11. Do your fuel bills come addressed to (NAME OF SIGNATURE ON AUTHORIZATION FORM), or are they in another name?

- 1 SAME NAME --> [I-14] 516
- 2 ANOTHER NAME

IF BILL IS IN ANOTHER NAME, ASK:

BILLING NAME: _____

I-12. What is that name and address?

STREET ADDRESS: _____

CITY AND STATE: _____

ZIP CODE: _____

I-13. Just for our records, what is the relationship of this person to you?

- 1 SPOUSE
- 2 PARENT/GRANDPARENT
- 3 SIBLING 517
- 4 CHILD/GRANDCHILD
- 5 OTHER RELATED INDIVIDUAL (SPECIFY): _____
- 6 OTHER NONRELATED INDIVIDUAL OR COMPANY (SPECIFY): _____
- 7 REFUSED

INTERVIEWER: USE SPACE ABOVE TO EXPLAIN ANY UNUSUAL SITUATIONS (MORE THAN ONE OTHER BILLING NAME, DIFFERENT NAMES FOR DIFFERENT FUEL BILLS, ETC.)

I-14. Your account number helps the fuel suppliers to make sure they provide the data for the correct household. Would it be possible for you to give me your account number for each of your fuel companies? This number is on your bills from the company.

INTERVIEWER: IF QUESTIONED AS TO THE PURPOSE OF THIS INFORMATION, SAY: We need account numbers to get the information from your fuel suppliers.

GAS (FROM UNDERGROUND PIPES)

ACCOUNT NUMBER: _____

- 7 REFUSED
- 8 NOT AVAILABLE 518

ELECTRIC COMPANY

ACCOUNT NUMBER: _____

- 7 REFUSED
- 8 NOT AVAILABLE 519

FUEL OIL

ACCOUNT NUMBER: _____

- 7 REFUSED 520
- 8 NOT AVAILABLE
- 9 NOT APPLICABLE (CASH AND CARRY ONLY)

Section J: Locating Information

INTERVIEWER: CHECK FOLDOUT PAGE, IF "RENT" OR "OCCUPIED WITHOUT PAYMENT," ASK Q. J-1. OTHERWISE, SKIP TO Q. J-2.

J-1. We may be needing some additional information about fuels used in this building (house). May I have the name of the person or company to whom you pay rent or who is responsible for paying the fuel bills for this building (house)?

521

NAME: _____

STREET ADDRESS: _____

CITY OR TOWN/STATE/ZIP CODE: _____

TELEPHONE NUMBER: (AREA CODE _____) _____

ASK EVERYONE

J-2. My supervisor may want to call you to see if I really have talked to you. May I have your name, phone number, and mailing address please?

RESPONDENT'S NAME: _____

STREET ADDRESS: _____

CITY OR TOWN/STATE/ZIP CODE: _____

TELEPHONE NUMBER: (AREA CODE _____) _____

INTERVIEWER: IF RESPONDENT LIVES IN AN APARTMENT COMPLEX OR MOBILE HOME COMPLEX AND THE NAME OF THE COMPLEX IS NOT INCLUDED IN THE ADDRESS ABOVE, ASK Q. J-3. OTHERWISE, SKIP TO Q. K-1.

J-3. Does this (building/development/complex/park) have a name? 1 YES
0 NO --> [K-1]

IF "YES" ON Q. J-3, ASK:

J-4. What is the name? NAME: _____

Section K. Background

INTERVIEWER: SEE INSTRUCTIONS ON FACING PAGE.

K-1. Now I have some questions about the people who live here. Please tell me their **relationship** to (HOUSEHOLDER) and their ages on their last birthdays. First, I need to get this information for (HOUSEHOLDER).

INTERVIEWER: COMPLETE INFORMATION FOR HOUSEHOLDER FIRST. THEN ASK FOR EACH REMAINING PERSON. RECORD RELATIONSHIPS, NOT NAMES.

PERSON NUMBER	WHO IS RESPONDENT?	USE FOR Q. K-1 AND K-2				USE FOR Q. K-3			
		RELATIONSHIP TO HOUSEHOLDER	SEX		AGE	EMPLOYMENT (AGE 14+)			
			FEMALE	MALE		FULL TIME	PART TIME	NOT EMPLOYED	
1		HOUSEHOLDER	1	2		1	2	0	522-528
2			1	2		1	2	0	532-538
3			1	2		1	2	0	542-548
4			1	2		1	2	0	552-558
5			1	2		1	2	0	562-568
6			1	2		1	2	0	572-78 607-08:0
7			1	2		1	2	0	612-618
8			1	2		1	2	0	622-628
9			1	2		1	2	0	632-638
10			1	2		1	2	0	642-648
11			1	2		1	2	0	652-658
12			1	2		1	2	0	662-668

669-670

INTERVIEWER: PLACE AN "X" ON THE LINE WHERE RESPONDENT IS DESCRIBED (ABOVE) BEFORE CONTINUING

- **HOUSEHOLDER DEFINITION:** IN GENERAL, THE HOUSEHOLDER IS THE PERSON (OR ONE OF THE PERSONS) IN WHOSE NAME THE HOME IS OWNED OR RENTED.
- FOR QUESTIONS WHERE THE TERM "HOUSEHOLDER" IS INSERTED, USE THE APPROPRIATE DESIGNATION -- YOU, YOUR HUSBAND, WIFE, PARTNER -- DEPENDING ON WHO IS THE HOUSEHOLDER AND WHOM YOU ARE INTERVIEWING.
- Q. K-1 AND Q. K-2: BE SURE TO LIST RELATIONSHIPS, NOT NAMES. INCLUDE MEMBERS OF A SECOND FAMILY SHARING THE HOUSING UNIT.
- PERSONS WHO ARE NORMALLY MEMBERS OF THE HOUSEHOLD BUT WHO ARE NOW LIVING AWAY FROM HOME (E.G., COLLEGE STUDENTS OR MEMBERS OF THE ARMED FORCES) SHOULD NOT BE LISTED.

K-2. I have listed (READ RELATIONSHIPS FROM GRID ON FACING PAGE). Have I missed . . .

- a. Any babies or small children? 1 YES (ADD TO LISTING)
0 NO
- b. Any lodgers, boarders, or persons in your employ who live here? 1 YES (ADD TO LISTING)
0 NO
- c. Anyone who usually lives here but is away traveling or in the hospital? 1 YES (ADD TO LISTING)
0 NO
- d. Anyone else staying here who does not have a regular residence elsewhere? 1 YES (ADD TO LISTING)
0 NO

INTERVIEWER: CHECK GRID FOR EACH PERSON AGED 14 YEARS OR OLDER. FOR EACH, ASK:

K-3. Is (he/she) employed full-time, that is 30 hours or more per week, employed part-time, or not employed? (RECORD ON GRID.)

K-4. How many people in this household drive a car on a fairly regular basis -- that is, at least once a month?

NUMBER OF
REGULAR DRIVERS:

671-
672

00 NONE
96 DON'T KNOW

I have a few questions about (HOUSEHOLDER) for background statistical purposes.

K-5. What is the highest grade or year (HOUSEHOLDER) completed in school or college?

00 NEVER ATTENDED SCHOOL
01 FIRST
02 SECOND
03 THIRD
04 FOURTH
05 FIFTH
06 SIXTH
07 SEVENTH
08 EIGHTH
09 NINTH
10 TENTH
11 ELEVENTH
12 TWELFTH

673-
674

COLLEGE (ACADEMIC YEARS)

13 C1
14 C2
15 C3
16 C4
17 C5
18 C6 OR MORE

INTERVIEWER: CIRCLE ANSWER. ASK, IF NECESSARY.

675

K-6. Which of the following best describes (HOUSEHOLDER): now married, widowed, divorced, separated, or never married?

1 NOW MARRIED
2 WIDOWED
3 DIVORCED OR SEPARATED
4 NEVER MARRIED

K-7. Please turn to **Exhibit 39**. Which of the groups on the exhibit best describes (HOUSEHOLDER)?

1 WHITE
2 BLACK
3 AMERICAN INDIAN, ALASKAN NATIVE
4 ASIAN, PACIFIC ISLANDER
5 OTHER (SPECIFY): _____

676

K-8. Is (HOUSEHOLDER) of Spanish or Hispanic origin or descent?

1 YES
0 NO

677

INTERVIEWER: READ AND CIRCLE
 "YES" OR "NO" FOR EACH ITEM.

K-9. Please turn to **Exhibit 40**. In the past 12 months, did you or any member of your **family** living here receive any income or benefits from these sources: When we say "family," we mean all related persons living in this household.

707-708:07

	<u>YES</u>	<u>NO</u>	
a. Wages and/or salaries	1	0	710
b. Self-employment from a business or farm	1	0	711
c. Social Security or Railroad Retirement	1	0	712
d. Pensions and other retirement funds	1	0	713
e. Food Stamps	1	0	714
f. Aid to Families with Dependent Children (AFDC)	1	0	715
g. Unemployment compensation	1	0	716
h. Supplemental Security Income (SSI)	1	0	717
i. General Assistance or other public assistance	1	0	718

K-10. Now please look at **EXHIBIT 41**. This is a list of income groups. Please tell me which group letter best describes the total combined income in the last 12 months of all members of your **family** living here, from all sources -- wages, interest, Social Security, and so forth -- before taxes and deductions.

CIRCLE LETTER FOR INCOME GROUP

- 01 A LESS THAN \$ 3,000
- 02 B \$ 3,000 - \$ 3,999
- 03 C \$ 4,000 - \$ 4,999
- 04 D \$ 5,000 - \$ 5,999
- 05 E \$ 6,000 - \$ 7,499
- 07 F \$ 7,500 - \$ 8,999
- 08 G \$ 9,000 - \$ 9,999
- 09 H \$10,000 - \$10,999
- 10 I \$11,000 - \$12,499
- 12 J \$12,500 - \$13,999
- 13 K \$14,000 - \$14,999
- 14 L \$15,000 - \$17,499
- 15 M \$17,500 - \$19,999
- 16 N \$20,000 - \$22,499
- 17 O \$22,500 - \$24,999
- 18 P \$25,000 - \$27,499
- 19 Q \$27,500 - \$29,999
- 20 R \$30,000 - \$32,499
- 21 S \$32,500 - \$34,999

- 22 T \$35,000 - \$39,999
- 23 U \$40,000 - \$49,999
- 24 V \$50,000 - \$74,999
- 25 W \$75,000 OR OVER

--> [M-1]

- 96 DON'T KNOW
- 97 REFUSED

--> [PROBE]

--> [L-1]

719-
720

PROBE, IF "DON'T KNOW" OR "REFUSED."

Can you tell me whether your household income in the last 12 months was under or over \$35,000?

- 1 UNDER \$35,000
- 2 OVER \$35,000
- 6 DON'T KNOW
- 7 REFUSED

--> [M-1]

721

Section L. Family Income Under \$35,000

L-1. There is an **assistance program** that helps people pay for their heating, cooling, and other home energy costs. Some names used for the program are HEAP, LIHEAP, and HEAT. It is run by state, county, or local government. The household receiving the assistance can be paid directly, or the assistance can be paid to the electric or gas company or fuel supplier. If heat is included in a household's rent, the payment can be used to help reduce the rent.

Were you aware of this	1 YES	
energy assistance program?	0 NO	722

INTERVIEWER: THESE QUESTIONS REFER TO ANY HOME THE RESPONDENT OCCUPIED IN THE LAST YEAR.

L-2. Now turn to **Exhibit 42**. During the last year -- from October 1989 through September 1990 -- did anyone in your household receive government assistance for any of the following:

	<u>YES</u>	<u>NO</u>	<u>DON'T KNOW</u>	
a. Help in paying home <u>heating</u> costs?	1	0	6	723
b. Help in paying home <u>cooling</u> or air-conditioning costs?	1	0	6	724
c. Help with <u>other</u> home energy costs?	1	0	6	725
d. Emergency supplies, such as blankets, fans, portable heaters, or temporary emergency shelter?	1	0	6	726

INTERVIEWER: IF "NO" OR "DON'T KNOW" TO ALL ITEMS, SKIP TO Q. L-6.

IF "YES" FOR ANY ITEM IN Q. L-2, ASK:

L-3. Please describe this help.

DESCRIPTION: _____

IF "YES" ON Q. L-2a (HOME HEATING COSTS), ASK:

L-4. Please look at **Exhibit 43**. You mentioned that your household got help in paying for home heating costs. How were these payments received? (READ EACH AND CIRCLE "YES" OR "NO".)

	<u>YES</u>	<u>NO</u>	<u>DON'T KNOW</u>	
a. Sent directly to utility company or fuel dealer	1	0	6	727
b. Check to household	1	0	6	728
c. Coupon/voucher to household	1	0	6	729
d. Two-party check	1	0	6	730
e. OTHER SPECIFY: _____	1	0	6	731

L-5. About how much money did you receive from October 1989 to September 1990? \$.00 732-
6 NOT SURE 735

L-6. **Exhibit 44** shows some examples of how a person can weatherize a home; for example, insulating walls, insulating the hot water heater, weather stripping or caulking, and so on. During the last year -- from October 1989 to September 1990 -- did you receive any help from the government in paying the costs of weatherizing your home?

1 YES
0 NO 736
6 DON'T KNOW

L-7. I want you to think about the home or homes you lived in last year -- that is, the time period from October 1989 to September 1990.

Was there ever a time during that period when you wanted to use your main source of heat, but could not, for one or more of the following reasons? (CIRCLE YES OR NO FOR EACH ITEM.)

	<u>YES</u>	<u>NO</u>	
a. Your heating system was broken and you were unable to pay for the repair or replacement?	1	0	737
b. You ran out of fuel oil, LPG, coal, or wood because you were unable to pay for a delivery?	1	0	738
c. The utility company discontinued your gas or electric service because you were unable to pay your bill?	1	<div style="border: 1px solid black; display: inline-block; padding: 2px 10px;">0</div>	739



INTERVIEWER: IF ALL ITEMS MARKED "NO", SKIP TO INSTRUCTION BEFORE Q. L-12.

IF "YES" TO Q. L-7 "a," "b," OR "c", ASK:

L-8. Thinking about these times that you went without heat -- how many separate times were there?

TOTAL TIMES: 740-741

L-9. Altogether, how many hours or days were you without heat?

HOURS: OR DAYS: 742-744

IF "YES" TO Q. L-7 "a", "b",
OR "c", ASK:

L-10. Please turn to **Exhibit 45**. During which month or months were you without heat?

- | | |
|--------------|--------------|
| 01 OCT ('89) | 08 MAY ('90) |
| 02 NOV ('89) | 09 JUN ('90) |
| 03 DEC ('89) | 10 JUL ('90) |
| 04 JAN ('90) | 11 AUG ('90) |
| 05 FEB ('90) | 12 SEP ('90) |
| 06 MAR ('90) | 96 NOT SURE |
| 07 APR ('90) | |

745-756

INTERVIEWER: CIRCLE
ALL THAT APPLY.

L-11. During these times, were you able to heat your home in some other way?

- 1 YES
0 NO

757

INTERVIEWER CHECK FOLD OUT PAGE: IF "OWN," SKIP TO Q. M-1; IF "RENT," CONTINUE.

IF "RENT," ASK:

L-12. Is this residence in a public housing project -- that is, is it owned by a housing authority?

- 1 YES --> [M-1]
0 NO
6 DON'T KNOW

758

IF NO" OR "DON'T KNOW" ON Q. L-12, ASK:

L-13. Are you paying lower rent because the federal, state, or local government is paying part of the cost?

- 1 YES
0 NO
6 DON'T KNOW

759

Section M. Conservation

INSULATION

ASK EVERYONE

Now, I'd like to spend a few minutes talking about the insulation in this home.

M-1. Overall, would you say that this (house/apartment) is well insulated, adequately insulated, or poorly insulated?

- 1 WELL INSULATED --> [M-3]
- 2 ADEQUATELY INSULATED --> [M-3]
- 3 POORLY INSULATED
- 6 DON'T KNOW --> [M-3] 760

IF "POORLY INSULATED" ON Q. M-1, ASK:

M-2. Please turn to **Exhibit 46**. Is this (house/apartment) "poorly insulated" due to one or more of these reasons? (READ LIST AND CIRCLE ALL THAT APPLY).

- 1 Leaky windows 761-765
- 2 Doors not tight
- 3 Inadequate wall insulation
- 4 Inadequate ceiling insulation
- 5 Inadequate caulking
- 6 DON'T KNOW

INTERVIEWER CHECK FOLD OUT PAGE: IF ONE-FAMILY HOUSE OR MOBILE HOME, CONTINUE WITH REMAINDER OF SECTION M. IF 2 OR MORE APARTMENT UNITS IN BUILDING, SKIP TO Q. N-1b.

IF ONE-FAMILY HOUSE OR MOBILE HOME, ASK:

M-3. Do you have roof or ceiling insulation in your home?

- 1 YES
- 0 NO --> [M-6]
- 6 DON'T KNOW --> [M-6] 766

IF "YES" ON Q. M-3, ASK:

M-4. Please turn to **Exhibit 47**. About how much of the roof or ceiling area is insulated?

- 0 VERY LITTLE (LESS THAN 5%)
- 1 1/4 (5-33%)
- 2 1/2 (34-66%) 767
- 3 3/4 (67-95%)
- 4 ALL (96-100%)
- 6 DON'T KNOW

M-5. Was any of the roof or ceiling insulation added or installed in your home since September 1, 1987?

- 1 YES
- 0 NO
- 2 IN PROCESS 768
- 6 DON'T KNOW

INTERVIEWER: COUNT AS "IN PROCESS" ANY WORK STARTED BUT NOT YET COMPLETED. DO NOT COUNT ANY CHANGES MADE BEFORE THIS HOUSEHOLD MOVED IN.

INTERVIEWER: CONTINUE ONLY IF ONE-FAMILY HOUSE OR MOBILE HOME. IF NOT, SKIP TO Q. N-1b.

M-6. Do you have insulation in all, some, or none of the outside walls of your home? 769

1 ALL
2 SOME
0 NONE --> [M-8]
6 DON'T KNOW --> [M-8]

IF "ALL" OR "SOME," ON Q. M-6, ASK:

M-7. Was any of the insulation in the outside walls added or installed in your home <u>since</u> September, 1987?	<p>1 YES 0 NO 2 IN PROCESS 6 DON'T KNOW 770</p>
-------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------

M-8. Please look at the list in **Exhibit 48** and as I read each item, tell me which, if any, you have in this home.

	<u>YES</u>	<u>NO</u>	<u>DON'T KNOW</u>	
a. Insulation around heating and/or cooling ducts.	1	0	6	771
b. Insulation around the hot water pipes.	1	0	6	772
c. Insulation around the hot water heater.	1	0	6	773
d. Weatherstripping around any windows or doors to the outside.	1	0	6	774
e. Caulking	1	0	6	775

INTERVIEWER: CONTINUE ONLY IF ONE-FAMILY HOUSE OR MOBILE HOME. IF NOT, SKIP TO Q. N-1b.

M-9. Does this building have a basement or crawl space? 776

1 YES
0 NO --> [M-12]

IF "YES" ON Q. M-9, ASK:

M-10. Do you have any insulation in the floor area above the basement or crawl space? 777

1 YES
0 NO --> [M-12]
6 DON'T KNOW --> [M-12]

IF "YES" ON Q. M-10.
ASK:

M-11. Please turn to **Exhibit 49**. How much of the floor area above the basement or crawl space is insulated? 778

0 VERY LITTLE (LESS THAN 5%)
1 1/4 (5%-33%)
2 1/2 (34%-66%)
3 3/4 (67%-95%)
4 ALL (96%-100%)
6 DON'T KNOW

OTHER
CONSERVATION
MEASURES

807-808:08

M-12. Please tell me which, if any, of the following items have been added or installed in your home since September 1, 1987.

	<u>YES</u>	<u>NO</u>	<u>IN PROCESS</u>	<u>DON'T KNOW</u>	
a. An automatic set-back or clock thermostat?	1	0	2	6	810
b. Heat pump?	1	0	2	6	811
c. Wood-burning stove?	1	0	2	6	812

M-13. Now, let's talk about your heating equipment.

Have you had a "tune-up" done on your heating equipment in the past year? By tune-up, we mean a cleaning and maintenance check.

- 1 YES
 - 0 NO
 - 6 DON'T KNOW
- 813

M-14. Have you replaced your main heating equipment since September 1, 1987?

- 1 YES, REPLACED AFTER 9/1/87
 - 0 NO --> [N-1a]
- 814

IF "YES" ON Q. M-14, ASK:

M-15. Is the new equipment high-efficiency?

- 1 YES, HIGH EFFICIENCY
 - 0 NO
 - 6 DON'T KNOW
- 815

Section N: Doors and Windows

DOORS

INTERVIEWER: NUMBER OF DOORS: COUNT EACH PAIR OF SLIDING GLASS DOORS AS ONE DOOR. INCLUDE DOORS THAT GO TO AN UNHEATED PORCH OR GARAGE.

DO NOT INCLUDE DOORS TO A HEATED HALLWAY IN AN APARTMENT BUILDING, DOORS THAT ARE PERMANENTLY SEALED SHUT, OR DOORS TO AN UNHEATED ATTIC OR BASEMENT.

Q. N1: SEE FOLDOUT PAGE FOR STRUCTURE TYPE. ASK N1a OR N1b -- NOT BOTH.

IF SINGLE FAMILY/MOBILE HOME:

N-1a. Please refer to Exhibit 50. How many doors lead directly from your house to the outside?

NUMBER OF DOORS:

00 NONE --> [N-3]

816-817

IF BUILDING WITH 2 OR MORE UNITS:

N-1b. Please refer to Exhibit 50. How many doors here in your (apartment/home) lead either directly to the outside or open onto an unheated common hallway?

NUMBER OF DOORS:

00 NONE --> [N-3]

IF ANY DOORS TO THE OUTSIDE OR AN UNHEATED HALLWAY ON Q. N-1a OR N-1b, ASK:

N-2. How many of these doors have a storm door or insulated glass?

NUMBER OF DOORS:

00 NONE

818-819

WINDOWS

N-3. Please look at Exhibit 51. How many windows do you have in your home? Each window that opens separately should be counted as one window. Include basement, attic, garage, and porch windows only if these areas are heated.

NUMBER OF WINDOWS:
820-821

N-4. How many of these windows have storm windows or insulating glass?

NUMBER OF INSULATED WINDOWS:
00 NONE
822-823

INTERVIEWER:
Q. N-3 -- DOUBLE HUNG SLIDER WINDOWS COUNT AS ONE WINDOW. EACH WINDOW THAT OPENS SEPARATELY SHOULD BE COUNTED AS ONE WINDOW. ALSO COUNT WINDOWS THAT ARE FIXED IN PLACE. DO NOT INCLUDE WINDOWS (GLASS PANELS) IN DOORS.
Q. N-4 -- WINDOWS MADE OF DOUBLE GLASS AND OTHER TYPES OF INSULATING GLASS COUNT THE SAME AS STORM WINDOWS.

SECTION O BEGINS ON THE NEXT PAGE

Section 0: Vehicles

ASK EVERYONE

INTERVIEWER: SEE BOX ON FACING PAGE FOR INSTRUCTIONS ABOUT VEHICLES SECTION.

Now some questions about cars.

0-1. Do you or other members of your household own or have the regular use of any cars, trucks, vans, or similar vehicles? (DO NOT INCLUDE MOTORCYCLES OR MOPEDS.)

1 YES
0 NO --> [P-1]

824

IF "YES" ON Q. 0-1, ASK:

0-2. How many vehicles do you have?

NUMBER OF
VEHICLES:

825-
826

READ BEFORE ASKING ABOUT FIRST VEHICLE:

I'd like you to describe each vehicle your household owns or uses. First, let's start with the vehicle you use most often.

INTERVIEWER: PLEASE GO TO BLUE VEHICLE PAGE AND ASK SERIES OF QUESTIONS FOR EACH VEHICLE. RECORD ON BLUE PAGE.

INTERVIEWER:

Q. 0-1 -- "REGULAR USE" MEANS THE VEHICLE IS KEPT AT HOME AND IS AVAILABLE FOR SOME PERSONAL USE.

Q. 0-2 -- IF HOUSEHOLD HAS MORE THAN FOUR VEHICLES, MARK ANSWERS FOR THE FOUR VEHICLES USED MOST.

Q. 0-4 -- MODEL NAME: A MODEL NAME MAY CONSIST OF SEVERAL PARTS -- BE SURE TO GET THE COMPLETE MODEL NAME. HERE ARE SOME EXAMPLES, WHERE THE COMPLETE MODEL NAME IS IN PARENTHESES: FORD (GALAXIE), CHEVROLET (V10 SUBURBAN), GMC (V15 JIMMY), TOYOTA (2WD CARGO VAN). IF RESPONDENT DOES NOT KNOW THE MODEL NAME OF A TRUCK, PROBE FOR SIZE (1/2 TON, 3/4 TON, ETC.)

Q. 0-12 -- EXPLAIN WHAT THE VIN IS IF RESPONDENT DOES NOT KNOW. IF RESPONDENT QUESTIONS NEED FOR VIN, SAY: "The VIN is a set of codes assigned to a vehicle at the factory that, when decoded, describes several of the vehicle's characteristics. These characteristics may then be used to calculate an estimated miles per gallon for that specific type of vehicle."

SHOW EXHIBIT 53 OF POSSIBLE VIN LOCATIONS. ATTEMPT TO SECURE VIN FROM ONE OF THESE DOCUMENT SOURCES. RECORD THE VIN AND VERIFY FOR CORRECTNESS.

IF VEHICLE AVAILABLE--RECORD VIN FROM VEHICLE ITSELF.

SECTION P: HOUSING CHARACTERISTICS

P-1. Please look at **Exhibit 54**. Since September 1987, have any of the changes listed on this exhibit been made to your home -- that is, anything that has either increased or decreased the total number of square feet of space?

1 YES
0 NO --> [P-4] 827

IF "YES" ON Q. P-1, ASK:

P-2. Did the total number of square feet of space increase, decrease, or remain the same?

1 INCREASED
2 DECREASED 828
3 REMAINED THE SAME

P-3. Did the amount of **heated** space increase, decrease, or remain the same?

1 INCREASED
2 DECREASED
3 REMAINED THE SAME 829

ROOMS

P-4. How many of each of the following rooms does this (house/apartment) have? (ASK EACH ITEM AND RECORD NUMBER FOR EACH.)

INTERVIEWER: FOR ONE-ROOM EFFICIENCY OR STUDIO APARTMENT, RECORD "0 BEDROOMS" AND CORRECT NUMBER OF BATHROOMS.

a. Bedrooms?.....

NUMBER: 830
0 NONE

ROOMS CONTINUED ON NEXT PAGE

INTERVIEWER: FULL BATHROOM -- SINK WITH RUNNING WATER AND FLUSH TOILET AND BATHTUB OR SHOWER.

HALF BATHROOM -- TOILET OR BATHTUB OR SHOWER.

b. Full bathrooms?..... NUMBER: 831
0 NONE

c. Half bathrooms?..... NUMBER: 832
0 NONE

d. All other rooms; do not count laundry rooms, foyers, or unfinished storage space. Only count porches if they are enclosed and used year-round. NUMBER: 833
0 NONE

INTERVIEWER: CHECK FOLDOUT PAGE: IF SINGLE-FAMILY OR MOBILE HOME, CONTINUE. OTHERWISE, SKIP TO Q. P-13.

P-5. Is this house on more than one acre? 1 YES
0 NO 834

IF "YES" ON Q. P-5, ASK:

P-6. In the past 12 months, were there any sales of agricultural products from the property? 1 YES 835
0 NO

IF "YES" ON Q. P-6, ASK:

P-7. Please turn to **Exhibit 55**. What were the actual sales of all agricultural products from this property? 1 \$1 TO \$999
2 \$1,000 TO \$2,499
3 \$2,500 TO \$4,999 836
4 \$5,000 TO \$9,999
5 \$10,000 OR MORE
6 DON'T KNOW

GARAGE

P-8. Do you have an attached garage? 1 YES 837
0 NO --> [P-11]

INTERVIEWER: REMEMBER TO INCLUDE AN ATTACHED GARAGE ON DIAGRAM.

IF "YES" ON Q. P-8, ASK:

P-9. Can the garage be heated in the winter months? 1 YES 838
0 NO --> [P-11]

IF "YES" ON Q. P-9, ASK:

P-10. How often is it heated during the winter months -- always, usually, occasionally, almost never, or never? 4 ALWAYS 839
3 USUALLY
2 OCCASIONALLY
1 ALMOST NEVER
0 NEVER

BASEMENT

P-11. Please turn to Exhibit 56. Does your home have a basement, an enclosed crawl space, a crawl space open to the outside, a concrete slab, or a combination of these? 1 A BASEMENT
2 CRAWL SPACE -- ENCLOSED
3 CRAWL SPACE -- OPEN TO THE OUTSIDE 840
4 CONCRETE SLAB --> [P-13]
5 COMBINATION (MARK ALL THAT APPLY)

INTERVIEWER: REMEMBER TO INCLUDE BASEMENT ON DIAGRAM. DO NOT INCLUDE CRAWL SPACE.

1 BASEMENT
2 CRAWL SPACE -- ENCLOSED
3 CRAWL SPACE -- OPEN TO THE OUTSIDE
4 CONCRETE SLAB 841-844

IF "BASEMENT," "CRAWL SPACE," OR "COMBINATION" ON Q. P-11, ASK:

P-12. About how much of the basement or crawl space would you say is warm enough to sit, work, or play in during the winter months -- all, part, or none? 1 ALL 845
2 PART
0 NONE

MEASUREMENTS

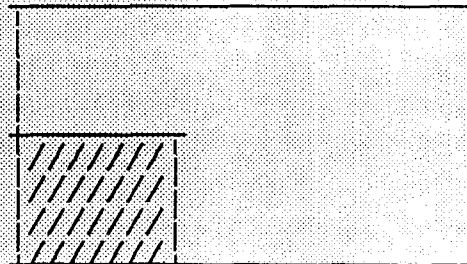
ASK EVERYONE

P-13. To understand the usage of energy in your (house/apartment), we need to know its size in square feet. With your permission, I would like to measure your home.

INTERVIEWER INSTRUCTIONS: ALWAYS DO MEASUREMENTS FROM THE OUTSIDE WHERE POSSIBLE. IF NOT POSSIBLE, READ: With your home, I think it would be most appropriate to measure the inside.

UNHEATED AREAS: WITHIN THE HOUSING UNIT THAT YOU MEASURE, INDICATE UNHEATED AREA(S) IN THE DIAGRAMS WITH SHADING. GIVE DIMENSIONS OF UNHEATED AREA(S).

SHADE UNHEATED
AREAS THIS WAY ----->



USE BLANK PAGES FACING MEASUREMENT PAGES FOR ADDITIONAL SKETCHES, MEASUREMENTS, AND EXPLANATIONS.

**RECORD MEASUREMENTS ON
DIAGRAMS TO NEAREST FOOT**

NOTES REGARDING BASEMENT MEASUREMENTS

FOR OFFICE USE ONLY

Flr. Codes				Unit A		Unit B			Unit C			Unit D		# of Units	
846	47	48	49	50-51	52-53	54	55-56	57-58	59	60-61	62-63	64	65-66	67-68	69

BASEMENT OF HOME/APARTMENT

SINGLE-FAMILY,
MOBILE HOME,
TOWNHOUSE

BASEMENT
 HEATED-->DRAW
 UNHEATED-->SHADE

APARTMENT IN
2-4 UNIT BUILDING

BASEMENT -- ONLY THAT
PART THAT IS FOR
EXCLUSIVE OR PRIMARY
USE BY THE HOUSEHOLD.
 HEATED-->DRAW
 UNHEATED-->SHADE

APARTMENT IN
5+ UNIT BUILDING

BASEMENT -- DO
NOT INCLUDE

CONSIDER BASEMENT HEATED IF (1) IT IS WARM ENOUGH TO SIT, WORK, OR PLAY IN DURING THE WINTER OR (2) IF ALL THE BASEMENT IS USED FOR LIVING SPACE WHERE A PERSON SLEEPS, WATCHES TV, OR READS.

GARAGE (BASEMENT
LEVEL AND ATTACHED)
 HEATED-->DRAW
 UNHEATED-->SHADE

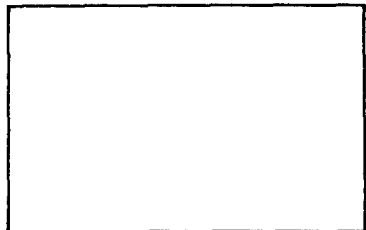
GARAGE -- DO NOT
INCLUDE

GARAGE -- DO NOT
INCLUDE

WRITE "1-CAR", "2-CAR", OR "3-CAR" ON DIAGRAM.

RECTANGULAR SHAPE

DRAW DIAGRAM, IF OTHER
THAN RECTANGULAR



[]

[]

INTERVIEWER: CHECK FINISHED DIAGRAM

1. DID YOU BASE YOUR FIGURES ON OUTSIDE OR INSIDE MEASUREMENTS? OUTSIDE
 INSIDE
 OTHER: (SPECIFY) _____
2. DID YOU SHADE AND INCLUDE DIMENSIONS FOR UNHEATED AREAS? YES
 NO UNHEATED AREAS
3. DID YOU LABEL GARAGE 1-CAR, ETC.? YES
 NO GARAGE

INTERVIEWER: IF BASEMENT IS THE ONLY FLOOR, GO TO INSTRUCTION BEFORE Q. P-14.

NOTES REGARDING FIRST FLOOR MEASUREMENTS

FOR OFFICE USE ONLY

907-08:09

Flr. Codes				Unit A		Unit B			Unit C			Unit D		# of Units	
870	71	72	73	74-75	76-77	910	11-12	13-14	15	16-17	18-19	20	21-22	23-24	25

FIRST FLOOR OF HOME/APARTMENT

- SINGLE-FAMILY,
MOBILE HOME,
TOWNHOUSE
- ↓
- ENCLOSED PORCH
 - HEATED->DRAW
 - UNHEATED->SHADE

- APARTMENT IN
2-4 UNIT BUILDING
- ↓
- ENCLOSED PORCH
 - HEATED->DRAW
 - UNHEATED->SHADE

- APARTMENT IN
5+ UNIT BUILDING
- ↓
- ENCLOSED PORCH
 - HEATED->DRAW
 - UNHEATED->SHADE

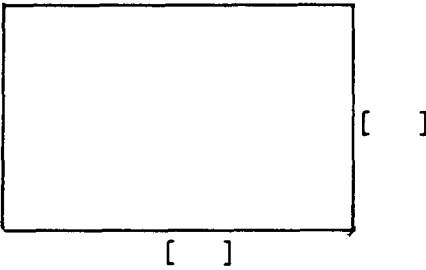
OPEN PORCH: DO NOT INCLUDE

- GARAGE (ATTACHED)
 - HEATED->DRAW
 - UNHEATED->SHADE

GARAGE -- DO NOT
INCLUDE

GARAGE -- DO NOT
INCLUDE

WRITE "1-CAR", "2-CAR", OR "3-CAR" ON DIAGRAM.

RECTANGULAR SHAPE	DRAW DIAGRAM, IF OTHER THAN RECTANGULAR
	

INTERVIEWER: CHECK FINISHED DIAGRAM

1. DID YOU BASE YOUR FIGURES ON
 - OUTSIDE
 - INSIDE
 - OTHER: (SPECIFY) _____

2. DID YOU SHADE AND INCLUDE DIMENSIONS FOR UNHEATED AREAS?
 - YES
 - NO UNHEATED AREAS

3. DID YOU LABEL GARAGE 1-CAR, ETC.?
 - YES
 - NO GARAGE

INTERVIEWER: IF NO ADDITIONAL FLOORS OR ATTIC,
GO TO INSTRUCTION BEFORE Q. P-14.

NOTES REGARDING SECOND FLOOR MEASUREMENTS

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Flr. Codes				Unit A			Unit B			Unit C				Unit D		# of Units
926	27	28	29	30-31	32-33	34	35-36	37-38	39	40-41	42-43	44	45-46	47-48	49	

SECOND FLOOR OF HOME/APARTMENT

- SINGLE-FAMILY,
MOBILE HOME,
TOWNHOUSE
- ↓
- ENCLOSED PORCH
- HEATED->DRAW
- UNHEATED->SHADE

- APARTMENT IN
2-4 UNIT BUILDING
- ↓
- ENCLOSED PORCH
- HEATED->DRAW
- UNHEATED->SHADE

- APARTMENT IN
5+ UNIT BUILDING
- ↓
- ENCLOSED PORCH
- HEATED->DRAW
- UNHEATED->SHADE

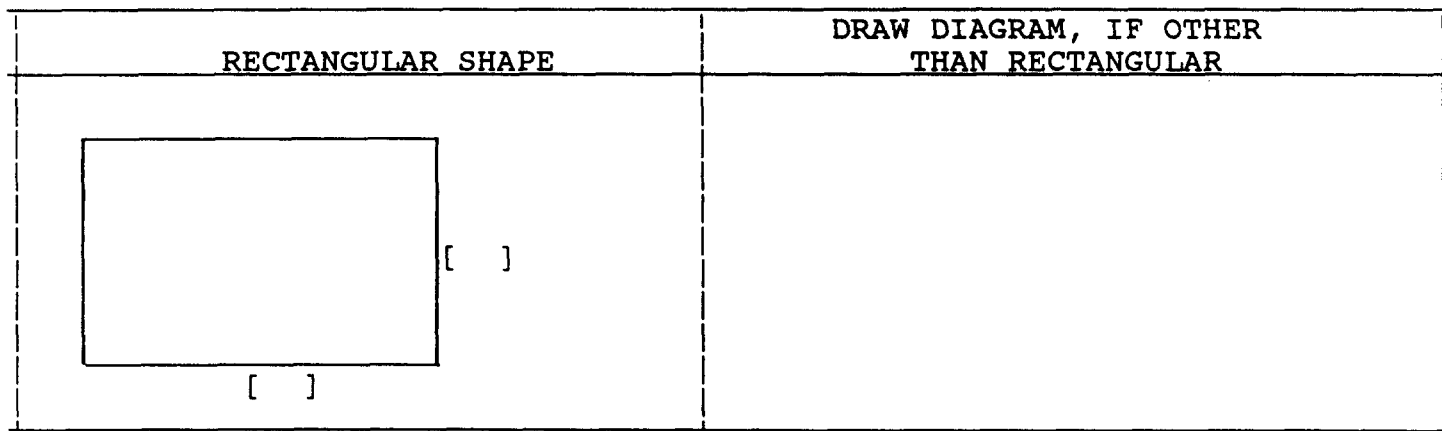
OPEN PORCH: DO NOT INCLUDE

- GARAGE (ATTACHED)
- HEATED->DRAW
- UNHEATED->SHADE

GARAGE -- DO NOT
INCLUDE

GARAGE -- DO
NOT INCLUDE

WRITE "1-CAR", "2-CAR", OR "3-CAR" ON DIAGRAM.



INTERVIEWER: CHECK FINISHED DIAGRAM

1. DID YOU BASE YOUR FIGURES ON
 - OUTSIDE
 - INSIDE
 - OTHER: (SPECIFY) _____

2. DID YOU SHADE AND INCLUDE DIMENSIONS FOR UNHEATED AREAS?
 - YES
 - NO UNHEATED AREAS

3. DID YOU LABEL GARAGE 1-CAR, ETC.?
 - YES
 - NO GARAGE

INTERVIEWER: IF NO ADDITIONAL FLOORS OR ATTIC,
GO TO INSTRUCTION BEFORE Q. P-14.

THIRD FLOOR OF HOME/APARTMENT

SINGLE-FAMILY,
MOBILE HOME,
TOWNHOUSE

APARTMENT IN
2-4 UNIT BUILDING

APARTMENT IN
5+ UNIT BUILDING

ENCLOSED PORCH
 HEATED-->DRAW
 UNHEATED-->SHADE

ENCLOSED PORCH
 HEATED->DRAW
 UNHEATED->DRAW

ENCLOSED PORCH
 HEATED->DRAW
 UNHEATED->SHADE

RECTANGULAR SHAPE	DRAW DIAGRAM, IF OTHER THAN RECTANGULAR
<div style="border: 1px solid black; width: 200px; height: 100px; margin: 20px auto; position: relative;"> [] </div> <p style="text-align: center; margin-top: 10px;">[]</p>	

INTERVIEWER: CHECK FINISHED DIAGRAM

- 1. DID YOU BASE YOUR FIGURES ON
 OUTSIDE OR INSIDE MEASUREMENTS? OUTSIDE
 INSIDE
 OTHER (SPECIFY): _____

- 2. DID YOU SHADE AND INCLUDE
 DIMENSIONS FOR UNHEATED AREAS? YES
 NO UNHEATED AREAS

INTERVIEWER: IF NO ATTIC, GO TO INSTRUCTION BEFORE Q. P-14

FOR OFFICE USE ONLY

Flr. Codes	Unit A		Unit B			Unit C			Unit D			# of Units			
950	51	52	53	54-55	56-57	58	59-60	61-62	63	64-65	66-67	68	69-70	71-72	73

ATTIC OF HOME

SINGLE-FAMILY MOBILE HOME, TOWNHOUSE



- ATTIC
- HEATED-->DRAW
- FINISHED AND UNHEATED-->DRAW
- UNHEATED AND UNFINISHED -- DO NOT INCLUDE

APARTMENT IN 2-4 UNIT BUILDING

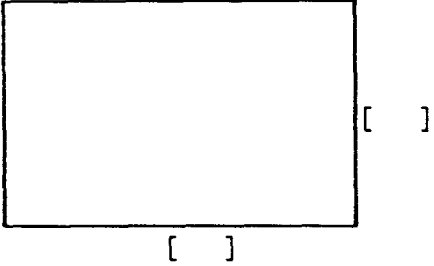


- ATTIC -- MUST BE FOR EXCLUSIVE USE OF THE HOUSEHOLD.
- HEATED-->DRAW
- FINISHED AND UNHEATED-->DRAW
- UNHEATED AND UNFINISHED -- DO NOT INCLUDE

APARTMENT IN 5+ UNIT BUILDING



ATTIC -- DO NOT INCLUDE

RECTANGULAR SHAPE	DRAW DIAGRAM, IF OTHER THAN RECTANGULAR
	

INTERVIEWER: CHECK FINISHED DIAGRAM

1. DID YOU BASE YOUR FIGURES ON OUTSIDE OR INSIDE MEASUREMENTS?
 - OUTSIDE
 - INSIDE
 - OTHER (SPECIFY): _____
2. DID YOU INCLUDE SHADING AND DIMENSIONS FOR UNHEATED AREAS?
 - YES
 - NO UNHEATED AREAS

1007-1008:10

FOR OFFICE USE ONLY

Flr. Codes	Unit A	Unit B	Unit C	Unit D	# of Units
1010 | 11 | 12 | 13	14-15 | 16-17 | 18	19-20 | 21-22 | 23	24-25 | 26-27 | 28	29-30 | 31-32	33

INTERVIEWER CHECK FOLDOUT PAGE AND Q. D-3: IF SINGLE-FAMILY HOME WITH CENTRAL AIR CONDITIONING, CONTINUE. OTHERWISE, SKIP TO NEXT PAGE.

P-14. I'd like to look at your central air conditioning equipment -- just the unit that is outside -- and record some information from its nameplate.

CENTRAL AIR CONDITIONER NAMEPLATE DATA

- a. MANUFACTURER: _____
- b. MODEL NUMBER: _____
- c. YEAR MANUFACTURED: _____
- d. RATED COOLING CAPACITY: _____ BTU/HR, LB/HR
- e. COMPRESSOR POWER/AMPERAGE: _____ HP, AMPS, WATTS
- f. FAN POWER/AMPERAGE: _____ HP, AMPS, WATTS

INTERVIEWER: RECORD ALL INFORMATION VISIBLE ON AIR CONDITIONER NAMEPLATE. (SEE INSTRUCTIONS FOR INTERVIEWERS.) USE SPACE BELOW FOR ADDITIONAL NOTES AND COMMENTS.

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	ME	FL	LOT	Heated	Unheated	DK Htd/Unhtd
10	34-35	36	37-38	39-43	44-48	49-53

P-15. INTERVIEWER: DID YOU REMEMBER TO INSPECT VEHICLES FOR VIN NUMBERS AND ODOMETER READINGS? 1 YES 0 NO -- PLEASE DO SO NOW 1054

RECORD VINS ON BLUE VEHICLE PAGE

P-16. INTERVIEWER: IF SINGLE-FAMILY AND CENTRAL AIR-CONDITIONING, DID YOU GET AIR CONDITIONER NAMEPLATE DATA? 1 YES 0 NO -- IF AVAILABLE, PLEASE DO SO NOW 1055

RECORD NAMEPLATE DATA ON PREVIOUS PAGE

P-17. WHAT PROBLEMS, IF ANY, DID YOU HAVE IN MEASURING THIS (HOUSE/APARTMENT)?

P-18. WHAT EFFECT, IF ANY, DID THESE PROBLEMS HAVE ON THE ACCURACY OF YOUR MEASUREMENTS?

FILL IN AND CHECK THAT ALL INFORMATION IS COMPLETE:

TIME INTERVIEW COMPLETED _____ AM _____ PM LENGTH OF INTERVIEW: _____ MINUTES INTERVIEWER'S SIGNATURE: _____ DATE: _____ INTERVIEWER'S I.D. #: _____ 1056-1058 1059-1064

- Q. A-1 HOUSING STRUCTURE: SINGLE FAMILY HOME BUILDING WITH 2-4 UNITS
 MOBILE HOME/TRAILER BUILDING WITH 5+ UNITS
- Q. A-5 TENURE: OWN (BUYING) RENT OCCUPIED WITHOUT PAYMENT OF RENT
- Q. A-7,8 YEAR MOVED IN: 19 ____ IF 1987 OR LATER, MONTH: _____
- Q. B-2 MAIN HEATING FUEL: _____
 WRITE IN

	Q. H-3		Q. H-4 (ASK FOR EACH ITEM MARKED "USED" IN Q. H-3)			
	USED	NOT USED	PAID BY HOUSEHOLD	INCLUDED IN RENT	OTHER (SPECIFY)	
<u>Electricity ...</u>						
a. For hot water	1	0	1	2	5 _____	1065-66
b. For heating your home	1	0	1	2	5 _____	1067-68
c. For air-conditioning (CENTRAL OR WINDOW/WALL UNITS)	1	0	1	2	5 _____	1069-70
d. For cooking (INCLUDES MICROWAVE)	1	0	1	2	5 _____	1071-72
e. For lighting and other appliance	1	0	1	2	5 _____	1073-74
<u>Gas from underground pipes serving your neighborhood ...</u>						
f. For hot water	1	0	1	2	5 _____	1107-08:11
g. For heating your home	1	0	1	2	5 _____	1110-11
h. For central air-conditioning	1	0	1	2	5 _____	1112-13
i. For cooking inside home	1	0	1	2	5 _____	1114-15
j. For cooking on outdoor grill	1	0	1	2	5 _____	1116-17
k. For other appliances (INCLUDE GAS DRYER AND GAS LIGHT HERE)	1	0	1	2	5 _____	1118-19
<u>Bottled Gas, LPG, or Propane ...</u>						
l. For hot water	1	0	1	2	5 _____	1120-21
m. For heating your home	1	0	1	2	5 _____	1122-23
n. For central air-conditioning	1	0	1	2	5 _____	1124-25
o. For cooking inside home	1	0	1	2	5 _____	1126-27
p. For cooking on outdoor grill	1	0	1	2	5 _____	1128-29
q. For other appliances (INCLUDE OUTSIDE GAS LIGHT HERE)	1	0	1	2	5 _____	1130-31
<u>Fuel Oil ...</u>						
r. For hot water	1	0	1	2	5 _____	1132-33
s. For heating your home	1	0	1	2	5 _____	1134-35
t. For cooking and other uses	1	0	1	2	5 _____	1136-37
<u>Kerosene ...</u>						
u. For hot water	1	0	1	2	5 _____	1138-39
v. For heating your home	1	0	1	2	5 _____	1140-41
w. For cooking and other uses	1	0	1	2	5 _____	1142-43
						1144-45

**Residential Energy Consumption Survey
conducted for
The Energy Information Administration
(U.S. Department of Energy)
by Response Analysis Corporation**

**Return to: Response Analysis Corporation
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P.O. Box 158
Princeton, NJ 08542**