

# 1990 Residential Energy Consumption Survey

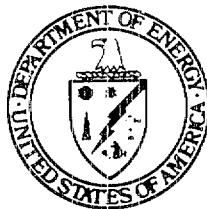
## Form EIA-457A

Form EIA-457A (1990)

Form Approval:  
OMB No.: 1905-0092  
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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 #	111-116
Housing Unit #	117-118

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**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  |
| 3 | ONE-FAMILY ATTACHED<br>(TOWNHOUSE, DUPLEX, OR ROWHOUSE)              |
| 4 | HOUSE OR BUILDING WITH <u>2 TO 4</u><br>APARTMENT UNITS --> [A-3]    |
| 5 | HOUSE OR BUILDING WITH <u>5 OR MORE</u><br>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              |
| 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] |

**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?

- |   |     |
|---|-----|
| 1 | YES |
| 0 | NO  |

b. Have direct access from outside the building or through a common hall?

- |   |     |
|---|-----|
| 1 | YES |
| 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.**

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- 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 DURATION**

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      125-126  
 06 1980-1984  
 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  
 03 MAR 09 SEP      129-130  
 04 APR 10 OCT  
 05 MAY 11 NOV  
 06 JUN 12 DEC

**INTERVIEWER: MARK FOLDOUT PAGE**

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**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                        | 131- |
| 03 | 3-5 YEARS                        | 132  |
| 04 | 6-10 YEARS                       |      |
| 05 | MORE THAN 10 YEARS               |      |
| 06 | REST OF MY LIFE/AS LONG AS I CAN |      |
| 96 | NOT SURE                         |      |

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### 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 --> [E-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	

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**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): _____                               |

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

149-159:b

**INTERVIEWER: CIRCLE ALL  
MENTIONED**

**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)    |

150

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 |

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### 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   |      |  |

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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                           |
| 05 | 20 YEARS OLD OR OLDER                     |
| 06 | AS OLD AS THE HOUSE/ORIGINAL<br>EQUIPMENT |
| 96 | DON'T KNOW                                |

168-  
169

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<br>FOR RESPONDENT'S HOME ONLY. |
|   | [IF HOMEOWNER] --> [B-15];                                   |
|   | [IF NOT HOMEOWNER] --> [B-17]                                |
| 6 | DON'T KNOW --> [B-17]  |

170

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                    |
| 6 | DON'T KNOW --> [B-17] |

171

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<br>SERVING YOUR NEIGHBORHOOD |
| 02 | BOTTLED GAS (LPG OR PROPANE)                            |
| 03 | FUEL OIL  |
| 04 | KEROSENE OR COAL OIL                                    |
| 05 | ELECTRICITY   |
| 06 | COAL OR COKE  |
| 07 | WOOD  |
| 08 | SOLAR COLLECTORS  |
| 21 | OTHER (SPECIFY): _____                                  |
| 96 | DON'T KNOW  |

172-  
173

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**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-18]  
 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-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  
 00 NO ADDITIONAL EQUIPMENT

210-  
217

---> [B-21]

218-  
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        | 233 |
| 0 NO         |     |
| 6 DON'T KNOW |     |

**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   | 235- |
| 02 BOTTLED GAS (LPG OR PROPANE) | 236  |
| 03 FUEL OIL                     |      |
| 04 KEROSENE OR COAL OIL         |      |
| 05 ELECTRICITY                  |      |
| 06 COAL OR COKE                 |      |
| 07 WOOD                         |      |
| 08 SOLAR COLLECTORS             |      |
| 21 OTHER (SPECIFY): _____       |      |
| 00 NO BACKUP FUEL               |      |
| 96 DON'T KNOW                   |      |

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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?
- |                 |     |
|-----------------|-----|
| 1 YES           | 237 |
| 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.)
- |                      |     |
|----------------------|-----|
| 1 WOOD HEATING STOVE | 238 |
| 2 FIREPLACE          | 239 |
| 3 FIREPLACE INSERT   | 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.
- |  |     |
|--|-----|
| 1 A FEW LOGS OR SCRAPS                           | 241 |
| 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                               |     |
- ↓
- WRITE IN  
AMOUNT HERE:  CORDS
- 242-244

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)?
- |  |     |
|--|-----|
| 1 Almost continuously  | 245 |
| 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?
- |       |     |
|-------|-----|
| 1 YES | 246 |
| 0 NO  |     |

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### 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	<input type="text"/>	247-
FAHRENHEIT:	<input type="text"/>	248

96 HEAT TURNED OFF

b. During the day, when no one is at home?

DEGREES	<input type="text"/>	249-
FAHRENHEIT:	<input type="text"/>	250

96 HEAT TURNED OFF

c. During sleeping hours?

DEGREES	<input type="text"/>	251-
FAHRENHEIT:	<input type="text"/>	252

96 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]	254-
2 WOULD LIKE WARMER	253
3 WOULD LIKE COOLER	

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

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**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?

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

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

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      264  
 6 DON'T KNOW ---> [C-8]

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                              | 265- |
| 04 10-19 YEARS                            | 266  |
| 05 20 YEARS OR MORE                       |      |
| 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         |     |
| 6 DON'T KNOW | 268 |

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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 --> [DNE]

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

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## **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<br>0 NO --> [D-13]   | 310         |
| 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:<br><br>95 OR ENTIRE HOUSE/APARTMENT   | 311-312     |
| <b>INTERVIEWER: SEE AIR-CONDITIONED ROOMS IN GLOSSARY</b>   |  |             |
| D-3. Does your (house/apartment) have central air conditioning equipment?   | 1 YES<br>0 NO --> [D-8]  | 313         |
| <b>IF "YES" ON Q. D-3, ASK:</b>   |  |             |
| D-4. What kind of fuel does it use -- gas from underground pipes, bottled gas, or electricity?  | 01 GAS FROM UNDERGROUND PIPES<br>02 BOTTLED GAS, LPG, OR PROPANE<br>05 ELECTRICITY<br>96 DON'T KNOW  | 314-<br>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<br>1 TURNED ON ONLY A FEW DAYS OR NIGHTS WHEN REALLY NEEDED<br>2 TURNED ON QUITE A BIT<br>3 TURNED ON JUST ABOUT ALL SUMMER<br>5 OTHER (SPECIFY):       | 316         |
| 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]<br>0 NO, A/C IS FOR RESPONDENT'S HOME ONLY<br>6 DON'T KNOW --> [D-8]                          | 317         |
| <b>IF "NO" ON Q. D-6, ASK:</b>  |  |             |
| D-7. Please turn to Exhibit 15. About how old is your central air conditioning equipment?   | 01 LESS THAN 2 YEARS OLD<br>02 2-4 YEARS OLD<br>03 5-9 YEARS OLD<br>04 10-19 YEARS OLD<br>05 20 YEARS OR OLDER<br>06 AS OLD AS THE HOUSE/ORIGINAL EQUIPMENT<br>96 DON'T KNOW | 318-<br>319 |
| <b>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.</b> |  |             |

**1990 Residential Energy Consumption Survey  
Form EIA-457A**

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D-8. Do you have any wall or window unit air conditioners?

1 YES  
0 NO  $\Rightarrow$  [ ]

320

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):

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).

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

- 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

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

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### 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)                         | 336- |
| 03 FUEL OIL   | 337  |
| 04 KEROSENE OR COAL OIL                                 |      |
| 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: READ AND CIRCLE "YES" OR "NO" FOR EACH ITEM

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

#### 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] |  |  |

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                              |     |
|   | 3 SOME OR VERY LITTLE                     | 345 |
|   | 4 USED ONLY FOR SNACKS OR DEFROSTING FOOD |     |
|   | 6 DON'T KNOW                              |     |

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

### 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

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

### 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            | 354 |
| 2 TWO            |     |
| 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?

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

	SECOND MOST-USED REFRIGERATOR	FIRST MOST-USED REFRIGERATOR
LESS THAN 2 YEARS .....	1 .....	1 .....
2-4 YEARS .....	2 .....	2 .....
5-9 YEARS .....	3 .....	3 .....
10-19 YEARS .....	4 .....	4 .....
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 .....
TWO DOORS - SIDE BY SIDE .....	4 .....	4 .....
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 .....
19-22 CUBIC FEET .....	4 .....	4 .....
23 CUBIC FEET OR MORE .....	5 .....	5 .....
DON'T KNOW .....	6 .....	6 .....

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

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F-5. Has the refrigeration unit (the cooling equipment) been repaired in the past year?

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

YES .....	1 .....	1
NO .....	0 .....	361
NOT SURE .....	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 .....	363
NO WORKING FREEZER SECTION .....	3 .....	364

F-7. Do you use this refrigerator all year round?

YES .....	1 .....	1
NO .....	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 .....	367
7-9 MONTHS .....	3 .....	368
10-12 MONTHS .....	4 .....	4

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

**1990 Residential Energy Consumption Survey**  
**Form EIA-457A**

Form EIA-457A (1990)

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

1 YES  
0 NO  $\Rightarrow$  [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
- 5 20 YEARS OR OLDER
- 6 DON'T KNOW

372

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).

**ITEM** YES NO

- |                                      |         |   |     |
|--------------------------------------|---------|---|-----|
| 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 |

**1990 Residential Energy Consumption Survey**  
**Form EIA-457A**

Form EIA-457A (1990)

407-408:04

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".		
--	--	--

ITEM	YES	NO
a. Refrigerator.....	1 .....	0
b. Central Air Conditioner.....	1 .....	0
c. Window Air Conditioner.....	1 .....	0
d. Freezer.....	1 .....	0
e. Heat Pump.....	1 .....	0
f. Central Furnace (Other than Heat Pump).....	1 .....	0
g. Water Heater.....	1 .....	0
h. Automobile.....	1 .....	0

418

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

NUMBER:

INTERVIEWER: IF <u>NONE</u> , 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

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

### 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?

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

- 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 ELECTRICITY 425
- 06 COAL OR COKE
- 07 WOOD
- 08 SOLAR COLLECTORS
- 21 OTHER (SPECIFY): \_\_\_\_\_

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 ELECTRICITY 428
- 06 COAL OR COKE
- 07 WOOD
- 08 SOLAR COLLECTORS
- 21 OTHER (SPECIFY): \_\_\_\_\_

96 DON'T KNOW

**1990 Residential Energy Consumption Survey  
Form EIA-457A**

Form EIA-457A (1990)

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

429

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

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

三

LISX

430-432

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

### 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.

**1990 Residential Energy Consumption Survey**  
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Form EIA-457A (1990)

**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<br>0 NO --> [H-8]<br>6 DON'T KNOW --> [H-8]   | 439         |
| <b>IF "YES" ON Q. H-5, ASK:</b>   |   |             |
| H-6. About how many deliveries does your household usually get in a year?   | NUMBER OF DELIVERIES: [ ]   | 440-<br>441 |
| H-7. How many different fuel companies delivered fuel oil to you in the last 12 months?   | 1 ONE<br>2 TWO<br>3 THREE OR MORE<br>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<br>2 100-499 GALLONS PER YEAR<br>3 500-999 GALLONS PER YEAR<br>4 1,000 OR MORE GALLONS PER YEAR | 443<br>444  |

**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<br>0 NO<br>6 DON'T KNOW                     | INSTRUCTIONS BEFORE [H-12] 444 |
| <b>IF "YES" ON Q. H-9, ASK:</b>  |   |                                |
| H-10. About how many deliveries does your household usually get in a year?     | NUMBER OF DELIVERIES: [ ]                         | 445-<br>446                    |
| H-11. How many different companies delivered LPG to you in the last 12 months? | 1 ONE<br>2 TWO<br>3 THREE OR MORE<br>6 DON'T KNOW | 447                            |

**1990 Residential Energy Consumption Survey**  
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**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]  
 6 DON'T KNOW --> [H-15]

448

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

H-13. About how many deliveries does your household usually get in a year?

NUMBER  
OF  
DELIVERIES:

449-  
450

H-14. How many different fuel companies or stores delivered kerosene to you in the last 12 months?

- 1 ONE  
 2 TWO  
 3 THREE OR MORE  
 6 DON'T KNOW

451

H-15. Do you buy kerosene and bring it home, that is, cash and carry?

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

452

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

H-16. How many times in the past 12 months did you buy kerosene and bring it home?

NUMBER  
OF  
TIMES:

453-  
454

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?

- 1 1 GALLON  
 2 3 GALLONS  
 3 5 GALLONS  
 4 55 GALLONS  
 5 OTHER:  
 6 NOT SURE

455

H-18. About how much per gallon did you pay for kerosene, on the average?

\$ . . . PER GALLON --> [I-1]  
 6 NOT SURE

456-  
458

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

H-19. About how much did you pay for kerosene each time you bought it?

\$ . . . IN TOTAL  
 6 NOT SURE

459-  
463

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

### **Section I: Fuel Bills**

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?

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?

**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.)

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.)

INTERVIEWER: IF USE OF ANY FUEL IS PAID BY HOUSEHOLD (Q. H-1 ON FOLDOUT PAGE), CONTINUE WITH SECTION I.

1 YES	464
0 NO	
6 DON'T KNOW	

1 YES --- BAYS FOR NON-HH PURPOSES	
0 NO ---> [I-11]	
6 DON'T KNOW ---> [I-10]	465

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

01 GAS FROM UNDERGROUND PIPES SERVING YOUR NEIGHBORHOOD	470-
02 BOTTLED GAS (LPG OR PROPANE) ---> [I-6]	475
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.

**1990 Residential Energy Consumption Survey**  
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**IF "GAS FROM UNDERGROUND PIPES"**  
**ON Q. I-4, ASK:**

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?

507-508:05

- |   |                            |     |
|---|----------------------------|-----|
| 0 | VERY LITTLE (LESS THAN 5%) |     |
| 1 | 1/4 (5-33%)                | 510 |
| 2 | 1/2 (34-66%)               |     |
| 3 | 3/4 (67-95%)               |     |
| 4 | ALL (96-100%)              |     |

**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%)                | 511 |
| 2 | 1/2 (34-66%)               |     |
| 3 | 3/4 (67-95%)               |     |
| 4 | ALL (96-100%)              |     |

**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%)                | 512 |
| 2 | 1/2 (34-66%)               |     |
| 3 | 3/4 (67-95%)               |     |
| 4 | ALL (96-100%)              |     |

**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%)                | 513 |
| 2 | 1/2 (34-66%)               |     |
| 3 | 3/4 (67-95%)               |     |
| 4 | ALL (96-100%)              |     |

**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%)                | 514 |
| 2 | 1/2 (34-66%)               |     |
| 3 | 3/4 (67-95%)               |     |
| 4 | ALL (96-100%)              |     |

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

### 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  
0 AUTHORIZATION FORM NOT SIGNED--INTERVIEWER, EXPLAIN BELOW:

515

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### 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.

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

IF BILL IS IN ANOTHER NAME,  
ASK:

I-12. What is that name and address?

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

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

BILLING NAME: \_\_\_\_\_

STREET ADDRESS: \_\_\_\_\_

CITY AND STATE: \_\_\_\_\_

ZIP CODE: \_\_\_\_\_

1 SPOUSE  
2 PARENT/GRANDPARENT  
3 SIBLING  
4 CHILD/GRANDCHILD 517  
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 PIERS)

ACCOUNT NUMBER: \_\_\_\_\_

7 REFUSED  
8 NOT AVAILABLE 518

ELECTRIC COMPANY

ACCOUNT NUMBER: \_\_\_\_\_

7 REFUSED  
8 NOT AVAILABLE 519

FUEL OIL

ACCOUNT NUMBER: \_\_\_\_\_

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

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### **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:** John Doe

**STREET ADDRESS:** \_\_\_\_\_

CITY OR TOWN/STATE/ZIP CODE:

TELEPHONE NUMBER: (AREA CODE )

INTERVIEWER: IF RESPONDENT LIVES IN AN APARTMENT COMPLEX OR

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: \_\_\_\_\_

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### 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.**

		USE FOR Q. K-1 AND K-2				USE FOR Q. K-3			
PERSON NUMBER	WHO IS RESPONDENT?	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	572-75 607-08:0
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

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

669-  
670

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- **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.)

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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:	<input type="text"/>	671-
	<input type="text"/>	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	07 SEVENTH	
02	SECOND	08 EIGHTH	673-
03	THIRD	09 NINTH	
04	FOURTH	10 TENTH	674
05	FIFTH	11 ELEVENTH	
06	SIXTH	12 TWELFTH	

COLLEGE (ACADEMIC YEARS)

13 C1	16 C4
14 C2	17 C5
15 C3	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	576
2	BLACK	
3	AMERICAN INDIAN, ALASKAN NATIVE	
4	ASIAN, PACIFIC ISLANDER	
5	OTHER (SPECIFY): _____	

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

1	YES	
0	NO	677

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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.

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

707-708:07

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

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- 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	22 T \$38,000 - \$39,999	-> [N-1]	
02 B \$ 3,000 - \$ 3,999	23 U \$40,000 - \$49,999		
03 C \$ 4,000 - \$ 4,999	24 V \$50,000 - \$74,999		
04 D \$ 5,000 - \$ 5,999	25 W \$75,000 OR OVER		
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	---> [L-1]		
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			

96 DON'T KNOW      ---> [PROBE]  
97 REFUSED

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	721
2 OVER \$35,000	---> [M-1]
6 DON'T KNOW	
7 REFUSED	

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### 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  
energy assistance program?

1 YES  
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:

	YES	NO	DON'T KNOW	
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.

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IF "YES" FOR ANY ITEM IN Q. L-2, ASK:  
L-3. Please describe this help.

**DESCRIPTION:**

IF "YES" ON Q. L-26 (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                              73.2--  
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 striping 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  
 6 DON'T KNOW

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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	0	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

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**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 ---> (E-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

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### 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
- 2 Doors not tight
- 3 Inadequate wall insulation
- 4 Inadequate ceiling insulation
- 5 Inadequate caulking
- 6 DON'T KNOW

761-765

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%)
- 3 3/4 (67-95%)
- 4 ALL (96-100%)
- 6 DON'T KNOW

767

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
- 6 DON'T KNOW

768

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

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

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

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

769

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 since  
September, 1987?

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

770

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.

	YES	NO	DON'T KNOW	
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

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

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

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

1 YES  
0 NO --> M=12

776

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

777

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

M-1

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

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

778

807-808:08

## **OTHER CONSERVATION MEASURES**

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

IN DON'T  
YES NO PROCESS KNOW

a. An automatic set-back or clock thermostat?

1      0      2      5      810

b. Heat pump?

1 6 2 811

### **6. Wood-burning stove?**

3 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84 86 88 90 92 94 96 98 100 102 104 106 108 110 112 114 116 118 120 122 124 126 128 130 132 134 136 138 140 142 144 146 148 150 152 154 156 158 160 162 164 166 168 170 172 174 176 178 180 182 184 186 188 190 192 194 196 198 200 202 204 206 208 210 212 214 216 218 220 222 224 226 228 230 232 234 236 238 240 242 244 246 248 250 252 254 256 258 260 262 264 266 268 270 272 274 276 278 280 282 284 286 288 290 292 294 296 298 299 300

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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 --> [M-14.]

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

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**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 FOLDOC 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

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### 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 MIXED 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.

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**SECTION O BEGINS ON THE NEXT PAGE**

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### Section O: Vehicles

ASK EVERYONE

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

Now some questions about cars.

- O-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 O-1, ASK:  
O-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 WHITE PAGE.

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

### INTERVIEWER:

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

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

Q. O-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. O-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.

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

### 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  
3 REMAINED THE SAME 828

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:

0 NONE

830

ROOMS CONTINUED ON NEXT PAGE

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

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  
0 NO

835

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  
4 \$5,000 TO \$9,999  
5 \$10,000 OR MORE  
6 DON'T KNOW

836

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

### GARAGE

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

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      0 NO --> [P-11]      838

#### 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      3 USUALLY      2 OCCASIONALLY      1 ALMOST NEVER      0 NEVER      839

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

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

#### 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  
2 PART  
0 NONE      845

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

### MEASUREMENTS

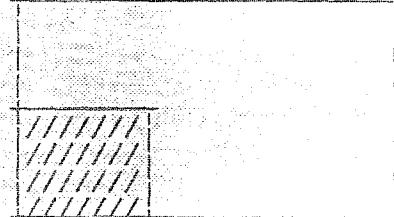
#### ASK EVERYONE

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

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

### 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	56	55-56	57-58	59
						60	60-61	62-63	64

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

### BASEMENT OF HOME/APARTMENT

<input type="checkbox"/> SINGLE-FAMILY, MOBILE HOME, TOWNHOUSE  <input type="checkbox"/> BASEMENT <input type="checkbox"/> HEATED-->DRAW <input type="checkbox"/> UNHEATED-->SHADE	<input type="checkbox"/> APARTMENT IN 2-4 UNIT BUILDING  <input type="checkbox"/> BASEMENT -- ONLY THAT PART THAT IS FOR EXCLUSIVE OR PRIMARY USE BY THE HOUSEHOLD. <input type="checkbox"/> HEATED-->DRAW <input type="checkbox"/> UNHEATED-->SHADE	<input type="checkbox"/> APARTMENT IN 5+ UNIT BUILDING  <input type="checkbox"/> 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.

<input type="checkbox"/> GARAGE (BASEMENT LEVEL AND ATTACHED) <input type="checkbox"/> HEATED-->DRAW <input type="checkbox"/> 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  
OUTSIDE OR INSIDE MEASURE- [ ] INSIDE  
MENTS? [ ] OTHER: (SPECIFY) \_\_\_\_\_
2. DID YOU SHADE AND INCLUDE [ ] YES  
DIMENSIONS FOR UNHEATED AREAS? [ ] NO UNHEATED AREAS
3. DID YOU LABEL GARAGE 1-CAR, [ ] YES  
ETC.? [ ] NO GARAGE

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

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

### 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	M 21-22 23-24	25

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

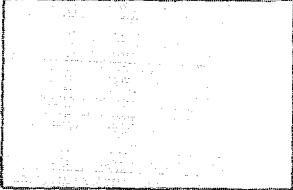
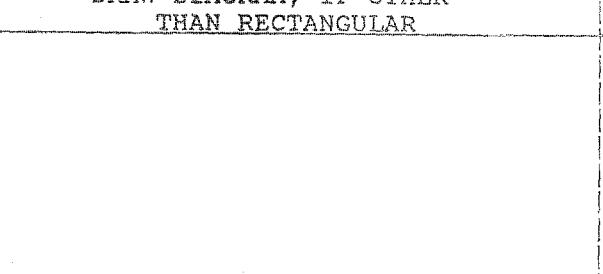
### FIRST FLOOR OF HOME/APARTMENT

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> SINGLE-FAMILY,<br>MOBILE HOME,<br>TOWNHOUSE<br><br><input type="checkbox"/> ENCLOSED PORCH<br><input type="checkbox"/> HEATED->DRAW<br><input type="checkbox"/> UNHEATED->SHADE | <input type="checkbox"/> APARTMENT IN<br>2-4 UNIT BUILDING<br><br><input type="checkbox"/> ENCLOSED PORCH<br><input type="checkbox"/> HEATED->DRAW<br><input type="checkbox"/> UNHEATED->SHADE | <input type="checkbox"/> APARTMENT IN<br>5+ UNIT BUILDING<br><br><input type="checkbox"/> ENCLOSED PORCH<br><input type="checkbox"/> HEATED->DRAW<br><input type="checkbox"/> UNHEATED->SHADE |
|--|--|---|

**OPEN PORCH: DO NOT INCLUDE**

- |   |                                 |                                 |
|---|---------------------------------|---------------------------------|
| <input type="checkbox"/> GARAGE (ATTACHED)<br><input type="checkbox"/> HEATED->DRAW<br><input type="checkbox"/> UNHEATED->SHADE | <b>GARAGE -- DO NOT INCLUDE</b> | <b>GARAGE -- DO NOT INCLUDE</b> |
|---|---------------------------------|---------------------------------|

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

<b>RECTANGULAR SHAPE</b>   <input type="checkbox"/>	<b>DRAW DIAGRAM, IF OTHER THAN RECTANGULAR</b>  
---	---

#### 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 NO ADDITIONAL FLOORS OR ATTIC,  
GO TO INSTRUCTION BEFORE O. P-14.**

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

### NOTES REGARDING SECOND FLOOR MEASUREMENTS

FOR OFFICE USE ONLY

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

**1990 Residential Energy Consumption Survey**  
**Form EIA-457A**

Form EIA-457A (1990)

**SECOND FLOOR OF HOME/APARTMENT**

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> SINGLE-FAMILY,<br>MOBILE HOME,<br>TOWNHOUSE<br>$\downarrow$<br><input type="checkbox"/> ENCLOSED PORCH<br><input type="checkbox"/> HEATED->DRAW<br><input type="checkbox"/> UNHEATED->SHADE | <input type="checkbox"/> APARTMENT IN<br>2-4 UNIT BUILDING<br>$\downarrow$<br><input type="checkbox"/> ENCLOSED PORCH<br><input type="checkbox"/> HEATED->DRAW<br><input type="checkbox"/> UNHEATED->SHADE | <input type="checkbox"/> APARTMENT IN<br>5+ UNIT BUILDING<br>$\downarrow$<br><input type="checkbox"/> ENCLOSED PORCH<br><input type="checkbox"/> HEATED->DRAW<br><input type="checkbox"/> UNHEATED->SHADE |
|--|--|---|

OPEN PORCH: DO NOT INCLUDE

- |   |                                     |                                     |
|---|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> GARAGE (ATTACHED)<br><input type="checkbox"/> HEATED->DRAW<br><input type="checkbox"/> UNHEATED->SHADE | <b>GARAGE -- DO NOT<br/>INCLUDE</b> | <b>GARAGE -- DO<br/>NOT INCLUDE</b> |
|---|-------------------------------------|-------------------------------------|

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

RECTANGULAR SHAPE	DRAW DIAGRAM, IF OTHER THAN RECTANGULAR
 <input type="checkbox"/> <input type="checkbox"/>	

INTERVIEWER: CHECK FINISHED DIAGRAM

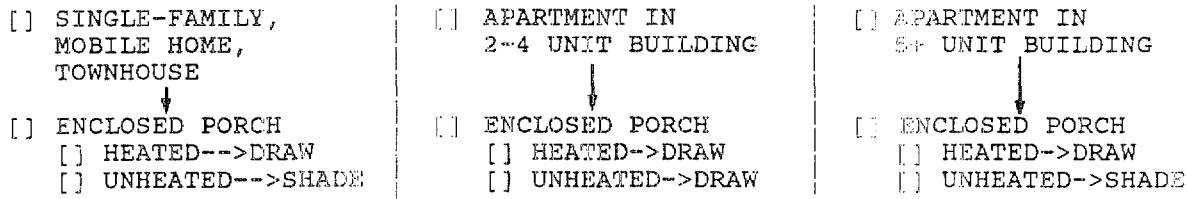
1. DID YOU BASE YOUR FIGURES ON [ ] OUTSIDE  
OUTSIDE OR INSIDE MEASURE- [ ] INSIDE  
MENTS? [ ] OTHER: (SPECIFY) \_\_\_\_\_
2. DID YOU SHADE AND INCLUDE [ ] YES  
DIMENSIONS FOR UNHEATED AREAS? [ ] NO UNHEATED AREAS
3. DID YOU LABEL GARAGE 1-CAR, [ ] YES  
ETC.? [ ] NO GARAGE

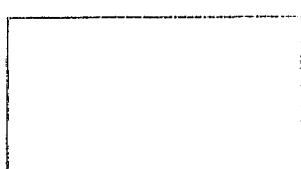
INTERVIEWER: IF NO ADDITIONAL FLOORS OR ATTIC,  
GO TO INSTRUCTION BEFORE Q. P-14.

**1990 Residential Energy Consumption Survey**  
**Form EIA-457A**

Form EIA-457A (1990)

**THIRD FLOOR OF HOME/APARTMENT**



<p align="center">RECTANGULAR SHAPE</p>  <p align="center">[ ]</p> <p align="center">[ ]</p>	<p align="center">DRAW DIAGRAM, IF OTHER THAN RECTANGULAR</p>
---	---

**INTERVIEWER: CHECK FINISHED DIAGRAM**

1. DID YOU BASE YOUR FIGURES ON  OUTSIDE  
 OUTSIDE OR INSIDE MEASUREMENTS?  INSIDE  
 OTHER (SPECIFY): \_\_\_\_\_
2. DID YOU SHADE AND INCLUDE  YES  
 DIMENSIONS FOR UNHEATED AREAS?  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

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

### ATTIC OF HOME

SINGLE-FAMILY  
MOBILE HOME,  
TOWNHOUSE

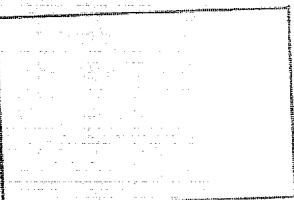
APARTMENT IN  
2-4 UNIT BUILDING

APARTMENT IN  
5+ UNIT BUILDING

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

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

ATTIC -- DO NOT  
INCLUDE

<p style="text-align: center;"><u>RECTANGULAR SHAPE</u></p> 	<p style="text-align: center;">DRAW DIAGRAM, IF OTHER THAN RECTANGULAR</p>
--	--

**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

Fir.	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

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

INTERVIEWER CHECK FOLDCUT 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.

### FOR OFFICE USE ONLY

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

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A (1990)

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:

AM

1056-1058

TIME INTERVIEW COMPLETED \_\_\_\_\_ PM LENGTH OF INTERVIEW: \_\_\_\_\_ MINUTES

INTERVIEWER'S SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

INTERVIEWER'S I.D. #: \_\_\_\_\_

1059-1064

**1990 Residential Energy Consumption Survey**  
**Form EIA-457A**

**FOLD OUT PAGE**

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 _____
b. For heating your home	1	0	1	2	5 _____
c. For air-conditioning (CENTRAL OR WINDOW/WALL UNITS)	1	0	1	2	5 _____
d. For cooking (INCLUDES MICROWAVE)	1	0	1	2	5 _____
e. For lighting and other appliance	1	0	1	2	5 _____
<u>Gas from underground pipes serving your neighborhood ...</u>					
f. For hot water	1	0	1	2	5 _____
g. For heating your home	1	0	1	2	5 _____
h. For central air-conditioning	1	0	1	2	5 _____
i. For cooking inside home	1	0	1	2	5 _____
j. For cooking on outdoor grill	1	0	1	2	5 _____
k. For other appliances (INCLUDE GAS DRYER AND GAS LIGHT HERE)	1	0	1	2	5 _____
<u>Bottled Gas, LPG, or Propane ...</u>					
l. For hot water	1	0	1	2	5 _____
m. For heating your home	1	0	1	2	5 _____
n. For central air-conditioning	1	0	1	2	5 _____
o. For cooking inside home	1	0	1	2	5 _____
p. For cooking on outdoor grill	1	0	1	2	5 _____
q. For other appliances (INCLUDE OUTSIDE GAS LIGHT HERE)	1	0	1	2	5 _____
<u>Fuel Oil ...</u>					
r. For hot water	1	0	1	2	5 _____
s. For heating your home	1	0	1	2	5 _____
t. For cooking and other uses	1	0	1	2	5 _____
<u>Kerosene ...</u>					
u. For hot water	1	0	1	2	5 _____
v. For heating your home	1	0	1	2	5 _____
w. For cooking and other uses	1	0	1	2	5 _____

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A  
(01/90)

Form Approval:  
OMB No.: 1905-0092  
Expires: May 31, 1993

--	--



### U.S. DEPARTMENT OF ENERGY SURVEY

#### Authorization Form for Residential Energy Consumption Survey

I hereby give permission to the company (companies) below to provide information to Response Analysis Corporation (or other designee of the U.S. Department of Energy) for confidential use in connection with their survey for the U.S. Department of Energy.

This authorization covers use of fuels (electricity, natural gas or LPG, fuel oil or kerosene) by my household from September 1, 1993 through December 31, 1993.

- 1) the total amount of fuels used by my household.
- 2) the total price charged for fuels by my household.

Companies are authorized to provide this information by monthly periods or by delivery date, whichever applies.

A photocopy of this authorization may be accepted with the same authority as the original.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

PLEASE  
PRINT

YOUR NAME		
ADDRESS APT. NO.		
CITY OR POST OFFICE	STATE	ZIP CODE
TELEPHONE AREA CODE: NUMBER:		

PLEASE COMPLETE ONE BLOCK BELOW FOR EACH FUEL USED BY YOUR HOUSEHOLD  
(IF MORE THAN ONE SUPPLIER OF A PARTICULAR FUEL USE THE OTHER SIDE OF THIS SHEET)

ELECTRICITY →

PRINT FULL NAME OF ELECTRIC COMPANY	
LOCATION OF COMPANY (IF KNOWN) — CITY AND STATE	
TELEPHONE AREA CODE: NUMBER:	

GAS →

from underground pipes  
or LPG (bottled or tank gas)

PRINT FULL NAME OF GAS COMPANY	
LOCATION OF COMPANY (IF KNOWN) — CITY AND STATE	
TELEPHONE AREA CODE: NUMBER:	

FUEL OIL →

or KEROSENE

PRINT FULL NAME OF OIL COMPANY	
LOCATION OF COMPANY (IF KNOWN) — CITY AND STATE	
TELEPHONE AREA CODE: NUMBER:	

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Form EIA-457A  
(01/90)

GAS

LPG (bottled  
or tank gas)

### SECOND GAS COMPANY

PRINT FULL NAME OF GAS COMPANY

LOCATION OF COMPANY (IF KNOWN) - CITY AND STATE

TELEPHONE  
AREA CODE: \_\_\_\_\_ NUMBER: \_\_\_\_\_

### THIRD GAS COMPANY

PRINT FULL NAME OF GAS COMPANY

LOCATION OF COMPANY (IF KNOWN) - CITY AND STATE

TELEPHONE  
AREA CODE: \_\_\_\_\_ NUMBER: \_\_\_\_\_

FUEL OIL

or KEROSENE

### SECOND FUEL OIL/KEROSENE COMPANY

PRINT FULL NAME OF OIL COMPANY

LOCATION OF COMPANY (IF KNOWN) - CITY AND STATE

TELEPHONE  
AREA CODE: \_\_\_\_\_ NUMBER: \_\_\_\_\_

### THIRD FUEL OIL/KEROSENE COMPANY

PRINT FULL NAME OF OIL COMPANY

LOCATION OF COMPANY (IF KNOWN) - CITY AND STATE

TELEPHONE  
AREA CODE: \_\_\_\_\_ NUMBER: \_\_\_\_\_

# 1990 Residential Energy Consumption Survey

## Form EIA-457A

Location # \_\_\_\_\_

Housing Unit # \_\_\_\_\_ 1207-1208-12

### VEHICLES PAGE

1207-1308-13

VEHICLE #

QUESTION	VEHICLE #1	VEHICLE #2	VEHICLE #3	VEHICLE #4
0-3. What is the make?	0-3. MAKE 1212-13	0-3. MAKE 1243-44	0-3. MAKE 1312-13	0-3. MAKE 1343-44
0-4. What is the model name? (SEE INSTRUCTIONS)	0-4. MODEL 1224-15	0-4. MODEL 1245-46	0-4. MODEL 1314-15	0-4. MODEL 1345-46
0-5. What is the model year?	0-5. 19 1216-17	0-5. 19 1247-48	0-5. 19 1328-17	0-5. 19 1347-48
0-6. Please turn to Exhibit 52. What type of vehicle is that? (CIRCLE ONE). WRITE IN ADDITIONAL IDENTIFYING INFORMATION ON BACK OF PAGE.	0-6. 01 CAR 02 STATION WAGON 03 LARGE VAN 1218-19 04 MINI VAN 05 PICKUP TRUCK 06 JEEP/SIMILAR VEH. 21 OTHER (SPECIFY):	0-6. 01 CAR 02 STATION WAGON 03 LARGE VAN 1249-50 04 MINI VAN 05 PICKUP TRUCK 06 JEEP/SIMILAR VEH. 21 OTHER (SPECIFY):	0-6. 01 CAR 02 STATION WAGON 03 LARGE VAN 1318-19 04 MINI VAN 05 PICKUP TRUCK 06 JEEP/SIMILAR VEH. 21 OTHER (SPECIFY):	0-6. 01 CAR 02 STATION WAGON 03 LARGE VAN 1349-50 04 MINI VAN 05 PICKUP TRUCK 06 JEEP/SIMILAR VEH. 21 OTHER (SPECIFY):
0-7. Does it have an air conditioner?	0-7. 1 YES 1220 0 NO	0-7. 1 YES 1251 0 NO	0-7. 1 YES 1329 0 NO	0-7. 1 YES 1351 0 NO
0-8. Did you get this vehicle within the last 12 months or did you get it before that? (CIRCLE ONE, THEN ASK APPROPRIATE FOLLOW-UP QUEST.)	0-8. 1 WITHIN PAST 12 MONTHS 2 BEFORE THAT 1222	0-8. 1 WITHIN PAST 12 MONTHS 2 BEFORE THAT 1252	0-8. 1 WITHIN PAST 12 MONTHS 2 BEFORE THAT 1322	0-8. 1 WITHIN PAST 12 MONTHS 2 BEFORE THAT 1352
IF "WITHIN PAST 12 MONTHS," ASK:	1222-25	1253-56	1322-25	1353-56
0-9. In what month and year did you get it?	0-9. MONTH: 19 YEAR: 19			
0-10. Approximately how many miles has it been driven since you obtained it? (ASK Q. 0-12 NEXT)	0-10. MILES 1226-30 1231-35	0-10. MILES 1257-61 1262-66	0-10. MILES 1326-30 1331-35	0-10. MILES 1357-61 1362-66
IF "BEFORE THAT," ASK:				
0-11. Approximately how many miles has it been driven in the past 12 months?	0-11. MILES PAST 12 MO.			
0-12. Is the vehicle here now? (CIRCLE ANSWER, READ APPROPRIATE FOLLOW-UP QUESTION).	1 YES, VEHICLE HERE 0 NO - (GO TO "a")	1 YES, VEHICLE HERE 0 NO - (GO TO "a")	1 YES, VEHICLE HERE 0 NO - (GO TO "a")	1 YES, VEHICLE HERE 0 NO - (GO TO "a")
IF "YES," READ:				
a. I would like to get the Vehicle Identification No. and odometer reading directly from the vehicle. I'll do that at the end of the interview. THEN, ASK QUESTIONS 0-3 THRU 0-12 FOR NEXT VEHICLE.	ODOMETER (CIRCLE ONE): 1 ACTUAL READING 2 ESTIMATE 1242	ODOMETER (CIRCLE ONE): 1 ACTUAL READING 2 ESTIMATE 1273	ODOMETER (CIRCLE ONE): 1 ACTUAL READING 2 ESTIMATE 1342	ODOMETER (CIRCLE ONE): 1 ACTUAL READING 2 ESTIMATE 1373
b. I would like to record the Vehicle Identification No. for this vehicle. Do you know what a Vehicle Identification No. is? (IF DON'T KNOW, EXPLAIN VIN BY SHOWING EXHIBIT 53.)	b. GET VIN # FROM DOCUMENTS, WRITE IN BELOW	b. GET VIN # FROM DOCUMENTS, WRITE IN BELOW	b. GET VIN # FROM DOCUMENTS, WRITE IN BELOW	b. GET VIN # FROM DOCUMENTS, WRITE IN BELOW
REMEMBER TO GO BACK TO THE TOP FOR NEXT VEHICLE				

VIN #1: 7 VIN REFUSED 8 VIN NOT OBTAINED 1409

1410

1426

VIN #2: 7 VIN REFUSED 8 VIN NOT OBTAINED 1427

1428

1446

VIN #3: 7 VIN REFUSED 8 VIN NOT OBTAINED 1445

1446

1462

VIN #4: 7 VIN REFUSED 8 VIN NOT OBTAINED 1463

1464

1480

CHECK Q. 0-12 IF ANY | YES |, PUT PAGE AT BACK AND GET VINS AND ODOMETER READINGS FROM VEHICLE(S) AT END OF INTERVIEW.

**1990 Residential Energy Consumption Survey**  
**Nationwide Survey on Household Energy Use (Mail)**  
**Form EIA-457B**

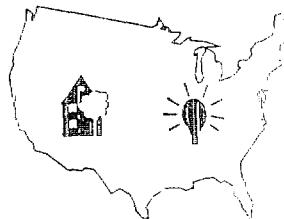
Form EIA-457 (1990)



Form Approval:  
OMB No.: 1905-0092  
Expires: May 31, 1993

Please complete this form and return it:

Response Analysis  
377 Wall Street  
P.O. Box 158  
Princeton, N.J. 08542



This survey is being conducted for the U.S. Department of Energy by Response Analysis Corporation. The survey is voluntary and is 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.

**Housing Unit**

1. Do you or members of your household own or rent your present home? (Please mark one box.)
- 1  Owned or being bought      119  
2  Rented  
3  Occupied without payment of rent
2. What type of home is it? (Please mark one box.)
- 1  Mobile home or trailer  
2  Single-family house  
4  Apartment in house or building divided into 2, 3, or 4 apartments      120  
5  Apartment in building of 5 or more apartments  
6  Other (PLEASE SPECIFY): \_\_\_\_\_
3. About when was your present home (house or apartment building) first built? (Please mark the approximate year.)
- 01  Before 1940 05  1970-1979  
02  1940-1949 06  1980-1984  
03  1950-1959 07  1985-1989      121-22  
04  1960-1969 08  1990-1991
4. When did you move to your present home?
- 01  Before 1940 05  1970-1979  
02  1940-1949 06  1980-1984  
03  1950-1959 07  1985-1989  
04  1960-1969 08  1990-1991      123-24
5. If you moved to your present home in 1987 or later: In what month and year did you move to your present home?
- Month: \_\_\_\_\_ Year: \_\_\_\_\_      125-26
6. How many finished rooms are in your home? (Do not include bathrooms, closets, foyers, or laundry rooms. Include enclosed porches that are used year-round.)
- \_\_\_\_\_ Number of rooms      129-30

The code number at the right lets us know that your questionnaire has been returned.

**1990 Residential Energy Consumption Survey**  
**Nationwide Survey on Household Energy Use (Mail)**  
**Form EIA-457B**

**Main Heating Fuel**

7. Which fuel is used most to heat your home? (Please mark only one fuel.)
- 01  Gas from underground pipes serving the neighborhood      06  Coal or Coke  
 02  Bottled Gas (LPG or Propane)      07  Wood  
 03  Fuel Oil      08  Solar Collectors      131-32  
 04  Kerosene or Coal Oil      21  Other Fuel (PLEASE SPECIFY): \_\_\_\_\_  
 05  Electricity      00  No Fuel Used (If "No Fuel Used," please skip to question 9.)  
 96  Don't Know
8. How do you pay for your main heating fuel? (Please mark one answer.)
- 1  We pay directly to the utility or fuel company      133  
 2  The cost is included in the rent for our home (house or apartment)  
 6  Other (PLEASE SPECIFY): \_\_\_\_\_
9. What was the main fuel used to heat this house (apartment) in November of 1987? (Please mark one answer)
- 01  Gas from underground pipes serving the neighborhood      06  Coal or Coke  
 02  Bottled Gas (LPG or Propane)      07  Wood      134-35  
 03  Fuel Oil      08  Solar Collectors  
 04  Kerosene or Coal Oil      21  Other Fuel (PLEASE SPECIFY): \_\_\_\_\_  
 05  Electricity      00  No Fuel Used  
 96  Don't Know

**Water Heating Fuel**

10. Which fuel is used most by your household for heating water for washing? (Please mark one answer)
- 01  Gas from underground pipes serving the neighborhood      06  Coal or Coke  
 02  Bottled Gas (LPG or Propane)      07  Wood  
 03  Fuel Oil      08  Solar Collectors  
 04  Kerosene or Coal Oil      21  Other Fuel (PLEASE SPECIFY): \_\_\_\_\_  
 05  Electricity      00  No Fuel Used (If "No Fuel Used," please skip to question 12.)  
 96  Don't Know
11. How do you pay for your main water heating fuel. (Please mark one answer.)
- 1  We pay directly to the electric company      138  
 2  The cost is included in the rent for our home (house or apartment)  
 6  Other (PLEASE SPECIFY): \_\_\_\_\_

**1990 Residential Energy Consumption Survey**  
**Nationwide Survey on Household Energy Use (Mail)**  
**Form EIA-457B**

**Cooking Fuel**

12. Which fuel is used most for cooking by your household? (Please mark one answer)
- 01  Gas from underground pipes serving the neighborhood      05  Coal or Coke  
02  Bottled Gas (LPG or Propane)      07  Wood or Charcoal      139-40  
03  Fuel Oil      09  Other Fuel (PLEASE SPECIFY): \_\_\_\_\_  
04  Kerosene or Coal Oil      10  No Fuel Used (If "No Fuel Used," please skip to question 14.)  
05  Electricity
13. How do you pay for your main cooking fuel?
- 1  We pay directly to the utility or fuel company      141  
2  The cost is included in the rent for our home (house or apartment)  
6  Other (PLEASE SPECIFY): \_\_\_\_\_

---

**Air-Conditioning and Appliances**

14. Do you have air-conditioning in your home? (Please mark all answers that apply)
- 1  Yes, individual room units      142  
2  Yes, central electric air-conditioning  
3  Yes, central gas air-conditioning  
0  No (If "No," please skip to question 16.)
15. How do you pay for your air-conditioning costs?
- 1  We pay directly to the gas or electric company  
2  The cost is included in the rent for our home (house or apartment)      143  
6  Other (PLEASE SPECIFY): \_\_\_\_\_
16. How do you pay for your electricity costs (for lighting and household appliances other than air-conditioning)?
- 1  We pay directly to the gas or electric company  
2  The cost is included in the rent for our home (house or apartment)      144  
6  Other (PLEASE SPECIFY): \_\_\_\_\_

**1990 Residential Energy Consumption Survey**  
**Nationwide Survey on Household Energy Use (Mail)**  
**Form EIA-457B**

**Vehicles**

17. How many cars, trucks, vans, motor homes, or similar vehicles do you or other members of your household own or have the regular use of? (Include station wagons, passenger vans, cargo vans, jeeps, or similar vehicles and company vehicles kept at home. Do NOT count motorcycles or mopeds.)

Number of vehicles

145-46

None (If "None," please skip to question 22.)

Please describe each car, truck, van, motor home, or similar vehicle below. If you have more than four vehicles, describe the four used most by your household.

18. VEHICLE #1

Make: \_\_\_\_\_  
 Model Name: \_\_\_\_\_  
 Model Year: 19\_\_\_\_\_

147-60

161-74

175-76

- Type: 01  Car  
 02  Station wagon  
 03  Large van  
 04  Mini van  
 05  Pickup truck  
 06  Jeep/similar vehicle  
 21  Other (specify): \_\_\_\_\_

177-78

207-08:02

19. VEHICLE #2

Make: \_\_\_\_\_  
 Model Name: \_\_\_\_\_  
 Model Year: 19\_\_\_\_\_

209-22

223-36

237-38

- Type: 01  Car  
 02  Station wagon  
 03  Large van  
 04  Mini van  
 05  Pickup truck  
 06  Jeep/similar vehicle  
 21  Other (specify): \_\_\_\_\_

239-40

20. VEHICLE #3

Make: \_\_\_\_\_  
 Model Name: \_\_\_\_\_  
 Model Year: 19\_\_\_\_\_

241-54

255-68

269-70

- Type: 01  Car  
 02  Station wagon  
 03  Large van  
 04  Mini van  
 05  Pickup truck  
 06  Jeep/similar vehicle  
 21  Other (specify): \_\_\_\_\_

271-72

307-08:03

21. VEHICLE #4

Make: \_\_\_\_\_  
 Model Name: \_\_\_\_\_  
 Model Year: 19\_\_\_\_\_

309-22

323-36

337-38

- Type: 01  Car  
 02  Station wagon  
 03  Large van  
 04  Mini van  
 05  Pickup truck  
 06  Jeep/similar vehicle  
 21  Other (specify): \_\_\_\_\_

339-40

**1990 Residential Energy Consumption Survey  
Nationwide Survey on Household Energy Use (Mail)  
Form EIA-457B**

**For Statistical Purposes**

All information is confidential

22. How many people live in your household, including yourself? (Please count children as well as adults. Include all members of your household whether or not they are related to you.)

341-42

Number of people in household

23. Please describe the head of your household:

Age (years) 343-44

- 1  Female 345  
2  Male

- 1  Now married  
2  Widowed 346  
3  Divorced or separated  
4  Never married

24. What is the highest grade in school completed by the head of household?

- 01  Some grade school  
02  Grade school completed  
03  Some high school 347-48  
04  High school completed  
05  Some college (at least one year completed)  
06  College graduate  
07  Graduate school (at least one year completed)  
21  Other (PLEASE SPECIFY): \_\_\_\_\_

25. Please mark the box for the total combined income in the last 12 months of all members of your family (living in your household). Include income from all sources - before taxes and deductions.

- 01  Less than \$5,000  
02  \$ 5,000 - \$ 9,999  
03  \$10,000 - \$14,999  
04  \$15,000 - \$19,999  
05  \$20,000 - \$24,999  
06  \$25,000 - \$34,999  
07  \$35,000 - \$49,999  
08  \$50,000 or over 349-50

26. Are you .....

- 1  Head of household  
2  Husband or wife of head of household 351  
6  Other (PLEASE SPECIFY): \_\_\_\_\_

**1990 Residential Energy Consumption Survey**  
**Nationwide Survey on Household Energy Use (Mail)**  
**Form EIA-457B**

**PLEASE READ THIS IF YOU PAY DIRECTLY TO A COMPANY FOR ELECTRICITY, GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD, BOTTLED GAS, FUEL OIL, OR KEROSENE USED BY YOUR HOUSEHOLD.**

We hope you will help in the next phase of our survey by filling in the names of companies that supply your household and by signing the form on the following page. This will permit us to obtain accurate information on energy consumption.

Information on the amount and cost of fuels used by households in all parts of the United States is needed to help establish important national energy policies.

The information provided by you and by fuel companies will be used only in statistical summaries for the U.S. Department of Energy survey.

**PLEASE FOLD AND RETURN IN THE ENCLOSED ENVELOPE. POSTAGE IS PREPAID.  
THANK YOU VERY MUCH FOR YOUR HELP!**

**1990 Residential Energy Consumption Survey**  
**Nationwide Survey on Household Energy Use (Mail)**  
**Form EIA-457B**



**U.S. DEPARTMENT OF ENERGY SURVEY**

**Authorization Form for  
Residential Energy Consumption Survey**

I hereby give permission to the company (companies) below to provide information to Response Analysis Corporation (or other designee of the U.S. Department of Energy) for confidential use in connection with their survey for the U.S. Department of Energy.

This authorization covers use of fuels (electricity, natural gas or bottled gas, fuel oil or kerosene) by my household from September 1, 1989 through December 31, 1993.

- 1) the total amount of fuels used by my household.
- 2) the total price charged for fuels used by my household.

Companies are authorized to provide this information by monthly periods or by delivery date, whichever applies.

A photocopy of this authorization may be accepted with the same authority as the original.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

PLEASE  
PRINT

YOUR NAME		
ADDRESS		APT. NO.
CITY OR POST OFFICE	STATE	ZIP CODE
TELEPHONE AREA CODE: _____ NUMBER: _____		

**PLEASE COMPLETE ONE BLOCK BELOW FOR EACH FUEL USED BY YOUR HOUSEHOLD  
(IF MORE THAN ONE SUPPLIER OF A PARTICULAR FUEL USE THE OTHER SIDE OF THIS SHEET)**

ELECTRICITY →

PRINT FULL NAME OF ELECTRIC COMPANY		
LOCATION OF COMPANY (IF KNOWN) — CITY AND STATE		
TELEPHONE AREA CODE: _____ NUMBER: _____		

GAS →

from underground pipes  
or bottled gas (LPG or  
propane)

PRINT FULL NAME OF GAS COMPANY		
LOCATION OF COMPANY (IF KNOWN) — CITY AND STATE		
TELEPHONE AREA CODE: _____ NUMBER: _____		

FUEL OIL →  
or Kerosene

PRINT FULL NAME OF OIL COMPANY		
LOCATION OF COMPANY (IF KNOWN) — CITY AND STATE		
TELEPHONE AREA CODE: _____ NUMBER: _____		

**1990 Residential Energy Consumption Survey**  
**Nationwide Survey on Household Energy Use (Mail)**  
**Form EIA-457B**

We estimate that it will take 20 minutes to complete this questionnaire. Send comments regarding this estimate or any other aspects of this collection of information, including suggestions for reducing the length of this questionnaire, to the Energy Information Administration, Office of Statistical Standards EI-73, Mail Station 1H-023, 1000 Independence Avenue, S.W., Washington, D.C. 20585; and the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

**1990 Residential Energy Consumption Survey**  
*Rental Agents, Landlords, and Apartment Managers*  
**Form EIA-457C**

OMB No. 1905-0092  
Expires 5-31-93  
EIA-457C

TIME STARTED: \_\_\_\_ : \_\_\_\_ AM PM

Hello, this is \_\_\_\_\_ from Response Analysis Corporation in Princeton, N.J. I'm calling about the Department of Energy study on residential energy uses that we recently wrote you about. Your answers will be kept strictly confidential.

**IF LETTER NOT RECEIVED:** We will send you another copy and call back in a few days. 01-04

**VERIFY ADDRESS ON CONTROL CARD.** 05

1. I would like to get a brief description of the building at [GIVE ADDRESS, NOT NAME] as it was as of November 1990. 06:6  
07-08

10-15

10-17

18-19

2. Was there a group of five or more housing units in the same building, a group of two to four units in the same building, a single unit in a building by itself, or would you describe it in some other way?

- 4 5 OR MORE UNITS IN BUILDING -- ASK Qs. 3a and 3b  
3 2 TO 4 UNITS IN BUILDING -- ASK Q. 3a  
2 SINGLE UNIT IN BUILDING BY ITSELF -- SKIP TO Q. 4  
5 OTHER (DESCRIBE): \_\_\_\_\_

22

**IF "2-4 UNITS" OR "5 OR MORE UNITS," ASK:**

3a. How many residential units were in the building? NUMBER OF UNITS: \_\_\_\_\_ 23-25

**IF "5 OR MORE UNITS," ASK:**

3b. How many floors (stories) were in the building? NUMBER OF FLOORS: \_\_\_\_\_ 26-27

4. About when was the (house/building) built? (IF NOT KNOWN, ASK FOR "BEST ESTIMATE.")

- |    |             |    |             |       |
|----|-------------|----|-------------|-------|
| 01 | BEFORE 1940 | 07 | 1985 - 1986 |       |
| 02 | 1940 - 1949 | 08 | 1987        |       |
| 03 | 1950 - 1959 | 09 | 1988        | 28-29 |
| 04 | 1960 - 1969 | 10 | 1989        |       |
| 05 | 1970 - 1979 | 11 | 1990        |       |
| 06 | 1980 - 1984 | 12 | 1991        |       |

**1990 Residential Energy Consumption Survey**  
*Rental Agents, Landlords, and Apartment Managers*  
**Form EIA-457C**

5. These next questions are about [IDENTIFY SPECIFIC HOUSING UNIT]. As of November 1990, what was the main fuel used for home heating?

- 01 GAS FROM UNDERGROUND PIPES SERVING THE NEIGHBORHOOD -- SKIP TO Q. 7      30-31  
02 BOTTLED GAS (LPG OR PROPANE) -- SKIP TO Q. 7  
03 FUEL OIL -- SKIP TO Q. 7  
04 KEROSENE OR COAL OIL -- SKIP TO Q. 7  
05 ELECTRICITY -- GO TO Q. 6  
06 COAL OR COKE -- SKIP TO Q. 8  
07 WOOD -- SKIP TO Q. 8  
08 SOLAR COLLECTORS -- SKIP TO Q. 12  
21 OTHER (SPECIFY): \_\_\_\_\_ -- SKIP TO Q. 9  
00 NO SPACE HEATING FUEL USED -- SKIP TO Q. 14

**IF ELECTRICITY USED FOR HOME HEATING, ASK:**

6. What was the main heating equipment? Was it built-in electric units, heat pump, central warm-air furnace, portable heaters, or what?

- 05 BUILT-IN ELECTRIC UNITS  
04 HEAT PUMP(S)  
03 CENTRAL WARM AIR-FURNACE (WITH DUCTS)  
10 PORTABLE HEATERS  
21 OTHER (SPECIFY): \_\_\_\_\_

SKIP TO Q. 9

**IF UNDERGROUND GAS, BOTTLED GAS, FUEL OIL, KEROSENE OR COAL OIL USED FOR HOME HEATING, ASK:**

32-33

7. What was the main heating equipment? Was it radiant heating (hot water running through a slab floor); steam or hot water system with radiators; a central warm-air furnace; a floor, wall or pipeless furnace; room heaters; or what?

- 01 HOT WATER PIPES IN SLAB FLOOR (RADIANT HEATING)  
02 STEAM OR HOT WATER SYSTEM WITH RADIATORS OR CONVECTORS  
03 CENTRAL WARM-AIR FURNACE (WITH DUCTS)  
06 FLOOR, WALL, OR PIPELESS FURNACE  
07 ROOM HEATERS BURNING GAS, OIL, KEROSENE (NON-PORTABLE)  
11 PORTABLE KEROSENE HEATER(S)  
12 COOKING STOVE, RANGE, OR OVEN (USED TO HEAT HOME, AS WELL AS FOR COOKING)  
21 OTHER (SPECIFY): \_\_\_\_\_

SKIP TO Q. 9

**IF WOOD, COAL, OR COKE USED FOR HOME HEATING, ASK:**

8. What was the main heating equipment? Was it a steam or hot water system with radiators, a heating stove, a fireplace, or what?

- 02 STEAM OR HOT WATER SYSTEM WITH RADIATORS OR CONVECTORS  
08 HEATING STOVE  
09 FIREPLACE(S)  
21 OTHER (SPECIFY): \_\_\_\_\_

**1990 Residential Energy Consumption Survey**  
**Rental Agents, Landlords, and Apartment Managers**  
**Form EIA-457C**

9. Could this building switch its heating equipment (furnaces or boilers) to a different main heating fuel within one week's time without substantially reducing the area heated or the temperature maintained in the heated areas?

- 1 YES -- ASK Q. 10  
 0 NO \_\_\_\_\_ -- SKIP TO Q. 11  
 6 DON'T KNOW --

34

**IF "YES," FOR Q. 9., ASK:**

10. If the building did have to switch the main heating fuel within one week's time, what fuels could be used instead of [FUEL IN Q. 5]? (MARK ALL THAT APPLY).

- |                                |    |
|--------------------------------|----|
| [ ] GAS FROM UNDERGROUND PIPES | 35 |
| [ ] FUEL OIL                   | 36 |
| [ ] KEROSENE                   | 37 |
| [ ] ELECTRICITY                | 38 |
| [ ] RESIDUAL FUEL OIL          | 39 |
| [ ] DISTRICT STEAM             | 40 |
| [ ] DISTRICT HOT WATER         | 41 |
| [ ] OTHER (SPECIFY): _____     | 42 |

NOTE: DISTRICT STEAM OR HOT WATER IS STEAM OR HOT WATER FROM AN OUTSIDE SOURCE USED AS AN ENERGY SOURCE IN A BUILDING. THE STEAM OR HOT WATER IS PRODUCED IN A CENTRAL PLANT OR DISTRICT SYSTEM AND PIPED INTO THE BUILDING FOR SPACE HEATING, ABSORPTION COOLING, WATER HEATING, OR COOKING. IT MAY BE PURCHASED FROM A UTILITY OR PROVIDED BY A PHYSICAL PLANT IN A SEPARATE BUILDING THAT IS PART OF THE SAME FACILITY (FOR EXAMPLE, A HOSPITAL COMPLEX OR UNIVERSITY).

11. As of November 1990, was the main heating fuel paid for by the tenant or by the landlord?

- 1 TENANT  
 2 LANDLORD  
 5 OTHER (SPECIFY): \_\_\_\_\_

43

12. You say that [FUEL IN Q.5] was the main fuel used for home heating. Was any other fuel used for heating this apartment?

- 1 YES  
 0 NO -- SKIP TO Q. 14

44

**IF "YES," ASK:**

13. What was the other fuel used?

- |                                 |       |
|---------------------------------|-------|
| 01 GAS FROM UNDERGROUND PIPES   |       |
| 02 BOTTLED GAS (LPG OR PROPANE) |       |
| 03 FUEL OIL                     |       |
| 04 KEROSENE OR COAL OIL         |       |
| 05 ELECTRICITY                  | 45-46 |
| 06 COAL OR COKE                 |       |
| 07 WOOD                         |       |
| 08 SOLAR COLLECTIONS            |       |
| 21 OTHER (SPECIFY): _____       |       |

**1990 Residential Energy Consumption Survey**  
**Rental Agents, Landlords, and Apartment Managers**  
**Form EIA-457C**

14. As of November 1990, what was the main fuel used for heating water?

- 01 GAS FROM UNDERGROUND PIPES
- 02 BOTTLED GAS (LPG OR PROPANE)
- 03 FUEL OIL
- 04 KEROSENE OR COAL OIL
- 05 ELECTRICITY
- 06 COAL OR COKE
- 07 WOOD
- 08 SOLAR COLLECTIONS
- 21 OTHER (SPECIFY): \_\_\_\_\_
- 00 NO WATER HEATING FUEL - SKIP TO Q. 16

47-48

15. Was the main water heating fuel paid for by the tenant or by the landlord?

- 1 TENANT
- 2 LANDLORD
- 5 OTHER (SPECIFY): \_\_\_\_\_

49

16. As of November 1990, what was the main fuel used for cooking?

- 01 GAS FROM UNDERGROUND PIPES
- 02 BOTTLED GAS (LPG OR PROPANE)
- 03 FUEL OIL
- 04 KEROSENE OR COAL OIL
- 05 ELECTRICITY
- 06 COAL OR COKE
- 07 WOOD
- 21 OTHER (SPECIFY): \_\_\_\_\_
- 00 NO COOKING EQUIPMENT - SKIP TO Q. 18

50-51

17. Was the main cooking fuel paid for by the tenant or by the landlord?

- 1 TENANT
- 2 LANDLORD
- 5 OTHER (SPECIFY): \_\_\_\_\_

52

18. Last summer (1990), did the (apartment/other unit) have air conditioning, either from a central system for the whole building or housing unit, or from individual window or wall units? (MARK ALL THAT APPLY.)

- YES, CENTRAL SYSTEM - ASK Qs. 19 & 20
- YES, INDIVIDUAL (WINDOW/WALL) UNITS - ASK Q. 21
- NO - SKIP TO Q. 22

53

54

**IF CENTRAL SYSTEM, ASK:**

- 19. Did the central air-conditioning system use gas from underground pipes, bottled gas, or electricity?
- 20. Was the air-conditioning fuel paid for by the tenant or by the landlord?

- 1 GAS FROM UNDERGROUND PIPES
- 2 BOTTLED GAS (LPG OR PROPANE)
- 3 ELECTRICITY

55

- 1 TENANT
- 2 OTHER (SPECIFY): \_\_\_\_\_

56

**IF WINDOW OR WALL UNITS, ASK:**

- 21. Was the air-conditioning fuel paid for by the tenant or by the landlord?

- 1 TENANT
- 2 LANDLORD
- 5 OTHER (SPECIFY): \_\_\_\_\_

57

**1990 Residential Energy Consumption Survey**  
*Rental Agents, Landlords, and Apartment Managers*  
**Form EIA-457C**

22. Was electricity for lighting within the apartment paid for by the tenant or by the landlord?

- 1 TENANT  
2 LANDLORD  
5 OTHER (SPECIFY): \_\_\_\_\_

56

IF OTHER UNITS ARE ON CONTROL CARD, ASK ABOUT NEXT UNIT USING THE NEXT QUESTIONNAIRE.

IF NO OTHER UNITS ON CONTROL CARD, CONTINUE.

Thank you very much for your time and help. Have a nice day!

NAME OF PERSON INTERVIEWED: \_\_\_\_\_

TITLE OR RELATION TO RENTAL AGENT: \_\_\_\_\_

INTERVIEWER: \_\_\_\_\_ DATE COMPLETED: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ 60-63

TIME COMPLETED: \_\_\_\_ : \_\_\_\_ AM PM LENGTH OF INTERVIEW: \_\_\_\_ MINUTES 65-66

**1990 Residential Energy Consumption Survey  
Bottled Gas (LPG or Propane) Usage  
Form EIA-457D**

Form EIA-457D  
1990 Residential Energy Consumption Survey



Form Approval:  
OMB No.: 1905-0092  
Expires: May 31, 1993

**U.S. DEPARTMENT OF ENERGY  
ENERGY INFORMATION ADMINISTRATION**

**1990 RESIDENTIAL ENERGY CONSUMPTION SURVEY**

**Bottled Gas (LPG or Propane) Usage**

**SERVICE ADDRESS:**

**BILLING ADDRESS (If Different):**

**CUSTOMER ACCOUNT:**

(If customer account number is not shown on label, please enter it here.)

These data will be combined with similar data throughout the country to show the use of bottled gas in U.S. homes. Information about specific households will be kept strictly confidential.

This research is being conducted for the Energy Information Administration by Response Analysis Corporation under U.S. Department of Energy Contract Number DE-AC01-88EI20351. This survey is mandatory as authorized by the Federal Energy Administration Act of 1974 (Public Law 93-275), as amended. Late filing, failure to keep records, or failure otherwise to comply with these instructions may result in criminal fines, civil penalties, and other sanctions as provided by law.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, which includes the time for reviewing the instructions, searching for the billing record, recording the information, and answering questions about the billing records. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Energy Information Administration, Office of Statistical Standards EI-73, Mail Station 1H-023, 1000 Independence Avenue SW, Washington, DC 20585; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

Data may be submitted directly on this reporting form, or in any other format, such as computer printout, which provides the same information and is convenient for your company. Whatever format is used to submit data, answers to all questions on this form must be included with the submission.

Please return forms to:  
**RESPONSE ANALYSIS CORPORATION**  
377 Wall Street  
P.O. Box 158  
Princeton, New Jersey 08542

If you have any questions, please call collect to Ms.  
Arlene Shipley at (609) 921-3333.

Thank you for your cooperation.

**1990 Residential Energy Consumption Survey**  
**Bottled Gas (LPG or Propane) Usage**  
**Form EIA-457D**

For Office Use Only:

HHID	Fuel	Beginning Date	Ending Date	CR	Reason							CR/E	Tank	Units	TPRs
					23	24	25	26	27	28	29				
1-4	9	11-16	17-22									30	31-34	37	38-39
	3														

First Company	PRs	FT	DC	Second Company	PRs	FT	DC	Third Company	PRs	FT	DC	Suppliers
41-45	46-47	48	49	51-55	56-57	58	59	61-65	66-67	68	69	71-72

**BOTTLED GAS (LPG or Propane) USAGE**

Please provide information on all deliveries to this household from October 1, 1989 to the present date. If information is available only for a shorter period, just report deliveries for that shorter period.

Delivery #	Date of Delivery	Column 1			Column 2			Column 3		Column 4		Column 5	
					Fuel Sold Was:								
			Propane P Butane B Other O (Circle one)			Quantity Delivered		Price per Unit		Total Dollar* Amount			
1		P	B	O									
2		P	B	O									
3		P	B	O									
4		P	B	O									
5		P	B	O									
6		P	B	O									
7		P	B	O									
8		P	B	O									
9		P	B	O									
10		P	B	O									
11		P	B	O									
12		P	B	O									
13		P	B	O									
14		P	B	O									
15		P	B	O									
16		P	B	O									
17		P	B	O									
18		P	B	O									
<b>PLEASE CONTINUE ON PAGE 4 IF NECESSARY</b>													

\*Please include state and local taxes, where applicable. Exclude merchandise, repairs, and service charges.

**1990 Residential Energy Consumption Survey**  
**Bottled Gas (LPG or Propane) Usage**  
**Form EIA-457D**

**BOTTLED GAS (LPG or Propane) USAGE**

1. If "Other" has been circled for type of fuel in Column 2 (page 2 or page 4),  
please specify what fuel was sold: \_\_\_\_\_

2. Please mark unit of measure of deliveries reported in Column 3 on page 2.

- |                                     |   |
|-------------------------------------|---|
| <input type="checkbox"/> POUNDS     | <input type="checkbox"/> CUBIC METERS           |
| <input type="checkbox"/> GALLONS    | <input type="checkbox"/> DECATHERMS             |
| <input type="checkbox"/> CUBIC FEET | <input type="checkbox"/> OTHER (Specify): _____ |

3. What is the capacity of this household's storage tank(s)? Capacity is:  
and is measured in: \_\_\_\_\_

- |  |
|--|
| <input type="checkbox"/> POUNDS                      |
| <input type="checkbox"/> GALLONS                     |
| <input type="checkbox"/> OTHER UNIT (Specify): _____ |

--

4. Were you supplying this household as of October 1, 1989?

- |   |
|---|
| <input type="checkbox"/> YES  |
| <input type="checkbox"/> NO ----> If "NO," approximately when did this household become a customer of your company? |

APPROXIMATE DATE: \_\_\_\_\_

- |   |
|---|
| <input type="checkbox"/> DONT KNOW        |
| <input type="checkbox"/> NEVER A CUSTOMER |

5. Is this household currently your customer?

- |   |
|---|
| <input type="checkbox"/> YES  |
| <input type="checkbox"/> NO ----> If "NO," approximately when did this household stop being a customer of your company? |

APPROXIMATE DATE: \_\_\_\_\_

- |   |
|---|
| <input type="checkbox"/> DONT KNOW        |
| <input type="checkbox"/> NEVER A CUSTOMER |

6. The information reported here is from:

- |   |
|---|
| <input type="checkbox"/> COMPANY RECORDS                              |
| <input type="checkbox"/> AN ESTIMATE MADE BY A COMPANY REPRESENTATIVE |
| <input type="checkbox"/> INFORMATION SECURED FROM THE CUSTOMER        |

7. How do you classify this account in your records?

- |   |
|---|
| <input type="checkbox"/> RESIDENTIAL            |
| <input type="checkbox"/> COMMERCIAL             |
| <input type="checkbox"/> INDUSTRIAL             |
| <input type="checkbox"/> COMMERCIAL/INDUSTRIAL  |
| <input type="checkbox"/> OTHER (Specify): _____ |

8. This information has been supplied by:

Name: \_\_\_\_\_

Company: \_\_\_\_\_

Telephone: \_\_\_\_\_

Date: \_\_\_\_\_

**1990 Residential Energy Consumption Survey  
Bottled Gas (LPG or Propane) Usage  
Form EIA-457D**

**CONTINUATION (IF MORE SPACE IS NEEDED)**

Delivery #	Date of Delivery	Fuel Sold Was:			Quantity Delivered	Price per Unit	Total Dollar* Amount
		Propane P	Butane B	Other O			
19		P	B	O			
20		P	B	O			
21		P	B	O			
22		P	B	O			
23		P	B	O			
24		P	B	O			
25		P	B	O			
26		P	B	O			
27		P	B	O			
28		P	B	O			
29		P	B	O			
30		P	B	O			

**\*Please include state and local taxes, where applicable. Exclude merchandise, repairs, or service charges.**

PLEASE USE THIS SPACE FOR ANY ADDITIONAL NOTES THAT YOU WISH TO MAKE TO EXPLAIN ENTRIES ON THIS FORM.

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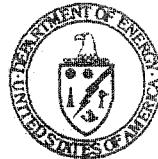
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**PLEASE CHECK THAT THE QUESTIONS ON PAGE 3 HAVE BEEN ANSWERED.**

**1990 Residential Energy Consumption Survey  
Household Electricity Usage  
Form EIA-457E**

Form EIA-457E  
1990 Residential Energy Consumption Survey



Form Approval:  
OMB No.: 1905-0092  
Expires: May 31, 1993

**U.S. DEPARTMENT OF ENERGY  
ENERGY INFORMATION ADMINISTRATION**

**1990 RESIDENTIAL ENERGY CONSUMPTION SURVEY**

**Household Electricity Usage**

**SERVICE ADDRESS:**

**BILLING ADDRESS (If Different):**

**CUSTOMER ACCOUNT:**

(If customer account number is not shown on label, please enter it here.)

These data will be combined with similar data throughout the country to show the use of electricity in U.S. homes. Information about specific households will be kept strictly confidential.

This research is being conducted for the Energy Information Administration by Response Analysis Corporation under U.S. Department of Energy Contract Number DE-AC01-88EI20351. This survey is mandatory as authorized by the Federal Energy Administration Act of 1974 (Public Law 93-275), as amended. Late filing, failure to keep records, or failure otherwise to comply with these instructions may result in criminal fines, civil penalties, and other sanctions as provided by law.

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Please return forms to:  
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377 Wall Street  
P.O. Box 158  
Princeton, New Jersey 08542

If you have any questions, please call collect to Ms.  
Arlene Shipley at (609) 921-3333.

Thank you for your cooperation.

**1990 Residential Energy Consumption Survey**  
**Household Electricity Usage**  
**Form EIA-457E**

For Office Use Only:

HHID 1-4	Check Digit 5	Fuel 9	Beginning Date 11-16	Ending Date 17-22	R 23	Compan 24-28	Periods 29-30	Class 31	Rate 32-36
		1							

**ELECTRICITY**

Please provide information on all consumption of this household from December 1, 1989, to the present date. If information is available only for a shorter period, just report consumption for that shorter period.

ELECTRICITY USAGE FROM DECEMBER 1, 1989, TO THE PRESENT									
Time Period	Consumption Period			Number of kWh Used	(Circle One) if/h are:			Total Dollar* Amount	
	Beginning Date	Ending Date	A - Actual E - Estimated R - Read by Customer		A - Actual E - Estimated R - Read by Customer	A - Actual E - Estimated R - Read by Customer			
1					A	E	R		
2					A	E	R		
3					A	E	R		
4					A	E	R		
5					A	E	R		
6					A	E	R		
7					A	E	R		
8					A	E	R		
9					A	E	R		
10					A	E	R		
11					A	E	R		
12					A	E	R		
13					A	E	R		
14					A	E	R		
15					A	E	R		
16					A	E	R		

\*Please include state and local taxes. Exclude merchandise, repairs, and service charges. If the household is on the budget plan, do not provide the budgeted bill; provide instead the dollar amount that is the cost of the actual consumption in the period.

What rate classification applies to this account? \_\_\_\_\_  
 (Please include one sheet describing rate classes with your return mailing.)

Form completed by: (Name): \_\_\_\_\_ (Telephone): \_\_\_\_\_ (Date): \_\_\_\_\_

**1990 Residential Energy Consumption Survey  
Household Natural Gas Usage  
Form EIA-457F**

Form EIA-457F  
1990 Residential Energy Consumption Survey

Form Approval:  
OMB No.: 1905-0092  
Expires: May 31, 1993



**U.S. DEPARTMENT OF ENERGY  
ENERGY INFORMATION ADMINISTRATION**

**1990 RESIDENTIAL ENERGY CONSUMPTION SURVEY**

**Household Natural Gas Usage**

**SERVICE ADDRESS:**

**BILLING ADDRESS (if Different):**

**CUSTOMER ACCOUNT:**

(If customer account number is not shown on label, please enter it here.)

These data will be combined with similar data throughout the country to show the use of natural gas in U.S. homes. Information about specific households will be kept strictly confidential.

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Thank you for your cooperation.

**1990 Residential Energy Consumption Survey**  
**Household Natural Gas Usage**  
**Form EIA-457F**

For Office Use Only:

HRID	Check Digit	Fuel	Unit	Beginning Date	Ending Date	R	Company	Periods	Class	Rate
1-4	5	9	10	11-16	17-22	23	24-28	29-30	31	32
		2								

**NATURAL GAS**

Please provide information on all consumption of this household from December 1, 1989, to the present date. If information is available only for a shorter period, just report consumption for that shorter period.

NATURAL GAS USAGE FROM DECEMBER 1, 1989, TO THE PRESENT										
Time Period	Consumption Period			Quantity Used*	(Circle one) Quantities are:			Total Dollar** Amount		
	Beginning Date	Ending Date	Quantity Used*		A - Actual	E - Estimated	R - Read by Customer			
1					A	E	R			
2					A	E	R			
3					A	E	R			
4					A	E	R			
5					A	E	R			
6					A	E	R			
7					A	E	R			
8					A	E	R			
9					A	E	R			
10					A	E	R			
11					A	E	R			
12					A	E	R			
13					A	E	R			
14					A	E	R			
15					A	E	R			
16					A	E	R			

\*What is the unit of measurement for the quantities reported?

- Thermals  
 Cubic feet  
 Hundreds of cubic feet (CCF)  
 Thousands of cubic feet (MCF)  
 Other (Specify): \_\_\_\_\_

\*\*Please include state and local taxes. Exclude merchandise, repairs, and service charges. If the household is on the budget plan, do not provide the budgeted bill; provide instead the dollar amount that is the cost of the actual consumption in the period.

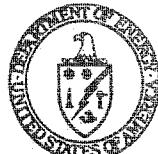
What rate classification applies to this account? \_\_\_\_\_  
 (Please include one sheet describing rate classes with your return mailing.)

Form Completed by: (Name): \_\_\_\_\_ (Telephone): \_\_\_\_\_ (Date): \_\_\_\_\_

**1990 Residential Energy Consumption Survey  
Household Fuel Oil or Kerosene Usage  
Form EIA-457G**

Form EIA-457G  
1990 Residential Energy Consumption Survey

Form Approval:  
OMB No.: 1905-0092  
Expires: May 31, 1993



**U. S. DEPARTMENT OF ENERGY  
ENERGY INFORMATION ADMINISTRATION**

**1990 RESIDENTIAL ENERGY CONSUMPTION SURVEY**

**Household Fuel Oil or Kerosene Usage**

**SERVICE ADDRESS:**

**BILLING ADDRESS (If Different):**

**CUSTOMER ACCOUNT:** \_\_\_\_\_

(If customer account number is not shown on label, please enter it here.)

These data will be combined with similar data throughout the country to show the use of fuel oil or kerosene in U.S. homes. Information about specific households will be kept strictly confidential.

This research is being conducted for the Energy Information Administration by Response Analysis Corporation under U.S. Department of Energy Contract Number DE-AC01-88E120351. This survey is mandatory as authorized by the Federal Energy Administration Act of 1974 (Public Law 93-275), as amended. Late filing, failure to keep records, or failure otherwise to comply with these instructions may result in criminal fines, civil penalties, and other sanctions as provided by law.

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Thank you for your cooperation.

**1990 Residential Energy Consumption Survey**  
**Household Fuel Oil or Kerosene Usage**  
**Form EIA-457G**

For Office Use Only:

HHID	Fuel	Beginning Date		Ending Date		CR	Reason						CR/E	Tank	TPRs
		14	9	11-16	17-22		23	24	25	26	27	28	29	31-34	38-39
						4									

First Company	PRs	FT	DC	Second Company	PRs	FT	DC	Third Company	PRs	FT	DC	Suppliers
41-45	46-47	48	49	51-55	56-57	58	59	61-65	66-67	68	69	71-72

**FUEL OIL AND KEROSENE USAGE**

Please provide information on all deliveries to this household from October 1, 1989, to the present date. If information is available only for a shorter period, just report deliveries for that shorter period.

Delivery #	Date of Delivery	Column 1				Column 2		Column 3		Column 4		Column 5	
		Fuel Sold Was:						Gallons Delivered	Price per Gallon	Total Dollar* Amount			
1		1	2	K	O								
2		1	2	K	O								
3		1	2	K	O								
4		1	2	K	O								
5		1	2	K	O								
6		1	2	K	O								
7		1	2	K	O								
8		1	2	K	O								
9		1	2	K	O								
10		1	2	K	O								
11		1	2	K	O								
12		1	2	K	O								
13		1	2	K	O								
14		1	2	K	O								
15		1	2	K	O								
16		1	2	K	O								
17		1	2	K	O								
18		1	2	K	O								

PLEASE CONTINUE ON PAGE 4 IF NECESSARY.

\*Please include state and local taxes, where applicable. Exclude merchandise, repairs, and service charges.

**1990 Residential Energy Consumption Survey**  
**Household Fuel Oil or Kerosene Usage**  
**Form EIA-457G**

**FUEL OIL AND KEROSENE**

1. If "Other" has been circled for type of fuel in Column 2 (page 2 or page 4), please specify what fuel was sold: \_\_\_\_\_
2. What is the capacity of this household's storage tank? CAPACITY: \_\_\_\_\_ GALLONS
3. Was this household your customer as of October 1, 1989?  
 YES  
 NO —> If "NO," approximately when did this household become a customer of your company?  
APPROXIMATE DATE: \_\_\_\_\_  
 DON'T KNOW  
 NEVER A CUSTOMER
4. Is this household currently your customer?  
 YES  
 NO —> If "NO," approximately when did this household stop being a customer of your company?  
APPROXIMATE DATE: \_\_\_\_\_  
 DON'T KNOW  
 NEVER A CUSTOMER
5. How do you classify this account in your records?  
 RESIDENTIAL  
 COMMERCIAL  
 INDUSTRIAL  
 COMMERCIAL/INDUSTRIAL  
 OTHER (Specify): \_\_\_\_\_
6. The information about deliveries to this household is from:  
 COMPANY RECORDS  
 AN ESTIMATE MADE BY A COMPANY REPRESENTATIVE  
 INFORMATION SECURED FROM THE CUSTOMER
7. Were these deliveries made automatically, did you call the customer to schedule each delivery, or did the customer call you to get each delivery?  
 AUTOMATIC DELIVERY  
 CALL FROM COMPANY  
 CALL FROM CUSTOMER  
 OTHER (Specify): \_\_\_\_\_
8. This information has been supplied by:  
Name: \_\_\_\_\_  
Company: \_\_\_\_\_  
Telephone: \_\_\_\_\_  
Date: \_\_\_\_\_

**1990 Residential Energy Consumption Survey**  
**Household Fuel Oil or Kerosene Usage**  
**Form EIA-457G**

Delivery #	Date of Delivery	Column 1		Column 2		Column 3	Column 4	Column 5
		Fuel oil #1 (1)	Fuel oil #2 (2)	Kerosene (K)	Other (O) (Circle one)			
19		1	2	K	O			
20		1	2	K	O			
21		1	2	K	O			
22		1	2	K	O			
23		1	2	K	O			
24		1	2	K	O			
25		1	2	K	O			
26		1	2	K	O			
27		1	2	K	O			
28		1	2	K	O			
29		1	2	K	O			
30		1	2	K	O			

\*Please include state and local taxes, where applicable. Exclude merchandise, repairs, or service charges.

PLEASE USE THIS SPACE FOR ANY ADDITIONAL NOTES THAT YOU WISH TO MAKE TO EXPLAIN ENTRIES ON THIS FORM.

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PLEASE CHECK THAT THE QUESTIONS ON PAGE 3 HAVE BEEN ANSWERED.