



**U.S. Department of Energy
Commercial Buildings Energy Consumption Survey for 1995
BUILDING QUESTIONNAIRE**

CASE ID: _____		
BUILDING NAME: _____		
ADDRESS: _____		
STREET _____		
CITY: _____		
STATE	ZIP	
COMMENTS: _____		

INITIAL CONTACT TO DETERMINE RESPONDENT

I'm _____ from Westat, Inc., a social science research firm. We are conducting a study for the U.S. Department of Energy about energy consumption in nonresidential buildings. May I speak with the building manager or a person knowledgeable about the types of energy coming into the building? May I have that person's name, title and address at which he or she might be located?

NAME: _____
 TITLE: _____
 LOCATION: _____ PHONE: (____) _____
 FAX #: (____) _____

INTRODUCTION TO INTERVIEW

Hello, I'm _____ from Westat, Inc., a social science research firm. We are conducting a study for the U.S. Department of Energy about energy consumption in nonresidential buildings. Although your response is voluntary, we hope you will participate in this important study of energy use. The Department of Energy mailed a letter to the manager of (READ BUILDING NAME AND/OR ADDRESS). Did you receive this letter (HAND LETTER)? (IF NO: The letter explains the survey and some of the information I will need).

IF ASKED ABOUT CONFIDENTIALITY, READ:

Any information we collect that would permit identification of respondents or their buildings will be confidential and used only for statistical purposes. Data that can be identified with individual respondents will not be disclosed or released to anyone, including the Department of Energy, for any other purpose, except as required by law.

INTERVIEWER NAME: _____ ID NO.: _____
 TIME BEGAN: _____ AM
 PM

A-1. I will be asking you questions about the building at (READ ADDRESS OR DESCRIPTION). Is this the correct address?

- YES 1 (A-3)
- NO 2 RECORD VERIFIED STREET ADDRESS(ES)

VERIFIED STREET ADDRESS OR DESCRIPTION: _____

A-2. What is the correct street address?

CORRECT STREET ADDRESS: _____

A-3. Does this building, as we have described it, have any other addresses associated with it?

- YES 1
- NO 2 (A-5)

A-4. What (is/are) the additional address(es)?

ADDITIONAL STREET ADDRESS(ES): _____

A-5. What is the name of the building? (PROBE: What is the name of the (largest) establishment that occupies building.)

VERIFIED NAME: _____

A-5OV. VERIFIED BUILDING NAME IS: (CIRCLE ONE)

- NAME OF BUILDING OR ONLY ESTABLISHMENT IN BUILDING ... 1
- NAME OF LARGEST ESTABLISHMENT IN BUILDING 2
- NAME OF ESTABLISHMENT BUT NOT LARGEST 3
- OTHER 91

A-6. What is the building's ZIP Code? I would like the nine digit ZIP code, if available.

_____ (BOX 5)
 ZIP Code

BOX 5

IF AREA SAMPLE: CHECK TO SEE IF THE FIRST FIVE DIGITS OF BUILDING'S ZIP CODE MATCH ZIP CODE ON THE LABEL. IF:

BUILDING ZIP MATCHES LABEL, CONTINUE WITH INTERVIEW
 BUILDING ZIP DOES NOT MATCH LABEL, VERIFY THAT YOU ARE AT THE CORRECT ADDRESS AND WITHIN THE SEGMENT BOUNDARIES.

IF YOU ARE, EXPLAIN THE DIFFERENCE AND CONTINUE WITH INTERVIEW

IF YOU ARE NOT, DISCONTINUE AND CALL SUPERVISOR

A-7. What is the gross or total square feet of all the space, both finished and unfinished, enclosed within the exterior walls of this building, including: basements, indoor parking facilities, hallways, lobbies, stairways, and elevator shafts?

_____ RECORD ON REFERENCE TABLE
 SQUARE FEET THEN GO TO BOX 6

DON'T KNOW 9-8

A-8. Here is a card that has categories of gross total square feet. Which category in your estimation best describes the total gross square feet in this building including all the areas just mentioned?

HAND
 CARD
 A-8

*INTERVIEWER:
 REMEMBER THAT 1,000
 SQUARE FEET IS
 APPROXIMATELY TWICE
 THE SIZE OF A
 TWO CAR GARAGE.*

- | | | |
|--|----|-------------|
| 1,000 SQUARE FEET OR LESS | 01 | (BOX 6) |
| 1,001 TO 5,000 SQUARE FEET | 02 | |
| 5,001 TO 10,000 SQUARE FEET | 03 | } |
| 10,001 TO 25,000 SQUARE FEET | 04 | |
| 25,001 TO 50,000 SQUARE FEET | 05 | } |
| 50,001 TO 100,000 SQUARE FEET | 06 | |
| 100,001 TO 200,000 SQUARE FEET | 07 | } RECORD ON |
| 200,001 TO 500,000 SQUARE FEET | 08 | |
| 500,001 TO 1 MILLION SQUARE FEET | 09 | } REFERENCE |
| OVER 1 MILLION SQUARE FEET | 10 | |
| DON'T KNOW | 98 | TABLE |

BOX 6

IF A-7/A-8 IS 1,000 OR LESS TERMINATE INTERVIEW,
OTHERWISE, ASK A-9.

This completes the interview. Thank you for your time and help.

TIME ENDED: _____ AM
PM

A-9. Including basements, floors that may be used as a parking garage, or any other floors below ground level, how many floors are in the tallest section of the building?

OF FLOORS

DON'T KNOW 998

A-10. How many of the exterior walls of this building that are above ground touch or are attached to another structure? Would you say it is: CIRCLE ONLY ONE.

- None, the building is freestanding? 0
- One? 1
- Two? 2
- Three? 3
- Four? 4
- DON'T KNOW? 8

A-11. When was the construction of the major or largest portion of the (A-7/A-8 SQUARE FEET) square (feet/footage) completed?

_____ ---->

YEAR

DON'T KNOW 9-8 (A-12)

IF COMPLETED IN 1995, ASK
A-11A;
IF COMPLETED BEFORE 1995,
GO TO A-13

A-11A. In what month of 1995 was the building first open for occupancy?

_____ (A-13)

MONTH

DON'T KNOW 98 (A-13)

A-12. Here is a card with categories of years. In your estimation, which category contains the year the largest portion of the building was completed?

HAND
CARD
A-12

1899 or before	01	1970-1979	06
1900-1919	02	1980-1989	07
1920-1945	03	1990-1992	08
1946-1959	04	1993-1995	09
1960-1969	05	DON'T KNOW	98

A-13. Here is a card that shows different types of construction materials. Which best describes the **major type** of **exterior wall** construction material used on this building? CIRCLE ONLY ONE.

HAND
CARD
A-13

WINDOW OR VISION GLASS (GLASS THAT CAN BE SEEN THROUGH) .	01
DECORATIVE OR CONSTRUCTION GLASS	02
SHEET METAL PANELS	03
PRE-CAST CONCRETE PANELS	04
BRICK, STONE, STUCCO, CONCRETE OR OTHER MASONRY	05
ALUMINUM, ASBESTOS, PLASTIC OR WOOD SIDING, SHINGLES, TILES OR SHAKES	06
NO ONE MAJOR TYPE	07
OTHER	91
DON'T KNOW	98

A-14. Here is a card with different types of roofing materials. Which category best describes the building's **major type** of **exterior roof** surface? CIRCLE ONLY ONE.

HAND
CARD
A-14

WOOD SHINGLES, SHAKES OR OTHER WOODEN MATERIALS	01
SLATE OR TILE SHINGLES	02
ASPHALT, FIBERGLASS, OR OTHER SHINGLES	03
BUILT-UP (TAR, FELTS OR FIBERGLASS AND A BALLAST, SUCH AS STONE)	04
METAL SURFACING	05
PLASTIC, RUBBER, OR SYNTHETIC SHEETING (SINGLE OR MULTIPLE PLY)	06
CONCRETE	07
NO ONE MAJOR TYPE	08
OTHER	91
DON'T KNOW	98

SECTION B. PRINCIPAL BUILDING ACTIVITY

B-0. [INTERVIEWER: RECORD YOUR OBSERVATION OF THE PRIMARY BUILDING ACTIVITY. COPY FROM SCREENING FORM. CIRCLE ONE.]

BUILDING ACTIVITIES

a.	VACANT	01
b.	EDUCATION (CLASSROOM BUILDING)	14
c.	ENCLOSED SHOPPING CENTER/MALL	22
d.	FOOD SALES (SUCH AS GROCERY STORES)	06
e.	FOOD SERVICES (RESTAURANTS)	15
f.	HOSPITAL/INPATIENT HEALTH SERVICES	16
g.	HOTEL/MOTEL/DORM, ETC	18
h.	LABORATORY	04
i.	NON-REFRIGERATED WAREHOUSE OR STORAGE	05
j.	OFFICE/PROFESSIONAL	02
k.	OUTPATIENT HEALTH SERVICES/CLINIC	08
l.	PUBLIC ASSEMBLY	13
m.	PUBLIC ORDER AND SAFETY	07
n.	REFRIGERATED WAREHOUSE OR STORAGE	11
o.	RELIGIOUS WORSHIP	12
p.	RETAIL (OTHER THAN SHOPPING MALL OR STRIP CENTER)	25
q.	SERVICE (OTHER THAN FOOD SERVICE)	24
r.	SKILLED NURSING/OTHER RESIDENTIAL CARE (NURSING HOME)	17
s.	STRIP SHOPPING CENTER	23
t.	AGRICULTURAL PURPOSES (IF ANY RETAIL ACTIVITY, CODE AS OTHER AND DESCRIBE)	10
u.	INDOOR ENCLOSED PARKING GARAGE	20
v.	INDUSTRIAL PROCESSING AND MANUFACTURING (IF ANY RETAIL ACTIVITY, CODE OTHER AND DESCRIBE)	09
w.	RESIDENTIAL (LIVING QUARTERS WITH KITCHEN)	19
x.	OTHER (SPECIFY) _____	91

B-1. Here is a card that shows how buildings are classified for this study. Considering all of the (A7/A8) square (feet/footage) in this building, would you estimate that 75 percent or more of the space in this building (is used for/is) (INTERVIEWER B-0 OBSERVATION OF BUILDING)?

HAND CARD B-1

YES 1 (BOX 7)
NO 2

B-2. Using the card, please tell me which activities occupy space in this building. CIRCLE ALL THAT APPLY.

<u>BUILDING ACTIVITIES</u>	<u>B-2 CIRCLE ALL THAT APPLY</u>	<u>B-3 PERCENT</u>
a. VACANT	01	___ %
b. EDUCATION (CLASSROOM BUILDING)	14	___ %
c. ENCLOSED SHOPPING CENTER/MALL	22	___ %
d. FOOD SALES (SUCH AS GROCERY STORES)	06	___ %
e. FOOD SERVICES (RESTAURANTS)	15	___ %
f. HOSPITAL/INPATIENT HEALTH SERVICES	16	___ %
g. HOTEL/MOTEL/DORM, ETC	18	___ %
h. LABORATORY	04	___ %
i. NON-REFRIGERATED WAREHOUSE OR STORAGE	05	___ %
j. OFFICE/PROFESSIONAL	02	___ %
k. OUTPATIENT HEALTH SERVICES/CLINIC	08	___ %
l. PUBLIC ASSEMBLY	13	___ %
m. PUBLIC ORDER AND SAFETY	07	___ %
n. REFRIGERATED WAREHOUSE OR STORAGE	11	___ %
o. RELIGIOUS WORSHIP	12	___ %
p. RETAIL (OTHER THAN SHOPPING MALL OR STRIP CENTER)	23	___ %
q. SERVICE (OTHER THAN FOOD SERVICE)	24	___ %
r. SKILLED NURSING/OTHER RESIDENTIAL CARE (NURSING HOME)	17	___ %
s. STRIP SHOPPING CENTER	23	___ %
t. AGRICULTURAL PURPOSES (IF ANY RETAIL ACTIVITY, CODE AS OTHER AND DESCRIBE)	10	___ %
u. INDOOR ENCLOSED PARKING GARAGE	20	___ %
v. INDUSTRIAL PROCESSING AND MANUFACTURING (IF ANY RETAIL ACTIVITY, CODE OTHER AND DESCRIBE)	09	___ %
w. RESIDENTIAL	19	___ %
x. OTHER (SPECIFY) _____	91	___ %
	TOTAL	___ %

TOTAL MUST =
100%

B-3. [FOR EACH ACTIVITY CIRCLED IN B-2, ASK:]
Of the (A-7/A-8) square (feet/footage) in this building, approximately what percentage of space is occupied by (B-2 ACTIVITY)? RECORD IN B3 COLUMN ABOVE.

[THERE IS NO B-4.]

BOX 7
IF ANY OF THE FOLLOWING BUILDING ACTIVITIES ARE "YES" IN B-1, OR 50% OR MORE IN B-3, GO TO BOX 8. OTHERWISE GO TO B-5A.
t. AGRICULTURAL PURPOSES
u. INDOOR ENCLOSED GARAGES
v. INDUSTRIAL PROCESSING AND MANUFACTURING
w. RESIDENTIAL

BOX 8
INELIGIBLE TERMINATE:
B-6. This completes the interview. Thank you for your time and help. TIME END: _____ AM PM

B-5a. [IF VACANT IS "YES" IN B-1, OR 50% OR MORE VACANT IN B-3, ASK:]
What was (this/the) vacant space (used for/intended to be used for)? [RECORD ALL BUILDING ACTIVITIES THAT APPLY.]

B-5b. [IF BUILDING ACTIVITY IS RELIGIOUS WORSHIP IN B-1 OR B-2, THEN ASK:]
What is the total seating capacity of the religious worship areas of the building?

SEATING CAPACITY

B-5c. [IF BUILDING ACTIVITY IS PUBLIC ASSEMBLY IN B-1 OR B-2, THEN ASK:]
What is the fixed seating capacity of public assembly areas of the building?

SEATS

B-5d. [IF BUILDING ACTIVITY IS EDUCATION IN B-1 OR B-2, THEN ASK:]
How many students can be seated in all of the classrooms in the building at one time?

NUMBER OF STUDENTS

B-5e. [IF BUILDING ACTIVITY IS FOOD SERVICES IN B-1 OR B-2, THEN ASK:]

What is the total seating capacity of the food service areas of the building?

NUMBER OF SEATS

B-5f. [IF BUILDING ACTIVITY IS HOSPITAL/INPATIENT HEALTH SERVICES IN B-1 OR B-2, THEN ASK:]

What is the inpatient licensed bed capacity of the building?

LICENSED BED CAPACITY

B-5g. [IF BUILDING ACTIVITY IS SKILLED NURSING/OTHER RESIDENTIAL CARE IN B-2 OR B-3, THEN ASK:]

What is the skilled or residential care licensed bed capacity of the building?

LICENSED BED CAPACITY

B-5h. [IF BUILDING ACTIVITY IS HOTEL/MOTEL/DORM IN B-1 OR B-2, THEN ASK:]

How many guest rooms are there in the building?

NUMBER OF GUEST ROOMS

J. MULTIBUILDING FACILITIES CENTRAL PHYSICAL PLANT. SECTION J FOLLOWS SECTION B.

J-1. Is the building part of a multibuilding facility or complex? By a multibuilding facility or complex, we mean a group of two or more buildings on the same site owned or operated by a single organization or individual.

- YES 1
- NO 2 (GO TO C-1)
- DON'T KNOW 8 (GO TO C-1)

J-2. What is the primary business, commerce, or function carried on in this multibuilding facility or complex? CIRCLE ONLY ONE.

HAND
CARD
J-2

- Primary or secondary School (Grades K-12) 01
- College, university or junior college 02
- Other schools 03
- Hospital or other health care 04
- Manufacturing Industrial 05
- Other Industrial 06
- Transportation (such as terminals, depots, airports) . . . 07
- Post Office 08
- Prison 09
- Other Government 10
- Other 91

BOX 9
IF J-2 IS MANUFACTURING INDUSTRIAL, ASK J2OV. OTHERWISE GO TO J-3.

J2OV. What is being manufactured?

DESCRIBED: _____

J-2A. Is this building part of the same economic enterprise that owns and operates the multibuilding facility or complex?

- YES 1 (GO TO BOX 10)
- NO 2
- DON'T KNOW 8

J-3. Does this multibuilding facility have a central physical plant that produces district hot water, district steam, district chilled water or electricity?

- YES 1
- NO 2 (GO TO C-1)
- DON'T KNOW 8 (GO TO C-1)

J-4. Which does the central physical plant on the multibuilding facility produce:

	<u>YES</u>	<u>NO</u>	<u>DK</u>
1. District hot water?	1	2	8
2. District steam?	1	2	8
3. District chilled water?	1	2	8
4. Electricity?	1	2	8

J-5. Is the central physical plant for this multibuilding facility located in the building we have been talking about?

- YES 1 (GO TO C-1)
- NO 2 (GO TO C-1)
- DON'T KNOW 8 (GO TO C-1)

BOX 10
INELIGIBLE TERMINATE:
J-7. This completes the interview. Thank you for your time and help.
TIME ENDED: _____ AM PM

C. ENERGY SOURCES AND END USES

C-1. My next questions will be about this building. Here is a list of various fuels or energy sources. During calendar year 1995, which of these fuels or energy sources will have been used to supply energy to this building? (CIRCLE ALL THAT APPLY.)

ELECTRICITY	01)	
NATURAL GAS	02		
FUEL OIL, DIESEL OR KEROSENE	03		
BOTTLED GAS, LPG OR PROPANE	04		
<u>DISTRICT STEAM</u> PIPED INTO THE BUILDING FROM			
A CENTRAL PLANT OR UTILITY	05		
<u>DISTRICT HOT WATER</u> PIPED INTO THE BUILDING			
FROM A CENTRAL PLANT OR UTILITY	06		} RECORD ON REFERENCE TABLE
<u>DISTRICT CHILLED WATER</u> PIPED INTO THE BUILDING			
FROM A CENTRAL PLANT OR UTILITY	07		
WOOD	08		
COAL	09		
SOLAR THERMAL PANELS THAT USE SUNLIGHT TO			
HEAT FLUIDS	11		
OTHER (SPECIFY) _____	91		
NO ENERGY USED IN 1995	92		
DON'T KNOW	98)	

C-2. In addition to (NAMES OF ENERGY SOURCES RECORDED IN C-1), are there any other energy sources used in this building?

YES (RECORD ALL ADDITIONAL SOURCES IN C-1)	1
NO	2

C-3a. Of the energy sources you just mentioned: Which is used as the main energy source for heating: that is, the energy source used to heat most of the square footage in this building most of the time? [CIRCLE ONE]

ELECTRICITY	01)	
NATURAL GAS	02	:	
FUEL OIL, DIESEL OR KEROSENE	03	:	
BOTTLED GAS, LPG OR PROPANE	04	:	
<u>DISTRICT STEAM</u> PIPED INTO THE BUILDING FROM		:	
A CENTRAL PLANT OR UTILITY	05	:	
<u>DISTRICT HOT WATER</u> PIPED INTO THE BUILDING		:	
FROM A CENTRAL PLANT OR UTILITY	06	:	} RECORD ON REFERENCE TABLE
WOOD	08	:	
COAL	09	:	
SOLAR THERMAL PANELS THAT USE SUNLIGHT TO		:	
HEAT FLUIDS	11	:	
END USE NOT PERFORMED	15	:	
END USE PERFORMED, BUT ENERGY SOURCE NOT		:	
KNOWN	16	:	
OTHER (SPECIFY) _____	91)	

C-3b. Which other energy sources, if any, are used for heating? [RECORD ALL THAT APPLY]

ELECTRICITY	01
NATURAL GAS	02
FUEL OIL, DIESEL OR KEROSENE	03
BOTTLED GAS, LPG OR PROPANE	04
<u>DISTRICT STEAM</u> PIPED INTO THE BUILDING FROM	
A CENTRAL PLANT OR UTILITY	05
<u>DISTRICT HOT WATER</u> PIPED INTO THE BUILDING	
FROM A CENTRAL PLANT OR UTILITY	06
WOOD	08
COAL	09
SOLAR THERMAL PANELS THAT USE SUNLIGHT TO	
HEAT FLUIDS	11
OTHER (SPECIFY) _____	91
NO OTHER	95

Which, if any, of the energy sources you just mentioned are used:

C-3c. For air conditioning?
 [RECORD ALL THAT APPLY]

ELECTRICITY	01)	
NATURAL GAS	02	:	
FUEL OIL, DIESEL OR KEROSENE	03	:	
BOTTLED GAS, LPG OR PROPANE	04	:	
<u>DISTRICT STEAM</u> PIPED INTO THE BUILDING FROM		:	
A CENTRAL PLANT OR UTILITY	05	:	
<u>DISTRICT HOT WATER</u> PIPED INTO THE BUILDING		:	} RECORD ON REFERENCE TABLE
FROM A CENTRAL PLANT OR UTILITY	06	:	
<u>DISTRICT CHILLED WATER</u> PIPED INTO THE BUILDING		:	
FROM A CENTRAL PLANT OR UTILITY	07	:	
END USE NOT PERFORMED	15	:	
END USE PERFORMED, BUT ENERGY SOURCE NOT KNOWN	16	:	
OTHER (SPECIFY) _____	91)	

C-3d. For domestic hot water heating?
 [RECORD ALL THAT APPLY]

ELECTRICITY	01
NATURAL GAS	02
FUEL OIL, DIESEL OR KEROSENE	03
BOTTLED GAS, LPG OR PROPANE	04
<u>DISTRICT STEAM</u> PIPED INTO THE BUILDING FROM	
A CENTRAL PLANT OR UTILITY	05
<u>DISTRICT HOT WATER</u> PIPED INTO THE BUILDING	
FROM A CENTRAL PLANT OR UTILITY	06
WOOD	08
COAL	09
SOLAR THERMAL PANELS THAT USE SUNLIGHT TO HEAT FLUIDS	11
END USE NOT PERFORMED	15
END USE PERFORMED, BUT ENERGY SOURCE NOT KNOWN	16
OTHER (SPECIFY) _____	91

C-3e. For commercial or institutional cooking or food serving? [RECORD ALL THAT APPLY]

ELECTRICITY	01
NATURAL GAS	02
FUEL OIL, DIESEL OR KEROSENE	03
BOTTLED GAS, LPG OR PROPANE	04
<u>DISTRICT STEAM</u> PIPED INTO THE BUILDING FROM	
A CENTRAL PLANT OR UTILITY	05
<u>DISTRICT HOT WATER</u> PIPED INTO THE BUILDING	
FROM A CENTRAL PLANT OR UTILITY	06
WOOD	08
COAL	09
SOLAR THERMAL PANELS THAT USE SUNLIGHT TO	
HEAT FLUIDS	11
END USE NOT PERFORMED	15
END USE PERFORMED, BUT ENERGY SOURCE NOT	
KNOWN	16
OTHER (SPECIFY) _____	91

C-3f. For manufacturing or any other type of industrial activity?
[RECORD ALL THAT APPLY]

ELECTRICITY	01
NATURAL GAS	02
FUEL OIL, DIESEL OR KEROSENE	03
BOTTLED GAS, LPG OR PROPANE	04
<u>DISTRICT STEAM</u> PIPED INTO THE BUILDING FROM	
A CENTRAL PLANT OR UTILITY	05
<u>DISTRICT HOT WATER</u> PIPED INTO THE BUILDING	
FROM A CENTRAL PLANT OR UTILITY	06
WOOD	08
COAL	09
SOLAR THERMAL PANELS THAT USE SUNLIGHT TO	
HEAT FLUIDS	11
END USE NOT PERFORMED	15
END USE PERFORMED, BUT ENERGY SOURCE NOT	
KNOWN	16
OTHER (SPECIFY) _____	91

C-3g. To generate electricity, including for emergency backup?
 [RECORD ALL THAT APPLY]

NATURAL GAS	02
FUEL OIL, DIESEL OR KEROSENE	03
BOTTLED GAS, LPG OR PROPANE	04
WOOD	08
COAL	09
SOLAR THERMAL PANELS THAT USE SUNLIGHT TO HEAT FLUIDS	11
END USE NOT PERFORMED	15
END USE PERFORMED, BUT ENERGY SOURCE NOT KNOWN	16
OTHER (SPECIFY) _____	91

C-4. OMITTED.

BOX 11

SEE REFERENCE TABLE (C-3a). IF THE BUILDING DOES NOT HAVE AN ENERGY SOURCE FOR HEATING (CODE 3), SKIP TO BOX 12

C-5. Could this building switch to a different main heating fuel within one week's time without substantially reducing the area heated or the temperature maintained in the heated area?

YES	1
NO	2 (BOX 12)
DON'T KNOW	8 (BOX 12)

C-6. If the building did have to switch the main heating fuel within one week's time, what fuels would be used instead of (ENERGY SOURCE FROM C-3A)?
 RECORD ALL THAT APPLY.

ELECTRICITY	01
NATURAL GAS	02
FUEL OIL, DIESEL OR KEROSENE	03
BOTTLED GAS, LPG OR PROPANE	04
DISTRICT STEAM	05
DISTRICT HOT WATER	06
WOOD	08
COAL	09
NO OTHER	10

This page intentionally blank

D. EQUIPMENT

BOX 12

SEE REFERENCE TABLE (C-3a AND C-3c). IF THIS BUILDING HAS AN ENERGY SOURCE FOR HEATING OR COOLING (CODE 1 OR 2), ASK D-1, OTHERWISE GO TO D-14

D-1. These next questions are about how this building is heated and cooled. Briefly, please describe the overall system that is used to heat and/or cool this building.

BOX 13

SEE REFERENCE TABLE (C-3a). IF THIS BUILDING HAS ENERGY SOURCE FOR HEATING ASK D-2 (CODE 1 OR 2), OTHERWISE GO TO BOX 15

D-2. What percentage of the (A-7/A-8) square (feet/footage) in this building is heated to at least 50 degrees Fahrenheit during calendar year 1995? Be sure to include basements and enclosed garages if they are heated to at least 50 degrees.

_____ % (IF ZERO, ASK D-2OV, OTHERWISE GO TO D-4)

DON'T KNOW 998 (D-3)

D-2OV. Is any of the building heated to less than 50 degrees Fahrenheit?

YES 1 (D-4)
 NO 2 (BOX 15)
 DON'T KNOW 8 (D-4)

D-3. Here is a list of ranges. What is your best estimate of the percent of heated square feet in this building (to at least 50 degrees Fahrenheit during calendar year 1995)?

HAND
CARD
BLUE

a. 25 PERCENT OR LESS 1
 B. 26 TO 50 PERCENT 2
 C. 51 TO 75 PERCENT 3
 D. 76 TO 100 PERCENT 4
 E. DON'T KNOW 8

INTERVIEWER:
 INTENT IS TO DETERMINE THE PERCENTAGE HEATED FOR HUMAN OCCUPANCY.
 INCLUDE ALL PARTS OF THE BUILDING HEATED TO AT LEAST 50 DEGREES, EVEN IF NOT SERVED BY DUCT WORK.

D-4. Here is a card listing different types of specific equipment that may be part of the building's heating system and that you may or may not have mentioned in your description. Does this building use:

HAND CARD
D-4

	FEATURE	YES	NO	DK
a.	Furnaces that heat air directly, without using steam or hot water? (<i>Similar to a residential furnace.</i>)	1	2	8
b.	Heat pumps (other than packaged units)? (<i>These are devices that heat the interior of a building by absorbing heat from the outside air. Include ground or water source heat pumps. They may stand alone or be combined with another type of equipment. In warmer weather, they can also be used to cool a building.</i>)	1	2	8
c.	Individual space heaters, free standing or mounted in walls, ceilings, or windows? (<i>This includes portable heaters, hanging unit heaters, heating panels, electric baseboards, perimeter heaters that contain heating elements, wood stoves, and fireplaces.</i>)	1	2	8
d.	District steam or hot water piped in from outside the building? Does not include domestic hot water used for cooking and cleaning.	1	2	8
e.	Boilers inside the building that produce steam or hot water? (<i>Also include boilers just outside the building that are primarily associated with it.</i>)	1	2	8
f.	Packaged heating units, often mounted on the roof or on a slab beside the building? (<i>These are known as self-contained units. They contain heating equipment as well as fans, and may or may not include air conditioning equipment.</i>)	1	2	8
g.	Some other heating equipment such as electric duct reheat units?	1	2	8

BOX 14

IF MORE THAN ONE EQUIPMENT ASK D-6A, OTHERWISE SKIP TO D-6.

D-6a. Which of the equipment you mentioned is the main heating equipment for heating, that is, the one heating the most floorspace? Is it (READ ALL D-4 EQUIPMENT = 1):

NAME OF MAIN EQUIPMENT _____
 NO ONE MAIN 8

<p>D-6. ASK ABOUT ALL FEATURES WITH A "YES" IN D-4 BEFORE GOING TO D-7:</p> <p>Thinking of all the heated floorspace in the building, what percent is heated by (FEATURE)?</p> <p>RECORD ON LINE WITH CORRESPONDING LETTER.</p>	<p>D-7. FOR EACH FEATURE WITH A "YES" IN D-6, ASK:</p> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-left: 20px;">HAND CARD D-7</div> <p>Here is a card that lists the ways heat can be distributed.</p> <p>Please select the method or methods that best describe how the heat from the (FEATURE) is distributed throughout the building. Is it. . . CIRCLE YES (1), NO (2), OR DON'T KNOW (8) FOR EACH.</p>				
	<p>Steam or Hot Water Radiators or Baseboards?</p> <p>Y N DK</p>	<p>Forced Air through Vents (Ducts) or Air Handling Units?</p> <p>Y N DK</p>	<p>Fan-Coil Units Without Vents (Ducts)?</p> <p>Y N DK</p>	<p>Equipment Designed to Give Off Heat Directly?</p> <p>Y N DK</p>	<p>Other Some Other Method?</p> <p>Y N DK</p>
	a. _____ %		1 2 8		
b. _____ %		1 2 8	1 2 8	1 2 8	1 2 8
c. _____ %				1 2 8	
d. _____ %	1 2 8	1 2 8	1 2 8		1 2 8
e. _____ %	1 2 8	1 2 8	1 2 8		1 2 8
f. _____ %		1 2 8		1 2 8	1 2 8
g. _____ %	1 2 8	1 2 8	1 2 8	1 2 8	1 2 8
TOTAL _____					
<div style="border: 1px solid black; padding: 5px; display: inline-block;">TOTAL MUST = 100% OR MORE</div>					

INTERVIEWER: IF DISTRICT HOT WATER OR STEAM IS PIPED IN FROM OUTSIDE THE BUILDING THERE IS PROBABLY NO BOILER IN THE BUILDING.

BOX 15

SEE REFERENCE TABLE (C-3c). IF THIS BUILDING HAS AN ENERGY SOURCE FOR COOLING (CODE 1 OR 2), ASK D-8, OTHERWISE SKIP TO D-14.

D-8. What percentage of the (A-7/A-8) square (feet/footage) in the building is cooled by air-conditioning equipment (during calendar year 1995)?

_____ % (D-10)

DON'T KNOW 998 (D-9)

D-9. Here is a list of ranges. What is your best estimate of the percent of the square feet in this building that is cooled by air-conditioning equipment (during calendar year 1995)?

HAND
CARD
BLUE

- a. 25 PERCENT OR LESS 1
- B. 26 TO 50 PERCENT 2
- C. 51 TO 75 PERCENT 3
- D. 76 TO 100 PERCENT 4
- E. DON'T KNOW 8

INTERVIEWER:
THE TERM AIR CONDITIONING REFERS TO THE REMOVAL OF HEAT FROM THE AIR THROUGH THE USE OF REFRIGERATION EQUIPMENT. THE CIRCULATION OF AIR BY FANS IS NOT CONSIDERED AIR-CONDITIONING.

This page intentionally blank

D-10. Here is a card listing different types of specific equipment that may be part of a building's cooling system and which you may or may not have mentioned in your earlier description. Does this building use:

HAND CARD
D-10

	FEATURE	YES	NO	DK
a.	Residential type <u>central</u> air conditioners, other than heat pumps, that cool air directly and circulate it without using chilled water? (<i>They may be found either alone or in combination with a boiler or furnace.</i>)	1	2	8
b.	Heat pumps for cooling? (<i>These are devices that can also be used for heating in cooler weather by absorbing heat from the outside air. They may stand alone or be combined with another type of equipment.</i>)	1	2	8
c.	Individual room air-conditioners, mounted in a window or wall?	1	2	8
d.	District chilled water piped in from outside the building?	1	2	8
e.	Central chillers inside the building that chill water for air conditioning? (<i>Also include chillers just outside the building that are primarily associated with it.</i>)	1	2	8
f.	Packaged air conditioning units, often mounted on the roof or on a slab beside the building? (<i>These are known as self-contained units, or Direct Expansion (DX). They contain air conditioning equipment as well as fans, and may or may not include heating equipment.</i>)	1	2	8
g.	"Swamp" coolers or Evaporative Coolers?	1	2	8
h.	Some other cooling equipment?	1	2	8

BOX 16

IF MORE THAN ONE EQUIPMENT = YES IN D-10 ASK D-12A, OTHERWISE GO TO D-12.

D-12a. Which of the equipment you mentioned is the main equipment for cooling, that is, the one cooling the most floorspace? Is it (READ ALL D-10 EQUIPMENT = 1):

NAME OF MAIN EQUIPMENT
NO ONE MAIN 8

<p>D-12. ASK ABOUT ALL FEATURES WITH A "YES" IN D-10 BEFORE GOING TO D-13:</p> <p>Thinking of the cooled floorspace in the building, what percent is cooled by (FEATURE)?</p> <p>RECORD ON LINE WITH CORRESPONDING LETTER.</p>	<p>D-13. FOR EACH FEATURE WITH A "YES" IN D-10, ASK:</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; float: right; margin-left: 10px;"> HAND CARD D-13 </div> <p>Here is a card listing ways cooling can be distributed.</p> <p>Please select the method or methods that best describe how the cooling from the (FEATURE) is distributed throughout the building. Is it. . .CIRCLE YES (1), NO (2), OR DON'T KNOW (8) FOR EACH.</p>			
	Fan-Coil Units Without Vents (Ducts)? Y N DK	Forced Air through Ducts or Air Handling Units? Y N DK	Equipment Used to Cool Directly? Y N DK	Some Other Method? Y N DK
a. _____ %		1 2 8		1 2 8
b. _____ %		1 2 8	1 2 8	1 2 8
c. _____ %			1 2 8	
d. _____ %	1 2 8	1 2 8		1 2 8
e. _____ %	1 2 8	1 2 8		1 2 8
f. _____ %		1 2 8	1 2 8	1 2 8
g. _____ %	1 2 8	1 2 8		1 2 8
h. _____ %	1 2 8	1 2 8	1 2 8	1 2 8
TOTAL _____				
<div style="border: 1px solid black; padding: 5px; width: fit-content;"> TOTAL MUST = 100% OR MORE </div>				

INTERVIEWER: IF DISTRICT CHILLED WATER IS PIPED IN FROM OUTSIDE THE BUILDING THERE IS PROBABLY NO CHILLER IN THE BUILDING.

D-14. Is there any commercial refrigeration or freezer equipment present in this building?

- YES 1
- NO 2 (GO TO BOX 17)
- DON'T KNOW 8 (GO TO BOX 17)

INTERVIEWER: THIS INCLUDES EQUIPMENT OUTSIDE, IF ADJACENT TO THE BUILDING. THIS EXCLUDES RESIDENTIAL TYPE EQUIPMENT.

<p>D-15. Which of the following types of refrigeration or freezer equipment are present in this building?</p>	<p>D-15OV. IF "YES" IN D-15, ASK IMMEDIATELY: How many are there?</p>
<p>a. Walk-In Units? YES 1 ----> NO 2 DON'T KNOW 8</p>	<p>a. _____ DON'T KNOW .. 9-8</p>
<p>b. Open Cases or Cabinets? YES 1 ----> NO 2 DON'T KNOW 8</p>	<p>b. _____ DON'T KNOW .. 9-8</p>
<p>c. Closed Cases or Cabinets; excluding residential type refrigerators? YES 1 ----> NO 2 DON'T KNOW 8</p>	<p>c. _____ DON'T KNOW .. 9-8</p>

BOX 17

IF THIS BUILDING HAS AT LEAST ONE ENERGY SOURCE FOR WATER HEATING CHECKED, CONTINUE TO D-16. OTHERWISE, SKIP TO D-17.

D-16. Here is a listing of types of water heating systems. Which category best describes this building's water heating system?

HAND CARD
D-16

- CENTRALIZED SYSTEM, WHERE ALL WATER HEATING IS PERFORMED IN ONE PLACE 1
- DISTRIBUTED/POINT OF USE SYSTEM (WHICH HAS MORE THAN ONE WATER HEATING UNIT LOCATED AT, OR CLOSE BY, THE POINT OF USE) 2
- COMBINATION OF CENTRALIZED AND DISTRIBUTED SYSTEM ... 3
- DON'T KNOW 8

D-16a. Does the building's hot water system use a heat pump water heater?

YES 1
NO 2 (D-17)
DON'T KNOW 8 (D-17)

D-16b. Is the heat pump water heater the only type of equipment used to heat the hot water?

YES 1
NO 2
DON'T KNOW 8

D-17. Now I am going to ask you about energy-related ways that space may be used in this building. Thinking about all the square footage in this building, please tell me if any space is used:

a. for commercial food preparation and serving such as kitchens, steam tables and warming areas?

YES 1
NO 2
DON'T KNOW 8

b. as computer room(s) with separate air conditioning system(s)?

YES 1
NO 2
DON'T KNOW 8

c. for any activities requiring large amounts of hot water such as a commercial laundry room, heated pool, spa, sauna, steam room?

YES 1
NO 2
DON'T KNOW 8

D-18. Are there any personal computers and/or computer terminals in this building? (Personal Computers are also known as PC's.)

YES 1
NO 2 (GO TO SECTION E)
DON'T KNOW 8 (GO TO SECTION E)

INTERVIEWER:	BE SURE TO INCLUDE GROCERY STORE SCANNERS AND DEPARTMENT STORE CASH REGISTERS THAT SCAN AN ITEM.
--------------	--

D-19. Which category in your estimation best describes the number of PCs and/or computer terminals in this building? CIRCLE ONLY ONE.

HAND CARD D-19

- 1-4 01
- 5-9 02
- 10-19 03
- 20-49 04
- 50-99 05
- 100-249 06
- 250-499 07
- 500-999 08
- 1,000-2,499 09
- 2,500-4,999 10
- 5,000 or more 11
- DON'T KNOW 98

E. BUILDING OWNERSHIP AND OCCUPANCY CHARACTERISTICS

The next few questions are about the ownership and occupancy of the building.

E-1. Is this building owned by a Government agency?

- YES 1
- NO 2 (E-3)
- DON'T KNOW 8 (E-3)

E-2. Is the Government agency that owns the building a:

- Federal, 1
- State, or 2
- Local government? 3
- DON'T KNOW 8

E-3. How many businesses or organizations occupy this building? (By "occupy", we mean to hold or lease space on a full-time basis).

- (E-4)
- _____
- NUMBER OR BUSINESSES OR ORGANIZATIONS
- BUILDING CURRENTLY UNOCCUPIED 00 (E-5)
 - DON'T KNOW 8 (E-3a)

E-3a. Which category best describes the number of businesses or organizations that currently occupy this building?

HAND CARD E-3a

- 0 0
- 1 1
- 2 - 5 2
- 6 - 10 3
- 11 - 20 4
- 21 - 49 5
- 50 - 99 6
- 100 OR MORE 7
- DON'T KNOW 8

E-4. Is one of the occupants the building owner or owner's representative?

- YES 1
- NO 2
- DON'T KNOW 8

E-5. Has any space in the building been vacant or unoccupied for at least 3 consecutive months during calendar year 1995? Please include your expectations for the rest of the year.

YES 1
 NO 2
 DON'T KNOW 8

E-6. Now thinking about the whole building, how many months during calendar year 1995 was this building in use?

_____ NUMBER OF MONTHS } RECORD ON
 } REFERENCE
 NOT IN USE DURING PAST 12 MONTHS 00 (BOX 18) | TABLE
 DON'T KNOW 98 } J

E-7. Now I am going to ask questions about the normal operating hours of this building. That is, when the majority of the building is open and employees are present. We are not talking about times when only a maintenance or housekeeping crew is present.

Is this building normally open 24 hours a day?

YES 1 (E-20) } RECORD ON
 NO 2 } REFERENCE
 DON'T KNOW 8 } TABLE

E-8. When the building is in use, does it normally have operating hours Monday through Friday?

YES 1
 NO 2 (E-12)
 DON'T KNOW 8

E-9. Do the typical operating hours of this building vary on weekdays, that is Monday through Friday?

YES 1
 NO 2 (E-11)
 DON'T KNOW 8 (E-11)

E-10. Could you briefly explain why your hours vary? (RECORD, THEN GO TO E-12)

E-11. What are the typical operating hours for this building Monday through Friday? (CIRCLE AM OR PM)

FROM _____ AM TO _____ AM
PM PM

INTERVIEWER: NOON = 12:00 PM, MIDNIGHT = 12:00 AM. OPERATING HOURS = MAJORITY OF BUILDING OPEN AND EMPLOYEES PRESENT

E-12. Does the building typically have Saturday operating hours?

YES 1
NO 2 (E-15)
DON'T KNOW 8

E-13. Do the Saturday hours vary?

YES 1
NO 2 (E-14)
DON'T KNOW 8 (E-14)

E16OV. Could you briefly explain why your Saturday hours vary? (RECORD, THEN GO TO E-15)

E-14. What are the normal operating hours for this building for Saturday? (CIRCLE AM OR PM)

FROM _____ AM TO _____ AM
PM PM

INTERVIEWER: NOON = 12:00 PM, MIDNIGHT = 12:00 AM. OPERATING HOURS = MAJORITY OF BUILDING OPEN AND EMPLOYEES PRESENT

E-15. Does the building have Sunday operating hours?

- YES 1
- NO 2 (E-18)
- DON'T KNOW 8

E-16. Do the Sunday hours vary?

- YES 1
- NO 2 (E-17)
- DON'T KNOW 8 (E-17)

E16OV. Could you briefly explain why your Sunday hours vary? (RECORD, THEN GO TO E-18)

E-17. What are the normal operating hours for this building for Sunday? (CIRCLE AM OR PM)

FROM _____ AM TO _____ AM
 PM PM

INTERVIEWER: NOON = 12:00 PM, MIDNIGHT = 12:00 AM. OPERATING HOURS = MAJORITY OF BUILDING OPEN AND EMPLOYEES PRESENT

E-18. During the months it is in use, what is the total number of typical operating hours for a typical week for most of the building?

- _____ (E-20)
HOURS PER WEEK
- DON'T KNOW 9-8

E-19. Which category on the card best describes the number of typical operating hours per week for most of the building when it is in use?

HAND CARD E-19

- 1-39 HOURS 1
- 40-48 HOURS 2
- 49-60 HOURS 3
- 61-84 HOURS 4
- 85-167 HOURS 5
- 168 HOURS (OPEN CONTINUOUSLY) 6
- DON'T KNOW 8

E-20. (When the building is in use) how many people work in the building during its main shift? By main shift, we mean the shift when most people are in the building.

_____ (BOX 18)
NUMBER OF PEOPLE

- DON'T KNOW 9-8

E-21. Which category on this card best describes the number of people who normally work in the building during its main shift?

HAND CARD E-21

- NONE 00
- 1-4 01
- 5-9 02
- 10-19 03
- 20-49 04
- 50-99 05
- 100-249 06
- 250-499 07
- 500-999 08
- 1,000-2,499 09
- 2,500-4,999 10
- 5,000 OR MORE 11
- DON'T KNOW 98

G. THE LIGHTING SYSTEM

BOX 18

SEE REFERENCE TABLE. IF ELECTRICITY NOT USED (01 NOT CIRCLED AT C-1) GO TO BOX 21.
 SEE REFERENCE TABLE. IF BUILDING NOT IN USE IN 1995 (E-6=00) GO TO BOX 21.

G-1. The next questions are about lighting inside the building.

What percentage of the (A-7/A-8) square (feet/footage) in this building is lit electrically during operating hours?

_____ % (G-2a)

DON'T KNOW 998

G-2. Here is a list of ranges. What is your best estimate of the percent of the square feet in this building that is lit electrically?

HAND
CARD
BLUE

- 0 PERCENT 0
- 1 TO 25 PERCENT 1
- 26 TO 50 PERCENT 2
- 51 TO 75 PERCENT 3
- 76 TO 100 PERCENT 4
- DON'T KNOW 8

BOX 19

SEE REFERENCE TABLE. IF BUILDING OPEN 24 HOURS (E7=1) GO TO G-3

G-2a. (Please look at the blue card.) What percentage of the (A-7/A-8) square (feet/footage) in this building is lit during hours other than normal operating hours, that is during off hours? Exclude the space lit by emergency lighting. (By off hours, we mean on weekends and holidays, during the off-season and any extended periods when the whole building is not in use.)

HAND
CARD
BLUE

- 0 PERCENT 0
- 1 TO 25 PERCENT 1
- 26 TO 50 PERCENT 2
- 51 TO 75 PERCENT 3
- 76 TO 100 PERCENT 4
- DON'T KNOW 8

COLUMN A	COLUMN B	COLUMN C
<p>READ ALL OF COLUMN A BEFORE COLUMN B.</p> <p>G-3. Is any of the square footage inside this building lit by:</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p>HAND CARD G-3</p> </div> <p style="text-align: center;">FEATURE</p>	<p>IF YES IN COLUMN A, ASK:</p> <p>G-4a. Thinking about the amount of building space that is lighted, what percent of the lighted space is lit by (FEATURE)?</p>	<p>IF "DON'T KNOW" IN COLUMN B, ASK:</p> <p>G-4AOV. Which of the ranges best represents the percent of the inside of this building lit by (FEATURE)?</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p>HAND BLUE CARD</p> </div>
<p>a. Incandescent light bulbs, excluding halogen bulbs? Included are regular or reduced-wattage bulbs or watt-misers.</p> <p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p> <p>b. Fluorescent Lighting other than compact fluorescent bulbs?</p> <p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p> <p>c. Compact Fluorescent bulbs?</p> <p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p> <p>d. High Intensity Discharge (HID) Lights such as high pressure sodium, metal halide or mercury vapor?</p> <p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p> <p>e. Halogen lighting?</p> <p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p> <p>f. Some other type of lighting?</p> <p>YES (SPECIFY) _____</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	<p>_____ %</p> <p>DON'T KNOW 9-8 --></p> <p>_____ %</p> <p>DON'T KNOW 9-8 --></p> <p>_____ %</p> <p>DON'T KNOW 9-8 --></p> <p>_____ %</p> <p>DON'T KNOW 9-8 --></p> <p>_____ %</p> <p>DON'T KNOW 9-8 --></p> <p>_____ %</p> <p>DON'T KNOW 9-8 --></p> <p>_____ %</p> <p>DON'T KNOW 9-8 --></p> <p>_____ %</p> <p>DON'T KNOW 9-8 --></p> <p>_____ %</p> <p>DON'T KNOW 9-8 --></p> <p>TOTAL _____ %</p> <p>TOTAL SHOULD ADD UP TO AT LEAST 100%</p>	<p>1 TO 25% 1</p> <p>26 TO 50% 2</p> <p>51 TO 75% 3</p> <p>76 TO 100% 4</p> <p>DON'T KNOW 8</p> <p>1 TO 25% 1</p> <p>26 TO 50% 2</p> <p>51 TO 75% 3</p> <p>76 TO 100% 4</p> <p>DON'T KNOW 8</p> <p>1 TO 25% 1</p> <p>26 TO 50% 2</p> <p>51 TO 75% 3</p> <p>76 TO 100% 4</p> <p>DON'T KNOW 8</p> <p>1 TO 25% 1</p> <p>26 TO 50% 2</p> <p>51 TO 75% 3</p> <p>76 TO 100% 4</p> <p>DON'T KNOW 8</p> <p>1 TO 25% 1</p> <p>26 TO 50% 2</p> <p>51 TO 75% 3</p> <p>76 TO 100% 4</p> <p>DON'T KNOW 8</p>

INTERVIEWER: EXCLUDE OUTDOOR PARKING LIGHTS

G-6. Here is a list of some of the lighting conservation features that may be part of this building's interior lighting system. Does your lighting system have any:

HAND
CARD
G-6

FEATURE

- a. Reflectors specifically designed to increase the amount of light from the fixture? (These are known as Specular Reflectors.)
 - YES 1
 - NO 2
 - DON'T KNOW 8

- b. Energy-Efficient ballasts?
 - YES 1
 - NO 2
 - DON'T KNOW 8

- c. Daylighting controls that detect natural light and turn lights off when there is sufficient natural light?
 - YES 1
 - NO 2
 - DON'T KNOW 8

- d. Occupancy sensors that shut lights off when no motion is detected?
 - YES 1
 - NO 2
 - DON'T KNOW 8

- e. Time clocks or timed switches which turn interior lights on or off according to a predetermined schedule?
 - YES 1
 - NO 2
 - DON'T KNOW 8

- f. Manual dimmer switches?
 - YES 1
 - NO 2
 - DON'T KNOW 8

- g. Some other lighting conservation equipment?
 - YES 1
 - NO 2
 - DON'T KNOW 8

BOX 20

IF ANY "YES" IN G-6, ASK G-7. OTHERWISE, GO TO BOX 21.

G-7. Please look at the yellow card. Which of those listed sponsored the retrofit or purchase of the lighting conservation equipment? (That is (READ ALL FEATURES CIRCLED "1" IN G-6).) (CIRCLE ALL THAT APPLY)

HAND
CARD
YELLOW

- UTILITY 1
- FEDERAL GOVERNMENT 2
- IN-HOUSE OR SELF-SPONSORED 3
- THIRD PARTY 4
- OTHER 91
- DON'T KNOW 98

H. ENERGY CONSERVATION FEATURES OR PRACTICES

BOX 21

IF THIS BUILDING HAS AN ENERGY SOURCE FOR HEATING OR COOLING ASK H-1, OTHERWISE GO TO H-3.

H-1. The next questions are about the heating, ventilation, and air conditioning or HVAC equipment.

HAND
CARD
H-1

Are any of the following present in the building:	H-10V. [FOR EACH "YES" IN H-1, IMMEDIATELY ASK:] Was it installed during building construction or added afterwards?
A. A variable air volume (VAV) system on the heating or cooling system? YES 1 --> NO 2 DON'T KNOW 8	INSTALLED 1 ADDED 2 DON'T KNOW 8
B. Is any equipment that uses outside air for cooling (Economizer Cycle) present in the building? YES 1 --> NO 2 DON'T KNOW 8	INSTALLED 1 ADDED 2 DON'T KNOW 8
C. Is there any regularly scheduled maintenance and repair for the heating and cooling equipment? YES 1 --> NO 2 DON'T KNOW 8	INSTALLED 1 ADDED 2 DON'T KNOW 8
D. Is there any other energy-efficient heating, ventilation and air-conditioning (HVAC) equipment? YES 1 --> NO 2 DON'T KNOW 8	INSTALLED 1 ADDED 2 DON'T KNOW 8

BOX 22

IF ANY "YES" IN H-1 A, B, C, or D, ASK H-2. OTHERWISE, GO TO H-3.

H-2. Please look at the yellow card. Which of those listed sponsored the retrofit or purchase of the HVAC conservation equipment you just told me about? (That is (READ FEATURES CIRCLED "1" IN H-1).) (CHECK ALL THAT APPLY)

HAND
CARD
YELLOW

- UTILITY 1
- FEDERAL GOVERNMENT 2
- IN-HOUSE OR SELF-SPONSORED 3
- THIRD PARTY 4
- OTHER 91
- DON'T KNOW 98

H-3. Here is a list of building envelope conservation features and practices. Are any of the following present in this building?

HAND
CARD
H-3

a. Roofing or ceiling insulation?

- YES 1
- NO 2
- DON'T KNOW 8

b. Is insulation in exterior walls present in the building?

- YES 1
- NO 2
- DON'T KNOW 8

c. Are storm windows, storm doors, thermal pane or double or triple paned glass present?

- YES 1
- NO 2
- DON'T KNOW 8

d. Are tinted or reflective glass or shading films present in the building?

- YES 1
- NO 2
- DON'T KNOW 8

e. Are exterior awnings or interior horizontal or vertical shades or mini blinds present in the building?

- YES 1
- NO 2
- DON'T KNOW 8

BOX 23
IF ANY "YES" IN H-1 a through e, ASK H-4. OTHERWISE, GO TO H-5.

H-4. Please look at the yellow card. Which of those listed sponsored the retrofit or purchase of the building envelope conservation equipment or practices you just told me about? (That is (READ FEATURES CIRCLED "1" IN H-3).) (CIRCLE ALL THAT APPLY)

HAND
CARD
YELLOW

- UTILITY 1
- FEDERAL GOVERNMENT 2
- IN-HOUSE OR SELF-SPONSORED 3
- THIRD PARTY 4
- OTHER 91
- DON'T KNOW 98

H-5. Here is a card listing potential energy conservation programs.

HAND
CARD
H-5

<p>H-5. Does this building have or participate in any of the following programs?</p> <p>READ ALL OF H-5 BEFORE GOING TO H-6</p>	<p>H-6. [FOR EACH "YES" IN H-5 ASK:] (Please look at the yellow card.) Who was the (PROGRAM) sponsored by? (CIRCLE ALL THAT APPLY)</p> <p>HAND CARD YELLOW</p>
<p>a. Energy-Efficient Water Heating Equipment Installation or Retrofit?</p> <p>YES 1 NO 2 DON'T KNOW 8</p>	<p>UTILITY 1 FEDERAL GOVERNMENT 2 IN-HOUSE OR SELF-SPONSORED .. 3 THIRD PARTY 4 OTHER 91 DON'T KNOW 98</p>
<p>b. Electricity Load Control?</p> <p>YES 1 NO 2 DON'T KNOW 8</p>	<p>UTILITY 1 FEDERAL GOVERNMENT 2 IN-HOUSE OR SELF-SPONSORED .. 3 THIRD PARTY 4 OTHER 91 DON'T KNOW 98</p>
<p>c. Interruptible natural gas?</p> <p>YES 1 NO 2 DON'T KNOW 8</p>	<p>UTILITY 1 FEDERAL GOVERNMENT 2 IN-HOUSE OR SELF-SPONSORED .. 3 THIRD PARTY 4 OTHER 91 DON'T KNOW 98</p>
<p>d. Energy Management and Control System (EMCS)?</p> <p>YES 1 NO 2 DON'T KNOW 8</p>	<p>UTILITY 1 FEDERAL GOVERNMENT 2 IN-HOUSE OR SELF-SPONSORED .. 3 THIRD PARTY 4 OTHER 91 DON'T KNOW 98</p>
<p>e. Special Rates or Incentives?</p> <p>YES 1 NO 2 DON'T KNOW 8</p>	<p>UTILITY 1 FEDERAL GOVERNMENT 2 IN-HOUSE OR SELF-SPONSORED .. 3 THIRD PARTY 4 OTHER 91 DON'T KNOW 98</p>
<p>CONTINUE WITH LIST ON PAGE 40.</p>	

<p>H-5. (CONTINUED)</p> <p>Does this building have or participate in any of the following programs?</p> <p>READ ALL OF H-5 BEFORE GOING TO H-6</p>	<p>H-6. [FOR EACH "YES" IN H-5 ASK:] (Please look at the yellow card.) Who was the (PROGRAM) sponsored by? (CIRCLE ALL THAT APPLY) (continued)</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> <p>HAND CARD YELLOW</p> </div>
<p>f. Energy Efficient Motor Systems, including adjustable speed drives or variable speed motors?</p> <p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	<p>UTILITY 1</p> <p>FEDERAL GOVERNMENT 2</p> <p>IN-HOUSE OR SELF-SPONSORED .. 3</p> <p>THIRD PARTY 4</p> <p>OTHER 91</p> <p>DON'T KNOW 98</p>
<p>g. Thermal Energy Storage (TES)?</p> <p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	<p>UTILITY 1</p> <p>FEDERAL GOVERNMENT 2</p> <p>IN-HOUSE OR SELF-SPONSORED .. 3</p> <p>THIRD PARTY 4</p> <p>OTHER 91</p> <p>DON'T KNOW 98</p>
<p>h. Waste-heat Recovery?</p> <p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	<p>UTILITY 1</p> <p>FEDERAL GOVERNMENT 2</p> <p>IN-HOUSE OR SELF-SPONSORED .. 3</p> <p>THIRD PARTY 4</p> <p>OTHER 91</p> <p>DON'T KNOW 98</p>
<p>i. An Energy Audit since December 31, 1992?</p> <p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	<p>UTILITY 1</p> <p>FEDERAL GOVERNMENT 2</p> <p>IN-HOUSE OR SELF-SPONSORED .. 3</p> <p>THIRD PARTY 4</p> <p>OTHER 91</p> <p>DON'T KNOW 98</p>
<p>GO TO H-6 ON PAGE 39.</p>	

H-7. Does this building have a full-time building energy manager, whose chief responsibility is to manage energy use and energy-using equipment?

YES 1

NO 2

DON'T KNOW 8

BOX 24

SEE REFERENCE TABLE (E-7). IF BUILDING IS OPEN 24 HOURS SKIP TO I-1.

IF NO HEATING (C-3a), DO NOT ASK H-8a.
IF NO COOLING (C-3c), DO NOT ASK H-8b.

H-8. When the building is not in full use, is there a change in temperature setting or a reduction in the use of any of the following equipment:

		<u>YES</u>	<u>NO</u>	<u>DK</u>
a.	heating?	1	2	8
b.	cooling?	1	2	8
c.	lighting?	1	2	8

I. ELECTRICITY GENERATION OR COGENERATION

I-1. The next questions are about electricity generating systems and sources of electricity. Does this building have the ability to generate electric power?

- YES 1
- NO 2 (BOX 25)
- DON'T KNOW 8 (BOX 25)

I-2. Please indicate the primary use of the generators in the building as listed on this card. CIRCLE ONE.

HAND CARD I-2

- EMERGENCY BACK-UP GENERATION, FOR INFREQUENT USE, ONLY WHEN THERE IS AN INTERRUPTION OF NORMAL SERVICE FROM YOUR UTILITY 1 (I-6)
- GENERATORS USED ONLY DURING PERIODS OF HIGH ELECTRIC POWER DEMAND 2
- GENERATORS OPERATING CONTINUOUSLY FOR MOST OF THE YEAR 3
- DON'T KNOW 8
- OTHER 91

I-3. Is the electric power generating system in this building also a cogeneration system? That is, in addition to producing electric power, does the same system simultaneously produce heat which is used in this or another building for space heating, water heating, air cooling, or industrial processes.

- YES 1
- NO 2 (I-5)
- DON'T KNOW 8 (I-5)

I-4. Is the building's cogeneration or generation system electrically interconnected with an electric utility? That is, is it able to deliver electricity to the grid as well as receive electricity?

- YES 1
- NO 2
- DON'T KNOW 8

I-5. Using this card, indicate what happens to the electric power which is generated onsite. Is it:
CIRCLE ALL THAT APPLY.

HAND CARD I-5

- a. Totally consumed within the building?
 - YES 1
 - NO 2
 - DON'T KNOW 8

- b. Partially or totally delivered to the local electric utility?
 - YES 1
 - NO 2
 - DON'T KNOW 8

- c. Partially or totally delivered to another building or buildings?
 - YES 1
 - NO 2
 - DON'T KNOW 8

- d. Not used because you did not use generators during calendar year 1995?
 - YES 1
 - NO 2
 - DON'T KNOW 8

BOX 25
SEE REFERENCE TABLE. IF ELECTRICITY NOT USED (01 NOT CIRCLED AT C-1), GO TO BOX 27.

- I-6. Do you pay for the electricity used in this building?
- YES 1
 - NO 2 (I-9)
 - DON'T KNOW 8 (I-9)

I-7. Please indicate the range on this card which best describes the total expenditures during calendar year 1995 for the electricity used in this building.

HAND CARD GREEN	\$1 TO \$100	01
	\$101 to \$500	02
	\$501 to \$1,000	03
	\$1,001 to \$2,000	04
	\$2,001 to \$5,000	05
	\$5,001 to \$10,000	06
	\$10,001 to \$20,000	07
	\$20,001 to \$50,000	08
	\$50,001 to \$100,000	09
	\$100,001 to \$200,000	10
	\$200,001 to \$500,000	11
	\$500,001 to \$1 million	12
	OVER \$1 million	13
DON'T KNOW	98	

I-9. How much of the electricity used in this building is purchased from the local utility?

HAND CARD I-9/I-11	NONE	1
	1 TO 25 PERCENT	2
	26 TO 50 PERCENT	3
	51 TO 75 PERCENT	4
	76 TO 99 PERCENT	5
	ALL (100 PERCENT)	6 (BOX 26)
	DON'T KNOW	8

I-10. Do you obtain any of the electricity used in this building from a non-utility, non in-house source, such as an independent power producer?

YES	1
NO	2 (BOX 26)
DON'T KNOW	8 (BOX 26)

I-11. How much of the electricity used in this building is obtained from a non-utility, non-in house source?

HAND CARD I-9/I-11	1 TO 25 PERCENT	1
	26 TO 50 PERCENT	2
	51 TO 75 PERCENT	3
	76 TO 99 PERCENT	4
	ALL (100 PERCENT)	5
	DON'T KNOW	8

This page intentionally blank

K. ELECTRICITY SUPPLIERS

BOX 26
SEE REFERENCE TABLE (C-1). IF ELECTRICITY (01) NOT USED, SKIP TO BOX 27.

K-1. Is all the electricity used in the building generated in the building?

- YES 1 (GO TO BOX 27)
- NO 2
- DON'T KNOW 8

K-2.	What is the name and address of the supplier that has provided, or may yet provide, electricity to this building during calendar year 1995? (RECORD AT TOP OF FACING PAGE)
K-3.	Is there a single bill or statement, or are there separate bills or statements, from (K-2 SUPPLIER) for this building?
K-4.	Please tell me the name of each business or organization that received a bill from (K-2 SUPPLIER) for electricity during calendar year 1995. RECORD ON SUPPLIER CUSTOMER SHEET.
K-5.	What are all the account numbers for the electricity that (K-2 SUPPLIER) supplies to this building? RECORD ACCOUNT NUMBERS ON "RECORD OF ACCOUNT NUMBERS."
K-5A.	Please give me the name, address, and telephone number for the person who can provide account numbers for this building. Name _____ Address _____ Telephone _____

SUPPLIER A	SUPPLIER B	SUPPLIER C
K-2. Name _____ _____ Street _____ P.O. Box _____ City _____ State/ZIP _____	Name _____ _____ Street _____ P.O. Box _____ City _____ State/ZIP _____	Name _____ _____ Street _____ P.O. Box _____ City _____ State/ZIP _____
K-3. SINGLE BILL 1 (K-5) SEPARATE BILLS 2 NO BILL OR STATEMENT 3 (K-9)	SINGLE BILL 1 (K-5) SEPARATE BILLS 2 NO BILL OR STATEMENT 3 (K-9)	SINGLE BILL 1 (K-5) SEPARATE BILLS 2 NO BILL OR STATEMENT 3 (K-9)
K-4. LIST PROVIDED 1 NOT PROVIDED 2 IF LIST NOT PROVIDED, COMPLETE A CUSTOMER SHEET	LIST PROVIDED 1 NOT PROVIDED 2 IF LIST NOT PROVIDED, COMPLETE A CUSTOMER SHEET	LIST PROVIDED 1 NOT PROVIDED 2 IF LIST NOT PROVIDED, COMPLETE A CUSTOMER SHEET
K-5. SEE RECORD OF ACCOUNT NUMBERS 1 DON'T KNOW 8	SEE RECORD OF ACCOUNT NUMBERS 1 DON'T KNOW 8	SEE RECORD OF ACCOUNT NUMBERS 1 DON'T KNOW 8

K-6. (Does the bill or statement/Do the bills or statements) from (K-2 SUPPLIER) cover just this building or are other buildings covered as well?

K-7. What is the approximate square footage of the other buildings that are included on (the bill or statement/the bills or statements)?

K-8. (Does the bill or statement/Do the bills or statements) include charges for any other major electricity usage outside the building, such as parking lot lights, exterior lights, signs or billboards, large pumps or swimming pools?

K-9. Does this building have any other electricity suppliers?

SUPPLIER A	SUPPLIER B	SUPPLIER C
Name _____	Name _____	Name _____
K-6. JUST THIS BUILDING . . . 1 (K-8)	JUST THIS BUILDING 1 (K-8)	JUST THIS BUILDING 1 (K-8)
OTHER BUILDING(S) 2	OTHER BUILDING(S) 2	OTHER BUILDING(S) 2
DON'T KNOW 8 (K-8)	DON'T KNOW 8 (K-8)	DON'T KNOW 8 (K-8)
K-7. _____ SQUARE FOOTAGE	_____ SQUARE FOOTAGE	_____ SQUARE FOOTAGE
DON'T KNOW 9-8	DON'T KNOW 9-8	DON'T KNOW 9-8
K-8. YES 1	YES 1	YES 1
NO 2	NO 2	NO 2
DON'T KNOW 8	DON'T KNOW 8	DON'T KNOW 8
K-9. YES 1 (K-2)	YES 1 (K-2)	YES 1 (K-2)
NO 2	NO 2	NO 2
DON'T KNOW 8	DON'T KNOW 8	DON'T KNOW 8

L. NATURAL GAS SUPPLIERS

BOX 27

SEE REFERENCE TABLE (C-1). IF NATURAL GAS (02) NOT USED, SKIP TO BOX 28.

L-1.	What is the name and address of the supplier that has provided, or may yet provide natural gas to this building during calendar year 1995? RECORD AT TOP OF FACING PAGE.
L-2.	Is there a single bill or statement, or are there separate bills or statements, from (L-1 SUPPLIER) for this building?
L-3.	Please tell me the name of each business or organization that received a bill from (L-1 SUPPLIER) for natural gas during calendar year 1995. RECORD ON SUPPLIER CUSTOMER SHEET.
L-4.	What are all the account numbers for the natural gas that (L-1 SUPPLIER) supplies to this building? RECORD ON "RECORD OF ACCOUNT NUMBERS."
L-5.	(Does the bill or statement/Do the bills or statements) from (L-1 SUPPLIER) cover just this building or are other buildings covered as well?
L-6.	What is the approximate square footage of the <u>other</u> buildings that are included (on the bill or statement/on these bills or statements)?
L-7.	(Does the bill or statement/Do the bills or statements) include charges for any <u>other</u> major natural gas usage outside the building, such as for kilns, gas space heaters, exterior or decorative lighting, compressed natural gas vehicles, or pumps not used in this building?
L-8.	Does this building have any other natural gas suppliers?

SUPPLIER A	SUPPLIER B	SUPPLIER C
L-1. Name _____ _____ Street _____ _____ P.O. Box _____ _____ City _____ _____ State/ZIP _____ _____	Name _____ _____ Street _____ _____ P.O. Box _____ _____ City _____ _____ State/ZIP _____ _____	Name _____ _____ Street _____ _____ P.O. Box _____ _____ City _____ _____ State/ZIP _____ _____
L-2. SINGLE BILL 1 (L-4) SEPARATE BILLS 2	SINGLE BILL 1 (L-4) SEPARATE BILLS 2	SINGLE BILL 1 (L-4) SEPARATE BILLS 2
L-3. LIST PROVIDED 1 NOT PROVIDED 2 IF LIST NOT PROVIDED, COMPLETE A CUSTOMER SHEET	LIST PROVIDED 1 NOT PROVIDED 2 IF LIST NOT PROVIDED, COMPLETE A CUSTOMER SHEET	LIST PROVIDED 1 NOT PROVIDED 2 IF LIST NOT PROVIDED, COMPLETE A CUSTOMER SHEET
L-4. SEE RECORD OF ACCOUNT NUMBERS 1 DO NOT USE ACCOUNT NUMBERS 2 DON'T KNOW 8	SEE RECORD OF ACCOUNT NUMBERS 1 DO NOT USE ACCOUNT NUMBERS 2 DON'T KNOW 8	SEE RECORD OF ACCOUNT NUMBERS 1 DO NOT USE ACCOUNT NUMBERS 2 DON'T KNOW 8
L-5. JUST THIS BUILDING ... 1 (L-7) OTHER BUILDING(S) 2 DON'T KNOW 8 (L-7)	JUST THIS BUILDING 1 (L-7) OTHER BUILDING(S) 2 DON'T KNOW 8 (L-7)	JUST THIS BUILDING 1 (L-7) OTHER BUILDING(S) 2 DON'T KNOW 8 (L-7)
L-6. _____ SQUARE FOOTAGE DON'T KNOW 9-8	_____ SQUARE FOOTAGE DON'T KNOW 9-8	_____ SQUARE FOOTAGE DON'T KNOW 9-8
L-7. YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
L-8. YES 1 (L-1) NO 2 DON'T KNOW 8	YES 1 (L-1) NO 2 DON'T KNOW 8	YES 1 (L-1) NO 2 DON'T KNOW 8

L-9. Please indicate the range on this card which best describes the total expenditures during calendar year 1995 for the natural gas used in this building.

HAND CARD GREEN

- NONE 00
- \$1 to 100 01
- \$101 to \$500 02
- \$501 to \$1,000 03
- \$1,001 to \$2,000 04
- \$2,001 to \$5,000 05
- \$5,001 to \$10,000 06
- \$10,001 to \$20,000 07
- \$20,001 to \$50,000 08
- \$50,001 to \$100,000 09
- \$100,001 to \$200,000 10
- \$200,001 to \$500,000 11
- \$500,001 to \$1 million 12
- OVER \$1 million 13
- DON'T KNOW 98

L-10. Does this building buy or contract for the natural gas from someone other than the local distribution company (utility) and then have the utility deliver that gas? Gas bought this way is often called transported gas, spot market gas, or direct purchase gas, or gas transported for the account of others.

- YES 1
- NO 2 (M-O)
- DON'T KNOW 8 (M-O)

L-11. Can you give me the name and address of the company or broker that the direct purchase gas is bought or contracted from?

- YES 1
- NO 2 (M-O)
- DON'T KNOW 8 (M-O)

L-12. What is the name and address of the company or broker that provided or may yet provide direct purchase gas to this building during calendar year 1995?

COMPANY NAME: _____

ADDRESS: _____

CITY/STATE/ZIP: _____

NAME OF CONTACT PERSON: _____

L-13. Is there a person to contact at (L-12 SUPPLIER) regarding this account?

- YES 1 (ENTER IN L-12)
- NO 2 (M-O)

M. FUEL OIL/DIESEL/KEROSENE SUPPLIERS

BOX 28
SEE REFERENCE TABLE (C-1). IF NATURAL GAS (02) NOT USED, SKIP TO BOX 29.

M-O.	Did you, or do you expect to, purchase fuel oil, diesel or kerosene for use by this building during calendar year 1995?
M-1.	What is the name and address of the supplier that has provided or may yet provide fuel oil, diesel or kerosene to this building during calendar year 1995? RECORD AT TOP OF FACING PAGES.
M-2.	Is there a single bill or statement, or are there separate bills or statements, from (M-1 SUPPLIER) for this building?
M-3.	Please tell me the name of each business or organization that received a bill from (M-1 SUPPLIER) for fuel oil, diesel or kerosene during calendar year 1995. RECORD ON SUPPLIER CUSTOMER SHEET.
M-4.	What are all the account numbers for the fuel oil, diesel or kerosene that (M-1 SUPPLIER) supplies to this building? RECORD ON "RECORD OF ACCOUNT NUMBERS."
M-5.	(Does the bill or statement/Do the bills or statements) from (M-1 SUPPLIER) cover just this building or are other buildings covered as well?
M-6.	What is the approximate square footage of the <u>other</u> buildings that are included on (the bill or statement/the bills or statements)?
M-7.	(Does the bill or statement/Do the bills or statements) include charges for any <u>other</u> major fuel oil, diesel or kerosene usage outside the building, such as for kilns, weldings, pumps or motors?
M-8.	Does this building have any other fuel oil, diesel or kerosene suppliers?

SUPPLIER A	SUPPLIER B	SUPPLIER C
M-O. YES 1 NO 2 (BOX 29)		
M-1. Name _____ _____ Street _____ P.O. Box _____ City _____ State/ZIP _____	Name _____ _____ Street _____ P.O. Box _____ City _____ State/ZIP _____	Name _____ _____ Street _____ P.O. Box _____ City _____ State/ZIP _____
M-2. SINGLE BILL 1 (M-4) SEPARATE BILLS 2	SINGLE BILL 1 (M-4) SEPARATE BILLS 2	SINGLE BILL 1 (M-4) SEPARATE BILLS 2
M-3. LIST PROVIDED 1 NOT PROVIDED 2 IF LIST NOT PROVIDED, COMPLETE A CUSTOMER SHEET	LIST PROVIDED 1 NOT PROVIDED 2 IF LIST NOT PROVIDED, COMPLETE A CUSTOMER SHEET	LIST PROVIDED 1 NOT PROVIDED 2 IF LIST NOT PROVIDED, COMPLETE A CUSTOMER SHEET
M-4. SEE RECORD OF ACCOUNT NUMBERS 1 DO NOT USE ACCOUNT NUMBER\$ 2 DON'T KNOW 8	SEE RECORD OF ACCOUNT NUMBERS 1 DO NOT USE ACCOUNT NUMBERS 2 DON'T KNOW 8	SEE RECORD OF ACCOUNT NUMBERS 1 DO NOT USE ACCOUNT NUMBERS 2 DON'T KNOW 8
M-5. JUST THIS BUILDING ... 1 (M-7) OTHER BUILDING(S) 2 DON'T KNOW 8 (M-7)	JUST THIS BUILDING 1 (M-7) OTHER BUILDING(S) 2 DON'T KNOW 8 (M-7)	JUST THIS BUILDING 1 (M-7) OTHER BUILDING(S) 2 DON'T KNOW 8 (M-7)
M-6. _____ SQUARE FOOTAGE DON'T KNOW 9-8	_____ SQUARE FOOTAGE DON'T KNOW 9-8	_____ SQUARE FOOTAGE DON'T KNOW 9-8
M-7. YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8	YES 1 NO 2 DON'T KNOW 8
M-8. YES 1 (M-1) NO 2 DON'T KNOW 8	YES 1 (M-1) NO 2 DON'T KNOW 8	YES 1 (M-1) NO 2 DON'T KNOW 8

M-9. Please indicate the range on this card which best describes the total expenditures during calendar year 1995 for the fuel oil, diesel or kerosene used in this building.

HAND
CARD
GREEN

NONE	00
\$1 to 100	01
\$101 to \$500	02
\$501 to \$1,000	03
\$1,001 to \$2,000	04
\$2,001 to \$5,000	05
\$5,001 to \$10,000	06
\$10,001 to \$20,000	07
\$20,001 to \$50,000	08
\$50,001 to \$100,000	09
\$100,001 to \$200,000	10
\$200,001 to \$500,000	11
\$500,001 to \$1 million	12
OVER \$1 million	13
DON'T KNOW	98

M-10. Think about all the fuel oil storage for this building. What is the total capacity, in gallons, of all the fuel oil storage tanks?

GALLONS

DON'T KNOW 9-8

INTERVIEWER: COMBINE IF MORE THAN ONE FUEL TANK

This page intentionally blank

N. STEAM SUPPLIERS

BOX 29
SEE REFERENCE TABLE (C-1). IF DISTRICT STEAM (05) NOT USED, SKIP TO BOX 30.

N-1.	What is the name and address of the supplier or organization that has provided or may yet provide district steam to this building during calendar year 1995? RECORD AT TOP OF FACING PAGE.
N-2.	Is there a single bill or statement, or are there separate bills or statements, from (N-1 SUPPLIER) for this building?
N-3.	Please tell me the name of each business or organization that received a bill from (N-1 SUPPLIER) for steam during calendar year 1995. RECORD ON SUPPLIER CUSTOMER SHEET.
N-4.	What are the account numbers for the steam that (N-1 SUPPLIER) supplied to this building? RECORD ON "RECORD OF ACCOUNT NUMBERS."
N-5.	(Does the bill or statement/Do the bills or statements) from (N-1 SUPPLIER) cover just this building or are other buildings covered as well?
N-6.	What is the approximate square footage of the <u>other</u> buildings that are included on (the bill or statement/the bills or statements)?
N-7.	What is the approximate square footage of the <u>other</u> buildings on the district loop that serves this building?
N-8.	Does this building have any other (steam/hot water) suppliers?

SUPPLIER A	SUPPLIER B	SUPPLIER C
N-1. Name _____ _____ Street _____ _____ P.O. Box _____ _____ City _____ _____ State/ZIP _____ _____	Name _____ _____ Street _____ _____ P.O. Box _____ _____ City _____ _____ State/ZIP _____ _____	Name _____ _____ Street _____ _____ P.O. Box _____ _____ City _____ _____ State/ZIP _____ _____
N-2. SINGLE BILL 1 (N-4) SEPARATE BILLS 2 NO BILL OR STATEMENT 3 (N-7)	SINGLE BILL 1 (N-4) SEPARATE BILLS 2 NO BILL OR STATEMENT 3 (N-7)	SINGLE BILL 1 (N-4) SEPARATE BILLS 2 NO BILL OR STATEMENT ... 3 (N-7)
N-3. LIST PROVIDED 1 NOT PROVIDED 2 IF LIST NOT PROVIDED, COMPLETE A CUSTOMER SHEET	LIST PROVIDED 1 NOT PROVIDED 2 IF LIST NOT PROVIDED, COMPLETE A CUSTOMER SHEET	LIST PROVIDED 1 NOT PROVIDED 2 IF LIST NOT PROVIDED, COMPLETE A CUSTOMER SHEET
N-4. SEE RECORD OF ACCOUNT NUMBERS 1 DO NOT USE ACCOUNT NUMBERS 2 DON'T KNOW 8	SEE RECORD OF ACCOUNT NUMBERS 1 DO NOT USE ACCOUNT NUMBERS 2 DON'T KNOW 8	SEE RECORD OF ACCOUNT NUMBERS 1 DO NOT USE ACCOUNT NUMBERS 2 DON'T KNOW 8
N-5. JUST THIS BUILDING ... 1 (N-7) OTHER BUILDING(S) 2 DON'T KNOW 8 (N-7)	JUST THIS BUILDING 1 (N-7) OTHER BUILDING(S) 2 DON'T KNOW 8 (N-7)	JUST THIS BUILDING 1 (N-7) OTHER BUILDING(S) 2 DON'T KNOW 8 (N-7)
N-6. _____ SQUARE FOOTAGE DON'T KNOW 9-8	_____ SQUARE FOOTAGE DON'T KNOW 9-8	_____ SQUARE FOOTAGE DON'T KNOW 9-8
N-7. _____ SQUARE FOOTAGE DON'T KNOW 9-8	_____ SQUARE FOOTAGE DON'T KNOW 9-8	_____ SQUARE FOOTAGE DON'T KNOW 9-8
N-8. YES 1 (N-1) NO 2 DON'T KNOW 8	YES 1 (N-1) NO 2 DON'T KNOW 8	YES 1 (N-1) NO 2 DON'T KNOW 8

O. HOT WATER STEAM SUPPLIERS

BOX 30

SEE REFERENCE TABLE (C-1). IF DISTRICT HOT WATER (06) NOT USED, GO TO BOX 31.

O-1. What is the name and address of the supplier or organization that has provided or may yet provide district hot water to this building during calendar year 1995? RECORD AT TOP OF FACING PAGE.

O-2. Is there a single bill or statement, or are there separate bills or statements, from (O-1 SUPPLIER) for this building?

O-3. Please tell me the name of each business or organization that received a bill from (O-1 SUPPLIER) for for water during calendar year 1995. RECORD ON SUPPLIER CUSTOMER SHEET.

O-4. What are the account numbers for the hot water that (O-1 SUPPLIER) supplied to this building? RECORD ON "RECORD OF ACCOUNT NUMBERS."

O-5. (Does the bill or statement/Do the bills or statements) from (O-1 SUPPLIER) cover just this building or are other buildings covered as well?

O-6. What is the approximate square footage of the other buildings that are included on (the bill or statement/the bills or statements)?

O-7. What is the approximate square footage of the other buildings on the district loop that serves this building?

O-8. Does this building have any other (steam/hot water) suppliers?

SUPPLIER A	SUPPLIER B	SUPPLIER C
O-1. Name _____ _____ Street _____ _____ P.O. Box _____ _____ City _____ _____ State/ZIP _____ _____	Name _____ _____ Street _____ _____ P.O. Box _____ _____ City _____ _____ State/ZIP _____ _____	Name _____ _____ Street _____ _____ P.O. Box _____ _____ City _____ _____ State/ZIP _____ _____
O-2. SINGLE BILL 1 (O-4) SEPARATE BILLS 2 NO BILL OR STATEMENT 3 (O-7)	SINGLE BILL 1 (O-4) SEPARATE BILLS 2 NO BILL OR STATEMENT 3 (O-7)	SINGLE BILL 1 (O-4) SEPARATE BILLS 2 NO BILL OR STATEMENT ... 3 (O-7)
O-3. LIST PROVIDED 1 NOT PROVIDED 2 IF LIST NOT PROVIDED, COMPLETE A CUSTOMER SHEET	LIST PROVIDED 1 NOT PROVIDED 2 IF LIST NOT PROVIDED, COMPLETE A CUSTOMER SHEET	LIST PROVIDED 1 NOT PROVIDED 2 IF LIST NOT PROVIDED, COMPLETE A CUSTOMER SHEET
O-4. SEE RECORD OF ACCOUNT NUMBERS 1 DO NOT USE ACCOUNT NUMBERS 2 DON'T KNOW 8	SEE RECORD OF ACCOUNT NUMBERS 1 DO NOT USE ACCOUNT NUMBERS 2 DON'T KNOW 8	SEE RECORD OF ACCOUNT NUMBERS 1 DO NOT USE ACCOUNT NUMBERS 2 DON'T KNOW 8
O-5. JUST THIS BUILDING ... 1 (O-7) OTHER BUILDING(S) 2 DON'T KNOW 8 (O-7)	JUST THIS BUILDING 1 (O-7) OTHER BUILDING(S) 2 DON'T KNOW 8 (O-7)	JUST THIS BUILDING 1 (O-7) OTHER BUILDING(S) 2 DON'T KNOW 8 (O-7)
O-6. _____ SQUARE FOOTAGE DON'T KNOW 9-8	_____ SQUARE FOOTAGE DON'T KNOW 9-8	_____ SQUARE FOOTAGE DON'T KNOW 9-8
O-7. _____ SQUARE FOOTAGE DON'T KNOW 9-8	_____ SQUARE FOOTAGE DON'T KNOW 9-8	_____ SQUARE FOOTAGE DON'T KNOW 9-8
O-8. YES 1 (O-1) NO 2 DON'T KNOW 8	YES 1 (O-1) NO 2 DON'T KNOW 8	YES 1 (O-1) NO 2 DON'T KNOW 8

P. OTHER ENERGY SOURCES

BOX 31

SEE REFERENCE TABLE (C-1). IF BOTTLED GAS (04) USED, ASK P-1;
OTHERWISE GO TO BOX 32.

P-1. Earlier you said that bottled gas is used in this building. Which of the ranges on this card will best describe the amount of bottled gas used in this building during calendar year 1995?

HAND CARD P-1	LESS THAN 100	01	} GALLONS 1 POUNDS 2
	100 to 499	02	
	500 to 999	03	
	1,000 OR MORE	04	
	DON'T KNOW	98	

INTERVIEWER: YOU MUST INDICATE EITHER GALLONS OR POUNDS

P-2. Which of the ranges on this card will best describe the total expenditures during calendar year 1995 for the bottled gas used in this building?

HAND CARD PINK	NONE	00
	1 to \$100	01
	\$101 to \$500	02
	\$501 to \$1,000	03
	\$1,001 to \$2,000	04
	\$2,001 to \$5,000	05
	\$5,001 to \$10,000	06
	\$10,001 to \$20,000	07
	Over \$20,000	08
	DON'T KNOW	98

BOX 32

SEE REFERENCE TABLE (C-1). ASK P-3 IF WOOD (08) SELECTED IN C-1;
OTHERWISE GO TO P-7.

P-3. Earlier you said that wood is used in this building. Which of the following wood types have you used?

a. Roundwood or wood logs?

YES	1
NO	2
DON'T KNOW	8

b. Waste wood or wood scraps, such as mill waste or bark?

- YES 1
- NO 2
- DON'T KNOW 8

c. Wood pellets?

- YES 1
- NO 2
- DON'T KNOW 8

P-4. [IF P-3a = YES, ASK:]

Which of the ranges on this card best describes how much wood has been burned in this building during calendar year 1995?

HAND CARD P-4

- LESS THAN 1 CORD 1
- 1 TO 9 CORDS 2
- 10 TO 20 CORDS 3
- MORE THAN 20 CORDS 4
- DON'T KNOW 8

P-5. Did you purchase the wood used, or was it provided free of charge?

- PURCHASED 1
- PROVIDED FREE OR CHARGE 2 (P-7)
- BOTH PURCHASED AND PROVIDED FREE
OF CHANGE 3
- DON'T KNOW 8 (P-7)

P-6. Which of the ranges on this card will best describe the total expenditures during calendar year 1995 FOR the wood used in this building?

HAND CARD PINK

- NONE 00
- \$100 or LESS 01
- \$101 to \$500 02
- \$501 to \$1,000 03
- \$1,001 to \$2,000 04
- \$2,001 to \$5,000 05
- \$5,001 to \$10,000 06
- \$10,001 to \$20,000 07
- OVER \$20,000 08
- DON'T KNOW 98

<p>P-7. Does this building have the following renewable energy features?</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px 0;">HAND CARD P-7</div>	<p>P-8A. [FOR EACH "YES" IN P-7, ASK:] (Please look at the yellow card.) Which of those listed sponsored the (P-7 FEATURE)? (CIRCLE ALL THAT APPLY)</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px 0;">HAND CARD YELLOW</div>
<p>a. Passive solar features?</p> <p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	<p>UTILITY 1</p> <p>FEDERAL GOVERNMENT 2</p> <p>IN-HOUSE OR SELF-SPONSORED 3</p> <p>THIRD PARTY 4</p> <p>OTHER 5</p> <p>DON'T KNOW 8</p>
<p>b. Photovoltaic (PV) arrays that convert sunlight directly to energy?</p> <p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	<p>UTILITY 1</p> <p>FEDERAL GOVERNMENT 2</p> <p>IN-HOUSE OR SELF-SPONSORED 3</p> <p>THIRD PARTY 4</p> <p>OTHER 5</p> <p>DON'T KNOW 8</p>
<p>c. Geothermal or ground source Heat pumps?</p> <p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	<p>UTILITY 1</p> <p>FEDERAL GOVERNMENT 2</p> <p>IN-HOUSE OR SELF-SPONSORED 3</p> <p>THIRD PARTY 4</p> <p>OTHER 5</p> <p>DON'T KNOW 8</p>
<p>d. Wind Generation?</p> <p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	<p>UTILITY 1</p> <p>FEDERAL GOVERNMENT 2</p> <p>IN-HOUSE OR SELF-SPONSORED 3</p> <p>THIRD PARTY 4</p> <p>OTHER 5</p> <p>DON'T KNOW 8</p>
<p>e. Well water for cooling</p> <p>YES 1</p> <p>NO 2</p> <p>DON'T KNOW 8</p>	<p>UTILITY 1</p> <p>FEDERAL GOVERNMENT 2</p> <p>IN-HOUSE OR SELF-SPONSORED 3</p> <p>THIRD PARTY 4</p> <p>OTHER 5</p> <p>DON'T KNOW 8</p>

Q. AUTHORIZATION FORM

Q-1. As I mentioned, the purpose of the study is to relate building characteristics with energy consumption and expenditures. This information can best be obtained by going directly to each energy supplier of the building. In order for the energy companies to release this information to Westat, we need to have an authorization form from you, or some other representative of your company.

a. Should the authorization form be signed by you or someone else?

RESPONDENT 1
SOMEONE ELSE (SPECIFY BELOW) 2

b. Please give me the name, address, and telephone number of the person who should sign the authorization for.

NAME: _____

TITLE: _____

ADDRESS: _____

CITY, STATE, ZIP: _____

PHONE NUMBER: () _____

FAX NUMBER () _____

Q-2. COMPLETE THE AUTHORIZATION FORM FOR ALL SUPPLIERS REPORTED IN SECTIONS K THROUGH O.

Q-3. RECORD STATUS OF AUTHORIZATION FORM.

SIGNED 1
TO BE SIGNED BY THE NAME PERSON WHO
HAS ACCOUNT NUMBERS 2
TO BE SIGNED BY SOMEONE ELSE 3
OTHER 91

Q-4. This completes the interview. Thank you very much for your time and help.

RECORDED TIME ENDED.

TIME ENDED: _____ AM
PM

INTERVIEWER OBSERVATIONS

FILL THIS OUT IF YOU COMPLETE THE BUILDING INTERVIEW.

IO-1. Building is, or is part of a facility that is, a: (CIRCLE ONE)

- HOSPITAL 1
- COLLEGE/UNIVERSITY 2
- POST OFFICE 3
- FEDERALLY OWNED 4
- NONE OF THE ABOVE 5

IO-2. Does BOX 1 equal 1 or 2? (CIRCLE ONE)

- YES 1 (IO-4)
- NO 2

IO-3. A. Please indicate the name and address(es) of the building from the listing sheet.

NAME: _____

ADDRESS: _____

B. Please indicate the name and address(es) of the building as defined for the interview.

(A-5) NAME: _____ (A-1)

ADDRESS: _____

C. Please explain the circumstances if any difference between listing and interview definition of the building.

IO-4. Record the name, title, address, and telephone number of the respondent identified on the Call Record.

NAME: _____

POSITION: _____

STREET ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE NO.: (____) _____

IO-4OV. Did this person respond to the questionnaire?

YES 1 (IO-8)

NO 2

IO-5. Number of contacts by phone and in person to obtain a complete interview from Call Record.

NUMBER: _____

IO-6. What is your observation of the type of building or kind of business that occurs within the building? Please be thorough in your description.

IO-7. Was the authorization form signed?

YES 1 (IO-8)

NO 2

IO-7OV. Explain why form was not signed.

IO-7A. Did you obtain all the account numbers you needed?

YES 1 (IO-8)
NO 2

IO-7AOV. Explain why not.

IO-8. Please describe any unusual circumstances you may have encountered in obtaining the energy consumption authorization form and/or account numbers.

IO-9. Record the name, title, address, and telephone number of the person to receive authorization form refusal conversion letter.

NAME: _____

POSITION: _____

STREET ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE NO.: () _____

IO-10. Is there anything about this case that the data preparation staff needs to fix?

NONINTERVIEW REPORT

FILL THIS OUT IF YOU DID NOT COMPLETE
THE BUILDING INTERVIEW.

NIR-1. WHY WERE YOU UNABLE TO COMPLETE THE INTERVIEW?

- REFUSAL/BREAKOFF 1
- INELIGIBLE BUILDING 2 (NIR-5)
- RESPONDENT COULD NOT BE CONTACTED 3

NIR-2. What is the name, title, and telephone number of the individual who refused, broke off, or could not be contacted for the interview?

NAME: _____

TITLE: _____

PHONE NO. () _____

NIR-3. Why did the respondent refuse? (RECORD VERBATIM) OR:

NIR-4. Why were there problems contacting the respondent?

SKIP TO NIR-5

NIR-5. Record the name, title, address, and telephone number of the person recorded on the call record for ineligible building.

NAME: _____

POSITION: _____

STREET ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE NO.: (____) _____

NIR-6. Please explain in detail why the building was ineligible for the interview.

NIR-7. What is your observation of the type of building or kind of business that occurs within the building. Enter primary building activity code.

BUILDING ACTIVITY: _____

NIR-8. Would you estimate that 50 percent or more of the space in this building is used for:

a. Industrial activities?

YES 1
NO 2

b. Agricultural activities?

YES 1
NO 2

c. Indoor enclosed parking garage?

YES 1
NO 2

d. Residential activities?

YES 1
NO 2

NIR-9. Is the building located on an industrial or manufacturing complex?

- YES 1
- NO 2

NIR-10. Which category in your estimate best applies to the total square feet in this building? If you can't decide on one size category you may code two or three.

- 1,000 SQUARE FEET OR LESS 1
- 1,000 TO 5,000 2
- 5,001 TO 10,000 3
- 10,001 TO 25,000 4
- 25,001 TO 50,000 5
- 50,001 TO 100,000 6
- 100,001 TO 200,000 7
- 200,001 TO 500,000 8
- 500,001 TO 1 MILLION 9
- OVER 1 MILLION 10

NIR-11. How many floors does the building have, ground level and above?

FLOORS: _____

This page intentionally blank

REFERENCE TABLE

A-7/A-8. SQUARE FEET: _____ (GO TO BOX 6)

C-1. ENERGY SOURCES:

ELECTRICITY	01
NATURAL GAS	02
FUEL OIL, DIESEL OR KEROSENE	03
BOTTLED GAS, LPG OR PROPANE	04
<u>DISTRICT STEAM PIPED INTO THE BUILDING FROM</u> A CENTRAL PLANT OR UTILITY	05
<u>DISTRICT HOT WATER PIPED INTO THE BUILDING</u> FROM A CENTRAL PLANT OR UTILITY	06
<u>DISTRICT CHILLED WATER PIPED INTO THE BUILDING</u> FROM A CENTRAL PLANT OR UTILITY	07
WOOD	08
COAL	09
SOLAR THERMAL PANELS THAT USE SUNLIGHT TO HEAT FLUIDS	11
OTHER (SPECIFY) _____	91
NO ENERGY USED IN 1995	92
DON'T KNOW	98

C-3a. MAIN SOURCE FOR HEATING: (CIRCLE ONE)

SOURCE GIVEN. BUILDING IS HEATED (01-11, 91)	1
SOURCE NOT KNOWN. BUILDING IS HEATED (16)	2
NO SOURCE. BUILDING IS NOT HEATED (15)	3

C-3c. SOURCE FOR COOLING: (CIRCLE ONE)

SOURCE GIVEN. BUILDING IS COOLED (01-11, 91)	1
SOURCE NOT KNOWN. BUILDING IS COOLED (16)	2
NO SOURCE. BUILDING IS NOT COOLED (15)	3

E-6. MONTHS IN USE DURING 1995.

_____ MONTHS

NOT IN USE DURING PAST 12 MONTHS	00 (BOX 18)
DON'T KNOW	98

E-7. IS BUILDING NORMALLY OPEN 24 HOURS A DAY?

YES	1 (GO TO E-20)
NO	2
DON'T KNOW	8