## Residential Energy Consumption Surveys

## 1997 Consumption and Expenditures Tables

## **Total Expenditures Tables**

(20 pages, 76 kb)

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These data are from the 1997 Residential Energy Consumption Survey (RECS) which provides information on the use of energy in residential housing units in the United States. The RECS is a national statistical survey that collects data for occupied primary housing units. RECS was first conducted in 1978; the sixth and most recent survey was conducted in 1997 RECS. The data were collected from a sample of 5,900 housing units statistically selected to represent the 101.5 million units in the United States. The 1997 data are available for the four Census regions, the nine Census divisions, and for the four most populous States--California, Florida, New York, and Texas.

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**World Wide Web:** http://www.eia.doe.gov/emeu/consumption

Table CE1-1e. Total Energy Expenditures in U.S. Households by Climate Zone, 1997

Note than   Total				Climate Zone <sup>1</sup>				
Total   More than   7,000 HDD   5,499 HDD   4,000 HD								
RSE Column Factor:   0.4		2,000 CDD or More and Fewer than 4,000 HDD		000 CDD and	Fewer than 2,0			
Million Households	Fewer nan						Total	
Total U.S. Households	RSE Row Factor	1.1	1.2	1.2	1.0	1.7	0.4	RSE Column Factor:
Number of Households, Fuels Used (more than one may apply):			· · · · · · · · · · · · · · · · · · ·	illion Households	М			
Control Hannone may apply :	22.2 7.9	22.2	19.5	22.5	28.0	9.3	101.5	Total U.S. Households
Natural Gas								(more than one may apply):
Fuel Oil	-	22.2						
Kerosene		11.5						
LPG		Q 0.4						
Total Expenditures, Fuels Used:   Electricity	1.4 23.3							
Total Expenditures, Fuels Used:  Electricity 88.33 6.54 21.83 20.18 15.99 2 Natural Gas 35.81 3.28 14.57 8.30 5.01 Fuel Oil 7.11 1.52 2.55 2.91 0.12 Kerosene 0.50 0.13 0.12 0.09 0.14 LPG 4.04 0.56 1.25 0.90 0.85 Total 135.79 12.04 40.32 32.38 22.11 2   **Total Expenditures per Household**  **Fuels Used:**  Electricity 871 708 778 897 820 1 Natural Gas 579 643 729 654 395 Fuel Oil 714 756 814 656 448 Kerosene 144 315 141 102 151 LPG 500 394 643 549 500	2.9 11.5							
Electricity				Billion Dollars				
Natural Gas								Total Expenditures, Fuels Used:
Fuel Oil		23.78						•
Kerosene		4.65						
LPG     4.04     0.56     1.25     0.90     0.85       Total     Dollars per Household³       Total Expenditures per Household,       Fuels Used:       Electricity     871     708     778     897     820     1       Natural Gas     579     643     729     654     395       Fuel Oil     714     756     814     656     448       Kerosene     144     315     141     102     151       LPG     500     394     643     549     500		Q						
Total		0.02 0.47						
Dollars per Household³           Total Expenditures per Household,           Fuels Used:         Electricity         871         708         778         897         820         1           Natural Gas         579         643         729         654         395           Fuel Oil         714         756         814         656         448           Kerosene         144         315         141         102         151           LPG         500         394         643         549         500		28.95						
Total Expenditures per Household, Fuels Used:  Electricity 871 708 778 897 820 1 Natural Gas 579 643 729 654 395 Fuel Oil 714 756 814 656 448 Kerosene 144 315 141 102 151 LPG 500 394 643 549 500	5.55	20.00				12.04	100.70	-
Fuels Used:       Electricity     871     708     778     897     820     1       Natural Gas     579     643     729     654     395       Fuel Oil     714     756     814     656     448       Kerosene     144     315     141     102     151       LPG     500     394     643     549     500				•				Total Expanditures per Household
Electricity     871     708     778     897     820     1       Natural Gas     579     643     729     654     395       Fuel Oil     714     756     814     656     448       Kerosene     144     315     141     102     151       LPG     500     394     643     549     500								
Fuel Oil       714       756       814       656       448         Kerosene       144       315       141       102       151         LPG       500       394       643       549       500	,072 2.9	1,072	820	897	778	708	871	
Kerosene     144     315     141     102     151       LPG     500     394     643     549     500	406 3.6	406	395	654	729	643	579	Natural Gas
LPG 500 394 643 549 500		Q						
	49 21.6							
1,000 1,000 1,400 1,400 1,100 1	350 10.1 ,305 2.3	350 1,305						
Dallara and Millian Div.2	,303 2.3	1,303	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	1,301	1,330	- Total
Dollars per Million Btu <sup>3</sup>			<u>u</u> s	ars per Million Bt	DOII			-
Average Price of Btu Consumption, Fuels Used:								Fuels Used:
,		24.05						
		6.97						
		Q 9.63						
		12.61						
		17.04						

Table CE1-1e. Total Energy Expenditures in U.S. Households by Climate Zone, 1997 (Continued)

				Climate Zone <sup>1</sup>		,	
						2,000 CDD or More	
	Total	More than 7,000 HDD	5,500 to 7,000 HDD	4,000 to 5,499 HDD	Fewer than 4,000 HDD	and Fewer than 4,000 HDD	
RSE Column Factor:	0.4	1.7	1.0	1.2	1.2	1.1	RSE Row Factors
			Pric	e per Physical Ur	nit <sup>3</sup>		
Average Price of Physical Units of							
Consumption, Fuels Used:							
Electricity (cents per kWh)	8.5	7.7	8.9	8.6	8.8	8.2	2.6
Natural Gas (dollars per thousand cf)		6.03	6.61	7.99	7.10	7.16	2.4
Fuel Oil (dollars per gallon)		0.96	1.00	0.97	1.03	Q	0.9
Kerosene (dollars per gallon)		1.11	1.17	1.13	1.16	1.30	2.4
LPG (dollars per gallon)	1.03	0.96	0.97	1.04	1.09	1.15	5.2
			М	illion Households	<b>S</b>		
Normalism of Harrisch alde Mileson the							
Number of Households, Where the End Use Is:							
Space Heating <sup>4</sup>	99.7	8.9	27.8	22.2	19.2	21.5	8.0
Electric Air-Conditioning <sup>5</sup>		5.2	18.2	17.6	12.0	19.6	8.4
Water Heating <sup>6</sup>		9.2	27.9	22.3	19.4	21.9	7.9
Refrigerators		9.2	28.0	22.5	19.5	22.1	7.9
Appliances		9.3	28.0	22.5	19.5	22.2	7.9
, фриалосс		0.0	20.0		10.0		
				Billion Dollars			
Total Expenditures, Where the End							
Use Is:	42.03	4.80	15.95	11.60	5.14	4.53	8.1
Space Heating		4.80 0.25	15.95	1.84	1.70	4.53 5.16	10.4
Electric Air-Conditioning		1.74	5.40	4.63	3.70	4.28	6.9
Refrigerators		0.85	3.14	2.66	2.34	3.14	6.7
Other Appliances and Lighting		4.40	14.57	11.64	9.22	11.84	7.0
Other Appliances and Lighting			14.07	11.04	J.22	11.04	1.0
			Doll	lars per Househo	ld <sup>3</sup>		
Total Expenditures per Household, Where the End Use Is:							
Space Heating	421	538	573	522	267	211	3.5
Electric Air-Conditioning		48	69	105	141	264	4.8
Water Heating		190	194	207	191	195	2.5
		92	112	118	121	142	2.9
Refrigerators							

<sup>1</sup> One of five climatically distinct areas, determined according to the 30-year average (1961-1990) of the annual heating and cooling degree-days. For this report, the heating or cooling degree-days are a measure of how cold or how hot a location is over a period of one year, relative to a base temperature of 65 degrees Fahrenheit. A household is assigned to a climate zone according to the 30-year average annual degree-days for an appropriate nearby weather station.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1997 Residential Energy Consumption Survey.

The RECS cannot be used to accurately estimate the number of households that do not use electricity.

The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

<sup>&</sup>lt;sup>6</sup> Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. · See "Glossary" for definition of terms used in this report.

Table CE1-2e. Total Energy Expenditures in U.S. Households by Year of Construction, 1997

				Year of Co	nstruction			
	Total	1990 to 1997 <sup>1</sup>	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.7	1.3	1.0	1.1	1.1	0.8	RSE Row Factors
				Million Hous	seholds		I	
Total U.S. Households	101.5	9.7	17.3	19.6	14.4	12.5	27.9	4.2
Number of Households, Fuels Used (more								
than one may apply):								
Electricity <sup>2</sup>	101.4	9.7	17.3	19.6	14.4	12.5	27.9	4.2
Natural Gas	61.9	5.2	7.5	9.5	9.6	9.2	20.9	6.1
Fuel Oil	10.0	0.3	0.6	1.0	1.5	1.5	5.0	14.6
Kerosene	3.5	0.2	0.5	0.8	0.4	0.3	1.4	18.4
LPG	8.1	0.9	1.2	1.7	1.1	0.7	2.5	14.0
Wood	15.0	1.6	3.7	3.4	2.2	1.4	2.8	9.8
				Billion Do	ollars			_
T								
Total Expenditures, Fuels Used: Electricity	88.33	9.66	17.62	19.03	11.85	10.14	20.03	4.5
Natural Gas	35.81	2.91	3.83	4.75	4.88	5.30	14.15	7.3
Fuel Oil	7.11	0.22	0.44	0.63	0.97	1.08	3.77	16.8
Kerosene	0.50	0.03	0.06	0.09	0.05	0.03	0.23	29.9
LPG	4.04	0.48	0.59	0.75	0.50	0.03	1.44	16.7
Total	135.79	13.29	22.54	25.25	18.26	16.82	39.63	4.2
			D	ollars per Ho	ousehold <sup>3</sup>			
Total Expenditures per Household, Fuels Used:								
Electricity	871	997	1,018	973	821	808	718	2.6
Natural Gas	579	557	508	501	508	577	677	3.5
Fuel Oil	714	713	753	612	630	710	758	7.7
Kerosene	144	164	120	125	132	119	170	26.0
LPG	500	546	506	443	457	377	576	9.0
Total	1,338	1,369	1,302	1,291	1,264	1,340	1,420	2.0
			D	ollars per Mi	Ilion Btu <sup>3</sup>			
A constitution of the second second								
Average Price of Btu Consumption, Fuels Used:								
Electricity	24.97	23.35	23.97	23.81	25.42	26.21	27.21	1.5
Natural Gas	6.78	6.78	6.85	6.39	6.67	6.91	6.90	2.0
Fuel Oil	7.05	7.27	7.30	6.92	7.03	7.12	7.02	2.1
Kerosene	8.51	8.32	8.46	8.39	8.52	8.33	8.62	2.6
					44	40 :-		
LPG	11.23 13.25	11.30 14.48	11.59 15.95	11.48 14.77	11.19 13.17	12.17 12.63	10.80 11.37	3.3 1.9

Table CE1-2e. Total Energy Expenditures in U.S. Households by Year of Construction, 1997 (Continued)

				Year of Co	nstruction			
	Total	1990 to 1997 <sup>1</sup>	1980 to 1989	1970 to 1979	1960 to 1969	1950 to 1959	1949 or Before	
RSE Column Factor:	0.5	1.7	1.3	1.0	1.1	1.1	0.8	RSE Row Factors
-		I	Pr	ice per Phys	sical Unit <sup>3</sup>			
Average Price of Physical Units of								
Consumption, Fuels Used:								
Electricity (cents per kWh)	8.5	8.0	8.2	8.1	8.7	8.9	9.3	1.5
Natural Gas (dollars per thousand cf)	6.96	6.97	7.03	6.56	6.85	7.09	7.08	2.0
Fuel Oil (dollars per gallon)	0.98	1.01	1.01	0.96	0.97	0.99	0.97	2.1
Kerosene (dollars per gallon)	1.15	1.12	1.14	1.13	1.15	1.12	1.16	2.6
LPG (dollars per gallon)	1.03	1.03	1.06	1.05	1.02	1.11	0.99	3.3
				Million Hous	seholds			·
-								
Number of Households, Where the End Use Is:								
Space Heating <sup>4</sup>	99.7	9.6	17.1	19.2	14.1	12.4	27.3	4.2
Electric Air-Conditioning <sup>5</sup>	72.6	8.3	14.6	14.7	10.0	8.9	16.1	4.7
Water Heating <sup>6</sup>	100.8	9.7	17.2	19.4	14.3	12.5	27.7	4.7
Refrigerators	101.3	9.7	17.2	19.5	14.4	12.5	27.8	4.2
Appliances	101.5	9.7	17.3	19.6	14.4	12.5	27.9	4.2
-						.2.0	20	
-				Billion Do	ollars			
Total Expenditures, Where the End Use								
Space Heating	42.03	3.32	5.23	6.85	5.44	5.38	15.80	4.7
Electric Air-Conditioning	10.20	1.49	2.60	2.30	1.34	1.08	1.40	7.3
Water Heating	19.76	2.04	3.62	3.90	2.63	2.32	5.25	4.2
Refrigerators	12.14	1.07	2.08	2.31	1.79	1.62	3.27	4.6
Other Appliances and Lighting	51.66	5.37	9.01	9.88	7.06	6.44	13.90	4.4
_			D.	ollars per Ho	ueobold3			-1
-			יט	bilars per no	ousenoid			
Total Expenditures per Household, Where the End Use Is:								
Space Heating	421	347	306	357	385	433	578	3.0
Electric Air-Conditioning	140	179	177	157	134	121	87	5.5
		211	210	202	184	185	190	2.2
Water Heating	190							
Water Heating Refrigerators	196 120	111	121	118	124	129	117	2.6

<sup>1</sup> New construction for 1997 includes only those housing units built and occupied between January and the April-August period when the household interviews were conducted.

The RECS cannot be used to accurately estimate the number of households that do not use electricity.

The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

House nolds where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

6 Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1997 Residential Energy Consumption Survey.

Table CE1-3e. Total Energy Expenditures in U.S. Households by Household Income, 1997

		1						
			1997 House	hold Income	I		Eli- gible for	
	Total	Less than \$10,000	\$10,000 to \$24,999	\$25,000 to \$49,999	\$50,000 or More	Below Poverty Line	Fed- eral Assist- ance <sup>1</sup>	
RSE Column Factor:	0.6	1.5	1.0	0.9	1.0	1.3	1.0	RSE Row Factors
				Million H	ouseholds			
Total U.S. Households	101.5	13.3	29.1	31.1	27.9	14.6	34.1	2.7
Number of Households, Fuels Used (more than one may apply):	101.0	10.0	20.1	01.1	21.5	17.0	04.1	2.7
Electricity <sup>2</sup>	101.4	13.3	29.1	31.1	27.9	14.6	34.0	2.7
Natural Gas	61.9	8.0	17.0	19.0	17.9	9.1	20.4	4.3
Fuel Oil	10.0	1.3	2.5	3.2	3.0	1.4	3.4	10.4
Kerosene	3.5	0.4	1.2	1.2	0.6	0.6	1.4	14.5
LPG	8.1	1.0	2.4	2.7	1.9	1.2	2.8	12.7
Wood	15.0	0.7	3.0	4.7	6.7	1.1	3.0	9.4
-				Billion	Dollars			
Total Expenditures, Fuels Used:	88.33	8.36	21.92	26.61	31.43	10.29	24.79	3.4
Natural Gas	35.81	3.74	8.82	11.17	12.08	4.35	10.54	5.4
Fuel Oil	7.11	0.66	1.52	2.21	2.73	0.69	1.97	12.1
Kerosene	0.50	0.08	0.19	0.18	0.06	0.12	0.22	23.4
LPG	4.04	0.43	1.20	1.39	1.02	0.50	1.34	14.8
Total	135.79	13.26	33.65	41.56	47.33	15.95	38.86	2.9
-				Dollars per	Household	<b>d</b> <sup>3</sup>		
Total Expenditures per Household, Fuels Used:								
Electricity	871	630	752	855	1,126	703	728	2.3
Natural Gas	579	469	518	589	673	476	516	3.0
Fuel Oil	714	505	603	699	914	498	576	5.3
Kerosene	144	192	149	147	99	185	163	19.6
LPG Total	500 1,338	412 997	493 1,155	518 1,335	531 1,696	433 1,088	482 1,140	8.6 1.6
-	,		,	Dollars per	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	, -	
-								
Average Price of Btu Consumption, Fuels Used:								
Electricity	24.97	25.05	24.70	24.63	25.44	25.04	25.16	1.3
Natural Gas	6.78	7.06	6.76	6.78	6.72	6.86	6.88	1.6
Fuel Oil	7.05	6.22	6.87	7.03	7.42	6.16	6.66	1.5
Kerosene	8.51	8.58	8.54	8.41	8.61	8.68	8.64	1.7
LPG Total	11.23 13.25	11.36 13.05	11.18 13.23	10.66 13.01	12.12 13.55	11.33 13.12	11.42 13.15	2.8 1.8
-	10.20		10.20	10.01	10.00	10.12	10.10	

Table CE1-3e. Total Energy Expenditures in U.S. Households by Household Income, 1997 (Continued)

			1997 House	hold Income			Eli- gible		
	Total	Total	Less than \$10,000	\$10,000 to \$24,999	\$25,000 to \$49,999	\$50,000 or More	Below Poverty Line	for Fed- eral Assist- ance <sup>1</sup>	
RSE Column Factor:	0.6	1.5	1.0	0.9	1.0	1.3	1.0	RSE Row Factors	
_				Price per P	hysical Uni	it <sup>3</sup>			
Average Price of Physical Units of									
Consumption, Fuels Used: Electricity (cents per kWh) Natural Gas (dollars per thousand cf) Fuel Oil (dollars per gallon) Kerosene (dollars per gallon) LPG (dollars per gallon)	8.5 6.96 0.98 1.15 1.03	8.5 7.25 0.86 1.16 1.04	8.4 6.94 0.95 1.15 1.02	8.4 6.96 0.98 1.14 0.97	8.7 6.90 1.03 1.16 1.11	8.5 7.04 0.85 1.17 1.03	8.6 7.07 0.92 1.17 1.04	1.3 1.6 1.5 1.7 2.8	
					ouseholds				
Number of Households, Where the End									
Use Is:									
Space Heating <sup>4</sup>	99.7	12.8	28.5	30.7	27.6	14.0	33.0	2.8	
Electric Air-Conditioning <sup>5</sup>	72.6	8.1	19.3	23.1	22.2	8.3	20.9	3.6	
Water Heating <sup>6</sup>	100.8	13.0	29.0	31.0	27.7	14.4	33.7	2.8	
Refrigerators	101.3 101.5	13.2 13.3	29.1 29.1	31.1 31.1	27.9 27.9	14.6 14.6	34.0 34.1	2.8 2.7	
_					Dollars				
_									
Total Expenditures, Where the End Use									
Space Heating	42.03	4.33	10.78	13.12	13.79	4.73	12.20	3.3	
Electric Air-Conditioning	10.20	0.91	2.39	2.86	4.04	1.00	2.48	6.1	
Water Heating	19.76	2.08	5.22	6.14	6.33	2.71	6.40	3.0	
Refrigerators	12.14	1.36	3.15	3.55	4.07	1.52	3.61	3.2	
Other Appliances and Lighting	51.66	4.58	12.10	15.89	19.10	5.99	14.18	3.2	
_				Dollars per	Household	<b>J</b> 3			
Total Expenditures per Household, Where the End Use Is:									
Space Heating	421	338	378	427	499	338	370	2.6	
Electric Air-Conditioning	140	113	124	124	182	120	119	4.8	
Water Heating	196	160	180	198	228	189	190	1.8	
3	120	103	108	114	228 146	104	190	2.0	
Refrigerators									

Below 150 percent of poverty line or 60 percent of median State income.

The RECS cannot be used to accurately estimate the number of households that do not use electricity.
 The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

6 Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1997 Residential Energy Consumption Survey.

Table CE1-4e. Total Energy Expenditures in U.S. Households by Type of Housing Unit, 1997

		<del></del>	•			1
			Type of Ho	ousing Unit		
			Multi	family		
	Total	Single-Family	Two to Four Units	Five or More Units	Mobile Home	
RSE Column Factor:	0.5	0.5	1.9	1.4	1.5	RSE Row Factors
		1	Million Hous	eholds		
Total U.S. Households	101.5	73.7	5.6	15.8	6.3	4.0
Number of Households, Fuels Used (more than one may apply):						
Electricity <sup>1</sup>	101.4	73.7	5.6	15.8	6.3	4.0
Natural Gas	61.9	47.0	3.8	8.8	2.3	6.1
Fuel Oil	10.0	7.5	0.5	1.8	Q	13.5
Kerosene	3.5	2.7	Q	Q	0.6	15.8
LPG	8.1	6.2	Q	Q	1.7	15.2
Wood	15.0	14.0	Q	0.2	0.7	13.1
_			Billion Do	llars		
Total Expenditures, Fuels Used:						
Electricity	88.33	70.33	3.47	8.84	5.68	4.3
Natural Gas	35.81	29.97	2.36	2.46	1.02	7.9
Fuel Oil	7.11	6.13	0.35	0.59	Q	16.8
Kerosene	0.50	0.32	Q	Q	0.16	27.2
LPG	4.04	3.25	Q	Q	0.72	17.0
Total	135.79	110.00	6.23	11.94	7.62	3.7
-			Dollars per Ho	usehold <sup>2</sup>		1
Total Expenditures per Household, Fuels						
Used:						
Electricity	871	954	617	560	899	2.6
Natural Gas	579	638	616	281	438	3.6
Fuel Oil	714	814	728	323	Q	6.7
Kerosene	144	116	Q	Q	270	21.3
LPG	500	524	Q	Q	423	8.0
Total	1,338	1,492	1,108	755	1,206	1.8
-			Dollars per Mil	lion Btu <sup>2</sup>		
-			•			
Average Price of Btu Consumption, Fuels Used:						
Electricity	24.97	24.79	27.79	27.41	22.45	1.6
Natural Gas	6.78	6.72	7.01	7.62	6.27	2.1
Fuel Oil	7.05	7.34	7.21	4.99	Q	1.7
Kerosene	8.51	8.60	Q	Q	8.35	2.0
LPG	11.23	11.15	Q	Q	11.57	2.9
Total	13.25	13.00	12.10	15.53	15.17	2.2
_			-			

Table CE1-4e. Total Energy Expenditures in U.S. Households by Type of Housing Unit, 1997 (Continued)

			Type of Ho	ousing Unit		
			Multi	Multifamily		
	Total	Single-Family	Two to Four Units	Five or More Units	Mobile Home	
RSE Column Factor:	0.5	0.5	1.9	1.4	1.5	RSE Row Factors
			Price per Phys	ical Unit <sup>2</sup>		
Average Price of Physical Units of						
Consumption, Fuels Used:						
Electricity (cents per kWh)	8.5	8.5	9.5	9.4	7.7	1.6
Natural Gas (dollars per thousand cf)	6.96	6.90	7.20	7.83	6.44	2.1
Fuel Oil (dollars per gallon)	0.98	1.02	1.00	0.69	Q	1.7
Kerosene (dollars per gallon)	1.15	1.16	Q	Q	1.13	2.0
LPG (dollars per gallon)	1.03	1.02	Q	Q	1.06	2.9
_			Million Hous	eholds		_
Number of Households, Where the End Use Is:						
Space Heating <sup>3</sup>	99.7	72.7	5.6	15.3	6.1	4.1
Electric Air-Conditioning <sup>4</sup>	72.6	53.8	3.4	10.9	4.5	4.8
Water Heating <sup>5</sup>	100.8	73.4	5.6	15.5	6.3	4.0
Refrigerators	101.3	73.7	5.6	15.7	6.3	4.0
Appliances	101.5	73.7	5.6	15.8	6.3	4.0
_			Billion Do	llars		•
Total Expenditures, Where the End Use						
ls:						
Space Heating	42.03	35.07	2.45	2.34	2.18	4.5
Electric Air-Conditioning	10.20	8.06	0.29	1.06	0.79	7.6
Water Heating	19.76	14.89	0.97	2.57	1.34	4.0
Refrigerators	12.14	9.55 42.44	0.57 1.95	1.43	0.59	4.2 4.0
Other Appliances and Lighting	51.66	42.44	1.95	4.54	2.73	4.0
_			Dollars per Ho	usehold <sup>2</sup>		
Total Expenditures per Household, Where the End Use Is:						
Space Heating	421	482	436	153	357	3.2
Electric Air-Conditioning	140	150	85	98	175	5.6
Water Heating	196	203	173	165	213	2.3
Refrigerators	120	130	102	91	93	2.5
Other Appliances and Lighting	509	576	347	288	432	2.2

<sup>1</sup> The RECS cannot be used to accurately estimate the number of households that do not use electricity.

The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

5 Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1997 Residential Energy Consumption Survey.

Table CE1-7e. Total Energy Expenditures in U.S. Households by Four Most Populated States, 1997

			Four Most Pop	oulated States						
	Total U.S.	New York	California	Texas	Florida					
RSE Column Factor:	0.4	1.0	1.1	1.6	1.5	RSE Row Factors				
_			Million House	eholds	1					
Total U.S. Households	101.5	6.8	11.5	7.0	5.9	NF				
Number of Households, Fuels Used (more than one may apply):										
Electricity <sup>1</sup>	101.4	6.8	11.5	7.0	5.9	NF				
Natural Gas	61.9	5.1	9.7	4.7	1.2	5.9				
Fuel Oil	10.0	2.9	Q	Q	Q	20.0				
Kerosene	3.5	Q	Q	Q	Q	25.1				
LPG	8.1	0.6	0.4	0.3	0.4	21.4				
Wood	15.0	0.8	2.1	0.9	0.7	15.8				
_	Billion Dollars									
Total Expenditures, Fuels Used:										
Electricity	88.33	5.78	8.13	7.53	7.00	4.6				
Natural Gas	35.81	3.74	3.17	1.88	0.41	9.2				
Fuel Oil	7.11	2.03	Q	Q	Q	26.4				
Kerosene	0.50	Q	ã	ã	ã	46.5				
LPG	4.04	0.15	0.21	0.16	0.08	26.5				
Total	135.79	11.77	11.57	9.57	7.51	3.0				
_	Dollars per Household <sup>2</sup>									
-			· · · · · · · · · · · · · · · · · · ·							
Total Expenditures per Household, Fuels Used:										
Electricity	871	846	709	1,081	1,180	4.6				
Natural Gas	579	731	327	400	358	6.6				
Fuel Oil	714	699	Q Q	Q	Q	10.6				
Kerosene	144	381	Q	Q	Q	29.6				
LPG	500	271	490	489	201	14.7				
Total	1,338	1,724	1,008	1,374	1.266	3.0				
<u> </u>	,	,	Dollars per Mill	•	,					
_										
Average Price of Btu Consumption, Fuels Used:										
Electricity	24.97	42.18	34.15	22.52	24.34	1.8				
Natural Gas	6.78	9.63	6.73	5.90	13.16	3.5				
Fuel Oil	7.05	6.78	Q	Q	Q	1.7				
Kerosene	8.51	8.46	Q	Q	Q	1.9				
	11.23	16.11	12.51	9.96	19.09	5.8				
LPG Total	13.25	13.97	15.76	14.29	23.05	3.2				

Table CE1-7e. Total Energy Expenditures in U.S. Households by Four Most Populated States, 1997 (Continued)

			(0			
			Four Most Pop	oulated States		
	Total U.S.	New York	California	Texas	Florida	
RSE Column Factor:	0.4	1.0	1.1	1.6	1.5	RSE Row Factors
			Price per Physi	cal Unit <sup>2</sup>	I	
Average Price of Physical Units of Consumption, Fuels Used: Electricity (cents per kWh)	8.5 6.96 0.98 1.15 1.03	14.4 9.89 0.94 1.14 1.47	11.7 6.91 Q Q 1.14	7.7 6.06 Q Q 0.91	8.3 13.51 Q Q 1.74	1.8 3.5 1.7 1.9 5.8
_			Million House	eholds		-1
Number of Households, Where the End Use Is: Space Heating <sup>3</sup> Electric Air-Conditioning <sup>4</sup> Water Heating <sup>5</sup> Refrigerators Appliances	99.7 72.6 100.8 101.3 101.5	6.7 4.2 6.8 6.8 6.8	11.2 4.6 11.4 11.4 11.5	6.9 6.3 6.9 7.0 7.0	5.7 5.6 5.8 5.9 5.9	1.5 3.3 NF NF NF
_			Billion Dol	lars		
Total Expenditures, Where the End Use Is:  Space Heating	42.03 10.20 19.76 12.14 51.66	4.45 0.34 1.65 1.00 4.33	1.91 0.58 2.00 1.54 5.54	1.72 1.69 1.28 1.01 3.86	0.47 1.80 1.19 0.84 3.21	5.9 10.3 3.0 3.5 4.2
			Dollars per Hou	ısehold <sup>2</sup>		
Total Expenditures per Household, Where the End Use Is: Space Heating	421 140 196 120	661 80 244 147	170 127 175 134	248 266 185 146	83 322 206 141	6.0 8.0 2.9 3.5
Other Appliances and Lighting	509	634	483	555	541	4.2

<sup>1</sup> The RECS cannot be used to accurately estimate the number of households that do not use electricity.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1997 Residential Energy Consumption Survey.

The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

<sup>3</sup> Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

<sup>&</sup>lt;sup>4</sup> The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

5 Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled. Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Table CE1-8e. Total Energy Expenditures in U.S. Households by Urban/Rural Location, 1997

	- Carar Eoc								
			Urban/Rui	ral Location <sup>1</sup>					
	Total	City	Town	Suburbs	Rural				
RSE Column Factor:	0.5	0.9	1.3	1.3	1.2	RSE Row Factors			
			Million Hous	senolds		<u> </u>			
Total U.S. Households	101.5	48.2	18.2	18.6	16.5	4.1			
Number of Households, Fuels Used (more than one may apply):									
Electricity <sup>2</sup>	101.4	48.2	18.2	18.6	16.4	4.1			
Natural Gas	61.9	35.4	10.5	12.2	3.8	5.7			
Fuel Oil	10.0	3.2	2.4	1.6	2.8	11.7			
Kerosene	3.5	1.0	0.6	0.5	1.4	16.2			
LPG	8.1	0.9	1.4	0.6	5.1	14.8			
Wood	15.0	3.5	2.8	3.7	5.0	8.9			
	Billion Dollars								
Total Expenditures, Fuels Used: Electricity	88.33	36.44	15.57	18.93	17.38	4.1			
Natural Gas	35.81	19.34	6.36	7.81	2.30	7.1			
Fuel Oil	7.11	1.86	1.77	1.31	2.17	13.4			
Kerosene	0.50	0.09	0.13	0.03	0.25	24.8			
LPG	4.04	0.29	0.76	0.19	2.79	17.7			
Total	135.79	58.04	24.59	28.28	24.89	3.6			
			Dollars per Ho	ousehold <sup>3</sup>					
Total Expenditures per Household, Fuels Used:									
Electricity	871	756	855	1,019	1,058	2.1			
Natural Gas	579	547	605	641	600	3.0			
Fuel Oil	714	584	742	832	772	5.2			
Kerosene	144	98	220	52	180	18.7			
LPG	500	327	526	330	543	9.1			
Total	1,338	1,203	1,350	1,522	1,513	1.7			
			Dollars per Mi	Ilion Btu <sup>3</sup>					
Average Price of Btu Consumption, Fuels									
	24.97	25.66	25.09	25.45	23.11	1.5			
Used:	24.97 6.78	25.66 6.72	25.09 6.74	25.45 6.99	23.11 6.73	1.5 1.8			
Used: Electricity									
Used: Electricity Natural Gas	6.78	6.72	6.74	6.99	6.73	1.8			
Natural GasFuel Oil	6.78 7.05	6.72 6.54	6.74 7.15	6.99 7.58	6.73 7.16	1.8 1.4			

Table CE1-8e. Total Energy Expenditures in U.S. Households by Urban/Rural Location, 1997 (Continued)

			Urban/Rur	al Location <sup>1</sup>		
	Total	City	Town	Suburbs	Rural	
RSE Column Factor:	0.5	0.9	1.3	1.3		RSE Row Factors
			Price per Phys	ical Unit <sup>3</sup>		
Average Dries of Dhysical Units of						
Average Price of Physical Units of Consumption, Fuels Used:						
Electricity (cents per kWh)	8.5	8.8	8.6	8.7	7.9	1.5
Natural Gas (dollars per thousand cf)	6.96	6.90	6.92	7.18	6.92	1.8
Fuel Oil (dollars per gallon)	0.98	0.91	0.92	1.05	0.92	1.4
Kerosene (dollars per gallon)	1.15	1.19	1.13	1.20	1.14	1.8
LPG (dollars per gallon)	1.03	1.15	0.98	1.24	1.01	3.3
_			Million Hous	seholds		
-						
Number of Households, Where the End						
Use Is:						
Space Heating <sup>4</sup>	99.7	47.4	18.0	18.4	15.9	4.1
Electric Air-Conditioning <sup>5</sup>	72.6	33.1	13.1	14.8	11.5	4.4
Water Heating <sup>6</sup>	100.8	47.8	18.2	18.6	16.2	4.1
Refrigerators	101.3	48.1	18.2	18.6	16.4	4.1
Appliances	101.5	48.2	18.2	18.6	16.5	4.1
			Billion Do	llars		
_						
Total Expenditures, Where the End Use Is:						
Space Heating	42.03	17.54	8.46	8.17	7.86	4.4
Electric Air-Conditioning	10.20	4.58	1.48	2.61	1.53	6.3
Water Heating	19.76	8.57	3.60	3.74	3.86	3.9
Refrigerators	12.14	5.61	2.05	2.54	1.94	4.0
Other Appliances and Lighting	51.66	21.73	8.99	11.23	9.71	3.8
_			Dollars per Ho	usehold <sup>3</sup>		
Total Expenditures per Household, Where the End Use Is:						
Space Heating	421	370	469	444	495	2.7
Electric Air-Conditioning	140	138	113	176	132	4.5
Water Heating	196	179	198	202	238	1.8
Refrigerators	120	117	113	137	118	2.2
Other Appliances and Lighting	509	451	494	604	590	2.0

<sup>&</sup>lt;sup>1</sup> Based on the household respondent's description rather than the Federal Government definition.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1997 Residential Energy

The RECS cannot be used to accurately estimate the number of households that do not use electricity.

<sup>&</sup>lt;sup>3</sup> The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

4 Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity;

those households were treated as if the fuel was electricity.

6 Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Table CE1-9e. Total Energy Expenditures in U.S. Households by Northeast Census Region, 1997

		_			
			Northeast Census Re	gion	
			Census		
	Total U.S.	Total	Middle Atlantic	New England	
RSE Column Factor:	0.6	1.0	1.2	1.6	RSE Row Factors
			Million Households		
Total U.S. Households	101.5	19.7	14.4	5.3	NF
Number of Households, Fuels Used (more than one may apply):					
Electricity <sup>1</sup>	101.4	19.7	14.4	5.3	NF
Natural Gas	61.9	11.8	9.9	1.9	7.4
Fuel Oil	10.0	7.5	4.6	2.9	10.1
Kerosene	3.5	1.0	0.6	0.4	20.4
LPG	8.1	1.6	1.0	0.6	18.1
Wood	15.0	2.5	1.6	0.9	11.3
			Billion Dollars		
Total Expenditures, Fuels Used:					
Electricity	88.33	17.04	12.50	4.54	2.8
Natural Gas	35.81	9.13	7.53	1.59	9.5
Fuel Oil	7.11	5.61	3.27	2.34	12.4
Kerosene	0.50	0.24	0.12	0.12	30.8
LPG	4.04	0.44	0.29	0.15	21.3
Total	135.79	32.45	23.70	8.75	1.6
			Dollars per Household	2	
Total Expenditures per Household, Fuels Used:					
Electricity	871	863	867	854	2.8
Natural Gas	579	772	763	819	3.5
Fuel Oil	714	752	708	822	4.6
Kerosene	144	251	195	342	18.1
LPG	500	281	301	250	16.1
Total	1,338	1,644	1,643	1,647	1.6
-			Dollars per Million Btu	2	
Average Price of Btu Consumption, Fuels					
Used:	24.07	34.00	24.70	25.45	
Used: Electricity	24.97 6.78	34.92 8.80	34.73 8.78	35.45 9.41	2.2
Used: Electricity Natural Gas	6.78	8.89	8.78	9.41	1.3
Used: Electricity Natural Gas Fuel Oil	6.78 7.05	8.89 6.96	8.78 6.87	9.41 7.09	1.3 NF
Used: Electricity Natural Gas Fuel Oil Kerosene	6.78 7.05 8.51	8.89 6.96 8.29	8.78 6.87 8.29	9.41 7.09 8.29	1.3 NF 1.9
Used: Electricity Natural Gas Fuel Oil	6.78 7.05	8.89 6.96	8.78 6.87	9.41 7.09	1.3 NF

Table CE1-9e. Total Energy Expenditures in U.S. Households by Northeast Census Region, 1997 (Continued)

			•		
			Northeast Census Re	gion	
			Census	Division	
	Total U.S.	Total	Middle Atlantic	New England	
RSE Column Factor:	0.6	1.0	1.2	1.6	RSE Row Factors
			Price per Physical Unit	.2	
Average Price of Physical Units of					
Consumption, Fuels Used:					
Electricity (cents per kWh)	8.5	11.9	11.8	12.1	2.2
Natural Gas (dollars per thousand cf)	6.96	9.13	9.02	9.67	1.3
Fuel Oil (dollars per gallon)	0.98	0.96	0.95	0.98	NF
Kerosene (dollars per gallon)	1.15	1.12	1.12	1.12	1.9
LPG (dollars per gallon)	1.03	1.38	1.38	1.37	5.3
_			Million Households		
Number of Households, Where the End Use Is:					
Space Heating <sup>3</sup>	99.7	19.5	14.3	5.2	NF
Electric Air-Conditioning <sup>4</sup>	72.6	12.2	9.7	2.5	4.2
Water Heating <sup>5</sup>	100.8	19.6	14.3	5.3	0.7
Refrigerators	101.3	19.7	14.4	5.3	NF.
Appliances	101.5	19.7	14.4	5.3	NF
				0.0	1
-			Billion Dollars		
Total Expenditures, Where the End Use					
ls:					
Space Heating	42.03	12.83	9.18	3.65	1.9
Electric Air-Conditioning	10.20	0.90	0.77	0.13	7.5
Water Heating	19.76	4.56	3.26	1.30	2.0
Refrigerators	12.14	2.62	1.96	0.66	2.5
Other Appliances and Lighting	51.66	11.53	8.53	3.00	2.3
_			Dollars per Household	2	
Total Expenditures per Household, Where the End Use Is:					
Space Heating	421	657	642	699	2.0
Electric Air-Conditioning	140	74	80	52	5.0
Water Heating	196	233	227	248	2.0
Refrigerators	120	133	136	124	2.5
Other Appliances and Lighting	509	584	591	566	2.3
11					

<sup>1</sup> The RECS cannot be used to accurately estimate the number of households that do not use electricity.

The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

5 Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

NF = No applicable RSE row factor.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1997 Residential Energy Consumption Survey.

Table CE1-10e. Total Energy Expenditures in U.S. Households, by Midwest Census Region, 1997

<del>-</del>		_			
			Midwest Census Re	gion	
			Census	Division	
	Total U.S.	Total	East North Central	West North Central	
RSE Column Factor:	0.5	1.0	1.2	1.5	RSE Row Factors
			Million Households	ı	
Total U.S. Households	101.5	24.1	16.9	7.2	NF
Number of Households, Fuels Used (more than one may apply):					
Electricity <sup>1</sup>	101.4	24.1	16.9	7.2	NF
Natural Gas	61.9	18.5	13.7	4.9	5.0
Fuel Oil	10.0	1.1	0.6	0.4	17.5
Kerosene	3.5	0.4	0.4	Q	16.5
UPG	8.1 15.0	2.3 2.6	1.2 1.7	1.2 0.9	20.8 12.2
-	13.0	2.0	1.7	0.9	12.2
-			Billion Dollars		
Total Expenditures, Fuels Used:	00.00	40.04	40.70	5.40	
Electricity Natural Gas	88.33 35.81	18.21 12.96	12.73 9.76	5.48 3.20	3.8 6.5
Fuel Oil	7.11	0.71	0.45	0.26	20.1
Kerosene	0.50	Q.7 T	Q	Q	33.0
LPG	4.04	1.68	0.99	0.69	19.9
Total	135.79	33.60	23.96	9.63	1.9
_			Dollars per Household	<b>l</b> 2	•
Total Expenditures per Household, Fuels Used:					
Electricity	871	757	753	766	3.8
Natural Gas	579	699	715	654	2.8
Fuel Oil	714	678	696	651	4.5
Kerosene	144	Q	Q	Q	25.4
LPG	500	726	857	596	8.7
Total	1,338	1,396	1,417	1,347	1.9
-			Dollars per Million Btu	2	
Average Price of Btu Consumption, Fuels					
Used:	24.07	24.20	OF FO	20.05	2.0
Electricity Natural Gas	24.97 6.78	24.39 5.89	25.56 5.83	22.05 6.10	1.5
Fuel Oil	7.05	6.86	5.63 7.05	6.56	1.6
Kerosene	8.51	9.01	8.96	0.50 Q	5.5
LPG	11.23	9.85	10.27	9.31	2.4
Total	13.25	10.42	10.25	10.86	2.8
-					

Table CE1-10e. Total Energy Expenditures in U.S. Households, by Midwest Census Region, 1997 (Continued)

			•	•	
			Midwest Census Re	gion	
			Census	Census Division	
	Total U.S.	Total	East North Central	West North Central	
RSE Column Factor:	0.5	1.0	1.2	1.5	RSE Row Factors
		1	Price per Physical Uni	t <sup>2</sup>	
Average Price of Physical Units of					
Consumption, Fuels Used:					
Electricity (cents per kWh)	8.5	8.3	8.7	7.5	2.2
Natural Gas (dollars per thousand cf)	6.96	6.05	5.99	6.26	1.5
Fuel Oil (dollars per gallon)	0.98	0.95	0.98	0.91	1.6
Kerosene (dollars per gallon)	1.15	1.22	1.21	Q Q	5.5
LPG (dollars per gallon)	1.03	0.90	0.94	0.85	2.4
LFG (dollars per gallori)	1.03	0.90	0.94	0.00	2.4
_			Million Households		_
Number of Households, Where the End Use Is:					
Space Heating <sup>3</sup>	99.7	23.8	16.8	7.0	0.7
Electric Air-Conditioning <sup>4</sup>	72.6	18.6	12.4	6.3	2.2
Water Heating <sup>5</sup>	100.8	23.9	16.8	7.1	NF
Refrigerators	101.3	24.0	16.9	7.1	NF
Appliances	101.5	24.1	16.9	7.2	NF
_			Billion Dollars		
_					
Total Expenditures, Where the End Use					
Is:	42.03	13.03	9.38	3.65	2.5
Space Heating		1.52			
Electric Air-Conditioning	10.20	1.52 4.28	0.95	0.56	5.3
Water Heating	19.76		2.99	1.29	3.2
Refrigerators	12.14	2.61	1.87	0.74	2.6
Other Appliances and Lighting	51.66	12.16	8.77	3.39	2.7
_			Dollars per Household	<b>j</b> 2	
Total Expenditures per Household, Where					
the End Use Is:					
Space Heating	421	548	560	519	2.6
Electric Air-Conditioning	140	81	77	90	4.6
Water Heating	196	179	77 178	182	3.2
Refrigerators	120	109	111	103	2.6
Other Appliances and Lighting	509	506	519	474	2.7
Outer Appliances and Lighting	303		519	7/7	2.7

<sup>1</sup> The RECS cannot be used to accurately estimate the number of households that do not use electricity.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1997 Residential Energy Consumption Survey.

The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

5 Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled. Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.

Table CE1-11e. Total Energy Expenditures in U.S. Households by South Census Region, 1993

RSE Column Factor:   0.5   0.9   1.1   1.3   1.6					Tegion, it	Octions i						
Total U.S.   Total   South Atlantic   East South Central   West South Central		South Census Region										
Number of Households			Census Division									
Million Households	entral	West South Central	East South Central	South Atlantic	Total							
Total U.S. Households	RSE Row Factors	1.6	1.3	1.1	0.9	0.5	RSE Column Factor:					
Number of Households, Fuels Used (more than one may apply):   Electricity												
than one may apply):	NF	10.8	6.3	18.7	35.9	101.5	Total U.S. Households					
Electricity												
Fuel Oil	NF	10.8	6.3	18.7	35.9	101.4						
Rerosene	7.1	7.3	2.7	6.4	16.4	61.9	Natural Gas					
Process	28.6	Q	Q	1.1	1.2	10.0	Fuel Oil					
Total Expenditures, Fuels Used:   Electricity	16.1	Q	0.4	1.3	1.9	3.5						
Total Expenditures, Fuels Used:   Electricity	18.3	0.5	1.1			8.1	LPG					
Total Expenditures, Fuels Used:   Electricity	9.1	1.3	1.1	3.3	5.7	15.0	Wood					
Bestricity			lion Dollars	Bill			_					
Rectricity							Total Expenditures Fuels Used:					
Natural Gas	3.3	11.52	5.99	19.74	37.24	88.33	· · · · · · · · · · · · · · · · · · ·					
Fuel Oil	8.9											
LPG	29.4											
Total	24.6				0.19							
Total Expenditures per Household, Fuels   Used:	19.4											
Total Expenditures per Household, Fuels Used: Electricity 871 1,038 1,056 944 1,063 Natural Gas 579 496 572 475 437 Fuel Oil 714 530 528 Q Q Kerosene 144 102 114 88 Q LPG 500 445 432 453 466 Total 1,338 1,328 1,330 1,230 1,381   Average Price of Btu Consumption, Fuels Used: Electricity 24.97 22.33 23.66 18.58 22.53 Natural Gas 6.78 7.24 8.62 6.86 6.24	2.3						Total					
Used:   Electricity			per Household <sup>2</sup>	Dollars			_					
Used:   Electricity							Total Expanditures per Hausahald Eugla					
Sectoricity												
Natural Gas         579         496         572         475         437           Fuel Oil         714         530         528         Q         Q           Kerosene         144         102         114         88         Q           LPG         500         445         432         453         466           Total         1,338         1,328         1,330         1,230         1,381           Dollars per Million Btu²           **             Dollars per Million Btu²           **             **             24.97             22.33             23.66             18.58             22.53                 Natural Gas               6.78               7.24               8.62               6.86               6.24	3.3	1 063	944	1.056	1 038	871						
Fuel Oil         714         530         528         Q         Q           Kerosene         144         102         114         88         Q           LPG         500         445         432         453         466           Total         1,338         1,328         1,330         1,230         1,381           Dollars per Million Btu²           Electricity         24.97         22.33         23.66         18.58         22.53           Natural Gas         6.78         7.24         8.62         6.86         6.24	5.0			,	,							
Kerosene	6.8											
Total	23.9	Q	88			144						
Dollars per Million Btu²           Average Price of Btu Consumption, Fuels         Value         Value </td <td>6.1</td> <td>466</td> <td>453</td> <td>432</td> <td>445</td> <td>500</td> <td>LPG</td>	6.1	466	453	432	445	500	LPG					
Average Price of Btu Consumption, Fuels Used: Electricity	2.3	1,381	1,230	1,330	1,328	1,338	Total					
Average Price of Btu Consumption, Fuels Used: Electricity			per Million Btu <sup>2</sup>	Dollars			_					
Used:       Electricity     24.97     22.33     23.66     18.58     22.53       Natural Gas     6.78     7.24     8.62     6.86     6.24							_					
Electricity       24.97       22.33       23.66       18.58       22.53         Natural Gas       6.78       7.24       8.62       6.86       6.24												
Natural Śas	2.0	22 53	18 58	23 66	22 33	24 97						
	3.8											
	1.5	Q Q	Q.000	8.09	8.01	7.05	Fuel Oil					
Kerosene	1.8											
LPG	3.3											
Total	3.3				15.83							

Table CE1-11e. Total Energy Expenditures in U.S. Households by South Census Region, 1993 (Continued)

			`	<u> </u>			
			So	outh Census Region			
			Census Division				
	Total U.S.	Total	South Atlantic	East South Central	West South Central		
RSE Column Factor:	0.5	0.9	1.1	1.3	1.6	RSE Row Factors	
	Price per Physical Unit <sup>2</sup>						
Average Price of Physical Units of							
Consumption, Fuels Used:							
Electricity (cents per kWh)	8.5	7.6	8.1	6.3	7.7	2.0	
Natural Gas (dollars per thousand cf)	6.96	7.44	8.85	7.05	6.41	3.8	
Fuel Oil (dollars per gallon)	0.98	1.11 1.18	1.12 1.17	Q 1.17	Q Q	1.5 1.8	
Kerosene (dollars per gallon) LPG (dollars per gallon)	1.15 1.03	1.10	1.17	1.17	0.98	3.3	
	1.00	1.10		n Households	0.50	0.0	
-			Willio	II Households			
Number of Households, Where the End Use Is:							
Space Heating <sup>3</sup>	99.7	35.4	18.3	6.3	10.8	NF	
Electric Air-Conditioning <sup>4</sup>	72.6	33.2	17.2	6.0	10.0	1.6	
Water Heating <sup>5</sup>	100.8	35.7	18.5	6.3	10.8	NF	
Refrigerators	101.3	35.8	18.7	6.3	10.8	NF	
Appliances	101.5	35.9	18.7	6.3	10.8	NF	
_			Bill	lion Dollars			
Total Expenditures, Where the End Use							
ls:							
Space Heating	42.03	11.10	5.88	2.25	2.97	4.5	
Electric Air-Conditioning	10.20	6.67	3.36	0.80	2.51	5.1	
Water Heating	19.76	7.25	3.98	1.25	2.02	2.7	
Refrigerators	12.14	4.41	2.21	0.67	1.53	2.9	
Other Appliances and Lighting	51.66	18.21	9.44	2.84	5.93	2.7	
-			Dollars	per Household <sup>2</sup>			
Total Expenditures per Household, Where							
the End Use Is:							
Space Heating	421	314	321	358	275	4.5	
Electric Air-Conditioning	140	201	195	133	251	4.7	
Water Heating	196	203	215	197	187	2.7	
Refrigerators	120 509	123 508	118 505	105 448	141 548	2.9 2.7	
Other Appliances and Lighting	509	506	303	440	040	2.7	

The RECS cannot be used to accurately estimate the number of households that do not use electricity.

NF = No applicable RSE row factor.

The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

House nolds where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

<sup>&</sup>lt;sup>4</sup> The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

5 Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled.

Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. See "Glossary" for definition of terms used in this report. Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1997 Residential Energy Consumption Survey.

Table CE1-12e. Total Energy Expenditures in U.S. Households by West Census Region, 1997

		<u> </u>			
			West Census Regio	on	
			Census	Census Division	
	Total U.S.	Total	Mountain	Pacific	
RSE Column Factor:	0.4	1.1	1.7	1.2	RSE Row Factors
			Million Households		
Total U.S. Households	101.5	21.8	6.2	15.6	NF
Number of Households, Fuels Used (more than one may apply):					
Electricity <sup>1</sup>	101.4	21.8	6.2	15.6	NF
Natural Gas	61.9	15.1	4.4	10.7	2.5
Fuel Oil	10.0	0.3	Q	0.2	25.4
Kerosene	3.5	0.2	Q	Q	21.7
LPG	8.1	1.0	0.4	0.6	18.2
Wood	15.0	4.2	1.1	3.1	9.2
-			Billion Dollars		<b>'</b>
Total Expenditures, Fuels Used:					
Electricity	88.33	15.84	4.46	11.38	2.8
Natural Gas	35.81	5.57	1.83	3.75	5.3
Fuel Oil	7.11	0.17	Q	0.13	32.1
Kerosene	0.50	0.04	Q	Q	31.0
LPG	4.04	0.48	0.23	0.25	22.1
Total	135.79	22.10	6.56	15.54	2.5
-			Dollars per Household	2	
Total Expenditures per Household, Fuels Used:					
Electricity	871	727	722	730	2.8
Natural Gas	579	369	412	351	3.7
Fuel Oil	714	608	Q	659	19.8
Kerosene	144	170	Q	Q	27.4
LPG	500	497	614	424	9.9
Total	1,338	1,013	1,062	994	2.5
-			Dollars per Million Btu	2	•
Average Price of Btu Consumption, Fuels					
Used:					
Electricity	24.97	24.94	22.46	26.07	1.5
Natural Gas	6.78	6.00	5.18	6.50	1.8
Fuel Oil	7.05	8.11	Q	8.50	9.9
Kerosene	8.51	8.33	Q	Q	2.9
LPG	11.23	11.09	9.79	12.59	5.0
Total	13.25	13.54	11.30	14.77	2.1
-					

Table CE1-12e. Total Energy Expenditures in U.S. Households by West Census Region, 1997 (Continued)

Total U.S.  RSE Column Factor:	Total	West Census Regio		
U.S.				
U.S.		Mountain	Pacific	
RSE Column Factor: 0.4	11			
	"	1.7	1.2	RSE Row Factors
	Р	rice per Physical Unit	2	
Average Price of Physical Units of				
Consumption, Fuels Used:				
Electricity (cents per kWh)	8.5	7.7	8.9	1.5
Natural Gas (dollars per thousand cf) 6.96	6.16	5.32	6.67	1.8
Fuel Oil (dollars per gallon)	1.12	Q	1.18	9.8
Kerosene (dollars per gallon)	1.12	Q	Q	2.9
LPG (dollars per gallon) 1.03	1.01	0.89	1.15	5.0
		Million Households		
		on Households		
Number of Households, Where the End           Use Is:         99.7           Space Heating³         99.7           Electric Air-Conditioning⁴         72.6           Water Heating⁵         100.8           Refrigerators         101.3	21.0 8.7 21.6 21.7	6.1 2.9 6.1 6.2	14.9 5.7 15.5 15.6	NF 6.9 NF NF
Appliances 101.5	21.8	6.2	15.6	NF
		Billion Dollars		
Total Expenditures, Where the End Use				
ls:				
Space Heating	5.07	1.83	3.24	3.1
Electric Air-Conditioning	1.11	0.48	0.63	10.0
Water Heating	3.67	0.96	2.71	2.5
Refrigerators	2.50	0.63	1.87	3.0
Other Appliances and Lighting 51.66	9.76	2.67	7.09	3.2
	D	ollars per Household	 2	
		onaro per mousemora		
Total Expenditures per Household, Where the End Use Is:				
Space Heating	241	299	217	3.2
Electric Air-Conditioning	128	161	111	9.1
	169	157	174	2.4
Water Heating 196		102		I
Water Heating	115	UZ	120	3.0

<sup>1</sup> The RECS cannot be used to accurately estimate the number of households that do not use electricity.

Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-457 A-G of the 1997 Residential Energy Consumption Survey.

The averages for total and for appliances are over the set of all households; otherwise the averages are over the set of households using a given fuel or over the set using a given end use.

Households where the main or secondary space-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

The number of households, where the end use is electric air-conditioning, does **not** include households that did not use their equipment (0.9 million). It does include the small number of households where the fuel for central air-conditioning equipment was something other than electricity; those households were treated as if the fuel was electricity.

5 Households where the main or secondary water-heating fuel is electricity, natural gas, fuel oil, kerosene, or LPG.

NF = No applicable RSE row factor.

Q = Data withheld either because the Relative Standard Error (RSE) was greater than 50 percent or fewer than 10 households were sampled. Notes: • To obtain the RSE percentage for any table cell, multiply the corresponding column and row factors. • Because of rounding, data may not sum to totals. • See "Glossary" for definition of terms used in this report.