Table C2. Total Energy Expenditures by Major Fuel for Non-Mall Buildings, 2003

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Table C2. Total Energy Expenditures by Major Fuel for Non-Mall Buildings, 2003

	•							
	All Bui	ildings*	To	Total Energy Expenditures (million dollars)				
	Number of Buildings (thousand)	Floorspace (million square feet)	Sum of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat	
All Buildings*	4,645	64,783	92,577	69,032	14,525	1,776	7,245	
Climate Zone: 30-Year Average								
Under 2,000 CDD and								
More than 7,000 HDD	855	10,622	13,709	9,135	3,076	471	Q	
5,500-7,000 HDD	1,173	17,335	24,455	16,298	4,901	530	Q	
4,000-5,499 HDD	673	11,504	18,507	13,354	2,702	713	Q	
Fewer than 4,000 HDD	1,276	15,739	22,372	18,211	2,920	54	Q	
2,000 CDD or More and	000	0.504	40.504	40.004	005	0	0	
Fewer than 4,000 HDD	669	9,584	13,534	12,034	925	8	Q	
Number of Floors								
One	3,136	25,981	33,617	26,809	5,406	397	Q	
Two	1,031	16,270	20,932	16,066	3,627	550	Q	
Three	339	7,501	9,143	6,389	1,816	304	Q	
Four to Nine	128	10,085	18,968	12,517	2,560	428	3,462	
Ten or More	12	4,947	9,917	7,251	1,116	97	1,454	
Elevators and Escalators								
(more than one may apply)								
Any Elevators	309	24,617	42,252	30,227	5,802	641	5,582	
Number of Elevators								
One	208	8,221	10,967	7,712	1,713	172	Q	
Two to Five	88	10,129	17,217	12,340	2,387	343	2,147	
Six or More	13 6	6,268 2,350	14,068 4,861	10,175 4,096	1,702 Q	125 Q	2,066 Q	
Number of Workers (main shift) Fewer than 5	2,653 778 563 398 147 77	15,492 6,166 7,803 10,989 7,934 6,871 9,528	13,615 8,265 9,936 16,406 11,165 12,970 20,222	9,503 6,390 7,647 11,966 8,532 9,768 15,224	2,308 1,666 1,841 2,951 1,780 1,652 2,327	578 151 254 274 204 146 169	Q Q Q Q Q Q 2,502	
		0,020			_,=		_,00_	
Weekly Operating Hours							_	
Fewer than 40	1,002	6,863	3,695	2,489	892	133	Q	
40 to 48	1,117	11,622	12,749	9,577	2,018	457	Q	
49 to 60	1,062	15,723	19,461	14,232	2,928	260	2,041	
61 to 84 85 to 167	591 400	10,334 7,092	15,040 14,287	11,559 11,188	2,373 1,906	309 151	Q Q	
Open Continuously	475	13,149	27,346	19,987	4,407	466	2,486	
Ownership and Occupancy								
Ownership and Occupancy	4,011	AD AD4	60 675	E/ 100	11 550	1 240	2746	
Nongovernment Owned Owner Occupied	4,011 1,841	49,421 23,591	69,675 33,551	54,122 25,441	11,558 5,361	1,249 671	2,746 2,078	
Nonowner Occupied	2,029	23,914	35,713	28,446	6,070	578	2,078 Q	
Unoccupied	141	1,916	00,7 10 Q	20, 11 0 Q	0,070 Q	Q	Q	
Government Owned	635	15,363	22,902	14,910	2,967	526	4,499	
Federal	46	1,956	3,964	2,159	226	Q	4,100 Q	
State	164	3,808	7,090	3,973	748	170	Q	
Local	425	9,599	11,849	8,777	1,993	299	Q	
Vacancy Status								
Completely Vacant	157	2,161	516	258	142	Q	Q	
Mostly Vacant	25	406	Q	Q	Q	Q	N N	
Partially Vacant	548	12,382	17,624	13,209	2,477	231	1,708	
Not At All Vacant	3,915	49,834	74,203	55,411	11,828	1,536	5,427	
	-,-	-,	, , , -	,	,	,	-,	

Table C2. Total Energy Expenditures by Major Fuel for Non-Mall Buildings, 2003

	All Bui	ldings*	То	tal Energy Ex	penditures (million dollar	lion dollars)		
	Number of Buildings (thousand)	Floorspace (million square feet)	Sum of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat		
All Buildings*	4,645	64,783	92,577	69,032	14,525	1,776	7,245		
Number of Establishments									
One	3,754	45,144	65,153	48,376	10,950	1,466	4,361		
2 to 5	643	10,960	16,030	11,440	2,377	224	Q		
6 to 10	55	1,958	3,402	2,632	366	Q	Q		
11 to 20	23	1,951	2,718	2,268	248	Q	Q		
More than 20	14	2,609	4,759	4,057	441	Q	Q		
Currently Unoccupied	157	2,161	516	258	142	Q	Q		
Predominant Exterior Wall Material									
	2,044	32,817	40 200	34,133	8,403	1 125	4,728		
Brick, Stone or Stucco	,	,	48,399			1,135			
Concrete (Block or Poured)	786	10,832	16,015	12,417	2,622	206	Q		
Concrete Panels	131	6,559	10,792	8,417	1,326	Q	Q		
Siding or Shingles	779	4,120	5,071	4,007	735	323	Q		
Metal Panels	825	7,912	8,196	6,726	1,059	77	Q		
Window Glass	17	1,024	1,709	1,462	83	Q	Q		
Other	47	1,113	1,801	1,416	248	Q	Q		
No One Major Type	18	406	Q	Q	Q	Q	Q		
Predominant Roof Material	4 000	04.470	00.445	04.470	5 500	000	0.444		
Built-Up	1,036	21,170	33,145	24,170	5,529	302	3,144		
Shingles (Not Wood)	1,325	10,195	13,564	10,264	2,482	529	Q		
Metal Surfacing	1,288	11,944	10,782	8,837	1,516	165	Q		
Synthetic or Rubber	511	14,730	24,825	18,633	3,905	367	Q		
Slate or Tile	263	2,462	3,794	2,816	562	94	Q		
Wooden Materials	122	887	1,140	869	160	Q	Q		
Concrete	61	2,231	3,373	2,029	168	Q	Q		
Other	16	598	Q	845	Q	Q	Q		
No One Major Type	25	565	719	568	124	Q	Q		
Renovations in Buildings Constructed Before 1980									
(more than one may apply) Any Type of Renovation									
Since 1980	1,018	17,844	25,657	17,830	4,851	806	2,170		
Addition or Annex	256	6,551	9,530	6,501	1,982	Q	Q		
Reduction In Floorspace	22	1,012	1,710	1,180	390	Q	Q		
Cosmetic Improvements	741	13,119	19,621	13,845	3,587	593	1,595		
Wall or Roof Replacement	370	8,070	11,653	8,129	1,966	422	,,555 Q		
Interior Wall	0.0	3,510	. 1,000	0,120	1,000		· ·		
Re-Configuration	411	8,518	13,131	9,035	2,430	352	1,315		
HVAC Equipment Upgrade	442	10,768	16,899	11,822	3,281	277	1,513		
Lighting Upgrade	455	10,700	15,732	10,741	2,868	417	1,706		
Window Replacement	310	6,354	9,102	6,168	1,734	391	1,700 Q		
	315	7,144	10,965	7,360		343			
Plumbing System Upgrade		·			2,051		1,211		
Insulation Upgrade	227	4,015	5,868	4,065	978	170	Q		
Other Renovation	19	523	791	517	Q	Q 770	Q		
No Renovations Since 1980	1,710	18,714	23,191	15,691	3,939	778	Q Q		
Building Newer than 1980	1,917	28,225	43,729	35,511	5,734	192	(

Table C2. Total Energy Expenditures by Major Fuel for Non-Mall Buildings, 2003

	•		,					
	All Bui	ldings*	Total Energy Expenditures (million dollars)					
	Number of Buildings (thousand)	Floorspace (million square feet)	Sum of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat	
All Buildings*	4,645	64,783	92,577	69,032	14,525	1,776	7,245	
Energy Sources (more than								
one may apply)								
Electricity	4,404	63,307	92,574	69,032	14,523	1,774	7,245	
Natural Gas	2,391	43,468	67,462	48,584	14,525	775	3,578	
Fuel Oil	451	15,157	25,905	18,631	3,539	1,776	1,960	
District Heat	67	5,443	14,098	6,519	323	10	7,245	
District Chilled Water	33	2,853	7,647	3,667	244	13	Q	
Propane	502	7,076	9,424	7,234	751	410	Q	
Other	132	1,401	2,032	1,539	330	26	Q	
Space-Heating Energy Sources (more than one may apply)								
Electricity	1,766	28,600	41,737	34,865	5,056	236	Q	
Natural Gas	2,165	36,959	54,959	40,545	13,515	243	Q	
Fuel Oil	360	5,988	7,485	4,513	1,194	1,676	Q	
District Heat	65	5,198	13,623	6,106	270	8	7,238	
Propane Other	372 113	3,204 842	3,303 956	2,985 796	Q 138	84 Q	Q N	
	110	042	330	730	100	Q	14	
Primary Space-Heating Energy Source								
Electricity	1,258	15,996	22,011	20,527	1,434	29	Q	
Natural Gas	1,999	32,970	48,198	35,355	12,586	132	Q	
Fuel Oil	282	3,818	3,963	2,246	162	1,555	Ñ	
District Heat	63	4,907	13,178	5,910	172	8	7,089	
Propane	308	1,955	1,928	1,909	Q	Q	7,000 Q	
Other	72	382	338	306	Q	Q	N	
Cooling Energy Sources								
(more than one may apply)								
Electricity	3,589	54,321	81,478	63,402	13,267	1,371	3,438	
Natural Gas	17	1,018	2,005	1,291	672	Q	Q	
District Chilled Water	33	2,853	7,647	3,667	244	13	Q	
Water-Heating Energy Sources								
(more than one may apply)	1.010	27 400	26,000	20,200	4.004	666	1 050	
Electricity	1,910	27,490	36,908	30,298	4,084	666	1,859	
Natural Gas	1,445	28,820	47,610	34,524	11,092	441	Q	
Fuel Oil	94	1,880	2,700	1,598	220	849	Q	
District Heat	27	3,088	8,155	4,241	218	Q	3,690	
Propane	128	1,422	1,871	1,734	Q	Q	Q	
Cooking Energy Sources (more than one may apply)								
Electricity	410	13,161	23,623	17,845	3,843	363	1,572	
Natural Gas	457	15,438	29,444	20,873	6,157	587	1,827	
Propane	108	1,460	2,508	2,203	0,137 Q	201	1,027 Q	
Energy End Uses (more than one may apply)								
Buildings with Space Heating	3,982	60,028	89,615	66,253	14,377	1,744	7,242	
Buildings with Cooling		56,940	87,739	66,555	13,718	1,387	6,079	
Buildings with Water Heating	3,472	56,478	87,739	65,526	14,025	1,682	5,984	
		•						
Buildings with Cooking		22,237	40,266	29,777	7,163	929	2,396	
Buildings with Floatricity	119	3,138	3,950	3,117	718	56	Q	
Buildings with Electricity	140	12 024	25 422	10 670	2 710	252	2 772	
Generation	149	12,821	25,422	18,679	3,718	253	2,772	

Table C2. Total Energy Expenditures by Major Fuel for Non-Mall Buildings, 2003

	•		<u> </u>						
	All Bui	ldings*	То	Total Energy Expenditures (million dollars)					
	Number of Buildings (thousand)	Floorspace (million square feet)	Sum of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat		
All Buildings*	4,645	64,783	92,577	69,032	14,525	1,776	7,245		
Percent of Floorspace Heated Not Heated	663 523 498 2,962	4,756 6,850 8,107 45,071	2,962 5,600 11,972 72,043	2,779 4,645 9,096 52,512	Q 831 2,078 11,468	Q 109 206 1,428	Q Q Q 6,635		
Percent of Floorspace Cooled									
Not Cooled	1,020 985 629 2,011	7,843 16,598 13,211 27,132	4,838 15,503 22,446 49,791	2,476 10,901 16,916 38,738	807 3,465 3,341 6,912	389 728 355 304	Q Q 1,833 Q		
Percent Lit When Open									
Zero	47 929 1,108 2,176	293 10,203 18,288 32,789	Q 8,599 28,253 54,958	Q 5,942 20,893 41,762	Q 1,768 4,324 8,222	Q 407 539 820	Q Q 2,498 4,154		
Electricity Not Used	386	3,210	635	325	191	Q	Q		
Percent Lit When Closed Zero	1,964 1,882 136	17,385 30,948 2,093	18,308 43,011 3,910	13,104 32,796 3,144	3,185 6,620 311	418 831 Q	Q 2,764 Q		
Building Never Closed/ Electricity Not Used	664	14,357	27,349	19,987	4,409	468	2,486		
Heating Equipment (more than one may apply) Heat Pumps Packaged Heat Pumps Split-System Heat Pumps Individual Room Heat Pumps Furnaces Individual Space Heaters District Heat Boilers Packaged Heating Units Other	476 278 166 58 1,864 819 65 579 953 205	8,814 5,442 2,581 2,691 19,615 12,545 5,166 20,423 18,021 3,262	14,249 9,330 3,696 4,199 23,489 15,964 13,505 31,052 29,902 3,988	11,629 7,929 2,946 3,289 17,887 12,387 6,051 22,045 24,318 3,451	1,804 1,115 361 648 5,095 2,720 269 7,418 4,477 368	50 Q Q Q 417 253 8 1,337 139 46	Q Q Q Q Q 7,177 Q Q		
Cooling Equipment (more than one may apply) Residential-Type Central Air Conditioners	1,006	11,035	14,441 14,738	10,746 12,060	2,867 1,887	428 40	Q		
Heat Pumps Packaged Heat Pumps Split-System Heat Pumps Individual Room Heat Pumps Individual Air Conditioners District Chilled Water Central Chillers	492 288 174 58 742 33 111	9,041 5,426 2,606 2,940 12,558 2,853 11,636	14,738 9,356 3,776 4,621 16,175 7,647 22,448	12,060 7,909 3,005 3,721 11,268 3,667 17,065	1,887 1,163 382 660 3,040 244 3,461	49 Q Q Q 790 13 205	Q Q Q Q 1,077 Q 1,717		
Packaged Air Conditioning Units Swamp Coolers Other	1,613 122 40	29,969 1,561 1,232	46,331 2,350 2,096	36,258 1,808 1,540	8,210 520 377	654 Q Q	1,208 Q Q		

Table C2. Total Energy Expenditures by Major Fuel for Non-Mall Buildings, 2003

,	All Buildings*		Total Energy Expenditures (million dollars)					
	Number of Buildings (thousand)	Floorspace (million square feet)	Sum of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat	
All Buildings*	4,645	64,783	92,577	69,032	14,525	1,776	7,245	
Main Equipment Replaced Since 1990 (more than one may apply)								
Heating	1,197	16,403	21,542	16,626	4,519	349	Q	
Cooling	1,356	20,995	30,387	22,737	5,761	794	Q	
Water Heating Equipment								
Centralized System	2,513	34,671	54,768	40,871	9,346	1,286	3,266	
Distributed System	785	11,540	14,394	11,253	1,989	244	Q	
Combination of Centralized								
and Distributed System	175	10,267	18,056	13,401	2,691	153	1,811	
Lighting Equipment Types (more than one may apply)								
Incandescent	2,184	38,528	60,359	44,422	9,937	1,297	4,703	
Standard Fluorescent	3,943	59,688	89,627	66,864	14,039	1,707	7,016	
Compact Fluorescent	941	27,571	49,570	36,584	7,428	774	4,784	
High Intensity Discharge	455	20,643	31,999	23,651	4,907	404	3,037	
Halogen	565	17.703	30,218	23,011	4,680	506	2,021	
Other	8	269	30,210 Q	23,011 Q	4,000 Q	Q	2,021 Q	
Refrigeration Equipment								
(more than one may apply) ^a								
Any Refrigeration	3,176	52,974	82,557	62,357	12,913	1,575	5,713	
, .	1,007	26,768	50,937	38,581	8,073	961	3,322	
Commercial Refrigeration		·	-	•				
Walk-In Units	666	20,254	41,811	31,769	6,648	726	2,668	
Cases or Cabinets	825	20,424	41,463	31,335	6,571	732	2,825	
Residential-Type Units	2,370	38,884	54,108	39,936	8,848	1,259	4,065	
Vending Machines	996	35,335	56,290	42,043	8,276	811	5,159	
No Refrigeration	1,469	11,809	10,020	6,675	1,612	200	Q	
Office Equipment (more than one may apply)								
Computers	3,081	55,627	85,407	64.010	13,089	1,544	6,764	
With Flat Screen Monitors	877	26,417	46,704	34,985	6,287	688	4,743	
Dedicated Servers	1,175	36,338	59,377	44,941	8,657	809	4,969	
	1,970	·				999		
Laser Printers		33,012	47,880	36,031	7,946		2,904	
Inkjet Printers	1,420	32,210	52,520	39,920	7,784	582	4,234	
FAX MachinesPhotocopiers	2,715 1,939	52,373 46,257	80,902 70,079	60,928 52,409	12,641 10,542	1,440 1,198	5,892 5,930	
Number of Computers								
None	1,565	9.156	7,170	5,021	1,436	232	Q	
1 to 4	1,670	12,395	17,257	12,918	3,015	602	Q	
5 to 9	559	7,179	8,649	6,606	1,844	130	Q	
10 to 19	370	6,610	8,588	6,741	1,492	99	Q	
20 to 49	255	7,414	11,778	9,322	1,492	121	Q	
		·						
50 to 99	110	5,376	7,888	5,664	1,124	259	Q	
100 to 249 250 or More	79 38	6,690 9,963	10,790 20,456	7,675 15,085	1,472 2,377	126 207	Q 2,787	
Number of Dedicated Servers								
None	3,471	28,445	33,201	24,090	5,867	967	Q	
1 to 4	1,060	24,116	34,991	26,074	6,056	578	Q	
5 to 9	58	3,864	6,784	5,608	796	100	Q	
J 10 J		·						
10 to 19	30	3,027	6,267	4,457	665	38	Q	
	30 17	3,027 2,583	6,267 4,740	4,45 <i>7</i> 3,685	665 518	38 52	Q Q	

Table C2. Total Energy Expenditures by Major Fuel for Non-Mall Buildings, 2003

	All Bui	ldings*	То	Total Energy Expenditures (million dollars)				
	Number of Buildings (thousand)	Floorspace (million square feet)	Sum of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat	
All Buildings*	4,645	64,783	92,577	69,032	14,525	1,776	7,245	
Number of Photocopiers								
None	2,706	18,526	22,498	16,622	3,983	578	C	
One	1,250	15,475	18,436	14,098	3,295	428	C	
2 to 4	549	15,082	20,980	15,555	3,518	315	C	
5 to 9	85	5,515	9,441	7,138	1,290	268	C	
10 or More	54	10,185	21,223	15,618	2,439	187	2,979	
Energy-Related Space Functions								
(more than one may apply)	700	00.000	40.050	00 774	7.450	000	0.000	
Commercial Food Preparation	799	22,223	40,252	29,771	7,156	929	2,396	
Activities with Large								
Amounts of Hot Water	567	19,482	34,904	24,710	6,466	724	3,003	
Separate Computer Area	553	26,873	44,552	33,308	6,230	732	4,282	
HVAC Conservation Features								
(more than one may apply)								
Variable Air-Volume System	466	19,597	36,254	26,726	5,070	273	4,184	
Economizer Cycle	508	21,108	39,593	29,663	5,703	331	3,896	
HVAC Maintenance	2,581	51,163	81,328	60,420	12,356	1,565	6,987	
Energy Management and								
Control System (EMCS)	252	15,630	27,646	20,451	3,318	241	3,636	
Window and Interior Lighting								
Features (more than one								
may apply)								
Multipaned Windows	2,201	38,910	59,356	43,784	10,027	1,331	4,214	
Tinted Window Glass	1,323	29,887	49,568	37,166	6,978	359	5,064	
Reflective Window Glass	308	8,544	14,414	11,302	2,145	132	835	
External Overhangs		0,0	,	,00=	_,			
or Awnings	1,233	17,242	28.248	21,798	4,583	463	1,404	
Skylights or Atriums	331	12,546	19,284	14,007	3,210	369	1,697	
Daylighting Sensors	74	2,868	6,261	4,847	917	26	1,007	
Specular Reflectors	928	26,118	43,466		6,179	684	4.51	
Electronic Ballasts		,		32,092			, -	
	2,577	46,882	74,873	55,837	11,181	1,236	6,619	
Energy Management and Control System (EMCS)								
For Lighting	60	4,781	8,967	6,922	906	47	C	
Equipment Usage Reduced When Building Not In Full Use								
(more than one may apply) ^a								
Heating	2,878	42,722	60,293	45,100	9,840	1,305	4,048	
Cooling	2,761	43,205	62,872	47,552	9,785	1,074	4,46	
Lighting	3,685	46,987	62,313	46,811	9,710	1,257	4,534	
Office Equipment	1,504	19,397	23,915	17,466	3,666	714	C,SS	

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Table C2. Total Energy Expenditures by Major Fuel for Non-Mall Buildings, 2003

	All Bui	ildings*	Total Energy Expenditures (million dollars)				
	Number of Buildings (thousand)	Floorspace (million square feet)	Sum of Major Fuels	Electricity	Natural Gas	Fuel Oil	District Heat
All Buildings*	4,645	64,783	92,577	69,032	14,525	1,776	7,245

See "Guide to the Tables" or "Glossary" for further explanations of the terms used in this table. Both can be accessed from the CBECS web site - http://www.eia.doe.gov/emeu/cbecs.

Notes: • Statistics for the "Energy End Uses" category represent total consumption in buildings that have the end use, not consumption specifically for that particular end use. • HVAC = Heating, Ventilation, and Air Conditioning. • Due to rounding, data may not sum to totals. Source: Energy Information Administration, Office of Energy Markets and End Use, Forms EIA-871A, C, and E of the 2003 Commercial Buildings Energy Consumption Survey.

^{*} Figures in this table do not include enclosed malls and strip malls. Mall buildings add an estimated 213 thousand buildings comprising 6.9 billion square feet. In the 1999 CBECS, malls represented 6.6 percent of total consumption.

^a The definition for one or more of these row items has changed and may not be directly comparable with past CBECS estimates. See "Guide to the Tables" for discussion of the differences.

Q=Data withheld because the Relative Standard Error (RSE) was greater than 50 percent, or fewer than 20 buildings were sampled. N=No responding cases in sample that use the particular energy source.