

Released: Dec 2006
Next CBECS will be conducted in 2007

Table C3. Consumption and Gross Energy Intensity for Sum of Major Fuels for Non-Mall Buildings, 2003

| | All Buildings* | | | Sum of Major Fuel Consumption | | | |
|--|--------------------------------|----------------------------------|--|-------------------------------|----------------------------|--------------------------------|--------------------------|
| | Number of Buildings (thousand) | Floorspace (million square feet) | Floorspace per Building (thousand square feet) | Total (trillion Btu) | per Building (million Btu) | per Square Foot (thousand Btu) | per Worker (million Btu) |
| All Buildings* | 4,645 | 64,783 | 13.9 | 5,820 | 1,253 | 89.8 | 79.9 |
| Building Floorspace (Square Feet) | | | | | | | |
| 1,001 to 5,000 | 2,552 | 6,789 | 2.7 | 672 | 263 | 98.9 | 67.6 |
| 5,001 to 10,000 | 889 | 6,585 | 7.4 | 516 | 580 | 78.3 | 68.7 |
| 10,001 to 25,000 | 738 | 11,535 | 15.6 | 776 | 1,052 | 67.3 | 72.0 |
| 25,001 to 50,000 | 241 | 8,668 | 35.9 | 673 | 2,790 | 77.6 | 75.8 |
| 50,001 to 100,000 | 129 | 9,057 | 70.4 | 759 | 5,901 | 83.8 | 90.0 |
| 100,001 to 200,000 | 65 | 9,064 | 138.8 | 934 | 14,300 | 103.0 | 80.3 |
| 200,001 to 500,000 | 25 | 7,176 | 289.0 | 725 | 29,189 | 101.0 | 105.3 |
| Over 500,000 | 7 | 5,908 | 896.1 | 766 | 116,216 | 129.7 | 87.6 |
| Principal Building Activity | | | | | | | |
| Education | 386 | 9,874 | 25.6 | 820 | 2,125 | 83.1 | 65.7 |
| Food Sales | 226 | 1,255 | 5.6 | 251 | 1,110 | 199.7 | 175.2 |
| Food Service | 297 | 1,654 | 5.6 | 427 | 1,436 | 258.3 | 136.5 |
| Health Care | 129 | 3,163 | 24.6 | 594 | 4,612 | 187.7 | 94.0 |
| Inpatient | 8 | 1,905 | 241.4 | 475 | 60,152 | 249.2 | 127.7 |
| Outpatient | 121 | 1,258 | 10.4 | 119 | 985 | 94.6 | 45.8 |
| Lodging | 142 | 5,096 | 35.8 | 510 | 3,578 | 100.0 | 207.5 |
| Retail (Other Than Mall)..... | 443 | 4,317 | 9.7 | 319 | 720 | 73.9 | 92.1 |
| Office | 824 | 12,208 | 14.8 | 1,134 | 1,376 | 92.9 | 40.3 |
| Public Assembly | 277 | 3,939 | 14.2 | 370 | 1,338 | 93.9 | 154.5 |
| Public Order and Safety | 71 | 1,090 | 15.5 | 126 | 1,791 | 115.8 | 93.7 |
| Religious Worship | 370 | 3,754 | 10.1 | 163 | 440 | 43.5 | 95.6 |
| Service | 622 | 4,050 | 6.5 | 312 | 501 | 77.0 | 85.0 |
| Warehouse and Storage | 597 | 10,078 | 16.9 | 456 | 764 | 45.2 | 104.3 |
| Other | 79 | 1,738 | 21.9 | 286 | 3,600 | 164.4 | 157.1 |
| Vacant | 182 | 2,567 | 14.1 | 54 | 294 | 20.9 | 832.1 |
| Year Constructed | | | | | | | |
| Before 1920 | 330 | 3,769 | 11.4 | 302 | 917 | 80.2 | 99.3 |
| 1920 to 1945 | 527 | 6,871 | 13.0 | 620 | 1,176 | 90.3 | 101.3 |
| 1946 to 1959 | 562 | 7,045 | 12.5 | 565 | 1,007 | 80.3 | 85.1 |
| 1960 to 1969 | 579 | 8,101 | 14.0 | 737 | 1,272 | 90.9 | 84.6 |
| 1970 to 1979 | 731 | 10,772 | 14.7 | 1,023 | 1,400 | 95.0 | 81.2 |
| 1980 to 1989 | 707 | 10,332 | 14.6 | 1,034 | 1,463 | 100.1 | 68.8 |
| 1990 to 1999 | 876 | 12,360 | 14.1 | 1,098 | 1,253 | 88.8 | 67.8 |
| 2000 to 2003 | 334 | 5,533 | 16.6 | 441 | 1,319 | 79.7 | 98.5 |
| Census Region and Division | | | | | | | |
| Northeast | 726 | 12,905 | 17.8 | 1,271 | 1,751 | 98.5 | 85.3 |
| New England | 233 | 2,964 | 12.7 | 294 | 1,262 | 99.0 | 93.0 |
| Middle Atlantic | 493 | 9,941 | 20.1 | 978 | 1,981 | 98.3 | 83.2 |
| Midwest | 1,266 | 17,080 | 13.5 | 1,690 | 1,334 | 98.9 | 103.2 |
| East North Central | 696 | 11,595 | 16.7 | 1,254 | 1,802 | 108.1 | 109.1 |
| West North Central | 571 | 5,485 | 9.6 | 436 | 764 | 79.5 | 89.3 |
| South | 1,775 | 23,489 | 13.2 | 1,948 | 1,098 | 82.9 | 72.0 |
| South Atlantic | 874 | 12,258 | 14.0 | 1,064 | 1,218 | 86.8 | 63.5 |
| East South Central | 348 | 3,393 | 9.8 | 309 | 889 | 91.1 | 101.0 |
| West South Central | 553 | 7,837 | 14.2 | 575 | 1,039 | 73.4 | 79.2 |
| West | 878 | 11,310 | 12.9 | 911 | 1,037 | 80.6 | 63.1 |
| Mountain | 299 | 3,675 | 12.3 | 381 | 1,278 | 103.8 | 89.1 |

SEMP Appendix H

| | | | | | | | |
|---|-------|--------|-------|-------|--------|-------|-------|
| Pacific | 580 | 7,635 | 13.2 | 530 | 913 | 69.4 | 52.1 |
| Climate Zone: 30-Year Average | | | | | | | |
| Under 2,000 CDD and -- | | | | | | | |
| More than 7,000 HDD | 855 | 10,622 | 12.4 | 990 | 1,157 | 93.2 | 96.1 |
| 5,500-7,000 HDD | 1,173 | 17,335 | 14.8 | 1,761 | 1,501 | 101.6 | 101.5 |
| 4,000-5,499 HDD | 673 | 11,504 | 17.1 | 1,134 | 1,685 | 98.5 | 80.9 |
| Fewer than 4,000 HDD | 1,276 | 15,739 | 12.3 | 1,213 | 950 | 77.0 | 70.6 |
| 2,000 CDD or More and -- | | | | | | | |
| Fewer than 4,000 HDD | 669 | 9,584 | 14.3 | 724 | 1,082 | 75.5 | 51.8 |
| Number of Floors | | | | | | | |
| One | 3,136 | 25,981 | 8.3 | 1,937 | 618 | 74.6 | 81.7 |
| Two | 1,031 | 16,270 | 15.8 | 1,311 | 1,272 | 80.6 | 81.1 |
| Three | 339 | 7,501 | 22.1 | 619 | 1,825 | 82.6 | 77.8 |
| Four to Nine | 128 | 10,085 | 78.7 | 1,336 | 10,423 | 132.5 | 84.0 |
| Ten or More | 12 | 4,947 | 420.0 | 617 | 52,356 | 124.6 | 68.1 |
| Elevators and Escalators (more than one may apply) | | | | | | | |
| Any Elevators | 309 | 24,617 | 79.7 | 2,826 | 9,146 | 114.8 | 77.3 |
| Number of Elevators | | | | | | | |
| One | 208 | 8,221 | 39.5 | 732 | 3,514 | 89.0 | 80.6 |
| Two to Five | 88 | 10,129 | 115.1 | 1,157 | 13,156 | 114.3 | 72.8 |
| Six or More | 13 | 6,268 | 491.5 | 937 | 73,451 | 149.5 | 80.8 |
| Any Escalators | 6 | 2,350 | 388.7 | 282 | 46,640 | 120.0 | 69.6 |
| Number of Workers (main shift) | | | | | | | |
| Fewer than 5 | 2,653 | 15,492 | 5.8 | 817 | 308 | 52.8 | 176.4 |
| 5 to 9 | 778 | 6,166 | 7.9 | 468 | 602 | 76.0 | 92.2 |
| 10 to 19 | 563 | 7,803 | 13.9 | 594 | 1,056 | 76.2 | 81.4 |
| 20 to 49 | 398 | 10,989 | 27.6 | 1,050 | 2,640 | 95.6 | 89.1 |
| 50 to 99 | 147 | 7,934 | 53.8 | 728 | 4,935 | 91.7 | 76.2 |
| 100 to 249 | 77 | 6,871 | 89.7 | 838 | 10,936 | 121.9 | 75.5 |
| 250 or More | 30 | 9,528 | 320.4 | 1,325 | 44,551 | 139.0 | 56.7 |
| Weekly Operating Hours | | | | | | | |
| Fewer than 40 | 1,002 | 6,863 | 6.9 | 228 | 227 | 33.2 | 69.1 |
| 40 to 48 | 1,117 | 11,622 | 10.4 | 773 | 693 | 66.5 | 56.2 |
| 49 to 60 | 1,062 | 15,723 | 14.8 | 1,179 | 1,111 | 75.0 | 61.6 |
| 61 to 84 | 591 | 10,334 | 17.5 | 924 | 1,563 | 89.4 | 79.5 |
| 85 to 167 | 400 | 7,092 | 17.7 | 889 | 2,226 | 125.4 | 84.9 |
| Open Continuously | 475 | 13,149 | 27.7 | 1,827 | 3,846 | 138.9 | 126.0 |
| Ownership and Occupancy | | | | | | | |
| Nongovernment Owned | | | | | | | |
| Owner Occupied | 4,011 | 49,421 | 12.3 | 4,203 | 1,048 | 85.1 | 78.8 |
| Nonowner Occupied | 1,841 | 23,591 | 12.8 | 2,060 | 1,119 | 87.3 | 76.0 |
| Unoccupied | 2,029 | 23,914 | 11.8 | 2,115 | 1,042 | 88.4 | 80.6 |
| Government Owned | 141 | 1,916 | 13.6 | Q | Q | Q | . |
| Federal | 635 | 15,363 | 24.2 | 1,617 | 2,548 | 105.3 | 83.1 |
| State | 46 | 1,956 | 42.9 | 303 | 6,642 | 155.0 | 124.6 |
| Local | 164 | 3,808 | 23.2 | 513 | 3,125 | 134.8 | 71.3 |
| | 425 | 9,599 | 22.6 | 800 | 1,885 | 83.4 | 81.4 |
| Vacancy Status | | | | | | | |
| Completely Vacant | 157 | 2,161 | 13.8 | 37 | 237 | 17.2 | . |
| Mostly Vacant | 25 | 406 | 16.1 | Q | Q | Q | 254.5 |
| Partially Vacant | 548 | 12,382 | 22.6 | 1,086 | 1,981 | 87.7 | 63.9 |
| Not At All Vacant | 3,915 | 49,834 | 12.7 | 4,681 | 1,196 | 93.9 | 84.0 |
| Number of Establishments | | | | | | | |
| One | 3,754 | 45,144 | 12.0 | 4,167 | 1,110 | 92.3 | 94.5 |
| 2 to 5 | 643 | 10,960 | 17.1 | 992 | 1,544 | 90.6 | 76.3 |
| 6 to 10 | 55 | 1,958 | 35.7 | 216 | 3,933 | 110.1 | 33.3 |
| 11 to 20 | 23 | 1,951 | 85.7 | 152 | 6,655 | 77.6 | 45.3 |
| More than 20 | 14 | 2,609 | 181.1 | 257 | 17,833 | 98.5 | 43.3 |
| Currently Unoccupied | 157 | 2,161 | 13.8 | 37 | 237 | 17.2 | . |
| Predominant Exterior Wall Material | | | | | | | |

SEMP Appendix H

| | | | | | | | |
|----------------------------------|-------|--------|------|-------|-------|-------|------|
| Brick, Stone or Stucco | 2,044 | 32,817 | 16.1 | 3,186 | 1,559 | 97.1 | 86.6 |
| Concrete (Block or Poured) | 786 | 10,832 | 13.8 | 974 | 1,239 | 89.9 | 93.1 |
| Concrete Panels | 131 | 6,559 | 50.2 | 667 | 5,111 | 101.7 | 61.3 |
| Siding or Shingles | 779 | 4,120 | 5.3 | 276 | 355 | 67.1 | 60.5 |
| Metal Panels | 825 | 7,912 | 9.6 | 463 | 561 | 58.5 | 74.3 |
| Window Glass | 17 | 1,024 | 60.1 | 95 | 5,548 | 92.3 | 49.5 |
| Other | 47 | 1,113 | 23.8 | 121 | 2,591 | 108.7 | 78.5 |
| No One Major Type | 18 | 406 | 22.9 | Q | Q | Q | 88.5 |

Predominant Roof Material

| | | | | | | | |
|---------------------------|-------|--------|------|-------|-------|-------|-------|
| Built-Up | 1,036 | 21,170 | 20.4 | 2,083 | 2,011 | 98.4 | 80.7 |
| Shingles (Not Wood) | 1,325 | 10,195 | 7.7 | 823 | 621 | 80.7 | 78.6 |
| Metal Surfacing | 1,288 | 11,944 | 9.3 | 630 | 489 | 52.7 | 74.4 |
| Synthetic or Rubber | 511 | 14,730 | 28.8 | 1,649 | 3,228 | 112.0 | 79.3 |
| Slate or Tile | 263 | 2,462 | 9.4 | 207 | 789 | 84.2 | 68.6 |
| Wooden Materials | 122 | 887 | 7.3 | 68 | 562 | 77.0 | 70.2 |
| Concrete | 61 | 2,231 | 36.7 | 236 | 3,886 | Q | 120.6 |
| Other | 16 | 598 | 38.1 | Q | Q | Q | Q |
| No One Major Type | 25 | 565 | 22.7 | 40 | 1,589 | 69.9 | 59.0 |

Renovations in Buildings Constructed Before 1980 (more than one may apply)

| | | | | | | | |
|---------------------------------|-------|--------|------|-------|-------|-------|-------|
| Any Type of Renovation | | | | | | | |
| Since 1980 | 1,018 | 17,844 | 17.5 | 1,766 | 1,734 | 99.0 | 86.2 |
| Addition or Annex | 256 | 6,551 | 25.6 | 733 | 2,860 | 111.9 | 109.9 |
| Reduction In Floorspace | 22 | 1,012 | 46.1 | 117 | 5,306 | 115.2 | 108.2 |
| Cosmetic Improvements | 741 | 13,119 | 17.7 | 1,317 | 1,778 | 100.4 | 82.9 |
| Wall or Roof Replacement | 370 | 8,070 | 21.8 | 777 | 2,100 | 96.3 | 76.8 |
| Interior Wall | | | | | | | |
| Re-Configuration | 411 | 8,518 | 20.7 | 911 | 2,218 | 107.0 | 81.4 |
| HVAC Equipment Upgrade | 442 | 10,768 | 24.4 | 1,156 | 2,619 | 107.4 | 83.5 |
| Lighting Upgrade | 455 | 10,275 | 22.6 | 1,085 | 2,388 | 105.6 | 87.2 |
| Window Replacement | 310 | 6,354 | 20.5 | 613 | 1,974 | 96.5 | 82.1 |
| Plumbing System Upgrade | 315 | 7,144 | 22.7 | 748 | 2,376 | 104.7 | 85.4 |
| Insulation Upgrade | 227 | 4,015 | 17.7 | 381 | 1,676 | 94.8 | 75.8 |
| Other Renovation | 19 | 523 | 27.3 | 50 | 2,587 | 94.9 | 104.1 |
| No Renovations Since 1980 | 1,710 | 18,714 | 10.9 | 1,482 | 866 | 79.2 | 89.1 |
| Building Newer than 1980 | 1,917 | 28,225 | 14.7 | 2,573 | 1,342 | 91.1 | 72.1 |

Energy Sources (more than one may apply)

| | | | | | | | |
|------------------------------|-------|--------|------|-------|--------|-------|------|
| Electricity | 4,404 | 63,307 | 14.4 | 5,820 | 1,322 | 91.9 | 80.0 |
| Natural Gas | 2,391 | 43,468 | 18.2 | 4,492 | 1,878 | 103.3 | 86.5 |
| Fuel Oil | 451 | 15,157 | 33.6 | 1,760 | 3,906 | 116.1 | 89.7 |
| District Heat | 67 | 5,443 | 81.4 | 1,017 | 15,203 | 186.8 | 99.8 |
| District Chilled Water | 33 | 2,853 | 86.7 | 538 | 16,353 | 188.7 | 74.9 |
| Propane | 502 | 7,076 | 14.1 | 584 | 1,164 | 82.6 | 99.8 |
| Other | 132 | 1,401 | 10.6 | 139 | 1,050 | 99.2 | 73.8 |

Space-Heating Energy Sources (more than one may apply)

| | | | | | | | |
|---------------------|-------|--------|------|-------|--------|-------|-------|
| Electricity | 1,766 | 28,600 | 16.2 | 2,373 | 1,344 | 83.0 | 70.0 |
| Natural Gas | 2,165 | 36,959 | 17.1 | 3,682 | 1,700 | 99.6 | 89.9 |
| Fuel Oil | 360 | 5,988 | 16.6 | 591 | 1,641 | 98.6 | 109.7 |
| District Heat | 65 | 5,198 | 79.7 | 994 | 15,241 | 191.2 | 100.0 |
| Propane | 372 | 3,204 | 8.6 | 160 | 430 | 49.9 | 53.3 |
| Other | 113 | 842 | 7.4 | 61 | 541 | 72.6 | 70.7 |

Primary Space-Heating Energy Source

| | | | | | | | |
|---------------------|-------|--------|------|-------|--------|-------|-------|
| Electricity | 1,258 | 15,996 | 12.7 | 1,089 | 865 | 68.1 | 56.1 |
| Natural Gas | 1,999 | 32,970 | 16.5 | 3,280 | 1,641 | 99.5 | 89.2 |
| Fuel Oil | 282 | 3,818 | 13.5 | 294 | 1,044 | 77.1 | 110.3 |
| District Heat | 63 | 4,907 | 77.4 | 951 | 15,010 | 193.8 | 97.8 |
| Propane | 308 | 1,955 | 6.4 | 71 | 232 | 36.6 | 37.3 |
| Other | 72 | 382 | 5.3 | 19 | 270 | 50.6 | 64.3 |

Cooling Energy Sources (more than one may apply)

SEMP Appendix H

| | | | | | | | |
|---|-------|--------|-------|-------|--------|-------|-------|
| Electricity | 3,589 | 54,321 | 15.1 | 5,021 | 1,399 | 92.4 | 79.4 |
| Natural Gas | 17 | 1,018 | 58.9 | 159 | 9,202 | 156.3 | 118.6 |
| District Chilled Water | 33 | 2,853 | 86.7 | 538 | 16,353 | 188.7 | 74.9 |
| Water-Heating Energy Sources (more than one may apply) | | | | | | | |
| Electricity | 1,910 | 27,490 | 14.4 | 2,145 | 1,123 | 78.0 | 65.7 |
| Natural Gas | 1,445 | 28,820 | 19.9 | 3,206 | 2,218 | 111.2 | 89.7 |
| Fuel Oil | 94 | 1,880 | 19.9 | 206 | 2,186 | 109.7 | 101.2 |
| District Heat | 27 | 3,088 | 113.1 | 563 | 20,610 | 182.3 | 134.2 |
| Propane | 128 | 1,422 | 11.1 | 81 | 628 | 56.7 | 52.8 |
| Cooking Energy Sources (more than one may apply) | | | | | | | |
| Electricity | 410 | 13,161 | 32.1 | 1,579 | 3,851 | 120.0 | 98.5 |
| Natural Gas | 457 | 15,438 | 33.8 | 2,074 | 4,542 | 134.3 | 109.1 |
| Propane | 108 | 1,460 | 13.6 | 114 | 1,064 | 78.3 | 61.3 |
| Energy End Uses (more than one may apply) | | | | | | | |
| Buildings with Space Heating | 3,982 | 60,028 | 15.1 | 5,705 | 1,433 | 95.0 | 80.6 |
| Buildings with Cooling | 3,625 | 56,940 | 15.7 | 5,464 | 1,507 | 96.0 | 77.9 |
| Buildings with Water Heating | 3,472 | 56,478 | 16.3 | 5,498 | 1,583 | 97.4 | 79.4 |
| Buildings with Cooking | 801 | 22,237 | 27.8 | 2,712 | 3,386 | 122.0 | 99.6 |
| Buildings with Manufacturing | 119 | 3,138 | 26.5 | 254 | 2,144 | 81.1 | 88.3 |
| Buildings with Electricity Generation | 149 | 12,821 | 85.9 | 1,693 | 11,347 | 132.1 | 87.8 |
| Percent of Floorspace Heated | | | | | | | |
| Not Heated | 663 | 4,756 | 7.2 | 115 | 173 | 24.2 | 56.7 |
| 1 to 50 | 523 | 6,850 | 13.1 | 299 | 571 | 43.6 | 72.2 |
| 51 to 99 | 498 | 8,107 | 16.3 | 746 | 1,500 | 92.1 | 77.6 |
| 100 | 2,962 | 45,071 | 15.2 | 4,660 | 1,573 | 103.4 | 81.7 |
| Percent of Floorspace Cooled | | | | | | | |
| Not Cooled | 1,020 | 7,843 | 7.7 | 356 | 349 | 45.4 | 134.1 |
| 1 to 50 | 985 | 16,598 | 16.8 | 1,026 | 1,042 | 61.8 | 92.5 |
| 51 to 99 | 629 | 13,211 | 21.0 | 1,413 | 2,246 | 106.9 | 85.6 |
| 100 | 2,011 | 27,132 | 13.5 | 3,026 | 1,504 | 111.5 | 71.1 |
| Percent Lit When Open | | | | | | | |
| Zero | 47 | 293 | 6.3 | Q | Q | Q | Q |
| 1 to 50 | 929 | 10,203 | 11.0 | 540 | 581 | 52.9 | 122.4 |
| 51 to 99 | 1,108 | 18,288 | 16.5 | 1,736 | 1,567 | 94.9 | 65.2 |
| 100 | 2,176 | 32,789 | 15.1 | 3,490 | 1,603 | 106.4 | 84.0 |
| Building Never Open/ Electricity Not Used | 386 | 3,210 | 8.3 | 46 | 120 | 14.4 | 415.9 |
| Percent Lit When Closed | | | | | | | |
| Zero | 1,964 | 17,385 | 8.9 | 1,132 | 577 | 65.1 | 62.6 |
| 1 to 50 | 1,882 | 30,948 | 16.4 | 2,626 | 1,396 | 84.9 | 70.3 |
| 51 to 100 | 136 | 2,093 | 15.4 | 235 | 1,725 | 112.3 | 84.7 |
| Building Never Closed/ Electricity Not Used | 664 | 14,357 | 21.6 | 1,827 | 2,752 | 127.2 | 125.2 |
| Heating Equipment (more than one may apply) | | | | | | | |
| Heat Pumps | 476 | 8,814 | 18.5 | 805 | 1,692 | 91.3 | 74.8 |
| Packaged Heat Pumps | 278 | 5,442 | 19.6 | 523 | 1,880 | 96.0 | 70.0 |
| Split-System Heat Pumps | 166 | 2,581 | 15.5 | 198 | 1,191 | 76.8 | 71.6 |
| Individual Room Heat Pumps | 58 | 2,691 | 46.5 | 255 | 4,405 | 94.7 | 85.5 |
| Furnaces | 1,864 | 19,615 | 10.5 | 1,493 | 801 | 76.1 | 80.2 |
| Individual Space Heaters | 819 | 12,545 | 15.3 | 1,024 | 1,250 | 81.6 | 79.5 |
| District Heat | 65 | 5,166 | 79.7 | 986 | 15,202 | 190.8 | 100.2 |
| Boilers | 579 | 20,423 | 35.3 | 2,244 | 3,877 | 109.9 | 95.6 |
| Packaged Heating Units | 953 | 18,021 | 18.9 | 1,729 | 1,814 | 95.9 | 76.5 |
| Other | 205 | 3,262 | 15.9 | 231 | 1,127 | 70.7 | 66.4 |
| Cooling Equipment (more than one may apply) | | | | | | | |

SEMP Appendix H

| | | | | | | | | |
|--|-------|--------|-------|-------|--------|-------|-------|--|
| Residential-Type Central | | | | | | | | |
| Air Conditioners | 1,006 | 11,035 | 11.0 | 924 | 918 | 83.7 | 80.8 | |
| Heat Pumps | 492 | 9,041 | 18.4 | 837 | 1,700 | 92.6 | 76.4 | |
| Packaged Heat Pumps | 288 | 5,426 | 18.9 | 529 | 1,838 | 97.4 | 70.6 | |
| Split-System Heat Pumps | 174 | 2,606 | 15.0 | 204 | 1,176 | 78.4 | 73.9 | |
| Individual Room Heat Pumps | 58 | 2,940 | 50.7 | 278 | 4,788 | 94.4 | 85.1 | |
| Individual Air Conditioners | 742 | 12,558 | 16.9 | 1,080 | 1,455 | 86.0 | 94.1 | |
| District Chilled Water | 33 | 2,853 | 86.7 | 538 | 16,353 | 188.7 | 74.9 | |
| Central Chillers | 111 | 11,636 | 105.1 | 1,531 | 13,824 | 131.6 | 87.3 | |
| Packaged Air Conditioning | | | | | | | | |
| Units | 1,613 | 29,969 | 18.6 | 2,862 | 1,775 | 95.5 | 79.9 | |
| Swamp Coolers | 122 | 1,561 | 12.8 | 158 | 1,296 | 101.1 | 95.3 | |
| Other | 40 | 1,232 | 31.1 | 142 | 3,583 | 115.1 | 84.3 | |
| Main Equipment Replaced Since 1990 (more than one may apply) | | | | | | | | |
| Heating | 1,197 | 16,403 | 13.7 | 1,367 | 1,143 | 83.4 | 80.5 | |
| Cooling | 1,356 | 20,995 | 15.5 | 1,949 | 1,437 | 92.8 | 79.4 | |
| Water Heating Equipment | | | | | | | | |
| Centralized System | 2,513 | 34,671 | 13.8 | 3,432 | 1,366 | 99.0 | 85.9 | |
| Distributed System | 785 | 11,540 | 14.7 | 835 | 1,064 | 72.4 | 70.5 | |
| Combination of Centralized and Distributed System | 175 | 10,267 | 58.8 | 1,231 | 7,051 | 119.9 | 70.6 | |
| Lighting Equipment Types (more than one may apply) | | | | | | | | |
| Incandescent | 2,184 | 38,528 | 17.6 | 3,916 | 1,793 | 101.6 | 80.2 | |
| Standard Fluorescent | 3,943 | 59,688 | 15.1 | 5,644 | 1,431 | 94.6 | 79.6 | |
| Compact Fluorescent | 941 | 27,571 | 29.3 | 3,208 | 3,409 | 116.4 | 87.7 | |
| High Intensity Discharge | 455 | 20,643 | 45.4 | 2,141 | 4,706 | 103.7 | 82.1 | |
| Halogen | 565 | 17,703 | 31.3 | 1,982 | 3,505 | 111.9 | 86.6 | |
| Other | 8 | 269 | 31.7 | Q | Q | Q | 90.9 | |
| Refrigeration Equipment (more than one may apply)^a | | | | | | | | |
| Any Refrigeration..... | 3,176 | 52,974 | 16.7 | 5,213 | 1,641 | 98.4 | 79.5 | |
| Commercial Refrigeration | 1,007 | 26,768 | 26.6 | 3,336 | 3,314 | 124.6 | 103.3 | |
| Walk-In Units | 666 | 20,254 | 30.4 | 2,766 | 4,152 | 136.6 | 109.4 | |
| Cases or Cabinets | 825 | 20,424 | 24.8 | 2,703 | 3,278 | 132.3 | 106.3 | |
| Residential-Type Units | 2,370 | 38,884 | 16.4 | 3,466 | 1,463 | 89.1 | 72.5 | |
| Vending Machines | 996 | 35,335 | 35.5 | 3,721 | 3,735 | 105.3 | 81.1 | |
| No Refrigeration | 1,469 | 11,809 | 8.0 | 607 | 413 | 51.4 | 83.8 | |
| Office Equipment (more than one may apply) | | | | | | | | |
| Computers | 3,081 | 55,627 | 18.1 | 5,376 | 1,745 | 96.6 | 77.9 | |
| With Flat Screen Monitors | 877 | 26,417 | 30.1 | 2,966 | 3,383 | 112.3 | 70.3 | |
| Dedicated Servers | 1,175 | 36,338 | 30.9 | 3,760 | 3,201 | 103.5 | 71.6 | |
| Laser Printers | 1,970 | 33,012 | 16.8 | 3,009 | 1,528 | 91.2 | 75.1 | |
| Inkjet Printers | 1,420 | 32,210 | 22.7 | 3,302 | 2,325 | 102.5 | 75.2 | |
| FAX Machines | 2,715 | 52,373 | 19.3 | 5,092 | 1,876 | 97.2 | 76.0 | |
| Photocopiers | 1,939 | 46,257 | 23.9 | 4,466 | 2,303 | 96.5 | 72.8 | |
| Number of Computers | | | | | | | | |
| None | 1,565 | 9,156 | 5.9 | 444 | 284 | 48.5 | 118.2 | |
| 1 to 4 | 1,670 | 12,395 | 7.4 | 1,015 | 608 | 81.9 | 116.9 | |
| 5 to 9 | 559 | 7,179 | 12.8 | 546 | 976 | 76.0 | 90.8 | |
| 10 to 19 | 370 | 6,610 | 17.9 | 515 | 1,393 | 77.9 | 75.2 | |
| 20 to 49 | 255 | 7,414 | 29.1 | 707 | 2,777 | 95.3 | 75.3 | |
| 50 to 99 | 110 | 5,376 | 48.9 | 513 | 4,662 | 95.4 | 73.9 | |
| 100 to 249 | 79 | 6,690 | 84.3 | 714 | 8,992 | 106.7 | 80.5 | |
| 250 or More | 38 | 9,963 | 264.3 | 1,366 | 36,244 | 137.1 | 61.2 | |
| Number of Dedicated Servers | | | | | | | | |
| None | 3,471 | 28,445 | 8.2 | 2,060 | 594 | 72.4 | 101.5 | |
| 1 to 4 | 1,060 | 24,116 | 22.8 | 2,234 | 2,108 | 92.6 | 83.6 | |
| 5 to 9 | 58 | 3,864 | 67.0 | 405 | 7,027 | 104.9 | 67.0 | |
| 10 to 19 | 30 | 3,027 | 100.1 | 432 | 14,284 | 142.7 | 50.2 | |
| 20 to 49 | 17 | 2,583 | 150.0 | 307 | 17,825 | 118.9 | 64.1 | |

SEMP Appendix H

| | | | | | | | |
|--|-------|--------|-------|-------|--------|-------|-------|
| 50 or More | 10 | 2,748 | 276.6 | 382 | 38,458 | 139.0 | 60.2 |
| Number of Photocopiers | | | | | | | |
| None | 2,706 | 18,526 | 6.8 | 1,355 | 501 | 73.1 | 118.1 |
| One | 1,250 | 15,475 | 12.4 | 1,130 | 904 | 73.0 | 90.0 |
| 2 to 4 | 549 | 15,082 | 27.5 | 1,334 | 2,430 | 88.5 | 77.2 |
| 5 to 9 | 85 | 5,515 | 64.7 | 612 | 7,173 | 110.9 | 57.3 |
| 10 or More | 54 | 10,185 | 187.2 | 1,389 | 25,537 | 136.4 | 66.7 |
| Energy-Related Space Functions (more than one may apply) | | | | | | | |
| Commercial Food Preparation | 799 | 22,223 | 27.8 | 2,711 | 3,392 | 122.0 | 99.5 |
| Activities with Large Amounts of Hot Water | 567 | 19,482 | 34.4 | 2,465 | 4,349 | 126.6 | 113.3 |
| Separate Computer Area | 553 | 26,873 | 48.6 | 2,895 | 5,236 | 107.7 | 76.5 |
| HVAC Conservation Features (more than one may apply) | | | | | | | |
| Variable Air-Volume System | 466 | 19,597 | 42.1 | 2,380 | 5,112 | 121.4 | 77.4 |
| Economizer Cycle | 508 | 21,108 | 41.5 | 2,589 | 5,092 | 122.6 | 80.1 |
| HVAC Maintenance | 2,581 | 51,163 | 19.8 | 5,170 | 2,003 | 101.1 | 81.3 |
| Energy Management and Control System (EMCS) | 252 | 15,630 | 62.0 | 1,782 | 7,068 | 114.0 | 82.4 |
| Window and Interior Lighting Features (more than one may apply) | | | | | | | |
| Multipaned Windows | 2,201 | 38,910 | 17.7 | 3,929 | 1,785 | 101.0 | 89.3 |
| Tinted Window Glass | 1,323 | 29,887 | 22.6 | 3,098 | 2,341 | 103.6 | 76.6 |
| Reflective Window Glass | 308 | 8,544 | 27.8 | 927 | 3,011 | 108.5 | 75.3 |
| External Overhangs or Awnings | 1,233 | 17,242 | 14.0 | 1,737 | 1,408 | 100.7 | 77.6 |
| Skylights or Atriums | 331 | 12,546 | 37.9 | 1,307 | 3,950 | 104.2 | 92.3 |
| Daylighting Sensors | 74 | 2,868 | 38.7 | 377 | 5,084 | 131.4 | 99.8 |
| Specular Reflectors | 928 | 26,118 | 28.2 | 2,829 | 3,049 | 108.3 | 85.6 |
| Electronic Ballasts | 2,577 | 46,882 | 18.2 | 4,746 | 1,842 | 101.2 | 80.4 |
| Energy Management and Control System (EMCS) For Lighting | 60 | 4,781 | 80.1 | 538 | 9,025 | 112.6 | 75.9 |
| Equipment Usage Reduced When Building Not In Full Use (more than one may apply)^a | | | | | | | |
| Heating | 2,878 | 42,722 | 14.8 | 3,740 | 1,300 | 87.6 | 75.9 |
| Cooling | 2,761 | 43,205 | 15.6 | 3,844 | 1,392 | 89.0 | 71.2 |
| Lighting | 3,685 | 46,987 | 12.7 | 3,818 | 1,036 | 81.3 | 67.7 |
| Office Equipment | 1,504 | 19,397 | 12.9 | 1,465 | 975 | 75.5 | 72.7 |

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>.

* 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.

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.

Released: Dec 2006

Next CBECS will be conducted in 2007

Table C4. Expenditures for Sum of Major Fuels for Non-Mall Buildings, 2003

| | All Buildings* | | | Sum of Major Fuel Expenditures | | | |
|--|--------------------------------|----------------------------------|--|--------------------------------|---------------------------------|---------------------------|---------------------------|
| | Number of Buildings (thousand) | Floorspace (million square feet) | Floorspace per Building (thousand square feet) | Total (million dollars) | per Building (thousand dollars) | per Square Foot (dollars) | per Million Btu (dollars) |
| All Buildings* | 4,645 | 64,783 | 13.9 | 92,577 | 19.9 | 1.43 | 15.91 |
| Building Floorspace (Square Feet) | | | | | | | |
| 1,001 to 5,000 | 2,552 | 6,789 | 2.7 | 12,812 | 5.0 | 1.89 | 19.08 |
| 5,001 to 10,000 | 889 | 6,585 | 7.4 | 9,398 | 10.6 | 1.43 | 18.22 |
| 10,001 to 25,000 | 738 | 11,535 | 15.6 | 13,140 | 17.8 | 1.14 | 16.93 |
| 25,001 to 50,000 | 241 | 8,668 | 35.9 | 10,392 | 43.1 | 1.20 | 15.44 |
| 50,001 to 100,000 | 129 | 9,057 | 70.4 | 11,897 | 92.5 | 1.31 | 15.68 |
| 100,001 to 200,000 | 65 | 9,064 | 138.8 | 13,391 | 205.1 | 1.48 | 14.34 |
| 200,001 to 500,000 | 25 | 7,176 | 289.0 | 10,347 | 416.7 | 1.44 | 14.28 |
| Over 500,000 | 7 | 5,908 | 896.1 | 11,201 | 1698.8 | 1.90 | 14.62 |
| Principal Building Activity | | | | | | | |
| Education | 386 | 9,874 | 25.6 | 12,008 | 31.1 | 1.22 | 14.64 |
| Food Sales | 226 | 1,255 | 5.6 | 4,990 | 22.1 | 3.98 | 19.91 |
| Food Service | 297 | 1,654 | 5.6 | 6,865 | 23.1 | 4.15 | 16.07 |
| Health Care | 129 | 3,163 | 24.6 | 7,440 | 57.8 | 2.35 | 12.53 |
| Inpatient | 8 | 1,905 | 241.4 | 5,329 | 675.4 | 2.80 | 11.23 |
| Outpatient | 121 | 1,258 | 10.4 | 2,111 | 17.5 | 1.68 | 17.74 |
| Lodging | 142 | 5,096 | 35.8 | 7,445 | 52.3 | 1.46 | 14.61 |
| Retail (Other Than Mall)..... | 443 | 4,317 | 9.7 | 5,980 | 13.5 | 1.39 | 18.75 |
| Office | 824 | 12,208 | 14.8 | 20,841 | 25.3 | 1.71 | 18.39 |
| Public Assembly | 277 | 3,939 | 14.2 | 5,790 | 20.9 | 1.47 | 15.65 |
| Public Order and Safety | 71 | 1,090 | 15.5 | 1,917 | 27.2 | 1.76 | 15.18 |
| Religious Worship | 370 | 3,754 | 10.1 | 2,457 | 6.6 | 0.65 | 15.06 |
| Service | 622 | 4,050 | 6.5 | 4,779 | 7.7 | 1.18 | 15.33 |
| Warehouse and Storage | 597 | 10,078 | 16.9 | 6,894 | 11.5 | 0.68 | 15.12 |
| Other | 79 | 1,738 | 21.9 | 4,420 | 55.7 | 2.54 | 15.47 |
| Vacant | 182 | 2,567 | 14.1 | 751 | 4.1 | 0.29 | 14.02 |
| Year Constructed | | | | | | | |
| Before 1920 | 330 | 3,769 | 11.4 | 4,131 | 12.5 | 1.10 | 13.66 |
| 1920 to 1945 | 527 | 6,871 | 13.0 | 8,670 | 16.4 | 1.26 | 13.98 |
| 1946 to 1959 | 562 | 7,045 | 12.5 | 8,540 | 15.2 | 1.21 | 15.10 |
| 1960 to 1969 | 579 | 8,101 | 14.0 | 11,378 | 19.7 | 1.40 | 15.44 |
| 1970 to 1979 | 731 | 10,772 | 14.7 | 16,129 | 22.1 | 1.50 | 15.77 |
| 1980 to 1989 | 707 | 10,332 | 14.6 | 17,346 | 24.5 | 1.68 | 16.78 |
| 1990 to 1999 | 876 | 12,360 | 14.1 | 18,761 | 21.4 | 1.52 | 17.09 |
| 2000 to 2003 | 334 | 5,533 | 16.6 | 7,623 | 22.8 | 1.38 | 17.28 |
| Census Region and Division | | | | | | | |
| Northeast | 726 | 12,905 | 17.8 | 21,344 | 29.4 | 1.65 | 16.79 |
| New England | 233 | 2,964 | 12.7 | 4,851 | 20.9 | 1.64 | 16.53 |
| Middle Atlantic | 493 | 9,941 | 20.1 | 16,493 | 33.4 | 1.66 | 16.87 |
| Midwest | 1,266 | 17,080 | 13.5 | 21,521 | 17.0 | 1.26 | 12.74 |
| East North Central | 696 | 11,595 | 16.7 | 15,908 | 22.9 | 1.37 | 12.69 |
| West North Central | 571 | 5,485 | 9.6 | 5,613 | 9.8 | 1.02 | 12.87 |
| South | 1,775 | 23,489 | 13.2 | 31,595 | 17.8 | 1.35 | 16.22 |
| South Atlantic | 874 | 12,258 | 14.0 | 17,563 | 20.1 | 1.43 | 16.51 |
| East South Central | 348 | 3,393 | 9.8 | 4,569 | 13.1 | 1.35 | 14.78 |
| West South Central | 553 | 7,837 | 14.2 | 9,463 | 17.1 | 1.21 | 16.45 |
| West | 878 | 11,310 | 12.9 | 18,118 | 20.6 | 1.60 | 19.88 |
| Mountain | 299 | 3,675 | 12.3 | 5,629 | 18.9 | 1.53 | 14.76 |
| Pacific | 580 | 7,635 | 13.2 | 12,488 | 21.5 | 1.64 | 23.58 |

SEMP Appendix H

Climate Zone: 30-Year Average

| | | | | | | | | |
|----------------------------|-------|--------|------|--------|------|------|-------|--|
| Under 2,000 CDD and -- | | | | | | | | |
| More than 7,000 HDD | 855 | 10,622 | 12.4 | 13,709 | 16.0 | 1.29 | 13.85 | |
| 5,500-7,000 HDD | 1,173 | 17,335 | 14.8 | 24,455 | 20.9 | 1.41 | 13.89 | |
| 4,000-5,499 HDD | 673 | 11,504 | 17.1 | 18,507 | 27.5 | 1.61 | 16.33 | |
| Fewer than 4,000 HDD | 1,276 | 15,739 | 12.3 | 22,372 | 17.5 | 1.42 | 18.45 | |
| 2,000 CDD or More and -- | | | | | | | | |
| Fewer than 4,000 HDD | 669 | 9,584 | 14.3 | 13,534 | 20.2 | 1.41 | 18.70 | |

Number of Floors

| | | | | | | | |
|--------------------|-------|--------|-------|--------|-------|------|-------|
| One | 3,136 | 25,981 | 8.3 | 33,617 | 10.7 | 1.29 | 17.35 |
| Two | 1,031 | 16,270 | 15.8 | 20,932 | 20.3 | 1.29 | 15.97 |
| Three | 339 | 7,501 | 22.1 | 9,143 | 26.9 | 1.22 | 14.76 |
| Four to Nine | 128 | 10,085 | 78.7 | 18,968 | 148.0 | 1.88 | 14.20 |
| Ten or More | 12 | 4,947 | 420.0 | 9,917 | 842.1 | 2.00 | 16.08 |

Elevators and Escalators (more than one may apply)

| | | | | | | | |
|----------------------|-----|--------|-------|--------|--------|------|-------|
| Any Elevators | 309 | 24,617 | 79.7 | 42,252 | 136.8 | 1.72 | 14.95 |
| Number of Elevators | | | | | | | |
| One | 208 | 8,221 | 39.5 | 10,967 | 52.7 | 1.33 | 14.99 |
| Two to Five | 88 | 10,129 | 115.1 | 17,217 | 195.7 | 1.70 | 14.88 |
| Six or More | 13 | 6,268 | 491.5 | 14,068 | 1103.1 | 2.24 | 15.02 |
| Any Escalators | 6 | 2,350 | 388.7 | 4,861 | 804.2 | 2.07 | 17.24 |

Number of Workers (main shift)

| | | | | | | | |
|--------------------|-------|--------|-------|--------|-------|------|-------|
| Fewer than 5 | 2,653 | 15,492 | 5.8 | 13,615 | 5.1 | 0.88 | 16.66 |
| 5 to 9 | 778 | 6,166 | 7.9 | 8,265 | 10.6 | 1.34 | 17.64 |
| 10 to 19 | 563 | 7,803 | 13.9 | 9,936 | 17.7 | 1.27 | 16.72 |
| 20 to 49 | 398 | 10,989 | 27.6 | 16,406 | 41.2 | 1.49 | 15.62 |
| 50 to 99 | 147 | 7,934 | 53.8 | 11,165 | 75.7 | 1.41 | 15.34 |
| 100 to 249 | 77 | 6,871 | 89.7 | 12,970 | 169.3 | 1.89 | 15.48 |
| 250 or More | 30 | 9,528 | 320.4 | 20,222 | 680.0 | 2.12 | 15.26 |

Weekly Operating Hours

| | | | | | | | |
|-------------------------|-------|--------|------|--------|------|------|-------|
| Fewer than 40 | 1,002 | 6,863 | 6.9 | 3,695 | 3.7 | 0.54 | 16.24 |
| 40 to 48 | 1,117 | 11,622 | 10.4 | 12,749 | 11.4 | 1.10 | 16.49 |
| 49 to 60 | 1,062 | 15,723 | 14.8 | 19,461 | 18.3 | 1.24 | 16.50 |
| 61 to 84 | 591 | 10,334 | 17.5 | 15,040 | 25.4 | 1.46 | 16.28 |
| 85 to 167 | 400 | 7,092 | 17.7 | 14,287 | 35.8 | 2.01 | 16.06 |
| Open Continuously | 475 | 13,149 | 27.7 | 27,346 | 57.6 | 2.08 | 14.97 |

Ownership and Occupancy

| | | | | | | | |
|---------------------------|-------|--------|------|--------|------|------|-------|
| Nongovernment Owned | 4,011 | 49,421 | 12.3 | 69,675 | 17.4 | 1.41 | 16.58 |
| Owner Occupied | 1,841 | 23,591 | 12.8 | 33,551 | 18.2 | 1.42 | 16.29 |
| Nonowner Occupied | 2,029 | 23,914 | 11.8 | 35,713 | 17.6 | 1.49 | 16.89 |
| Unoccupied | 141 | 1,916 | 13.6 | 411 | 2.9 | 0.21 | Q |
| Government Owned | 635 | 15,363 | 24.2 | 22,902 | 36.1 | 1.49 | 14.16 |
| Federal | 46 | 1,956 | 42.9 | 3,964 | 86.8 | 2.03 | 13.08 |
| State | 164 | 3,808 | 23.2 | 7,090 | 43.2 | 1.86 | 13.81 |
| Local | 425 | 9,599 | 22.6 | 11,849 | 27.9 | 1.23 | 14.80 |

Vacancy Status

| | | | | | | | |
|-------------------------|-------|--------|------|--------|------|------|-------|
| Completely Vacant | 157 | 2,161 | 13.8 | 516 | 3.3 | 0.24 | 13.88 |
| Mostly Vacant | 25 | 406 | 16.1 | Q | Q | Q | Q |
| Partially Vacant | 548 | 12,382 | 22.6 | 17,624 | 32.2 | 1.42 | 16.23 |
| Not At All Vacant | 3,915 | 49,834 | 12.7 | 74,203 | 19.0 | 1.49 | 15.85 |

Number of Establishments

| | | | | | | | |
|----------------------------|-------|--------|-------|--------|-------|------|-------|
| One | 3,754 | 45,144 | 12.0 | 65,153 | 17.4 | 1.44 | 15.64 |
| 2 to 5 | 643 | 10,960 | 17.1 | 16,030 | 24.9 | 1.46 | 16.15 |
| 6 to 10 | 55 | 1,958 | 35.7 | 3,402 | 62.1 | 1.74 | 15.78 |
| 11 to 20 | 23 | 1,951 | 85.7 | 2,718 | 119.4 | 1.39 | 17.94 |
| More than 20 | 14 | 2,609 | 181.1 | 4,759 | 330.4 | 1.82 | 18.53 |
| Currently Unoccupied | 157 | 2,161 | 13.8 | 516 | 3.3 | 0.24 | 13.88 |

Predominant Exterior

| | | | | | | | |
|----------------------------------|-------|--------|------|--------|------|------|-------|
| Wall Material | | | | | | | |
| Brick, Stone or Stucco | 2,044 | 32,817 | 16.1 | 48,399 | 23.7 | 1.47 | 15.19 |
| Concrete (Block or Poured) | 786 | 10,832 | 13.8 | 16,015 | 20.4 | 1.48 | 16.44 |

SEMP Appendix H

| | | | | | | | |
|---|-------|--------|------|--------|-------|------|-------|
| Concrete Panels | 131 | 6,559 | 50.2 | 10,792 | 82.7 | 1.65 | 16.17 |
| Siding or Shingles | 779 | 4,120 | 5.3 | 5,071 | 6.5 | 1.23 | 18.34 |
| Metal Panels | 825 | 7,912 | 9.6 | 8,196 | 9.9 | 1.04 | 17.70 |
| Window Glass | 17 | 1,024 | 60.1 | 1,709 | 100.3 | 1.67 | 18.08 |
| Other | 47 | 1,113 | 23.8 | 1,801 | 38.6 | 1.62 | 14.88 |
| No One Major Type | 18 | 406 | 22.9 | Q | Q | Q | Q |
| Predominant Roof Material | | | | | | | |
| Built-Up | 1,036 | 21,170 | 20.4 | 33,145 | 32.0 | 1.57 | 15.91 |
| Shingles (Not Wood) | 1,325 | 10,195 | 7.7 | 13,564 | 10.2 | 1.33 | 16.49 |
| Metal Surfacing | 1,288 | 11,944 | 9.3 | 10,782 | 8.4 | 0.90 | 17.12 |
| Synthetic or Rubber | 511 | 14,730 | 28.8 | 24,825 | 48.6 | 1.69 | 15.05 |
| Slate or Tile | 263 | 2,462 | 9.4 | 3,794 | 14.4 | 1.54 | 18.30 |
| Wooden Materials | 122 | 887 | 7.3 | 1,140 | 9.4 | 1.28 | 16.68 |
| Concrete | 61 | 2,231 | 36.7 | 3,373 | 55.5 | Q | 14.28 |
| Other | 16 | 598 | 38.1 | 1,235 | 78.7 | 2.06 | Q |
| No One Major Type | 25 | 565 | 22.7 | 719 | 28.9 | 1.27 | 18.21 |
| Renovations in Buildings Constructed Before 1980 (more than one may apply) | | | | | | | |
| Any Type of Renovation | | | | | | | |
| Since 1980 | 1,018 | 17,844 | 17.5 | 25,657 | 25.2 | 1.44 | 14.53 |
| Addition or Annex | 256 | 6,551 | 25.6 | 9,530 | 37.2 | 1.45 | 13.00 |
| Reduction In Floorspace | 22 | 1,012 | 46.1 | 1,710 | 77.8 | 1.69 | 14.67 |
| Cosmetic Improvements | 741 | 13,119 | 17.7 | 19,621 | 26.5 | 1.50 | 14.90 |
| Wall or Roof Replacement | 370 | 8,070 | 21.8 | 11,653 | 31.5 | 1.44 | 14.99 |
| Interior Wall | | | | | | | |
| Re-Configuration | 411 | 8,518 | 20.7 | 13,131 | 32.0 | 1.54 | 14.41 |
| HVAC Equipment Upgrade | 442 | 10,768 | 24.4 | 16,899 | 38.3 | 1.57 | 14.61 |
| Lighting Upgrade | 455 | 10,275 | 22.6 | 15,732 | 34.6 | 1.53 | 14.50 |
| Window Replacement | 310 | 6,354 | 20.5 | 9,102 | 29.3 | 1.43 | 14.85 |
| Plumbing System Upgrade | 315 | 7,144 | 22.7 | 10,965 | 34.8 | 1.53 | 14.66 |
| Insulation Upgrade | 227 | 4,015 | 17.7 | 5,868 | 25.8 | 1.46 | 15.41 |
| Other Renovation | 19 | 523 | 27.3 | 791 | 41.3 | 1.51 | 15.96 |
| No Renovations Since 1980 | 1,710 | 18,714 | 10.9 | 23,191 | 13.6 | 1.24 | 15.65 |
| Building Newer than 1980 | 1,917 | 28,225 | 14.7 | 43,729 | 22.8 | 1.55 | 17.00 |
| Energy Sources (more than one may apply) | | | | | | | |
| Electricity | 4,404 | 63,307 | 14.4 | 92,574 | 21.0 | 1.46 | 15.91 |
| Natural Gas | 2,391 | 43,468 | 18.2 | 67,462 | 28.2 | 1.55 | 15.02 |
| Fuel Oil | 451 | 15,157 | 33.6 | 25,905 | 57.5 | 1.71 | 14.72 |
| District Heat | 67 | 5,443 | 81.4 | 14,098 | 210.7 | 2.59 | 13.86 |
| District Chilled Water | 33 | 2,853 | 86.7 | 7,647 | 232.3 | 2.68 | 14.20 |
| Propane | 502 | 7,076 | 14.1 | 9,424 | 18.8 | 1.33 | 16.12 |
| Other | 132 | 1,401 | 10.6 | 2,032 | 15.4 | 1.45 | 14.63 |
| Space-Heating Energy Sources (more than one may apply) | | | | | | | |
| Electricity | 1,766 | 28,600 | 16.2 | 41,737 | 23.6 | 1.46 | 17.59 |
| Natural Gas | 2,165 | 36,959 | 17.1 | 54,959 | 25.4 | 1.49 | 14.93 |
| Fuel Oil | 360 | 5,988 | 16.6 | 7,485 | 20.8 | 1.25 | 12.67 |
| District Heat | 65 | 5,198 | 79.7 | 13,623 | 208.9 | 2.62 | 13.71 |
| Propane | 372 | 3,204 | 8.6 | 3,303 | 8.9 | 1.03 | 20.65 |
| Other | 113 | 842 | 7.4 | 956 | 8.5 | 1.14 | 15.65 |
| Primary Space-Heating Energy Source | | | | | | | |
| Electricity | 1,258 | 15,996 | 12.7 | 22,011 | 17.5 | 1.38 | 20.22 |
| Natural Gas | 1,999 | 32,970 | 16.5 | 48,198 | 24.1 | 1.46 | 14.69 |
| Fuel Oil | 282 | 3,818 | 13.5 | 3,963 | 14.1 | 1.04 | 13.47 |
| District Heat | 63 | 4,907 | 77.4 | 13,178 | 208.0 | 2.69 | 13.86 |
| Propane | 308 | 1,955 | 6.4 | 1,928 | 6.3 | 0.99 | 26.96 |
| Other | 72 | 382 | 5.3 | 338 | 4.7 | 0.88 | 17.47 |
| Cooling Energy Sources (more than one may apply) | | | | | | | |
| Electricity | 3,589 | 54,321 | 15.1 | 81,478 | 22.7 | 1.50 | 16.23 |
| Natural Gas | 17 | 1,018 | 58.9 | 2,005 | 116.0 | 1.97 | 12.60 |

SEMP Appendix H

| | | | | | | | |
|---|-------|--------|-------|--------|-------|------|-------|
| District Chilled Water | 33 | 2,853 | 86.7 | 7,647 | 232.3 | 2.68 | 14.20 |
| Water-Heating Energy Sources (more than one may apply) | | | | | | | |
| Electricity | 1,910 | 27,490 | 14.4 | 36,908 | 19.3 | 1.34 | 17.21 |
| Natural Gas | 1,445 | 28,820 | 19.9 | 47,610 | 32.9 | 1.65 | 14.85 |
| Fuel Oil | 94 | 1,880 | 19.9 | 2,700 | 28.6 | 1.44 | 13.10 |
| District Heat | 27 | 3,088 | 113.1 | 8,155 | 298.6 | 2.64 | 14.49 |
| Propane | 128 | 1,422 | 11.1 | 1,871 | 14.6 | 1.32 | 23.21 |
| Cooking Energy Sources (more than one may apply) | | | | | | | |
| Electricity | 410 | 13,161 | 32.1 | 23,623 | 57.6 | 1.79 | 14.96 |
| Natural Gas | 457 | 15,438 | 33.8 | 29,444 | 64.5 | 1.91 | 14.20 |
| Propane | 108 | 1,460 | 13.6 | 2,508 | 23.3 | 1.72 | 21.92 |
| Energy End Uses (more than one may apply) | | | | | | | |
| Buildings with Space Heating | 3,982 | 60,028 | 15.1 | 89,615 | 22.5 | 1.49 | 15.71 |
| Buildings with Cooling | 3,625 | 56,940 | 15.7 | 87,739 | 24.2 | 1.54 | 16.06 |
| Buildings with Water Heating | 3,472 | 56,478 | 16.3 | 87,218 | 25.1 | 1.54 | 15.86 |
| Buildings with Cooking | 801 | 22,237 | 27.8 | 40,266 | 50.3 | 1.81 | 14.84 |
| Buildings with Manufacturing | 119 | 3,138 | 26.5 | 3,950 | 33.3 | 1.26 | 15.53 |
| Buildings with Electricity Generation | 149 | 12,821 | 85.9 | 25,422 | 170.4 | 1.98 | 15.02 |
| Percent of Floorspace Heated | | | | | | | |
| Not Heated | 663 | 4,756 | 7.2 | 2,962 | 4.5 | 0.62 | 25.77 |
| 1 to 50 | 523 | 6,850 | 13.1 | 5,600 | 10.7 | 0.82 | 18.76 |
| 51 to 99 | 498 | 8,107 | 16.3 | 11,972 | 24.1 | 1.48 | 16.04 |
| 100 | 2,962 | 45,071 | 15.2 | 72,043 | 24.3 | 1.60 | 15.46 |
| Percent of Floorspace Cooled | | | | | | | |
| Not Cooled | 1,020 | 7,843 | 7.7 | 4,838 | 4.7 | 0.62 | 13.59 |
| 1 to 50 | 985 | 16,598 | 16.8 | 15,503 | 15.7 | 0.93 | 15.11 |
| 51 to 99 | 629 | 13,211 | 21.0 | 22,446 | 35.7 | 1.70 | 15.89 |
| 100 | 2,011 | 27,132 | 13.5 | 49,791 | 24.8 | 1.84 | 16.46 |
| Percent Lit When Open | | | | | | | |
| Zero | 47 | 293 | 6.3 | Q | Q | Q | Q |
| 1 to 50 | 929 | 10,203 | 11.0 | 8,599 | 9.3 | 0.84 | 15.92 |
| 51 to 99 | 1,108 | 18,288 | 16.5 | 28,253 | 25.5 | 1.54 | 16.28 |
| 100 | 2,176 | 32,789 | 15.1 | 54,958 | 25.3 | 1.68 | 15.75 |
| Building Never Open/ Electricity Not Used | 386 | 3,210 | 8.3 | 635 | 1.6 | 0.20 | 13.75 |
| Percent Lit When Closed | | | | | | | |
| Zero | 1,964 | 17,385 | 8.9 | 18,308 | 9.3 | 1.05 | 16.17 |
| 1 to 50 | 1,882 | 30,948 | 16.4 | 43,011 | 22.9 | 1.39 | 16.38 |
| 51 to 100 | 136 | 2,093 | 15.4 | 3,910 | 28.7 | 1.87 | 16.63 |
| Building Never Closed/ Electricity Not Used | 664 | 14,357 | 21.6 | 27,349 | 41.2 | 1.90 | 14.97 |
| Heating Equipment (more than one may apply) | | | | | | | |
| Heat Pumps | 476 | 8,814 | 18.5 | 14,249 | 30.0 | 1.62 | 17.71 |
| Packaged Heat Pumps | 278 | 5,442 | 19.6 | 9,330 | 33.6 | 1.71 | 17.85 |
| Split-System Heat Pumps | 166 | 2,581 | 15.5 | 3,696 | 22.2 | 1.43 | 18.65 |
| Individual Room Heat Pumps | 58 | 2,691 | 46.5 | 4,199 | 72.6 | 1.56 | 16.48 |
| Furnaces | 1,864 | 19,615 | 10.5 | 23,489 | 12.6 | 1.20 | 15.73 |
| Individual Space Heaters | 819 | 12,545 | 15.3 | 15,964 | 19.5 | 1.27 | 15.59 |
| District Heat | 65 | 5,166 | 79.7 | 13,505 | 208.3 | 2.61 | 13.70 |
| Boilers | 579 | 20,423 | 35.3 | 31,052 | 53.6 | 1.52 | 13.84 |
| Packaged Heating Units | 953 | 18,021 | 18.9 | 29,902 | 31.4 | 1.66 | 17.30 |
| Other | 205 | 3,262 | 15.9 | 3,988 | 19.5 | 1.22 | 17.29 |
| Cooling Equipment (more than one may apply) | | | | | | | |
| Residential-Type Central Air Conditioners | 1,006 | 11,035 | 11.0 | 14,441 | 14.4 | 1.31 | 15.63 |

SEMP Appendix H

| | | | | | | | |
|--|-------|--------|-------|--------|-------|------|-------|
| Heat Pumps | 492 | 9,041 | 18.4 | 14,738 | 29.9 | 1.63 | 17.61 |
| Packaged Heat Pumps | 288 | 5,426 | 18.9 | 9,356 | 32.5 | 1.72 | 17.70 |
| Split-System Heat Pumps | 174 | 2,606 | 15.0 | 3,776 | 21.7 | 1.45 | 18.48 |
| Individual Room Heat Pumps | 58 | 2,940 | 50.7 | 4,621 | 79.7 | 1.57 | 16.64 |
| Individual Air Conditioners | 742 | 12,558 | 16.9 | 16,175 | 21.8 | 1.29 | 14.98 |
| District Chilled Water | 33 | 2,853 | 86.7 | 7,647 | 232.3 | 2.68 | 14.20 |
| Central Chillers | 111 | 11,636 | 105.1 | 22,448 | 202.7 | 1.93 | 14.66 |
| Packaged Air Conditioning | | | | | | | |
| Units | 1,613 | 29,969 | 18.6 | 46,331 | 28.7 | 1.55 | 16.19 |
| Swamp Coolers | 122 | 1,561 | 12.8 | 2,350 | 19.3 | 1.51 | 14.89 |
| Other | 40 | 1,232 | 31.1 | 2,096 | 53.0 | 1.70 | 14.79 |
| Main Equipment Replaced Since 1990 (more than one may apply) | | | | | | | |
| Heating | 1,197 | 16,403 | 13.7 | 21,542 | 18.0 | 1.31 | 15.75 |
| Cooling | 1,356 | 20,995 | 15.5 | 30,387 | 22.4 | 1.45 | 15.59 |
| Water Heating Equipment | | | | | | | |
| Centralized System | 2,513 | 34,671 | 13.8 | 54,768 | 21.8 | 1.58 | 15.96 |
| Distributed System | 785 | 11,540 | 14.7 | 14,394 | 18.3 | 1.25 | 17.23 |
| Combination of Centralized and Distributed System | 175 | 10,267 | 58.8 | 18,056 | 103.4 | 1.76 | 14.67 |
| Lighting Equipment Types (more than one may apply) | | | | | | | |
| Incandescent | 2,184 | 38,528 | 17.6 | 60,359 | 27.6 | 1.57 | 15.41 |
| Standard Fluorescent | 3,943 | 59,688 | 15.1 | 89,627 | 22.7 | 1.50 | 15.88 |
| Compact Fluorescent | 941 | 27,571 | 29.3 | 49,570 | 52.7 | 1.80 | 15.45 |
| High Intensity Discharge | 455 | 20,643 | 45.4 | 31,999 | 70.3 | 1.55 | 14.94 |
| Halogen | 565 | 17,703 | 31.3 | 30,218 | 53.4 | 1.71 | 15.25 |
| Other | 8 | 269 | 31.7 | Q | Q | Q | Q |
| Refrigeration Equipment (more than one may apply)^a | | | | | | | |
| Any Refrigeration..... | 3,176 | 52,974 | 16.7 | 82,557 | 26.0 | 1.56 | 15.84 |
| Commercial Refrigeration | 1,007 | 26,768 | 26.6 | 50,937 | 50.6 | 1.90 | 15.27 |
| Walk-In Units | 666 | 20,254 | 30.4 | 41,811 | 62.8 | 2.06 | 15.12 |
| Cases or Cabinets | 825 | 20,424 | 24.8 | 41,463 | 50.3 | 2.03 | 15.34 |
| Residential-Type Units | 2,370 | 38,884 | 16.4 | 54,108 | 22.8 | 1.39 | 15.61 |
| Vending Machines | 996 | 35,335 | 35.5 | 56,290 | 56.5 | 1.59 | 15.13 |
| No Refrigeration | 1,469 | 11,809 | 8.0 | 10,020 | 6.8 | 0.85 | 16.50 |
| Office Equipment (more than one may apply) | | | | | | | |
| Computers | 3,081 | 55,627 | 18.1 | 85,407 | 27.7 | 1.54 | 15.89 |
| With Flat Screen Monitors | 877 | 26,417 | 30.1 | 46,704 | 53.3 | 1.77 | 15.75 |
| Dedicated Servers | 1,175 | 36,338 | 30.9 | 59,377 | 50.6 | 1.63 | 15.79 |
| Laser Printers | 1,970 | 33,012 | 16.8 | 47,880 | 24.3 | 1.45 | 15.91 |
| Inkjet Printers | 1,420 | 32,210 | 22.7 | 52,520 | 37.0 | 1.63 | 15.90 |
| FAX Machines | 2,715 | 52,373 | 19.3 | 80,902 | 29.8 | 1.54 | 15.89 |
| Photocopiers | 1,939 | 46,257 | 23.9 | 70,079 | 36.1 | 1.52 | 15.69 |
| Number of Computers | | | | | | | |
| None | 1,565 | 9,156 | 5.9 | 7,170 | 4.6 | 0.78 | 16.13 |
| 1 to 4 | 1,670 | 12,395 | 7.4 | 17,257 | 10.3 | 1.39 | 17.00 |
| 5 to 9 | 559 | 7,179 | 12.8 | 8,649 | 15.5 | 1.20 | 15.85 |
| 10 to 19 | 370 | 6,610 | 17.9 | 8,588 | 23.2 | 1.30 | 16.68 |
| 20 to 49 | 255 | 7,414 | 29.1 | 11,778 | 46.3 | 1.59 | 16.66 |
| 50 to 99 | 110 | 5,376 | 48.9 | 7,888 | 71.7 | 1.47 | 15.39 |
| 100 to 249 | 79 | 6,690 | 84.3 | 10,790 | 135.9 | 1.61 | 15.12 |
| 250 or More | 38 | 9,963 | 264.3 | 20,456 | 542.6 | 2.05 | 14.97 |
| Number of Dedicated Servers | | | | | | | |
| None | 3,471 | 28,445 | 8.2 | 33,201 | 9.6 | 1.17 | 16.12 |
| 1 to 4 | 1,060 | 24,116 | 22.8 | 34,991 | 33.0 | 1.45 | 15.66 |
| 5 to 9 | 58 | 3,864 | 67.0 | 6,784 | 117.6 | 1.76 | 16.74 |
| 10 to 19 | 30 | 3,027 | 100.1 | 6,267 | 207.2 | 2.07 | 14.50 |
| 20 to 49 | 17 | 2,583 | 150.0 | 4,740 | 275.2 | 1.84 | 15.44 |
| 50 or More | 10 | 2,748 | 276.6 | 6,594 | 663.9 | 2.40 | 17.26 |

| | | | | | | | |
|--|-------|--------|-------|--------|-------|------|-------|
| Number of Photocopiers | | | | | | | |
| None | 2,706 | 18,526 | 6.8 | 22,498 | 8.3 | 1.21 | 16.61 |
| One | 1,250 | 15,475 | 12.4 | 18,436 | 14.7 | 1.19 | 16.32 |
| 2 to 4 | 549 | 15,082 | 27.5 | 20,980 | 38.2 | 1.39 | 15.72 |
| 5 to 9 | 85 | 5,515 | 64.7 | 9,441 | 110.7 | 1.71 | 15.43 |
| 10 or More | 54 | 10,185 | 187.2 | 21,223 | 390.1 | 2.08 | 15.27 |
| Energy-Related Space Functions (more than one may apply) | | | | | | | |
| Commercial Food Preparation | 799 | 22,223 | 27.8 | 40,252 | 50.4 | 1.81 | 14.85 |
| Activities with Large Amounts of Hot Water | 567 | 19,482 | 34.4 | 34,904 | 61.6 | 1.79 | 14.16 |
| Separate Computer Area | 553 | 26,873 | 48.6 | 44,552 | 80.6 | 1.66 | 15.39 |
| HVAC Conservation Features (more than one may apply) | | | | | | | |
| Variable Air-Volume System | 466 | 19,597 | 42.1 | 36,254 | 77.9 | 1.85 | 15.23 |
| Economizer Cycle | 508 | 21,108 | 41.5 | 39,593 | 77.9 | 1.88 | 15.29 |
| HVAC Maintenance | 2,581 | 51,163 | 19.8 | 81,328 | 31.5 | 1.59 | 15.73 |
| Energy Management and Control System (EMCS) | 252 | 15,630 | 62.0 | 27,646 | 109.6 | 1.77 | 15.51 |
| Window and Interior Lighting Features (more than one may apply) | | | | | | | |
| Multipaned Windows | 2,201 | 38,910 | 17.7 | 59,356 | 27.0 | 1.53 | 15.11 |
| Tinted Window Glass | 1,323 | 29,887 | 22.6 | 49,568 | 37.5 | 1.66 | 16.00 |
| Reflective Window Glass | 308 | 8,544 | 27.8 | 14,414 | 46.8 | 1.69 | 15.55 |
| External Overhangs or Awnings | 1,233 | 17,242 | 14.0 | 28,248 | 22.9 | 1.64 | 16.27 |
| Skylights or Atriums | 331 | 12,546 | 37.9 | 19,284 | 58.3 | 1.54 | 14.76 |
| Daylighting Sensors | 74 | 2,868 | 38.7 | 6,261 | 84.5 | 2.18 | 16.62 |
| Specular Reflectors | 928 | 26,118 | 28.2 | 43,466 | 46.9 | 1.66 | 15.37 |
| Electronic Ballasts | 2,577 | 46,882 | 18.2 | 74,873 | 29.1 | 1.60 | 15.78 |
| Energy Management and Control System (EMCS) For Lighting | 60 | 4,781 | 80.1 | 8,967 | 150.3 | 1.88 | 16.65 |
| Equipment Usage Reduced When Building Not In Full Use (more than one may apply)^a | | | | | | | |
| Heating | 2,878 | 42,722 | 14.8 | 60,293 | 20.9 | 1.41 | 16.12 |
| Cooling | 2,761 | 43,205 | 15.6 | 62,872 | 22.8 | 1.46 | 16.36 |
| Lighting | 3,685 | 46,987 | 12.7 | 62,313 | 16.9 | 1.33 | 16.32 |
| Office Equipment | 1,504 | 19,397 | 12.9 | 23,915 | 15.9 | 1.23 | 16.32 |

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>.

* 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.

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.